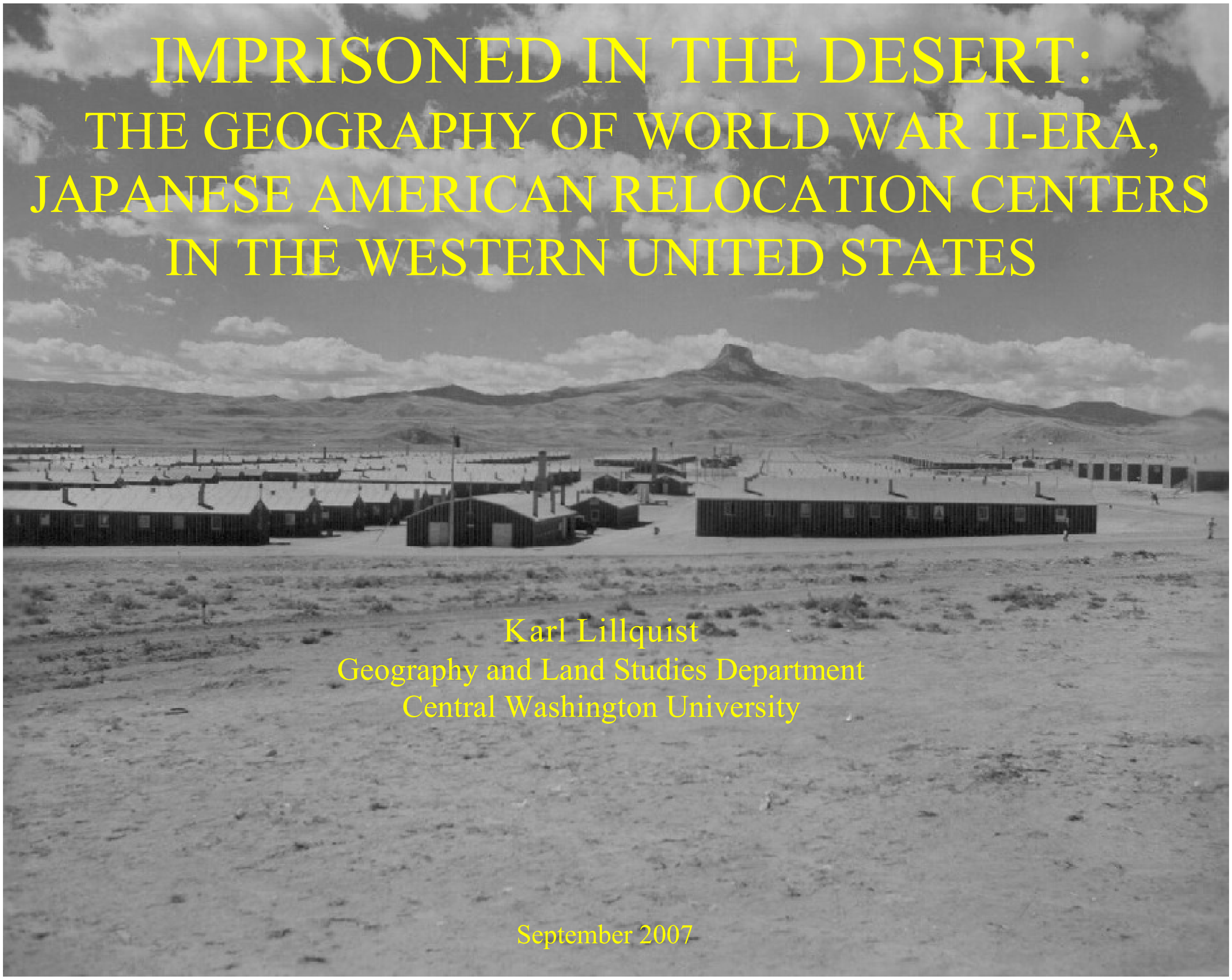

IMPRISONED IN THE DESERT:
THE GEOGRAPHY OF WORLD WAR II-ERA, JAPANESE AMERICAN RELOCATION CENTERS IN THE WESTERN UNITED STATES

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FORWARD

Minidoka is no more. For those of us who were forced to live there during those dark days of World War II there are bitter memories, but for those of you who have never lived behind barbed wire under the watchful eyes of sentries armed with machine guns, may it serve as a reminder that the American ideals of brotherhood with liberty and justice for all are in continual peril if any American fails to stand up for the ideals that were set forth in the Declaration of Independence and in the Constitution of the United States.

From: Yamaguchi, J., 1989: *This Was Minidoka*. Nagaoka, Japan: Nagai Publishing Company, pp. 76.

Front page figure:

Looking west over the Heart Mountain Relocation Center with its sentry namesake Heart Mountain on the horizon. Tom Parker, photographer. September 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 11, Section B, WRA # E-126, War Relocation Authority Photographs of Japanese American Evacuation and Resettlement, Series 5, Heart Mountain Relocation Center, Heart Mountain, Wyoming.

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The idea for this book originated on a family trip through southern Idaho. Subsequent family outings to Wyoming's Bighorn Basin and California's Tule Lake Basin solidified these thoughts. For their patience and understanding on these trips, I owe much to my sons Erik and Jensen, and my wife Nancy.

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CHAPTER 1

INTRODUCTION

Geography and Japanese American Relocation

The title of this book, *Imprisoned in the Desert: The Geography of World War II-Era, Japanese American Relocation Centers in the Western United States,* implies that the discipline of geography is pertinent to the issue of Japanese American relocation. So, what is geography? Very simply, geography focuses on the *spatial* (i.e., over space or area) and *temporal* (i.e., over time) distributions and relationships of earth surface phenomena (including humans). The Japanese American relocation, with its various spatial and temporal patterns, is thus rooted in geography. Evacuation of persons of Japanese descent from the U.S. West Coast to inland, arid sites in 1942 contains elements of all aspects of traditional geography, including physical, human, and regional sub-disciplines; however, few geographers have written on the topic. Further, little has been written about the landscapes in which the Japanese Americans were incarcerated, and how the evacuees interacted with the landscapes while they were incarcerated.

This Book's Focus

This book focuses on the geography of each of the eight western U.S. relocation centers–Amache, Gila River, Heart Mountain, Manzanar, Minidoka, Poston, Topaz, and Tule Lake. Common to all in their western U.S. locations was aridity. All were located in arid or semi-arid environments (Figure 1.1). The Jerome and Rohwer, Arkansas centers were excluded from this study because of their locations well east and in vastly different environments than the remainder of the sites. They were also the shortest-lived centers of the ten.

A geographer could order the chapters in a variety of ways–e.g., aridity, distance from the Pacific Coast, latitude, cultural patterns, etc. I chose *physiography* (i.e., general shape of the Earth's surface) because it played a key role in the various patterns of the centers; therefore, the chapters are organized by physiographic regions (Figure 1.2). The western relocation centers were located in four physiographic regions–Great Plains, Middle Rocky Mountains, Columbia Plateaus, and Basin and Range. Geographic assessment of the sites begins with the Great Plains (Amache), continues with the Middle Rocky Mountains (Heart Mountain) and the Snake River Plain of the Columbia Plateaus (Minidoka), and concludes with the Basin and Range (Tule Lake, Topaz, Manzanar, Poston, and Gila River).

Within each of these chapters, I attempt to answer the following questions regarding the eight western Japanese American relocation centers:

- what were the *physical* (i.e., landforms, climates, soils, water, and biota) characteristics of the area in which each center was located?

Figure 1.1. Arid and semi-arid regions of western North America. Data from Petrov (1976, p. 100) and UNESCO (1979).

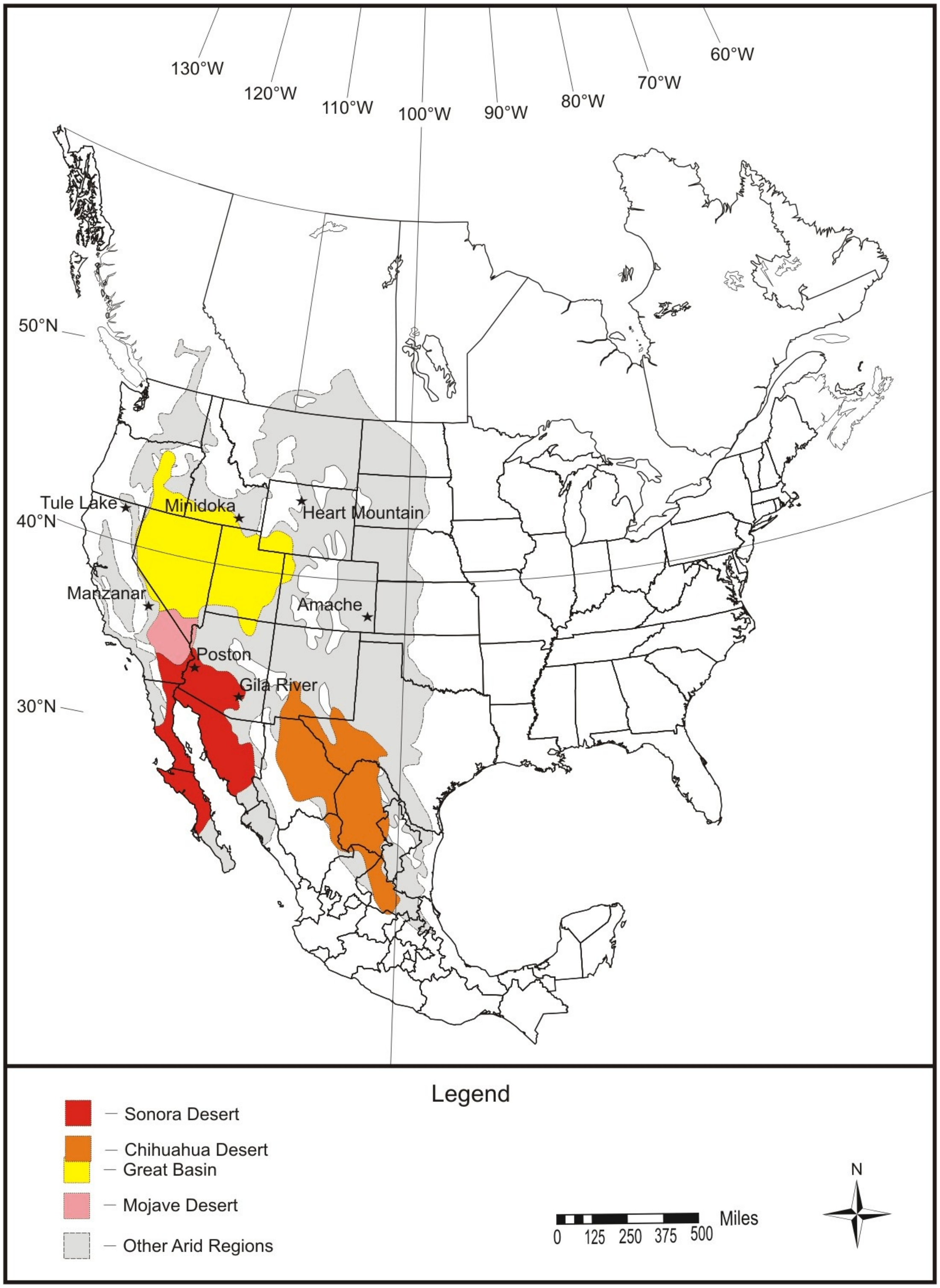
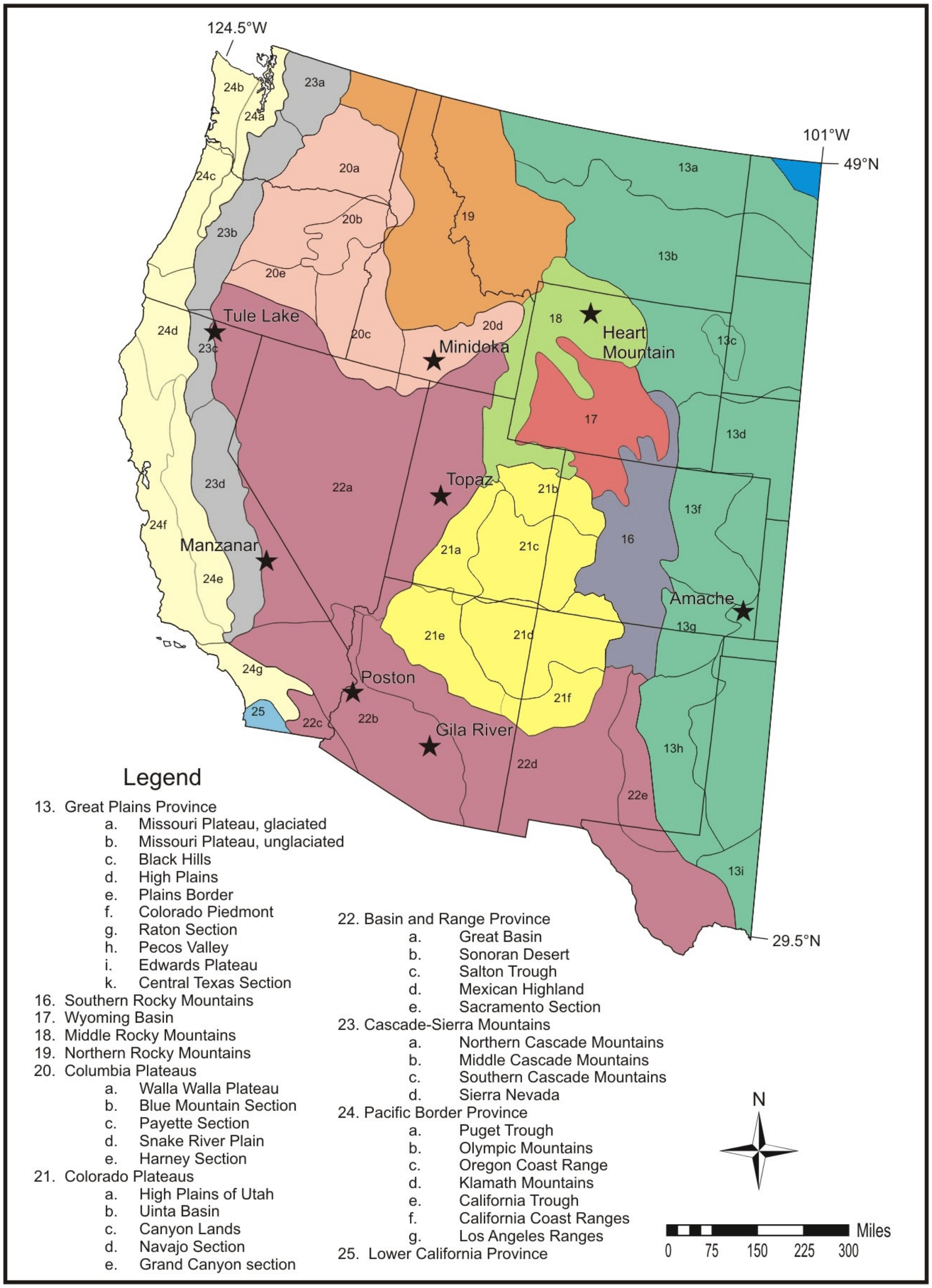


Figure 1.2. Physiographic regions and the eight western, World War II-era, Japanese American relocation centers. Physiographic map adapted from Fenneman (1931, Plate 1).



- what were the *human* (i.e., cultures, economies, land use, and religious) characteristics of the area in which each center was located?

- what determined the location of each of the centers?

- what was the structural layout of each center, and how did it relate to the surrounding area's geography?

- what was the geographic origin of the evacuees in each center?

- how did the evacuees interact with the environment of each center (e.g., agriculture, gardening and landscaping, education, recreation, faith/spirituality, health issues, government, and community)?

- how did the evacuees of each center interact with the residents of the surrounding area?

- where did the evacuees relocate from each center?

- what happened to each center's lands and infrastructure after its closure?

- what remains at each center approximately 60 years after its closure?

- what are the current physical and human characteristics of each area once occupied by a relocation center, and how did each center influence that area in the approximately 60 years since it closed?

The chapters on each of the sites are preceded by a chapter on background to relocation (Chapter 2). The final chapter of the book (Chapter 11) synthesizes, compares, and contrasts the salient points made in the eight key chapters. Appendices provide background information on methods and materials used in this research (Appendix A), a timeline of Japanese American Relocation (Appendix B), and the "Loyalty Questionnaire" (Appendix C). A final appendix provides teachers with example questions and activities (Appendix D).

This book was researched and written to fulfill the conditions of a Washington State Civil Liberties Public Education Program grant received in Summer 2002. While it is intended to be a key resource for Washington state K-12 teachers, the general state citizenry, and relatives of the interned Japanese Americans, the book should also be of interest to a broader audience. Hopefully, it will also serve to remind us of the terrible injustices done to Japanese Americans under the guise of national security.

References

Fenneman, N.M., 1931: *Physiography of Western United States*. New York: McGraw-Hill Book Company, Inc.

Petrov, M.P., 1976: *Deserts of the World*. New York: Halsted Press (John Wiley & Sons).

UNESCO, 1979: *Map of the World Distribution of Arid Regions*. Paris: UNESCO.

CHAPTER 2

BACKGROUND TO JAPANESE AMERICAN RELOCATION

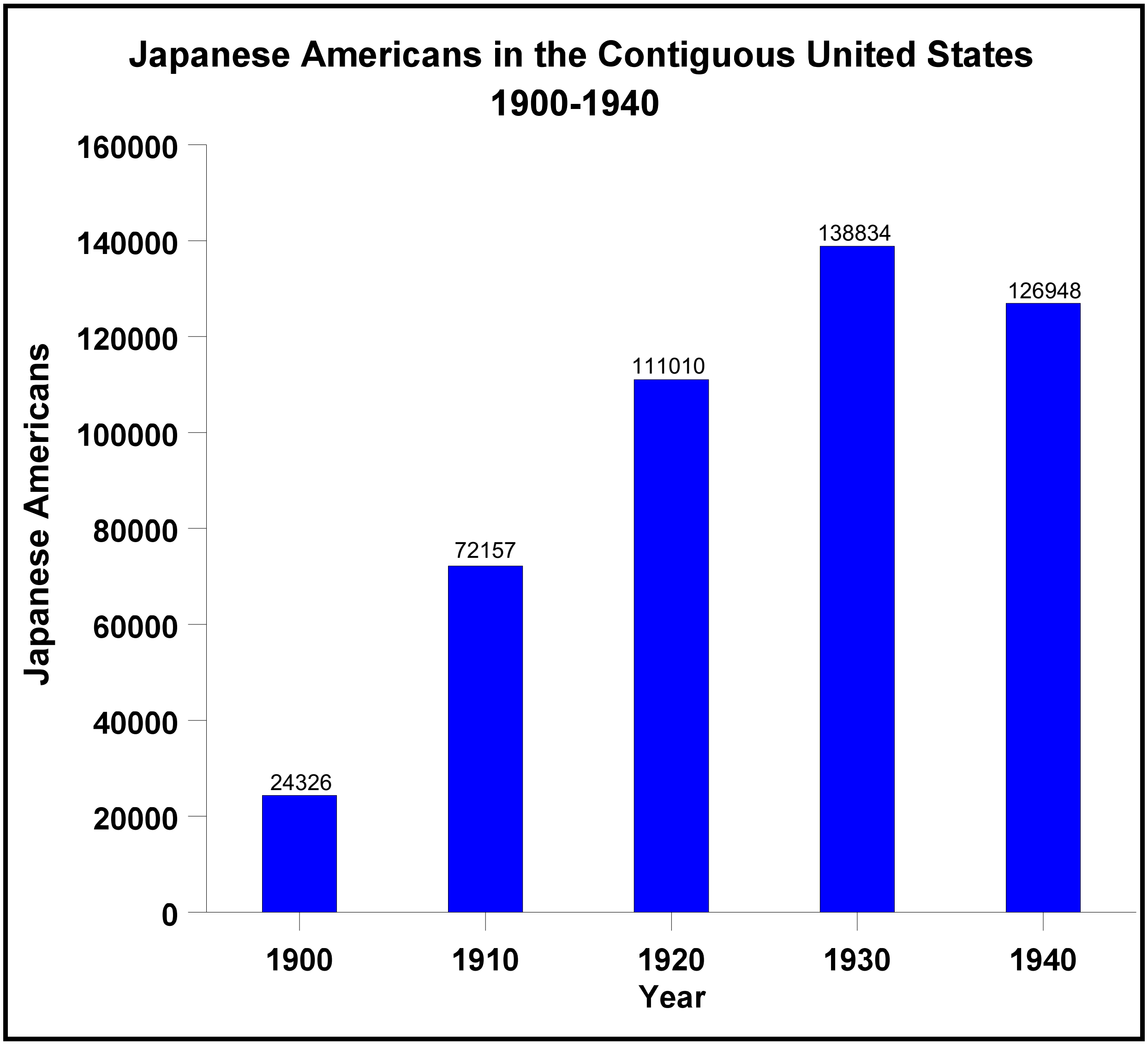
Japanese Americans Prior to World War II

The background to Japanese American relocation extends to the mid-19th century when individuals of Chinese descent first arrived in the Western U.S. to work as mine and railroad laborers (Appendix B). Discrimination against the Chinese arose soon after because of economic (i.e., unfair labor competition) and racial (i.e., claims of racial impurity and injury to western civilization) concerns. Because a significant portion of California's population was Chinese (i.e., approximately 10% in 1870), California played a key role in this discrimination. In 1882, U.S. President Arthur signed into law the Chinese Exclusion Act that effectively ended Chinese immigration to the U.S. until 1943 when the U.S. was allied with China in World War II (Commission on Wartime Relocation and Internment of Civilians, 1997).

Individuals of Japanese descent began to emigrate in significant numbers to North America's West Coast in the late 19th century (Appendix B). They came primarily because of the "push" of harsh economic conditions in Japan and the "pull" of employment opportunities in the U.S., partially created by the loss of the Chinese labor force (Commission on Wartime Relocation and Internment of Civilians, 1997). Most of these first generation Japanese or *Issei* settled in California, Oregon, and Washington where they worked in the agriculture, timber, and fishing industries. In California alone, the number of Japanese immigrants increased from 1,147 in 1890 to 10,151 in 1900 (U.S. Census Office, 1895; 1901). The total Japanese American population in the U.S. increased dramatically from 2,039 in 1890 to 111,010 in 1920 (U.S. Army–Western Defense Command, 1943) (Figure 2.1).

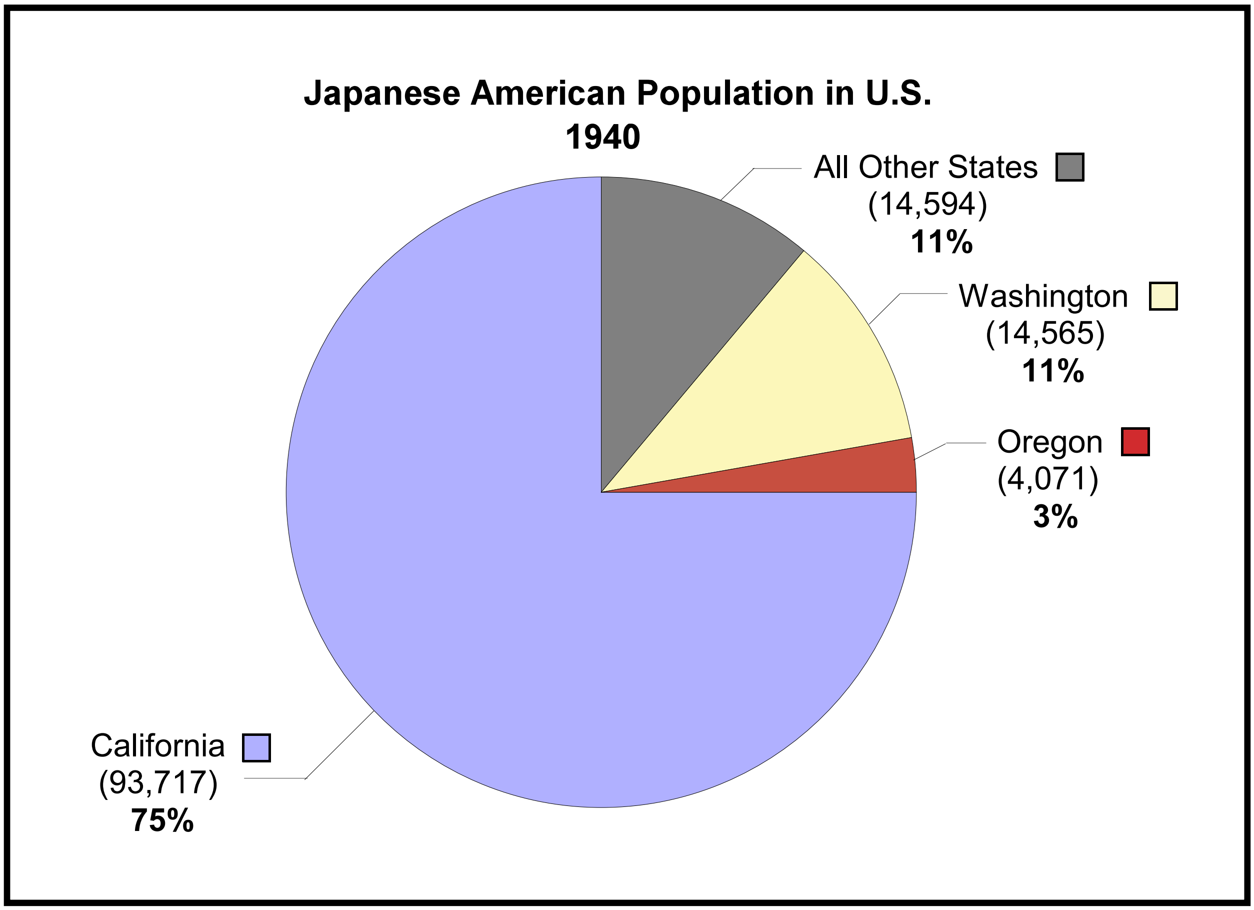
Many of the Issei progressed over time from being railroad, mine, and logging labor to farming leased or owned land. As Japanese American populations grew and as they controlled more agricultural land, their successes re-kindled anti-Asian sentiment that had existed since the influx of Chinese laborers in the mid-19th century. For economic, racial, and cultural (e.g., dual citizenship desires of some Japanese Americans, Japanese language schools, foreign religion, and ethnic organizations) reasons, the first prominent anti-Japanese activity began in 1900 with a labor-organized, anti-Japanese protest in San Francisco (Appendix B). Anti-Japanese articles in the *San Francisco Chronicle*, the formation of the Japanese Exclusion League, and segregation of Asian schoolchildren in San Francisco further sparked anti-Japanese sentiment. News of anti-Japanese sentiment and school segregation in California reached the Japanese Government thus straining relations with the U.S. President Roosevelt, in an attempt to smooth relations, proposed that San Francisco School segregation would end and California would refrain from passing more anti-Japanese legislation if the U.S. could restrict Japanese immigration. The resulting 1907 "Gentleman's Agreement" between the U.S. and Japan limited male immigrants to the continental U.S. but permitted wives, children, and parents of Japanese already in America to

Figure 2.1. Persons of Japanese descent in contiguous United States, 1900-1940. Data from U.S. Army–Western Defense Command (1943, p. 400).



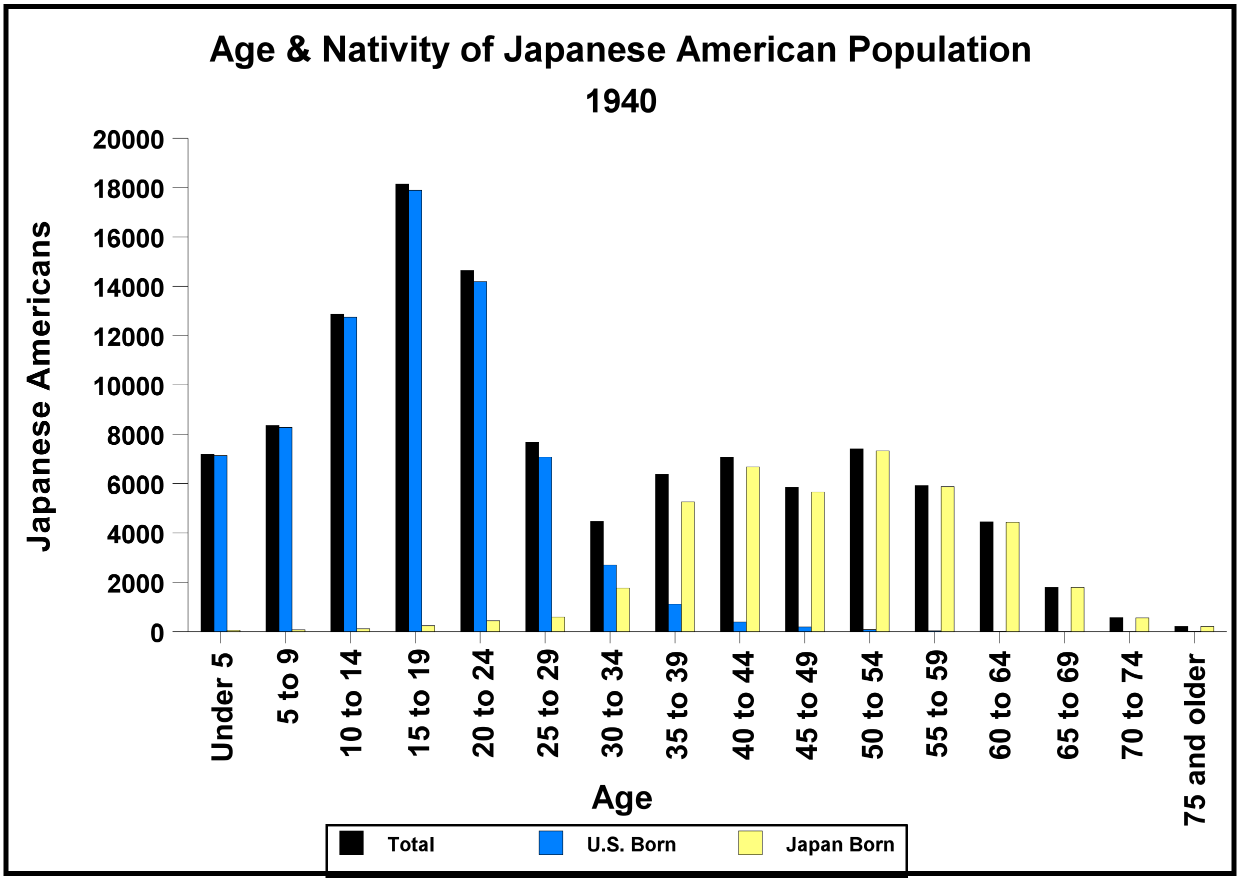
enter the country from Japan (Commission on Wartime Relocation and Internment of Civilians, 1997. In addition to creating an impression that Japan had deceived the U.S., this agreement resulted in the formation of Japanese American families. A key outcome of these families were second generation *Nisei* who were U.S. born, hence U.S. citizens. By 1940, of the 112,985 Japanese Americans living in Arizona, California, Oregon, and Washington, nearly 64% were born in the U.S. (i.e., Nisei) and were less than 30 years old (Figures 2.2 & 2.3). Conversely, the majority of those more than 30 years old were born in Japan (i.e., Issei). Thus, the most common demographic patterns among the Japanese Americans were Japanese-born parents and American-born children (U.S. Army–Western Defense Command, 1943).

Figure 2.2. Japanese American population in United States prior to World War II. Data from U.S. Army–Western Defense Command (1943, p. 80).



By 1913, anti-Japanese sentiment was such that the state legislature passed the Alien Land Law that prevented those not eligible for U.S. citizenship from purchasing land or from engaging in leases longer than three years (Appendix B). The California Alien Land Law was further

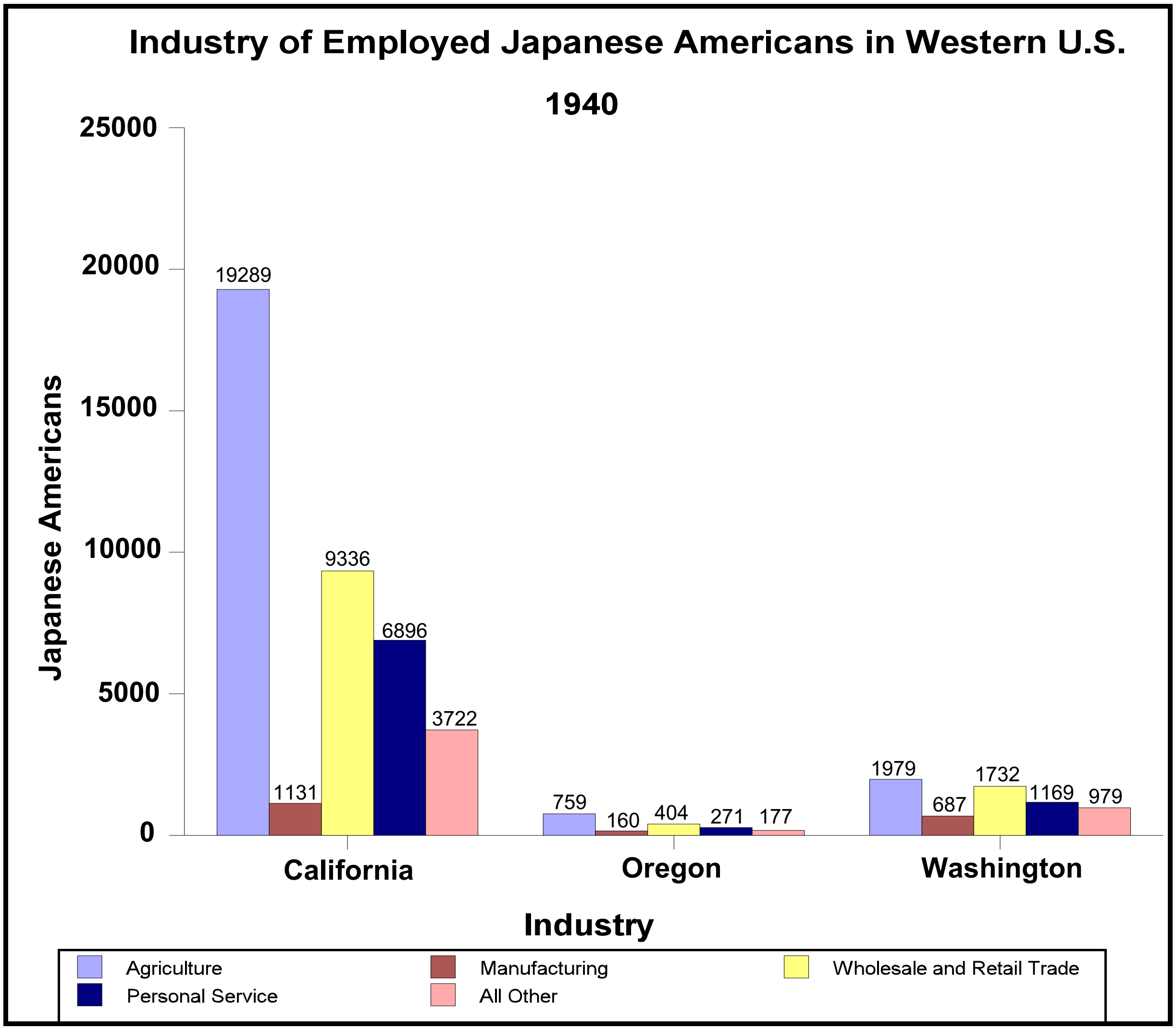
Figure 2.3. Age and nativity of Japanese American population in Arizona, California, Oregon, and Washington in 1940. Data from U.S. Army Defense Command (1943, p. 84).



strengthened in 1920 to prevent aliens from leasing lands. This law also sparked similar legislation in other western states (Commission on Wartime Relocation and Internment of Civilians, 1997). The U.S. Congress responded to the perceived economic threat by enacting the Immigration Act of 1924 that effectively ended Asian immigration (Daniels, 1974). Despite the fact that no major anti-Japanese legislative initiatives passed between 1924 and the start of World War II, anti-Japanese sentiment remain active during this period, especially on the West Coast.

Immediately prior to 1941 and America's direct involvement in World War II, most Japanese Americans were concentrated in California, Washington, and Oregon (Figures 2.2 & 2.4). Of the 93,717 Japanese Americans living in California as of 1940, approximately 55,000 were situated in the coastal regions, especially in the vicinity of San Francisco and the Bay Area, the

Figure 2.4. Major industrial sectors of Japanese Americans, 14 years and older, in California, Oregon, and Washington, 1940. Data from U.S. Army–Western Defense Command (1943, p. 395).



Salinas Valley, Los Angeles, and San Diego. About 25,000 lived inland in the Sacramento, San Joaquin, and Imperial valleys. Many of those in the inland areas were engaged in *truck farming* (i.e., raising produce for nearby urban areas). Statewide, individuals of Japanese descent raised approximately 38% of California's vegetable produce. Japanese Americans farmed over 220,000 acres in California alone and controlled much of the retail and wholesale produce marketing in Los Angeles (Nugent, 1999). The remaining 13,900 Japanese Americans were dispersed throughout the state. Approximately 4,070 Japanese Americans lived in Oregon, especially along the lower Columbia River, and in the lower Willamette River Valley in 1941. Most were involved in agriculture, produce marketing, and fishing (U.S. Army–Western Defense Command, 1943). Japanese Americans in Washington state totaled 14,565 at the start of the war. Most of this population was situated west of the Cascade Range in the Seattle, Tacoma, Green River Valley, Puyallup River Valley, Willapa Bay, and Columbia River mouth areas where many were involved in farming, the marketing of agricultural produce, and fishing. Over 50% of the remaining approximately 14,600 Japanese Americans in the U.S. were concentrated in Colorado, Utah, Idaho, Arizona, Montana, and Nevada where they were often employed by farms, mines, railroads, canneries, timber companies, and by homeowners as cooks and house servants (U.S. Army–Western Defense Command, 1943; Nugent, 1999). However, the primary employer for nearly 45% of all West Coast Japanese Americans was agriculture (U.S. Army–Western Defense Command, 1943) (Figure 2.3).

Pearl Harbor and its Immediate Aftermath

The Japanese Imperial Military bombing of Pearl Harbor and the subsequent U.S. declaration of war on Japan, drastically changed the fortunes of West Coast Japanese Americans. By the evening of 7 December 1941, President Roosevelt issued a proclamation stating that all Japanese "Nationals" (i.e., non-U.S. citizens or Issei) were considered "enemy aliens." The rights of these individuals were curtailed by establishing prohibited zones, limiting possession of certain items, and apprehending those individuals considered to be threats to national security.

Approximately 1,500 Japanese American enemy aliens were apprehended and detained beginning that evening (U.S. Army–Western Defense Command, 1943). Among them were many community leaders. All enemy alien bank accounts and all Japanese bank funds in American branches were frozen at the same time (Burton et al., 2002).

In early January 1942, U.S. War and Justice Department officials met and agreed upon the establishment of prohibited zones around key coastal installations and the exclusion of Japanese enemy aliens from these zones. Subsequently, such zones were established in California, primarily in coastal portions of the state, and included the waterfront portions of San Diego, Los Angeles, and San Francisco. Similar zones were established in Arizona, Oregon, and Washington (U.S. Army–Western Defense Command, 1943).

By early 1942, West Coast residents were increasingly fearful because of the success of the Japanese Imperial Navy in the Pacific. Paranoia fueled unsubstantiated reports of nightly signals from the coast to offshore enemy watercraft, hidden radio transmitters, arms stockpiles, and the locations of Japanese residences in relation to key coastal installations such as bridges, airfields, electrical substations, military bases, oil fields, and lighthouses. Residents and government officials alike were concerned about the potential for sabotage by Japanese Americans. The American public was scared and angry, while at the same time, the U.S. Government claimed concern for the well-being of the Japanese Americans. Three separate submarine-based attacks by the Japanese Imperial Navy near Santa Barbara, California, Brookings, Oregon, and Astoria, Oregon further raised West Coast resident's fears of an imminent Japanese invasion, and the likelihood that Japanese Americans would assist in that invasion. The U.S. Government made the decision to move all Japanese Americans away from the West Coast ostensibly because of the potential threat to nearby vital military installations, lumber, petroleum, and airplane industries, and harbor facilities (U.S. Army–Western Defense Command, 1943). However, this decision was made despite the very limited risk seen by the three U.S. Government intelligence arms of the time–the Federal Bureau of Investigation, the Navy Department, and an informal intelligence system that reported directly to the President. None of these groups recommended a mass evacuation of all persons of Japanese descent (Commission on Wartime Relocation and Internment of Civilians, 1997). Interestingly, no Japanese Americans living in the U.S. were convicted of a serious act of espionage or sabotage during World War II (Burton et al, 2002). In retrospect, the argument of "military necessity" is not valid; rather, Japanese Americans were excluded from the West Coast and subsequently detained in inland relocation centers because of racial prejudice, wartime hysteria, and failure of political leaders (Commission on Wartime Relocation and Internment of Civilians, 1997).

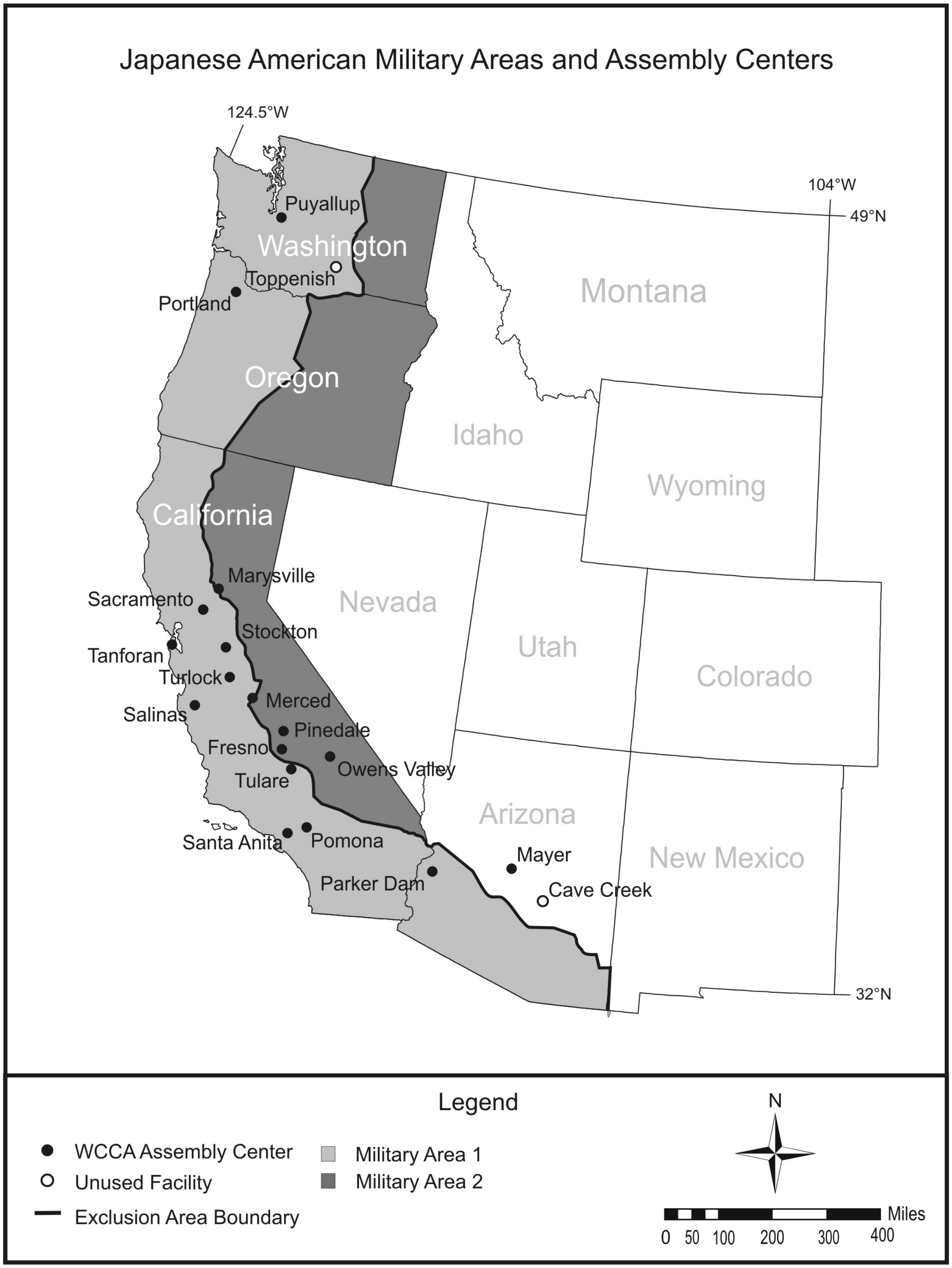
Executive Order 9066 and Military Exclusion

President Roosevelt signed Executive Order 9066 on 19 February 1942. This order authorized the Secretary of War and his designees to exclude any persons from areas deemed important for national defense in order to protect these areas from espionage and sabotage. Once those areas were identified, the U.S. Government would be in charge of all transportation, housing, food, and other needs of those excluded from the military areas (Roosevelt, 1942; Commission on Wartime Relocation and Internment of Civilians, 1997).

Soon after the issuance of Executive Order 9066, Lieutenant General John DeWitt, the military official in charge of the Western Defense Command, issued the first of a series of public proclamations that determined the fate of West Coast Japanese Americans. Public Proclamation #1, issued on 2 March 1942, divided the West Coast into two military strategic areas–Military Area 1 including western Washington, Oregon, California, and southern Arizona, and Military Area 2 that included the remainder of Washington, Oregon, and California (Figure 2.5). Military Area 1 was further subdivided into a series of zones, each with particular restrictions (Commission on Wartime Relocation and Internment of Civilians, 1997). With this proclamation, DeWitt encouraged all enemy aliens to evacuate to areas east of Military Area 2. Approximately 4,900 Japanese Americans voluntarily evacuated to inland locations but many soon returned to the West Coast because of hostilities encountered there (U.S. Army–Western Defense Command, 1943; Daniels, 1972).

Public Proclamation #2, issued on 14 March 1942, established Military Areas in Idaho, Montana, Nevada, and Utah, and established an additional 900 prohibited zones. Public Proclamation #3, issued on 24 March, established a curfew for Japanese Americans, German Americans, and Italian Americans. However, the proclamation was not enforced on EuroAmericans. Public Proclamation #4 reversed the voluntary evacuation stance established in Proclamation #1 thus required all persons of Japanese descent to remain at their places of residence until further notice because of: 1) increasing hostilities inland toward Japanese evacuees; 2) the need for an orderly,

Figure 2.5. Military exclusion areas and assembly centers of the Japanese American evacuation program in 1942. Adapted from Burton et al. (2002, p. 2).



controlled evacuation in the state of origin; and 3) the fact that inland states would not accept an "uncontrolled Japanese migration." Exceptions were granted primarily for the purpose of reuniting families (U.S. Army–Western Defense Command, 1943; Daniels, 1972; Commission on Wartime Relocation and Internment of Civilians, 1997).

Evacuation to Assembly Centers

Once U.S. Government officials realized that voluntary evacuation would not work, President Roosevelt issued Executive Order 9102 on 18 March 1942. This executive order established the War Relocation Authority (WRA), the director of which was to establish and execute a massive mandatory evacuation and relocation program. This program was to evacuate and care–i.e., provide shelter, subsistence, clothing, medical care, education, recreational facilities, and employment opportunities–for over 110,000 Japanese American evacuees (U.S. Army–Western Defense Command, 1943). This was to be the largest single forced relocation in U.S. history (Burton et al., 2002).

As mandatory evacuation planning continued, it became evident that evacuation and relocation could not occur in one step because of the perceived need for rapid evacuation from strategic areas. Therefore, initial assembly centers and longer-term relocation centers were needed. Assembly centers needed to have sufficient capacity for the expected number of evacuees, be located near concentrations of evacuees in good transportation corridors, have adequate electricity and water to serve evacuees and support staff, and have adequate recreation facilities. Existing structures and facilities were to be used wherever possible because they offered the opportunity for rapid conversion for evacuation centers. As a result, fairgrounds and race tracks were employed for most of the assembly centers (U.S. Army–Western Defense Command, 1943).

Ultimately, 17 assembly centers were selected, including 13 in California, one in Washington, one in Oregon, and two in Arizona (Figure 2.5). Totally new facilities were constructed only in California's Owens Valley, and near Parker Dam, on the Arizona side of the Colorado River. An abandoned Civilian Conservation Corps camp was used as an Assembly Center in Mayer, Arizona while the Pinedale, California Assembly Center occupied a former mill site. Substantially new facilities were constructed at Sacramento (U.S. Army–Western Defense Command, 1943). The two Pacific Northwest sites were established at existing operations–the Pacific International Livestock Exposition facilities in Portland, Oregon, and the Western Washington State Fairgrounds at Puyallup (Burton et al., 2002). Another assembly center at Toppenish in central Washington's lower Yakima Valley was never completed because of health and sanitation issues. This meant that some Washington and Oregon evacuees were placed in California assembly centers (especially Pinedale). In the longer term, the paucity of Pacific Northwest assembly centers resulted in the dispersal of Washington and Oregon Japanese Americans to several different relocation centers (U.S. Army–Western Defense Command, 1943).

The first compulsory evacuation of persons of Japanese descent under Executive Order 9102 occurred on 24 March 1942 when Bainbridge Island, Washington residents were moved to the Owens Valley Assembly Center. Bainbridge Island evacuees had six days to take care of all business matters and dispose of those possessions that they could not physically carry (Burton et al.). Evacuation occurred sequentially through 108 "Exclusion Units," each of which was a discrete area recognized by distinctive physical or political geography, and included at least 1,000 Japanese Americans. The exceptions to this were those areas where Japanese Americans were widely scattered. In those cases, space, rather than population, was the dominant factor in evacuation. At the height of evacuation, 3,750 evacuees were moved each day. The WRA attempted to keep families and communities together in the same assembly centers, and only failed to do so in the latter stages of evacuation when assembly centers were near capacity (U.S. Army–Western Defense Command, 1943). All Japanese Americans were clear of Military Area #1 by early June, and out of the California portion of Military Area #2 by early August 1942 (Daniels, 1972). Neither the Washington or Oregon portions of Military Area #2 were evacuated (Burton et al, 2002).

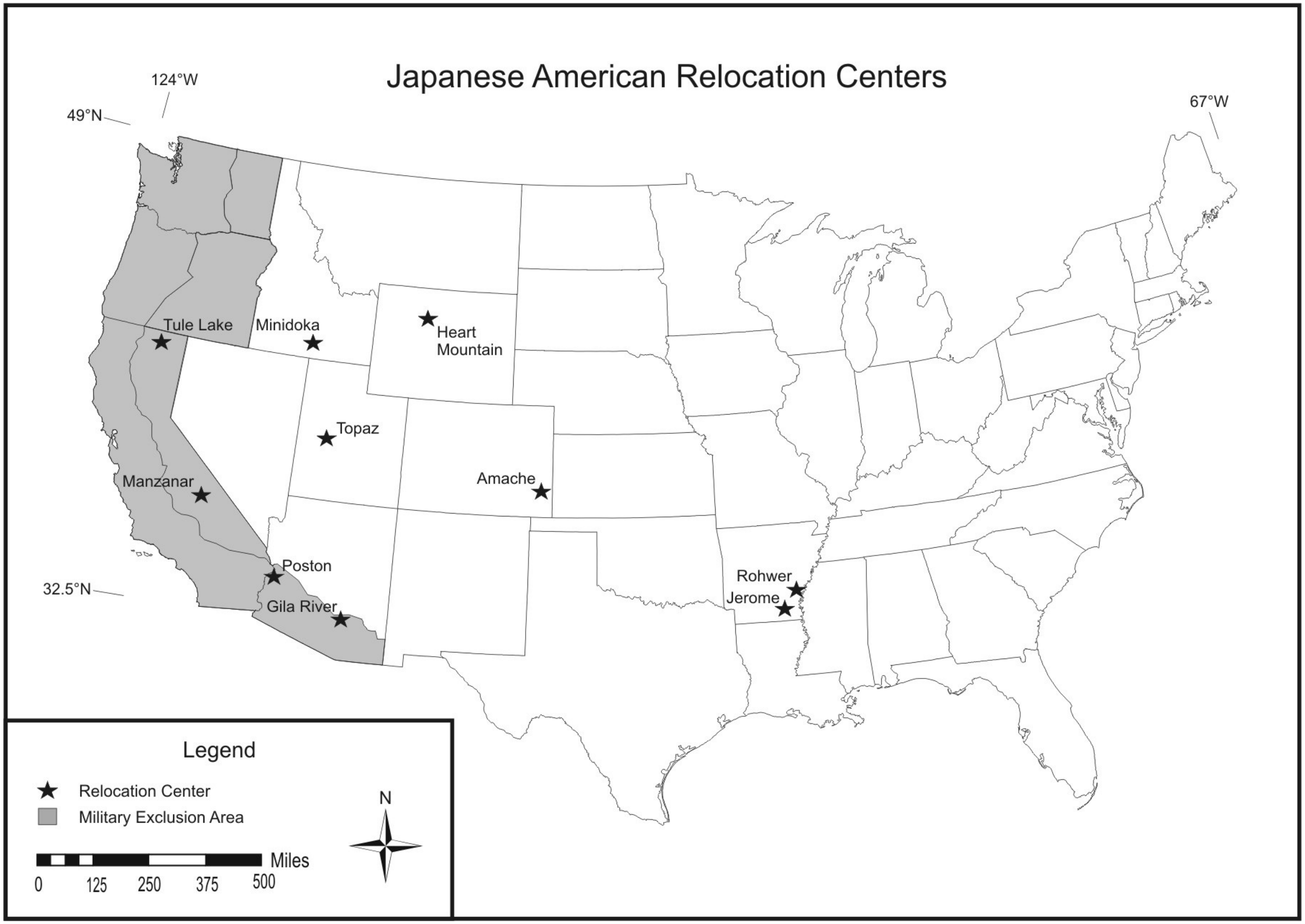
Assembly Centers to Relocation Centers

The assembly centers were established as brief stops en route to longer-term relocation facilities. However, Dillon Myer, head of the WRA following Milton Eisenhower's resignation in June 1942, also saw the relocation centers as temporary "way stations" for the Nisei as they resettled in Midwestern and East Coast towns and cities. The relocation centers were also "havens of rest and security," offering protection from racial prejudices and associated violence encountered on the West Coast (Myer, 1971).

The first challenge regarding relocation centers was identifying appropriate sites for them. Initially, none of the inland states wanted the Japanese Americans. Most of the western governors were opposed to relocation of Japanese Americans to their states because of perceived security risks and because of a fear that they would stay in the state following the end of the war (Daniels, 1993; Burton et al, 2002). However, the sugar beet growers of the Intermountain West were very interested in relocating Japanese Americans because of the war-induced labor shortage in the region (Daniels, 1972).

The WRA was to select each of the relocation center sites. First, each site needed to be cleared from a military/national security standpoint (U.S. Army–Western Defense Command, 1943). Next, the criteria for establishment of relocation centers were that the sites needed to: 1) fulfill the nation's wartime labor demand by providing "work opportunities in public works, agriculture, production, and manufacturing"; 2) achieve self sufficiency via "adequate public facilities" including roads, railroads, power, and water; 3) ease racial tensions by locating in a remote area where few EuroAmericans lived; 4) avoid sabotage by locating in a remote area far from military industry plants; 5) be located entirely on public lands; and 6) be sufficiently large to accommodate at least 5,000 people (Eisenhower, 1974; Nelson, 1976; Harvey, 2004).

Figure 2.6 The ten relocation centers of the Japanese American evacuation program during World War II. Adapted from Burton et al. (2002, p. 2).



The WRA examined over 300 sites before arriving at the final ten in spring 1942 (Eisenhower, 1974). These included sites in Arizona (Gila River and Poston), Arkansas (Jerome and Rowher), California (Manzanar and Tule Lake), Colorado (Amache), Idaho (Minidoka), Utah (Topaz), and Wyoming (Heart Mountain) (Figure 2.6). Jerome and Rowher were the only sites located in the humid lands east of the 100th meridian. Each was sited primarily on Mississippi River Delta lands owned by the Farm Security Administration. At least one person has argued that relocation centers were located in Arkansas because an influential Arkansas senator wanted to help relieve poverty in the area (Burton et al., 2002). Three of the sites (Heart Mountain, Minidoka, and Tule Lake) were located on undeveloped portions of federal reclamation projects and two (Gila River and Poston) were situated on Indian reservation lands. One (Manzanar) was on City of Los Angeles land while two (Amache and Topaz) were located almost solely on private lands (U.S. Army–Western Defense Command, 1943). The ten chosen sites have been generally described as:

> *...godforsaken. They were in places where nobody had lived before and no one has lived since...That these areas were still vacant land in 1942, land that the ever-voracious pioneers and developers had either passed by or abandoned speaks volumes about their attractiveness.*
>
> (Daniels, 1972, p. 96)

Notably absent from the represented western states were Montana, Nevada, New Mexico, Oregon, and Washington. Montana and New Mexico each secured a U.S. Department of Justice Internment Center; however, Nevada, eastern Oregon, and eastern Washington had no Japanese American centers of any type.

The construction and occupation of these centers was delayed because of the difficulty in meeting the requirements of suitable sites and because of shortages of building materials (U.S. Army–Western Defense Command, 1943). Construction needed to be economical thus it was not desirable to construct permanent buildings. Speed of construction was also essential as the centers needed to be completed within several months. While typical “theater of operations”-type barracks used for male soldiers in war zones met these qualifications, they were deemed inadequate for Japanese American women, children, and the elderly because they lacked floors and heating units, as well as nearby plumbed restrooms. The ultimate design decided upon was a modified “theater of operations”-type building that was a compromise in terms of efficiency of construction and quality of housing. Because construction at four of the centers was initiated prior to this decision, and because more than one U.S. Army Corps of Engineers Engineering Division was involved in the construction, uniformity in construction styles was not always achieved (U.S. Army–Western Defense Command, 1943).

The main part of each center consisted of residential “blocks” that included barracks, a recreation building, a mess hall, and toilet/bath/laundry facilities. Schools and churches were scattered among the residential blocks. Administration, military police, hospital, and warehouse facilities were typically separated from the evacuee residential section by a fence (U.S. Army–Western Defense Command, 1943). The entire main part of each center was typically surrounded by barbed wire and had watch towers staffed by armed guards. The area surrounding the central portions of the centers was primarily devoted to agriculture with a key goal to feed the evacuees (U.S. War Relocation Authority, 1943).

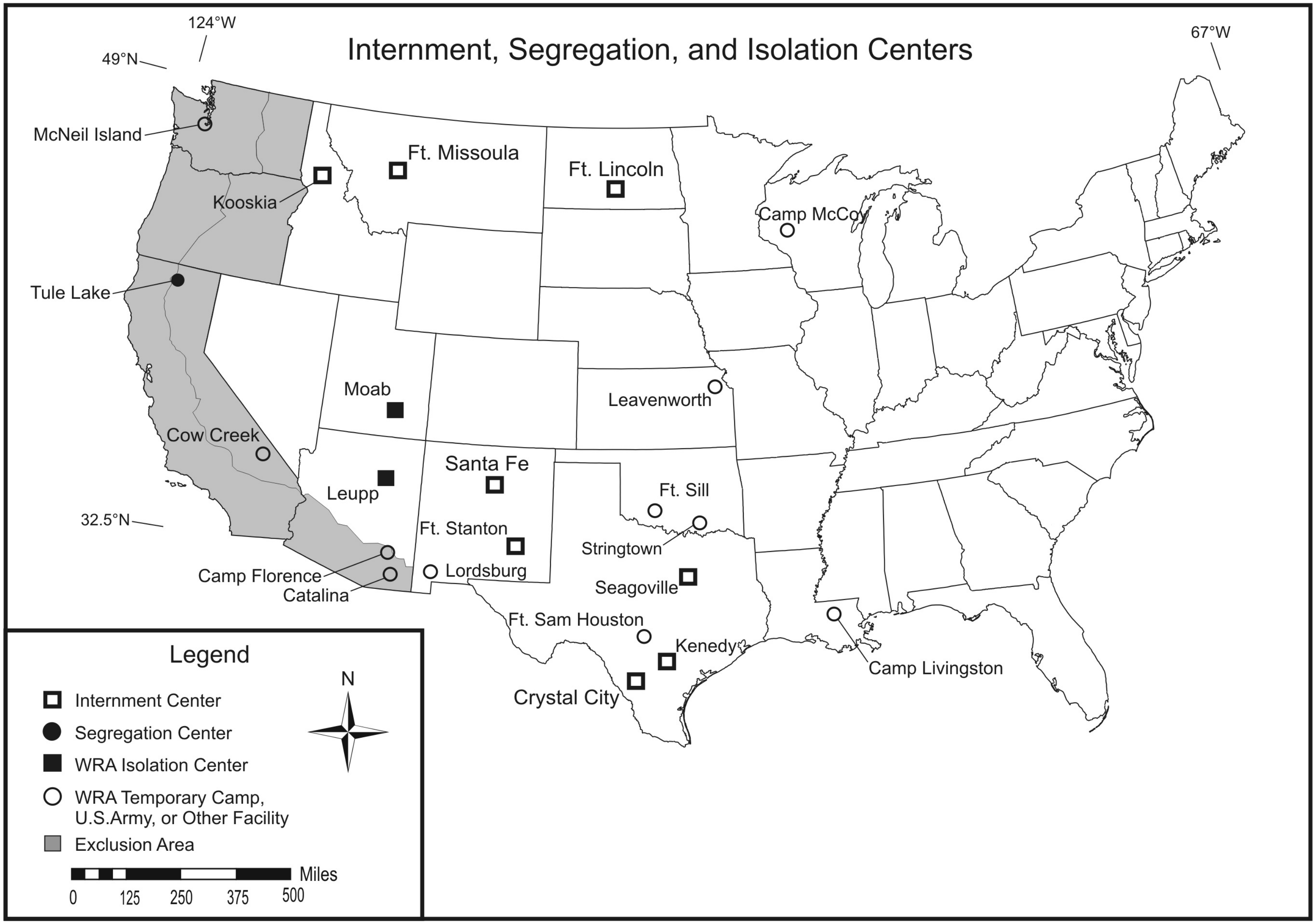
In determining which centers to send evacuees to, the WRA attempted to follow these principles: 1) keep families and communities together; 2) achieve a balance between rural and urban evacuees in the same center ideally from the same general area; 3) minimize the climate difference between the homes of the evacuees and the new relocation site; and 4) minimize the distance from home areas and evacuation centers to the relocation centers. Ultimately, 111,155 evacuees were transferred to relocation centers via railcars in approximately 500 person increments (U.S. Army–Western Defense Command, 1943). Interestingly, eight of the ten relocation centers were located in the semi-arid, sparsely populated lands east of the Cascade and Sierra Nevada ranges, and west of 100ºW longitude. Conversely, the bulk of the incarcerated Japanese Americans came from the more humid, populated West Coast. Peak populations at the centers ranged from 7,318 at Amache to 18,789 at Tule Lake (U.S. War Relocation Authority, 1946).

Once at the relocation centers, Japanese Americans were encouraged to relocate outside Military Areas #1 and #2 as long as they could find a job, a place to live, someone to sponsor them, and could prove they were not a threat to national security (Burton et al., 2002). College-age students were allowed to leave the assembly centers, and subsequently the relocation centers, to attend colleges and universities outside Military Areas #1 and #2 (Daniels, 1972). Ultimately, a total of 827 evacuees relocated in 1942, 13,073 in 1943, and 15,616 in 1944. Following the lifting of the West Coast Exclusion Order in December 1944, 66,257 relocated in 1945 (U.S. War Relocation Authority, 1946).

Internment, Segregation, and Isolation Centers

The relocation centers were one of four long-term ways the U.S. Government imprisoned Japanese Americans during World War II. The others included internment, segregation, and isolation centers (Figure 2.7). Internment centers in Arizona, Idaho, Kansas, Louisiana, Montana, New Mexico, North Dakota, Oklahoma, Texas, Washington, and Wisconsin were run by the U.S. Department of Justice or the U.S. Army to house enemy aliens considered to be a threat to national security. Tule Lake became a segregation center in fall 1943 to house those Japanese Americans who were deemed disloyal to the U.S. Government. Isolation centers were operated in Utah and Arizona for those Japanese Americans who were deemed “troublemakers” in the relocation centers. Finally, a group of 65 “outspoken patriots” from Manzanar were temporarily housed at a site in Death Valley, California (Burton et al, 2002).

Figure 2.7. Internment, segregation, and isolation centers of the Japanese American evacuation program during World War II. Adapted from Burton et al. (2002, p. 2, 325-346, 379-416).



The Travesty of Exclusion and Detention

Ultimately, nearly 120,000 Japanese Americans were forced to leave their West Coast homes and move to inland relocation, internment, segregation, and isolation centers. Many spent the next three years of their lives in these centers. This forced evacuation tore apart communities and families, and caused great economic damage to Japanese Americans. In terms of lost homes, businesses, and other personal property, these people collectively lost $4-5 billion in 1999 values. It was not until the 1980s that the U.S. Government formally apologized for the wrongs inflicted on the Japanese Americans and vowed to make reparations (Burton et al., 2002).

References

Burton, J.F., Farrell, M.M., Lord, F.B. and Lord, R.W., 2002: *Confinement and Ethnicity: An Overview of World War II Japanese American Relocation Sites*. Seattle: University of Washington Press.

Commission on Wartime Relocation and Internment of Civilians, 1997: *Personal Justice Denied: Report of the Commission on Wartime Relocation and Internment of Civilians*. Seattle: University of Washington Press.

Daniels, R., 1972: *Concentration Camps USA: Japanese Americans and World War II.* New York: Holt, Rinehart and Winston, Inc.

Daniels, R., 1974: *The Politics of Prejudice: The Anti-Japanese Movement in Calfornia and the Struggle for Japanese Exclusion*. New York: Atheneum.

Daniels, R., 1993: *Prisoners Without Trial: Japanese Americans in World War II*. New York: Hill and Wang.

Eisenhower, M.S., 1974: *The President is Calling*. Garden City, New York: Doubleday and Company, Inc.

Harvey, R., 2004: *Amache: The Story of Japanese Internment in Colorado in World War II*: Dallas: Taylor Trade Publishing.

Myer, D.S., 1971: *Uprooted Americans: The Japanese Americans and the War Relocation Authority During World War II.* Tucson: University of Arizona Press.

Nelson, D.W., 1976: *Heart Mountain: The History of an American Concentration Camp*. Madison: State Historical Society of Wisconsin.

Nugent, W. 1999. *Into the West: The Story of Its People*. New York: Alfred A. Knopf.

Roosevelt, F.D., 1942: Executive Order 9102. http://www.nps.gov/archive/manz/eo9102.htm. Accessed 30 April 2007.

U.S. Army–Western Defense Command. 1943. *Final Report, Japanese Evacuation from the West Coast, 1942.* Washington, D.C.: Government Printing Office.

U.S. Census Office, 1895: *Report on the Population of the United States at the Eleventh Census: 1890, Part I*. Washington, D.C.: Government Printing Office.

U.S. Census Office, 1901: *Twelfth Census of the United States, Taken in the Year 1900. Census Reports Part I: Population.* Washington, D.C.: Government Printing Office.

U.S. War Relocation Authority, 1943: *Agricultural Handbook*. Washington, D.C.: Government Printing Office.

U.S. War Relocation Authority, 1946: *The Evacuated People: A Quantitative Description*. Washington, D.C.: Government Printing Office.

CHAPTER 3

AMACHE

Introduction

The Amache Relocation Center was located at 38º03' N latitude and 102º20'W longitude, and at approximately 3,500 feet elevation in central Prowers County of southeastern Colorado (Figure 3.1). The site lies about 15 miles west of the Colorado-Kansas border in the Arkansas River Valley. Granada is one mile east (hence the center's common name "Granada"), Holly lies 11 miles east, and Lamar, the Prowers County seat, is 16 miles west. Wichita, Kansas lies about 280 miles east while Denver, Colorado is about 225 miles northwest. The center's official post office designation was "Amache," named after the Cheyenne wife of John Prowers, a prominent 19th century rancher in the area (Burton et al., 2002).

The following pages address: 1) the physical and human setting in which Amache was located; 2) why southeastern Colorado was selected for a relocation center; 3) the structural layout of Amache; 4) the origins of Amache's evacuees; 5) how Amache's evacuees interacted with the physical and human environments of southeastern Colorado; 6) relocation patterns of Amache's evacuees; 7) the fate of Amache after closing; and 8) the impact of Amache on southeastern Colorado some 60 years after closing.

Physical Setting

Physiography, Geology & Landforms. Amache was located near the boundary of the High Plains and Colorado Piedmont sections of the Great Plains Physiographic Province (Fenneman, 1931) (Figure 3.2). The High Plains section is characterized by a very low relief surface of *Cenozoic* (i.e., about the last 65 million years) *alluvium* (i.e., stream sediments) blanketing older sedimentary rocks. The Colorado Piedmont to the west consists of dissected surfaces generally denuded of their once overlying Cenozoic sediments. The topography of this surface has been shaped by its *geologic structure* (i.e., the type and orientation of rocks) as well as erosion (Fenneman, 1931).

The geology of the area is characterized by thick, gently dipping sediment and sedimentary rock deposits. Shales and limestones of the late *Mesozoic* (about 140-65 million years ago) Carlile Shale and Niobrara Formation underlie the area (Voegeli and Hershey, 1965; Sharps, 1976) (Figure 3.3). Post-Mesozoic normal faults cut these units near Bristol (north of Amache), south of Holly, and generally west of Granada. The sedimentary rocks are blanketed by late *Quaternary* (i.e., about the last 50,000 years) alluvium on the Arkansas River floodplain, dune sand, and *loess* (i.e., wind blown silts and clays) on the slopes south of the floodplain. The origins of the dune sand are likely the Ogallala, Pleistocene, and Dakota formations of the area, and more locally, the Arkansas River floodplain (Fenneman, 1931; Voegeli and Hershey, 1965; Sharps, 1976). The loess is probably of similar origins.

Figure 3.1. Prowers County, Colorado and adjacent counties. Adapted from Official Highway Map for Colorado (2002).

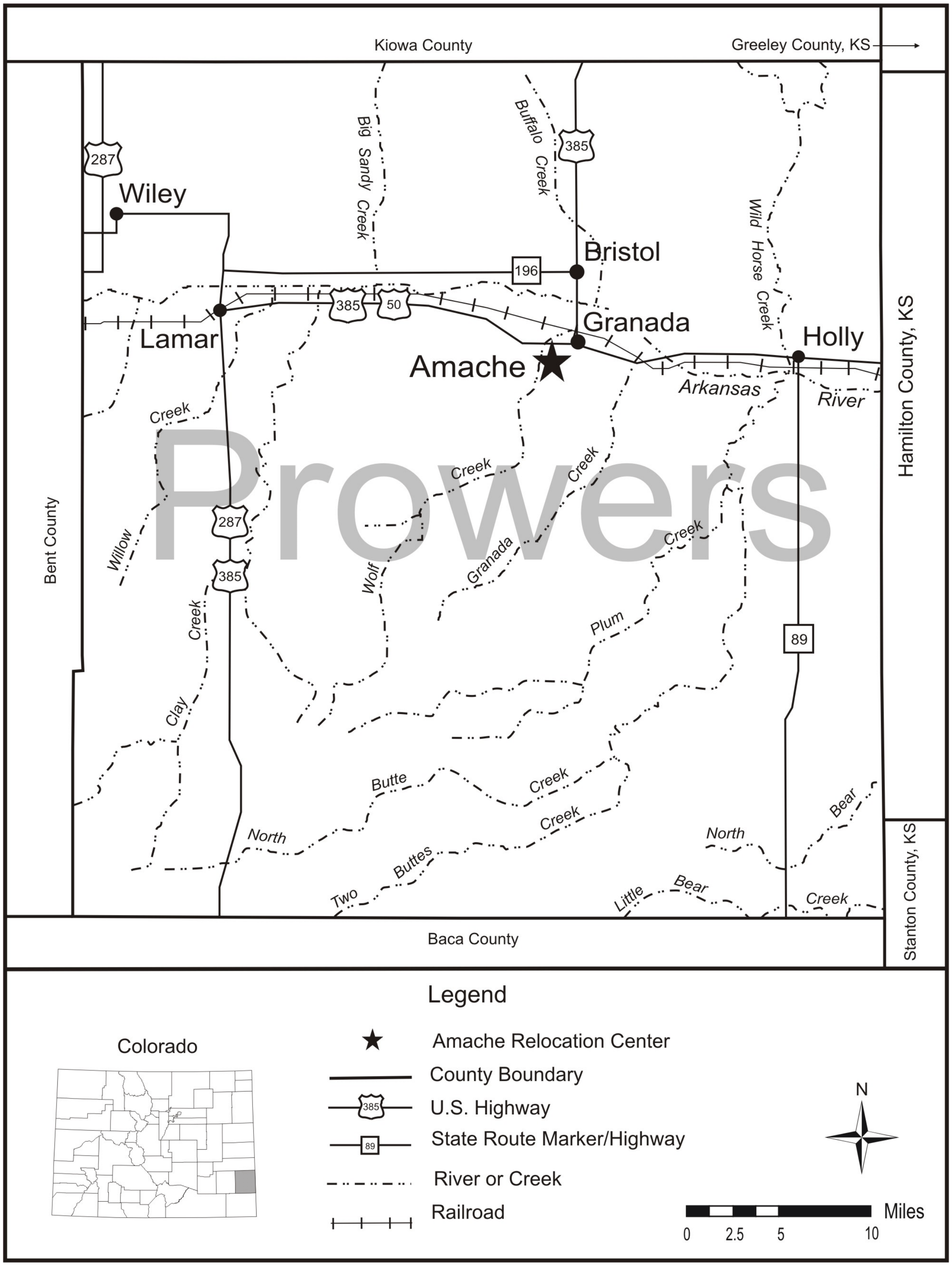


Figure 3.2. Amache's Colorado Piedmont and High Plains location within the Great Plains physiographic province. Adapted from Fenneman (1931, Plate 1).

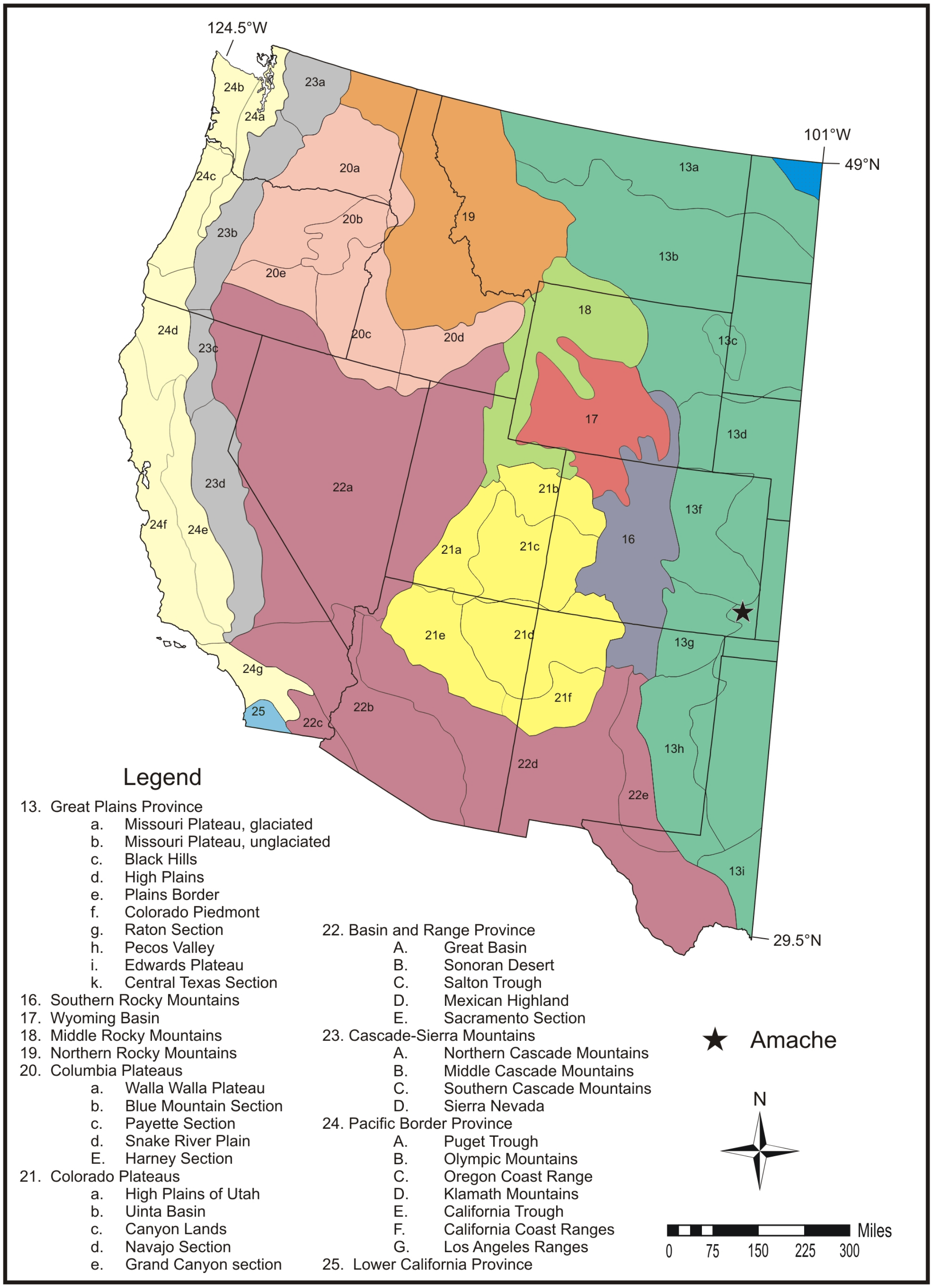


Figure 3.3. Geology of the Amache Relocation Center and vicinity. Adapted from Sharp (1976).

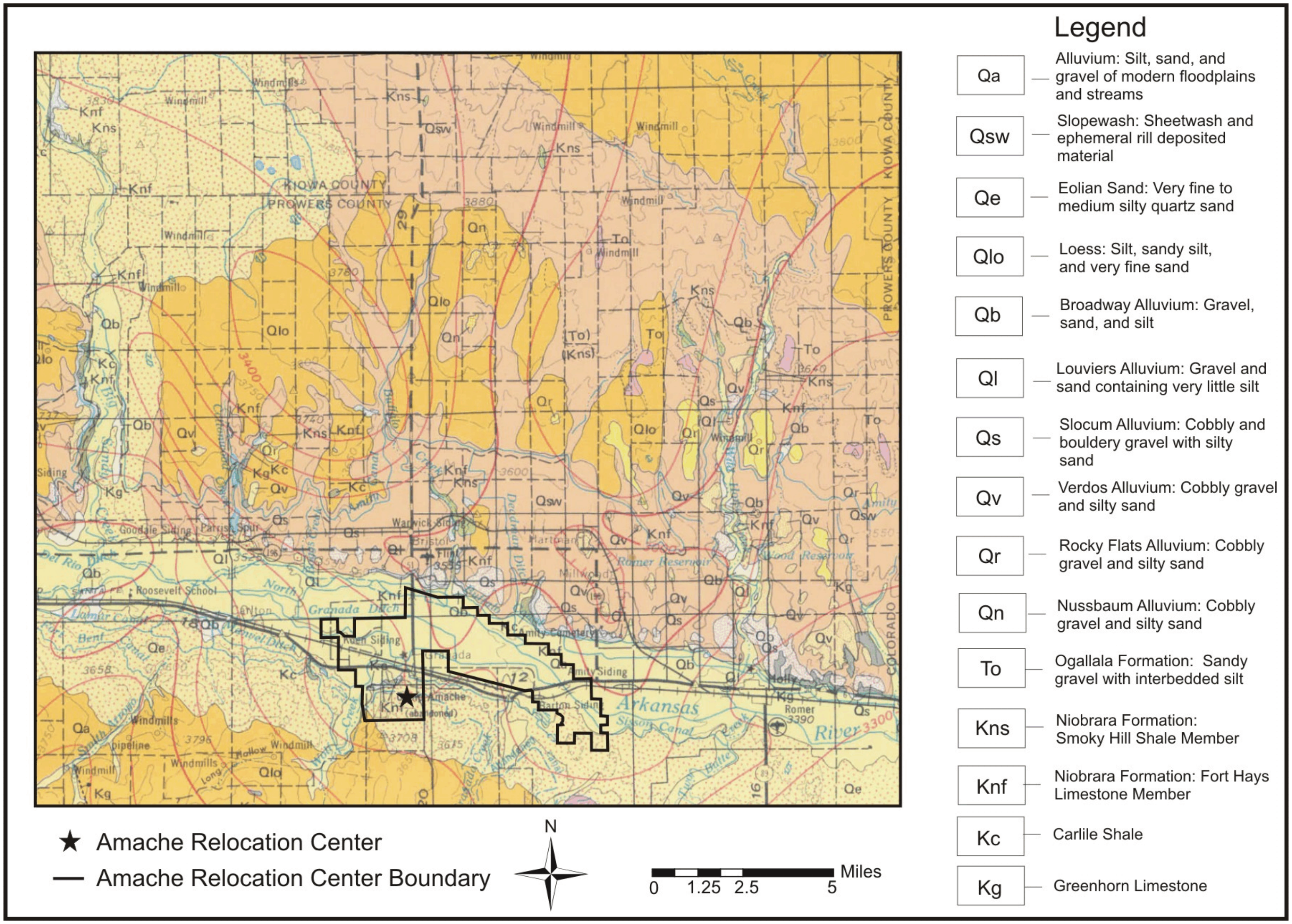
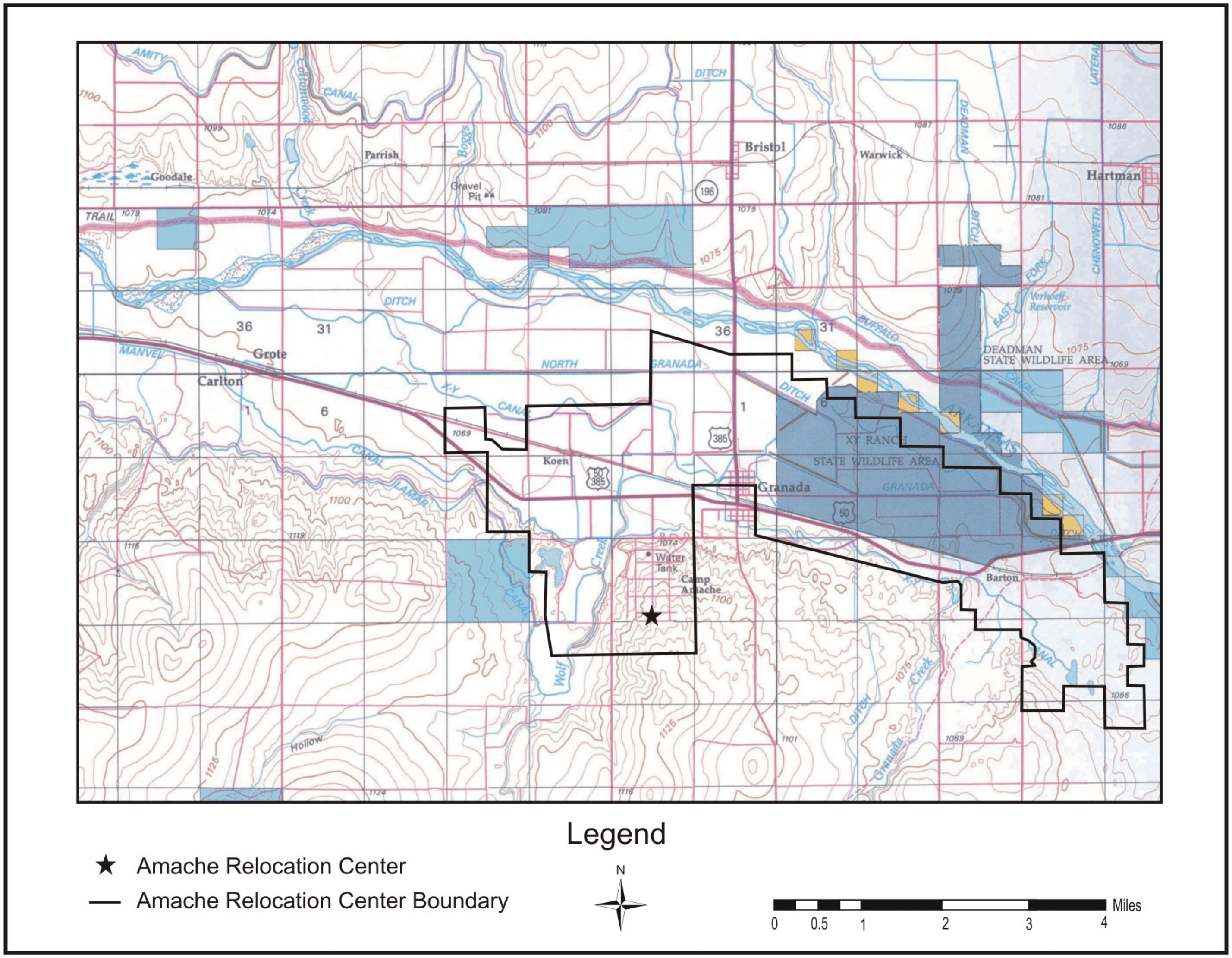


Figure. 3.4. Topographic map of Amache Relocation Center and vicinity. Adapted from U.S. Bureau of Land Management Lamar, Colorado 1:100,000-scale topographic map (1988).



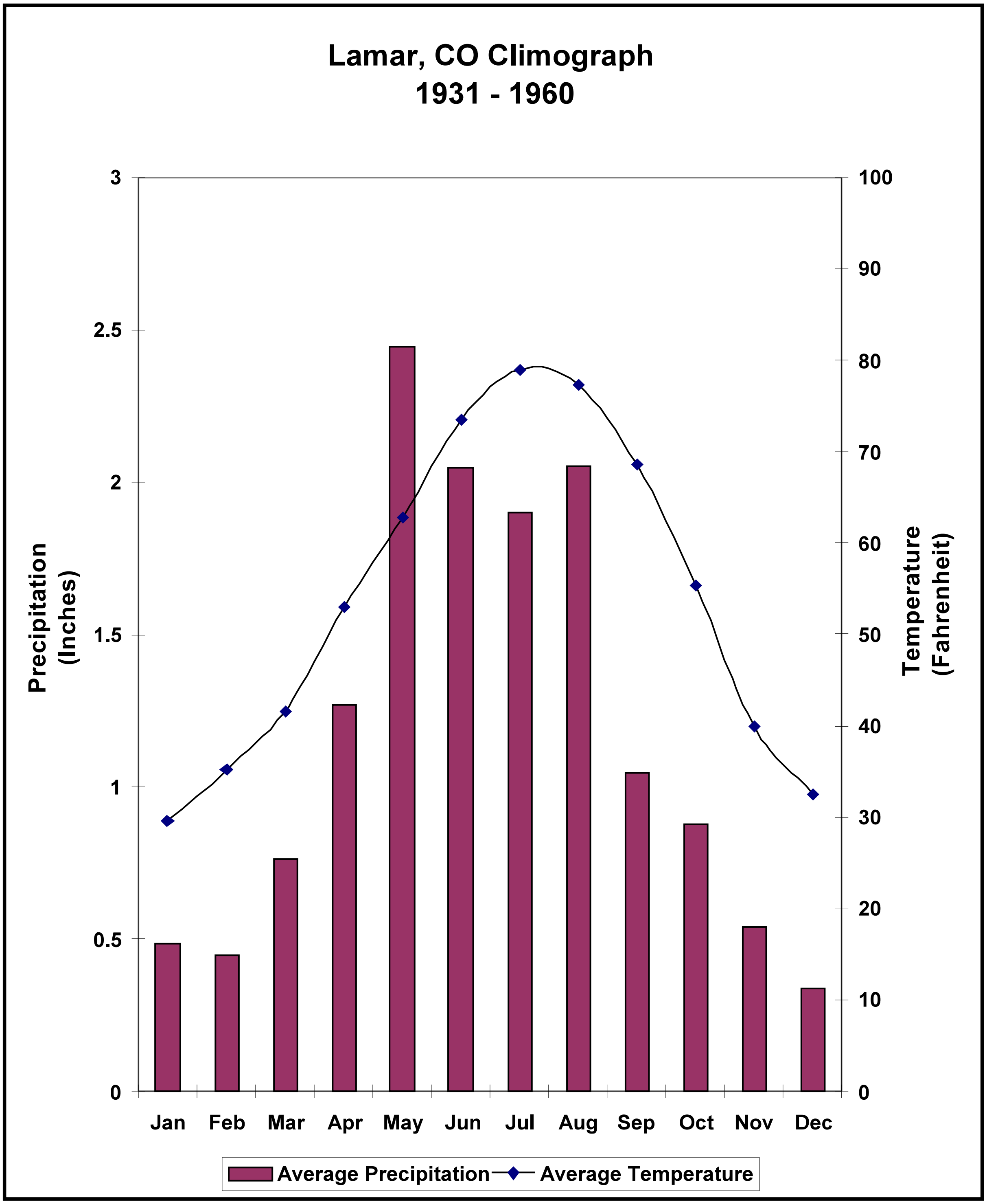
Weathering, flowing water, and wind have shaped the surfaces in more recent geologic times. The Arkansas River, originating in the Rockies to the west, eroded into the Colorado Piedmont and High Plains surfaces to create a broad, low-gradient, alluvial valley (Figure 3.4). The relocation center's farmlands were located on the floodplain and terraces of the Arkansas River. Adjacent uplands are erosional remnants consisting of gentle slopes cut by intermittent stream valleys draining into the Arkansas River. The main (i.e., residential and administrative) part of Amache occupied a gentle northward-sloping, benched *interfluve* between two such intermittent streams–Amache Creek to the east and Wolf Creek to the west–about 2.5 miles south of the Arkansas River, and just south of its floodplain. Dune sand and loess blankets the interfluve thus reducing local *relief* (i.e., difference in elevation between high and low points) on the surface (Voegeli and Hershey, 1965; Sharps, 1976). The vegetation cover on the landscape suggests that dunes in this area are no longer active. Total relief at the former center is approximately 230 feet with elevations ranging from 3,420 feet on the Arkansas River Valley floor to about 3,650 feet at the top of the main part of Amache.

Weather and Climate. Summers are warm, and somewhat moist while winters are cold and dry (Figure 3.5). Variability is the norm here, on a daily, monthly, and annual basis. This is seen in temperatures but even more so with precipitation–i.e., precipitation of a particular day or month may exceed that of an entire dry year (U.S. Soil Conservation Service, 1960)!
The climate of the area is classified under the Koppen system as Dry Midlatitude Steppe (BSk) (Griffiths and Driscoll, 1982).

The mid-latitude setting results in a systematic change in sun angles (thus temperatures) throughout the year. Because of land's relatively low *specific heat* (i.e., amount of heat required to raise the temperature of a particular mass as compared to water), it heats up rapidly giving continental sites like Amache greater daily and annual temperature extremes than more marine locations. The average annual temperature for 1931-1960 at this mid-elevation site was 54°F (Western Regional Climate Center, n.d.). January's mean minimum monthly average was 30°F while July's mean maximum was 79°F during 1931-1960 (Figure 3.5). The *growing season* (i.e., last 32°F killing freeze of spring to the first 32°F killing freeze of fall) at Lamar five out of ten years averaged 162 days with the last killing freeze of spring typically occurring around 30 April and the first freeze of fall near 8 October (Western Regional Climate Center, n.d.).

Precipitation in southeastern Colorado is generally low and variable because of its continental interior location. Annual precipitation at Lamar averaged 14 inches during 1931-1960 (Western Regional Climate Center, n.d.) (Figure 3.5). During this period, annual precipitation ranged from a low of 7.5 inches in 1934 to a high of 24.5 inches in 1946 (Western Regional Climate Center, n.d.). Precipitation is primarily associated with the spring and summer influx of marine tropical air masses from the southwest (Pacific Ocean) and south/southeast (Gulf of Mexico) as heating occurs in the continental interior (Paulson et al., 1991). As a result, most precipitation occurs from May through August with *convectional* (i.e., heat-induced) thunderstorms thus downpours are common (U.S. Soil Conservation Service, 1960). Winter precipitation is associated with the

Figure 3.5. Average temperature and precipitation at Lamar, Colorado, 1931-1960. Data from Western Regional Climate Center (n.d.).



west to east passage of mid-latitude cyclones with much occurring as snowfall (Paulson et al., 1991, p. 207). The average annual snowfall at Lamar during the 1931-1960 period was 25 inches. During the 1931-1960 period, annual snowfall totals ranged from three inches in 1936 to 63 inches in 1960 (Western Regional Climate Center, n.d.). Three significant droughts occurred in southeastern Colorado during the 1931-1960 period–1930-1942, 1949-1957, and 1958-1970 (Paulson et al., 1991). With annual lake evaporation approximately 56-58 inches annually during the 1946-1955 period (Meyers, 1962) while precipitation was about 14 inches/year, many crops in the area require irrigation.

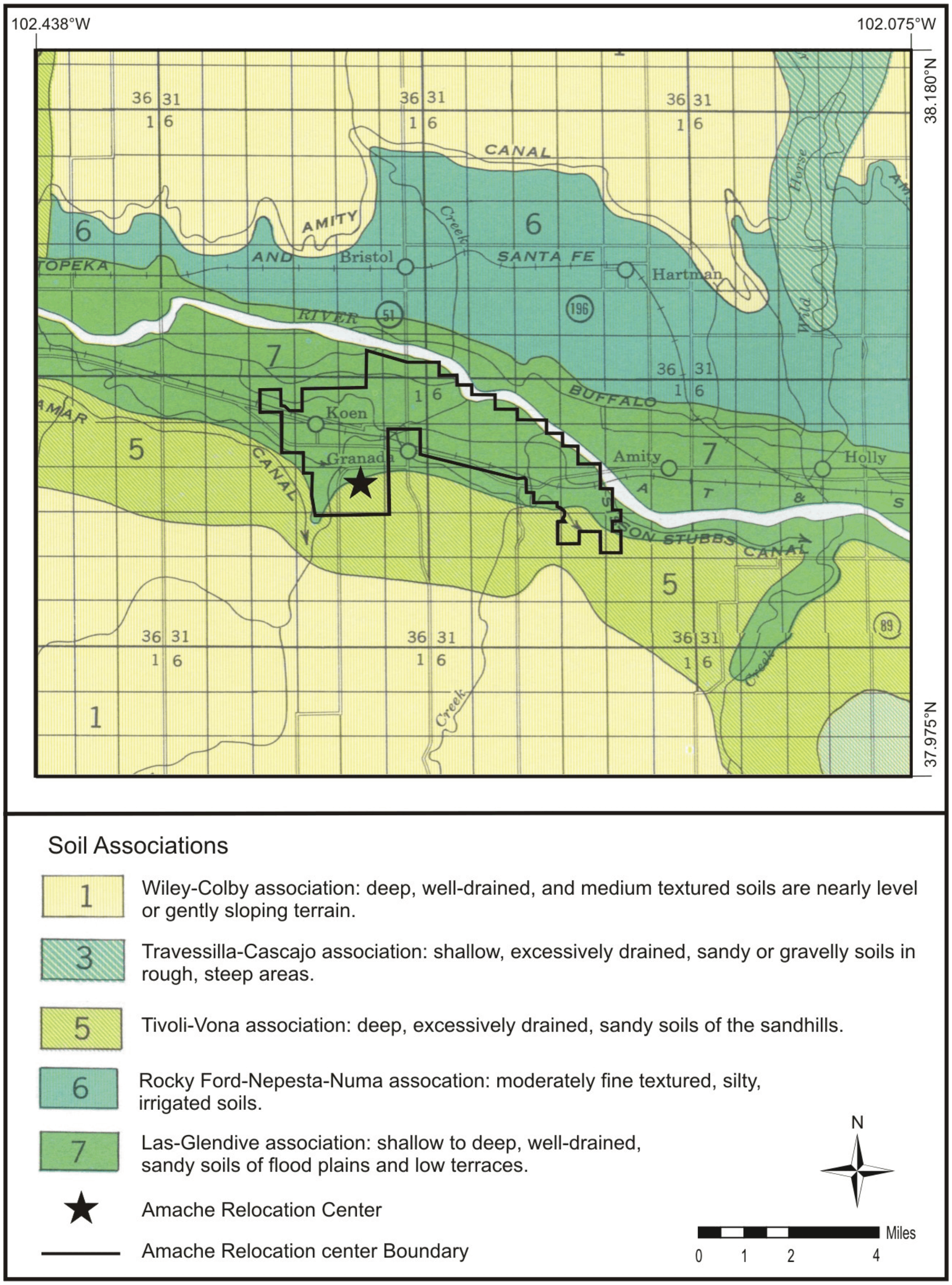
Winds are typically greatest here in the spring and reach their minima in summer and fall. Spring wind velocities commonly reach 20-30 miles per hour (mph) but may range to 60-70 mph. Dust storms result from strong spring winds and unplanted farm fields, especially during drought (U.S. Soil Conservation Service, 1960). Bent and "flagged" trees at Amache reflect growing season south winds, a point reinforced by local resident Charles Creech (personal communication, 12 April 2003). Drifted snow is common in the winter months, often associated with cold, north winds (U.S. Soil Conservation Service, 1960). Dunes south of the Arkansas River and east of Amache also attest to the importance of north winds impacting the area.

Soils. Soils of the former Amache Relocation Center are a function of the five soil forming factors–i.e., parent material, topography, climate, biota, and time. Parent materials range from ancient shales and limestones to recent alluvium, dune sand, and loess. Soils of the area are differentiated primarily by their location in relation to the Arkansas River and Wolf Creek floodplains (Figure 3.6).

Soils elevationally above and to the south of the Arkansas River Floodplain are *entisols* (Manvel, Minnequa, Penrose and Tivoli series) and *aridisols* (Cascajo series) (U.S. Soil Conservation Service, 1960; U.S. Natural Resources Conservation Service, n.d.). The poorly developed entisols reflect the sandy, often calcareous nature of the parent material, the semi-arid climate conditions, and/or the lack of time for soil development. The aridisols result from the semi-arid climate and a relatively stable surface (hence longer time for soil development). All upland soils are classified as Land Capability Classification (LCC) IVe, VIe, or VIIe dryland soils thus have severe to very severe limitations associated with erosion (U.S. Soil Conservation Service, 1960).

The soils of the Arkansas River and Wolf Creek floodplains are entisols (Colby, Glendive, Kornman, Las, Rocky Ford series) (U.S. Soil Conservation Service, 1960; U.S. Natural Resources Conservation Service, n.d.) due to recent additions of alluvium on the floodplain. With the exception of the Las soil, each of these soils is well to excessively drained thus moisture retention is an issue in crop production. Each except the Tivoli series is calcareous and moderately alkaline. Salinity is an issue closer to the Arkansas River where soils tend to be "tight" as a result of silt- and clay-sized parent materials (Lawrence McMillan, oral communication, 11 April 2003). All floodplain soils are LCC II or IIIe irrigated soils with some to moderate erosion limitations (U.S. Soil Conservation Service, 1960).

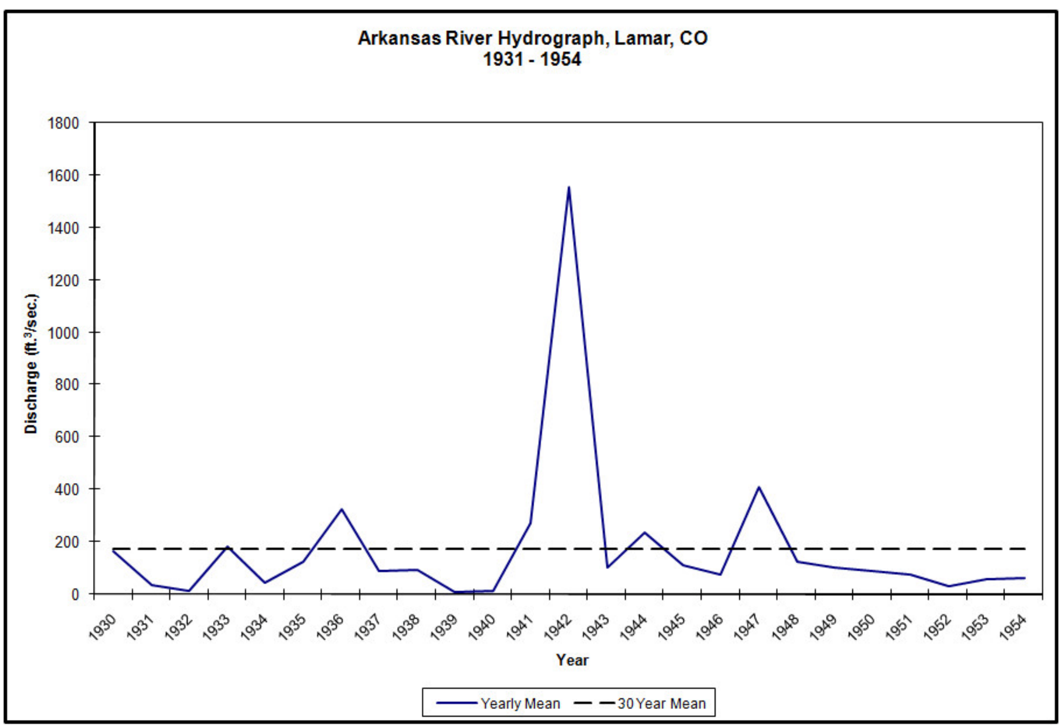
Figure 3.6. Soils of the Amache Relocation Center and vicinity. Data from U.S. Soil Conservation Service (1960). Note relationship between soils and topography shown on Figure 3.4.



As implied above, erosion is a major issue here, especially under drought conditions. Indeed, Colorado's lower Arkansas River Valley lies in a zone of "severe erosion" within the broad portion of the southern High Plains area known as the "Dust Bowl". Drought and associated wind erosion devastated this area in the 1930s after much of the native shortgrass prairie vegetation cover was removed for wheat farming (Hewes, 1973; Egan, 2006).

Water. The Arkansas and the South Platte rivers are the primary watersheds draining the Colorado Piedmont and High Plains physiographic provinces. Amache lay within the Arkansas River Watershed. Nearly all streams in southeastern Colorado are tributary to this river that drains approximately 188,000 mi^2 and flows 2,000 miles to reach the Mississippi River (Works Progress Administration, 1941). The average annual discharge of the Arkansas is 173 feet^3/second (U.S. Geological Survey, n.d.). However, the annual discharge over time reflects the variable climatic patterns discussed above–i.e., long periods of drought broken by snowmelt- and/or precipitation-induced flooding (Figure 3.7). Exceptionally high flows on the Arkansas River in April 1942 and again in June-early July 1957 were the result of intense rainfall and snowmelt runoff. The 1942 event was the fourth largest historical flood on the Arkansas River. The Arkansas River's historical flood of record occurred in summer 1921 (Paulson et al., 1991; National Weather Service, n.d.).

Figure 3.7. Mean annual discharge, 1931-1954, for the Arkansas River at Lamar, Colorado. Data from U.S. Geological Survey (n.d.).



Wolf Creek and Granada Creek are intermittent streams that flow northward from the southern uplands that included the main portion of the Amache Relocation Center to the Arkansas River. The approximately 20 feet deep incision of lower Wolf Creek on the Arkansas River floodplain attests to the sudden runoff events in the drainage. Levees around Granada were built in response to flooding on Wolf Creek in the early 1920s (Charles Creech, personal communication, 12 April 2003). The large flood on the Arkansas River in 1921 may have also inspired these structures. Conversely, irrigation withdrawals and drought years often result in the lower reaches of the Arkansas River drying out by mid-summer (Wykcoff, 1999). Arkansas River water, with an average *specific conductance* of 2,230 micromhos and a *sodium-adsorption ratio* of 12, has a high salinity hazard but a medium sodium hazard for irrigation (U.S. Geological Survey, 1954; U.S. Geological Survey, 1955).

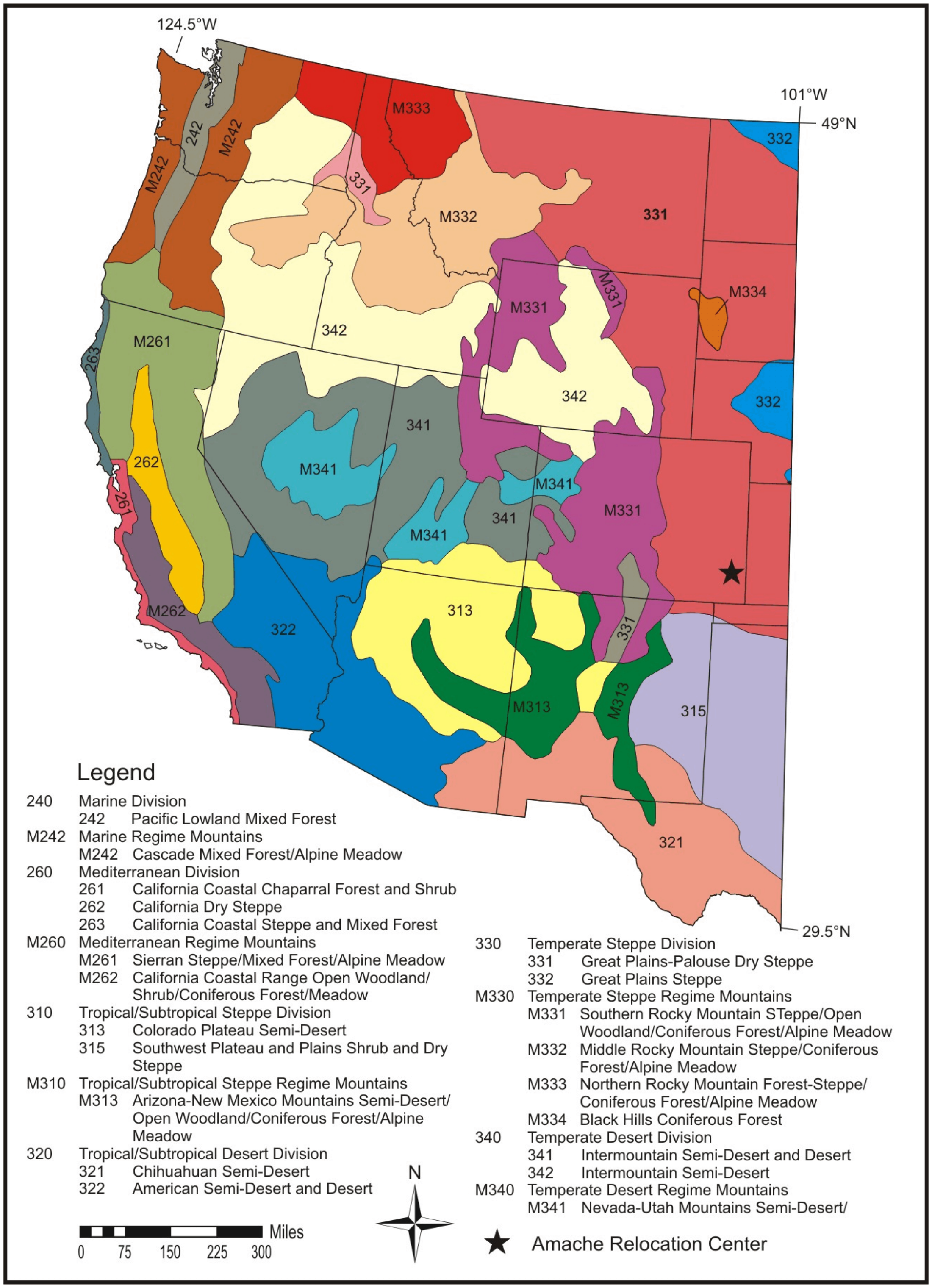
Much of the readily available groundwater of the area lies in the alluvium of the Arkansas River floodplain and in the terraces above the floodplain. Below that lie the waters of the Ogallala Formation, the Dakota Sandstone, and the Cheyenne Sandstone. The most extensive aquifer is the recent alluvium but water quality is best from the Ogallala Formation. All of the groundwater in the area is, to some degree, saline and alkaline thus posing problems for direct human consumption as well as irrigation. The four wells of the Amache Relocation Center tap the Dakota and Cheyenne sandstones. With a specific conductance of 644 micromhos and a sodium-absorption ratio of 3, Amache well-water was chemically suitable for most uses (Voegeli and Hershey, 1965).

Biota. Amache lies within the Great Plains-Palouse Dry Steppe ecoregion province (Bailey, 1995) (Figure 3.8). The steppe or "shortgrass prairie" vegetation of the province is adapted to aridity, typically six to seven months each year. The vegetation of the uplands part of Amache differs greatly from that of the floodplains, primarily due to water availability. In the uplands, blue grama (*Bouteloua gracilis*) and buffalo grass (*Buchloe dactyloides*) are the short dominants while big bluestem (*Andropogon gerardii*), little bluestem (*Schizachyrium scoparium*), and needle-and-thread grass (*Stipa comata*) are the taller dominants. Sagebrush (*Artemisia* spp.) and rabbitbrush (*Chrysothamnus* spp.) are common shrubs. Sand sage (*Artemisia filifolia*) is also present in the sandy uplands (Griffiths and Rubright, 1983; Bailey, 1995).

A gallery forest of plains cottonwood (*Populus sargentii*) and willow (*Salix* spp.) lines the Arkansas River. A recent invader, tamarisk or "salt cedar"(*Tamarix* spp.) is increasingly present on the floodplain (Griffiths and Rubright, 1983). Tamarisk entered the area sometime after 1910 and has choked out much of the native riparian vegetation (Sherow, 1990).

This area was frequented by bison until being hunted to near-extinction by EuroAmericans in the late 19th century. Pronghorns (*Antilocapra americana*), several jackrabbits (*Lepus* spp.), desert cottontail rabbits (*Sylvilagus auduboni*), ground squirrels (*Spermophilus* spp.), and prairie dogs (*Cynomys ludovicianus*) are present throughout the province. The primary predators are coyotes (*Canus latrans*), badgers (*Taxidea taxus*), and black-footed ferrets (*Mustela nigripes*). A variety of avian fauna are also present (Bailey, 1995).

Figure 3.8. Ecoregion map showing Amache's location within the Great Plains-Palouse Dry Steppe ecoregion province. Adapted from Bailey (1995).



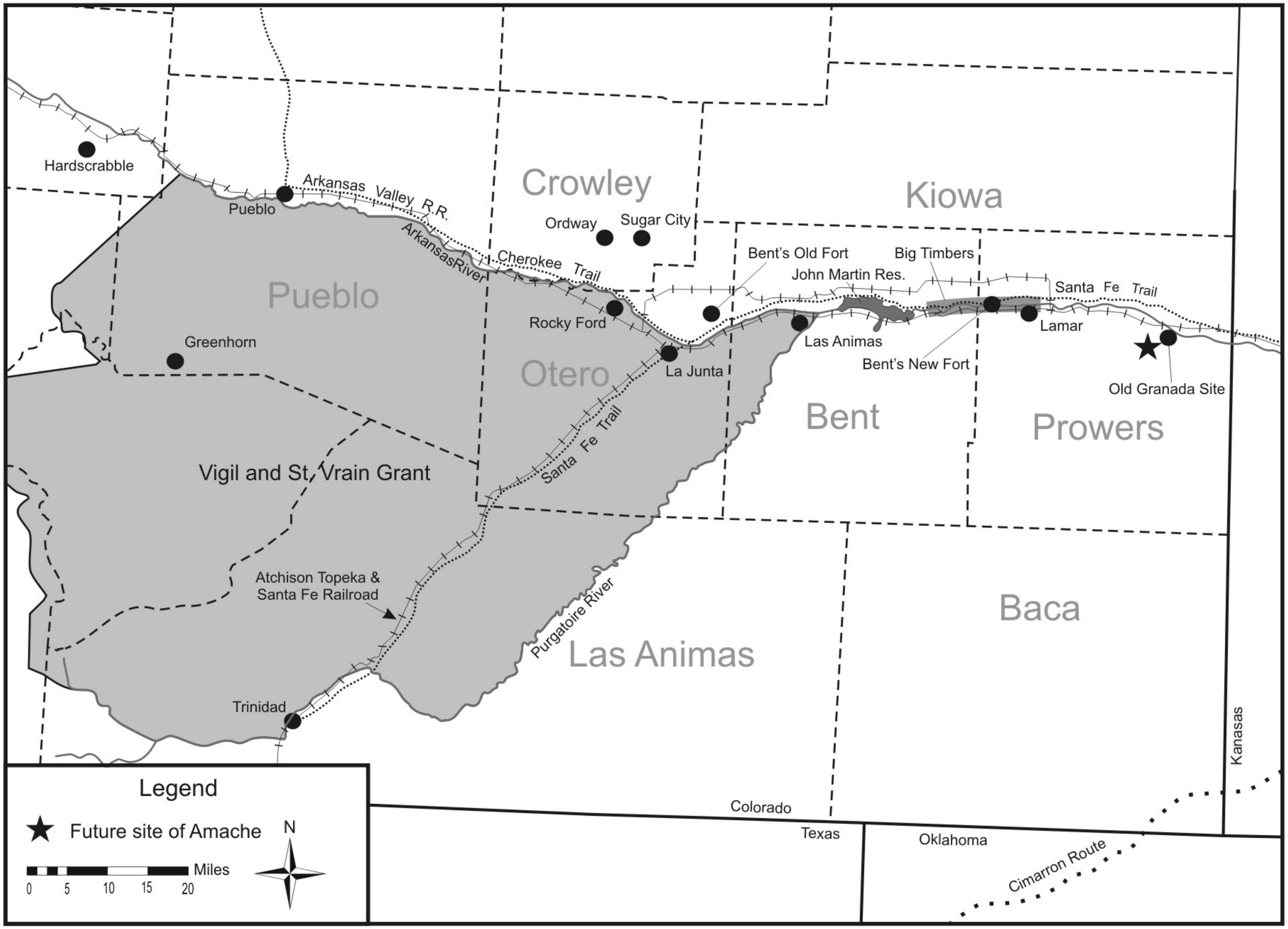
Human Setting

Race and Ethnicity. The Arkansas River has seen a diversity of races, ethnic groups, and resulting cultural patterns including Native Americans, French, German-Russians, Danes, Mexicans, and persons of Japanese descent. Indeed, the national ownership of the Arkansas River Valley was under dispute until 1848 when the U.S. took control after winning the Mexican-American War. Until then, Spain, England, France, Mexico, and the U.S. had all laid claim to the valley at one time or another. The boundary between French Louisiana and Spanish territory was especially vague until the 1819 Adams-Onis Treaty established this line as the Arkansas River. The Republic of Texas claimed the area north and east of the Rio Grande and south of the Arkansas River in 1836, and this claim became that of the U.S. when it annexed Texas in 1845 (Noel et al., 1994). The early travelers through the Arkansas River Valley reflected the various national claims to the area.

Southeastern Colorado (including the Arkansas River Valley) lies in the Great Plains Culture Area. This area's nomadic hunting patterns and associated lifeways originated after the introduction of horses and firearms (Waldman, 2000). At the time of EuroAmerican contact, Southeastern Colorado was primarily occupied by nomadic bands of Cheyenne, Comanche, Apache, Arapaho, and Kiowa tribes (Wyckoff, 1999). The Kiowa, Cheyenne and Arapaho were mostly found from the Arkansas River Valley to the north while the Comanche were found in the area south of the Arkansas River (Fowler, 2001; Kavanagh, 2001; Levy, 2001; Moore et al., 2001). The Plains Apache ranged more widely, often banding with one of the other four groups (Foster and McCollough, 2001). Settlement by EuroAmericans in traditional lands of these peoples plus conflicts between Native Americans and EuroAmericans immigrants heading west, led to a treaty and the Sand Creek Reservation near Bent's Old Fort for the Arapaho and Cheyenne in 1861 (Figure 3.9) (Fowler, 2001). However, the location of the reservation far from the normal range of buffalo at that time resulted in the reservation Indians stealing stock from nearby settlers. The ensuing 1864 Sand Creek Massacre, in which the U.S. Army and local militias attacked Arapahos and Cheyennes, further strained relations between whites and Indians. Ultimately, the tribes of the area signed treaties that led to their removal to Indian Territory in Oklahoma by the late 1860s (Foster and McCollough, 2001; Fowler, 2001; Kavanagh, 2001; Levy, 2001; Moore et al., 2001).

Paul and Pierre Mallet, along with six other Frenchmen, were likely the first Caucasians to travel through the Arkansas River Valley, doing so in 1739 (Folmer, 1939; Noel et al., 1994). Upon their return in 1740, they discovered a group of Canadian hunters on the upper Arkansas River (Folmer, 1939). Beginning in the early 19th century, Americans began to explore the Arkansas River Valley of Colorado. A party led by Zebulon Pike, on orders from Thomas Jefferson, explored the Arkansas River portion of the lands obtained in the Louisiana Purchase in October and November 1806 (Noel et al., 1994). The group crossed into present-day Colorado, passed

Figure 3.9. Cumulative historical map for Colorado's lower Arkansas River Valley including the Amache Relocation Center.



through the future site of Granada, and camped west of Granada between future Manville and Carlton on 12 November 1806 (Coues, 1987). In addition to the multitudes of buffalo along the Arkansas River Valley of Kansas and Colorado, Pike also described the dense gallery forest of cottonwood along the Arkansas in the vicinity of Granada which was likely the area subsequently known as "Big Timbers" (Coues, 1987). This cottonwood grove extended 30 miles along the Arkansas in the vicinity of Granada and Lamar (Figure 3.9) (Works Progress Administration, 1941). Part of Long's expedition of 1820 passed through the Arkansas River Valley as did Fremont in 1844, 1845 and 1853, Abert in 1845, and Gunnison in 1854 (Noel et al., 1994).

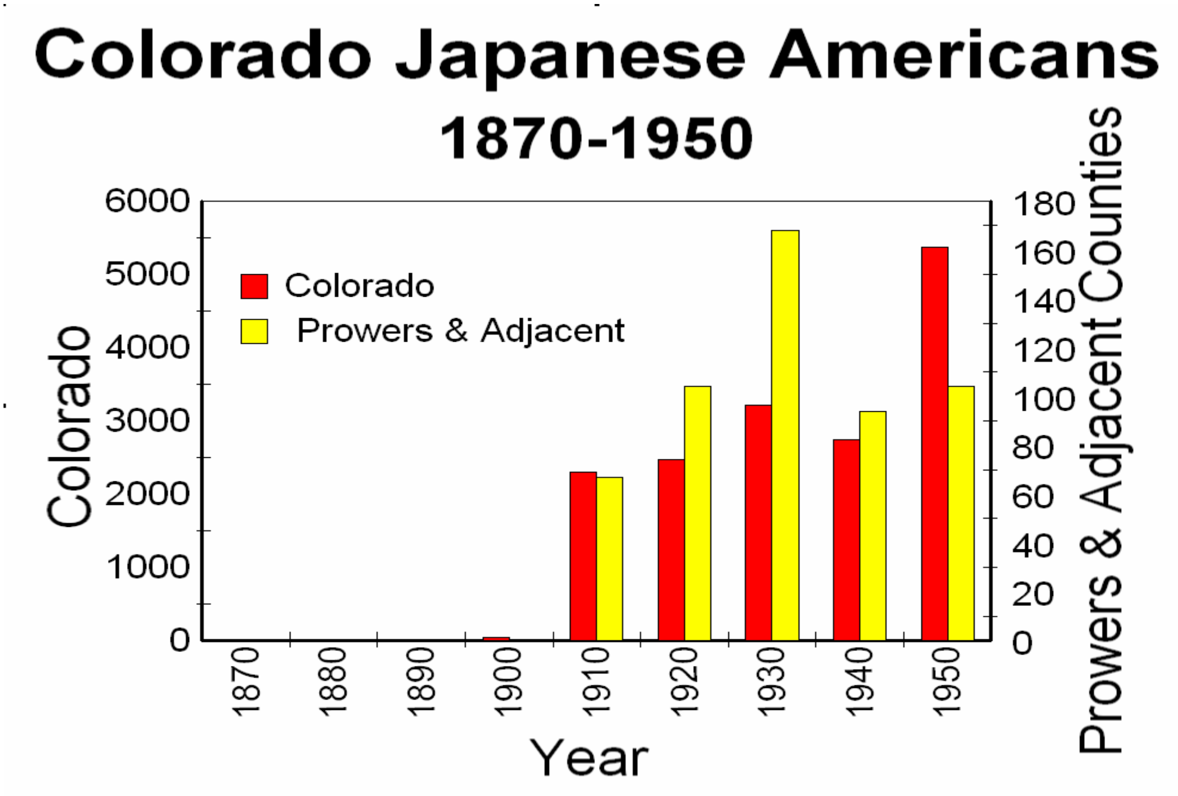
In the years following Mexico's independence from Spain in 1821, five Mexican land grants were established along the Arkansas River west of Lamar as a way to attract settlers thus cementing Mexican claims to the area. The 1843 Vigil and St. Vrain Grant was the largest stretching from the mouth of the Purgatoire River west to just beyond Pueblo and south to Trinidad (Figure 3.9). The settlers formed the towns of Greenhorn, Hardscrabble, and Pueblo. This grant was especially important to establishing Mexican claim to the area because the American-established Bent's Fort sat across the river in the former lands of French Louisiana. By 1848 and the Treaty of Guadalupe-Hidalgo signing, the Mexican War had ended and the lands of the Arkansas River Watershed were all a part of the United States (Noel et al., 1994).

Mexican Americans living in the Arkansas River Valley worked as laborers for the Sante Fe Railroad and in the growing and processing of sugar beets (Iwata, 1992; John Hopper, written communication, February 2007). Later, Mexicans were brought to the area by the Oxnard Sugar Company to provide sugar beet labor, especially after Japanese Americans and German Russians had moved into independent farming by the early 1920s (Sherow, 1990; Iwata, 1992; Wyckoff, 1999).

German Russian families flocked to the Arkansas River Valley with the development of the sugar beet industry in the first decade of the 20th century. First working for the sugar beet companies in the fields and factories, they subsequently bought land from the companies to farm on their own. In the Arkansas River Valley, they developed distinct communities that preserved their cultural heritage (Ubbelohde et al., 1988; Wyckoff, 1999). Dane tenant farmers lived on the American Crystal Sugar Company lands between Granada and Lamar after about 1927 (L. McMillan, oral communication, 11 April 2003).

Japanese Americans first appeared in the Colorado census in 1890 (Figure 3.10). One source notes that as many as 3,550 Japanese Americans may have been present in Colorado by 1909 (Iwata, 1992); however, the 1910 census only showed 2,300 Japanese Americans living in the state (Figure 3.10). The early Japanese of Colorado were drawn to the state by employment opportunities with the railroads, mines, smelters, and subsequently, with farms. Eventually, many became independent farmers (Iwata, 1992). The state's Japanese Americans lived in three distinct zones–northeastern Colorado along the Union Pacific Railroad extending north from Denver to Greeley, then east along the South Platte River to Atwood; southwestern Colorado

Figure 3.10. Persons of Japanese descent in Colorado, and in counties including and adjacent to Amache, 1870-1950. Data from U.S. Census Office (1895, p. 442; 1901, 571) and U.S. Bureau of the Census (1913, p. 215; 1922, p. 29; 1932, p. 316; 1943a, p. 745; 1943b, p. 83; 1952a, p. 6-86; 1952b, p. 16-117).



along the Denver and Rio Grande Railroad in the vicinity of Mesa, Delta, Montrose, and La Plata; and southeastern Colorado along the Santa Fe Railroad between Holly and Rocky Ford, and north to Ordway (Iwata, 1992) (Figure 3.9). Japanese Americans first came to Colorado's lower Arkansas River Valley in 1902 (Endo, 1985). Early Arkansas River Valley Japanese independently raised cantaloupes, sugar beets, wheat, barley, and alfalfa in the Rocky Ford and Las Animas areas beginning in the first decade of the 20th century. By the 1920s, 55 to 60 Japanese farm families lived in Colorado's lower Arkansas River Valley. The official peak pre-World War II population was reached in 1930 (3,213) with a decline to 2,734 by 1940 (Figure 3.10). The economic depression of the 1930s forced approximately 10 of the Arkansas River Valley Japanese families out of the area to the San Luis Valley in the southern part of the state (Iwata, 1992). Of the more than 2,700 Japanese Americans living in Colorado in 1940, only 15 lived in Prowers County while 79 lived in Bent County and 242 lived in Otero County (U.S. Department of Commerce–Bureau of the Census, 1943a). The Prowers County census data is backed up by the memory of longtime resident Lawrence McMillan who recalled several Japanese American families living in the area prior to 1942 (oral communication, 11 April 2003).

Adjacent Kiowa and Baca counties apparently had very few Japanese Americans as did Greeley, Hamilton, and Stanton counties, Kansas in 1940 (U.S. Department of Commerce–Bureau of the Census, 1943a; U.S. Department of Commerce–Bureau of the Census, 1943b).

Economic Geography. The human population of the area has long been dependent upon the Arkansas River Valley for its life-giving water and as a transportation route (Voegeli and Hershey, 1965). Weather and climate trends, combined with human activities, have shaped the availability of Arkansas River water for economic activity. The key economic activities occurring in the Arkansas River Valley prior to the establishment of Amache were agriculture and various businesses associated with agriculture, including transportation.

The Comanche, Cheyenne, Arapaho, Kiowa, and Apache who frequented the Arkansas River Valley at the time of EuroAmerican contact were nomadic hunters who depended heavily on bison (Foster and McCollough, 2001; Fowler, 2001; Kavanagh, 2001; Levy, 2001; Moore et al., 2001). Some members of these tribes wintered in the "Big Timbers" of the Arkansas River floodplain near Granada and Lamar (Figure 3.9) (Works Progress Administration, 1941).

Three general types of agriculture have historically been practiced in the area–ranching, irrigated farming and dryland farming. Cattle ranching began in the Arkansas River Valley in 1861. Soon after, approximately six cattle ranchers held all of the deeded land of the Arkansas River floodplain from the Kansas-Colorado state line to near the present-day, western boundary of Prowers County west of Lamar (U.S. Soil Conservation Service, 1960) (Figure 3.9). Cattle ranching was the key industry of the Arkansas River Valley into the 1880s (Wyckoff, 1999). Weather, available forage, and supply-demand issues led to boom and bust cycles over time.

Dryland winter wheat farming began on the margins of the Arkansas River Valley in the 1880s. This form of agriculture often involved *suitcase farmers* (i.e., non-resident or absentee farmers who visited the farmland to seed and subsequently harvest the crop, but lived and worked elsewhere the remainder of the time). This farming strategy was a response to the variable precipitation of the central Great Plains (Hewes, 1973). Like cattle ranching, dryland farming experienced fat and lean times. Drought as well as wind, hail, low winter temperatures, and grasshoppers all negatively impacted dryland agriculture in southeastern Colorado (Griffiths and Rubright, 1983; Egan, 2006).

In response to the uncertainties of climate–especially precipitation–large-scale irrigated agriculture began in earnest on the Arkansas River floodplain in the early 1880s with wheat, oats, corn, alfalfa, watermelons, cantaloupes, orchards, and cattle feed grown on irrigated fields. Farming in the Arkansas River Valley thus became a form of *oasis agriculture* (Wyckoff, 1999; Sherow, 1990). A flour mill, milk condensing plant, and alfalfa dehydration plant were constructed in about 1900 in Prowers County (U.S. Soil Conservation Service, 1960). Sugar beets were planted on much of the Arkansas River's irrigated land in the first decade of the 20th century with development of the sugar factories in Rocky Ford and Sugar City west of Lamar, and another sugar factory in Lamar (Figure 3.9) (U.S. Soil Conservation Service, 1960; Ubbelohde et al., 1988; Wyckoff, 1999). Sugar beets prospered here due to relatively high elevation and associated cooler summers plus readily available irrigation water (Ubbelohde et al., 1988). Prior to World War II, the American Crystal Sugar Company owned much of the land from Granada west to Lamar (including the Koen Ranch). Sugar beets, as well as alfalfa and small grains, were grown on the floodplain soils and irrigated with Arkansas River water. The Rule family owned much of the former XY Ranch land from Granada east to the Arkansas River Bridge (L. McMillan, oral communication, 11 April 2003; Harvey, 2004).

As a result of drought, soil erosion/land degradation, economies of scale, and economic downturns, the number of area farms and ranches decreased while their individual sizes increased over time (U.S. Soil Conservation Service, 1960). This was especially true in the dryland farming areas in the 1930s (Wyckoff, 1999). Numerous abandoned homesteads dot the dryland farming area (U.S. Soil Conservation Service, 1960). The bulk of the area's population lived on the irrigated farms and in the towns of the area, most of which were located in the irrigated areas.

The other primary economic activity in the Colorado's lower Arkansas River Valley has been transportation. Native Americans likely used the valley as a travel route as did subsequent EuroAmericans. The Santa Fe and Cherokee trails followed the Arkansas River Valley westward from the present-day Kansas-Colorado border to El Pueblo (now "Pueblo") (Figure 3.9). The Santa Fe Trail ultimately connected St. Louis with Santa Fe (Noel, 1994). These trails served initial fur traders and gold seekers, including those headed for Pikes Peak in 1858-1859 as well as a subsequent heavy flow of buffalo hunters, adventurers, cattlemen, and homesteaders (Griffiths and Rubright, 1983; Harvey, 2004). Most who came to the area during the post-Civil War land rush were only passing through this portion of the "Great American Desert" en route to points west (U.S. Soil Conservation Service, 1960).

El Pueblo began as a trading post in 1821 (Noel et al., 1994). Two trading posts were built in the Big Timbers area along the Arkansas River west of present-day Granada in the 1840s (Works Progress Administration, 1941). Bent's Fort, a trading post on the Santa Fe and Cherokee trails between present day La Junta and Las Animas, served as a regional buffalo robe and beaver pelt trade center from 1833 until its destruction in 1849 (Figure 3.9) (Ubbelohde et al., 1988). A new Bent's Fort was subsequently constructed downstream and served as a trading post until the U.S. Army took it over in 1860 and renamed it Fort Wise (Ubbelohde et al., 1988). Thus, despite the presence of Bent's Fort, relatively few people lived in present-day Prowers County at the time of the Civil War (U.S. Soil Conservation Service, 1960), partly because the war cut off the southern feeder trails to the Santa Fe Trail (Noel et al., 1994). The Southern Overland Mail and Express Company stage line began operating through the Arkansas River Valley in 1866 and continued until being replaced by the railroads (Noel et al., 1994). By 1873, the Atchinson, Topeka and Santa Fe railroad reached the area making Granada an *end-of-the-line* town (Harvey, 2004). As such, it was a key cattle shipping point early in its history and grew to more than 1,500 inhabitants (Griffiths and Rubright, 1983; Harvey, 2004). However, Granada soon lost much of its significance when the railroad extended westward to Las Animas (Harvey, 2004). In the bigger picture, the railroad was also key to the formation of Prowers County with Lamar as the county seat in 1889 (Noel et al., 1994). As of 1917, two railroads passed through the Arkansas River Valley–the Santa Fe to the south of the river and the Arkansas Valley railroad to the north of the river (Figure 3.9). U.S. Highway 50 followed the Arkansas River Valley as a paved road as of 1940 (Noel et al., 1994). As of 1941, the total population of Granada was 352, Lamar was 4,233, and Holly was 971 (Works Progress Administration, 1941).

Why this Location?

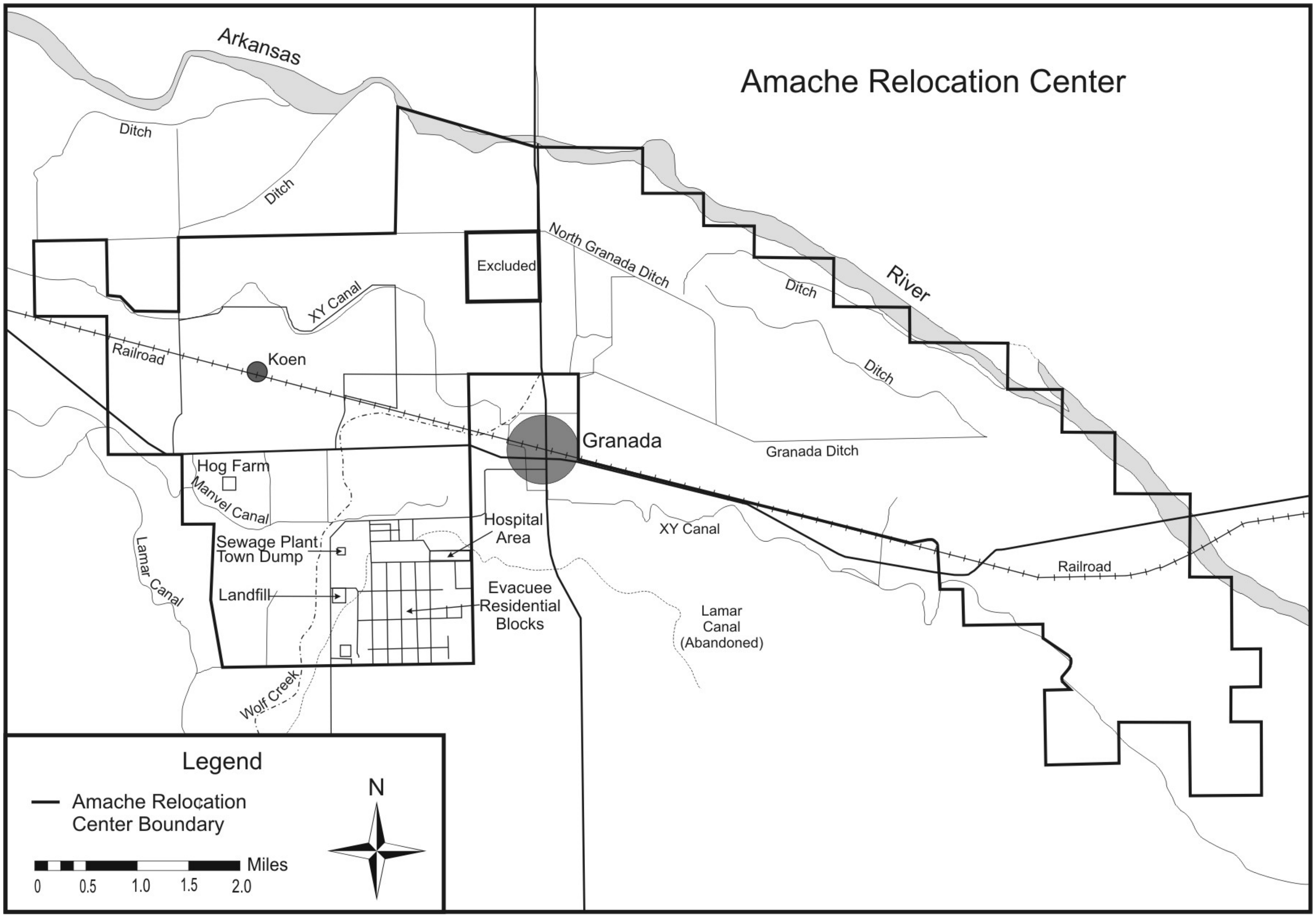
Given the War Relocation Authority's (WRA) criteria for siting relocation centers (see CHAPTER 2–BACKGROUND TO JAPANESE AMERICAN RELOCATION), Colorado Senator Ed Johnson was asked in late spring 1942 to submit a list of possible relocation center sites in Colorado. Why Colorado? First, it lay outside the military exclusion zone where Japanese Americans could relocate. Second, Colorado's governor Ralph Carr had said he would do what he could to help the war effort, including taking in Japanese Americans. Perhaps the WRA also thought that this state, which ranked 4th in Japanese American population nationwide (2,734) in 1940, might welcome the evacuees more than other states (U.S. Bureau of the Census, 1943a). This number had further risen by 1,963 after Governor Carr chose to accept voluntary evacuees in March 1942 (U.S. Army–Western Defense Command, 1943; Harvey, 2004).

Senator Johnson subsequently provided a list of fourteen sites from around Colorado that met the criteria set out by the WRA. Officials narrowed the list to two sites by mid-May–one near Holyoke in northeastern Colorado and a location near Granada in southeastern Colorado. Each had ample land and was located far from readily sabotaged, key military sites. On 3 June 1942, Granada was selected. The agricultural productivity potential of the Arkansas River valley was a major advantage of Granada. However, the proposed location was composed entirely of private land. The federal government thus set out to obtain the necessary 10,500 acres of privately-held farms and ranches via condemnation, then purchase. These parcels included the Koen Ranch (owned by the American Crystal Sugar Company and subleased to 30 farmers) and the XY Ranch (owned by Elbert Rule) plus twelve smaller holdings. The large area of the center–>16 mi^2–was necessary to ensure its self-sufficiency via irrigated agriculture (Figure 3.11) (Harvey, 2004). Approximately 50 farm families were ultimately displaced when the U.S. government obtained the land for the center (Lawrence McMillan, oral communication, 11 April 2003).

Building Amache

Following selection of the site, surveying and actual construction began on Amache by late June 1942. A crew of approximately 1,200 workers labored day and night to complete the center by 31 August at a cost of $4.2 million (Harvey, 2004). During this time, the infrastructure for a town of over 8,000 had to be built from scratch. This included laying out water, sewer, electrical, and transportation systems, and constructing over 560 barracks, mess halls, schools, and various

Figure 3.11. Overall map of the Amache Relocation Center. Adapted from Burton et al. (2002, p. 102).



support buildings, all in a grid pattern aligned to True North on a gently sloping, benched interfluve overlooking the Arkansas River Valley floodplain (Figure 3.12). The main portion of Amache occupied 1 mi^2 (640 acres) including 29 residential blocks with five additional blocks used for center business, high school, and athletic fields (Harvey, 2004). Additional area within the main center boundary was used for a military police compound, motor pool, hospital complex, administration offices, staff housing, and warehouses. A four-strand barbed wire fence punctuated by six watch towers surrounded the entire main portion of the center (Burton et al., 2002).

Evacuee barracks were one story, gable-roofed structures measuring 120 feet x 20 feet and divided into two 16 feet x 20 feet, two 20 feet x 20 feet, and two 24 feet x 20 feet apartments (Harvey, 2004). The barracks building style differed markedly from those of other centers with each sitting atop a concrete foundation or a concrete slab (Burton et al., 2002). Barracks floors were brick laid directly on soil with sand filling the intervening joints or were concrete slabs (Harvey, 2004). Bricks for the barracks floors likely came from Pueblo, Colorado (i.e., one brick found at the site in April 2003 was imprinted with the word "Pueblo"), Trinidad, Colorado (Lawrence McMillan, oral communication, 11 April 2003), or Ferris, Texas (i.e., one found brick was imprinted with "Ferris"). Walls were prefabricated of widely spaced 2 x 4's and covered with 1 inch thick shiplap siding in Granada and hauled to the site for assembly (Harvey, 2004). Exterior walls were covered with asbestos shingles or fiber board coated with tar and sand, and painted beige or blue (Burton et al., 2002; Harvey, 2004). Roofs were sheathed with 1 inch thick boards, covered with tarpaper and held down with battens. Interior walls and ceilings were made of fiber or gypsum board (Johnson, 1989; Harvey, 2004). A coal stove served as the heat source while one bare light bulb and a single window provided light for each apartment (Harvey, 2004). The room was also "furnished" with steel army cots, a coal bucket, and a broom. Evacuees were expected to construct all necessary furniture from scrap lumber found around the center (Matsumoto, 2000). Twelve such barracks plus a mess hall, toilet-shower-laundry building, and a recreation hall formed each residential block (Figures 3.12 and 3.13) (Burton et al., 2002). As a comparison, staff housing at Amache was of better construction, with each apartment having multiple rooms, closets, and bathrooms (Harvey, 2004).

Four approximately 750 foot deep wells supplied decent-quality domestic water for the site from the Dakota Sandstone and the Cheyenne Sandstone of the Purgatoire Formation (Voegeli and Hershey, 1965). Water from the wells was stored in a concrete reservoir before being pumped up to a water tower at the high, southern end of center where it was fed by gravity to the center's water system (Burton et al., 2002). Treated effluent ran from the sewage treatment plant on the western portion of the main center into Wolf Creek and ultimately into the Arkansas River (Harvey, 2004). Center roads were surfaced with gravel (Burton et al, 2002).

Initially, the most developed portion of Amache was the floodplain agricultural system. Of the center's approximately 10,500 acres, 5,000 were under cultivation prior to the Government obtaining the lands (U.S. Army–Western Defense Command, 1943). Approximately 15,000 Lamar Canal and 127 XY Irrigation Ditch Company water stock shares were purchased to

Figure 3.12. Detailed map of the main portion of Amache Relocation Center. Adapted from Burton et al. (2002, p. 104).

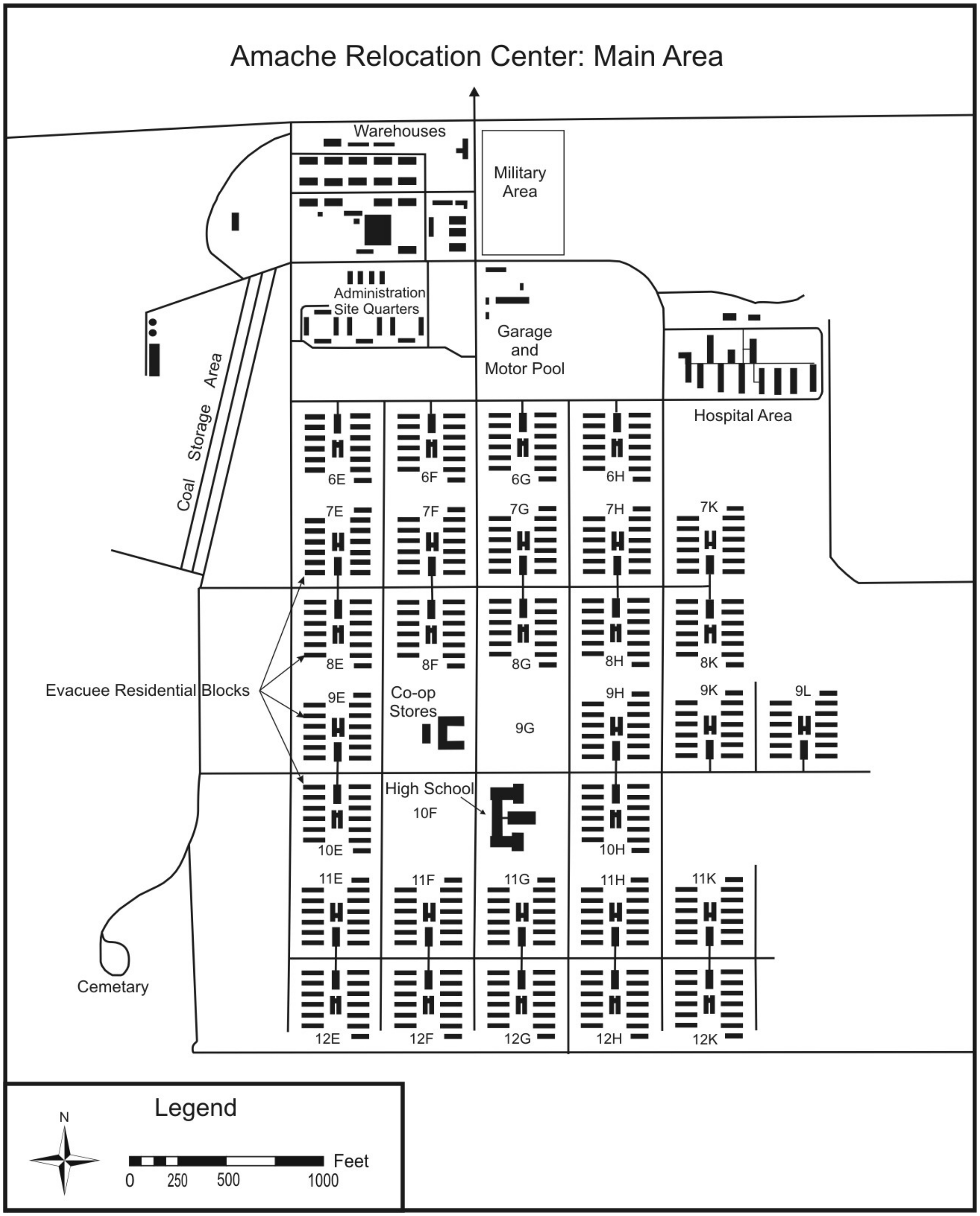


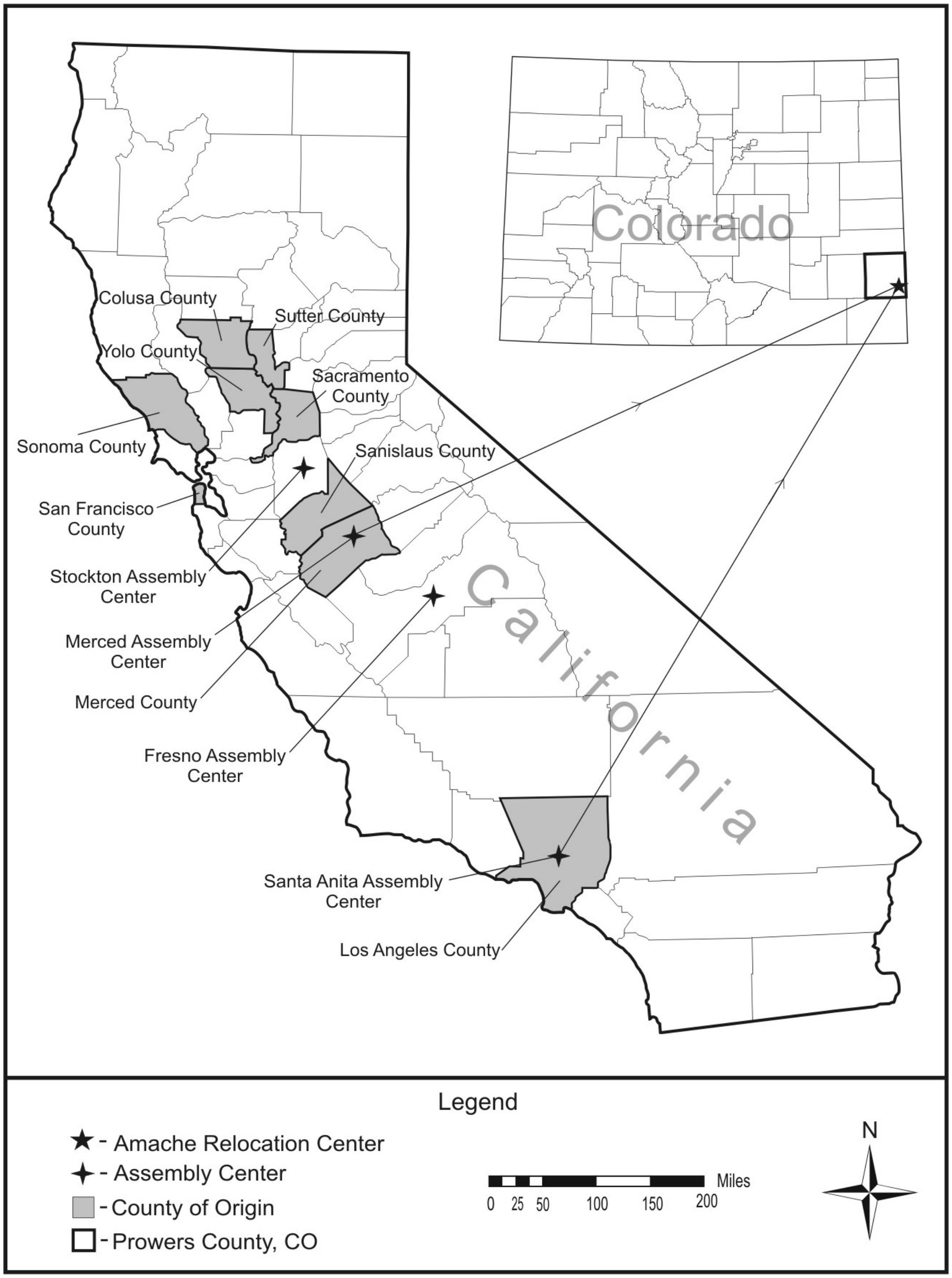
Figure 3.13. Oblique aerial view of Amache Relocation Center from the Water Tower. Joe McClelland photograph, 20 June 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 78, Section B, WRA # 624, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 3: Granada Relocation Center, Amache, Colorado.

irrigate the lands as were shares of water from the Manvel Canal (U.S. Army–Western Defense Command, 1943; Burton et al., 2002). Ultimately, the irrigation water for the center's farms came from the Arkansas River. As noted earlier, these waters had high salinity and medium sodium hazards for irrigation.

Origins of the Evacuees

Nearly all of the Amache Relocation Center's original evacuees came from California via the Merced and Santa Anita, and, to a lesser degree, Fresno and Stockton, assembly centers (U.S. Army–Western Defense Command, 1943) (Figure 3.14). Specifically, most of these individuals were from Los Angeles (3,181), Sonoma (696), Yolo (666), Stanislaus (661), Sacramento (632), Merced (449), Sutter (324), Colusa (174), and San Francisco (113) counties. Another 25 California counties contributed a total of 707 evacuees while Washington and Oregon sent

Figure 3.14. The Western United States origins of Japanese Americans evacuated to Amache in September and October 1942. Data from U.S. Army–Western Defense Command (1943; U.S. War Relocation Authority, 1946).



ten evacuees (U.S. War Relocation Authority, 1946, p. 61-66). Most of those from the Merced Assembly Center were from rural areas while most from the Santa Anita Assembly Center had urban backgrounds (Japanese American National Museum, n.d.). Nearly 59% of all Amache evacuees were from rural backgrounds and approximately 65% of the evacuees were American citizens (i.e., Nisei) (U.S. War Relocation Authority, 1945a; 1946).

All evacuees traveled three to four days by rail from California to reach Amache in southeastern Colorado (U.S. Army–Western Defense Command, 1943; Harvey, 2004). The first to arrive at the center were those from the Merced Assembly Center on 27 August 1942 followed by evacuees from the Santa Anita Assembly Center (U.S. Army–Western Defense Command, 1943). While most of the Santa Anitans had arrived by late September, the last 120 evacuees did not reach Granada until 29 October 1942 (U.S. Army–Western Defense Command, 1943). The maximum capacity of 7,318 made Amache the smallest of the western centers although it was still the 10th largest city in Colorado (Burton et al., 2002).

Interaction of Evacuees with Southeastern Colorado Environments

Physical Environment. "Barren," "stark," and "desolate" are terms frequently used by evacuees as they arrived at the Granada rail stop. The setting was very different from that which they had left in California (Johnson, 1989; Harvey, 2004). One evacuee recalled:

> *When I first saw Granada, I thought 'My God, is this it, or is this just another rest stop.' I had never seen such a desolate place in all my life. There just seemed to be no one living there. But after awhile, I realized there wouldn't be any one there to hassle us like they did back home, so that part of it would be okay.*

Harvey (2004, p. 77)

Another recounted her friend's arrival during a dust storm:

> *For some reason my friend wasn't on the same train. She came a day later, and I knew she was coming, so I met the truck when they unloaded. It was in a dust storm. Oh my gosh, her face was packed with sand and mud. Our mess halls and laundry rooms and bathrooms were not finished yet, so I had just a bucket of water in my barracks to wash her face and arms. She said: "Its no use, I have to go back outside to get to my barracks across the street." You know, being from L.A. and southern California, everything is green and the weather is nice most of the time–that was a shock.*

Harvey (2004, p. 77)

The first trains of evacuees arrived at Amache to find windows not yet in barracks. The combination of ample erodible floodplain sands and silts, semi-arid climate, vegetation removal by center contractors, the hilltop location of the center, and the frequent, high winds made for sand and dust storms. Even with windows in, sand and dust found its way into every crack and crevice in the poorly constructed barracks (Harvey, 2004). Evacuees began planting ryegrass in fall 1942 to try to keep dust down (Staff, 21 November 1942). If and when one could get past the dust, the windy setting was not all bad–kite festivals were held to take advantage of the ample winds (Staff, 8 May 1943).

April-September in 1943, 1944, and 1945 were generally cooler than the 1931-1960 average (Western Regional Climate Center, n.d.). However, hot days with temperatures over 100ºF forced evacuees to splash water on brick or concrete floors to keep the barracks cool. With no tall, native vegetation nearby, trees were planted to shade the barracks (Harvey, 2004, p. 140) (Figure 3.15). Each mess hall received extra quantities of` ice daily during heat waves (Staff, 24 May 1944). Residents would also sneak out of the center to swim and fish (Harvey, 2004).

Similar to the 1931-1960 pattern (Western Regional Climate Center, n.d.), winters were cold and windy. Snow occurring in mid-October 1942 was the first many of Amache's residents had ever experienced. Temperatures dipped to -22ºF in January 1943. The hillside location also proved to be exposed to cold, north winds. Residents kept warm with Navy surplus wool coats and coal stoves in barracks. Cold winters prompted Amache schools to drop the dress code that had forced girls to wear dresses (Harvey, 2004). The brick floors of the barracks that were too hot in the summer could cause frostbite in the winter. Residents were encouraged to cover the floors and fill all gaps in barrack walls (Staff, 28 October 1942). However, the cold also brought opportunities to the center's residents. Several ice skating rinks were constructed within the residential area (Staff, 21 January 1943; 19 January 1944).

Despite the sloping nature of the main center and the well-drained soils of the site, late winter snowmelt and heavy spring rains turned the center's gravel road network into muddy quagmires (Harvey, 2004). Engineering crews graded blocks so water drained away from barracks and mess halls (Staff, 7 November 1942). Despite these preparations, thunderstorms caused much damage to the center on at least two occasions (Staff, 10 July 1943; 27 June 1945).

Agriculture. The goals of the Amache agricultural program were to feed Amache evacuees and those of other centers, and to provide employment for evacuees (U.S. War Relocation Authority, 1945a). The program was ideally suited to accomplish these as the center's farmlands were on the fertile soils of the Arkansas River floodplain (Figure 3.16), the infrastructure for agriculture (e.g., irrigation ditches, fields, and various buildings) was already in place prior to World War II, and many of the evacuee farmers had previous farming experience (Harvey, 2004).

The Amache agricultural program consisted of crops grown for direct human consumption (Figure 3.17), as well as beef cattle, hogs, and chickens, and various feed crops for livestock. Over 510 acres of farmland were planted to produce crops in 1943 and again in 1944. A total of 33 different types of produce were grown on center lands during the two years of production,

Figure 3.15. Snow-covered trees and lawn planted in Amache for summertime shade and landscaping. Joe McClelland photograph, December 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 9, Section A, WRA # G-405, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 3: Granada Relocation Center, Amache, Colorado.

resulting in an average of 3,025,831 pounds of produce each year (Tables 3.1 and 3.2). Potatoes, dry onions, watermelons, cabbage, carrots, tomatoes, daikon, and turnips were the big producers. Produce storage occurred on a grand scale. "Trench silos" were used as a low cost system for the storage of corn and celery (Burton et al., 2002; U.S. War Relocation Authority, 1945a). Root cellars, located on the west side of the center, were also used for food storage (Burton et al., 2002). Thousands of gallons of beets, cucumbers, pickles, and tomatoes were canned in 1943 and 1944 (U.S. War Relocation Authority, 1945a). An average of 420,203 pounds of produce was also shipped to other relocation centers in 1943, 1944, and 1945 (U.S. War Relocation Authority, 1945a) (Table 3.2).

Feed crops required approximately 1,960 acres each of the years of two years of operation. Another 2,800 acres were pasture with 2,300 of those located along the Arkansas River. An average of 6,329,184 pounds of feed crops (Table 3.1) were raised to feed the livestock (Table 3.2). Approximately 25% of this total was sold to the public (U.S. War Relocation Authority, 1945a). Approximately 2,400 acres of the center, primarily located northwest of Amache,

Figure 3.16. Henry Inouye, evacuee supervisor of the Amache farms, in camp onion field. Joe McClelland photograph, August 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 7, Section A, WRA # B-900, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 3: Granada Relocation Center, Amache, Colorado.

were leased back to local farmers (Burton et al., 2002). An average of 216,440 pounds of beef and 196,048 pounds of pork were raised in 1943, 1944, and 1945 (Table 3.3). A total of 285,230 pounds of beef and pork were sold as surplus and an additional 10,550 pounds of beef was shipped to other relocation centers. An additional average of 29,960 pounds of chicken were raised in 1943 and 1944 as were an average of 10,189 dozen eggs. Only the dairy operation was a

Figure 3.17. Agricultural lands of the Amache Relocation Center. Adapted from Burton et al (2002).

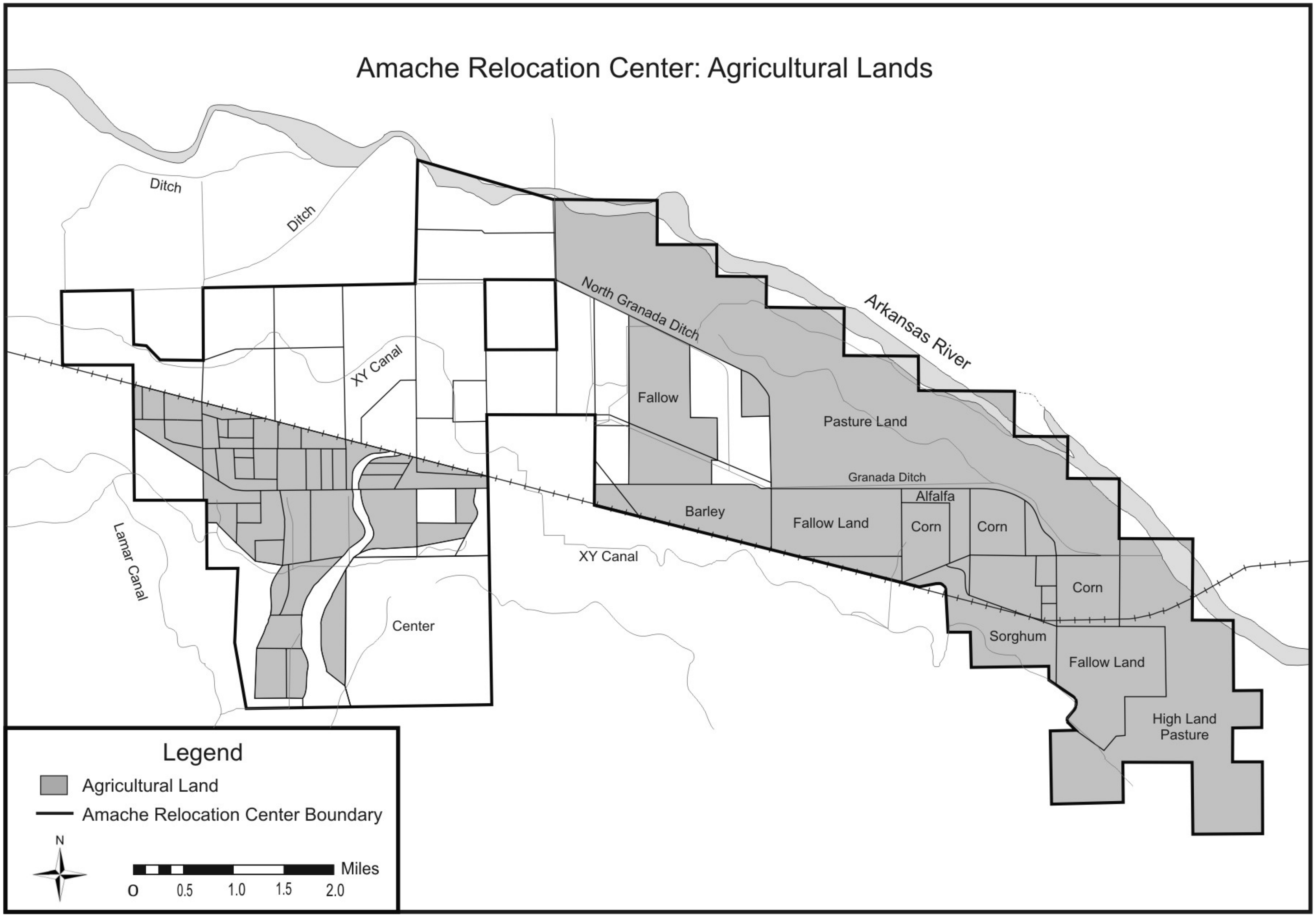


Table 3.1. Produce, feed crops, and livestock raised at the Amache Relocation Center in 1943 and 1944. Data from U.S. War Relocation Authority (1945a, Tables 1, 2 and 3).

Produce	**Produce** (continued)	**Feed Crops**	**Livestock**
beans (dry)	onions (dry)	alfalfa	beef cattle
beans (snap)	onions (green)	barley	chickens
beets	peas	corn	hogs
cabbage	peppers	rye	
cantaloupe	popcorn	sorghum	
carrots	potatoes	wheat	
casaba	pumpkins		
celery	radishes		
chongi	shiro uri		
corn	spinach		
cucumbers	squash		
daikon	sweet potatoes		
garlic	Swiss chard		
habucha	tomatoes		
honeydew melons	turnips		
lettuce	watermelons		
nappa			

failure when it ceased in February 1943 after many of the cows tested positively for Bangs disease (or 'Brucellosis," an infection that causes abortion or premature calving) (U.S. War Relocation Authority, 1945a).

The agricultural successes at Amache involved several innovations including the ingenuity of the farm blacksmith shop workers who developed a variety of machinery and parts not otherwise available during World War II. The farm program used "hot beds" to raise a diversity of crops including cabbage, celery, peppers, and tomatoes (Staff, 17 March 1943; Staff, 19 May 1943). "Double bedding" was used to prevent irrigation-induced, excess soaking (U.S. War Relocation Authority, 1945a).

Despite the successes of the program, several problems plagued agriculture at Amache. Early on, the program lacked machinery, insecticides, properly functioning irrigation systems, adequate animal pens and fencing, feed, and processing facilities. Equipment was procured locally and from the Tule Lake Relocation Center but most was made in the farm blacksmith shops by evacuees. Evacuees also lacked experience in raising crops in the severe climate of the region (U.S. War Relocation Authority, 1945a). Low precipitation in 1943 led to less silage being stored in trench silos than desirable so 30 head of cattle were shipped off to the Heart Mountain Relocation Center (Staff, 12 February 1944). Relocation of farm supervisors and workers also hampered the cattle operation (Staff, 21 June 1944). Labor was often in short supply as evacuees could make more money outside the center than on the inside. Amache High School vocational agriculture students helped fill the void by raising alfalfa, feed corn, corn, potatoes, dried beans, and tomatoes on 500 acres of previously uncleared land (Staff, 17 November 1943; (U.S. War Relocation Authority, 1945a).

Table 3.2. Produce and feed crops raised at Amache Relocation Center, 1942-1945. Frm product values based on calculations in U.S. War Relocation Authority (1945a).

	1942	**1943**	**1944**	**1945**	***Total***
Produce					
Total Acres Harvested	0	531	513	0	*1,044*
Total Production (lbs)	0	2,732,398	3,318,263	0	*6,050,661*
Consumed at Center (lbs)	0	2,229,413	2,840,138	0	*5,069,551*
Shipped to Centers (lbs)	0	502,985	478,125	279,500	*1,260,610*
Sold on Open Market (lbs)	0	0	0	20,000	*20,000*
Total Market Value ($)	0	$81,972	$99,548	0	*$181,520*
Feed Crops					
Total Acres Harvested	0	1,683	2,239	0	*3,922*
Total Production (lbs)	0	8,133,700	10,853,852	0	*18,987,552*
Fed at Center (lbs)	0	8,133,700	9,347,406	0	*17,481,106*
Market Value ($)	0	?	?	0	*?*
Sold on Open Market (lbs)	0	0	1,506,446	1,056,280	*2,582,726*
Market Value ($)	0	0	$10,086	$6,580	*$16,666*

Table 3.3. Livestock raised at Amache Relocation Center, 1942-1945. Farm product values based on calculations in U.S. War Relocation Authority (1945a).

	1942	**1943**	**1944**	**1945**	***Total***
Beef Cattle					
Total Butchered	0	202	951	412	*1,565*
Dressed Weight (lbs)	0	87,881	370,890	190,549	*649,320*
Market Value ($)	0	$18,455	$77,887	$40,015	*$136,357*
Total Transferred/Sold	0	17	30	331	*368*
Dressed Weight (lbs)	0	7,568	13,356	245,685	*266,609*
Market Value ($)	0	$1,589	$2,805	$25,511	*$29,905*
Chickens					
Total Number Butchered	174	11,927	9,449	0	*21,550*
Dressed Weight (lbs)	0	34,881	25,039	0	*59,920*
Market Value ($)	0	$9,767	$7,011	0	*$16,778*
Eggs (dozen)	125	6,392	13,860	0	*20,377*
Market Value ($)	$29	$1,470	$3,188	0	*$4,687*
Dairy Cattle					
Total Produced (gallons)	15,915	14,869	0	0	*30,784*
Market Value ($)	$955	$892	0	0	*$1,847*
Hogs					
Total Butchered	4	987	1,933	861	*3,785*
Dressed Weight (lbs)	628	169,764	349,873	185,115	*705,380*
Market Value ($)	$113	$30,558	$62,977	$33,321	*$126,969*
Total Sold	0	0	0	147	*147*
Dressed Weight (lbs)	0	0	0	39,545	*39,545*
Market Value ($)	0	0	0	$5,647	*$5,647*

Business and Industry. Amache included a variety of community cooperative businesses including clothing and shoe stores, canteen, newspaper store, shoe repair store, barber shop, beauty parlor, and clothing cleaning and pressing service. Individual businesses were not allowed within the center, presumably because such establishments might retard relocation and disrupt the uniform wages of the center (Matsumoto, 2000).

The Silk Screen Print Shop operated from May 1943 to May 1945 producing multi-color training aids (e.g., posters, charts, and pamphlet covers) for the U.S. Navy and the WRA. During its period of operation, the shop produced over 250,000 posters for the U.S. Navy as well as another 35,000 posters, charts, and pamphlet covers for various offices in the center. In addition to providing a money-saving alternative for such items used by the U.S. Navy and the WRA, the Silk Screen Shop provided valuable vocational training for at least 90 workers who subsequently relocated to use their new-found skills (U.S. War Relocation Authority, 1945b).

Landscaping and Gardening. Landscaping and gardening was done to add beauty to the bleak environment, prevent dust, provide shade, and occupy evacuees with meaningful and enjoyable work. Few lawns were planted in the residential area, apparently due to a lack of irrigation water (Harvey, 2004). However, Amache schoolchildren planted rye and transplanted natural vegetation to areas around the elementary school in an effort to minimize dust and blowing sand, and to beautify the area (Dumas and Walther, 1944). Evacuees created gardens and planted numerous trees and shrubs in the residential blocks for beautification and shade (Figure 3.18). Trees and shrubs came from the Arkansas River floodplain (Staff, 15 April 1944; Gesensway and Roseman, 1987). Residents planted small "victory gardens" next to the barracks where they grew such crops as nappa, habucha (for tea), daikon, mung beans (for sprouts), and tomatoes (Harvey, 2004). While a plan was in the works to provide irrigation water for the residential blocks as early as July 1943, it is unclear whether it was ever completed (Staff, 3 July 1943). No evidence of irrigation canals were seen in the main portion of the center during my April 2003 visit, thus I assume that evacuees hand watered gardens and trees with center well water.

Education. Education at Amache occurred at the nursery, K-12, and adult levels. Two-thirds of Amache's inhabitants were of K-12 school age (Eberhart, 1986). The overall goal of the K-12 education program was to provide an education program comparable to those found outside the centers while shaping students into democratically responsible adults. Teachers and administrators were EuroAmerican while assistant teachers were Japanese Americans. The school program initially operated out of barracks with the intention of having elementary, middle, and high schools built. The total bill for the three buildings was to be $308,498 with the high school set to cost $136,886. Because of public outcry over the construction costs and allegations of "pampering" evacuees, WRA chief Dillon Myers halted construction of the elementary and middle schools while allowing the high school to be completed. Elementary and middle school students continued to use the barracks of Block 8 for the duration of the center's existence (Harvey, 2004).

Figure 3.18. Evacuees in one of Amache's barracks gardens. Charles E. Mace photograph, July 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 9, Section A, WRA #H-10, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 3: Granada Relocation Center, Amache, Colorado.

The school curriculum was comparable to other Colorado schools and included reading, English, mathematics, and history in the lower grades and English, science, mathematics, history, civics, art, industrial arts, and physical education at the higher levels. Vocational opportunities for high school-age students included agriculture, shorthand, auto mechanics, and advanced homemaking. At peak enrollment, the nursery, kindergarten, elementary, junior high, and high school served 1,850 students. Adult education opportunities included typing, shorthand, English, dressmaking, drafting, sewing, flower-making, flower-arranging, algebra, piano, woodcarving, and art (Johnson, 1989; Harvey, 2004). Over 1,000 adults were enrolled in adult education courses in January 1944 (Matsumoto, 2000).

Recreation. Amache had a wide variety of recreational programs for young and old. An examination of the *Granada Pioneer* reveals frequent dances, movies, concerts, talent shows, sports contests, and a community library. Center Cub Scout, Boy Scout, Camp Fire Girl, Future Farmers of America, YMCA and YWCA were attractive because they offered members the chance to go outside the center (Harvey, 2004).

Sports programs were a major part of life at Amache because, as at other centers, sports were a diversion as well as a way to nurture community, culture, competitiveness, and pride (Regalado, 1992). The primary sports at Amache were football, basketball, baseball, and softball but facilities were initially lacking. However, nearby Granada High School made their gymnasium available to Amache basketball teams until a center gymnasium/auditorium was completed in 1943. Because of the initial availability of the Granada gym, Amache was the envy of the other centers. Fierce rivalries developed within the center between teams representing various California communities and with schools outside the center including Lamar, Las Animas, La Junta and even Denver. These contests caused some animosity, especially when competing against smaller towns such as Wiley (Regalado, 1992; Harvey, 2004).

Culture and Art. The culture of Amache was purposely American. This was seen in language, dress, housing, meals, and business interactions. However, Buddhism had a strong following in center and Japanese language courses were offered beginning in June 1943 (Harvey, 2004). The Buddhist O-Bon Festival, a three day and three night event, was held at Amache. One part of the O-Bon, the Bon Odori (or "Dance of Rejoicing" in honor of the dead) attracted more than 1,000 dancers in summer 1943 (Eaton, 1952). Traditional Japanese sports such as sumo wrestling also occurred within the confines of Amache (Harvey, 2004). The Japanese art of bon-kei, involving the creation of miniature sand landscapes, was initiated by Issei artist Mrs. Ninomiya after her arrival at the center in a sandstorm (Figure 3.19). Other art included calligraphy, wood carving, *ikebana* (i.e., flower arrangement), and silk screening. Arts and crafts festivals were held at the center attracting large crowds (Eaton, 1952; Johnson, 1989).

Faith and Spirituality. Various editions of the *Granada Pioneer* as well as Johnson (1989) show that Buddhists, Catholics, Holiness, Seicho No Iye, Seventh Day Adventists, Baptists, Methodists, and Presbyterians practiced their faiths in Amache. Apparently, services were held in recreation halls that had been converted to churches.

Health. The Amache hospital was a 17 building, 150 bed facility with X-ray equipment, surgery facilities, children's ward, isolation ward, and a morgue. A pharmacy as well as a dental and an optometry clinic rounded out the health care facility. A EuroAmerican doctor headed the medical staff and eight EuroAmerican nurses led the nursing staff. The remainder of medical doctors, dentists, optometrist, nurses, technicians, and aides were evacuees. Special funds were established by evacuees to financially support and retain the evacuee medical personnel who, like other skilled center workers, were paid $19/month (Harvey, 2004).

The greatest health crisis encountered during Amache's existence occurred in September 1943 when infantile paralysis associated with polio was discovered in southeastern Colorado. Amache's staff worried that residents were more prone to the disease because of crowded living conditions and sanitation issues associated with mess halls, laundries and latrines. Due to the fear of further outbreaks, the center went under quarantine until late October of that year. By that time four children had died in the center and several others were debilitated (Harvey, 2004).

Figure 3.19. Miniature landscapes (i.e., *bon kei*) as a Japanese art form at Amache. Pat Coffey photograph, unknown date. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 9, Section A, WRA # E-763, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 3: Granada Relocation Center, Amache, Colorado.

Government. Government within Amache consisted of a Community Council and a Block Manager's Assembly. While evacuees wanted an evacuee-led, self governing body, the WRA wanted the council to serve as advisors, liaisons, and enforcers of existing government rules. Ultimately, the council operated within the guidelines of the WRA thus primarily acting as an intermediary body between the evacuees and Center Director James Lindley. Initially, *Issei* (i.e., first generation Japanese Americans born in Japan) were not allowed to serve on the Community Council but that changed by summer 1943 because of the higher rate of relocation for the *Nisei* (i.e., second generation Japanese Americans born in the U.S.). The Block Managers Assembly was composed primarily of Issei and *Kibei* (i.e., Nisei who returned to Japan for educational opportunities). This group ultimately had more power than the Community Council because they came into the center as respected leaders of their former communities, and they worked daily with the administration to solve evacuee problems (Harvey, 2004).

Community. Amache was one of the more peaceful centers likely because it was more removed from the hostile, anti-Japanese environments of the West Coast than many other centers

(Weglyn, 1996; Matsumoto, 2000). The ability to obtain shopping passes for nearby Granada may have also contributed to the peace of the center (Hosokawa, 2005). Perhaps as a result of these factors, only one Amachean failed to register and only ten answered "no" to questions 27 and 28 on the infamous "loyalty questionnaire" (Appendix C) administered in early 1943. Further, only one evacuee requested repatriation to Japan (U.S. War Relocation Authority, 1946).

However, unrest did occur, partly as the result of center conditions and partly because of the makeup of the evacuee population. According to Project Director James Lindley, the rushed opening of the center prior to its completion upset evacuees (Harvey, 2004). Other problems occurred because of the large number of individuals from varying backgrounds (especially urban vs. rural) who were mixed together in an unpleasant setting (Matsumoto, 2000). Most of the rural population came from the Merced Assembly Center while the urbanites were primarily from the Santa Anita Assembly Center. Much of the conflict also stemmed from the fact that the Mercedians had arrived first and had taken all of the choice housing and jobs. The rural-urban divide lessened but remained throughout the history of the center (Harvey, 2004). Low pay ($12-19/month depending on the skill level) for hard work didn't help matters within the center (Matsumoto, 2000). The tendency for some employees of the center farm to take longer than normal breaks and to pilfer desirable crops for home use could be interpreted as a form of resistance to the work and pay conditions (Matsumoto, 2000).

Many sources discuss the breakdown of the traditional family structure in the relocation centers. Amache was no different with the declining importance of the Issei male as the family leader and the loss of the cohesive family because of mess hall dining and cramped conditions in barracks apartments (Matsumoto, 2000; Harvey, 2004). Mess hall dining typically resulted in kids dining with other kids, and adults eating with adults, all in a loud, crowded setting. The cramped conditions of apartments were not conducive to kids remaining inside the apartment during much of the day.

Interaction with Surrounding Areas

The Outside World. Amache evacuees had ample interaction with people outside the center throughout much of the four years of the center's existence. Amache residents attended to business, worked, attended sporting events, left for college, recreated, and joined the military outside the center. In turn, university recruiters, church members, teachers and students, service organizations, soldiers, and interested area residents visited the center (see various issues of the *Granada Pioneer*).

Local businesses in, and farms around, Granada, Lamar, Wiley and Holly, prospered due to the presence of the Japanese Americans. Businesses potentially had >7,000 new customers in the area. Shopping passes were issued to Granada and Lamar, especially on weekends. Granada didn't have a lot to offer shoppers during World War II–a pool hall, café, gas station, drug store and a bank plus a Japanese American-owned fish and poultry market–but it was conveniently close (Harvey, 2004). Overall, interactions between Amacheans and Granada residents seem to have gone well. The merchants of Lamar, especially those north of the railroad tracks, were less friendly (Harvey, 2004). Lamar business owners complained about evacuees speaking Japanese in their stores (Staff, 21 January 1943). The Lamar City Council even passed an ordinance making it illegal to sell alcohol to any person of Japanese ancestry (Staff, 31 October 1942).

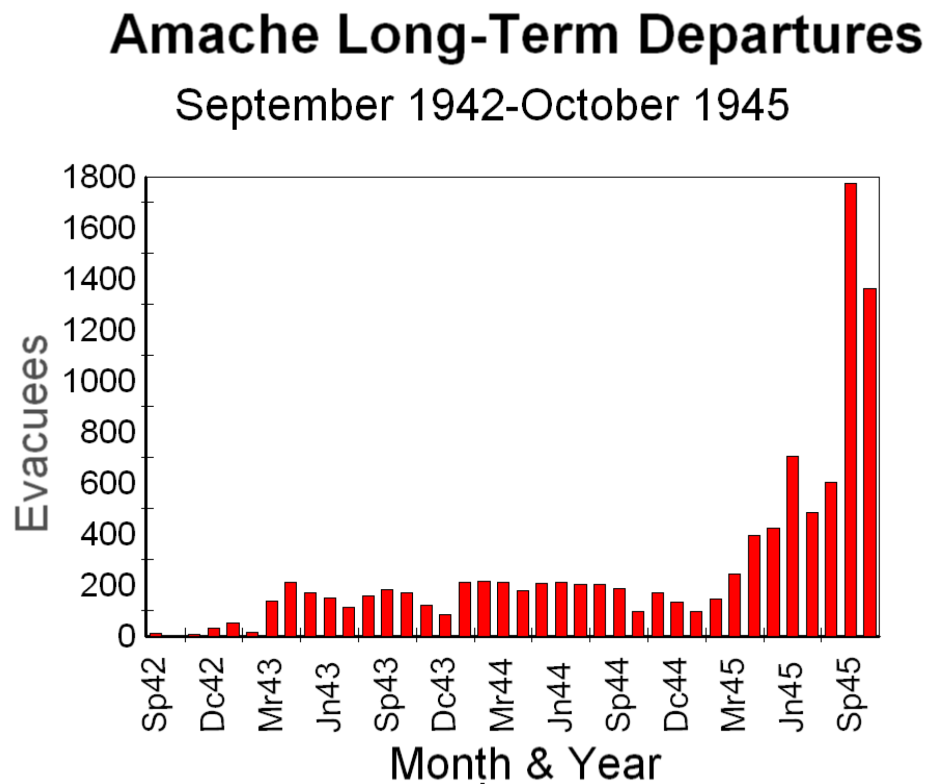
In addition to shopping trips, evacuees could leave the center on short-term, seasonal, and indefinite leaves. Short-term leaves ranged from several days to a few weeks and were typically for personal business or medical issues. Seasonal leaves were granted to evacuees for seasonal agricultural employment. Indefinite leaves were designed for evacuees who were to permanently depart the centers for relocation to the "outside world," join the armed forces, be interned in a Department of Justice Internment Center, be committed to an institution, or be repatriated to Japan (U.S. War Relocation Authority, 1946).

Amache's ready labor supply was a boon for farmers in the region hit hard by the loss of men to the armed forces (Harvey, 2004). Amacheans obtained seasonal and indefinite leaves to work on labor-short farms in Colorado. Sugar beet farmers probably benefitted most from evacuee labor. With the onset of World War II, the U.S. lost the Philippine and Java sources of much of its imported sugar. Disaccharide, formerly made into sugar, was also converted to industrial alcohol to make synthetic rubber. The U.S. government responded by instituting a sugar rationing policy and increasing sugar beet acreage. Growers responded by increasing sugar beet acreage by 25%, with much of this acreage in the western U.S. However, labor was short in many of these areas because of the war. During 1942-1944, 33,000 Japanese Americans helped harvest approximately 20% of the sugar beets grown in the Intermountain West (Fiset, 1999).

Relocation from the center was encouraged early on but was generally slow until March 1943 (Figure 3.20). From then until the center closed in October 1945, only three months had less than 100 evacuee relocations. Fifty-one evacuees departed in 1942, 1,568 in 1943, 2,217 in 1944, and 6,230 in 1945 (U.S. War Relocation Authority, 1946). Amacheans ultimately relocated to 40 states and the District of Columbia (Figure 3.21). Private firms advertised in the *Granada Pioneer* for positions in Minneapolis, Chicago, Detroit, Kansas City. Churches and hostels often sponsored the relocation (see various issues of *Granada Pioneer*). Many of the evacuees went to work on farms (see above) while others left for employment opportunities in the cities. Chicago and Denver were the most popular urban locations. Over 1,100 Amacheans relocated to Denver (Harvey, 2004). Colleges were another draw to life outside the center. By August 1943, over 90 young Nisei from Amache were enrolled in colleges throughout the U.S. (Staff, 25 August 1943). Experiences of the evacuees in the outside world were mixed. Many encountered racism and hatred in addition to difficulties landing jobs and housing while others had relatively few problems. Perhaps because of the mixed reception outside and the burdens of paperwork and separation from family, only 4,000 of the 10,331 evacuees held at one time or another at Amache requested indefinite leaves by April 1945 (Harvey, 2004).

More than 490 Amacheans joined or were drafted into the military (U.S. War Relocation Authority, 1946, p. 128). Many of the male volunteers and draftees joined the all-Nisei 442nd

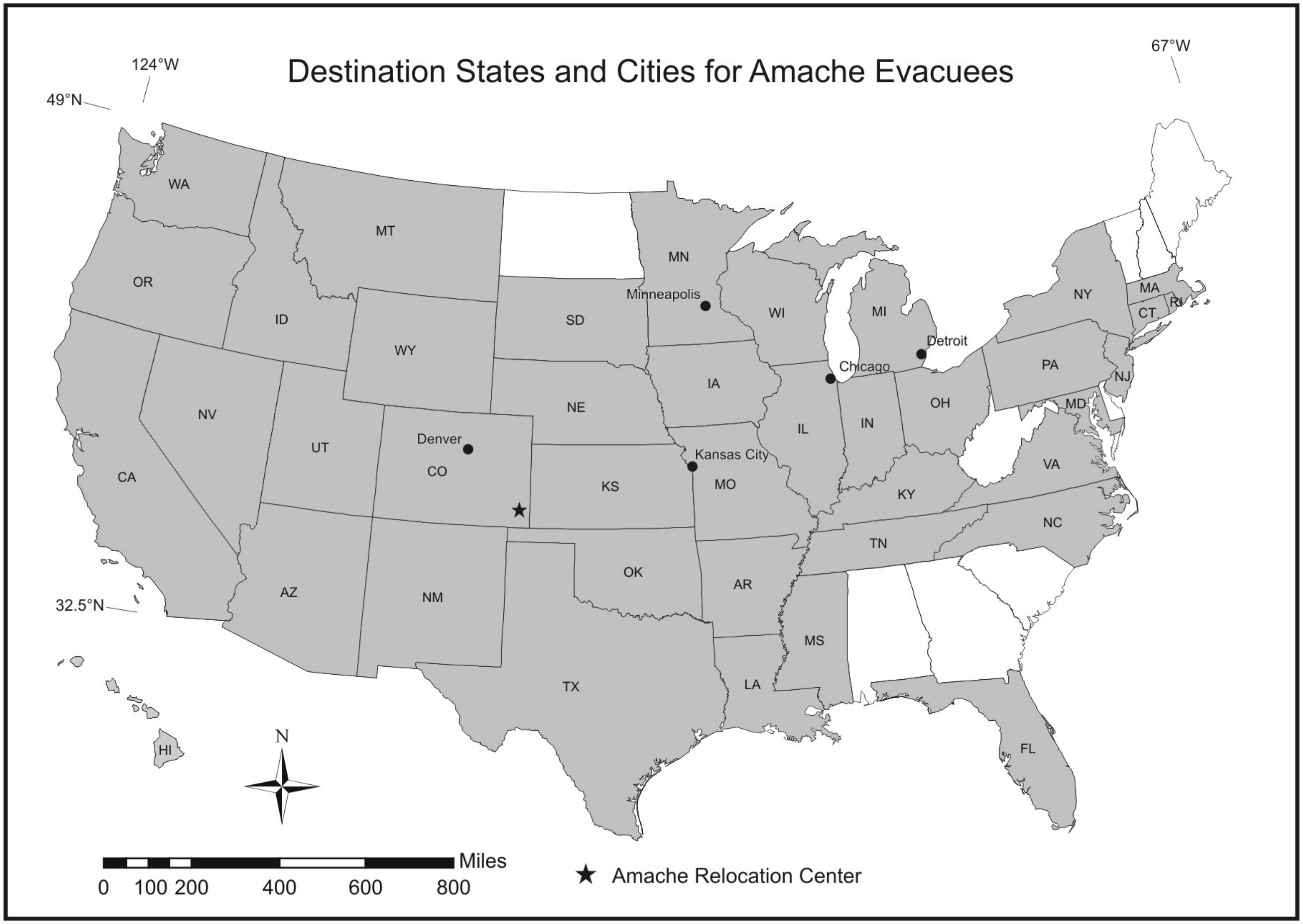
Figure 3.20. Indefinite leaves, Amache Relocation Center, Colorado, September 1942-October 1945. Data from U.S. War Relocation Authority (1946, p. 40).



Regimental combat team, which included the 442nd infantry, the 522nd artillery battalion, and the 232nd engineers company. The 442nd earned the widespread respect of the military leadership for its bravery and fierce fighting in the European theater. The combat team's motto "go for broke" epitomized the attitude of many of the Nisei soldiers (Harvey, 2004). Nearly 20% (99) of the 494 Amacheans fighting for the 442nd became casualties (U.S. War Relocation Authority, 1946).

Other Relocation Centers. Amache interacted with the other nine relocation centers through the transfers of evacuees, the exchange of goods, and baseball. A total of 215 Amacheans were transferred to Tule Lake because they or other members of their family answered "no" to questions 27 and 28 on the "loyalty questionnaire" (U.S. War Relocation Authority, 1946) (Appendix C). One Amachean was considered sufficiently dangerous to be sent to the Leupp, Arizona Isolation Center (U.S. War Relocation Authority, 1946). Amache, in turn, received 1,050 Tule Lake evacuees who were deemed "loyal" by their responses to the questionnaire (U.S. War Relocation Authority, 1946). These evacuees, in general, were angry about another relocation thus were generally negative influences on the operation and daily life at Amache. Matters were only made worse when the center went under quarantine for a polio epidemic soon after many of the Tule Lake evacuees arrived.   Additionally, 530 Jerome evacuees were

Figure 3.21. Initial state destinations of Amache indefinite leaves, September 1942-October 1945. Data from various editions of the *Granada Pioneer*.



transferred to Amache when that center closed in summer 1944. Other than leading to short-term over-crowded conditions, the Jerome residents didn't have the negative impact of the Tule Lake evacuees (Harvey, 2004).

Amache and other centers exchanged farm products whenever they had surpluses. Amache shipped spinach, cucumbers, Swiss chard, beets, potatoes, cabbage, onions, turnips, and beef cattle to various other centers (U.S. War Relocation Authority, 1945a). Conversely, the Gila River Relocation Center sent tomato plants, tomatoes, green onions, beets, cabbage, daikon, carrots, and turnips to Amache (Staff, 4 August 1943). Based on the number of mentions in the *Granada Pioneer*, it appears that Amache shipped out more agricultural products than it received from other centers.

Amache baseball teams traveled to Poston and Gila River in summer 1944. Amache lost all eight of its games to Gila River while winning five of eight games at Poston (Staff, 30 August 1944; 13 September 1944).

Closing Amache and Another Relocation

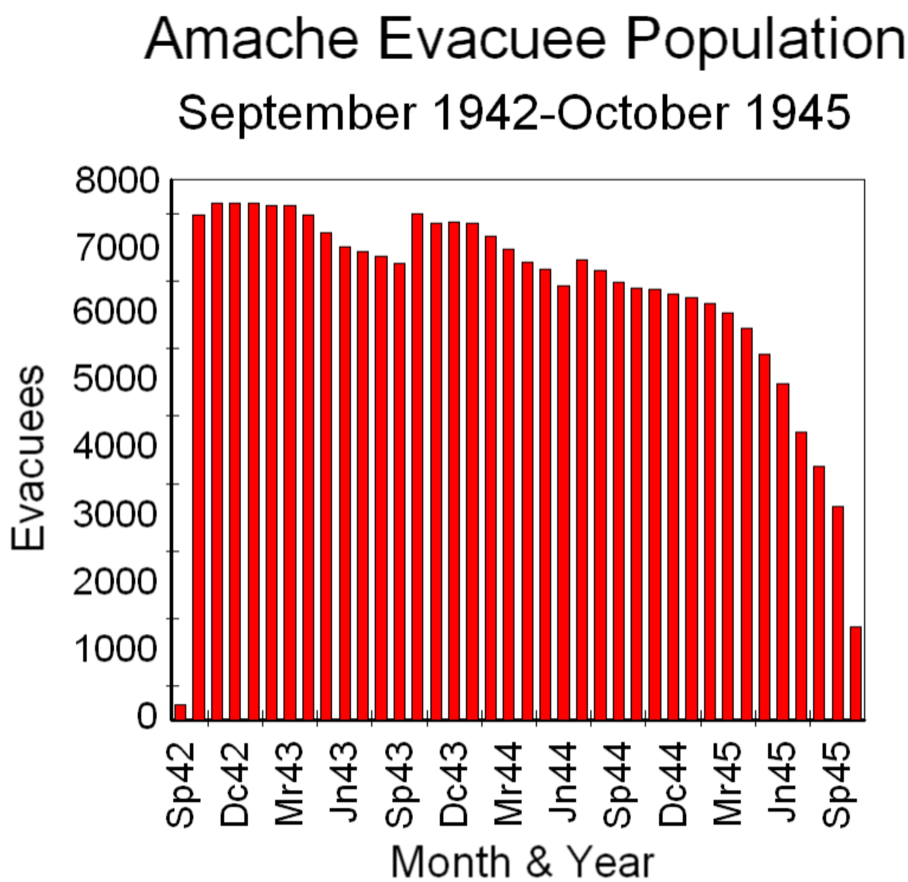
Public Proclamation #21 on 17 December 1944 ended the West Coast exclusion order that had been in effect since 1942. As of 2 January 1944, evacuees could begin moving back to Military Exclusion Area 1. All relocation centers were be closed by the end of 1945.

The first Amache family left for the West Coast soon after 2 January (Staff, 3 January 1945. However, concerns about racial discrimination, housing, and employment outside the center hampered the departure of the evacuees back to the West Coast as well as to other points more inland. The 1 June 1945 evacuee population was 4,980, and by VJ day on 14 August, more than 3,000 evacuees still remained in Amache (Figure 3.22) (U.S. War Relocation Authority, 1946). Nearly 130 evacuees remained until Amache's final day, 15 October 1945 (Harvey, 2004).

Impacts of Amache on Today's Southeastern Colorado Landscape

Evacuee Dispersion. The 1950 census showed that 58 Japanese Americans were living in Prowers County as compared to 15 in 1940. Amache is somewhat unique among the eight western U.S. relocation centers in that approximately ten Japanese-American families remained in the county following their release from the center in 1945 where they farmed onions and cantaloupes. Only one member of one of those families was still in the area as of April 2003 (L. McMillan, oral communication, 11 April 2003). Interestingly, the number of Japanese Americans in nearby Bent and Otero counties, Colorado declined between 1940 and 1950. Few, if any, Japanese Americans lived in adjacent Kiowa or Baca counties, Colorado, or in Greeley, Hamilton, or Stanton counties, Kansas before or after Amache (U.S. Department of Commerce–Bureau of the Census, 1952a; 1952b) (Figure 3.10).

Figure 3.22. Resident population, including evacuees on short-term and seasonal leave, Amache Relocation Center, Colorado, September 1942-October 1945. Data from U.S. War Relocation Authority (1946, p. 18).



Land Dispersion. The federal government sold the land to various private parties following the closure of the center. Apparently, the American Crystal Sugar Company did not want back its former lands (L. McMillan, oral communication, 11 April 2003). The City of Granada purchased the upland portion of the center (including the domestic water wells) for $2,500 (Burton et al., 2002). The Granada mayor at the time lost his re-election bid because of this seemingly outlandish purchase (L. McMillan, oral communication, 11 April 2003)!

Infrastructure Dispersion. The U.S. Government began selling off farm equipment in April 1945 (Staff, 21 April 1945). However, the >560 buildings on the main site were not dismantled and sold until 1946 and 1947 (Burton et al., 2002). The War Assets Administration initially targeted government agencies, small businesses, and non-profit organizations for buildings (Harvey, 2004). Otero School District 11 (including the city of La Junta) was the largest single Amache property purchaser buying the auditorium/gymnasium, 32 barracks, three mess halls, three recreation centers, and three bathroom/laundry rooms. These buildings were used to build a new community college and two new elementary schools. Nearby public school districts (including

Bristol, Bent County, Hartman, Holly and Amache), towns (Lamar, Holly and Amache), and counties (Prowers and Bent) purchased various Amache buildings. The University of Denver purchased over ten buildings and private parties also bought Amache structures (Holsinger, 1964; Harvey, 2004). The City of Rangely (in Northwestern Colorado) purchased the water pumps and pipes of the culinary water pumping and distribution system (L. McMillan, oral communication, 11 April 2003). Perhaps the most noticeable reminders of Amache are these structures scattered throughout the state.

Despite these purchases, the City of Granada's architecture seems little affected by the Amache buildings. I was not able to positively identify any old barracks used as houses or outbuildings in Amache. This is likely the result of the original construction style of the barracks–i.e., walls attached to concrete foundations and bricks floor rather than walls attached to floor joists–that made it impossible to move a barracks in one piece. A possible former center barracks was identified just west of the railroad depot in Holly. The better-built staff residences are present at the Granada School, the City of Granada Shop, and in Bristol (Figure 3.23). A former center warehouse is also present at the Granada School. Former barracks floor bricks were used to

Figure 3.23. Former Amache Relocation Center staff housing in nearby Bristol. Author photograph, April 2003.

Figure 3.24. Former grocery store in Granada, Colorado constructed of Amache Relocation Center evacuee barracks bricks. Author photograph, April 2003.

construct the Amache grocery store (Figure 3.24) and the Campo school gymnasium (approximately 80 miles south of Granada). Lilacs and iris from center gardens were excavated and transplanted throughout Granada (L. McMillan, oral communication, 11 April 2003).

Remains of Amache. Burton et al. (2002) describe in detail the nature of Amache as of about 2000. Additionally, I visited the site in April 2003. The most prominent structures remaining are the concrete barracks foundations (Figure 3.25) and the various mess hall and latrine concrete slabs (Figure 3.26). Brick fragments, coal piles, lumber, iron and glass litter the site from the dismantling that began in 1945. Most of the concrete slabs were broken by individuals salvaging iron water and sewer pipes. Slopewash-derived sediments partially cover foundations and slabs. The effects of burrowing rodents are especially evident on formerly level surfaces like the baseball field, and grazing cattle have also played a large role in post-center disturbance. Invasive species including plains prickly pear cactus (*Opuntia polyacantha*) are now common on the site.

Previously unreported barracks and mess hall gardens are present at several locations on the center including blocks 6H, 9H, 9K, 12F, and 12 K. These gardens are often bordered by rocks or cinder blocks, and sometimes include ponds (Figure 3.27). A more systematic investigation of the former residential blocks would assuredly reveal additional garden and pond landscaping.

Figure 3.25. Concrete barracks foundations, Amache Relocation Center. Author photograph, April 2003.

Figure 3.26. Concrete slab remaining from mess hall/latrine/shower buildings, Amache Relocation Center. Author photograph, April 2003.

Figure 3.27. Remains of a mess hall garden pool, Block 12-F, Amache Relocation Center. Yellow field notebook (8 inch by 5 inch) for scale. Author photograph, April 2003.

Figure 3.28. Remaining Chinese elm trees planted for shade within residential Block 7G, Amache Relocation Center. Author photograph, April 2003.

Numerous Chinese elm trees planted for shade and aesthetics are present but are in declining health, perhaps due to old age, disease, and a lack of water. The elms grow in rows between the barracks (Figure 3.28). There, doors of barracks would have opened out onto tree-covered areas. The barracks gardens were often also in these inter-barrack areas. Conversely, trees were planted parallel to the mess halls (north and south thus they run perpendicular to the trees in the inter-barrack areas. The trees paralleling the mess halls have in many places wedged apart the concrete mess hall slabs.

Despite being listed on the National Register of Historic Places in 1994, relatively little of Amache is managed as a historical site. The main portion of the former center is owned by the City of Granada (Burton et al, 2002). A memorial is located at the cemetery in the southwestern corner of the main center area (Figure 3.12). This small area is maintained by the Amache Preservation Society–i.e., Granada High School teacher John Hopper and his students–with limited outside financial support. The state of Colorado funded the creation and installation of interpretation signs along a walking/driving tour of the main portion of Amache. Lands outside this main portion of the center are managed privately, primarily as farmland. The Amache Preservation Society maintains a small museum in the old City Hall building on U.S. highway 50 in downtown Granada. Amache interpretive panels are also present at the Historic Lamar Depot in Lamar.

Colorado's Lower Arkansas River Valley Today. Colorado's Lower Arkansas River Valley has seen significant change since the Amache Relocation Center closed in 1945. Much of this change has centered on agriculture and water, both of which are strongly influenced by traditionally variable weather and climate patterns. The results have been significant for the area's human population.

The economy of Prowers County continues to depend on agriculture that, in turn, relies on the ready availability of irrigation water. John Martin Dam was constructed between Las Animas and Lamar (Figure 3.9) by the U.S. Army Corps of Engineers in the mid-1940s to provide a more reliable supply of irrigation water to areas downstream (including the Granada area) thus helping resolve the ongoing dispute between Colorado and Kansas over Arkansas River flow. It also provided much needed flood control (Sherow, 1990). The Arkansas River Compact of 1949 laid out the framework for managing John Martin Dam and Reservoir (Vidal et al., 1948). A variety of other upstream water projects have also been undertaken over the years to ease the water shortfall in the Arkansas River drainage (e.g., Fryingpan-Arkansas Project–Southeastern Colorado Water Conservancy District, n.d.). However, human alterations in the form of dams, reservoirs, irrigation systems, water transfers, and municipal water facilities–have also resulted in unintended, negative consequences–e.g., salinization of farmlands, sedimentation behind dams, and influx of tamarisk–in the lower Arkansas River Valley (Sherow, 1990).

As of 2000, the population of Prowers County was 14,483, an 8.5% increase since 1990 (U.S. Census Bureau, n.d.). Approximately 36% of this population was of Latino heritage, likely reflecting the Mexican land grants of the early to mid-1800s as well as a more recent influx of laborers from Mexico. Unlike Prowers County as a whole, Granada is experiencing the fate of many small, agricultural towns in the United States. The population of the town and the surrounding area has declined as farms have grown larger. As of April 2003, Granada retained its K-12 school, post office, bank, service station/mini-mart, City of Granada office, barbershop, auto repair shop, liquor store and restaurant. It did not have a grocery store, hardware store, or tavern.

The former lands of Amache are used for municipal, housing, and agricultural purposes. The City of Granada uses one of the wells, has drilled another, and has added a large water tank on the site. The city's landfill is now located in the former Amache sewage treatment plant area. The Farm Home Administration built a migrant labor center on the former site of the center hospital. This center was subsequently operated by the Colorado Rural Housing Authority (Burton et al., 2002). More recently, a local farmer purchased this center and continues to house migrant laborers there (L. McMillan, oral communication, 11 April 2003). A small rodeo arena was also located on the main portion of the center as of April 2003. Most of Amache's lowlands remain in agriculture (Figure 3.29). Onions, cantaloupes, watermelons, wheat, alfalfa, and corn are grown on the irrigated lands. Flood and rill irrigation are the norm here (Charles Creech, personal communication, 12 April 2003). Southeastern Colorado continues to be shaped by precipitation and overall weather extremes. When I visited in April 2003, the area was in the second year of a drought. At that time, some farmland on the Arkansas River floodplain between the Arkansas River bridge and Amache was not being farmed presumably because of water short conditions. As I edited this work in January 2006, a major blizzard had just dumped up to three feet of snow in southeastern Colorado.

Acknowledgments

John Hopper and his students graciously showed me around Amache, and allowed me to access and photocopy document holdings of the Amache Preservation Society on the busy high school prom weekend. Long-time local residents Charles Creech and Lawrence McMillan patiently answered my questions when I visited the area in April 2003. The City of Granada allowed me unlimited access to the former main portion of Granada during my visit. CWU students Paul Blanton and Eli Asher tracked down information while Carla Jellum and Jared Treser created the maps and most of the other figures. Finally, Kenneth Foote, John Hopper, Jim Huckabay, and Nancy Lillquist carefully reviewed the chapter, making many suggestions for improvement. To all, thank you.

Figure 3.29. Farmland on former Amache Relocation Center lands. View south from main entrance road toward former main portion of center. Author photograph, April 2003.

References

Bailey, R.G., 1995: Description of the Ecoregions of the United States (2nd edition). *U.S. Department of Agriculture–Forest Service Miscellaneous Publication* 1391.

Burton, J.F., Farrell, M.M., Lord, F.B. and Lord, R.W., 2002: *Confinement and Ethnicity: An Overview of World War II Japanese American Relocation Sites*. Seattle: University of Washington Press.

Coues, E., 1987: *The Expeditions of Zebulon Montgomery Pike*, Volume II. New York: Dover Publications, Inc.

Dumas, E. and M. Walther, 1944: Landscaping for beauty and health. *The School Executive,* 63 (9): 40-41.

Eaton, A.H., 1952: *Beauty Behind Barbed Wire: The Arts of the Japanese in Our War Relocation Camps*. New York: Harper and Brothers Publishers.

Eberhart, P., 1986: *Ghosts of the Colorado Plains*. Athens: Ohio University Press.

Egan, T., 2006: *The Worst Hard Time: The Untold Story of Those Who Survived the Great American Dust Bowl*. New York: Houghton Mifflin.

Endo, R., 1985: Japanese of Colorado: A Sociohistorical Portrait. *Journal of Social and Behavioral Sciences,* 31 (4): 100-110.

Fenneman, N.M., 1931: *Physiography of Western United States*. New York: McGraw-Hill Book Company, Inc.

Fiset, L., 1999: Thinning, Topping, and Loading: Japanese Americans and Beet Sugar in World War II. *Pacific Northwest Quarterly,* 90(3): 123-139.

Folmer, H., 1939: The Mallet Expedition of 1739 Through Nebraska, Kansas and Colorado to Santa Fe. *The Colorado Magazine,* 16 (5): 161-173.

Foster, M.W. and McCollough, M., 2001: *In* DeMallie, R.J., ed., *Handbook of North American Indians*, Volume 2: *Plains*, Part 2. Washington, D.C.: Smithsonian, pp. 926-940.

Fowler, L., 2001: Arapaho. *In* DeMallie, R.J., ed., *Handbook of North American Indians*, Volume 2: *Plains*, Part 2. Washington, D.C.: Smithsonian, pp. 840-862.

Gaustad, E.S. and Barlow, P.L., 2001: *New Historical Atlas of Religion in America*. New York: Oxford University Press.

Gesenway, D. And Roseman, M., 1987: *Beyond Words: Images from America's Concentration Camps*. Ithaca: Cornell University Press.

Griffiths, M. and Rubright, L.,1983: *Colorado: A Geography*. Boulder: Westview Press.

Harvey, R., 2004: *Amache: The Story of Japanese Internment in Colorado During World War II*. Dallas: Taylor Trade Publishing.

Hewes, L., 1973: *The Suitcase Farming Frontier: A Study in the Historical Geography of the Central Great Plains*. Lincoln: University of Nebraska Press.

Holsinger, M.P., 1964: Amache. *The Colorado Magazine,* 41: 50-60.

Hosokawa, B., 2005: *Colorado's Japanese Americans: From 1886 to the Present*. Boulder: University of Colorado Press.

Iwata, M., 1992: *Planted in Good Soil: The History of Issei in United States Agriculture*, Volume 2. New York: Peter Lang.

Japanese American National Museum. 1998. Granada website. http://www.janm.org/projects/clasc/granada.htm. Accessed 9 January 2007.

Johnson, M., 1989: At home in Amache: A Japanese-American Relocation Camp in Colorado. *Colorado Heritage,* 1: 2-11.

Kavanagh, T.W., 2001: Comanche. *In* DeMallie, R.J., ed., *Handbook of North American Indians*, Volume 2: *Plains*, Part 2. Washington, D.C.: Smithsonian, pp. 886-906.

Levy, J.E., Kiowa. *In* DeMallie, R.J., ed., *Handbook of North American Indians*, Volume 2: *Plains*, Part 2. Washington, D.C.: Smithsonian, pp. 907-925.

Matsumoto, V.J., 2000: Amache. *In* Murray, A.Y., ed. *What Did the Internment of Japanese Americans Mean?* Boston: Bedford/St. Martin's, pp. 121-150.

Meyers, J.S., 1962: Evaporation from the 17 Western States. *U.S. Geological Survey Professional Paper* 272-D.

Moore, J.H, Liberty, M. P. and Straus, A.T., 2001. Cheyenne. *In* DeMallie, R.J., ed., *Handbook of North American Indians*, Volume 2: *Plains*, Part 2. Washington, D.C.: Smithsonian, pp. 863-885.

National Weather Service, n.d.: Advanced Hydrologic Prediction Service–Arkansas River 1S Syracuse 1S. http://www.crh.noaa.gov/ahps2/hydrograph.php?wfo=ddc&gage=syrk1. Accessed 2 May 2007.

Noel, T.J., Mahoney, P.F. and Stevens, R.E., 1994: *Historical Atlas of Colorado*. Norman: University of Oklahoma Press.

Paulson, R.W., Chase, E.B., Roberts, R.S. and Moody, D.W. (compilers), 1991: National Water Summary 1988-89–Hydrologic Events and Floods and Droughts. *U.S. Geological Survey Water-Supply Paper* 2375, 207-214 pp.

Regalado, S.O., 1992: Sport and Community in California's Japanese American "Yamato Colony", 1930-1945. *Journal of Sport History,* 19 (2): 130-143.

Sharps, J.A., 1976: Geologic Map of the Lamar Quadrangle, Colorado and Kansas. U.S. *Geological Survey Miscellaneous Investigations Series Map* I-944.

Sherow, J.E., 1990: *Watering the Valley: Development along the High Plains Arkansas River, 1870-1950*. Lawrence: University Press of Kansas.

Southeastern Colorado Water Conservancy District. n.d.: History and Description of the Fryingpan-Arkansas Project. http://www.secwcd.com/History%20and%20Description.htm. Accessed 9 January 2007.

Staff, 1942: Sub-zero weather to face center populace. *Granada Pioneer*, 28 October, p. 3.

Staff, 1942: Ban Sale of Liquor. *Granada Pioneer*, 31 October 1942, p. 2.

Staff, 1942: Grading Started. *Granada Pioneer*, 7 November, p. 4.

Staff, 1942: Ryegrass Planted in 8E. *Granada Pioneer,* 21 November. p.1.

Staff, 1943: Lake Open to Ice Skaters. *Granada Pioneer*, 21 January, p. 6.

Staff, 1943: Native Tongue. *Granada Pioneer*, 21 January 1943, p. 2.

Staff, 1943: New Farming Program Set. *Granada Pioneer,* 17 March 1943, p. 5.

Staff, 1943: School Plans Kite Festival. *Granada Pioneer*, 8 May, p. 5.

Staff, 1943: Explanation given on agricultural program. *Granada Pioneer*, 19 May 1943, p. 7.

Staff, 1943: Water Shortage not Serious. *Granada Pioneer*, 3 July, p. 1.

Staff, 1943: Rain Causes Much Damage. Granada Pioneer, 10 July, p. 3.

Staff, 1943: Vegetables Sent Here From Gila. *Granada Pioneer,* 4 August 1943, p. 2.

Staff, 1943: 1613 Nisei students enrolled in colleges. *Granada Pioneer,* 25 August 1943, p. 6.

Staff, 1943: Frost damages farm crops. *Granada Pioneer,* 6 October 1943, p. 1.

Staff, 1943: FFA boys produce 1693 tons of farm products. *Granada Pioneer,* 17 November, p. 6.

Staff, 1944: Reconstruction of Ice Skating Rink Underway. *Granada Pioneer*, 19 January, p. 3.

Staff, 1944: 30 head of beef cattle sent to Heart Mountain. *Granada Pioneer*, 12 February 1944.

Staff, 1944: Need volunteers for landscaping. *Granada Pioneer*, 15 April, p. 8.

Staff, 1944: 200 pounds of ice to each mess. *Granada Pioneer,* 24 May, p. 6.

Staff, 1944: Cattle raising, sale of alfalfa discussed. *Granada Pioneer,* 21 June 1944, p. 1.

Staff, 1944: All-Stars Swept Clean at Gila. *Granada Pioneer*, 30 August, p. 6.

Staff, 1944: Hit Stride in Poston Series. *Granada Pioneer*, 13 September, p. 5.

Staff. 1945: First Amache family to leave for coast. *Granada Pioneer,* 3 January, p. 1.

Staff. 1945: To conduct surplus sale. *Granada Pioneer*, 21 April 1945, p. 1.

Staff. 1945: Big Storm Causes Near $8,000 Loss. *Granada Pioneer*, 27 June, p. 1.

Ubbelohde, C., Benson, M., and Smith, D.A., 1988: *A Colorado History* (6th edition). Boulder: Pruett Publishing Company.

U.S. Army-Western Defense Command, 1943: *Final Report: Japanese Evacuation from the West Coast 1942*. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1913: *Thirteenth Census of the United States Taken in the Year 1910. Volume II: Population 1910: Alabama-Montana.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1922: *Fourteenth Census of the United States Taken in the Year 1920. Population 1920: Composition and Characteristics of the Population by States.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1932: *Fifteenth Census of the United States: 1930. Population: Volume III: Reports by States, Showing the Composition and Characteristics of the Population for Counties, Cities, and Townships or Other Minor Civil Divisions. Part 1: Alabama-Missouri.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1943a: *Population, Vol. II: Characteristics of the Population, Part 1: United States Summary and Alabama-District of Columbia*. Washington, D.C.: U.S. Government Printing Office.

U.S. Bureau of the Census, 1943b: *Population, Vol. II: Characteristics of the Population, Part 3: Kansas Michigan.* Washington, D.C.: U.S. Government Printing Office.

U.S. Bureau of the Census, 1952a: *Census of Population: 1950, Volume II, Characteristics of the Population, Part 6, Colorado*. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1952b: *Census of Population: 1950, Volume II, Characteristics of the Population, Part 16, Kansas*. Washington, D.C.: Government Printing Office.

U.S. Census Bureau, n.d.: *State and County QuickFacts: Prowers County, Colorado*. http://quickfacts.census.gov/qfd/states/08/08099.html. Accessed 4 January 2007.

U.S. Census Office, 1895: *Report on the Population of the United States at the Eleventh Census: 1890. Part I.* Department of the Interior. Washington, D.C.: Government Printing Office.

U.S. Census Office, 1901: *Twelfth Census of the United States, Taken in the Year 1900. Census Reports Part I: Population.* Washington, D.C.: Government Printing Office.

U.S. Department of Agriculture, 1954: Diagnosis and Improvement of Saline and Alkaline Soils. *Agriculture Handbook* #60, Washington, D.C.: Government Printing Office.

U.S. Geological Survey, n.d.: USGS Annual Surface Water Statistics for the Nation–07133000 Arkansas River at Lamar, Colorado. http://nwis.waterdata.usgs.gov/nwis/annual. Accessed 1 May 2007.

U.S. Natural Resources Conservation Service, n.d.a: Official Soil Series Descriptions. http://soils.usda.gov/soils/technical/classification/osd/index.html. Accessed 3 August 2004.

U.S. Natural Resources Conservation Service, n.d.b: Ecological and Interpretive Groups: Land Capability Classification, NSSH Part 622 (Exhibit 2). *National Soil Survey Handbook.* http://soils.usda.gov/technical/handbook/contents/part622.html. Accessed 29 March 2007.

U.S. Soil Conservation Service, 1960: *Soil Survey Prowers County, Colorado*. Washington, D.C.: Government Printing Office.

U.S. War Relocation Authority, 1945a: *Historical Report Operations Division–Agricultural Section, Granada Relocation Center, Amache, Colorado*. Reel #54, Records of the War Relocation Authority, 1942-1946. Field Basic Documentation, National Archives, Washington, D.C..

U.S. War Relocation Authority, 1945b: *Amache Silk Screen Print Shop: History of the Shop and its Production, May 10, 1943 through May 15, 1945.* Reel #55. Records fo the War Relocation Authority, 1942-1946. Field Basic Documentation, National Archives, Washington, D.C.

U.S. War Relocation Authority, 1946: The Evacuated People: A Quantitative Description. Washington, D.C.: Government Printing Office.

Vidal, H.C., Ireland, G.B., Mendenhall, H.B., Knapp, G.S., Arn, E.F., Leavitt, W.E. and Tate, R.H. 1948. Arkansas River Compact, Kansas-Colorado, 1949. http://www.kansas.gov/kda/dwr/Laws-Rules/KS-CO_Ark_River_Compact.pdf. Accessed 9 January 2007.

Voegeli, Sr., P.T. and Hershey, L.A., 1965: *Geology and Ground-Water Resources of Prowers County, Colorado*. U.S. Geological Survey Water-Supply Paper 1772.

Waldman, C., 2000: *Atlas of the North American Indian* (revised edition). New York: Facts on File, Inc.

Weglyn, M.N., 1996: *Years of Infamy: The Untold Story of America's Concentration Camps*. Seattle: University of Washington Press.

Western Regional Climate Center., n.d.: Western U.S. Climate Historical Summaries. Colorado Climate Summaries: Lamar, Colorado (054770). http://www.wrcc.dri.edu/summary/climsmco.html. Accessed 17 May 2005.

Works Progress Administration, 1941: *Colorado: A Guide to the Highest State* (American Guide Series). New York: Hastings House.

Wyckoff, W., 1999: *Creating Colorado: The Making of a Western American Landscape 1860-1940*. New Haven: Yale University Press.

Yoshino, R.W., 1996: Barbed wire and Beyond: A Sojourn Through Internment–A Personal Recollection. *Journal of the West* 35:34-43.

CHAPTER 4

HEART MOUNTAIN

Introduction

Heart Mountain Relocation Center was located at about 44°40' N latitude and 108°57'W longitude, and at approximately 4,700 feet elevation in Park County of northwestern Wyoming (Figure 4.1). The site lies adjacent to the Vocation railroad siding, about 12 miles southwest of Powell and 13 miles northeast of Cody, the county seat, in the middle Shoshone River Valley. Yellowstone National Park is about 60 miles west while Billings, Montana lies about 85 miles north. The center was named for the prominent mountain about 8 miles west of Vocation.

The following pages address: 1) the physical and human setting in which Heart Mountain was located; 2) why northwestern Wyoming was selected for a relocation center; 3) the structural layout of Heart Mountain; 4) the origins of Heart Mountain's evacuees; 5) how Heart Mountain's evacuees interacted with the physical and human environments of northwestern Wyoming; 6) relocation patterns of Heart Mountain's evacuees; 7) the fate of Heart Mountain after closing; and 8) the impact of Heart Mountain on northwestern Wyoming some 60 years after closing.

Physical Setting

Physiography, Geology and Landforms. The Heart Mountain Relocation Center occupied the Bighorn Basin of the Middle Rocky Mountains physiographic Province (Fenneman, 1931) (Figure 4.2). The Bighorn Basin is a *structural* (i.e., concerning the composition and orientation of rock units) and a topographic basin between the Absaroka, Beartooth and Owl Creek mountains to the west, and the Bighorn and Bridger mountains to the east (Brown, 1980). The setting is transitional between the Rocky Mountains to the west and the Great Plains to the east.

The geology of the northern Bighorn Basin is dominated by middle *Paleozoic* (approximately 400 million years old) to middle *Cenozoic* (about 30 million years old) sedimentary fill deformed by folds and faults (Pierce, 1997). The deformed older rocks are present on the margins of the basin while younger, less deformed units are present in the middle. The Heart Mountain Relocation Center occupied the geologic middle of the structural basin. Here, sedimentary fill of the early Cenozoic Fort Union Formation and Willwood Formation inundated the Bighorn Basin over more recent geologic time. The Fort Union Formation consists of sandstones, conglomerates, shales, and thin coal beds while clays, shales, and sandstones comprise the lower Eocene Willwood Formation (Pierce, 1997) (Figure 4.3).

Water has played a key role in shaping the sedimentary units of the Bighorn Basin. Intense precipitation associated with thunderstorms, meager vegetation cover, and readily erodible clay and shale units of the Willwood Formation have combined to form the rugged, highly dissected

Figure 4.1. Park County, Wyoming and adjacent counties. Adapted from Official State Highway Map of Wyoming (2003).

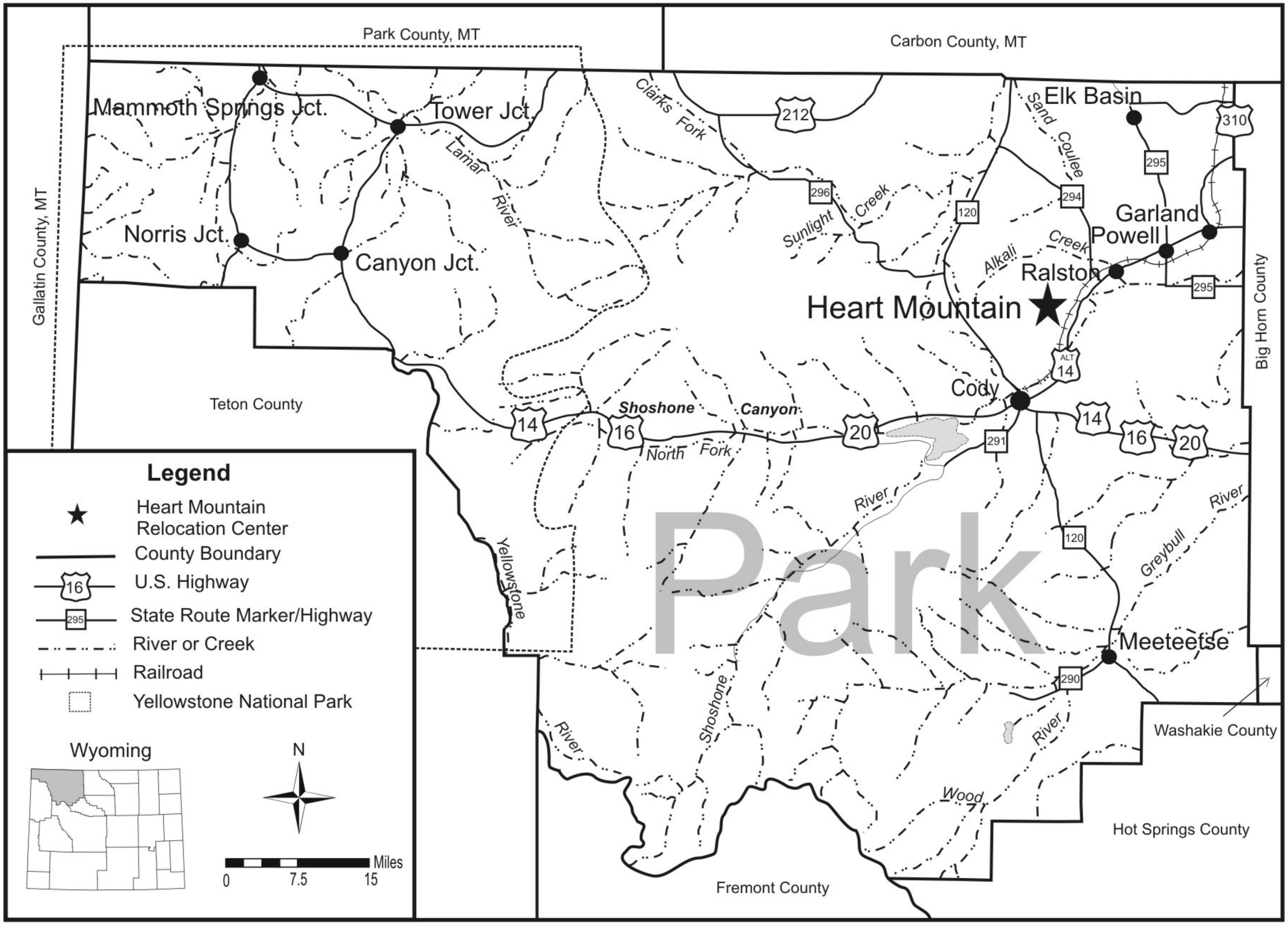


Figure 4.2. Heart Mountain and the Bighorn Basin within the Middle Rocky Mountain physiographic province. Map adapted from Fenneman (1931, Plate 1).

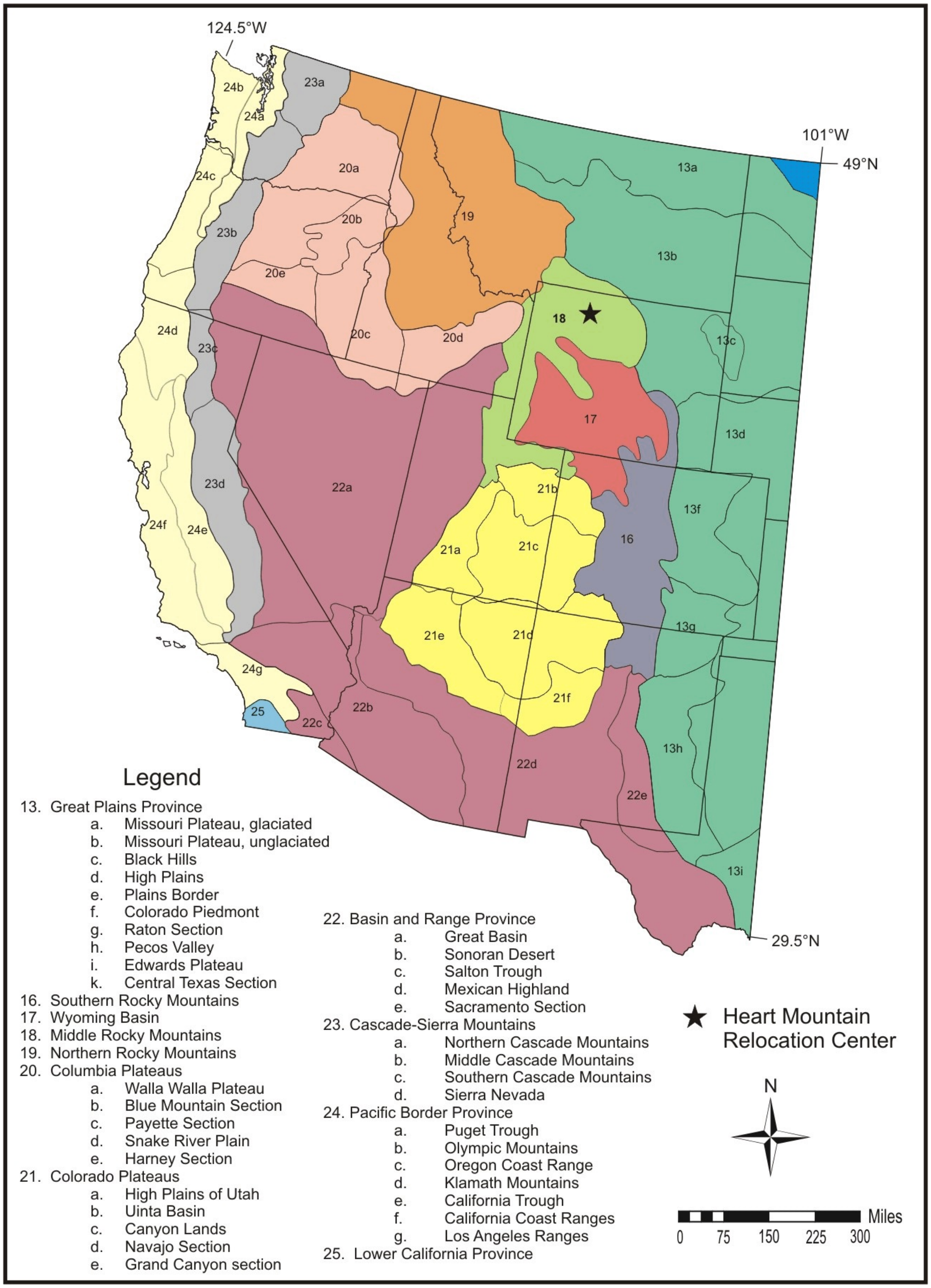
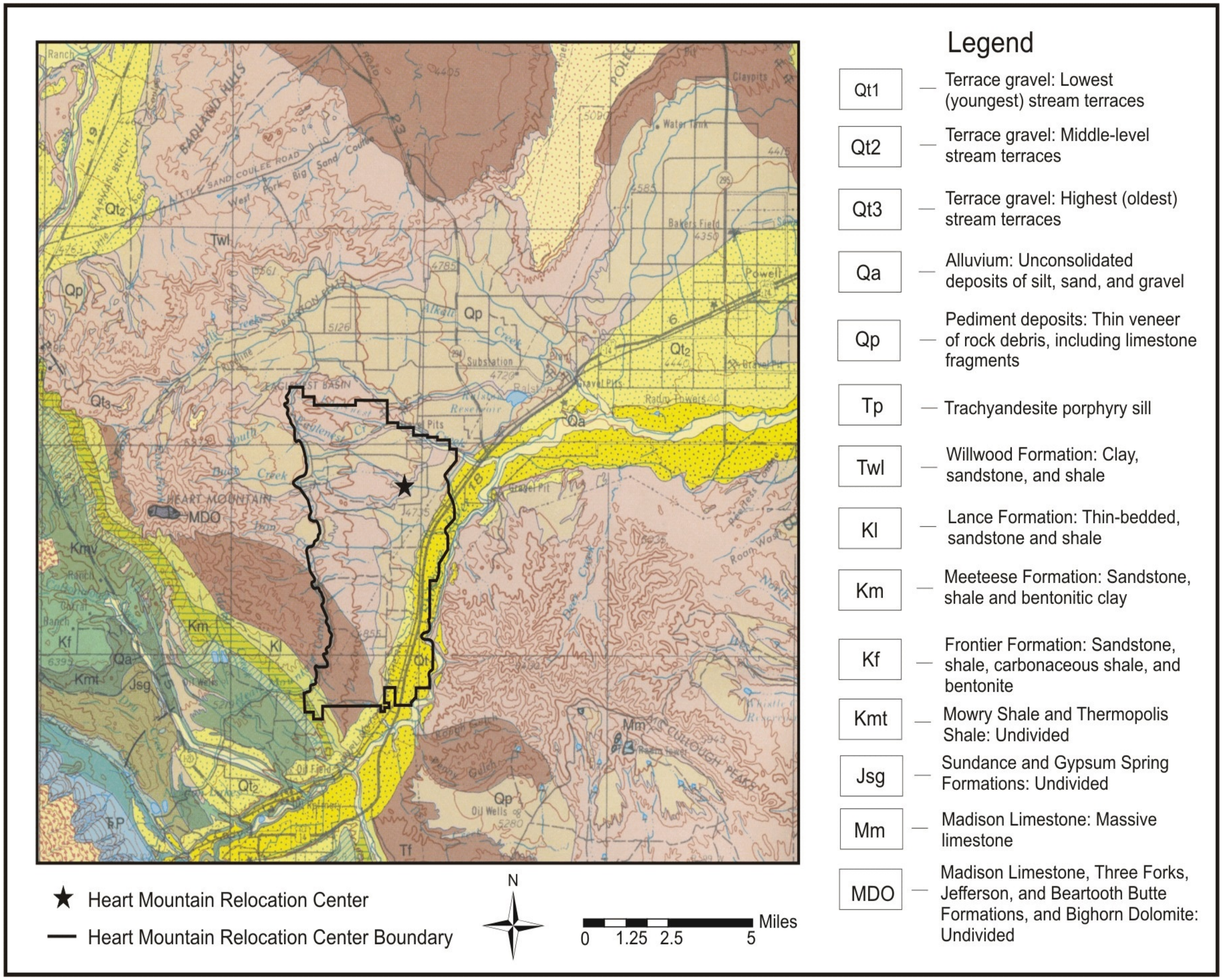


Figure 4.3. Geology of Heart Mountain Relocation Center and vicinity. Adapted from Pierce (1997).



landscape known as *badland topography* in a variety of places, including the McCullough Peaks area east of the Shoshone River and south of Ralston. In sandstone units at other locales in the basin, *Quaternary* (i.e., past 2 million years) streams and slopewash eroded the Willwood Formation in a more planar fashion leaving a low relief, thin, rock fragment-strewn, gently sloping *pediment* (i.e., low angle, planar surface created by stream and slope wash erosion) (Pierce, 1997). In the vicinity of the former relocation center, the pediment surfaces are found at the more intermediate elevations of the basin. Quaternary river terraces compose the lower portions of the basin and are associated with complex Shoshone River deposition, downcutting, and subsequent lateral erosion over time (Mackin, 1937; Moss and Bonini, 1961; Ritter and Kauffman, 1983). The gently east dipping terraces are composed of gravels, sands and silts (Pierce, 1997). The main portion of the center was located about 200 feet above the Shoshone River on the Powell Terrace (Mackin, 1937; Ritter and Kaufman, 1983) (Figure 4.4). The lower center lands (including most of the farmland) occupied the Cody Terrace, about 80 feet above the Shoshone River (Mackin, 1937; Ritter and Kaufman, 1983). Slope wash and alluvial fans from intermittent streams draining to the Shoshone River have deposited *alluvium* atop these terraces in places causing the terraces to slope toward the river (Mackin, 1937). Abrupt *risers* separate the *treads* of the terraces, and differentiate the Shoshone Terrace from the pediment surface above. The center's farmlands were located on the terraces below. Total relief of the former center is about 740 feet with elevations ranging from approximately 5,200 feet at the Heart Mountain Canal to 4,460 feet where Eaglenest Creek joins the Shoshone River. The center lands generally slope down to the east.

Weather and Climate. The middle latitude, high elevation, continental setting leads to warm, dry summers and cold, dry winters (Figure 4.5). The climate of the area is classified under the Koppen system as a dry midlatitude steppe (BSk) (Griffiths and Driscoll, 1982).

The mid-latitude setting results in a systematic change in sun angles and temperatures throughout the year (Figure 4.5). The mid-continental location further enhances temperature extremes because of the relatively low *specific heat* of land as compared to water (i.e., land heats up and cools down more rapidly than water). The intermediate elevations of the site mean that it is generally colder than similar sites at lower elevations; however, the basin is prone to cold air drainage from the surrounding mountains, especially in winter, thus temperature inversions develop where lower areas are colder than adjacent higher areas (Western Regional Climate Center, n.d.a). Inversions in the basin are further enhanced by frequent clear skies and snow cover in the winter months (Cross, 1951). The 1931-1960 average January temperature at Powell was approximately 21 ºF while the average July temperature was about 71ºF. The mean annual temperature during the same period was about 46ºF (Western Regional Climate Center, n.d.b). The surrounding mountains shield the area from most outbreaks of frigid air from the north. The growing season (i.e., last 32ºF killing freeze of spring to the first 32ºF killing freeze of fall) at Powell five out of ten years averages 133 days with the last killing freeze of spring typically occurring around 14 May and the first freeze of fall near 23 September (Western Regional Climate Center, n.d.b).

Figure. 4.4. Topographic map of Heart Mountain Relocation Center and vicinity. Adapted from U.S. Geological Survey Powell, Wyoming and Cody, Wyoming 1:100,000-scale topographic maps.

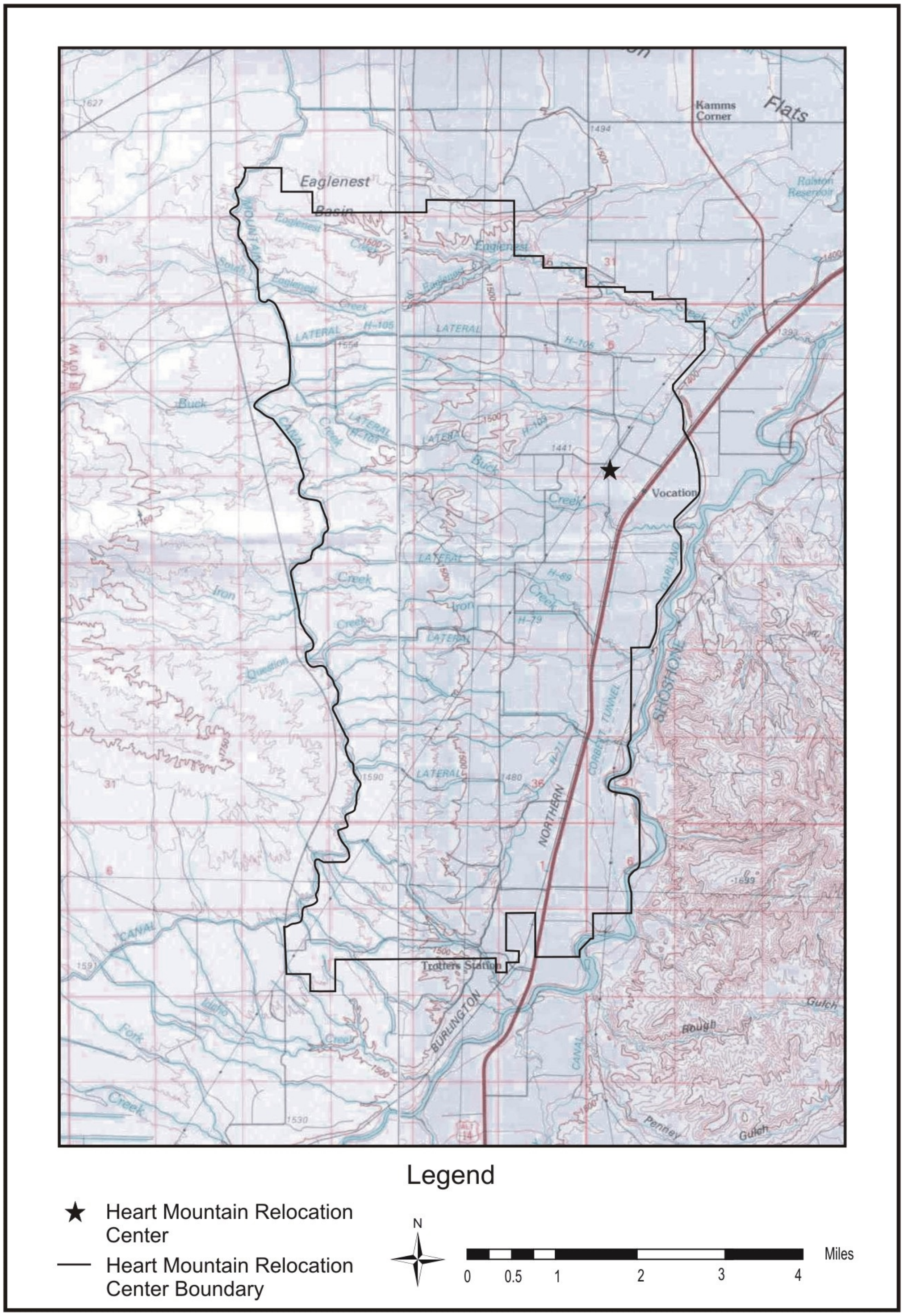
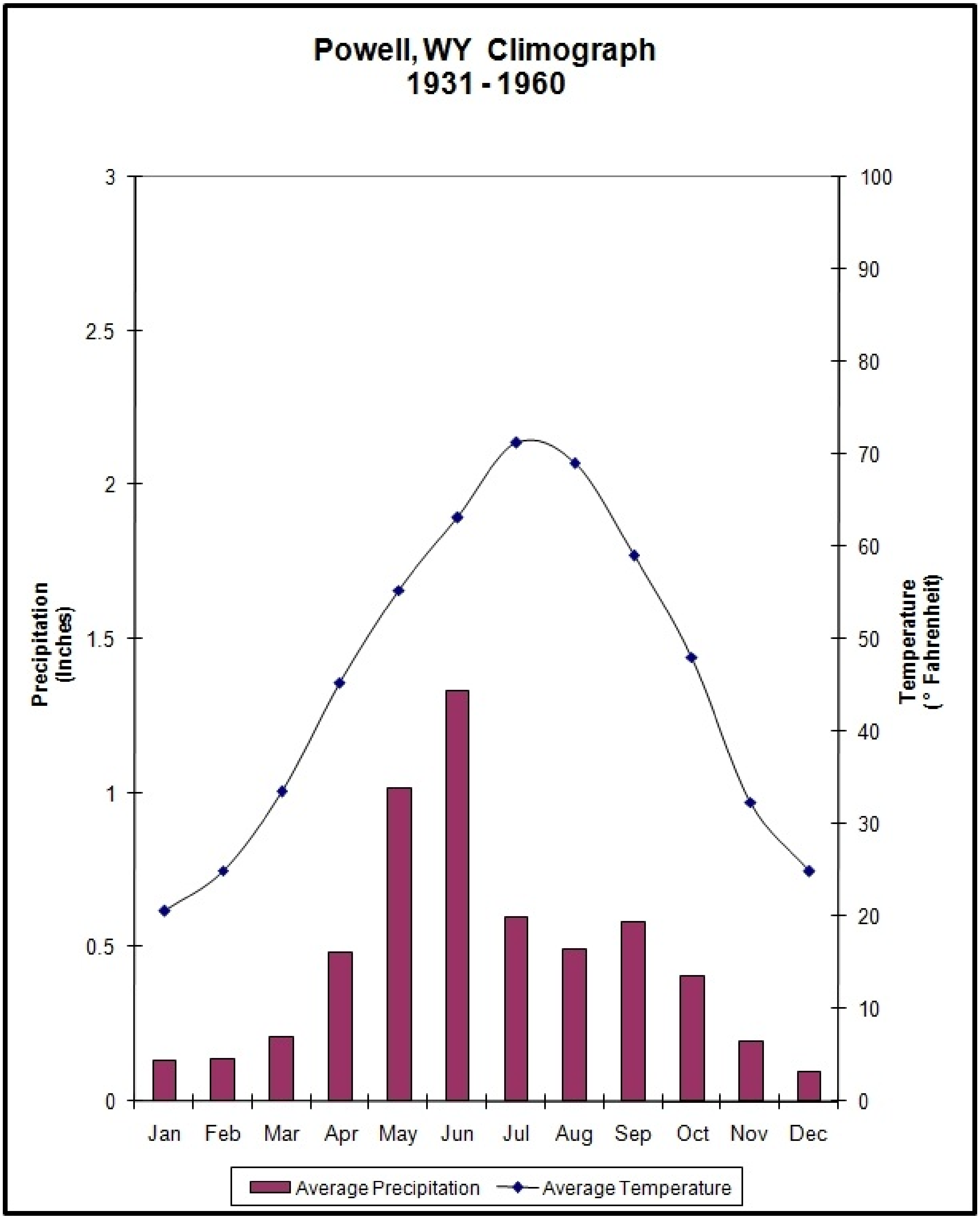


Figure 4.5. Climograph showing 1931-1960 mean temperature and precipitation for Powell, Wyoming. Data from Western Regional Climate Center (n.d.b).



Annual precipitation during the 1931-1960 period was approximately 5.7 inches/year in Powell (Figure 4.5) but it varied significantly from year to year–i.e., 11.8 inches in 1932 to 3.6 inches in 1933 (Western Regional Climate Center, n.d.b). The general aridity of the site is a result of its continental interior location and its position in the lee of mountains–i.e., the Absaroka Range to the West and the Bighorn Mountains to the east (Western Regional Climate Center, n.d.a). These ranges effectively block Pacific Ocean as well as Gulf of Mexico air masses. While the site is generally arid, it also displays a strong seasonality in its precipitation pattern. Over 70% of the precipitation falls between April and September (Western Regional Climate Center, n.d.b). The summer-dominant precipitation reflects convective uplift of occasional humid air masses that are able to make it into the basin. The area receives between 20 and 30 thunderstorms per year. This number is less than more eastern sites in Wyoming because the Bighorn Mountains shield the area from the marine tropical air masses originating in the Gulf of Mexico. The Bighorn Basin also receives fewer thunderstorms than areas to the west because the Absaroka Mountains prevent moist Pacific air masses from entering the basin (Martner, 1986). Snowfall over the 1931-1960 averaged nearly 14 inches/year with March typically the snowiest month (Western Regional Climate Center, n.d.b). As in other semi-arid settings, drought is a common occurrence in the Bighorn Basin. Statewide drought, including the Powell and Cody areas, occurred between 1929 and 1942, and again from 1948-1962 (Paulson et al., 1991). Annual lake evaporation was approximately 42 inches/year during the 1946-1955 period, far out-pacing precipitation (Meyers, 1962).

To say that it is windy in the northern Bighorn Basin is an understatement. Winds are generally from the northwest in all months of the year at Powell. Conversely, winds in Cody typically come out of the west year round. These differences are probably caused by local topographic differences at each of the sites. Because of Heart Mountain's similarities to Powell in terms of topography, it is likely that northwest winds also predominate there. Chinook winds are a common phenomenon in the winter thus providing welcome relief from extremely cold weather and clearing snow for grazing animals (Cross, 1951).

Soils. The soils of the northern Bighorn Basin are a function of the five soil forming factors–i.e., parent material, topography, climate, biota, and time. The generally semi-arid environment of the basin means that soils are poorly developed (i.e., *entisols*) or have subsurface accumulations of clays or salts because of their locations on stable surfaces but lack organic matter as a result of formation in an arid environment (i.e., *aridisols*) (Figure 4.6).

The soils of the former Heart Mountain Relocation Center formed primarily in alluvium under generally uniform climate and biotic regimes. They are, therefore, differentiated primarily by their location with respect to the Shoshone River and its terraces, and the various alluvial fans and pediment surfaces impinging on the Shoshone River terraces (Figure 4.4).

Soils of the pediment and alluvial fan remnants elevationally above the main portion of the relocation center are primarily aridisols (e.g., Clapper and Luhon series). These soils formed under the semi-arid conditions of the basin on stable surfaces. Pediment and alluvial fan soils tend to be very deep, well drained, gravelly loams that are slightly to strongly alkaline. These soils are classified as Land Capability Classification (LCC) VIs and VIIs soils thus have severe to very severe limitations related to the gravelly, high pH substrate (U.S. Natural Resource Conservation Service–Powell Office, unpublished data, August 2004; Natural Resources Conservation Service, n.d.).

Soils of the upper (i.e., Powell) terrace (including the main portion of the former center and one center farm field) are *entisols* (Apron, Haverdad, Keeline, Kishona, and Lostwells) and *aridisols* (Copeman). The predominance of entisols at these elevations reflects the relative youthfulness of the terrace and alluvial fan surfaces. All are very deep and well drained, and range from clay loam to sandy loam in texture. All fall within the slightly to strongly alkaline range. These soils are classified as LCC IIe, IIs, IIIe, and IIIs with some to severe limitations associated with erosion or the gravelly, high pH substrate (U.S. Natural Resource Conservation Service–Powell Office, unpublished data, August 2004; Natural Resources Conservation Service, n.d.).

Soils of the lower or Cody terrace, including the bulk of the center's farmlands, are aridsols (Copeman, Clapper, and Luhon series) and entisols (Apron, Haverdad, Keeline, Kishona, and Lostwells series). All are deep and well drained, and range from clay loam to sandy loam in texture. All fall within the slightly to strongly alkaline pH range. Most of these soils are LCC IIe, IIIe, and IIIs thus have some to severe limitations associated with erosion or the gravelly, high pH substrate. A small portion of these lands are also VIIs thus have very severe limitations related to the substrate (U.S. Natural Resource Conservation Service–Powell Office, unpublished data, August 2004; Natural Resources Conservation Service, n.d.). The soils of the Cody Terrace settled as much as 6 feet when they were initially irrigated. With the settling, the once-permeable soil became more susceptible to waterlogging (Swenson, 1957).

Water. The lands of the former Heart Mountain Relocation Center are situated within the Shoshone River Watershed. The Shoshone River originates immediately east and southeast of Yellowstone National Park in the Absaroka Range and flows northeast to join the Bighorn River near Lovell. The waters of the Shoshone ultimately reach the Gulf of Mexico via the Bighorn, Yellowstone, Missouri and Mississippi rivers. Headwaters of the Colorado and Columbia rivers, the other great rivers of the U.S., are nearby. Explorer John Colter in 1807 named the Shoshone River the "Stinking Water" because of bad odors emanating from sulfur springs near Cody. The Wyoming Legislature changed the name to the Shoshone River in 1902 (Urbanek, 1988).

The Shoshone River delineated, or lay very near, the eastern boundary of the former relocation center (Figure 4.4). Perennial Eaglenest Creek and intermittent Buck Creek, Iron Creek, Dry Gulch, and several other unnamed drainages pass through the former center's lands and enter the Shoshone River from the west. Annual discharge of the Shoshone River once reflected the area's seasonal precipitation and snowmelt patterns. However, since the completion of Shoshone Dam in 1910, the discharge of the river has been greatly impacted by human intervention (Figure 4.7). Annual discharge over the 1931-1960 period averaged approximately 919 ft^3/second with the highest discharge (1661 ft^3/second) in 1943 and the lowest during a severe dry spell in 1934 (446

Figure 4.6. Soils of the Heart Mountain Relocation Center and vicinity. Data from the U.S. Natural Resources Conservation Service (n.d.). Note the relationship between soils and topography shown on Figure 4.4.

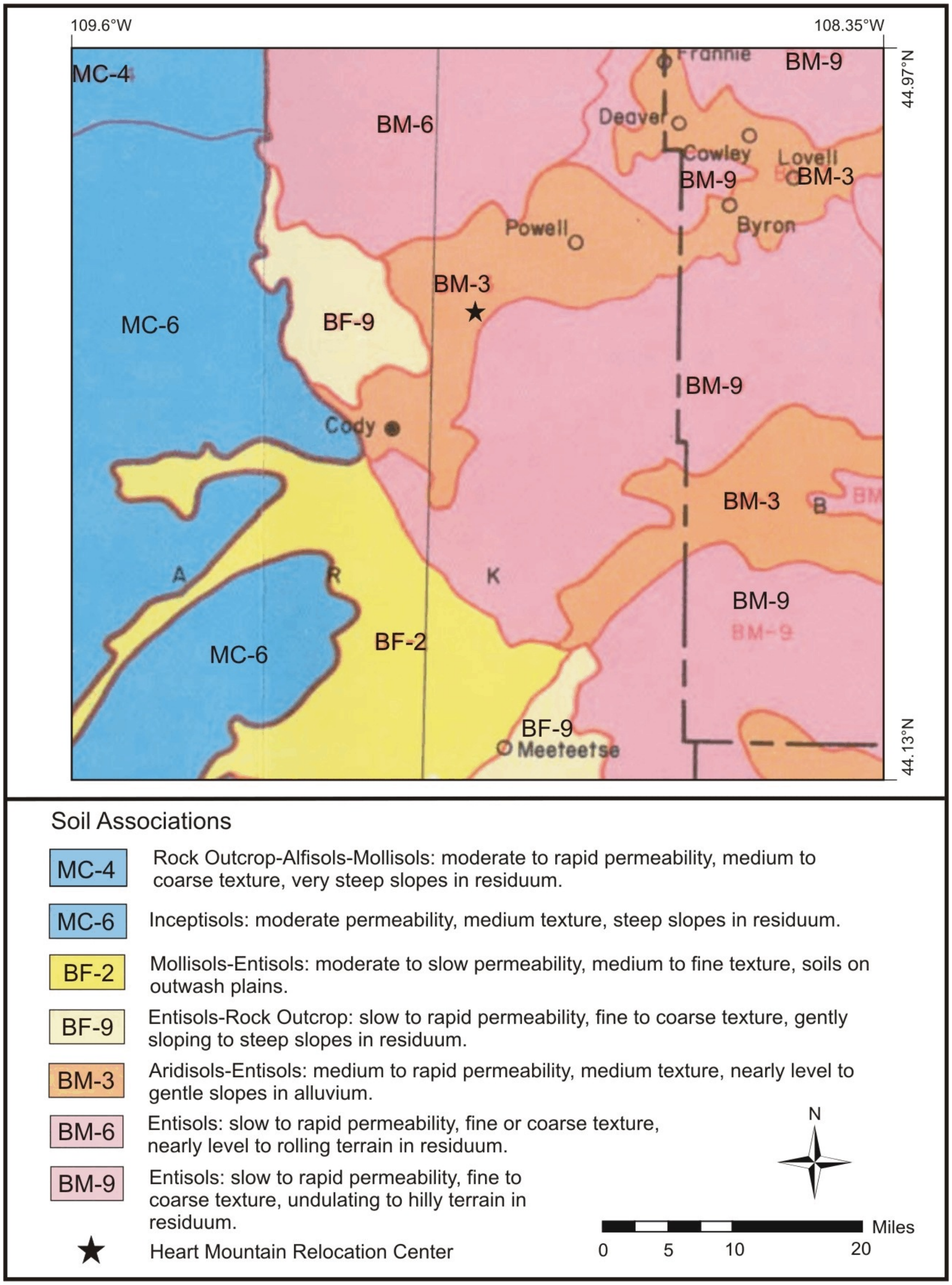
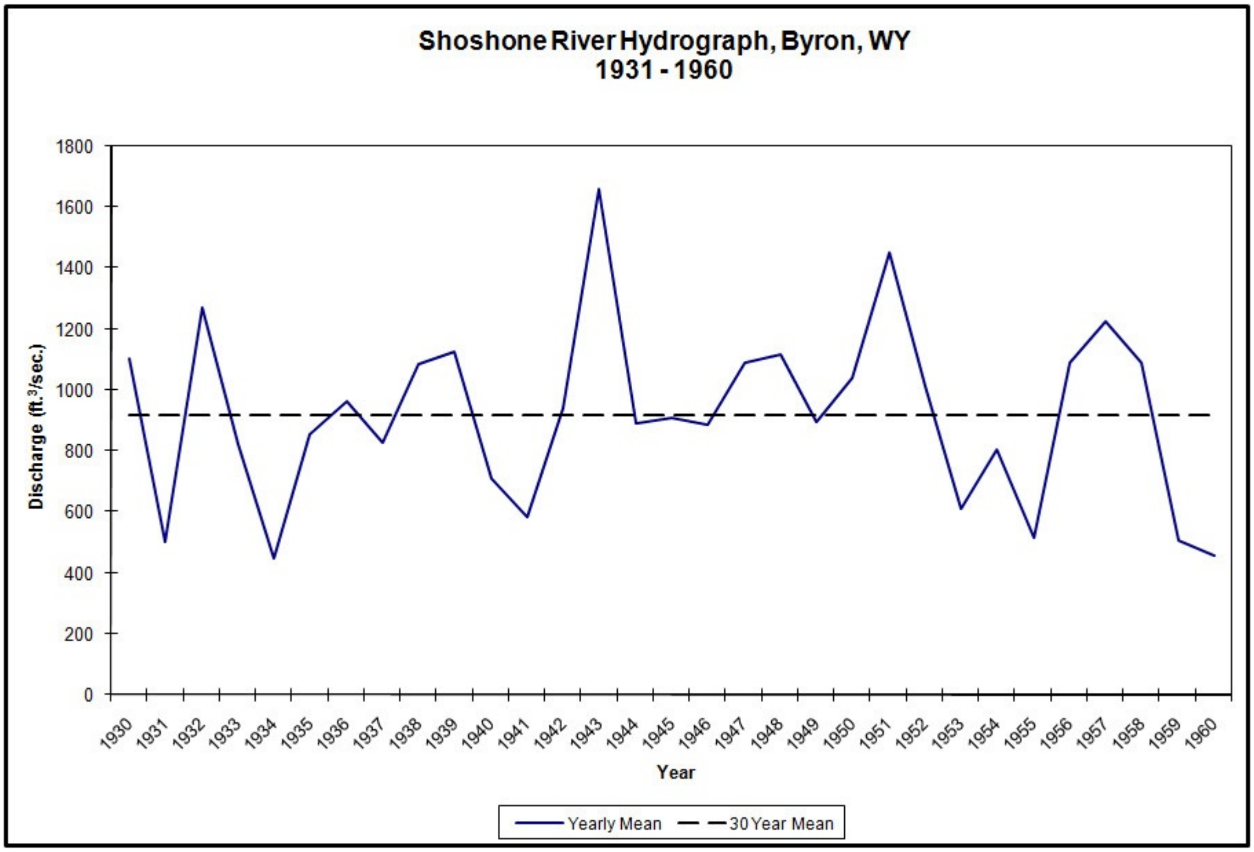


Figure 4.7. Mean annual discharge for the Shoshone River at Byron, Wyoming, 1931-1960. Data from U.S. Geological Survey (n.d.).

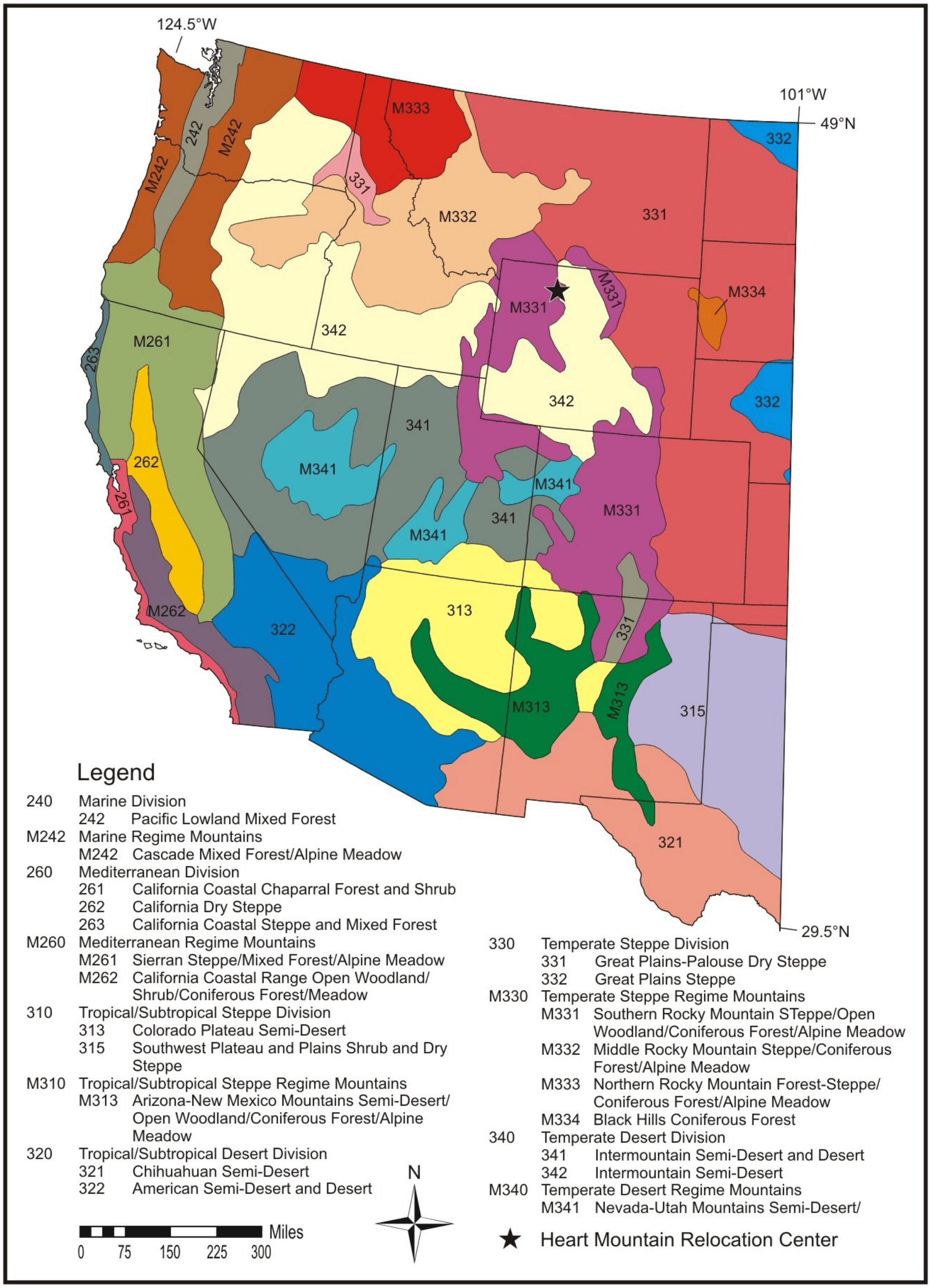


ft^3/second) (U.S. Geological Survey, n.d.). Shoshone River water, with an average *specific conductance* of 437 micromhos, has a medium salinity hazard for irrigation (U.S. Geological Survey, 1954; U.S. Geological Survey, 1956).

Bighorn Basin aquifers mirror their temporally-extensive geology. The basin includes Paleozoic to Cenozoic aquifers, most of which are in the porous sandstones of the area (U.S. Geological Survey, 1996). Prior to irrigation, little groundwater was present in the area. Only the more extensive terraces contained significant quantities of natural groundwater. One such area was Ralston Flats about four miles northeast of the Heart Mountain Relocation Center. Underlying bedrock aquifers contain only limited quantities of water, much of which is highly mineralized (Swenson, 1957).

Biota. Heart Mountain lies in the Intermountain Semidesert ecoregion province (Bailey, 1995) (Figure 4.8). Vegetation patterns in the area reflect climate, soil moisture, soil chemistry, and human land uses. The sagebrush steppe of the dry and low alkalinity upland sites is adapted to cold, dry winters and warm to hot, dry summers, and is dominated by big sagebrush *(Artemisia*

Figure 4.8. Ecoregion map showing Heart Mountain's location within the Intermountain Semidesert ecoregion province. Adapted from Bailey (1995, Foldout Map).



tridentata). More saline soils support greasewood- (*Sarcobatus vermiculatus*) dominated communities (Cross, 1951; Bailey, 1995; U.S. Forest Service, n.d.). Vegetation along water courses includes moisture-loving cottonwoods (*Populus* spp.) and willows (*Salix* spp.) plus various shrubs. Incision by the Shoshone River into the basin sedimentary rock limits the riparian vegetation zone to a narrow strip. Development of the Shoshone Reclamation Project early in the 20th century led to an influx of willow and beaver along canals and ditches (Bonner, 2002).

Common large mammals of the area include whitetail deer (*Odocoileus virginianus*), mule deer (*Odocoileus Hemionus*), pronghorn antelope (*Antilocapra americana*), coyote (*Canis latrans*), mountain lion (*Puma concolor*), and bobcat (*Lynx rufus*). Smaller mammals include Wyoming ground squirrel (*Spermophilus elegans*), prairie dogs (*Cymomus* spp.), deer mice (*Peromyscus maniculatus*), jackrabbits (*Lepus* spp.), and porcupine (*Erethizon dorsatum)*. American bison (*Bison bison*) roamed this area until being extirpated in the 1880s. Various ducks and Canada geese (*Branta canadensis*) migrate through the area. Sage grouse (*Centrocercus urophasianus*) are a common species of the sagebrush steppe as are raptors including various hawks, prairie falcons (*Falco mexicanus*), golden eagle (*Aquila chrysaetos*), great horned owl (*Bubo virginianus*), and burrowing owl (*Athene cunicularia*). Reptiles include the prairie rattlesnake (*Crotalus viridis viridis*), horned lizard (*Phrynosoma* spp.), and sagebrush lizard (*Sceloporus graciosus*) (Cross, 1951; Bailey, 1995; U.S. Forest Service, n.d.).

Human Setting

Race, Ethnicity, and Religion. The Bighorn Basin in general, and the Shoshone River Valley in particular, has a very rich and mixed history encompassing Native Americans, French, Germans, Russian Germans, Mormons, Mexican Americans, and Japanese Americans.

The Bighorn Basin lies at the boundary of the Great Basin and Great Plains culture areas (Waldman, 2000). The Eastern Shoshone represented the Great Basin Culture Area while the Crow were the primary Native Americans of the Great Plains culture area. Two divisions of Crow existed–Mountain Crow, whose area included the Bighorn Basin, and the River Crow who ranged more to the north and west. Treaties signed with the U.S. government in 1868 limited the Crow's area and tied them to Indian agencies. In 1883-1884, they moved to the Crow Agency near Hardin, Montana where they remain today (Voget, 2001). The Eastern Shoshone are also divided into two groups–the Buffalo Eaters and the Mountain Sheep Eaters. The Buffalo Eaters likely traveled through the Bighorn Basin in search of wild game while the Mountain Sheep Eaters frequented the northern Rocky Mountains. The Eastern Shoshone are now confined to the Wind River Reservation on the east side of the Wind River Range (Shimkin, 1986).

The first EuroAmerican to visit the Bighorn Basin was likely John Colter in the employ of fur trader Manuel Lisa (Lindsay, 1932). Lisa ordered Colter in Winter 1807-1808 to locate as many tribes as possible in the area to urge them to come to newly constructed Fort Raymond at the confluence of the Yellowstone and the Bighorn rivers to trade (Oglesby, 1963). Colter's travel took him into the Shoshone River basin, as far upstream as present-day Cody (Lindsay, 1932). Much later, a U.S. Government-sponsored expedition led by Captain F.W. Reynolds and Lieutenant H.E. Maynadier explored the Bighorn Basin. In June 1860, the portion of the expedition under the command of Lieutenant Maynadier crossed a "rushing and roaring" Shoshone River just below McCullough Peaks, near the present-day site of Corbett Dam, only after losing a wagon box, four mules, and scientific instruments (Figure 4.9) (Lindsay, 1932).

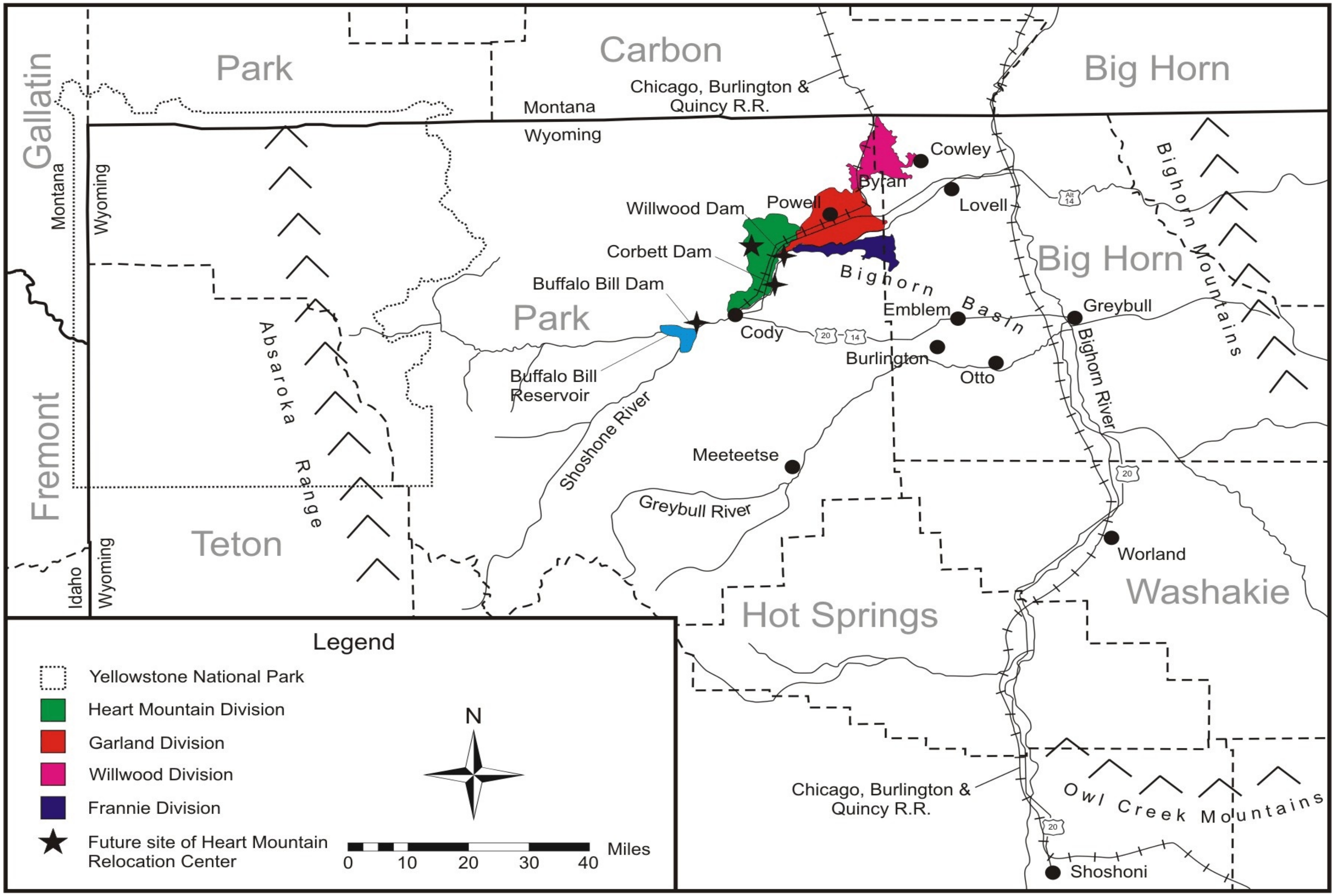
German immigrants came to the Bighorn Basin beginning in the 1890s. One German settlement developed an irrigated area along the Bighorn River in the eastern part of the basin. Another group of German settlers developed agriculture around the Bench Canal in the western part of the basin and founded the community of Germania (Hodgson and Hills, 1977). Residents of Germania changed the town's name to "Emblem" to avoid Bighorn Basin residents' accusations of being disloyal to the United States during World War I (Figure 4.9) (Hendrickson, 1977).

Subsequent EuroAmericans included Church of Jesus Christ of Latter Day Saints (i.e., Mormons) who migrated to the Bighorn Basin from Utah and Idaho in search of potentially irrigable lands beginning in the early 1890s. The first wave of Mormons to the area included 50 families (totaling about 300 individuals) who ventured to the Greybull River near the present site of Burlington in 1893. Other Mormon communities were established at Otto (downstream of Burlington), Meeteetse (upstream of Burlington), and along the Shoshone River. Mormons from Utah and Idaho settled to the lower Shoshone River Valley at around the turn of the century to irrigate and farm lands near present-day Byron, Cowley, and Lovell east of the future Heart Mountain Relocation Center (Figure 4.9) (Lindsay, 1932).

Russian Germans migrated to the Bighorn Basin from nearby states as Wyoming's sugar beet industry grew. They initially centered around the towns of Lovell and Worland in 1915-1916 (Rippley and Bauer, 1974; Redwine, 1979). However, most came to the state between 1920 and 1940. Eventually, they were able to rent and buy land of their own in the area (Hodgson, 1991).

Mexican immigrants first came to the Bighorn Basin in significant numbers during World War I to work in the area's sugar beet industry. The establishment of a Great Western Sugar Company factory in Lovell and the development of associated sugar beet farms beginning in 1916 was the draw for these early workers. They filled a void in the region's labor pool created by World War I and further compounded by an increase in sugar beet acreage to meet wartime sugar needs. Mexicans working for the Great Western Sugar Company were American citizens as well as Mexican "Nationals" who had earlier emigrated to the U.S. and lived in Texas, New Mexico, and Colorado before coming to Wyoming. By 1923, Mexican Americans living in Lovell were mostly part of a "colony" established to entice workers and their families to remain in the area year-round. Like the Russian Germans that generally preceded them to the area, the Mexican Americans of Lovell were able to save money to eventually buy their own farms. However, they faced more racial prejudice than did the Russian Germans in a range of settings including Lovell-area bars, pool halls, restaurants, and even the local Catholic Church (Redwine, 1979).

Figure 4.9. Cumulative historical map for Wyoming's Shoshone River Valley including the Heart Mountain Relocation Center.



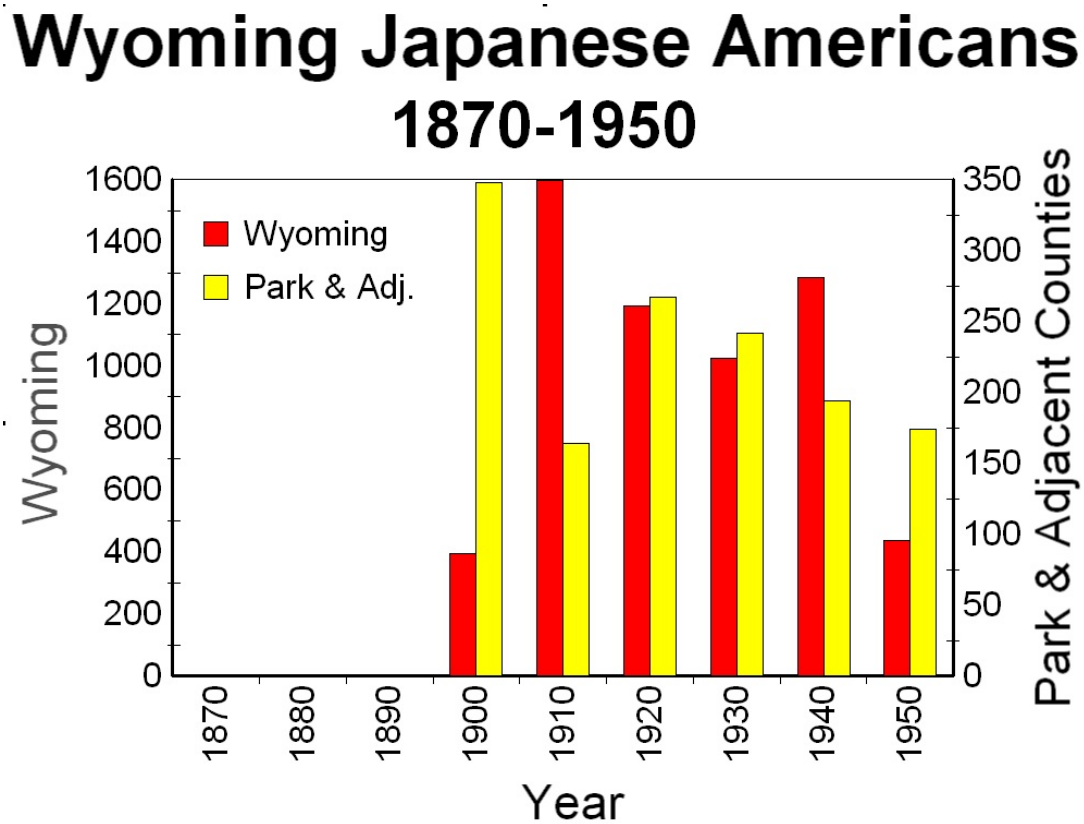
The first Japanese to enter Wyoming likely did so as railroad and mine workers in the southwestern part of the state sometime between 1890 and 1900 (Iwata, 1992; Gardner, 1996) (Figure 4.10). Indeed, southwest Wyoming's Sweetwater and Uinta counties accounted for 85% of the state's Japanese in 1900 (U.S. Census Office, 1901). Wyoming's Japanese American population peaked in 1910 at 1,596. After declining in 1920 and 1930, it rebounded to 1,286 in 1940. These statewide patterns were likely shaped by economic, as well as weather, conditions combined with state and federal policies preventing persons of Japanese descent from becoming U.S. citizens and halting additional Japanese from entering the U.S. (Gardner, 1996; Georgen, 2003). The Japanese American population of northwest Wyoming and adjacent southern Montana reached its peak in 1900, dropped precipitously in 1910, rose in 1920, then declined through 1940 (Figure 4.10). Most of these Japanese Americans were centered in Montana's Carbon, Gallatin, and Park counties, especially in 1900 and 1910. Japanese Americans began to show up in northwestern Wyoming's Sheridan, Park, and Big Horn counties by 1910 (U.S. Bureau of the Census, 1913). Most of those in Sheridan County were hired as section hands on the Chicago, Burlington, and Quincy Railroad and in the coal mines of the area (Georgen, 2003). Park and Big Horn county Japanese Americans took up farming and ranching near Worland and Powell (Iwata, 1992). Park County's Japanese population trend differed from the state's during the first half of the 20th century by steadily increasing from 6 residents in 1910 to 41 in 1940 (U.S. Bureau of the Census, 1941). Prior to World War II, Japanese Americans operated five farms, mostly on leased land, in Park County (Iwata, 1993; Mackey, 2000).

The state's Japanese population experienced racism throughout the early 20th century. Following the attack on Pearl Harbor, racial tensions increased between EuroAmericans and Japanese Americans, especially in southwestern Wyoming where all persons of Japanese descent working for the Union Pacific Railroad were laid off. Other railroads of the area soon followed suit because of concerns for national security. However, those working in the coal mines kept their jobs. When persons of Japanese descent were ordered to register with the U.S. Government following the bombing of Pearl Harbor, 11 registered from Park, two from Big Horn, seven from Hot Springs, and ten from Fremont counties (Gardner, 1996).

Economic Geography. The human population of the northern Bighorn Basin has long depended on the waters of the Shoshone River. This was true of the fur trappers and it has continued with basin agriculturalists. Economic activity in the basin prior to the construction of the Heart Mountain Relocation Center ranged from hunting and gathering by early Native Americans to fur trapping/trading, ranching, irrigated farming, and the petroleum industry.

The first known Native American occupants of the Bighorn Basin were the Crow and the Eastern Shoshone, both of whom moved through the area while hunting and gathering. Horses obtained after EuroAmerican contact defined the nomadic subsistence styles of both groups (Waldman, 2000). Horses allowed both to more effectively hunt bison. Crows used horses to enlarge their trade that, by the early 1800s, included furs with EuroAmericans at Fort Raymond at the mouth of the Bighorn River (Voget, 2001).

Figure 4.10. Persons of Japanese descent in Wyoming, and in counties including and adjacent to Heart Mountain, 1870-1950. Data from U.S. Census Bureau (U.S. Census Office, 1901, p. 572; U.S. Bureau of the Census, 1913a, p. 29; 1913b, p. 1118; 1922a, p. 29; 1922b, p. 5; 1932, p. 31, 1387; 1943a, p. 526; 1943b, p. 733; 1952a, p. 26-74; 1952b, p. 50-51).



Cattlemen followed the fur traders and government explorers into the basin. Ranchers were raising cattle along the Shoshone River by the early 1880s. Sheep came into the area soon after. The open range ended by the late 1890s with cattle being largely displaced by sheep herds, small ranchers, and small farmers (Lindsay, 1932).

Without irrigation, the northern Bighorn Basin was agriculturally useful only for grazing. The climate was too arid even for dryland farming (Les and Nora Bovee, oral communication, 18 June 2003). Irrigated agriculture began in the area in the mid-1880s. The first formal irrigation application for Shoshone River waters under the U.S. Government's Carey Act was by the Shoshone Land and Irrigation Company near the present-day location of Cody. William F. "Buffalo Bill" Cody was its president (Lindsay, 1932). The town of Cody was founded soon after these waters were appropriated (Works Project Administration 1941). Utah and Idaho Mormons were among the first to settle to the middle and lower Shoshone River Valley to irrigate and farm the lands near present-day Byron, Cowley, and Lovell (Figure 4.9) (Lindsay, 1932).

Because the Carey Act was not successful in developing significant irrigated acreage, another solution was needed. Following the passage of the Reclamation Act in 1902, the Shoshone Project was authorized by President Theodore Roosevelt for irrigation and ultimately power development (Churchill, 1979). Shoshone Dam (later renamed Buffalo Bill Dam) and Buffalo Bill Reservoir, the key structures of the Shoshone Project, were completed in 1910 (Figure 4.9). Up to 456,000 acre-feet of water could initially be stored in the reservoir and released as needed for irrigation. Corbett Dam downstream, and the subsequent Shoshone Mountain Conduit coming directly from Buffalo Bill Reservoir, diverted water into downstream areas for irrigation including the first two irrigation divisions of the Shoshone Project–Garland (on line in 1908) and Frannie (on line in 1917) (Figure 4.9) (Bonner, 2002; Churchill, 1979). Willwood Dam served the Willwood Division beginning in 1926 (Bonner, 2002). As of 1940, Shoshone River water was irrigating 125,000 acres (Cross, 1951). Work began on the Heart Mountain Division by 1940 but proceeded very slowly because of difficulties in obtaining a workforce and because of the low demand for irrigated homesteads. Water first flowed through the newly constructed Heart Mountain Canal in fall 1941.

Alfalfa was the main crop grown on the irrigated lands of the Shoshone Project until 1925 (Churchill, 1979). Other crops initially grown on the irrigated lands of the northern Bighorn Basin included potatoes, peas, sweet corn, and pumpkins (Brown, 1980). By the onset of World War II, crops also included dry beans, sugar beets, seed peas, sweet-clover seed, alfalfa seed, radish seed, small grains, and apples. Sugar beets began in the first decade of the 20th century in the vicinity of Lovell and were initially shipped to Billings for processing. A Great Western Sugar Company factory was completed at Lovell by 1916 and a Wyoming Sugar Company factory was present in Worland by 1917 (May, 1989). Cows, sheep, hogs, and turkeys were also raised in the area (Works Progress Administration, 1941; Churchill, 1979).

Development of the Shoshone River Project had its share of problems. The project didn't develop the lands closest to Cody as the city officials had hoped. Cody was also negatively impacted by blowing dust during reservoir drawdown and downstream farms were damaged by winter ice jams. Salinization and waterlogged conditions were major issues until drainage systems were added to the farmlands by the 1930s (Bonner, 2002; Churchill, 1979).

Powell officially became a town in 1908 and served as the headquarters of the Shoshone Reclamation Project (Churchill, 1979). Prior to World War II, it also served as a trade center in this farming and oil producing area and had a population of 1,948. At the same time, Cody numbered 2,536 (Works Progress Administration, 1941; Cross, 1951).

The petroleum industry began to be a major player in the economy of the Bighorn Basin with the development of the Elk Basin north of Powell in 1915. Another producing area was in the Oregon Basin east of Cody (Mike Mackey, written communication, 11 February 2007). By 1940, the petroleum industry ranked second only to agriculture in the number of persons employed in the basin (Cross, 1951).

The Bighorn Basin and the river valleys within the Bighorn Basin have long served as transportation corridors. Mountain man Jim Bridger led several large groups of miners and immigrants through the eastern Bighorn Basin en route to Montana in the mid-1860s (Lindsay, 1932). The Chicago, Burlington, and Quincy railroad entered the basin from the north connecting Billings to Cody via Powell and the middle Shoshone River Valley in 1901 (Figure 4.9). Cody thus served as a railhead community and as the eastern gateway to Yellowstone National Park and surrounding environs (Works Progress Administration, 1941). In 1906, a spur extended from Frannie southward up the Bighorn River to Shoshoni (Works Progress Administration, 1941). Wyoming Highway 14 followed the Shoshone River from Lovell to Cody thus providing automobile access to the area. U.S. Highway 20 followed the Bighorn River from Shoshoni to Greybull, and U.S. Highway 20-14 linked Greybull to Cody (Works Progress Administration, 1941).

Why this Location?

Wyoming was likely chosen as a state in which to locate a relocation center because it lay outside military exclusion zones where Japanese Americans could relocate. The large amount of Federal land was attractive to the U.S. Government in siting such a center. These characteristics overrode the concerns of then-Wyoming Governor Nels Smith who, at an April 1942 meeting of the War Relocation Authority (WRA) and governors of western states in Salt Lake City, stated "People in [my] state have a dislike of any Orientals, and simply will not stand for being California's dumping ground". Further, if evacuees were allowed to relocate to Wyoming "there would be Japs hanging from every Pine tree". Finally, Smith stated that Japanese Americans "should be kept in concentration camps–not reception centers, should be worked under guard, and should be removed at the end of the emergency" (Nelson, 1976, p. 10). It is unclear how well Smith represented the majority of Wyoming's populace, especially given the fact that other Asians (i.e., Chinese) had been in the state since at least the late 1860s.

Several sites were examined in Wyoming prior to the selection of Heart Mountain. The Green River Community Club (southwestern Wyoming) and the Midvale Water District near Riverton (central Wyoming) each actively lobbied for a relocation center in their respective areas, primarily to help with the completion of irrigation projects (Nelson, 1976). Worland area residents, located on the Bighorn River (Figure 4.9), also lobbied for a relocation center (Mackey, 2000). Despite the cold winters and relatively short growing season, Heart Mountain was chosen for a relocation center site in mid-May 1942 because of its adequate water supply, road and railroad network, and power lines as well as public works opportunities and the likelihood that the nearby communities would not significantly oppose the project (Figure 4.11). Northwestern Wyoming residents accepted the relocation center because evacuees would be held in a secure facility under armed guards, and because they were seen as a labor force in an area that had a serious labor shortage. Further, center construction and ongoing operation would benefit businesses in the area. Cody residents and businesses were initially much less enthusiastic about the new relocation center than were those of Powell, likely because Cody's tourism-based economy might suffer from its proximity to a relocation center (Nelson, 1976). In retrospect, Cody residents probably had little to fear because of the center's location 13 miles to the northeast. Finally, the Heart Mountain site was attractive because it would occupy U.S. Bureau of Reclamation Shoshone Reclamation Project–Heart Mountain Division lands, most of which were thought to be irrigable but the infrastructure for which had not yet been completed (U.S. Army–Western Defense Command, 1943).

Building Heart Mountain

The U.S. Bureau of Reclamation officially transferred the administration of 20,000 acres of the Heart Mountain Division of the Shoshone Reclamation Project to the WRA on 1 June 1942. Construction began a week later on a center that would potentially house 11,000 residents at completion (Nelson, 1976). Some of the workers came from the Heart Mountain Division of the Shoshone Project because the relocation center pay was at least twice that of the Bureau of Reclamation. As a result, construction of the remaining portions of the Heart Mountain Division came to a standstill (Churchill, 1979). Other workers came from the Mexican migrant labor force brought to the Bighorn Basin to work the agricultural fields (Fiset, 1999). Center construction was slated to be completed within 60 days. At the height of building the project, 3,000 men labored day and night to finish the center. In time, carpenters could construct an entire barracks, from foundation to roof, in 58 minutes! By 10 August, Heart Mountain was declared ready for occupation by the WRA but latrine, barracks stove, and Celotex wall and ceiling insulation board installation was not complete until at least December 1942 (Nelson, 1976; Mackey, 2000).

The Heart Mountain Relocation Center consisted of the evacuee residential area plus administration, staff housing, military police, hospital, and warehouse areas, and adjacent agriculture-related areas (Figures 4.11 and 4.12). A barbed wire fence surrounded the entire project area. Nine guard towers were perched at regular intervals above this fence (Nelson, 1976).

The residential part of the center was laid out in 20 blocks separated by unpaved roads (Figure 4.12). All blocks except Block 7 had 24, 20 feet x 120 feet barracks, two 40 feet x 100 feet mess halls, two laundry-latrine-shower buildings, and one 20 feet x 100 feet recreation building. In total, 459 barracks were constructed to house the evacuees (Nelson, 1976; LaDonna Zall, written communication, 23 February 2007). Each barracks consisted of six, single-room apartments that ranged in size from 20 feet x 16 feet (for less than 4 people), 20 feet x 20 feet (up to 4 people), and 20 feet x 24 feet (up to 6 people). Each room had a coal heating stove, one bare light bulb, and army cots and mattresses (Mackey, 2000). Historical photographs show that the external walls and roofs were covered with heavy tar paper that was held down with wood battens (Figure 4.13). Initially, no ceilings were present in the barracks thus the triangular areas above the eight foot high walls were open for the entire length of each barracks (Noble, 1996). In this arrangement, noise could travel the length of the barracks and there was little to keep heat in each apartment, especially considering the initial absence of any form of insulation in the barracks. It was not until later in 1942 that thin insulation board was added to the inside walls (Sakauye,

Figure 4.11. Overall map of the Heart Mountain Relocation Center. Adapted from Burton et al. (2002, p. 130).

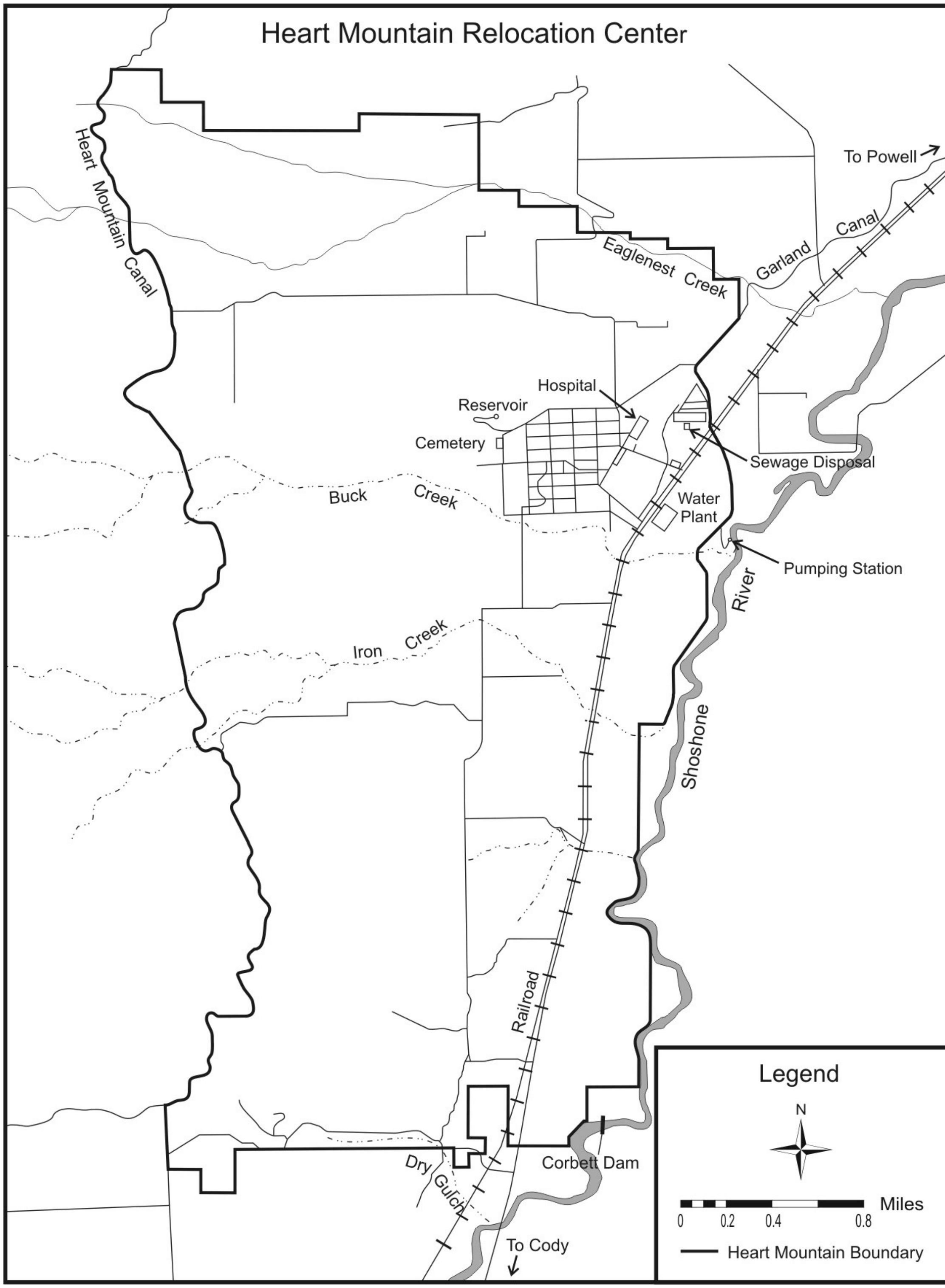


Figure 4.12. Detailed map of the central portion of the Heart Mountain Relocation Center. Adapted from Sakauye (2000, p. 29).

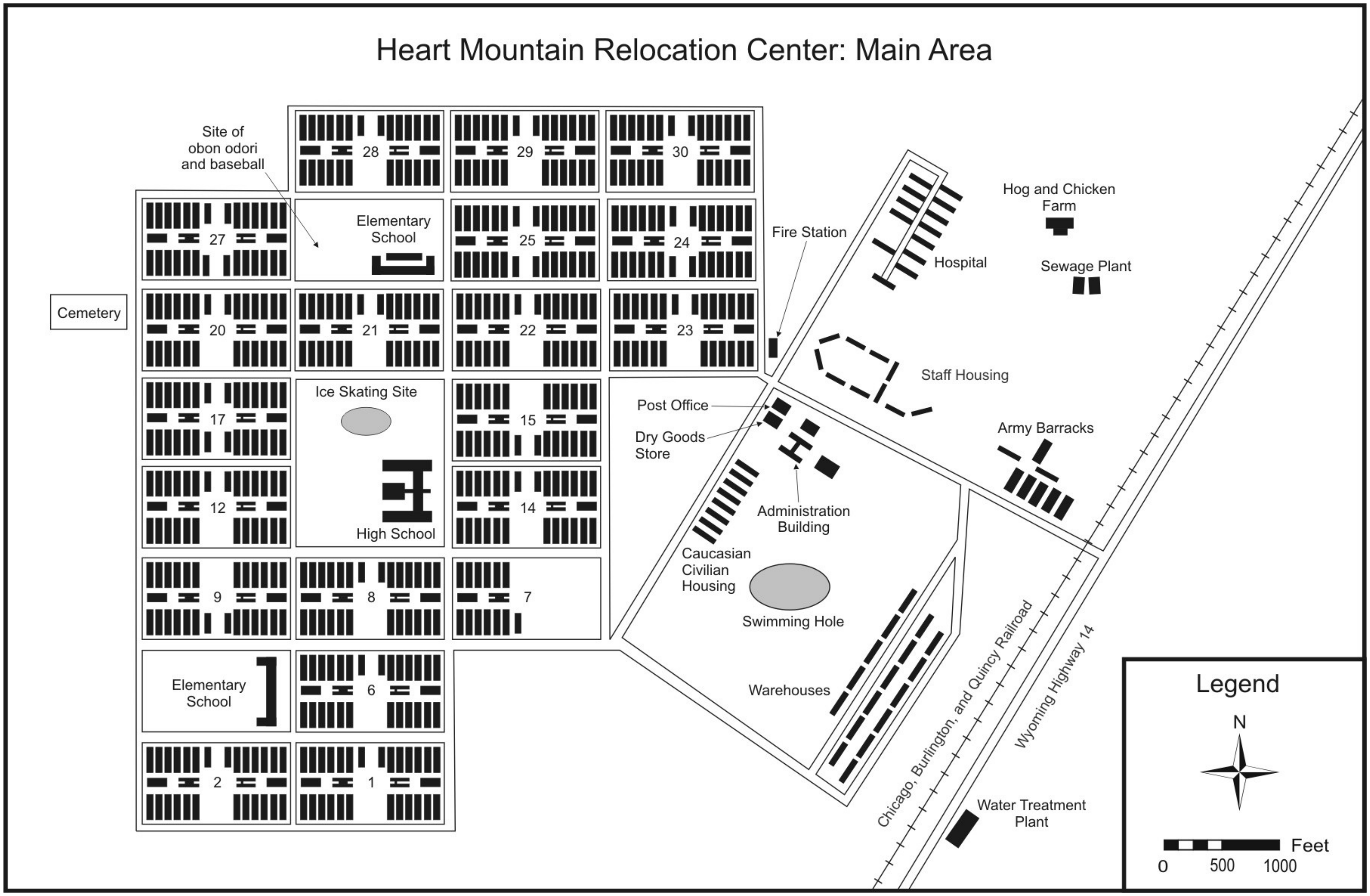


Figure 4.13. View west along F street, the main thoroughfare within the evacuee residential area, Heart Mountain Relocation Center. Tom Parker photograph, August 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 78, Section B, WRA # -61, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 5: Heart Mountain Relocation Center, Heart Mountain, Wyoming.

2000). In addition to the residential blocks, this area also included a high school and two elementary schools (Figure 4.12).

Domestic water for the center came from the Shoshone River where it was filtered and pumped up more than 300 vertical feet and nearly two miles to a concrete reservoir atop the pediment surface west of the main portion of the center (Figures 4.4, 4.11 and 4.12) (Burton et al., 2002). The sewage treatment plant was located on the lower (i.e., Cody) terrace between the main portion of the center and the Shoshone River (Figure 4.12) (Burton et al., 2002). Presumably, treated water was subsequently released back into the Shoshone River. Transportation to and from the site was available via Wyoming State Highway 14 and the Chicago, Burlington & Quincy Railroad line (Figure 4.11).

The irrigated farming infrastructure was partially in place in fall 1942. Most canals had already been constructed as part of the Heart Mountain Division of the Shoshone Reclamation Project.

However, additional canals needed to be constructed and waterproofed before water could be delivered to farm fields. Further, sagebrush-covered land required clearing before cultivation (Burton et al., 2002). Farm fields were located on the lower (Cody) terrace surface immediately above the Shoshone River and adjacent to the highway and railroad tracks (Figure 4.14). Additionally, one farm field was located on the upper (Powell) terrace.

Origins of the Evacuees

Nearly all of the Heart Mountain Relocation Center's original evacuees came from California via the Pomona (5,261) and Santa Anita (4,708) assembly centers (Figure 4.15). Evacuees also came from Washington State and Oregon by way of the Portland Assembly Center (U.S. Army–Western Defense Command, 1943). Specifically, the California evacuees were from Los Angeles (6,448), Santa Clara (2,572), San Francisco (678), and Alameda (124) counties as well as 22 other California counties. Another 950 evacuees came from central Washington state's Yakima County (843) plus seven other Washington counties. Five Oregon counties contributed a total of 77 evacuees to Heart Mountain (U.S. War Relocation Authority, 1946). It is unclear why some eastern Washington and eastern Oregon counties were included in the military exclusion area while the remainder of the eastern portions of these states were not (Heuterman, 1995).

Most of the Heart Mountain population was urban (Japanese American National Museum, n.d.). Approximately 64% of the Heart Mountain evacuees were American citizens (U.S. War Relocation Authority, 1946). Evacuees traveled four days by rail from California and three days via rail from Oregon to reach Heart Mountain. The first to arrive were those from the Pomona Assembly Center on 12 August 1942 followed by the Portland and Santa Anita assembly centers. While most of the evacuees had arrived at Heart Mountain by mid-September, the last trainload did not arrive until 30 October (U.S. Army–Western Defense Command, 1943). Heart Mountain, with a maximum population of 10,767, became Wyoming's third largest city behind Cheyenne (22,474) and Casper (17,964) in approximately 2.5 months (Nelson, 1976)!

Interaction of Evacuees with Northwestern Wyoming's Environments

General Interactions with the Physical Environment. Evacuees described the Heart Mountain Relocation Center in a variety of ways, few of which were positive. "Black", "bleak", "desolate", "barren", "flat open desert", "scrubby", "lonely", "dusty", and "mechanical orderliness" were terms used to describe the center and its environment (Nelson, 1976, p. 19, 21, 24; Noble, 1996, p. 40; Mackey, 2000, p. 37). One evacuee recalled the Heart Mountain area as "a dull, gray brown tinged with faint green during spring and early summer (Girdner and Loftis, 1969, p. 227). Another said "For miles and miles around, you could look as far as your eye could see and you couldn't see the first tree. No trees, nothing green, it was all brown and there was this mountain just sitting behind us. We thought, well maybe the mountain will act as protection for us" (Ishii, 1991, p. 67). The black tarpaper covering the walls and roofs of the barracks added to the dull appearance. Only the administration buildings, the hospital, nearby soldiers barracks, and the new high school were not black (Nelson, 1976; Sakauye, 2000). Like other relocation

Figure 4.14. Agricultural lands of the Heart Mountain Relocation Center, Wyoming. Adapted from Burton et al. (2002, p. 134).

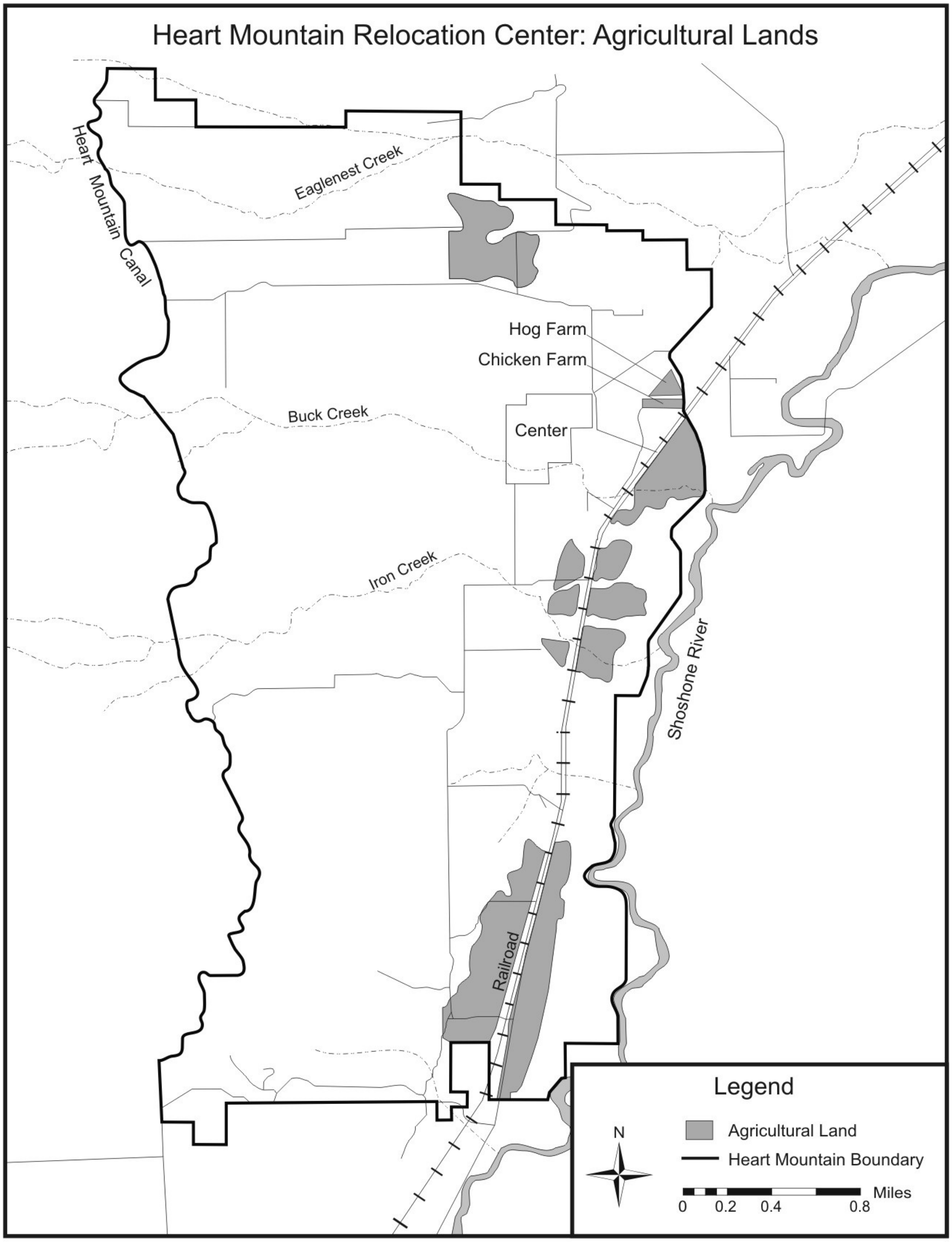
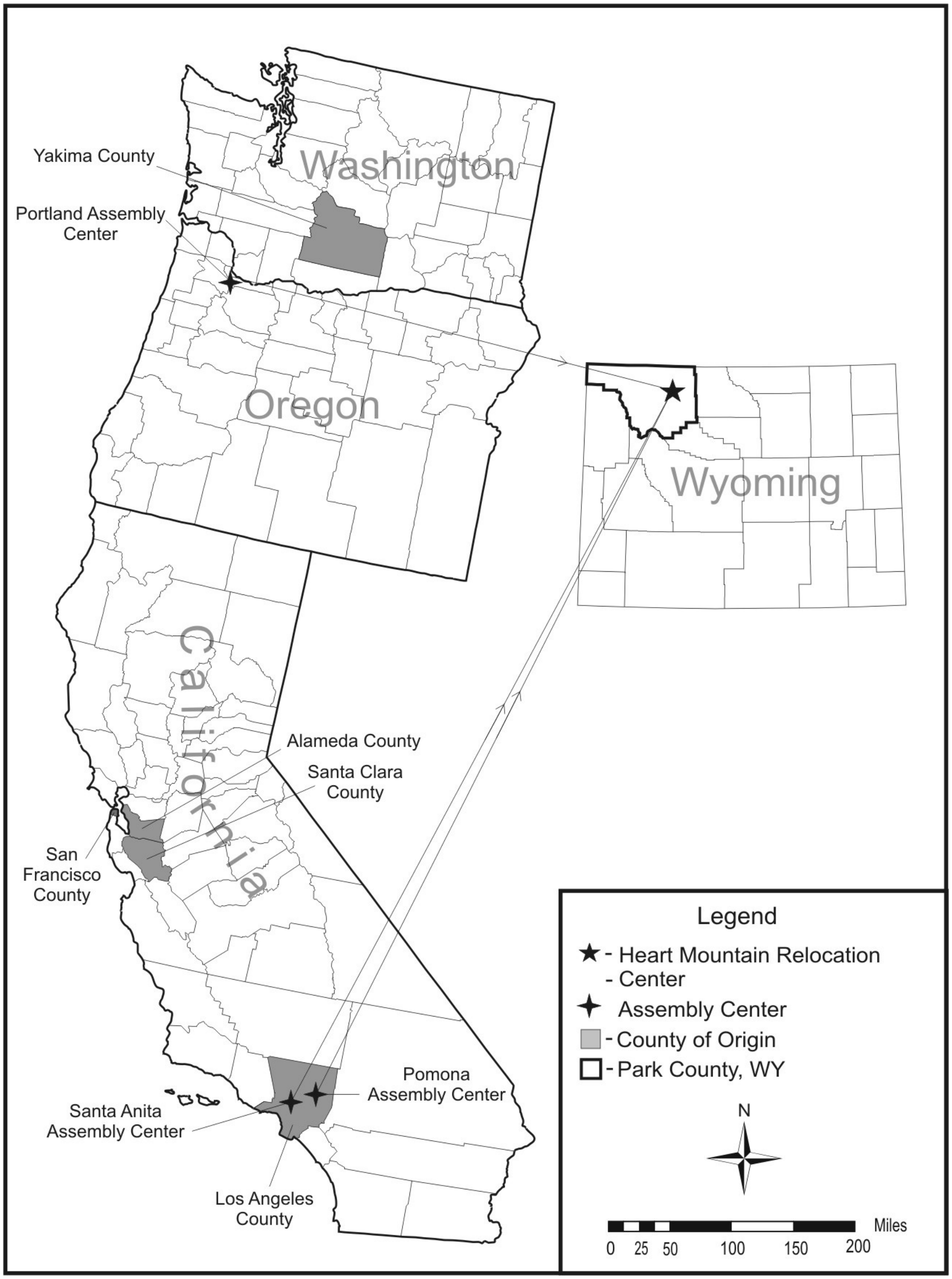


Figure 4.15. The Western United States origins of Japanese-Americans evacuated to Heart Mountain in September and October 1942. Data from U.S. Army–Western Defense Command, (1943, p. 381, 383) and U.S. War Relocation Authority (1946, p. 61-66).



centers, Heart Mountain's environment was much different from those of the original communities of the evacuees.

Winters in the Bighorn Basin are typically harsh but the winter of 1942-43 was especially so lasting from late September until April (Nelson, 1976). The lowest temperatures of the center's history– -28ºF–occurred on 18 and 19 January 1943 during an eleven day spell when ten of those days reached -9ºF or colder (Staff, 23 January, 1943; Staff, 30 January; Sakauye, 2000). Demonstrating the vagaries of Wyoming weather, a "chinook" had melted the ice of the community ice skating rink the week prior to the very cold weather (Staff, 16 January 1943). The fact that most of the evacuees were from California made the adjustment to this type of weather more difficult. Worse yet, picture a 150 foot walk to the latrine late at night in that type of weather! Further hardship resulted when neither clothing, bedding, barracks insulation nor coal supplies were sufficient for this type of weather. Heavy World War I Navy surplus pea coats and other GI clothes were issued to fend off the cold (Mackey, 2000; Girdner and Loftis, 1969); however, clothing allowances did not show up until well past the promised September date when "winter" was already in full-swing (Nelson, 1976). Evacuees purchased much of their winter clothing, as well as other needed items, from the Sears-Roebuck catalog. Evacuees also obtained some winter clothing from a welfare agency in the center (Girdner and Loftis, 1969). Because of the haste in which the barracks were constructed, and due to the use of green lumber in their construction, numerous gaps were present in the walls, floors, and roofs of the barracks. Dean Meeker, one of the center construction workers, later noted:

> *I can remember the foreman's comment when he found cracks in the building. He said, "Well, I guess those Japs will be stuffing their underwear in there to keep the wind out." In my defense, I will say I applied a bit more diligence and care to my work when I realized people would actually have to survive a Wyoming winter in this housing. We all knew that there was no way anyone accustomed to California weather could possibly survive a Wyoming winter in those barracks. If they were from California, they probably didn't even own proper clothing for a winter in Cody."*
>
> Commission of Wartime Relocation and Internment of Civilians (1982, p. 159)

Evacuees did indeed fill the cracks with rags and newspaper to keep out the cold and dust. Insulation board became available for lining interior walls in December but evacuees were expected to install it to provide a measure of insulation in each apartment. Food to face this cold winter was also generally in short supply and generally poorly prepared until mess hall changes were made in January 1943 (Mackey, 2000). As a result of these problems, the 150 bed Heart Mountain hospital was soon overcrowded with evacuees. Cold weather also caused water lines to regularly break (Nelson, 1976).

The following quote sums up the feelings of many Japanese Americans regarding the first Winter at Heart Mountain:

Snow upon the rooftop,
Snow upon the coal;
Winter in Wyoming–
Winter in my soul

Aoyama (1943)

Overall, mean annual temperatures of 1942-1945 were each lower than the 1931-1960 average, but by no more than 1.1ºF (Western Regional Climate Center, n.d.b). Winters generally did not display a colder or warmer trend during the 1942-1945 period; however, May through August temperatures in 1943, 1944, and 1945 were generally cooler than the 1931-1960 average. Average annual precipitation during 1942-1945 was very similar to the 1931-1960 average. Snowfall was significantly lighter than the long-term average with an annual average of approximately six inches each year as compared to the 1931-1960 average of nearly 14 inches/year (Western Regional Climate Center, n.d.b).

Wind and associated dust are often mentioned. Winds that blew over the land that was recently cleared of the shrub-steppe vegetation cover stirred up a "very fine, alkaline dust" (Hosokawa, 1984, p. 20). Dust blew everywhere when the ground was not snow covered (Nelson, 1976). According to one evacuee ... "Heart Mountain, that place was a dry, windy hell...in summertime the wind would blow like crazy raising the dust." (Mullan, 1999, p. 7). Laundry was dried on clothes lines in and outside the barracks. Imagine the chagrin of those who hung clean clothes out to dry and later came back to find the clothes dirty from blowing dust. Wind resulted in blizzards as it whipped the dry snow into the air, and against the poorly constructed center buildings. Fire was an ever-present danger in this windy, dry environment. Fire danger was compounded by the presence of the coal stoves, overloaded wiring, and wood and tarpaper construction in each of the barracks apartments (Mackey, 2000).

Agriculture. The initial goals of the agricultural program were to feed the evacuees, trade and sell surplus crops, provide meaningful employment for evacuees, and leave behind lands ready for farming after the center closed. Agricultural program administrators planned to intensively farm 6,000-8,000 acres of irrigated lands plus develop an extensive livestock program. By early 1943, the crop program goals had been pared down to 1,129 acres based on the subsistence needs of the center's residents (Hartman, 1945).

To accomplish these goals, the irrigation system was completed, lands were cleared and leveled, and soils were amended–all by evacuees. Once all of that was completed, crop agriculture was still a tenuous venture given the climate of the area and the fact that none of the project lands had been previously farmed. To bring water to the Heart Mountain lands from the Buffalo Bill Reservoir, approximately 5,000 lineal feet of the Main Canal had to be further excavated and lined with water repellent bentonite clay. Main Canal excavation and lining, as well as the construction of other irrigation laterals, was complete by mid-June 1943 (Figure 4.16). While the irrigation infrastructure was being constructed, native vegetation was cleared from 1,100 acres of virgin land. Lands were then leveled, seed beds prepared (Figure 4.17), and crops planted. All of this had to be accomplished with a war-induced shortage of labor and equipment. These shortages, combined with snow, rain, and late frosts, pushed planting operations into June and July (Hartman, 1945). However, "hotbeds" (i.e., small greenhouses heated by sunlight and decomposing livestock manure) constructed in spring 1943 on the warm, south-facing slope of the Powell Terrace were used to start broccoli, cabbage, cauliflower, eggplant, peppers, and tomatoes before transplanting outside thus avoiding late frosts (Staff, 8 May 1943; Hartman, 1945). Once in the fields, the tender seedlings were protected by individual waxed paper "hot caps" (Staff, 10 June 1944; Sakauye, 2000). The ideas for hot beds and hot caps came from Yakima Valley, Washington evacuees who dealt with similar climate issues as at Heart Mountain (Sakauye, 2000). Because many of the Heart Mountain soils were low in nitrogen, livestock manure was added prior to the 1943 season and "green manure" was planted in fall 1943 and 1944 to be plowed in the following spring (Hartman, 1945; Staff, 8 May 1943). However, with soil and seed growing experts among the evacuee agricultural staff, agricultural administrators relied more on matching crops to soil types rather than amending soils to grow particular crops (Sakauye, 2000).

Despite the relatively short growing season, evacuee farmers found that crops matured rapidly in the long summer days and warm nights (Girdner and Loftis, 1969). Forty-five different crops were grown resulting in over 2.1 million pounds of produce on 638 acres of Heart Mountain lands in 1943 alone (Tables 4.1 and 4.2). Of the crops grown for human consumption in 1943, a considerable portion were traditional Japanese foods including daikon, gobo, shiru uri, and shingiku. In 1944, 528 acres yielded nearly 3.3 million pounds of produce (Hartman, 1945). These numbers also take into account farm damage caused by two 1944 thunderstorms. The first occurred on 14 June dumping marble-sized hail for 35 minutes that destroyed over 50 acres of truck crops including cucumbers, sweet corn, eggplants, tomatoes, spinach, and mustard greens (Staff, 17 June 1944). Another hailstorm hit Heart Mountain in late September 1944 destroying about 40 acres of sweet corn, cantaloupe, tomatoes, watermelon, popcorn, and peas, while damaging a variety of other crops (Staff, 7 October 1944). Harvest labor in both years was provided by Heart Mountain junior and senior high school students as well as hundreds of other center employees. In 1944, the center closed the high school for three weeks for the potato and other root crops harvest. Produce raised on the farm was eaten fresh, stored in root cellars near the Warehouse Area, pickled, and canned (Hartman, 1945). The Big Horn Canning Company in Cowley (Figure 4.10) canned the center's green beans in 1943 (Staff, 28 August 1943). Later, plans called for the construction of canning and pickling plants (Staff, 11 March 1944). While it is unclear whether a canning plant was constructed, a large scale pickling operation was established in the center. In late 1944 alone, approximately 108,000 pounds of daikon, turnips, takana, and nappa (i.e., Chinese cabbage) were pickled to make *tsukemono* (Staff, 28 October 1944). Produce in excess of that eaten fresh, stored, canned, and pickled was shipped to other relocation centers or sold on the open market (Table 4.2).

Figure 4.16. An evacuee watches as the first water flows through the Highline Ditch, the main irrigation water source for the Heart Mountain Relocation Center. Charles Mace photograph, June 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 13, Section B, WRA # E-926, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 5: Heart Mountain Relocation Center, Heart Mountain, Wyoming.

Four feed crops were grown at Heart Mountain–barley, field corn, rye, and wheat. None were harvested in 1943; rather, they were plowed back into the soil as a *green manure* to enhance soil fertility. Feed crops, straw, and pea silage yielded 784,000 pounds in 1944 (Table 4.2). Only a small amount of this was used to feed animals at the center; rather much of it was shipped to other centers or sold (Hartman, 1945).

The Heart Mountain livestock program consisted of chickens and hogs. Over 700 pounds of dressed poultry and 2,070 dozen eggs were produced in 1943 despite delays caused by a lack of construction materials, labor difficulties, cold weather and initially uninsulated poultry buildings (Table 4.3). Two of the laying houses were constructed from Civilian Conservation Corps (CCC) buildings hauled in from Yellowstone National Park. Nearly 32,000 pounds of dressed poultry and over 93,000 dozen eggs were produced in 1944. Hogs were the center "recyclers"

Figure 4.17. Evacuee checks soil moisture on land recently cleared of sagebrush and corrugated to prevent soil erosion, Heart Mountain farmland. Iwasaki Hikaru photograph, March 1944. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 78, Section 1, WRA # -64, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 5: Heart Mountain Relocation Center, Heart Mountain, Wyoming.

feeding mostly on mess hall scraps. They yielded over 92,000 pounds of dressed pork in 1943 and more than 372,000 pounds of dressed pork in 1944 (Hartman, 1945).

Increased produce, feed crops, hogs, and poultry in 1944 (Tables 4.2 and 4.3) reflect improvements made based on a year of experience in irrigating, planting, and tending the crops as well as having the proper infrastructure in place for livestock. Center farm lands were not planted in spring or summer 1945 because of the imminent closure of the center. Instead, lands were rented to area farmers. All farm equipment, seed and fertilizer was sold at auctions in 1945 (Mackey, 2000).

Table 4.1. Produce, feed crops, and livestock raised at Heart Mountain Relocation Center in 1943 and 1944. Data from Hartman (1945) and Sakauye (2000).

Produce	**Produce** (continued)	**Feed Crops**	**Livestock**
adzuki	nappa	barley	chickens
beans (dry)	onions (dry)	field corn	hogs
beans (lima)	onions (green)	rye	
beans (snap)	parsley	wheat	
beets	parsnips		
broccoli	peanuts		
cabbage	peas (China)		
cantaloupe	peas (green)		
carrots	peppers		
cauliflower	popcorn		
celery	potatoes		
corn	pumpkin		
cucumber	radish		
daikon	rutabagas		
dill	shingiku		
eggplant	shiro uri		
garlic	spinach		
ginger	squash		
gobo	Swiss chard		
horseradish	tomatoes		
lettuce (head)	turnips		
lettuce (leaf)	watermelon		
mizuna			

Table 4.2. Produce and feed crops raised at Heart Mountain Relocation Center, 1942-1945. Data from Hartman (1945).

	1942	**1943**	**1944**	**1945**	***Total***
Produce					
Total Acres Harvested	0	638	528	0	*1,166*
Total Production (lbs)	0	2,131,877	3,282,820	0	*5,414,697*
Consumed at Center (lbs)	0	1,802,133	2,738,913	0	*54,541,046*
Shipped to Centers (lbs)	0	135,000	45,518	0	*180,518*
Sold on Market (lbs)	0	1,875	129,781	0	*131,656*
Shrinkage & spoilage	0	192,819	368,608	0	*561,427*
Market Value ($)	0	$76,063	$113,804	0	*$189,867*
Feed Crops					
Total Acres Harvested	0	0	639	0	*639*
Total Production (lbs)	0	0	1,852,489	0	*1,852,489*
Fed at Center (lbs)	0	0	370,634	0	*370,634*
Shipped to Centers	0	0	1,163,130	0	*1,163,130*
Sold on Market (lbs)	0	0	318,725	0	*318,725*
Market Value ($)	0	0	$21,609	0	*$21,609*

One of the unintended consequences of irrigation canal seepage and actual irrigation on the Heart Mountain Relocation Center lands was the development of a water table and associated springs beneath about 2,000 acres of farmland on the Cody and Powell terraces of the area (Swenson, 1957). While unintended, it came as no surprise because of similar occurrences throughout the Shoshone Project lands since the second decade of the 20th century.

Overall, the agricultural program was successful in feeding the center, helping the war effort, and providing meaningful work for evacuees . The produce and hog operations were especially successful. Poultry was less successful, partly because of poor climate management within the poultry houses (Hartman, 1945, p. 30-31). The poultry operation may have also been hampered by theft of chickens. At one point, a chicken census revealed that 2,000 chickens were missing. The center’s veterinarian Dr. Minol Ota determined that the chickens had disappeared and died

Table 4.3. Livestock raised at Heart Mountain Relocation Center, 1942-1945. Data from Hartman (1945).

	1942	**1943**	**1944**	**1945**	***Total***
Chickens					
Total Number Butchered	0	176	7,974	0	*8,150*
Meat Dressed Weight (lbs)	0	704	31,976	0	*32,680*
Market Value ($)	0	$204	$12,036	0	*$12,240*
Eggs (dozen)	0	2,070	92,797	0	*94,867*
Market Value ($)	0	$708	$29,296	0	*$30,004*
Hogs					
Total Butchered	0	491	1,794	0	*2,285*
Dressed Weight (lbs)	0	91,572	372,704	0	*464,376*
Market Value ($)	0	$18,314	$70,180	0	*$88,494*

as a result of "barracks sickness". According to Ota, once a chicken had barracks sickness, it was taken to a barracks by an evacuee where it later died (Mackey, 2000, p. 135).

Business and Industry. The consumer cooperative Community Enterprises stores were scattered about the residential portion of the center. These included canteens, dry goods store, shoe store, fish store, rationed goods store, radio repair shop, dry cleaners, barber shops, and beauty shops (Sakauye, 2000).

Industry was limited at Heart Mountain. The center operated a sawmill west of Cody along the North Fork of the Shoshone River. The sawmill provided the center with ample rough cut lumber for a variety of construction projects including root cellars, chicken houses, and pig pens (Staff, 17 July 1943). A silk screen poster shop created multi-colored posters for the U.S. Navy and for center purposes (Staff, 17 July 1943). A bakery was also present in the center and among its products was tofu (Staff, 8 January 1944). Each of these enterprises employed evacuees who earned from $12/month (unskilled labor) to $19/month (professional or highly skilled labor) (Nelson, 1976).

Landscaping and Gardening. Landscaping, and flower and vegetables gardens adorned the main portion of the center. Besides beautification, trees, shrubs, and gardens helped reduce the dust generated in windstorms (Noble, 1996). In spring 1943, 2,500 trees and flowering shrubs were planted, but primarily in the administration, hospital, high school, and possibly the military police areas (Staff, 15 May 1943). It is unclear how successful these efforts were. Evacuees gathered stone from the surrounding environment plus iris bulbs, lilac shoots, and various flowers from nearby farms to start flower gardens and beautify the stark landscape (Les and Nora Bovee, oral communication, 18 June 2003). Some were very successful with flowers in the residential area (Mackey, 2000, p. 38; Sakauye, 2000). At one point, eight acres of victory gardens were growing within the main portion of the center (LaDonna Zall, written communication, 23 February 2007). Given the successes of the center's irrigated agricultural operation, any problems encountered in growing plants within the residential area may have been due to a lack of irrigation water (Staff, 15 May 1943; Les and Nora Bovee, oral communication, 18 June 2003). One evacuee also claimed that uncertainty about the future prevented some from planting gardens (Sakauye, 2000).

Education. With nearly 28% (3,043) of the center's population age 5-19 (as of 1 January 1943), it was imperative that Heart Mountain have an education program. The goals of the program followed the larger goals of the WRA–i.e., to prepare for evacuees to successfully resettle in areas away from the West Coast–and the accreditation requirements of the Wyoming State Department of Education. Initially, five elementary schools and a high school were housed in barracks. A new high school was completed by spring 1943 but plans for two "real" elementary schools were scrapped after public outcry about "pampering the Japs" with new, expensive buildings. Instead, the five existing elementary schools were condensed into two larger elementary "barracks" (Inouye, 1999; Mackey, 2000).

Aside from the initial school buildings, numerous problems existed with the center's education system in the first year, including: 1) disparity in pay between Caucasian teachers ($2,000-2,600/year + overtime) and evacuee ($228/year) teachers; 2) limited Wyoming teacher certificates for evacuees; 3) friction between Caucasian teachers and evacuee teachers because of racial prejudice; 4) very high student to teacher ratios; 5) sub-standard classrooms, equipment, and supplies; 6) a curriculum in constant flux because of changing WRA policy (e.g., education vs. vocation); 7) grade placement of students who had left their "home" schools in mid-year; 8) limited selection of courses, especially in science and foreign language; and 9) a high teacher and teaching assistant turnover rate because of the above-mentioned problems (Inouye, 1999; Mackey, 2000). However, many of these issues were resolved or set aside by the start of the 1943-44 school year and the school system ultimately worked for the students (Mackey, 2000). After not receiving a rating from the Wyoming State Board of Education in 1942-1943, Heart Mountain High School was rated as "Class One" in December 1943, meaning that graduates could attend the University of Wyoming without taking any additional examinations (Inouye, 1999). It certainly helped that the *Issei* (i.e., first generation Japanese Americans born in Japan) valued education and saw it as a vehicle for their children to rise within American society (Sakauye, 2000).

With the completion of the new high school and its associated gymnasium and auditorium, evacuees had not only a fine facility for their children but also a place for adult education classes and various special events (Mackey, 2000). Adult education courses began in fall 1942 and included bookkeeping, English, fine arts, history, industrial arts, and mathematics, and by all reports were popular with the evacuees (Sakauye, 2000).

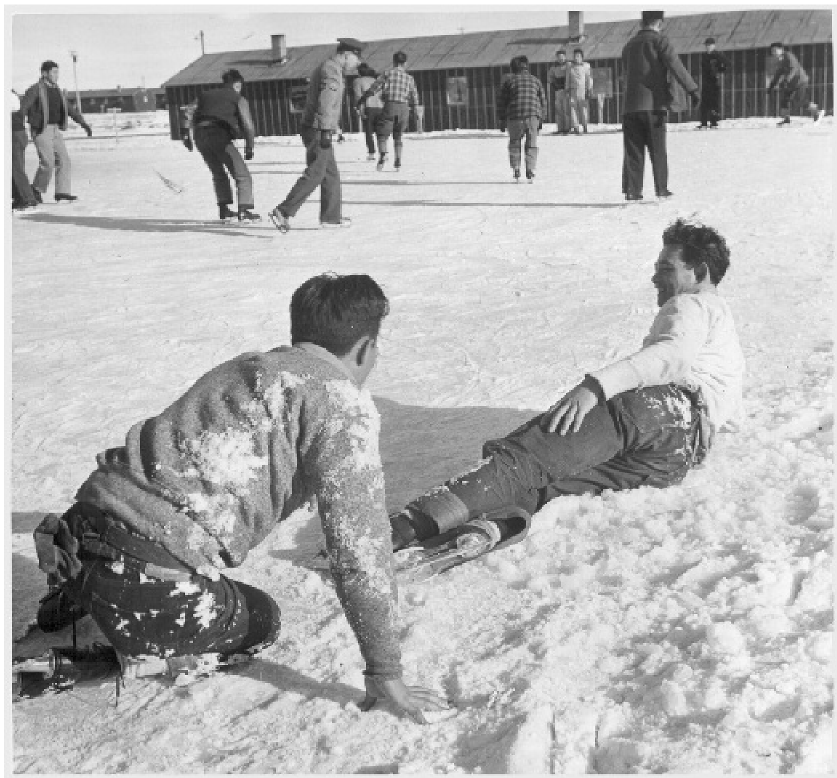
Recreation. Boredom was a key issue at Heart Mountain. The administration and evacuees thus established a strong activities program to help fight this.

Sports were a big part of the high school and overall Heart Mountain recreation program. The center's high school fielded competitive football, basketball, baseball, and softball teams that played high schools from throughout Wyoming and southern Montana. These schools included Basin, Burlington, Byron, Cody, Cowley, Deaver, Lovell, Powell, Rawlins, Riverton, Shoshoni, Thermopolis, and Worland, Wyoming, and Carbon County, Hardin, and Rapelje, Montana (Inouye, 1999). Crowds of as many as 4,000 evacuees came to watch baseball games with outside teams. The football team lost only once in two years (Mackey, 2000; Mullan, 1999). Interestingly, Worland and Casper each had at least one non-interned Japanese American player on their high school teams (Inouye, 1999). Depending on the account, either baseball or basketball were the reigning sports of the center (Staff, 12 August 1944; Inouye, 1999) .

Harry Honda and Herb Iseri, former members of the all-*Nisei* (i.e., second generation Japanese Americans born in the U.S.) Wapato Nippons of the otherwise all-white Mt. Adams Baseball League in southcentral Washington state, helped organize softball and baseball at Heart Mountain. Baseball and softball began in June 1943. By the end of the summer, 15 Heart Mountain baseball teams were competing with each other. The center baseball and softball teams, often like those outside, formed around past and present occupations and locations so teams existed with names such as the "Engineers", "Hospital", "Mess 20", and "Toppenish" (i.e., a town in Washington's lower Yakima Valley). Baseball was not limited to the young males of the center. Heart Mountain had an "Old Timers" league that included 13 teams in 1945. Further, the Issei composed at least 50% of the spectators at softball and baseball games. Sports, especially baseball, were a means of psychological escape for those incarcerated at Heart Mountain (Mullan, 1999. Baseball, as America's pastime, also offered evacuees the opportunity to demonstrate their loyalty to the U.S. Baseball, when played with teams from outside Heart Mountain, was also a way to show Caucasians that Japanese Americans were good citizens.

Swimming was a common summer activity after a large depression in the southeastern corner of the center was excavated, lined with gravel, and filled with water from an irrigation ditch in summer 1943 (Figure 4.12) (Mackey, 2000). The pool served an average of 200 swimmers on hot summer days (Staff, 22 July 1944). Ice skating (Figure 4.18) and sledding were popular winter sports. A large area was flooded and allowed to freeze at the site of the high school for the largest rink of the center. Following completion of the high school, a berm was constructed around the football field and the area within turned into a winter skating rink (Figure 4.12). Other small rinks existed within the residential blocks. Boxing, weightlifting, volleyball, and badminton were also common winter sports (Mackey, 2000).

Figure 4.18. Ice skating at one of the many ice skating rinks at Heart Mountain Relocation Center. Note evacuee barracks in background. Tom Parker photograph, January 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 12, Section B, WRA # -E-666, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 5: Heart Mountain Relocation Center, Heart Mountain, Wyoming.



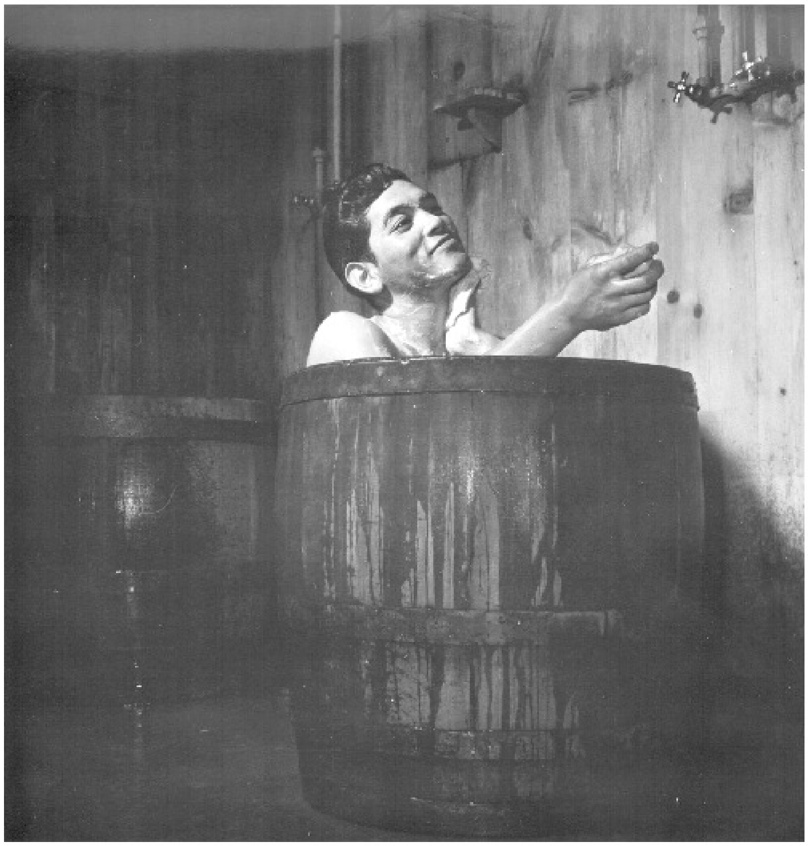
Scouting was a popular activity for kids and adult leaders (Figure 4.19). Boy Scout and Girl Scout troops forming at Heart Mountain that offered kids the opportunity to leave the center's confines for camping trips, trips to museums, etc. Scouting also offered interactions with the surrounding citizens and communities (Mackey, 2000); however, it was an ironic activity in its promotion of partriotism while those participating were incarcerated because of their racial and ethnic heritage.

With two theaters in converted barracks, attending movies was the most popular type of recreation at the center. Paid attendance at movies between October 1942 and September 1945 totaled nearly $601,000. This is especially significant when considering that price of admission was $0.10 for adults and $0.05 for children over five. Other activities included sewing, knitting, wood carving, ping pong, chess, checkers, card games, letter writing, and rock and fossil collecting (Mackey, 2000; Sakauye, 2000).

Figure 4.19. Heart Mountain Boy Scouts. Pat Coffey photograph, June 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 11, Section B, WRA # B-570, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 5: Heart Mountain Relocation Center, Heart Mountain, Wyoming.

Culture and Art. As at other centers, the culture of Heart Mountain was purposefully American despite the ethnic backgrounds of the evacuees. The administration discouraged traditional Japanese cultural activities. However, one could catch glimpses of the impacts of Japanese culture throughout the center. In addition to the various American celebrations, Japanese traditions included *Bon Odori* (Buddhist Festival of the dead), New Years and the making mochi rice cakes for the New Year celebration, and Boys Day (a celebration of the healthy growth and development of young boys). Barracks and mess hall gardens reflected Japanese heritage, as did *Kabuki* (a type of Japanese theater), *ofuros* (traditional Japanese deep baths) (Figure 4.20), *goh* and *shogi* board games (Figure 4.21), *biwa* (a musical instrument similar to a lute), calligraphy, *haiku*, flower arranging, and *bonzai* (Sakauye, 2000). One of the artists interned at Heart Mountain was Estelle Ishigo, a Caucasian who chose to evacuate with her Japanese husband (Eaton, 1952; Mackey, 2000). Ishigo's paintings depicted center life, including the center's harsh weather.

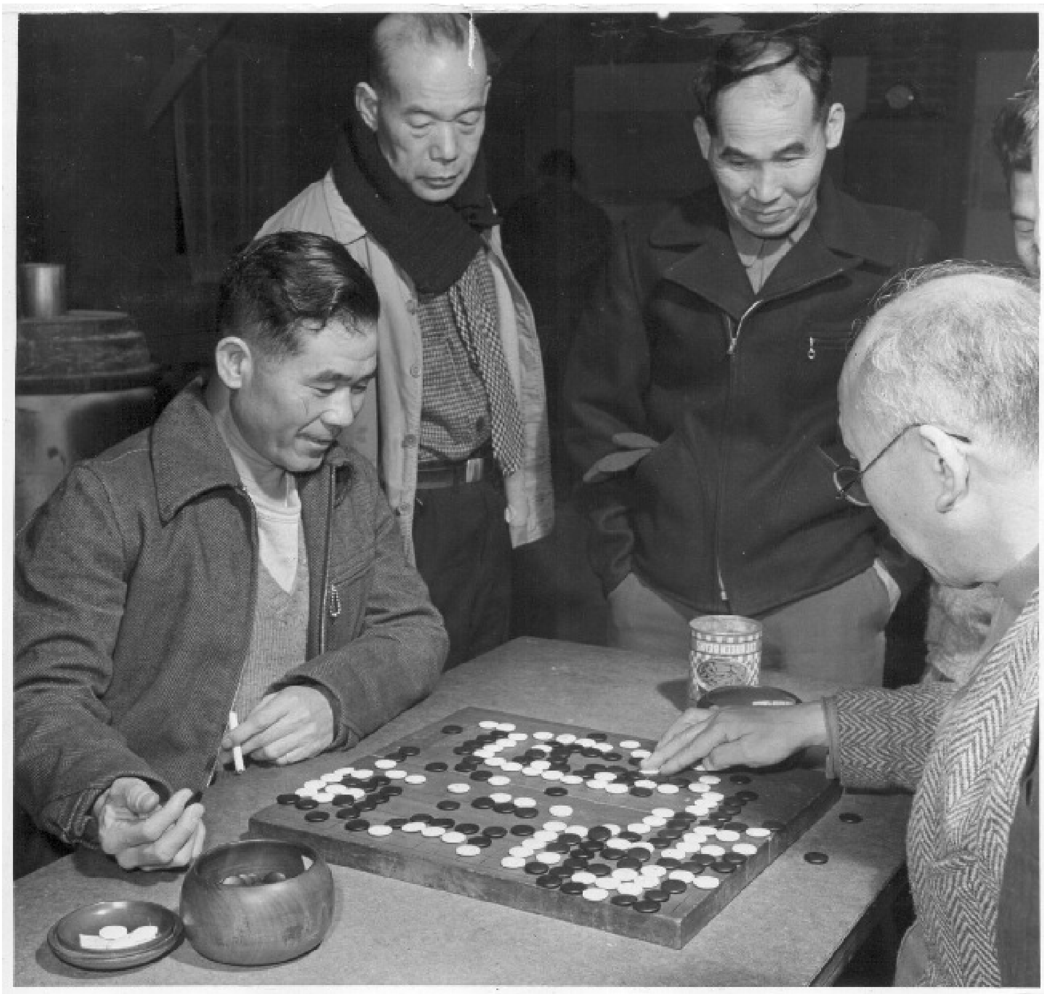
Figure 4.20. An evacuee bathing in an *ofuro* made from a sawed off pickle barrel. Hikaru Iwasaki photograph, November 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 78, Section G, WRA # -197, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 5: Heart Mountain Relocation Center, Heart Mountain, Wyoming.



Faith and Spirituality. Heart Mountain evacuees had "selective religious freedom" as they were free to worship in all but the Shinto faith (Sakauye, 2000). Churches were common in the recreation halls of the center with the Buddhists having the largest congregation. Buddhists, at the urging of administration officials, organized into one Buddhist congregation for space and scheduling reasons. Christian faiths included Baptists, Catholics, Methodists, Presbyterians, Reform Christian, Salvation Army, Seventh Day Adventists, and Union. For the same reasons as the Buddhists, the Protestant faiths also organized into a Community Christian Church. The Catholics, numbering about 100, had a separate congregation as did the Seventh Day Adventists (Noble, 1996; Mackey, 2000; Sakauye, 2000). Outside churches provided much needed relief, especially in the form of gifts for the center's children at Christmas (Noble, 1996).

Health. Heart Mountain boasted a 100 bed, 17 wing hospital located in the northeastern corner of the center (Figure 4.12). It initially included one Caucasian doctor who oversaw the entire

Figure 4.21. Two evacuees play *go*, a game of military strategy and keen wits, while other evacuees watch. Tom Parker photograph, January 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 11, Section B, WRA # E-600, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 5: Heart Mountain Relocation Center, Heart Mountain, Wyoming.



hospital and evacuee physicians, dentists, pharmacists, nurses, and aides. From 1942-1945, approximately 1,000 operations were performed and nearly 570 babies were born in the hospital. Those requiring more complex surgery were sent to Powell, Cody, or Billings (Mackey, 2000; Sakauye, 2000; LaDonna Zall, written communication, 22 February 2007).

While some have touted Heart Mountain's hospital as the best Wyoming, it faced a variety of issues. Medical furnishings and supplies were insufficient, especially during the first year of operation. Qualified medical staff was often in short supply because of relocation to the outside. A main factor in the relocation of medical personnel was the pay inside as compared to outside the center. Japanese American doctors were paid $19/month at Heart Mountain while they could make much more on the outside. In contrast, Caucasian registered nurses at Heart Mountain were paid $150/month (Mackey, 2000).

Government. Government within Heart Mountain consisted of two parallel bodies–Block Managers and Council Members–each ultimately operating under the authority of the Project Director. Block Managers from each block were appointed by the Project Director and were primarily Nisei. They dealt with daily issues including housing, mess halls, and repair and maintenance. They, in turn, advised center administrators on these issues. With the ratification of a charter in July 1943, each block was expected to elect a Council member who would make and enforce center rules and regulations. Most of the Councilmen were Issei. Ultimately, the Block Managers represented the Nisei while the Councilmen represented the Issei. Evacuees could vote in center elections but could not vote in standard Wyoming elections. It was not until May 1944 that it became clear that evacuees could vote via absentee ballot on elections in their hometowns (Sakauye, 2000).

While initially touted by center officials as "self-government", all final decisions were made by the Project Director and his staff. As evacuees recognized the futility of the "self-government" in decision-making, they increasingly withdrew from participation in the government. In August 1944, conditions had deteriorated so much that only eight candidates were running for the twenty seats on the Community Council (Staff, 5 August 1944; Nelson, 1976).

Community. Conditions in the center were described as "tense" (Hosokawa, 1984, p. 21). This was especially true in the months immediately following the opening of the center, perhaps because of the severe injustice in being relocated, the living conditions in the center, and the bleak setting which the center occupied (Nelson, 1975). Strikes, work stoppages, protests, and petitions occurred among coal loaders, hospital staff, internal police, and the general populace because of everything from working conditions to the presence of the barbed wire fence surrounding the center (Nelson, 1975). These events were associated with anti-WRA factions led by young Nisei who were loyal to the U.S. but who viewed relocation as morally and legally wrong (Nelson, 1976). Other Nisei embraced the views of the Japanese American Citizens League (JACL) who emphasized their loyalty to the U.S. and chose not to resist the policies and practices of the WRA (Nelson, 1976).

Despite being held behind barbed wire at Heart Mountain and being classified as 4-C ("not acceptable for military service because of nationality or ancestry"), all men ages 17 to 36 were required to register for Selective Service. Only 38 Heart Mountain Japanese Americans responded to the requests to volunteer for military service in 1943. Because of high war casualties in the segregated military units, the U.S. Government reclassified Nissei males 17-36 years of age as 1-A. With this change in draft status, the "Fair Play Committee" formed at Heart Mountain. Formed from the Heart Mountain Congress of American Citizens, the Fair Play Committee was opposed to the drafting of Japanese Americans from Heart Mountain until their civil rights were restored and their citizen status clarified. Sixty-three evacuees eligible for the draft refused to report for their pre-induction physicals. All 63 were accused of failure to report to the local draft board and were tried as a group in a non-jury trial. In June 1944, all were found guilty and sentenced to three years in a federal prison. Seven leaders of the Fair Play Committee were subsequently tried and convicted of conspiracy to evade the draft (Mackey, 2000). Despite the actions of the 63 evacuees and the Fair Play Committee, many Heart Mountain men and women ultimately served in the U.S. armed forces (see below).

Evacuation also heightened conflict between the Issei and Nissei. Issei had been the economic, social, cultural, and family leaders of the Japanese American communities prior to World War II. However, evacuation and incarceration in the centers had given more power to the Nisei, who as American citizens, could vote and hold office, and were more suited to the Americanized centers than were the Issei. Further, Nissei often believed that the "old country" ways of their parents were the reason they were imprisoned. At Heart Mountain, this resulted in the embittered Issei withdrawing from most facets of community leadership (Nelson, 1976).

Another issue that hampered the development of community within Heart Mountain, as well as the other relocation centers, was the turnover of evacuees within the center. This turnover occurred because of relocation to places outside, either seasonally or more permanently, or transfer to other centers (see below).

Interaction with Surrounding Areas

The Outside World. As at other centers, Heart Mountain residents interacted with those outside in a variety of ways and with a variety of results. Evacuee farmers sought advice from government agricultural experiment station personnel as well as local farmers. In turn, the large Heart Mountain agricultural operation was much like having another agricultural experiment station with which to advise local EuroAmerican farmers (Sakauye, 2000). Among the locals were those of Japanese descent. Issei from the area visited the center to again be able to speak Japanese with someone other than a family member (Girdner and Loftis, 1969).

The construction and occupation of the center by approximately 10,000 Japanese Americans, played a huge role in the economy of the northern Bighorn Basin. These impacts also went a long way towards smoothing the interactions between the evacuees and the surrounding primarily EuroAmerican population. Much of the approximately $5,000,000 spent on Heart Mountain construction remained in the state. Further, the center contributed roughly $500,000 to the state's economy each year it was in operation (Larson, 1978). R.T. Baird, editor of the *Powell Tribune*, stated that the Heart Mountain Relocation Center was a "big boon to business–the biggest thing in the way of industrial and payroll activity that has ever come to Powell" (Mackey, 2000, p. 27). Local Powell businessmen vied for lucrative Government contracts with the center.

Other business owners relied on Japanese Americans shopping at their businesses when they were able to obtain passes to leave the center. Such shopping was possible because, early on, the fence surrounding the center was more symbolic than physically restrictive. Passage through the front gate required a pass, authorized by someone in the administration and issued and collected by a soldier at the gate. Because of the ability to get shopping passes, evacuees contributed $25,000-50,000/year to the economy of Powell. The state and local government also benefitted from the increased sales and property tax revenues associated with the center. For example, $12,000 in sales tax revenues were paid by evacuees in just the first year of the center's existence (Mackey, 2000).

The feelings of most prominent individuals in Cody and Powell were that a relocation center was acceptable as long as evacuees were closely guarded for the duration of their stay, and that once the war was over they did not remain in Wyoming. Powell seemed more welcoming than did Cody to Japanese Americans. The efforts of *Powell Tribune* Editor Baird and those of *Powell Tribune* evacuee columnist Mary Oyama Mittwer played a large role in these relations (Mackey, 2000). Conversely, signs reading "No Japs Allowed" could be seen in Cody storefronts (Murray, n.d.). At other Cody stores, Japanese American shoppers noted that merchants, while not overly friendly, were tolerant as long as evacuees were spending money (Girdner and Loftis, 1969). In retrospect, it is ironic that Powell and Cody residents wanted the evacuees available to labor in the nearby agricultural fields and some business owners wanted their business but otherwise did not want the evacuees in their towns or to remain after the war (Larson, 1954).

A popular center band, the "Hawaiian Surf Riders" and the center orchestra played at numerous events throughout the Bighorn Basin. Evacuees were able to leave center and hike west toward Heart Mountain searching for rocks, fossils and small evergreen trees for bonzai. Heart Mountain Boy and Girl Scouts had opportunities to camp in Yellowstone National Park in Summer 1944 (Mackey, 2000). As mentioned above, Heart Mountain sports teams played schools and organizations from throughout the Bighorn Basin. Prejudice could sometimes be seen in these interactions as well–e.g., Powell High School refused to play the Heart Mountain High School Eagles football team to determine the 1944, 6-man football champions (Mullan, 1999).

While Heart Mountain evacuees relations with local residents were generally satisfactory, the same cannot be said of state politicians and the state overall. Like Governor Carr in Colorado, the political fate of Wyoming Governor Nels Smith was partially determined by the Japanese American relocation issue. Smith moved slowly to resolve the issue of work releases for Heart Mountain evacuees thus costing farmers three weeks of the sugar beet harvest season. Farmers did not forget Smith's actions in the November 1942 elections. The Wyoming Legislature introduced, and newly-elected Governor Lester Hunt signed into law in February 1943, a bill that prevented Japanese Americans from voting in any election held in Wyoming. Wyoming lawmakers subsequently made it illegal for any Heart Mountain evacuees to obtain Wyoming fishing and hunting licenses (Mackey, 2000). The intent of both of these actions was to discourage Japanese Americans from staying in Wyoming after the Heart Mountain center closed.

Otherwise, evacuees could leave the center on short-term, seasonal, and indefinite leaves. Short-term leaves ranged from several days to a few weeks, and were typically for personal business or medical issues. Seasonal leaves were granted to evacuees for seasonal agricultural employment. The purpose of indefinite leaves was to permanently depart the centers for relocation to the "outside world", join the armed forces, be interned in a Department of Justice Internment Camp, committed to an institution, or repatriated to Japan (U.S. War Relocation Authority, 1946).

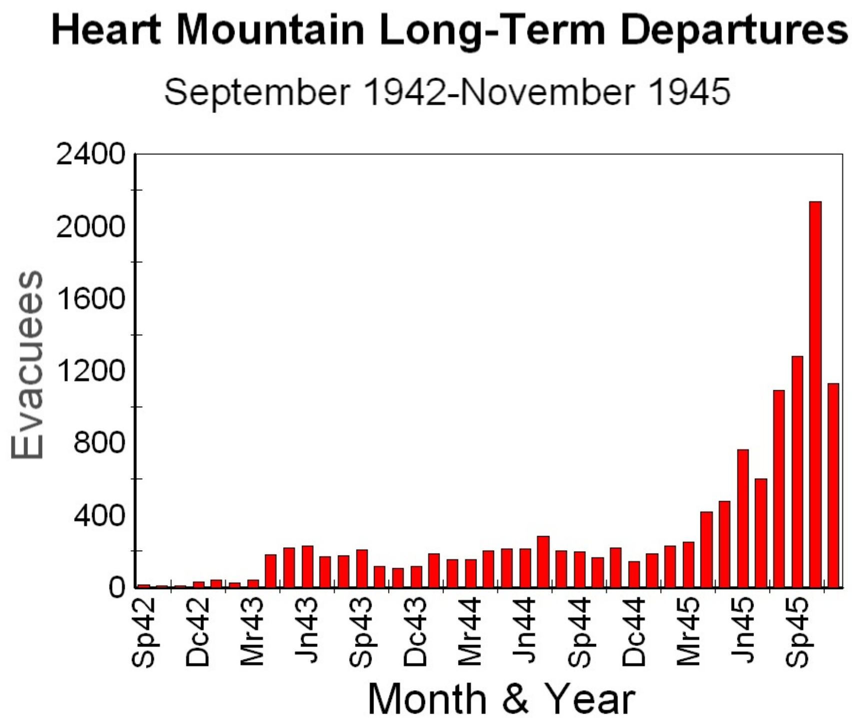
Seasonal leaves greatly benefitted area farmers. By the end of the 1942 harvest season, nearly 1,400 evacuees were working outside the center on farm labor contracts (Mackey, 2000). Farmer responses to these workers seems to have been quite positive; however, sugar beet farmers in Wyoming's Big Horn County generally were not happy with the work done by Heart Mountain evacuees likely because most of the workers had little previous farm experience (Fiset, 1999). It is not clear whether the Heart Mountain evacuees had contact with the German and Italian prisoners of war (POW's) held in branch camps in Worland, Lovell, and Basin. It seems likely, though, as the POW's and the evacuees were working in the agricultural fields of the area at the same time (Larson, 1954).

Relocation from the center was encouraged early on but was generally slow until April 1943 (Figure 4.22). From then until the closure of the center in November 1945, no month had less than 100 long-term departures. Only 64 evacuees departed in 1942 but these were followed by 1,620 in 1943, 2,325 in 1944, and 8,552 in 1945 (U.S. War Relocation Authority, 1946). Heart Mountain evacuees relocated to at least 31 states (Figure 4.23). Most popular among the cities relocated to were Chicago, Denver, Detroit, Minneapolis-St. Paul, and New York City. Excessive paperwork and bureaucracy, daunting departure arrangements, travel costs, and uncertainty about employment and housing arrangement all conspired to slow relocation. The experiences of these relocating evacuees were mixed–some secured good jobs in supportive communities in Wyoming and other states while others encountered racism and hatred as they hunted for jobs (Mackey, 2000; Taira, 2001).

Over 650 Heart Mountain evacuees volunteered or were inducted into the U.S. Armed Forces. Most of these were inductees (M. Mackey, written communication, 24 June 2007). Many of the male volunteers and draftees joined the all-Nisei 442nd Regimental Combat Team, which included the 100th Infantry Battalion and the 522nd Field Artillery Battalion (Mackey, 2000). The 442nd earned the widespread respect of the military leadership for its bravery and fierce fighting in the European theater. The combat team's motto "go for broke" epitomized the attitude of many of the Nisei soldiers. Approximately 16% (63) of the 347 Heart Mountain evacuees fighting in the war became casualties (U.S. War Relocation Authority, 1946).

Other Relocation Centers. Heart Mountain interacted with the other relocation centers through the transfers of evacuees, the exchange of goods, and in sporting events. A total of 988 evacuees from Heart Mountain transferred to Tule Lake because they or members of their family answered "no" to questions 27 and 28 on the "loyalty questionnaire" (Appendix C). Two evacuees were sent to the Leupp, Arizona Isolation Center. Heart Mountain, in turn, received 1,351 "loyal"

Figure 4.22. Indefinite leaves (i.e., relocations), Heart Mountain Relocation Center, September 1942-November 1945. Data from U.S. War Relocation Authority (1946, p. 35).



evacuees from Tule Lake. The loyalty questionnaire also resulted in 27 Heart Mountain evacuees being repatriated to Japan in late summer 1943 (U.S. War Relocation Authority, 1946).

As noted above, Heart Mountain shipped farm products to other centers. These included produce, pickled daikon, and cattle feed (Staff, 31 March 1945; Sakauye, 2000). One train carload of beef cattle was also received from Amache (Hartman, 1945).

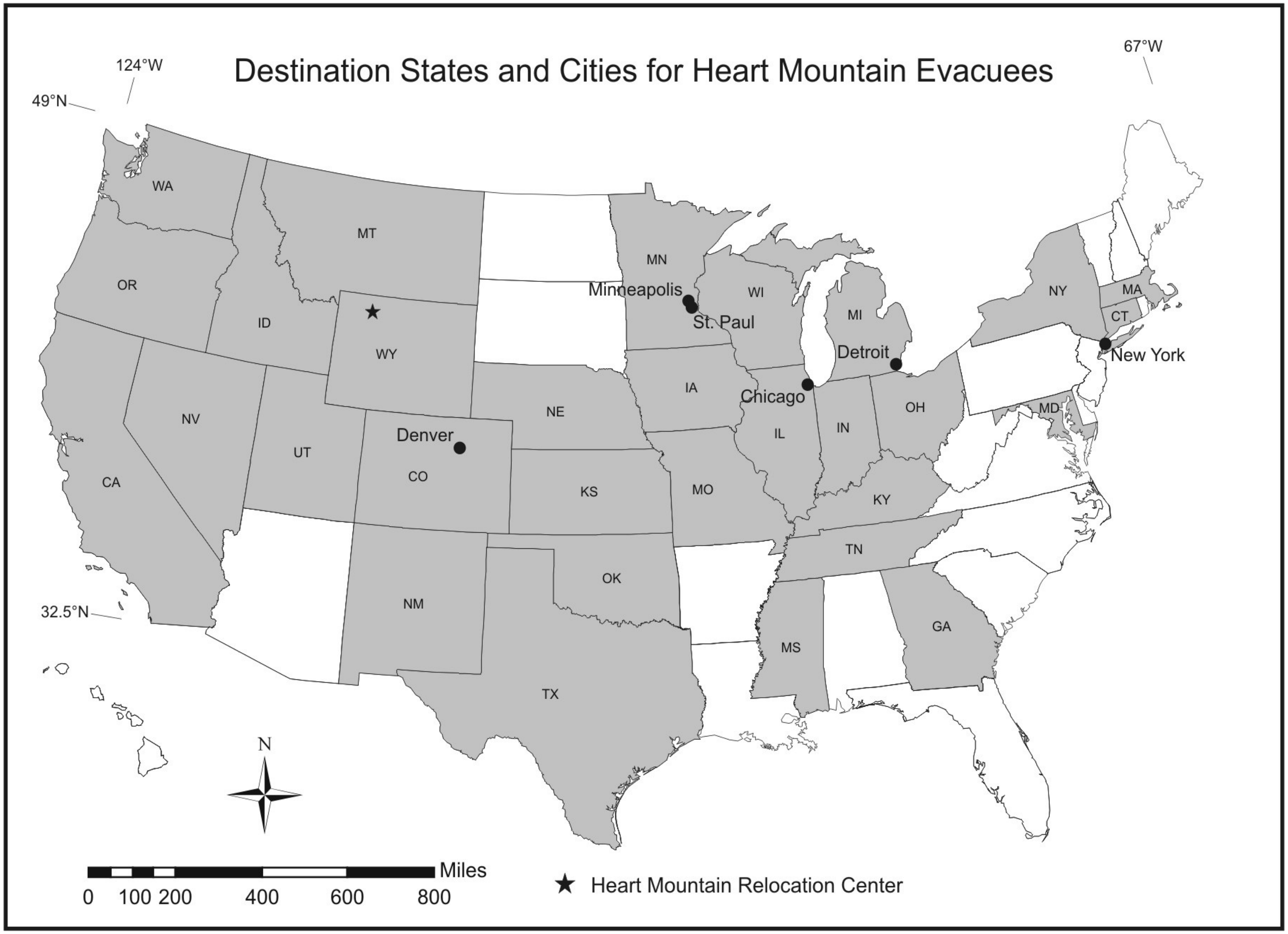
Heart Mountain also hosted the Gila River Relocation Center baseball all-stars for a series of games in September 1944. Baseball legend Kenji Zenimura's Gila River squad won the majority of the games in this exciting series (Staff, 16 September 1944).

Closing Heart Mountain and Another Relocation

Public Proclamation #21 on 17 December 1944 ended the West Coast Exclusion Order that had been in effect since 1942. As of 2 January 1945, evacuees could begin moving back to the West Coast. All relocation centers were to be closed by the end of 1945.

On 1 January 1945, more than 8,500 evacuees remained in the center (Figure 4.24). By 1 June, just over 7,000 evacuees were still at Heart Mountain (U.S. War Relocation Authority, 1946). To further spur evacuees to leave, WRA Director Dillon Myer moved the Heart Mountain

Figure 4.23. Geography of Heart Mountain indefinite leaves (i.e., relocations), September 1942-October 1945. Data from various issues of the *Heart Mountain Sentinel* and U.S. War Relocation Authority (1943).



closure date up to 15 November 1945 (Mackey, 2000). The center newspaper's last issue came out on 28 July 1945. Slowly the center was closed around its residents. Approximately 5,000 evacuees remained on VJ (i.e., Victory over Japan) Day in August 1945 (U.S. War Relocation Authority, 1946). However, the center ended up closing ahead of schedule on 10 November 1945 when the last train of evacuees departed (Mackey, 2000). A community analyst wrote of the closing of Heart Mountain:

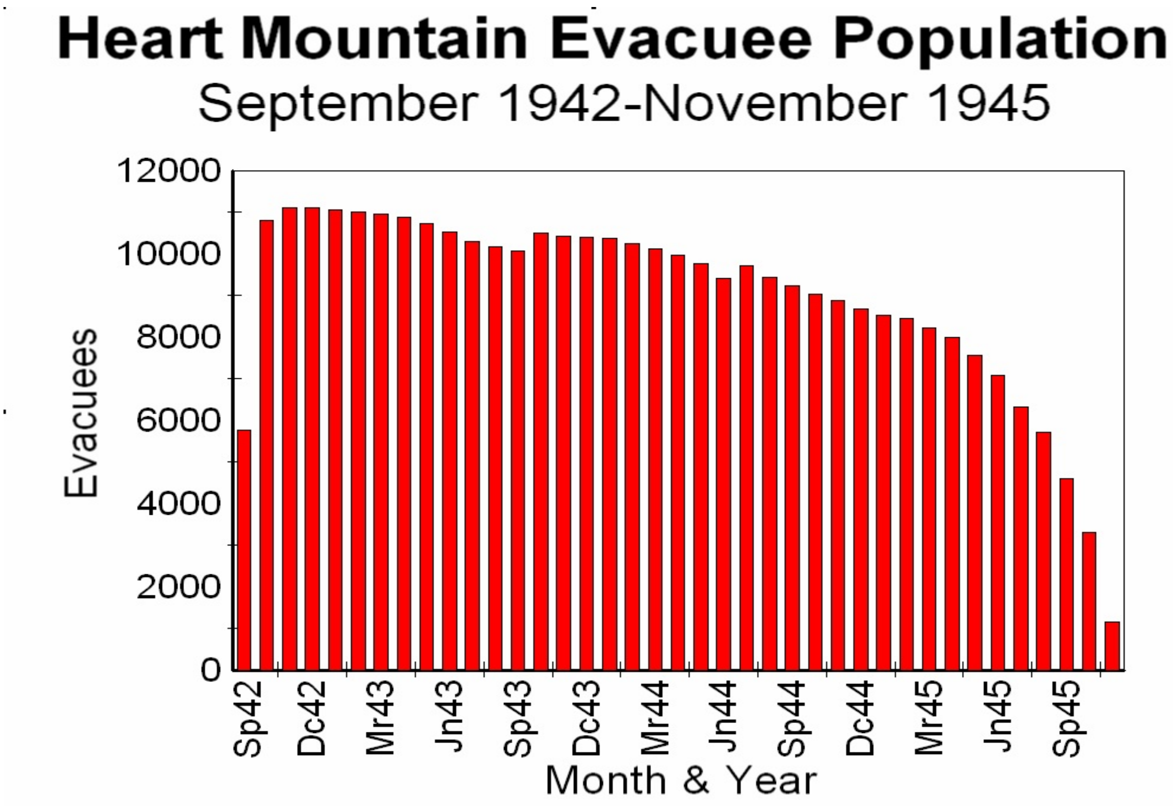
> *Heart Mountain was never a lovely place. But when it was full of people and one knew many of the people, even the barracks did not look so black and bleak. On Sunday and Monday, November 11 and 12 [1945], it was truly unlovely. It was cold, quiet, and empty. Trash heaps lined the streets. The atmosphere of desertion and desolation was made more marked by lonesome, hungry cats crawling over the trash heaps.*
>
> *The community was obviously and totally dead. Since then, the project staff, acting now in the role of morticians, have been preparing the physical remains for such disposition as awaits a dead community.*
>
> Hansen (1986, p. 37)

Impacts of Heart Mountain on Today's Bighorn Basin Landscape

Evacuee Dispersion. Few Japanese American evacuees remained in northwestern Wyoming after the closing of Heart Mountain. The 1950 census shows 38 persons of Japanese descent living in Park County, Wyoming as compared to 41 in 1940 (U.S. Bureau of the Census, 1942; 1952). Long-time residents recall only two Japanese American evacuees remaining in the Cody-Powell area following the closure of Heart Mountain (Les and Nora Bovee, oral communication, 18 June 2003). Some stayed in the Greybull/Worland area where more arable land was available along the Bighorn River and the political climate was better (Paul Fees, oral communication, 19 June 2003). Those who did remain likely married into Wyoming families. Similarly, the Japanese American population of the northwest Wyoming counties as well as adjacent Montana counties declined slightly from 1940 to 1950 (U.S. Bureau of the Census, 1942b; 1952b). Statewide, persons of Japanese descent declined dramatically from 1,286 in 1940 to 438 in 1950 (Figure 4.10) (U.S. Bureau of the Census, 1942a; 1952a).

Land Dispersion. With the announcement in February 1945 that there would be no center-operated agricultural program on the Heart Mountain lands in 1945, center farmlands were declared surplus and reverted to the Bureau of Reclamation (Staff, 24 February 1945). By March 1945, numerous Park County farmers had bid on leases to 1,753 acres of the center's former farmlands (Staff, 24 March 1945). The land leased from the State of Wyoming for the center sawmill was transferred to the Powell Girl Scouts for use as a summer camping site (Thye, 1947).

Figure 4.24. Resident population, including evacuees on short term and seasonal leave, Heart Mountain Relocation Center. Data from U.S. War Relocation Authority (1946, p. 18).



Following closure of the center, and clearing of much of the remains of the center from the surface, homesteaders moved into the area. The first drawing for Heart Mountain Division lands occurred in February 1947. Other drawings were held in 1948 and 1949. Ultimately, 217 farm units were transferred to new owners (Churchill, 1979).

Infrastructure Dispersion. Coincident with the announcement in February 1945 that there would be no center-operated agricultural program on the Heart Mountain lands in 1945, officials also declared all agricultural equipment and supplies as surplus (Staff, 24 February 1945). Buildings and various other center equipment were sold following the closure of the center (Burton et al., 2002). Each "homesteader" on the former center lands was entitled to 2, 20 feet x 120 feet barracks for $1 apiece. Each barracks was typically cut into thirds and hauled away (Les and Nora Bovee, oral communication, 18 June 2003) (Figure 4.25). Of the 720 barracks that the Bureau of Reclamation deemed sufficient to be houses for homesteaders, 326 were moved to homesteader lands on the division by 1948. Non-profit organizations received 70 structures and the Bureau of Reclamation kept 104. The remainder went to homesteaders in the 1948 and 1949 drawings (Churchill, 1979). Barracks and various other center buildings were transformed into homesteader houses as well as garages, barns, and various outbuildings. One can see these former center buildings at farms along U.S. Highway 14-A between Cody and Powell (Figure 4.26). At least 23 partial to full barracks plus one "large quonset" were scattered throughout the area as of June 2003 (Heart Mountain Foundation, unpublished data, 18 June 2003). Lumber and items such as doors and bricks were incorporated into many remodels in the area and moved at least as far away as Riverton 150 miles south of the center (Les and Nora Bovee, oral communication, 18 June 2003; Murray, n.d.). That which was not trucked from the site was likely burned, buried, or shoved aside.

Remains of Heart Mountain. Burton et al. (2002) describe in detail the nature of Heart Mountain as of about 2000. Along with two students, I also visited the area in June 2003. Similar to Burton et al (2002), we observed remains of the center scattered about a large area.

Little is left of the evacuee residential portion of the center. Once buildings and other center debris were removed, this area was farmed. A small concrete building that may have been an engineering room remains at the site of the former high school (Figure 4.27). Several roads running through the farm fields may remain from the former evacuee area.

Figure 4.25. One-third of a barracks being moved from Heart Mountain Relocation Center to a homestead. Later, each would be remodeled for the new settlers. Image used by permission from Churchill (1979, p. 95).

Figure 4.26. Remains of barracks on farm near former Heart Mountain Relocation Center. Author photograph, June 2003.

The most intact portion is a 71 acre parcel owned by the Bureau of Reclamation that includes the former hospital, staff housing, and administration complexes (Figure 4.12). Three buildings of the hospital complex remain including the prominent and distinctive heating plant and its chimney (Figure 4.28), a warehouse, and a mess hall. One house remains in the staff housing area between the hospital and the administration area. Center-era power poles, concrete slabs, fire hydrants, manholes, concrete sidewalks, and concrete foundations are present in the hospital and staff housing areas. The administration area also includes the reconstructed Honor Roll that was reconstructed in 2004 and honors Heart Mountain veterans. A walking tour of the area was dedicated in 2005 (LaDonna Zall, written communication, 23 February 2007). Russian olive and cottonwood trees plus lilacs remain in the administration and staff housing areas (Figure 4.29).

Rock-lined walkways also remain in the open area between the hospital and the staff housing. Linear scraped areas near the abrupt edge of the hospital and staff housing escarpment and piles of debris at the escarpment indicate past bulldozing (Figure 4.30). Fresh-looking quartzite, gneiss, and granitic rocks in these debris pile may be the remnants of gardens in the evacuee or staff housing areas.

Figure 4.27. View east across former evacuee residential area, Heart Mountain Relocation Center. Arrow at right points to concrete engineering room at former high school. Arrow at left points to a road that may date to the relocation center. Note badland topography of McCullough Peaks area in background. Author photograph, June 2003.

Figure 4.28. Former hospital heating plant, Heart Mountain Relocation Center. Author photograph, June 2003.

Figure 4.29. Trees in former administration and staff housing areas, Heart Mountain Relocation Center. View southwest. Author photograph, June 2003.

Figure 4.30. Berms left between successive bulldozer passes within the former hospital and staff housing areas, Heart Mountain Relocation Center. Author photograph, June 2003.

In the warehouse area, a root cellar and concrete slabs remain. Part of the original perimeter fence also remains in the warehouse area (Figure 4.31). The swimming hole remains as a large depression (Burton et al., 2002).

Outlying areas also contain evidence of the former center. The foundation for the low level pumping plant remains on the left bank of the Shoshone River and the large concrete water reservoir remains on the pediment surface northeast of the former evacuee residential area. Seven Japanese Americans who were first buried in the center's cemetery were reburied in the Crown Hill Cemetery in Powell (Figure 4.32) prior to the center cemetery being turned into farmland (Burton et al., 2002).

A small portion of the original center received National Historic Landmark status in September 2006 (U.S. Bureau of Reclamation, n.d.). The Heart Mountain Memorial Park and Honor Roll is located on this land. A historical monument is also located on U.S. Highway 14-A near the entrance to the center. The Buffalo Bill Museum archives and the Heart Mountain Foundation archives hold photographs and limited documents related to the center. The Heart Mountain Foundation has plans to work with the National Park Service to stabilize existing buildings, recreate a portion of an evacuee residential block, develop and lead walking tours, and build a resource learning center in which to hold their ever-growing archival materials (National Park Service, n.d.a; National Park Service, n.d.b).

Figure 4.31. Remains of wooden perimeter fence in former Warehouse area, Heart Mountain Relocation Center. Compare to more recent steel fence posts to the right. Author photograph, June 2003.

Figure 4.32. Headstones of Heart Mountain Relocation Center evacuees in foreground and near background, Crown Hill Cemetery, Powell, Wyoming. Author photograph, June 2003.

Wyoming's Northern Bighorn Basin Today. The northern Bighorn Basin continues to be a primary agricultural area. Powell persists as an agricultural service center for the lands of the Shoshone Project, and is the home of Northwest College. Farmers on the irrigated lands of the Shoshone Project raise sugar beets, alfalfa, beans (Great Northern and pinto), and barley (for beer brewing) (Les and Nora Bovee, oral communication, 18 June 2003). Cody continues to thrive as a tourist gateway to Yellowstone National Park. U.S. Highway 14-A is a main route through the northern Bighorn Basin as is the Burlington Northern Santa Fe Railroad (formerly the Chicago, Burlington and Quincy Railroad).

As of 2005, the population of Park County was 26,664, a 3.4% increase since 2000. The population density of the county is lower than that of the overall state–i.e., 3.7 versus 5.1 persons per mi^2 as of 2000. Over 94% of Park County's resident's are white and non-Latino as compared to 88.6% statewide. In addition to whites, only Latinos have a significant impact on the race and ethnicity of the basin (U.S. Census Bureau, n.d.).

Beyond the distinctive hospital heating plant smokestack, the several hospital buildings, and the Heart Mountain memorial on Bureau of Reclamation lands as well as the Veterans of Foreign Wars monument on U.S. Highway 14-A, little obvious remains of the Heart Mountain Relocation Center. By looking harder, one can still see the barracks and various other center buildings scattered throughout the northern Bighorn Basin on various farmsteads. Perhaps the most lasting heritage of the center are the approximately 1,700 acres of farmlands developed by the evacuees that continue to be productively farmed (Figure 4.33).

Figure 4.33. Contemporary farmland on former ands of Heart Mountain Relocation Center. Farmland on Cody Terrace. Note riser leading to Powell Terrace and the lands of the main portion of the center. Also, note Hospital heating plant on skyline. Author photograph, June 2003.

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References

Aoyama, M., 1943: Picture. *Heart Mountain Sentinel*, 1 January.

Bailey, R.G., 1995: Description of the Ecoregions of the United States (2nd edition). *USDA Forest Service Miscellaneous Publication* 1391.

Bonner, R.E., 2002: The Dam and the valley: Land, people, and environment below Buffalo Bill Dam in the Twentieth Century. *Agricultural History*, 76 (2): 272-288.

Brown, R.H., 1980: *Wyoming: A Geography*. Boulder, Colorado: Westview Press.

Burton, J.F., Farrell, M.M., Lord, F.B. and Lord, R.W., 2002: *Confinement and Ethnicity: An Overview of World War II Japanese American Relocation Sites*. Seattle: University of Washington Press.

Churchill, B.G., 1979: *Dams, Ditches and Water: A History of the Shoshone Reclamation Project*. Cody, Wyoming: Rustler Printer and Publishing.

Commission on Wartime Relocation and Internment of Civilians, 1982: *Personal Justice Denied. Report of the Commission on Wartime Relocation and Internment of Civilians*. Washington, D.C.: U.S. Government Printing Office.

Cross, C.I., 1951: Geography of the Big Horn Basin of Wyoming. Ph D Dissertation. University of Washington, Seattle.

Eaton, A.H., 1952: *Beauty Behind Barbed Wire: The Arts of the Japanee in Our War Relocation Camps*. New York: Harper and Brothers Publishers.

Fenneman, N.M., 1931: *Physiography of Western United States*. New York: McGraw-Hill Book Company, Inc.
Fiset, L., 1999: Thinning, Topping, and Loading: Japanese Americans and Beet Sugar in World War II. *Pacific Northwest Quarterly,* 90(3): 123-139.

Gardner, A.D., 1996:World War II and the Japanese of Southwestern Wyoming. *Wyoming History Journal*, 68 (2): 22-32.

Georgen, C., 2003: Subjects of the Mikado: Sheridan County's Japanese Community, 1900-1930. *Annals of Wyoming*, 75 (2): 2-7.

Girdner, A. and Loftis, A., 1969: *The Great Betrayal: The Evacuation of the Japanese-Americans During World War II*. London: The Macmillan Company.

Griffiths, J.F. and Driscoll, D.M., 1982: *Survey of Climatology*. Columbus: Charles E. Merrill Publishing Company.

Hansen, A.T., 1986: My Two Years at Heart Mountain: The Difficult Role of an Applied Anthropologist. *In* Daniels, R., Taylor, S.C. and Kitano, H.H.L., eds., *Japanese Americans: From Relocation to Redress*. Salt Lake City: University of Utah Press, pp. 33-37.

Hartman, G.T., 1945: Heart Mountain Relocation Center Agricultural Section Final Report. Reel #63, Records of the War Relocation Authority, 1942-1946, Field Basic Documentation, National Archives, Washington, D.C.

Hendrickson, G.O., 1977. Immigration and Assimilation in Wyoming. *In* Hendrickson, G.O., editor, *Peopling the High Plains: Wyoming's European Heritage*. Cheyenne, Wyoming: Wyoming State Archives and Historical Department, pp. 169-194.

Heuterman, T.H., 1995: *The Burning Horse: Japanese-American Experience in the Yakima Valley, 1920-1942*. Cheney, Washington: Eastern Washington University Press.

Hodgson, D. and Hills, V., 1977: Dream and Fulfillment: Germans in Wyoming. *In* Hendrickson, G.O., editor, *Peopling the High Plains: Wyoming's European Heritage*. Cheyenne, Wyoming: Wyoming State Archives and Historical Department, pp. 35-65.

Hodgson, D., 1991: The Other Germans in Wyoming. *Annals of Wyoming*, 63 (4): 145-149.

Hosokawa, W., 1984: Heart Mountain: William Hosokawa. *In* Taeishi, John (editor) *And Justice for All: An Oral History of the Japanese American Detention Camps*. New York: Random House, pp. 18-22.

Inouye, M., 1999: Heart Mountain High School, 1942-1945. *Journal of the West*, 38 (2): 56-64.

Ishigo, E., 1972: *Lone Heart Mountain*. Los Angeles: Anderson, Ritchie & Simon.

Ishii, A.U., 1991: Amy Uno Ishii. *In* Hansen, A.A., editor, *Japanese American World War II Evacuation Oral History Project, Part 1: Internees*. Westport, Connecticut: Meckler, pp. 39-91.

Iwata, M., 1992: *Planted in Good Soil: The History of Issei in United States Agriculture*, Volume 2. New York: Peter Lang.

Japanese American National Museum. n.d. Heart Mountain. http://www.janm.org/projects/clasc/ht._mt.htm. Accessed 12 January 2007.

Knight, D.H., 1994: *Mountains and Plains: The Ecology of Wyoming Landscapes*. New Haven, CT: Yale University Press.

Larson, T.A., 1954: *Wyoming's War Years: 1941-1945.* Laramie: University of Wyoming.

Larson, T.A., 1978: *History of Wyoming* (2nd edition). Lincoln, Nebraska: University of Nebraska Press.

Lindsay, C.,1932: The Big Horn Basin. *The University Studies of the University of Nebraska,* 28-29:1-274.

Mackey, M., 2000: *Heart Mountain: Life in Wyoming's Concentration Camp*. Powell, Wyoming: Western History Publications.

Mackin, J.H., 1937: Erosional history of the Bighorn Basin, Wyoming. *Geological Society of America Bulletin,* 48: 813-893.

Martner, B.E., 1986: *Wyoming Climate Atlas*. Lincoln: University of Nebraska Press.

May, W.J, Jr., 1989: *The Great Western Sugarlands: The History of the Great Western Sugar Company and the Economic Development of the Great Plains*. New York: Garland Publishing, Inc.

Meyers, J.S., 1962: Evaporation from the 17 Western States. *U.S. Geological Survey Professional Paper* 272-D.

Moss, J.H. and W. Bonini, 1961: Seismic evidence supporting a new interpretation of the Cody terrace near Cody, Wyoming. *Geological Society of America Bulletin,* 72: 547-556.

Mullan, M.J., 1999: Sport, ethnicity and the reconstruction of the self: Baseball in America's Internment Camps. *The International Journal of the History of Sport,* 16 (1): 1-21.

Murray, E.J., n.d.: Memories of the Heart Mountain Relocation Center. Unpublished manuscript, Heart Mountain Foundation archives, Powell, Wyoming.

Nelson, D., 1976: *Heart Mountain: The History of an American Concentration Camp*. Madison, Wisconsin: State Historical Society of Wisconsin & Department of History, University of Wisconsin.

Noble, A.C., 1996: Heart Mountain: Remembering the Camp. *Wyoming History Journal,* 68 (2): 38-44.

Oglesby, R.E., 1963: *Manuel Lisa and the Opening of the Missouri Fur Trade*. Norman: University of Oklahoma Press.

Paulson, R.W., Chase, E.B., Roberts, R.S. and Moody, D.W. (compilers), 1991: Wyoming Floods and Droughts *In National Water Summary 1988-89–Hydrologic Events and Floods and Droughts*. U.S. Geological Survey Water-Supply Paper 2375, pp. 575-582.

Pierce, W.G., 1997: Geologic map of the Cody 1º x 2º quadrangle, northwestern Wyoming. *U.S. Geological Survey Miscellaneous Investigations Series Map* I-2500.

Redwine, A., 1979: Lovell's Mexican Colony. *Annals of Wyoming*, 51: 26-35.

Rippley, L.J. and Bauer, A., 1973: *Russian-German Settlements in the United States*. Fargo: North Dakota Institute for Regional Studies.

Ritter, D.F. and M.E. Kauffman, 1983: Terrace development in the Shoshone River Valley near Powell, Wyoming and speculations concerning the sub-Powell terrace. *In 34th Annual Field Conference, Wyoming Geological Association Guidebook*, pp. 197-203.

Sakauye, E.E., 2000: *Heart Mountain: A Photo Essay*. San Mateo, California: Self-published.

Shimkin, D.B., 1986: Eastern Shoshone. *In* D'Azevedo, W.L., ed., *Handbook of North American Indians*, Volume 11: *Great Basin*. Washington, D.C.: Smithsonian, pp. 308-335.

Staff, 1943: Skating Rink to be Rebuilt; Install Lights, P.A. System. *Heart Mountain Sentinel*, 16 January, pp. 7.

Staff, 1943: Mercury Drops to 28 Below Zero. *Heart Mountain Sentinel*, 23 January, pp. 1.

Staff, 1943: Weather Report. *Heart Mountain Sentinel*, 30 January, pp. 1.

Staff, 1943: 2,000-Acre Victory Garden Rises in Midst of Desert: West Coast Pioneers Toil on Virgin Land. *Heart Mountain Sentinel*, 8 May, pp. 5.

Staff, 1943: 2,500 Trees, Shrubs to be Planted Soon Under Beautification Program. *Heart Mountain Sentinel*, 15 May, pp. 8.

Staff, 1943: Complete Navy Poster Order. *Heart Mountain Sentinel*, 17 July, pp. 1.

Staff, 1943: 7 Men Haul and Cut Trees at Sawmill; More Needed. *Heart Mountain Sentinel*, 17 July, pp. 8.

Staff, 1943: Heart Mountain Farm Crop to be Canned. *Heart Mountain Sentinel*, 28 August, pp. 8.

Staff, 1944: Tofu Factory in Operation. *Heart Mountain Sentinel*, 8 January, pp. 8.

Staff, 1944: Plans for 1944 Farm Program Announced: Pickling, Canning Plants to be Opened; Delegates Return From Conference. *Heart Mountain Sentinel*, 11 March, pp. 8.

Staff, 1944: Thousands of Hot Caps Dot Project Farm: Panorama Unfamiliar in Wyoming. *Heart Mountain Sentinel*, 10 June, pp. 8.

Staff, 1944: Extensive Crop Damage Caused by Hailstorm; Delay in Harvest Seen. *Heart Mountain Sentinel*, 17 June 1944, pp. 1.

Staff, 1944: Youths Flock to Swimming Hole as Heat Rises. *Heart Mountain Sentinel*, 22 July, pp. 7.

Staff, 1944: Residents of Seven Blocks Will Vote in Third Council Election. *Heart Mountain Sentinel*, 5 August, pp. 8.

Staff, 1944: King Baseball Reigns Supreme in Center. *Heart Mountain Sentinel*, 12 August, pp. 33.

Staff, 1944: Gila All-Stars Make Last Appearance Sunday. *Heart Mountain Sentinel*, 16 September, pp. 7.

Staff, 1944: Farm Crops Damaged by Hail, Frost. *Heart Mountain Sentinel*, 7 October, pp. 1.

Staff, 1944: Daikon Pickled at Warehouse. *Heart Mountain Sentinel*, 28 October, pp. 2.

Staff, 1945: Farmland at Heart Mountain Will Revert to Reclamation. *Heart Mountain Sentinel*, 24 February, pp. 6.

Staff, 1945: Farm Lands Leased to 'Outsiders': Agriculture Terminates as Local Farmers Seek All Fertile Acres Developed. *Heart Mountain Sentinel*, 24 March, pp. 1.

Staff, 1945: Local Farm Products Sold. *Heart Mountain Sentinel*, 31 March, pp. 8.

Swenson, F.A., 1957: Geology and Ground Water, Heart Mountain and Chapman Bench Divisions, Shoshone Irrigation Project, Wyoming. *U.S. Geological Survey Water-Supply Paper* 1418.

Taira, B.Y., 2001: Escape From Heart Mountain. *Annals of Wyoming*, 76 (4): 18-24.

Thye, C.J., 1947: The Bureau Reclaims Its Own. The Reclamation Era, 33 (4): 90-92, 94.

Urbanek, M., 1988: *Wyoming Place Names*. Missoula, Montana: Mountain Press.

U.S. Army–Western Defense Command, 1943: *Final Report: Japanese Evacuation from the West Coast 1942*. Washington, D.C.: Government Printing Office.

U.S. Bureau of Reclamation, n.d.: Wyoming: http://www.usbr.gov/cultural/wyoming.html. Accessed 7 May 2007.

U.S. Bureau of the Census, 1913a: *Thirteenth Census of the United States Taken in the Year 1910. Volume II: Population 1910: Reports by States, with Statistics for Counties, Cities and Other Civil Divisions: Alabama-Montana.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1913b: *Thirteenth Census of the United States Taken in the Year 1910. Volume III: Population 1910: Reports by States, with Statistics for Counties, Cities and Other Civil Divisions: Nebraska-Wyoming, Alaska, Hawaii, and Puerto Rico.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1922a: *Fourteenth Census of the United States: Volume III: Population: 1920. Population: Composition and Characteristics of the Population.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1922b: *Fourteenth Census of the United States: 1920. Population: Wyoming--Composition and Characteristics of the Population.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1932: *Fifteenth Census of the United States: 1930. Population: Volume III: Reports by States, Showing the Composition and Characteristics of the Population for Counties, Cities, and Townships or Other Minor Civil Divisions. Part 2: Montana-Wyoming.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1943a: *Sixteenth Census of the United States: 1940. Population Volume II: Characteristics of the Population. Part 4: Minnesota-New Mexico.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1943b: *Sixteenth Census of the United States: 1940. Population Volume II: Characteristics of the Population. Part 7: Utah-Wyoming.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1952a: *Census of Population: 1950, Volume II, Characteristics of the Population, Part 26, Montana*. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1952b: *Census of Population: 1950, Volume II, Characteristics of the Population, Part 50, Wyoming*. Washington, D.C.: Government Printing Office.

U.S. Census Bureau, n.d.: *State and County QuickFacts: Park County, Wyoming*. http://quickfacts.census.gov/qfd/states/56/56029.html. Accessed 23 January 2007.

U.S. Census Office, 1901: *Twelfth Census of the United States, Taken in the Year 1900. Census Reports Part I: Population.* Washington, D.C.: Government Printing Office.

U.S. Department of Agriculture, 1954: Diagnosis and Improvement of Saline and Alkaline Soils. *Agriculture Handbook* #60, Washington, D.C.: Government Printing Office.

U.S. Forest Service, n.d.: Chapter 48: Intermountain Semi-Desert–Section 342A–Bighorn Basin. Ecological Subregions of the United States. www.fs.fed.us/land/pubs/ecoregions/ch48.html Aaccessed 16 December 2005.

U.S. Geological Survey, 1956: Quality of Surface Waters of the United States 1951–Parts 5-6. *Water-Supply Paper* 1198.

U.S. Geological Survey, 1996: Ground Water Atlas of the United States: Segment 8–Montana, North Dakota, South Dakota, and Wyoming. *Hydrologic Investigations Atlas* 730-I.

U.S. Geological Survey. n.d. U.S.G.S. Annual Surface Water Statistics for the Nation--USGS 06285000 SHOSHONE RIVER AT BYRON, WY. http://nwis.waterdata.usgs.gov/nwis/annual. Accessed 11 January 2007.

U.S. National Park Service, n.d.a: Heart Mountain Relocation Center Wyoming. Report to the President: Japanese-American Internment Sites Preservation. http://www.cr.nps.gov/history/online_books/internment/reporta5.htm. Accessed 24 January 2007.

U.S. National Park Service, n.d.b: Heart Mountain. http://www.nps.gov/archive/manz/ccheartmountain.htm. Accessed 7 November 2006.

U.S. Natural Resources Conservation Service, n.d.: Official Soil Series Descriptions. http://soils.usda.gov/technical/classification/osd/index.html. Accessed 15 January 2007.

U.S. War Relocation Authority, 1943: Documentary Supplement of Indefinite and Group Leaves: April 1943, Heart Mountain Relocation Project. Reel #57, Records of the War Relocation Authority, 1942-1946. Field Basic Documentation, National Archives, Washington, D.C.

U.S. War Relocation Authority, 1946: The Evacuated People: A Quantitative Description. Washington, D.C.: U.S. Government Printing Office.

Voget, F.W., 2001: Crow. *In* DeMallie, R.J., ed., *Handbook of North American Indians*, Volume 2: *Plains*, Part 2. Washington, D.C.: Smithsonian, pp. 695-717.

Waldman, C., 2000: *Atlas of the North American Indian*. New York: Facts on File, Inc.

Western Regional Climate Center, n.d.a: Climate of Wyoming. http://www.wrcc.dri.edu/narratives/WYOMING.htm. Accessed 10 January 2007.

Western Regional Climate Center, 2004b: Western U.S. Historical Summaries. Wyoming Climate Summaries: Powell (487380). http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?wy7380. Accessed 24 January 2007.

Works Progress Administration, 1941: *Wyoming: A guide to its History, Highways, and People*. New York: Oxford University Press.

CHAPTER 5

MINIDOKA

Introduction

The Minidoka Relocation Center was located at about 42º41' N latitude and 114º15' W longitude and at approximately 3,950 feet elevation in Jerome County of south central Idaho (Figure 5.1). The site lies within an agricultural area known as the "Magic Valley" on the central Snake River Plain about 19 miles southeast of Shoshone, 14 miles east of Jerome, and 13 miles northeast of Twin Falls. Interstate 84, the primary east-west route in southern Idaho, is about seven miles south of the former center. Boise is approximately 130 miles west and Pocatello is about 120 miles east. The center is often referred to as "Hunt" or the "Minidoka Relocation Center at Hunt" because Minidoka could be easily confused with the town of Minidoka 50 miles east of Hunt. The post office designation for the center was Hunt (Burton et al., 2002), named after Wilson Price Hunt, an explorer with the Astorians who passed through the area in 1811. Minidoka may mean "well spring" or "broad expanse" (Boone, 1988).

The following pages address: 1) the physical and human setting in which Minidoka was located; 2) why south central Idaho was selected for a relocation center; 3) the structural layout of Minidoka; 4) the origins of Minidoka's evacuees; 5) how Minidoka's evacuees interacted with the physical and human environments of south central Idaho; 6) relocation patterns of Minidoka's evacuees; 7) the fate of Minidoka after closing; and 8) the impact of Minidoka on south central Idaho some 60 years after closing.

Physical Setting

Physiography, Geology and Landforms. The Minidoka Relocation Center occupied the Snake River Plain section of the Columbia Plateaus physiographic province (Fenneman, 1931) (Figure 5.2). The Snake River Plain is a low relief volcanic surface arcing more than 800 miles across southern Idaho (Greeley, 1987). The Snake River follows this arc across much of the state. The South Hills lie approximately 20 miles south of the site while the Pioneer and Smoky Mountains of the Sawtooth Range of the Rockies are located about 50 miles north.

The geology of the area is dominated by the *Cenozoic* (i.e., approximately past 65 million years) Sand Springs Basalt and Cenozoic Snake River Basalt (Rember and Bennett, 1979) (Figure 5.3). The eruptive style that released the basalts is termed "Plains volcanism" and is akin to what occurred on northern California's Modoc Plateau (home of the Tule Lake Relocation Center) as well as in Iceland and on India's Deccan Plateau. This eruptive type is a hybrid of flood eruptions that create plateaus and Hawaiian-type eruptions that result in cones. On the Snake River Plain, multiple, thin flows originate from numerous fissures or rifts to form broad accumulations of basalt lava flows as well as isolated cinder cones (Greeley, 1987).

Figure 5.1. Jerome County, Idaho and adjacent counties. Adapted from Official Idaho Highway Map (2000).

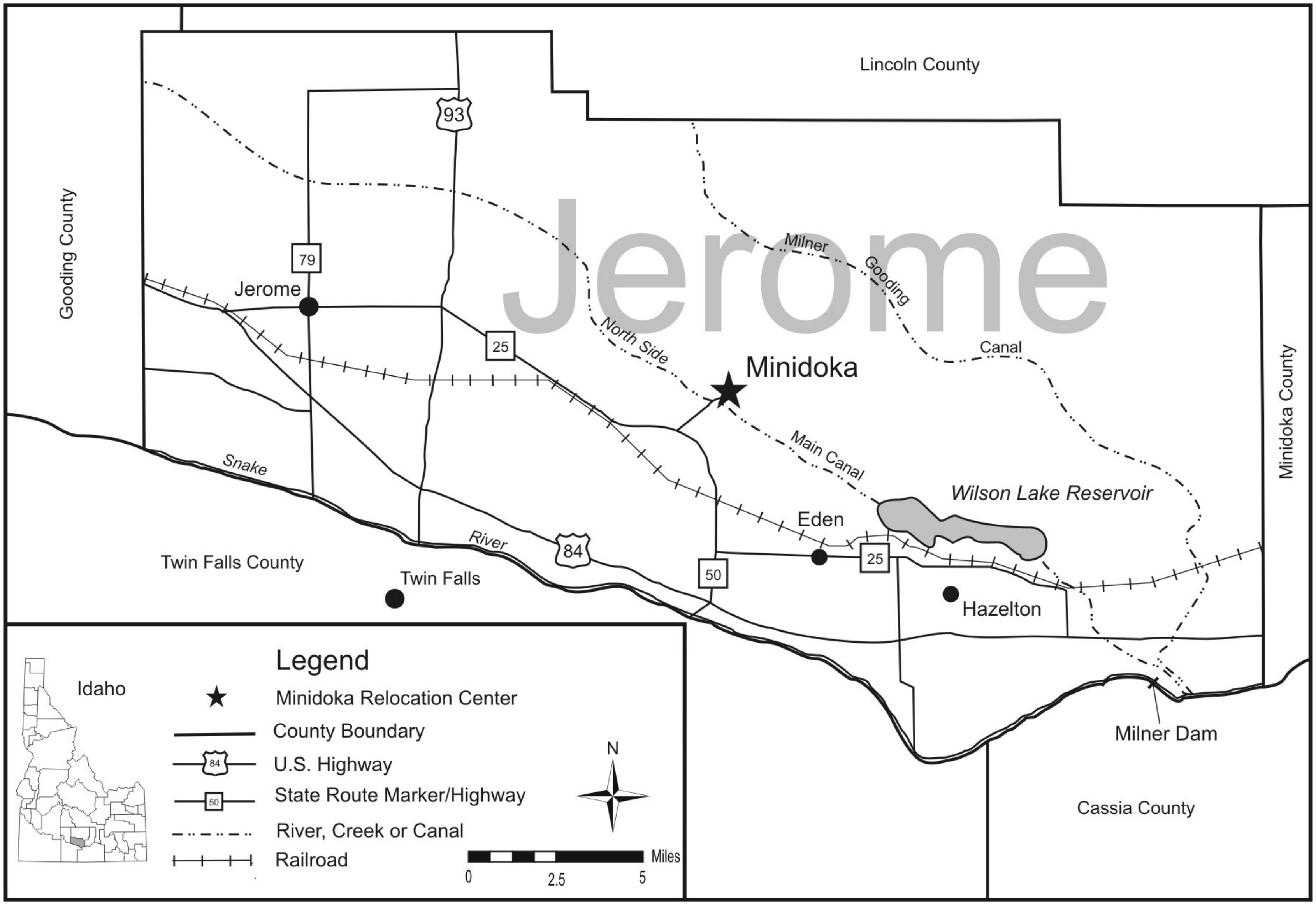


Figure 5.2. Minidoka and the Snake River Plain within the Columbia Plateaus physiographic province. Map adapted from Fenneman (1931, Plate 1).

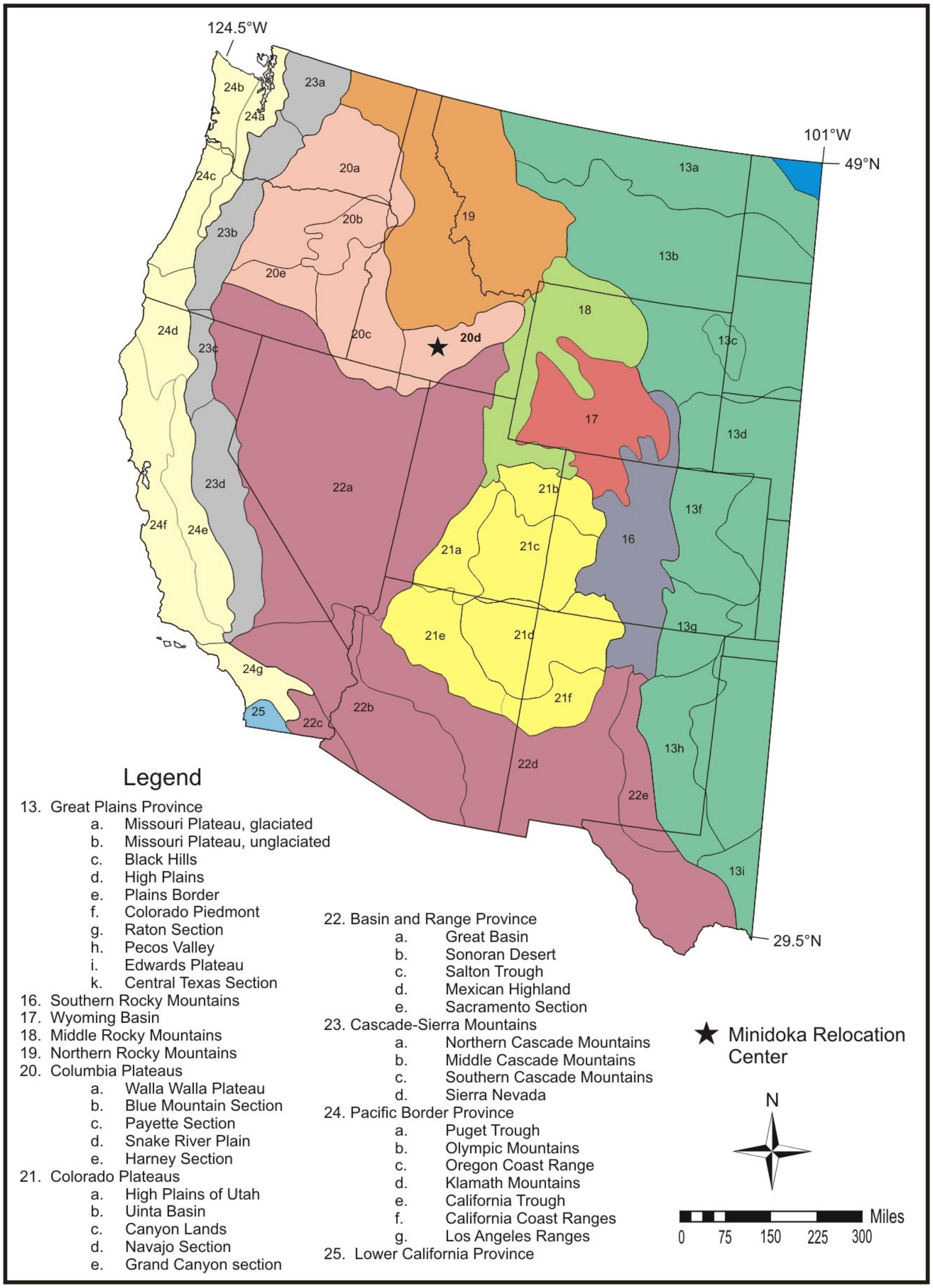


Figure 5.3. Geology of Minidoka Relocation Center and vicinity. Adapted from Rember and Bennett (1979).

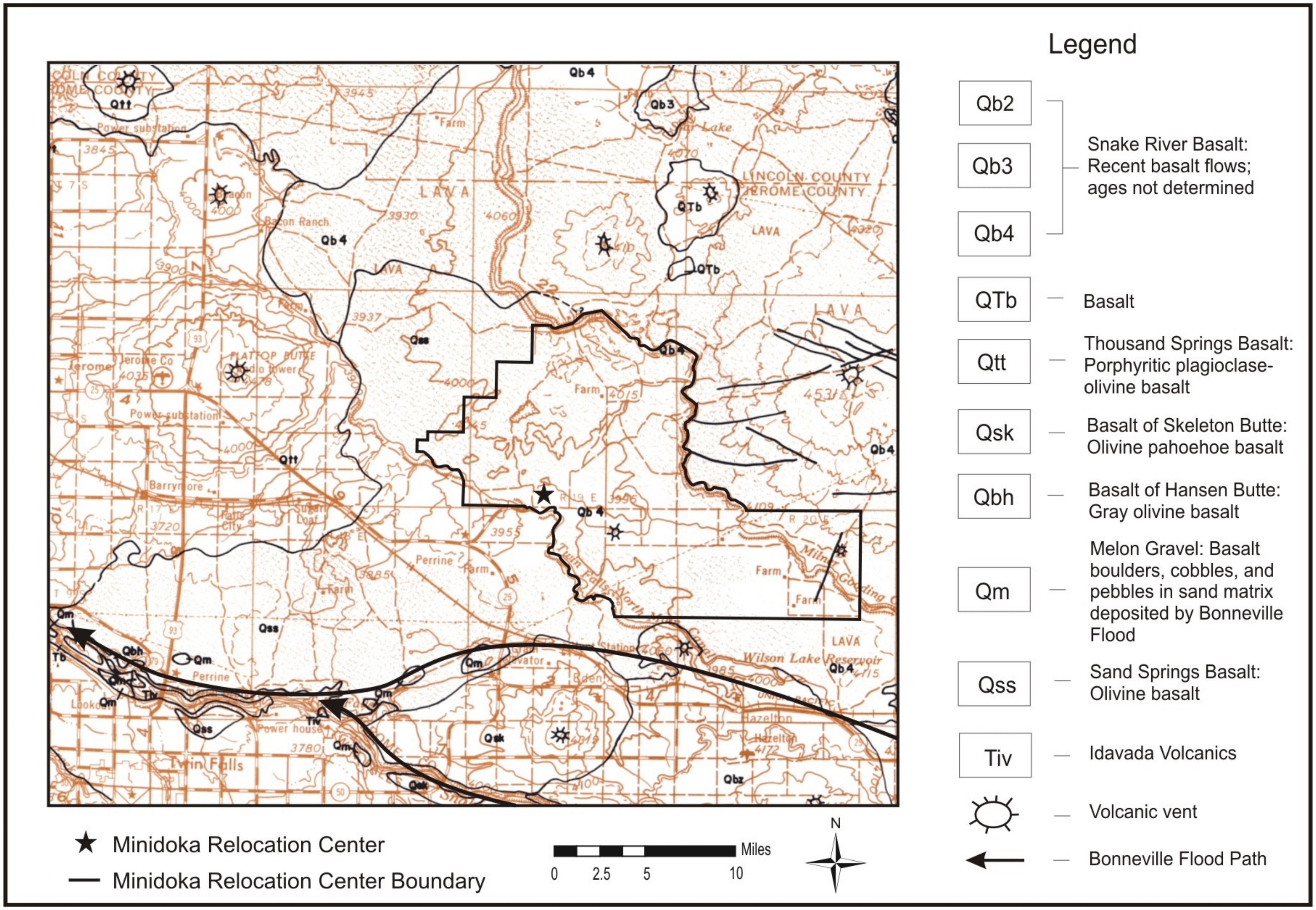
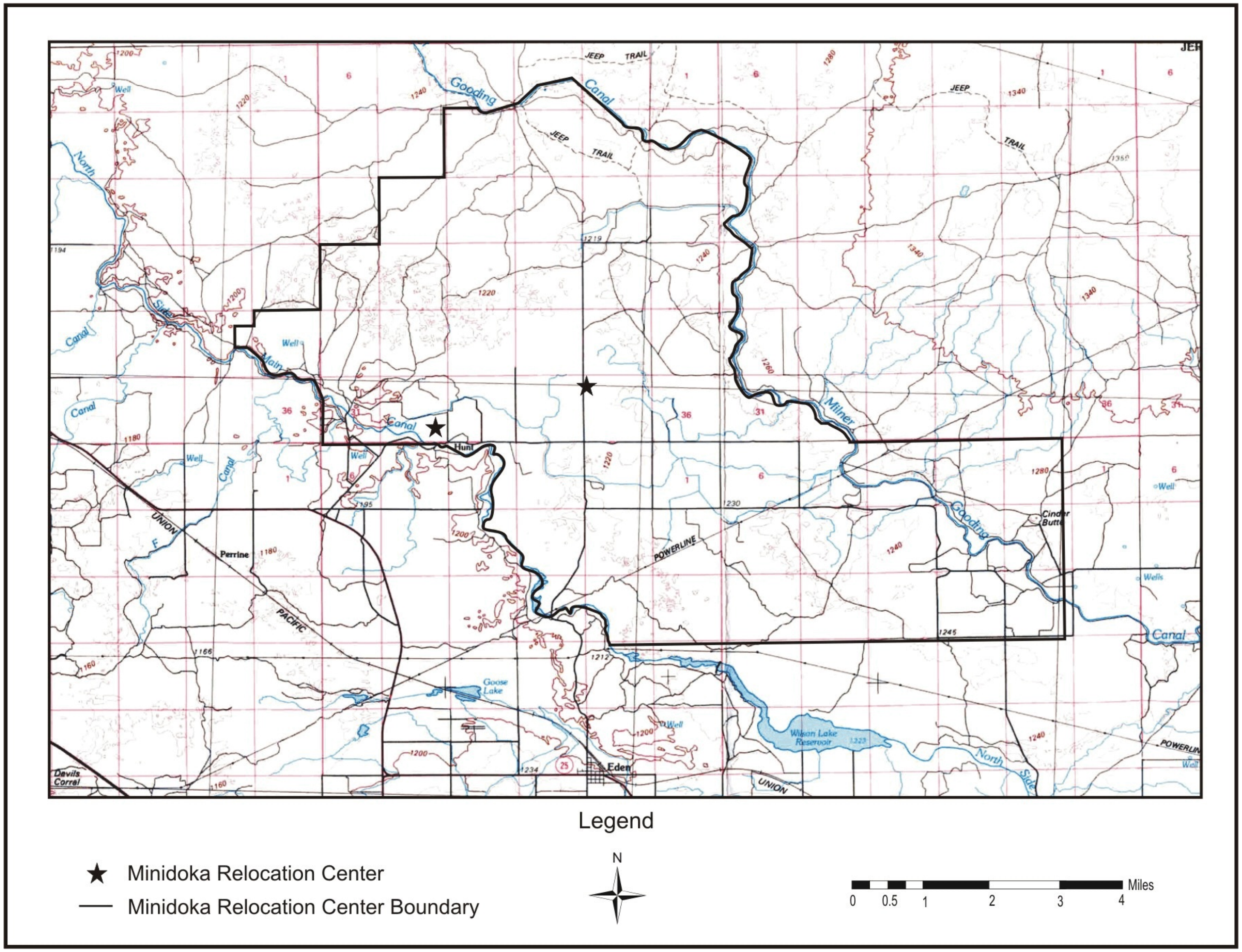


Figure. 5.4. Topographic map of Minidoka Relocation Center and vicinity. Adapted from U.S. Geological Survey Twin Falls, Idaho 1:100,000-scale topographic map.



Minidoka Relocation Center occupied terrain that is best described as "irregular" with numerous small hills and closed depressions in no apparent pattern (Figures 5.3 and 5.4). The rises are often volcanic pressure ridges, shield volcanoes or linear vents while the swales may be collapse craters or collapsed lava tubes (Greeley, 1987). A cinder cone–Cinder Butte–is evident near the eastern border of the center, and a non-descript volcanic vent is located about three miles east of the former center main entrance within the center's former boundaries (Rember and Bennett, 1979). A northeast-trending, linear volcanic vent is present about four miles west of the center (Rember and Bennett, 1979). Post-volcanic weathering, streams, and winds have partially worn down the volcanic hills and filled the basins.

The Bonneville Flood also had dramatic impacts on the area's landforms. This flood originated when late *Pleistocene* Lake Bonneville overtopped a threshold at Zenda in southern Idaho (Figure 5.5) and sent approximately 33 million ft^3 of water raging down the Snake River drainage for an eight week period about 15,000 years before present (Jarrett and Malde, 1987; Oviatt et al., 1992). In the vicinity of the Minidoka Relocation Center, this massive flood created the Rupert Channel, a floodway that paralleled the Snake River Canyon from Rupert westward before again joining the Snake near present-day Twin Falls. The floodway is characterized by *scablands* (including dry falls, potholes, chaotic channels, and a generally scoured landscape) as well as depositional bars that include boulders as large as 10 feet in diameter. The southern margin of the former center's lands in the vicinity of Eden lie within the Rupert Channel thus show evidence of high energy scouring as well as flood deposition (Malde, 1968). As a result of the various processes that have shaped the landscape, the total relief at the former center is just 295 feet with elevations ranging from 4,230 feet on the eastern margins to 3,935 feet in the southwest corner.

Weather and Climate. Summers in the area are generally hot and dry while winters are cold and relatively moist (Figure 5.6). The climate is classified under the Koppen system as Dry Midlatitude Steppe (BSk) (Griffiths and Driscoll, 1982).

The mid-latitude setting results in a systematic change in sun angles and temperatures throughout the year. The mid-continental location enhances temperature extremes because of the relatively low *specific heat* (i.e., amount of heat required to raise the temperature of a particular mass) of land as compared to water (Western Regional Climate Center, n.d.a). Annual temperatures at nearby Shoshone averaged 48ºF during the 1931-1960 period (Western Regional Climate Center, n.d.b). January's mean monthly temperature was 23 ºF while the average July temperature was 73ºF (Western Regional Climate Center, n.d.b) (Figure 5.6). This period of record includes two of the coldest winters in recent history–1937-38 and 1948-49 (Western Regional Climate Center, n.d.a). The mountains to the north prevent most bitterly cold, Arctic air masses from reaching the Snake River Plain. Despite the distance from the Pacific Ocean and the effects of the intervening mountains, the Pacific still has a moderating influence on temperatures in the area–i.e., summers are cooler and winters are warmer than more continental settings at similar latitudes (Clawson, 1989). The *growing season* (i.e., last 32ºF killing freeze of spring to the first 32ºF killing freeze of fall) at Shoshone five out of ten years averages 123 days with the last

Figure 5.5. Pleistocene lakes and floods of the Basin and Range, and adjacent areas. Adapted from Williams and Bedinger (1984).

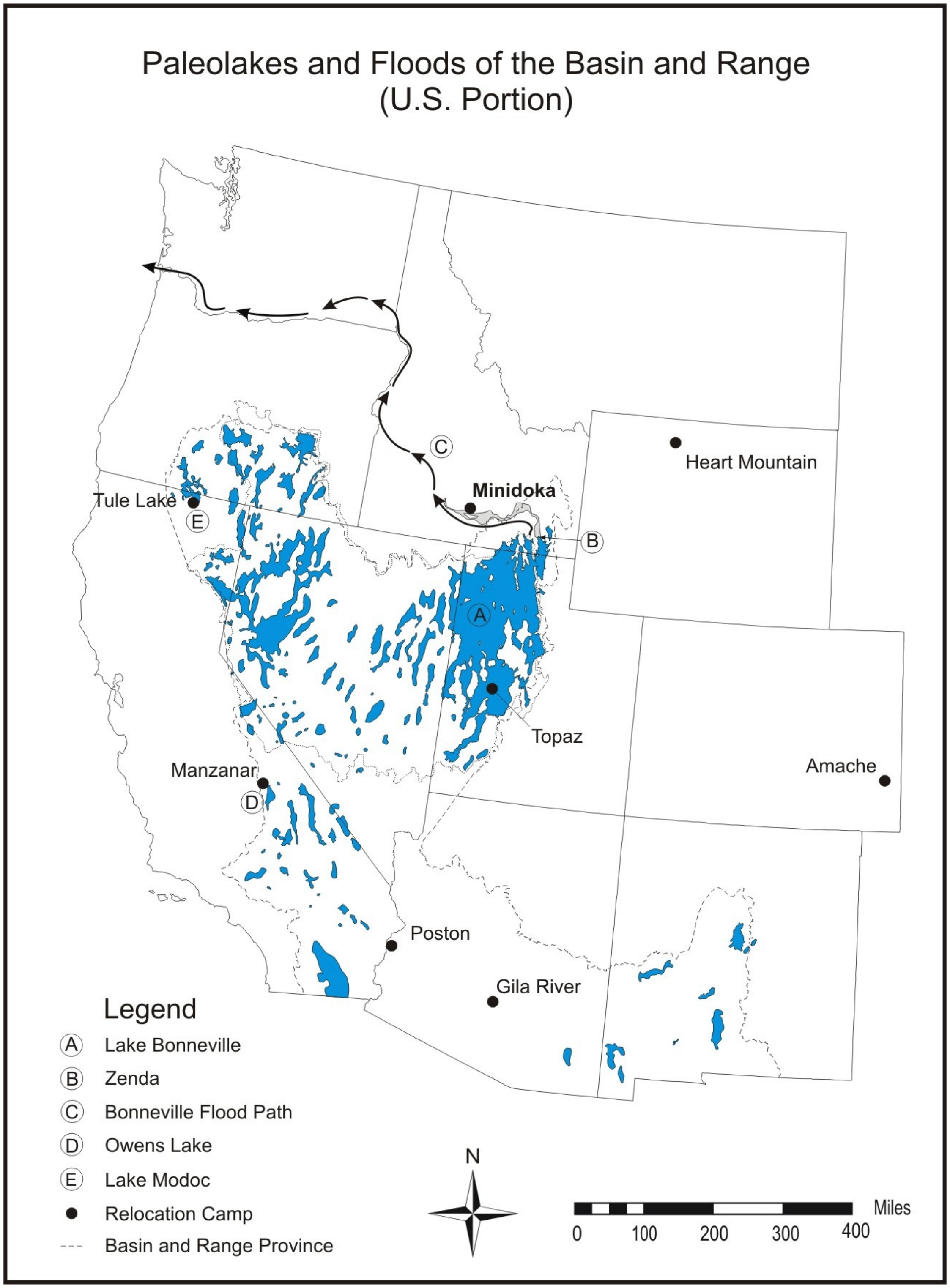
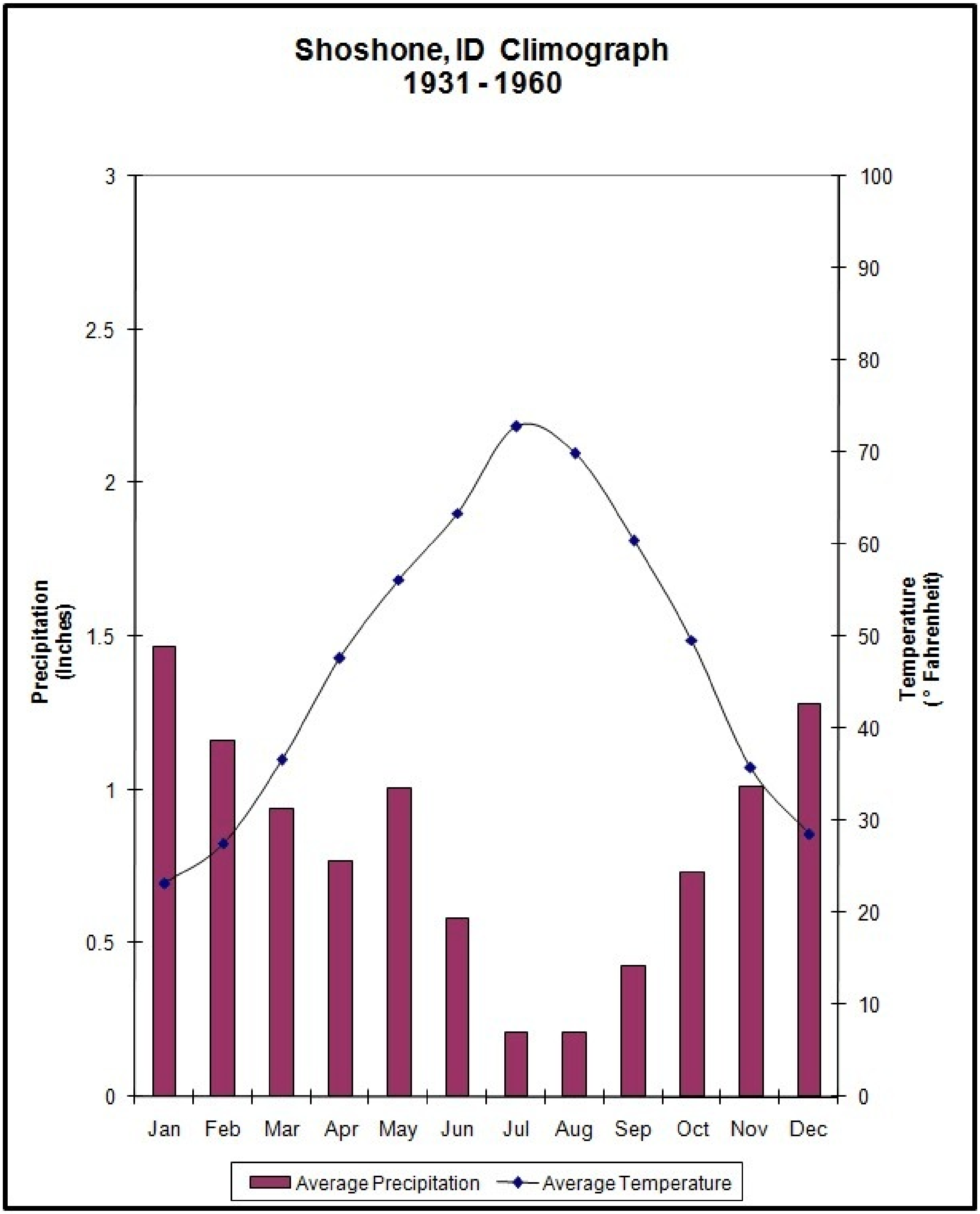


Figure 5.6. Climograph showing 1931-1960 mean temperature and precipitation for Shoshone 1 WNW, Idaho. Data from Western Regional Climate Center (n.d.b).



killing freeze of spring typically occurring around 23 May and the first freeze of fall near 22 September (Western Regional Climate Center, n.d.b).

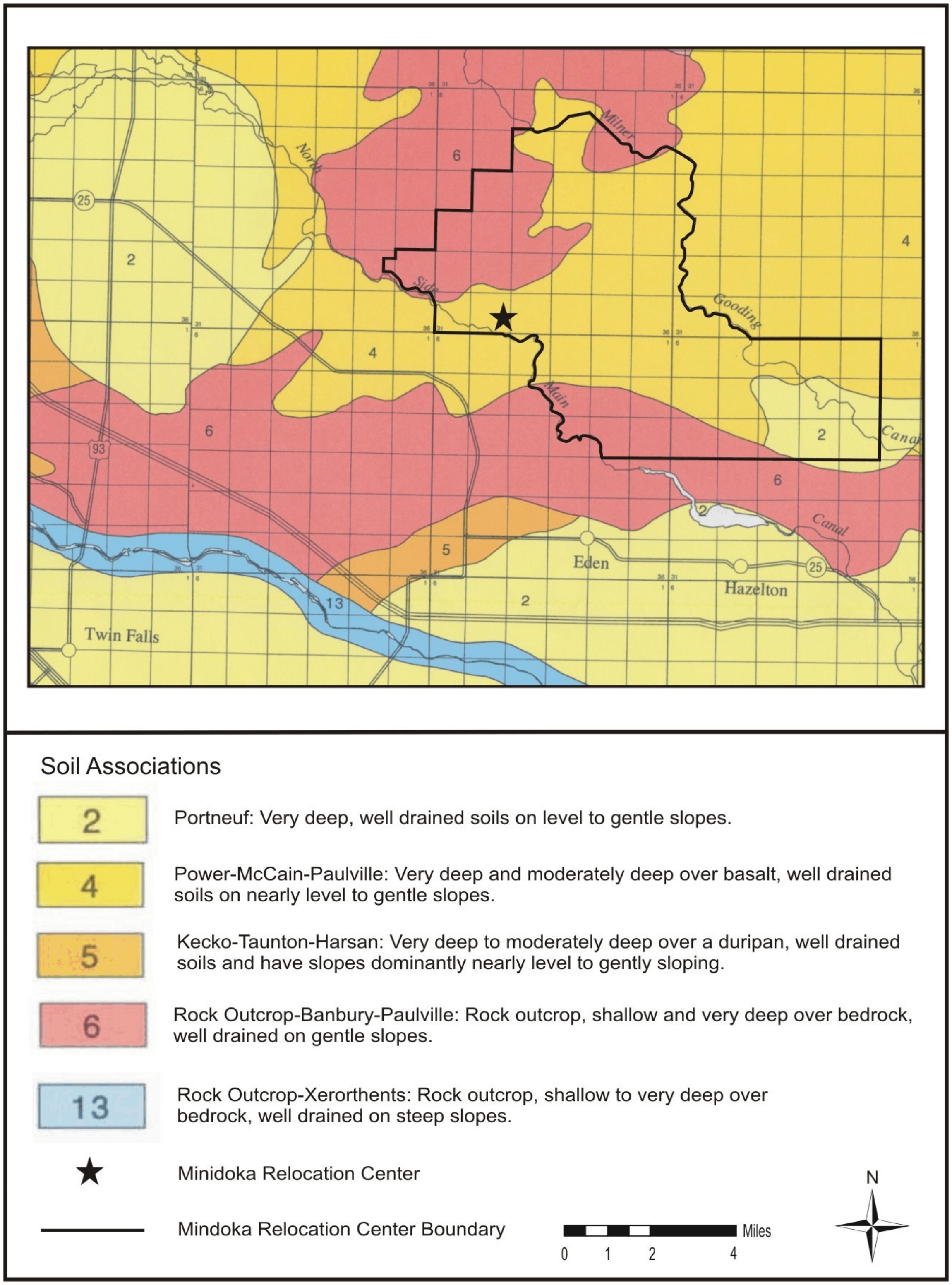
Annual precipitation averaged 9.8 inches/year in Shoshone over the 1931-1960 period (Figure 5.6). Over 67% of the precipitation fell between September and April (Western Regional Climate Center, n.d.a). The general aridity of the site is the result of the location inland of the Cascade Range and Blue Mountains to the west, and the fact that moist, Pacific air masses must traverse the Cascade Range and Blue Mountains before arriving on the eastern Snake River Plain. By the time these air masses arrive in the vicinity of Twin Falls they have taken on much of the character of the land beneath them–i.e., hot and dry in the summer, and cold and relatively moist in the winter. The generally dry summers and moist winters result from the alternation of the Hawaiian High pressure system and Aleutian Low pressure system off the West Coast of North America (Western Regional Climate Center, n.d.a). Because of cool to cold conditions, much of the winter precipitation falls as snow. Snowfall averaged approximately 37 inches/year and ranged annually from 0 to nearly 84 inches over the 1931-1960 period (Western Regional Climate Center, n.d.b). Warm season precipitation is typically associated with moist air moving northward from the Pacific Ocean, from moisture evaporated from land, and from Gulf of Mexico moisture that passes over the Rockies (Paulson et al. 1991). This precipitation is typically associated with thunderstorms which occur approximately 15 days of each year, typically between May and August (Clawson et al. 1989; Ames, 2003). As in other semi-arid settings, drought is a common occurrence on the Snake River Plain. Droughts occurred from 1929-1941, and again from 1959-1961 (Paulson et al. 1991). Annual evaporation was approximately 38 inches/year over the 1946-1955 period (Meyers, 1962).

Winds are a common feature of the eastern Snake River Plain. The mountains north and south of the plain channel winds, giving them a generally southwestern component in this area. Average winds speeds are highest in March through June while the lowest wind speeds occur from October through January (Clawson et al. 1989). High winds are typically associated with the passage of fronts, mid-latitude cyclones and thunderstorms (Western Regional Climate Center, n.d.a).

Soils. The soils of the former Minidoka Relocation Center are a function of the five soil forming factors–i.e., parent material, topography, climate, biota, and time. Parent materials are alluvium or loess, and topography generally consists of a gently undulating, irregular landscape. The Bonneville Flood eroded existing soils along the floodway thus "resetting the soil clock" in those areas. Soils of the area are differentiated primarily by parent materials, topography, and time (Figure 5.7) (Ames, 2003).

All soils of the former center lands are mapped as either *aridisols* (Bahem, Banbury, Barrymore, McCain, Owinza, Paulville, Power, Shano, Sluka, Suepert, Starbuck, Taunton and Tulch) or rock outcrop (Figure 5.7) (Ames, 2003). The aridisols are indicative of the semi-arid climate regime of the area. The dominant soil texture is silt loam and soil depths range from approximately 12 inches in the Banbury-Rock Outcrop Complex to 72 inches in the Power-McCain Complex.

Figure 5.7. Soils of the Minidoka Relocation Center and vicinity. Data from Ames (2003).



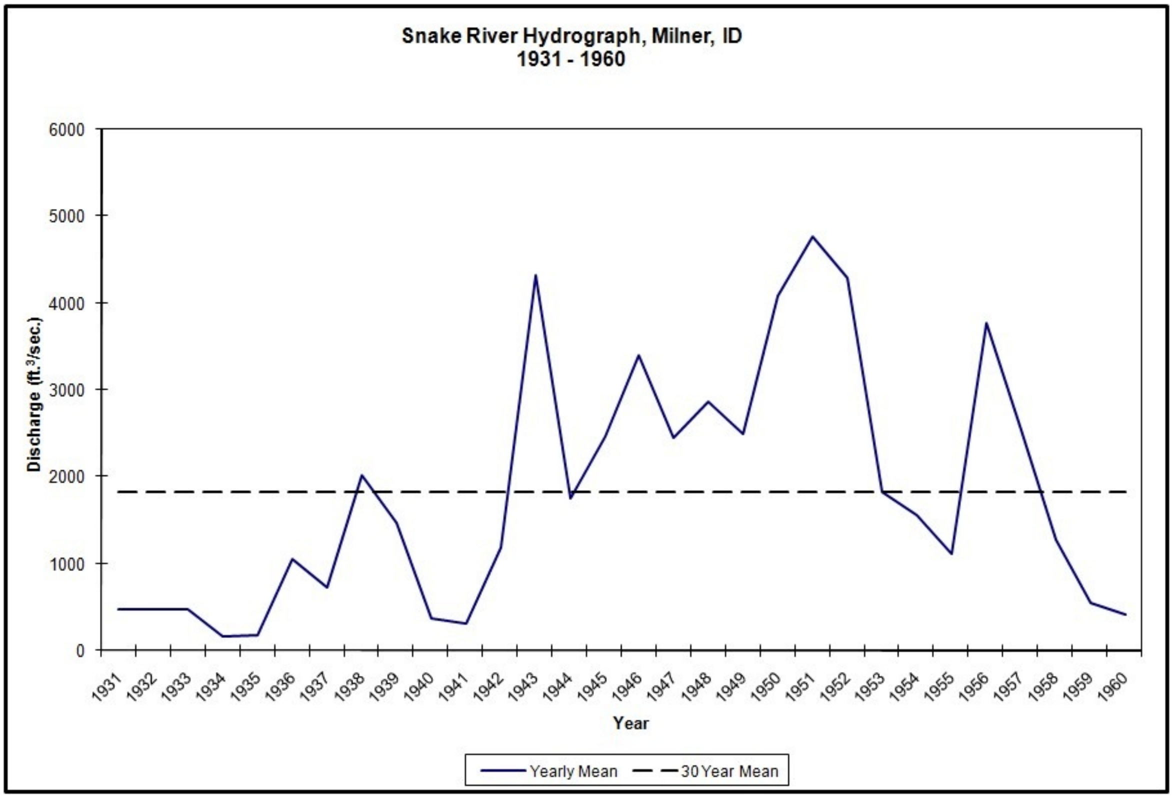
Parent material for the aridisols is either stream-deposited *alluvium*, wind-blown *loess* or weathering-derived *residuum* (Ames, 2003). Most of the soils are well-drained, and range from being mildly to strongly alkaline. The high pH, combined with very little soil organic matter, reflects the semi-arid climate of the area (Ames, 2003). Rock outcrop is weathered basalt associated with the Snake River Plain volcanics. The soil associations marked as #6 on Figure 5.7 reflect the Rupert Channel of the Bonneville Floods. All irrigable soils of the former relocation center lands have moderate to severe limitations because of erosion or climate limitations under the Land Capability Classification (LCC) system (Ames, 2003; U.S. Natural Resources Conservation Service, n.d.).

Water. Minidoka lies about nine miles north of the Snake River. The Snake originates on the Yellowstone Plateau of northwest Wyoming and ultimately reaches the Pacific Ocean as a tributary to the Columbia River. The annual discharge of the Snake River over time reflects the variable climate patterns discussed above–i.e., periods of drought interspersed with wetter times–combined with withdrawals for irrigation and domestic purposes (see below) (Figure 5.8). Despite the proximity of Minidoka to the Snake River and its inclusion in the Snake River Watershed, little natural surface water flow is evident in the area because of the semi-arid climate, the irregular, youthful topography, and relatively porous substrate. Those unnamed intermittent and ephemeral streams that do exist flow short distances and in haphazard directions before disappearing into the basalts. Snake River water at King Hill, about 70 miles downstream of Milner Dam, had a *specific conductance* of 500 micromhos and a *sodium-adsorption ratio* of 4. These values represent medium salinity and a low sodium hazards, respectively, for irrigation (U.S. Department of Agriculture, 1954; U.S. Geological Survey, 1955).

The Snake River Plain Aquifer occupies the younger basalts of south-central Idaho. The permeability of this aquifer, thus the ability to recharge from precipitation, stream runoff, or irrigation runoff depends on the characteristics of the basalts. The most permeable of these units are those that consist of rapidly cooled, thin basalt flows that have ample *vesicles* (i.e., gas bubble holes) and *joints* (i.e., fractures) (U.S. Geological Survey, 1994). Evidence of this aquifer is present as springs in the walls of the Snake River Canyon between Milner Dam (about 20 miles upstream of Twin Falls) and King Hill (about 45 miles downstream of Twin Falls). Irrigated agriculture from Snake River waters diverted into the North Side Canal initially enhanced spring flow throughout this area (Stearns et al., 1938). However, subsequent groundwater pumping has reduced spring flows (Ron James, written communication, 15 March 2007). Groundwater of the Snake River Plain tends to be "hard"–i.e., containing a considerable amount of dissolved salts–but not so much that it limits its uses (Stearns et al., 1938).

Biota. The area falls within the Snake River Basalts section of the Intermountain Semi-Desert ecoregion province (Figure 5.10) (Bailey, 1995). Vegetation patterns in the area are a function of climate, soil moisture, soil chemistry, and human land uses. The sagebrush steppe of the area is dominated by big sagebrush (*Artemisia tridentata*) and bluebunch wheatgrass (*Agropyron spicatum*) (Bailey, 1995; U.S. Forest Service, n.d.). Greasewood (*Sarcobatus vermiculatis*) is a common shrub in more saline settings.

Figure 5.8. Mean annual discharge for the Snake River at Milner, Idaho, 1931-1960. Data from U.S. Geological Survey (n.d.).



Common large mammals of the area include mule deer (*Odocoileus Hemionus*), pronghorn antelope (*Antilocapra americana*), and Rocky Mountain elk (*Cervus elaphus nelsoni*). American bison (*Bison bison*), bighorn sheep (*Ovis canadensis*), gray wolves (*Canus lupis*), and grizzly bears (*Ursus arctos*) once roamed this area. Coyotes (*Canis latrans*), cougar (*Puma concolor*), bobcat (*Lynx rufus*), and black bear (*Ursus americanus*) are notable present-day predators. Smaller mammals include yellow pine chipmunks (*Tamias amoenus*) and Great Basin pocket mouse (*Perognathus parvus).* Great Basin spadefoot (*Spea intermontana*), several lizards, and numerous snakes are also present in the area. A variety of birds live here including various hawks, prairie falcons (*Falco mexicanus*), great horned owls (*Bubo virginianus*), and burrowing owls (*Athene canicularia*) (Bailey, 1995; U.S. Forest Service, n.d.).

Human Setting

Race and Ethnicity. The Snake River Plain has a rich racial, ethnic, and religious history encompassing Native Americans as well as subsequent Europeans, Asians, and Latinos (Peterson, 1994; Fiege, 1999). The Japanese Americans who occupied the Minidoka Relocation Center were thrust into this rich melting pot.

Figure 5.9. Ecoregion map showing Minidoka's location within the Intermountain Semi-Desert ecoregion province. Adapted from Bailey (1995, Foldout Map).

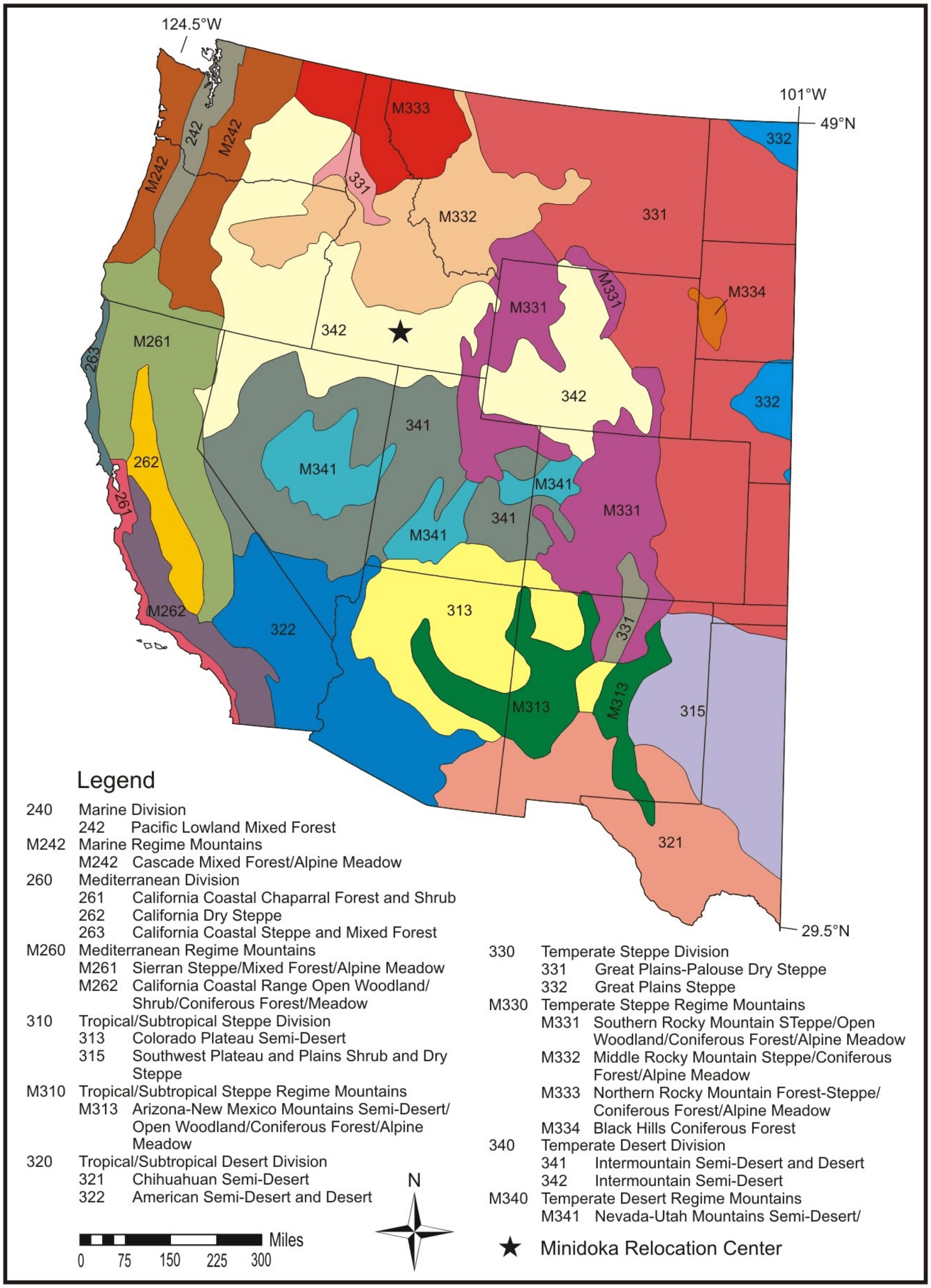
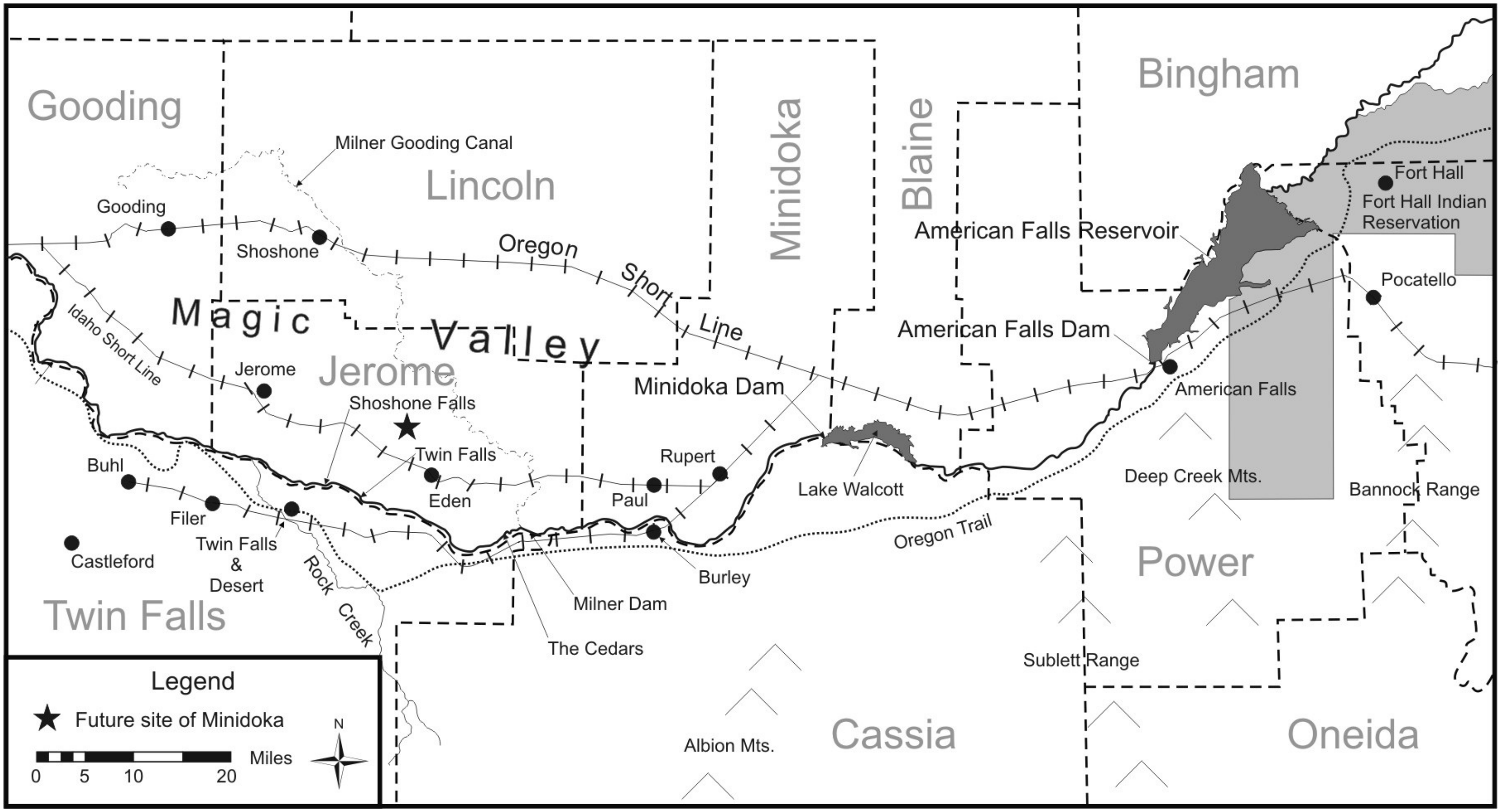


Figure 5.10. Cumulative historical map for Idaho's south central Snake River Plain including the Minidoka Relocation Center.



Southern Idaho lies within the Great Basin Culture Area of Native Americans (Waldman, 2000). The Northern Shoshone and Bannock were the primary occupants of this area living as nomadic bands following seasonal food resources (Murphy and Murphy, 1986). The influx of EuroAmerican explorers and trappers in the early 19th century followed by Oregon Trail travelers and settlers resulted in conflict with the Native Americans. U.S. Military pressure on the Native Americans ultimately led to their confinement to the Fort Hall Reservation (Figure 5.10) beginning in the late 1860's (Murphy and Murphy, 1986; Gentry, 1995).

Chinese laborers first entered the Idaho Territory soon after 1860 where they secured employment in mining and railroad construction. Among other places, as many as 600 Chinese worked placer mining claims on the Snake River in the vicinity of present-day Twin Falls (Figure 5.10) from 1871 until the early 1880s (James, 1993). The Chinese were subject to racism, discrimination, and violence in places while they were peacefully accommodated in others. Anti-Chinese sentiment was especially harsh during an economic downturn in the mid-1880s. As a result, numbers of Idaho Chinese dropped dramatically between 1870 (4,274) and 1890 (1,971) (Schwantes, 1991).

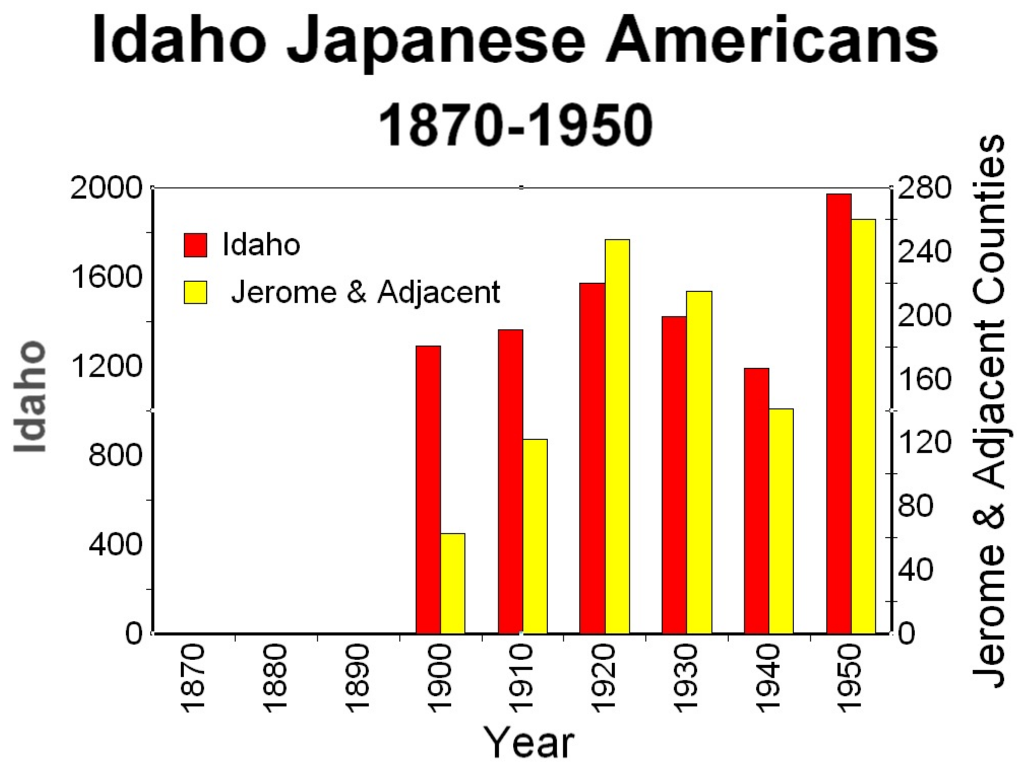
Basques arrived in the Boise area of southwestern Idaho from California and Nevada beginning in the early 1890s. By World War I, Boise was the Basque center of the Pacific Northwest. At the same time, strong Basque communities existed eastward across the Snake River Plain in Mountain Home, Caldwell, and Shoshone (Figure 5.10) (Etulain, 1974). Many of the Basques were shepherds while others worked in mining, dam building, and irrigation canal construction (Schwantes, 1991).

At about the same time the Basques were coming to the western Snake River Plain, Greeks were arriving on the eastern Snake River Plain and congregating in the Pocatello area. Here, they initially worked for the Oregon Short Line Railroad (see below) but over time migrated to more service-oriented employment (Scott, 1984). Greeks also worked with Italians and Spaniards on the Minidoka Irrigation Project (see below), and some ended up remaining to farm project lands (Stene, 1997). While it appears that Greeks got along with other ethnic groups in Pocatello, the same cannot be said of Greek interactions with other Anglos (Scott, 1984).

Czechoslovakians migrated to the Buhl and Castleford areas (Figure 5.10) west of Twin Falls beginning in 1908. Most did not immigrate to southern Idaho directly from Czechoslovakia; rather, they came from Texas, Nebraska or Oklahoma where they had first arrived from their native country as early as the 1840s. The draw for the Czechs in southern Idaho was irrigated farmland opened by the Twin Falls Canal Company. While first mostly obtained employment working for others, over time, members of the Czech community were able to purchase farmlands of their own (Gentry, 1987).

Mexican Americans came to southern Idaho beginning in 1919 to work in the sugar beet fields. Mexican laborers also came to the area during World War II as part of the U.S.

Figure 5.11. Persons of Japanese descent in Idaho, 1870-1950. Data from U.S. Census Bureau (U.S. Census Office, 1901, p. 571; U.S. Bureau of the Census, 1913, p. 426; 1922, p. 23; 1932, p. 573; 1943, p. 440; 1952, p. 12-71).



Government's Bracero Program to meet the various labor needs of area farmers (Schwantes, 1991).

Japanese first arrived in Idaho after 1891 and filled the void left by the departed Chinese. They first worked as laborers on the Oregon Short Line Railroad in the Nampa and Pocatello areas (Iwata, 1992). The first Idaho Japanese began to show up in U.S. census data by 1900 (Figure 5.11). Sugar beet labor drew further Japanese Americans to the Nampa, Idaho Falls, Blackfoot, and Sugar City areas beginning in the first decade of the 20th century (Arrington, 1966; Iwata, 1992). Eventually, many of the Japanese immigrants were able to save sufficient funds to purchase their own farms or businesses, and return to Japan to bring wives back to the U.S. where they raised families (Henshall, 1975). Many of the early land-owning Japanese American *Issei* (i.e., first generation Japanese American born in the U.S.) settled in the vicinity of Idaho Falls and Fort Hall where they first grew sugar beets and subsequently potatoes (Iwata, 1992). The evolution from single male Issei to Issei brides and ultimately *Nisei* (offspring of Japanese immigrants born in the U.S.) children led to an increasing percentage of U.S. citizens within the Japanese American population (Sims, 1978; Schwantes, 1991). The statewide census data reveal a general upward trend of Japanese Americans from 1900 to 1920 possibly reflecting the growth of Japanese families as well as further immigrants to the state (Figure 5.11). The total Japanese American population of Jerome County and the surrounding five counties–Lincoln, Minidoka, Cassia, Twin Falls, and Gooding–mirrored the state pattern (Figure 5.11). The dip statewide and in the particular counties in 1930 and 1940 may have been related to economic conditions, changes in immigration laws, or possibly anti-Japanese sentiment.

The Japanese Americans of southern Idaho, like the Chinese immigrants before, faced anti-Asian sentiments from the onset. Japanese were included in the group that was excluded from owning or leasing land in Idaho in a 1923 law. Anti-Japanese sentiment in Idaho reached its zenith in the weeks following the bombing of Pearl Harbor (Sims, 1978). The Japanese Imperial military's capture and imprisonment of more than 1,000 Idaho-based, Morrison Knudsen construction company employees working on Wake Island further promoted anti-Japanese sentiment in the state (Sims, 1986). In spite of public sentiment, government intrusions into their lives, the federal law that prevented Japanese-born individuals from becoming U.S. citizens, and isolated racial occurrences, Idaho Japanese Americans displayed their patriotism by registering for the draft, pledging allegiance to the U.S., and buying U.S. Defense Bonds (Sims, 1978).

Economic Geography. Hunting and gathering, trapping, and mining were the early economic mainstays in south central Idaho. Transportation, and agriculture have dominated Snake River Plain land use during the past 150 years.

Northern Shoshone and Bannock of southcentral Idaho subsisted on hunting, fishing, and gathering. The Northern Shoshone are differentiated from the Western Shoshone of present-day Nevada by their dependence on horses and equestrian access to bison on the Northern Great Plains. Bison were a staple of the Northern Shoshone and Bannock peoples, being hunted on the Snake River Plain until 1840 and on longer forays to the Northern Great Plains until the 1860s. The Northern and Eastern Shoshone differed in their seasonal dependence on Snake River salmon runs. The Northern Shoshone and Bannock depended on a variety of fish resources, the most prominent of which were salmon caught on the Snake River below Shoshone Falls (Figure 5.10). Camas (*Camassia quamash*) roots were the chief plant resources gathered by these groups (Murphy and Murphy, 1986).

The first EuroAmericans passing through the area were likely a group of fur-trading Astorians led by Wilson Price Hunt in 1811 (Peterson, 1995). Hunt lost four members of his expedition as well as a boat in the Snake River rapids and falls, including those just below present day Milner Dam (Works Progress Administration, 1937; Peterson, 1995) (Figure 5.10). Subsequent fur explorations by the British-held North West Company and Hudson Bay Company traveled up and down the Snake creating a "fur desert" that kept American interests out of the area thus leaving the lands in British hands (Peterson, 1995). Americans were back in the country by the 1830s with the construction of Fort Hall near modern-day Pocatello. This trading post initially served trappers and subsequently Oregon Trail travelers (Schwantes, 1991).

Agriculture has occurred in south central Idaho since the early 1860s. However, the first attempts at agriculture, driven by the 1862 Homestead Act and the Desert Land Act of 1877, did not lead to long-term EuroAmerican settlement in the area. Idaho Senator William Borah commented "The government bets 160 acres [subsequently changed to 640 acres with the Desert Land Act] against the entry fee of $14 that the settler can't live on the land for five years without starving to death" (Peterson, 1995).

Sheepherders entered the area in the 1890s practicing a system of *transhumance* between the Snake River Plain winter range and summer range in the hills and mountains north of the plain (Peterson, 1995). This mobile agricultural practice was much better suited to the semi-arid environment than stationary, dryland farming.

Irrigated agriculture began in earnest on the central Snake River Plain by the late 1880s. These attempts were further spurred by the Carey Act of 1894 which allowed states to obtain up to 1 million acres of undeveloped, arid, federal lands within their borders then partner with private entities to develop these lands for irrigated agriculture (Lovin, 1987). Under the Carey Act, a consortium of private canal companies completed Milner Dam (Figure 5.10) in 1903. The U.S. Reclamation Service (later the U.S. Bureau of Reclamation), with the Reclamation Act of 1902, withdrew irrigable lands on the eastern Snake River Plain from public entry and created the Minidoka Project in 1904. The first federal piece of the Minidoka Project, Minidoka Dam (Figure 5.10), was completed in 1906. This dam created Lake Walcott and produced hydroelectric power, some of which was used to pump irrigation water to canals and laterals serving farmland. The first water from Lake Walcott reached "South Side" (i.e., south of the Snake River) farmers in May 1909 (Stene, 1997). Subsequently, the North Side Canal routed irrigation water from Lake Walcott to farmers near Rupert (Bureau of Reclamation, n.d.) (Figure 5.10). The Bureau of Reclamation constructed six other dams and two canals that ultimately became part of the Minidoka Project in 1940. The Milner-Gooding Canal, built to connect the various Carey Act private canals on the "North Side", was completed in 1932. This canal carried water from behind Milner Dam 70 miles northwest to the Shoshone area irrigating the Gooding Division of the project (Bureau of Reclamation, n.d.). The Minidoka Relocation Center was ultimately constructed within this division (Stene, 1997).

Development of the Minidoka Project was not without problems. High rates of evaporation, leaky canals, poor drainage, and salinization all plagued the project in its early years. North Side canals and laterals lost from 31-46% of all water conveyed in 1912 (Fiege, 1999). The Milner-Gooding Canal experienced these problems because of the fractured basalts of the area (Stene, 1997). This led to attempts by farmers to line canals. Seepage often returned to haunt the irrigators when it encountered an impervious clay layer at depth and eventually rose back to the surface to create waterlogged soils. Farmers and the Bureau of Reclamation had to then develop systems to drain the land of the life-giving water (Fiege, 1999).

Despite these shortcomings, the Minidoka Project was instrumental in the settlement of the area. The name "Magic Valley" was applied to the irrigated area paralleling the Snake River in Cassia, Gooding, Jerome, Lincoln, Minidoka, and Twin Falls counties because of the conversion of the desert lands into lush, irrigated fields "as if by magic" (Figure 5.10) (Boone, 1988). In 1915, 10,598 people lived in the project area. Following completion of the Gooding Division in 1937, the population had risen to 22,375 within the project boundaries (Stene, 1997). Project lands initially grew much alfalfa but in the ensuing years, small grains, hay, corn, potatoes, sugar beets, beans, onions, peas, apples, pears, and prunes became increasingly common (Fiege, 1999). Livestock included dairy cattle, hogs, sheep, and poultry (Stene, 1997; Claire Ricketts, oral communication, 14 June 2003). As of 1938, the north and south sides of the Minidoka Project irrigated about 106,000 acres (Stearns et al. 1938).

The Snake River Plain has long served as a transportation corridor despite the fact that the incised portions of the Snake River were impediments to travel. Approximately, 50,000 American immigrants crossed the Snake River Plain on the Oregon Trail between 1836 and 1861 en route to the fertile lands of the Willamette Valley and the Puget Lowland. The Snake River Plain portion of the Oregon Trail was often considered the harshest because the immigrants usually arrived at this section of the trail in the heat of summer when water and forage were short. The Snake River and its life-giving waters, despite being visible from above, were often inaccessible to the immigrants because of the deeply entrenched nature of the channel. One Oregon Trail immigrant stated that to make it through the desert portion of the Oregon Trail "a man must be able to endure heat like a salamander, ...dust like a toad, and labor like a jackass" (Peterson, 1995, p. 135). Just below present-day Milner Dam a site known as "The Cedars" was a favorite camp spot for Oregon Trail immigrants because of the shade of the trees and the access to water (Figure 5.10) (Works Progress Administration, 1937). Ben Holladay, the "Stagecoach King", developed a stage route in 1864 connecting Fort Hall with Walla Walla, Washington. This route resulted in the development of two stage stops in the vicinity of what would become Twin Falls–Rock Creek (approximately 13 miles southeast of present-day Twin Falls) and Desert (within the present-day Twin Falls city limits) (Figure 5.10) (Gentry, 1995). By 1884, the Oregon Short Line, a portion of the Union Pacific Railroad, had extended from Granger, Wyoming and the mainline of the Union Pacific Railroad, across the Snake River Plain to Oregon where it met up with the Oregon Railway and Navigation Company rail line at Huntington, Oregon (Athearn, 1969; Peterson, 1995). Shoshone originated as a rail stop on this line in 1882, and was the origin of a branch line heading north into the Wood River mining district (Works Progress Administration, 1937; Athearn, 1969). The construction of the Oregon Short Line and the subsequent branch line brought Chinese and subsequently Japanese laborers to the area (Arrington, 1994). Tourists often traveled via stage from the Oregon Short Line station at Shoshone to see the falls of the Snake River near present-day Twin Falls (Rhodes-Jones, 1979). The North Side Branch Line Railroad (late the Idaho Short Line) was constructed in 1912 from the town of Minidoka to Bliss by way of Eden and Jerome (Figure 5.10) (U.S. National Park Service, 2006).

On the eve of World War II, the future site of the Minidoka Relocation Center lay in a largely uninhabited area. The towns surrounding the future site were Shoshone, Eden, Twin Falls, and Jerome. All depended on irrigated agricultural and had grown with the Carey Act and the

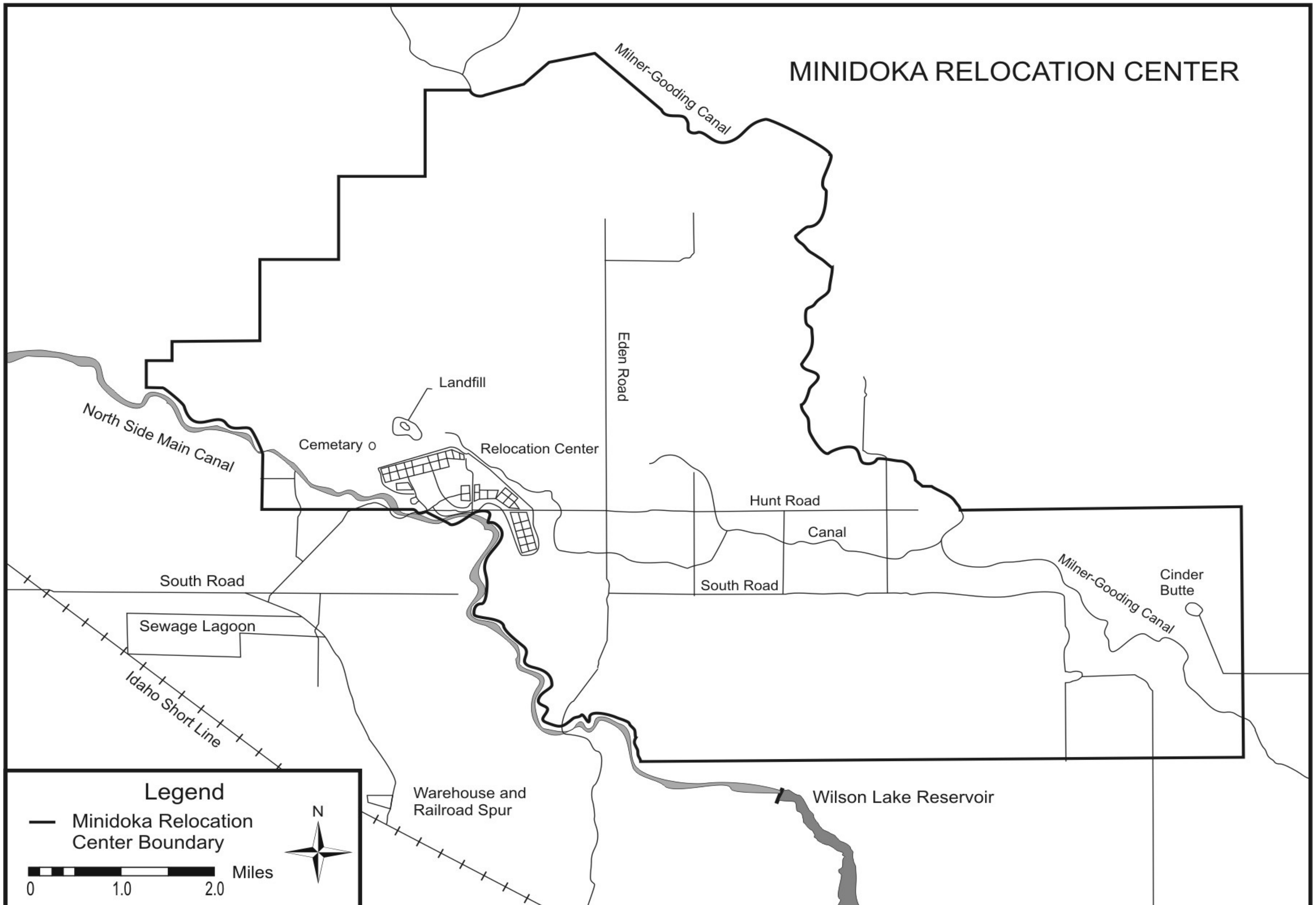
Reclamation Act. All except Eden were county seats. As of the mid-1930s, the population of these towns was as follows: Shoshone 1,211, Jerome 1,976, and Twin Falls 8,787. Twin Falls was described as the "Metropolis of southern Idaho" (Works Progress Administration, 1937).

Why this Location?

Idaho was likely chosen as a state in which to locate a relocation center because it lay outside the military exclusion area where Japanese Americans were prohibited from relocating. The actual site at Hunt was chosen because of the large amount of Bureau of Reclamation land in the area, and the proximity of Snake River water via the Milner-Gooding Canal meant that the lands could be irrigated (Tamura, 2002) (Figure 5.12). With investment of cheap labor, this land had the potential to be useful after the war (Weglyn, 1996). While roads, a newly constructed railroad spur, and electricity were readily available, the center was sufficiently isolated from Eden, Jerome, Shoshone, and Twin Falls to not pose a threat to those communities, especially when the initial understanding of local residents was that evacuees would be held in a secure facility under the watchful eyes of armed guards (Tamura, 2002; U.S. National Park Service, 2006). The guards were thought to be necessary because Japanese Americans in the six county area including and surrounding the future site of the Minidoka Relocation Center were viewed as a threat to Idaho's security and the life-giving Magic Valley irrigation canals (Sims, 1986).

The site characteristics, plus the labor needs of Snake River Plain farmers, overrode the concerns of then-Idaho Governor Chase Clark, who, following the Japanese bombing of Pearl Harbor, took every opportunity to denigrate Idaho's Japanese Americans and any attempts at relocating other Japanese Americans in Idaho (Sims, 1979). Governor Clark told a congressional committee that he was only willing to accept Japanese Americans if they were kept in separate camps under armed guard. His rhetoric of the time indicates that he did not differentiate between Japanese in America and the Japanese our troops were fighting in the Pacific. In a meeting with other western governors and federal officials in Salt Lake City in April 1942, Clark reiterated his demand that any Japanese Americans sent to Idaho be kept in concentration camps under armed guard. Further, he stated that "right on the start, that I am so prejudiced that my reasoning might be a little off, because I don't trust any of them. I don't know which ones to trust and so therefore, I don't trust any of them." Milton Eisenhower, head of the War Relocation Authority at the time, attributed the failure of the federal government to convince the inland states to accept West Coast Japanese in a voluntary relocation resettlement in independent and self-supporting communities to Clark's rhetoric (Sims, 1978). Despite outcry by Gooding-area farmers that a Japanese American relocation center might take water that they had long had access to, the War Relocation Authority (WRA) chose to locate the center at Hunt (Sims, 1986). Once this decision was made by the federal government, Governor Clark assured the residents of Jerome County that the Japanese Americans would be kept under armed guard while living in the center, and once the center was closed after the end of the war, all would be removed from the area (Staff, 30 April 1942).

Figure 5.12. Overall map of the Minidoka Relocation Center. Adapted from Burton et al. (2002, p. 204).



Building Minidoka

The Bureau of Reclamation officially transferred the administration of 33,500 acres of the Gooding Division of the Minidoka Project to the WRA in Spring 1942 (U.S. Army–Western Defense Command, 1943). Of this total, 946 acres were used for the actual center, and another 784 were used for agricultural purposes (Thye, 1947) (Figure 5.12). Construction began on 5 June 1942 and was sufficiently complete for the center to open on 10 August. At peak construction, a workforce of approximately 3,000 was employed (Sims, 1986; Burton et al., 2002). The construction of the center had very serious consequences on the area's wages, labor supply, and housing availability (Sims, 1986). The building of the center effectively ended the Depression in south central Idaho providing well-paying jobs for all who could work. Center construction drove area wages upward. For example, wages were approximately three times higher for carpenters and masons at the center than on the outside (Arrington, 1994). The influx of workers to the area also meant a shortage of housing in the area.

Unlike other relocation centers, Minidoka was not laid out in a square or rectangular fashion based on True North. Instead, topography and the presence of the North Side Canal dictated that the residential, administration, military police, hospital, and warehouse areas be laid out in separate groups (Figure 5.13). Included within the residential area were evacuee barracks plus a variety of services including businesses, a health clinic, fire stations, schools, a gymnasium, baseball diamonds, an ice skating rink, a civic center, and evacuee-operated community offices. Adjacent areas included administrative offices, staff housing, warehouse, motor pool, hospital, and military police. In total, over 600 buildings were constructed at Minidoka. Initially, the center was surrounding by a barbed wire fence and the center's perimeter was watched over by eight watch towers (Burton et al. 2002).

The residential part of the center had 35 blocks although the blocks were numbered up to 44–i.e., several designated blocks were never developed for barracks (Figure 5.13) (Burton et al. 2002). Because of the impacts of the North Side Canal and topography, the irregular residential area was approximately 2.5 miles long (Takami, 1998). Streets within the main part of the center were labeled A-H, and the avenues denoted 1st -23rd (U.S. National Park Service, 2006). All blocks had 12 barracks, one mess hall, one H-shaped laundry-latrine-shower building, and one recreation building (Burton and Farrell, 2001). Most 20 feet x 120 feet barracks consisted of six single-room apartments that ranged in size from 16 feet x 20 feet (up to 3 people), 20 feet x 20 feet (up to 5 people), and 20 feet x 24 feet (up to 7 people) (Burton and Farrell, 2001; Kleinkopf, 1943). Typically, each block also had two barracks divided into eight apartments that were designed to house bachelors and small families (Robert Sims, written communication, 20 April 2007). Each apartment had a coal stove for heat and one bare light bulb (Burton and Farrell, 2001). The bases of the barracks were skirted to protect the residents from the cold winter winds (Kleinkopf, 1946). Historical photographs show that the external walls and roof were covered with heavy tar paper that was held down with wood battens (Figure 5.14). Each block was designed to handle approximately 250 people (Hausler, 1964). As a comparison, the staff

Figure 5.13. Detailed map of the central portion of the Minidoka Relocation Center. Adapted from Burton et al. (2002, p. 206) and U.S. National Park Service (2006, p. 21).

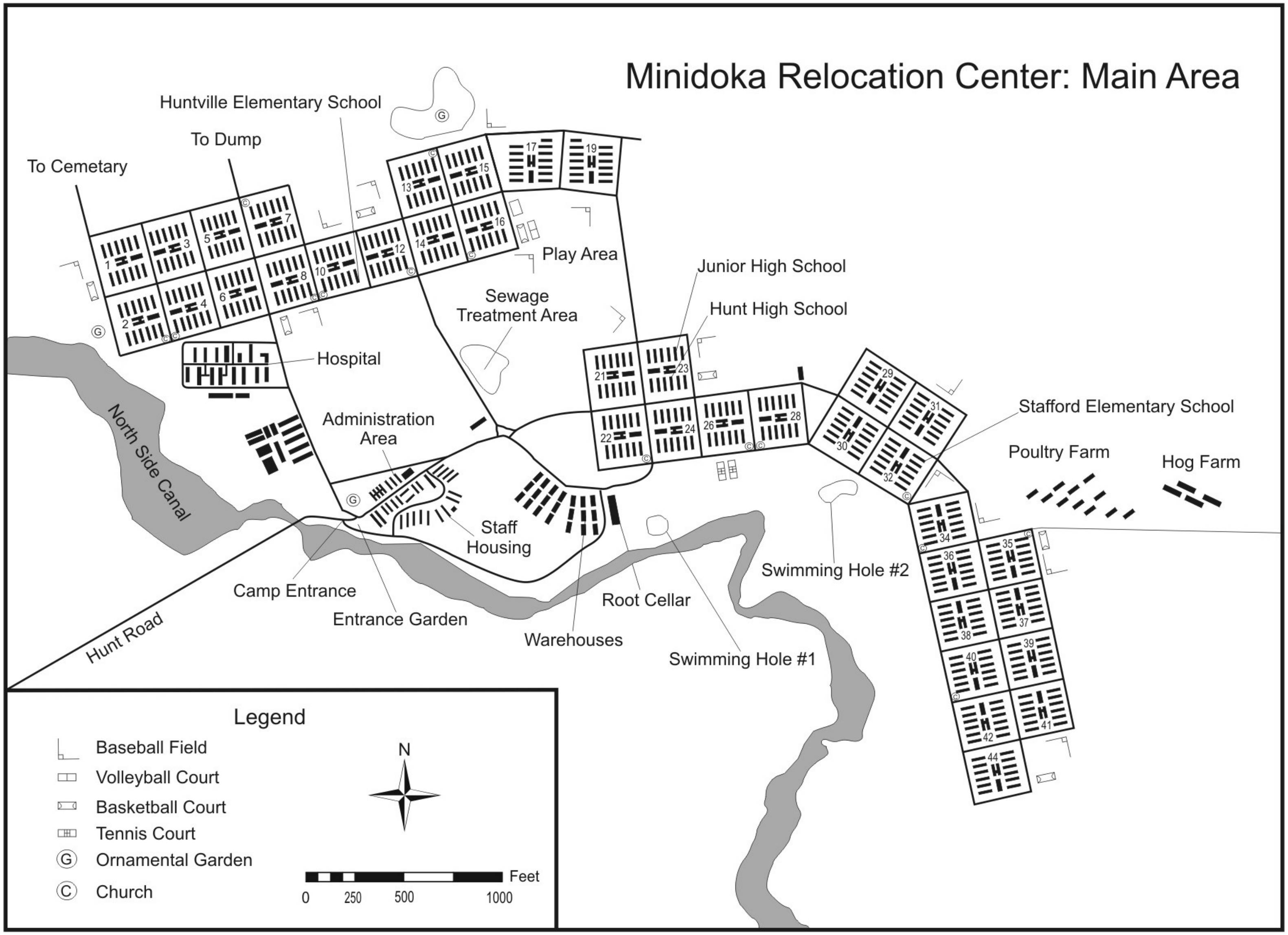


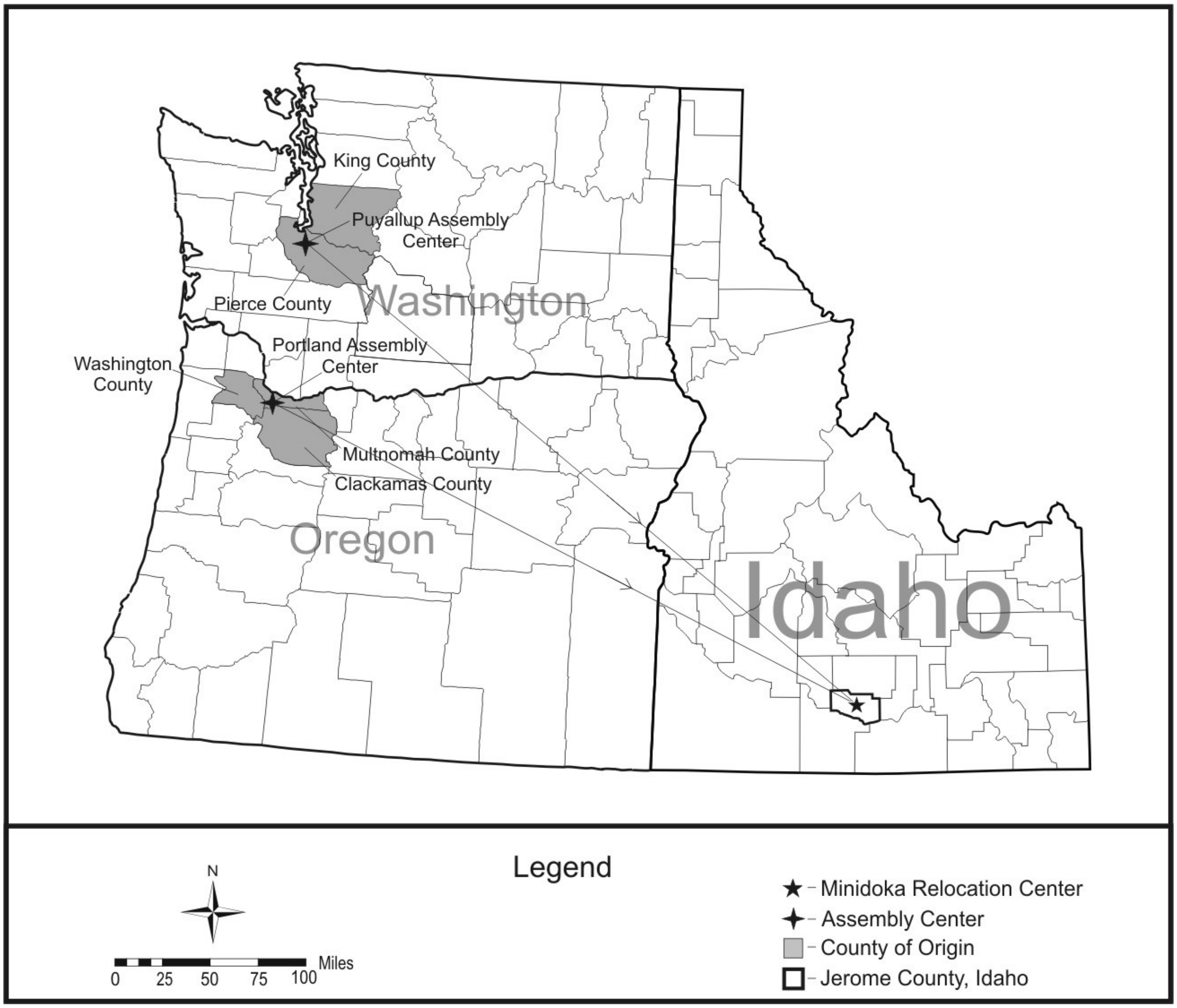
Figure 5.14. View down a Minidoka street. Note the grass planted between the road and the barracks, and the barracks garden on the left. Unknown photographer, August 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 25, Section C, WRA # G-414, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 9: Minidoka Relocation Center, Hunt, Idaho.

housing apartments at Minidoka each had a living room, dining room, bathroom, and one or more bedrooms (U.S. National Park Service, 2006).

Domestic water for the center came from four deep, large wells (Kleinkopf, 1946). The well waters were pumped up into large water towers and stored until being gravity-fed to the mess halls, latrine and shower facilities, and various administrative buildings around the center. The sewage treatment plant was located in a swale sufficiently close to the evacuee residential and administrative areas to draw complaints about its foul smells (Kleinkopf, 1943; Burton et al., 2002).

Unfortunately, the center was not finished as the evacuees began to arrive in August 1942. The construction crew was just one block ahead of the incoming evacuees (Spicer et al., 1969). It was not until late January 1943 that the sewage treatment plant was sufficiently complete for outhouses to be abandoned in favor of indoor flush toilets (Hall, 1987). As to the Spartan conditions of the center, Director Harry L. Stafford said: “We must ask ourselves, could we do any less and be Americans? Could we do any more and be taxpayers?” (Miller, 1990).

Figure 5.15. The Western United States origins of Japanese Americans evacuated to Minidoka in August and September 1942. Data from U.S. Army–Western Defense Command, (1943, p. 381, 383) and U.S. War Relocation Authority (1946, p. 61-66).



Origins of the Evacuees

Minidoka's original evacuees came from Washington and Oregon via the Puyallup and Portland assembly centers, and to a lesser degree from California by way of the Santa Anita, Tanforan, and Tulare assembly centers (U.S. Army–Western Defense Command, 1943). Specifically, most of these individuals were from Washington's King (6,098) and Pierce (1,051) counties, and Oregon's Multnomah (1,927), Clackamas (144), and Washington (141) counties (Figure 5.15).

Another 12 Washington counties added 91 evacuees, ten Oregon counties contributed 93 evacuees, and 19 California counties sent 169 evacuees. Alaska added another 134 evacuees (U.S. War Relocation Authority, 1946; Naske, 1983). Most of the center's population was urban and 60% were American citizens (U.S. War Relocation Authority, 1946; Japanese American National Museum, n.d).

The first trainload of evacuees arrived at Minidoka on 10 August 1942 from the Puyallup Assembly Center (U.S. Army–Western Defense Command, 1943). The Idaho Short Line Railroad spur line three miles south of the center was the off-loading point for the evacuees and their baggage (Burton et al., 2002; Kleinkopf, 1942). It took just over one month for all of the Puyallup and Portland evacuees to arrive by train (U.S. Army–Western Defense Command, 1943). With a maximum population of 9,397, Minidoka became Idaho's 8th largest city (U.S. War Relocation Authority, 1946; Arrington, 1994).

Interaction of Evacuees with South Central Idaho's Environments

Physical Environment. When they came through the main gate at Minidoka, many evacuees were entering a world far different than the one they had lived in prior to the assembly centers. One youth described the changes to the new environment as: "The war has brought to me many changes, as it has to other people. From a world of sidewalks and tall buildings to another place with dust, sagebrush, and uncomfortable living..." (Sims, 2000, p. 9). To another "Minidoka is a vast stretch of sagebrush stubble and shifting, swirling sand–a dreary, forbidden, flat expanse of arid wilderness. Minidoka...is the sort of place people would normally traverse only to get through to another destination" (Fiset, 1997, p. 66-76). Another described the desert setting with its rows of barracks as "...flat brown earth and gray low buildings" (Chase, 2000, p. 3).

It was the dust and heat that most of the evacuees initially commented on in August and September 1942: "We felt as if we were standing in a gigantic sand-mixing machine as the sixty-mile gale lifted the loose earth up into the sky, obliterating everything. Sand filled our mouths and nostrils and stung our faces and hands like a thousand needles" (Sone, 1953, p. 192). The assistant project director described Minidoka on its "opening day" as: "It was hot, dusty, desolate. Flat land, nothing growing but sagebrush, not a tree in sight...Bulldozers were still filling in ditches while registration went on; the air was choked with dust; so were the people" (Spicer et al., 1969, p. 72).

Blowing dust was a common occurrence because of the overall dry and windy conditions, and the disturbed nature of the center's surfaces. At times blowing dust limited visibility to tens of feet making breathing difficult, and causing overall health issues (Kleinkopf, 1942; 1943). Because of the lack of ceilings and inside walls that extended to the barracks roofs, apartments were constantly dust-covered (Arrington, 1994). To many Issei, who considered cleanliness essential, this was a huge issue (Maeda, 1976). Minidoka's hot, dry summers forced evacuees to place buckets of water in their apartments to increase the humidity and cool the air (Fiset, 1997). Wildfires occurred as a result of the hot, dry, and windy conditions. Contrasting temperatures were a problem as well. Summer temperatures ranged from blazing hot to sufficiently cold that the coal stoves needed to be fired up–all in a span of several days (Kleinkopf, 1943)!

The winter of 1942-43 was especially troublesome to evacuees who were not accustomed to the low temperatures and who faced coal shortages early on (Burton and Farrell, 2001). By November 12, the thermometer had plummeted to -14ºF. Coal was not plentiful in the center until 23 November 1942. Evacuees were forced to burn sagebrush if stoves were even installed in their apartments. At times, they burned sagebrush outside the barracks to keep warm. Even when the coal arrived it was of poor quality thus produced excessive smoke and required that stove pipes be cleaned every few days (Kleinkopf, 1942). The black tarpaper-covered barracks with no insulation or interior wall coverings provided little relief from the winter cold, or from the winds that blew dust in through every crack and crevice (Yamaguchi, 1989). Cold weather brought other woes–e.g., it drove rattlesnakes into the areas under the barracks (Kleinkopf, 1942). Overall, average temperatures for most months during the August 1942 - October 1945 periods were colder than the 1931-1960 average. This was especially true of April through September during each of the war years (Western Regional Climate Center, n.d.b). While winters were cold, the snows of winter brought a welcome relief to the drab landscape (Yamaguchi, 1989).

Conversely, snowmelt and rainy weather meant walking through mud on the unpaved walkways and roads (Maeda, 1976). Rain often came in bursts resulting in flooding and muddy conditions (Yamaguchi, 1989; Fiset, 1997) (Figure 5.16). The muddy conditions were especially true in the early months of the center until crews graveled road and walkway surfaces (Staff, 19 December 1942; Staff, 13 January 1943; Kleinkopf, 1942). Because of the location of the evacuee residential blocks in the depressions on the landscape, this area was likely the wettest, gathering moisture from the surroundings.

Agriculture. The goal of the agricultural program was to grow sufficient crops to feed the center, and if there were surpluses, to trade crops with other centers. Further, the agricultural program was to provide constructive employment for many of the evacuees and to aid the war effort through the raising of crops (Rice and Beebout, 1946). To accomplish these goals, the evacuees had to literally start at the beginning. None of the area had been previously farmed. Relatively few of the evacuees were previously farmers, and of those who had been farmers, only a handful had farmed with irrigation. Finally, the WRA need to acquire the necessary equipment, and evacuees had to build the necessary infrastructure for the farm operation. Part of the agreement between the WRA and the Bureau of Reclamation for siting the center on these lands and having access to Snake River water was that evacuees would develop a portion of the Gooding Division of the Minidoka Project by maintaining the Milner-Gooding Canal, building laterals from that canal to center lands, and clearing and leveling lands for agriculture (Stene, 1997; Thye, 1947). Ultimately, the native lands developed for agriculture would be ready for "homesteaders" to enter the area following the closure of the center (Stene, 1997).

Figure 5.16. Muddy conditions associated with rain and melting snow at Minidoka. Francis Stewart photograph, December 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 78, Section A, WRA # -799, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 9: Minidoka Relocation Center, Hunt, Idaho.

Evacuees began clearing sagebrush, leveling, building irrigation laterals and ditches, and otherwise preparing lands for farming in fall 1942 and spring 1943. Irrigation waters came to the area from the diversion on the Snake River at Milner Dam 20 miles southeast via the Milner-Gooding Canal (Figure 5.10) (Burton et al., 2002). Despite the proximity of the North Side Canal to the relocation center, its waters could not be used on the center lands without an expensive pumping plant (Figure 5.12). Instead, evacuees had to construct irrigation Lateral 21.5 from the Milner-Gooding Canal approximately 6.5 miles westward and add to that approximately 45 miles of irrigation and drainage ditches (Kleinkopf, 1946; Rice and Beebout, 1946; Burton et al., 2002). By the end of 1944, the evacuees had cleared 1,166 acres of farmland although they actually farmed less than one-half of those acres (Figure 5.17) (Rice and Beebout, 1946).

Evacuees ultimately raised 30 different types of produce for consumption in the center mess halls (Table 5.1) on a total of nearly 226 acres in 1943 and 308 acres in 1944 (Table 5.2). A total of over two million pounds of produce were grown in 1943 and over three million pounds in 1944 (Table 5.2). The 1943 yields had a market value of $58,147 while the 1944 produce was valued at $102,640 (Rice and Beebout, 1946) (Table 5.2). Tender plants such as tomatoes, eggplants,

Figure 5.17. Agricultural lands of the Minidoka Relocation Center, Idaho. Adapted from Burton et al. (2002, p. 208).

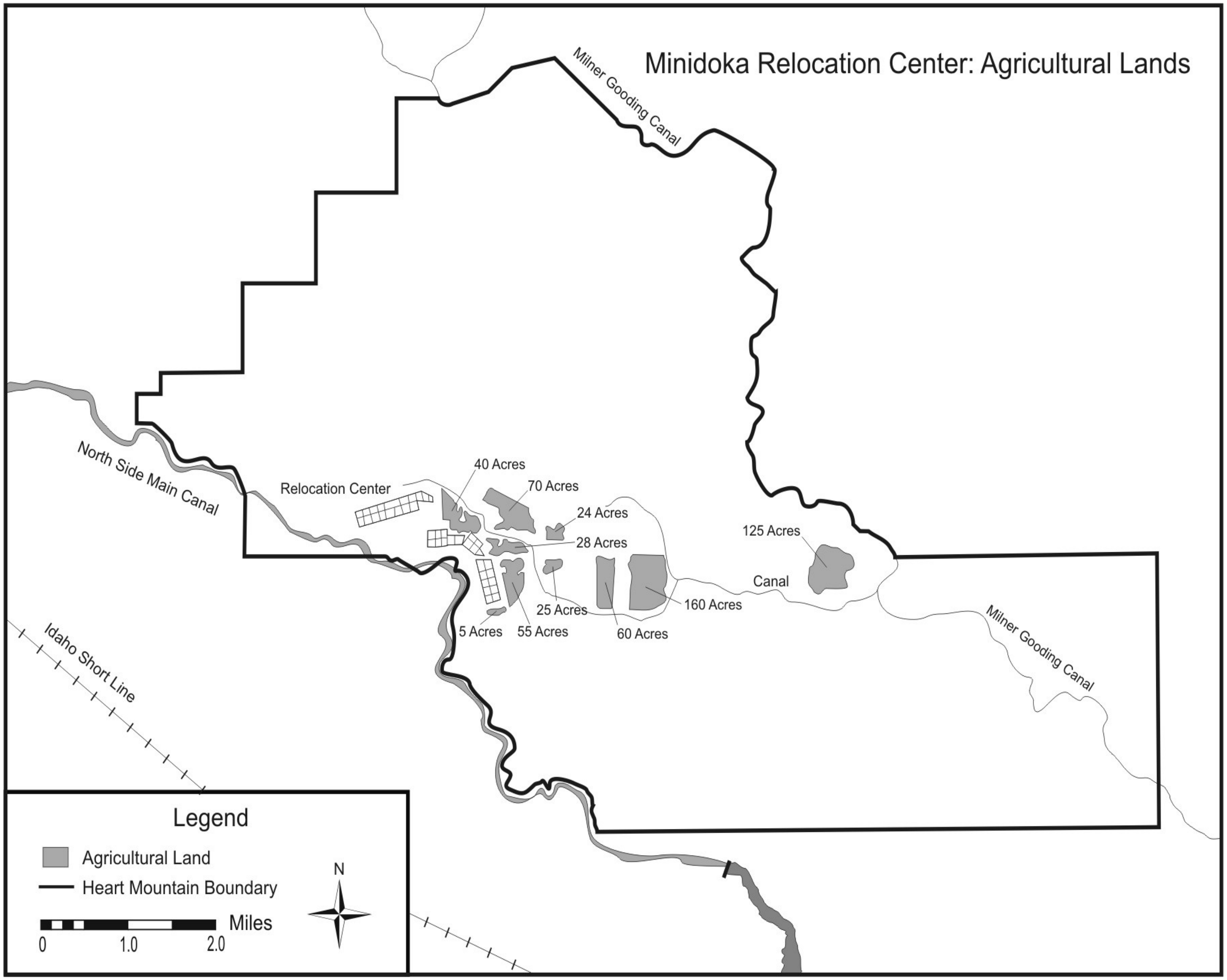


Table 5.1. Crops and livestock raised at the Minidoka Relocation Center, 1943. Data from Rice and Beebout (1946, Exhibits 1-10).

Produce	**Produce** (continued)	**Feed Crops**	**Livestock**
beans (dry white)	honeydew melon	barley	chickens
beans (green)	lettuce (head)	oats	hogs
beans (soy)	mustard greens	rye	
beets (table)	nappa	wheat	
broccoli	onions		
cabbage	peas		
cantaloupe	peppers (green)		
carrots	potatoes		
cauliflower	radishes		
celery	shingiku		
corn (sweet)	spinach		
cucumber	squash		
daikon	tomatoes		
eggplant	turnips		
gobo	watermelon		

peppers, eggplants, celery, and broccoli were started in hot beds. Manure for the hotbeds was obtained from nearby livestock operations (Staff, 19 June 1943; Rice and Beebout, 1946). The first produce to reach the mess halls were radishes in early June 1943 (Kleinkopf, 1943). The big producers in terms of tonnage were potatoes, onions, carrots, cabbage, turnips, nappa (i.e., Chinese cabbage), squash, and watermelons (Rice and Beebout, 1946). Produce not eaten fresh was stored in a large root cellar and included potatoes, carrots, cabbage, and onions (Rice and Beebout, 1946). A large scale attempt at canning tomatoes did not yield good results in fall 1943 thus was discontinued. However, a pickling plant began operation in fall 1943 preserving a variety of produce including turnips, daikon, cabbage, carrots, nappa, cantaloupe, and honeydew melon. Much of this produce was pickled during the winter months when farm workers were idle. The pickling plant was temporarily closed in March 1944 when it was discovered that some of the evacuee workers were using the facilities to manufacture sake. The plant was reopened

Table 5.2. Produce and feed crops, Minidoka Relocation Center, 1942-1945. Data from Rice and Beebout (1946, Exhibits 1-10).

	1942	1943	1944	1945	*Total*
Produce					
Total Acres Harvested	0	226	308	0	*534*
Total Production (lbs)	0	2,222,062	3,369,205	0	*5,591,267*
Consumed at Center (lbs)	0	2,161,062	1,881,044	0	*4,042,106*
Shipped to Centers (lbs)	0	61,000	1,488,161	0	*1,549,161*
Total Market Value ($)	0	$58,147	$102,640	0	*$160,787*
Feed Crops					
Total Acres Harvested	0	0	314	0	*314*
Total Production (lbs)	0	0	435,183	0	*435,183*
Fed at Center (lbs)	0	0	370,455	0	*370,455*
Shipped to Centers (lbs)	0	0	64,728	0	*64,728*
Market Value ($)	0	0	$9,217	0	*$1,478*

in August 1944 and operated until the end of 1944 when plans were made to close the center. Produce beyond that consumed fresh or pickled was shipped to other centers in 1943 and 1944 (Table 5.2). All produce operations in the agricultural program were terminated once the West Coast Exclusion Order was lifted in December 1944 (Rice and Beebout, 1946).

In addition to produce, evacuees raised chickens for meat and eggs, and hogs for meat (Tables 5.1 and 5.3). Poultry were raised in 1943, 1944, and 1945. The program reached its productive peak in 1944 with over 42,000 pounds of poultry and over 62,000 dozen eggs sent to center mess halls (Table 5.3). Hogs were fed mess hall kitchen scraps plus feed crops raised on the center farms (Table 5.2). Nearly 60,000 pounds of dressed pork was raised in 1943, over 293,000 pounds in 1944, and nearly 126,000 pounds in 1945. The variation in production during these years reflects problems associated with initiating production (1943) and winding down for center closure (1945). Feed crops were only raised in 1944 with most fed to center livestock and a small amount shipped to other relocation centers (Tables 5.1 and 5.2) (Rice and Beebout, 1946).

Table 5.3. Livestock yields, Minidoka Relocation Center, 1942-1945. Data from Rice and Beebout (1946, Exhibits 1-10).

	1942	**1943**	**1944**	**1945**	***Total***
Chickens					
Total Butchered	0	1,130	7,215	9,274	*17,619*
Meat Total Weight (lbs)	0	6,788	42,609	39,517	*88,914*
Market Value ($)	0	2,710	16,186	14,909	*$33,805*
Eggs (dozen)	0	4,170	62,730	23,415	*90,315*
Market Value ($)	0	2,140	24,018	11,218	*$37,376*
Hogs					
Total Butchered	0	278	1,432	627	*2,337*
Dressed Weight (lbs)	0	59,697	293,259	125,767	*478,723*
Market Value ($)	0	11,147	52,454	22,873	*$86,474*

Minidoka agriculturalists faced obstacles in everything from land clearing to harvest, many of which were centered around the issue of insufficient labor and machinery. If measured by the initially lofty goals of the WRA, Minidoka's agricultural program was only marginally successful. However, if put into the context of incarcerated people who had little experience with irrigated agriculture and animal husbandry, who were trying to build a subsistence-based farm program while being pressured to relocate, the programs were quite successful. Minidoka's agricultural program helped feed Minidoka evacuees as well as other relocation center evacuees, provided meaningful employment to evacuees, and paved the way for future farming in the area. (Rice and Beebout, 1946).

Business and Industry. Minidoka had a variety of Consumers Cooperative businesses including shopping (general stores, clothing and dry goods stores, mail order stores, flower shop, and a newspaper distribution agency), beauty (barber shops and a beauty shop), repair (watch repair stores and radio repair shops), cleaning (a dry cleaning business), entertainment (a motion picture department), and banking (a check cashing service) (Staff, 25 September 1943; Burton et al., 2002). Evacuees paid for these services with their savings as well as meager earnings from working in the center. Wages for center employment ranged from $12/month for unskilled labor to $19/month for professionals (Spicer et al, 1969). The center newspaper, the *Minidoka Irrigator*, was printed from August 1942 until July 1945.

Industry at Minidoka was limited to a sewing factory that produced clothing for the center's use and a plant that manufactured tofu for the center's dining halls. The sewing project was involved in sewing repairs as well as making new items including cook's uniforms, various aprons, work gloves, baseball bases, judo outfits, and truck covers. The sewing operation began in winter 1943 and continued into spring 1945. Tofu was manufactured at Minidoka beginning in fall 1942 and continued through summer 1945. The unsuccessful attempt at growing soy beans on the center's farms may have been to supply the tofu manufacturing needs of the center (Rice and Beebout, 1946).

Landscaping and Gardening. Evacuee gardeners brought seedlings, bonsai trees, vines, ferns and edible plants from their homes, via the Puyallup and Portland assembly centers, to Minidoka for transplanting to soften the harsh center conditions and to provide remembrances of coastal Washington and Oregon (Tamura, 2002). As early as October 1942, rye was seeded in the open spaces within the evacuee residential area (Figure 5.18) and gardens incorporating native plants, small ponds, and basalt stone borders were present near the barracks doorways (Kleinkopf, 1942, p. 17, 23) (Figure 5.19). Basalt boulders were transplanted from miles around the center, sometimes in homemade carts. Some purchased seeds from Sears Roebuck catalogs while the Twin Falls Chamber of Commerce, ministerial associations, and garden clubs also banded

Figure 5.18. Hunt High School students preparing the soil for ryegrass planting around the high school classrooms. Unknown photographer, May 1943. Volume 25, Section C, WRA # G-243, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 9: Minidoka Relocation Center, Hunt, Idaho. Bancroft Library, University of California, Berkeley.

Figure 5.19. Yasusuke Kogita's barracks garden in Block 5, Minidoka Relocation Center. Unknown photographer, circa 1944. National Archives. Scanned from U.S. National Park Service, 2006, Table of Contents).

together to provide Minidoka residents with flowers, shrubs, seeds, and trees for center landscaping needs (Kleinkopf, 1943; Staff, 27 March 1943; Tamura, 2002). Lawns were planted near the barracks as were shade trees (Kleinkopf, 1943; Yamaguchi, 1989). A "sagebrush park" was constructed near Blocks 16 and 17 and a traditional Japanese garden with basalt stones hauled by cart from as far as two miles away, ponds, and a fountain was created in Block 5 (Kleinkopf, 1944; Eaton, 1952). Besides the barracks gardens established throughout the center, Japanese Americans designed, constructed, and maintained the large Japanese-style garden at Minidoka's entrance (Tamura, 2002) (Figure 5.13).

Victory gardens were also planted throughout the center. By June 1943, "every barrack [had] vegetables and flowers growing near the doorway" (Kleinkopf, 1943, p. 53). Gardening occurred despite the lack of irrigation ditches and water in the residential part of the center until early July 1943 (Kleinkopf, 1943). Residents also raised chickens within the residential blocks (Kleinkopf, 1944). The cellars present beneath many of the barracks were likely used to store some of this produce (Kleinkopf, 1945). Victory gardens also involved school teachers and students with gardens set up around the schools (Kleinkopf, 1943).

The abundance of barracks gardens at Minidoka and the other relocation centers were the result of the gardening and landscaping backgrounds of many of the evacuees, the ample raw materials for the gardens, the active support of gardening by the WRA, and cultural characteristics that deplored idleness, admired nature and aesthetics, practiced collective cooperation, and *Gaman*–the determination to persevere. Gardening, and the act of growing things, was therapeutic for the evacuees, and allowed them to have some control over their surroundings. The aesthetically pleasing gardens offered evacuees respite from harsh environments. Center victory gardens were also signs of their patriotism and provided the Japanese with the foods that they had traditionally eaten. The very Japanese nature of the more ornamental gardens allowed evacuees to express their ethnic identity. Gardening in Minidoka could also be viewed as an act of defiance by evacuees who constructed these private gardens on WRA lands, pilfered WRA materials for the gardens, and walked outside of center to obtain raw materials from the surrounding landscape (Tamura, 2002).

Education. Minidoka offered K-12 and adult education programs to its evacuees. Approximately 27% of the center's population were of K-12 age as of 1 January 1943 (U.S. War Relocation Authority, 1946). Two elementary schools were established in existing barracks–Stafford in Block 32 and Huntville in Block 10–while Hunt High School occupied all of Block 23 (Figure 5.13) (Hausler, 1964; Kleinkopf, 1945). The academic program was based on an experimental curriculum developed by Stanford University that ironically emphasized democracy and Americanization (Hausler, 1964).

While meeting the basic educational needs of Minidoka's children, the education system at Minidoka was beset by a variety of problems. Minidoka's education facilities and staff were Spartan. The two elementary schools cumulatively served an average student population of nearly 800 students/year while the single junior-senior high school enrolled approximately 1,300 students/year (Kleinkopf, 1945). The barracks that served as classrooms were overcrowded, and teaching supplies, including textbooks, were in short supply from the onset. Student/teacher ratios were very high. On the opening day of the elementary schools, 775 pupils were served by ten teachers. Student teachers often had to serve as actual teachers (Kleinkopf, 1942). As a result of all of these issues, neither teachers nor student teachers typically stayed long at the center (Kleinkopf, 1942; 1943; 1944; 1945; 1946).

Adult education courses began in fall 1942 with the goal of Americanization via English language and U.S. history courses. Another goal was to prepare evacuees for relocation by offering vocational courses such as welding, animal husbandry, farm carpentry, bookkeeping, and typing. Hobby-type courses were also offered including needlework, flower arrangement, and cooking (Staff, 2 December 1942; Hausler, 1964).

A highlight of the educational program was the presence of three libraries within the schools, and an additional circulating public library. The public library ultimately housed 22,000 books, and subscribed to several newspapers and approximately 100 magazines. Many of the books came from Pacific Northwest library and citizen donations, and included a significant number of Japanese language books (Staff, 11 November 1942; Staff, 15 May 1943; Hausler, 1964).

Recreation. As at other centers, boredom was a key issue at Minidoka. A community activities program was established to provide evacuees with recreation opportunities. These activities included movies, fishing and an associated fishing derby, art exhibits, home furniture exhibits, kite flying contests, Japanese classic plays, and softball tournaments (Kleinkopf, 1944). Church groups and other organizations in the Seattle area provided the center with pianos (Kleinkopf, 1943).

Baseball and swimming were common in the summer months. Baseball was the most popular sport in center (Yamaguchi, 1989). By 1945, the center had at least 15 baseball and softball diamonds (U.S. National Park Service, n.d.) (Figure 5.13). The center held a Sagebrush World Series among all of the blocks (Yamaguchi, 1989). The Hunt High School team, after playing the high schools of the neighboring towns of Eden, Jerome, Rupert, Nampa, Burley, and Idaho Falls, went undefeated (Kleinkopf, 1945; Yamaguchi, 1989). A crowd of 3,000 rooted for the team's season opening victory over Twin Falls High School. The Hunt All-Stars, a semi-pro team formed in 1943, played in the Southern Central Idaho League with teams including Buhl, Burley, Eden, Filer, Jerome, and Rupert. The team was largely composed of former Seattle Courier League players. Ultimately, they finished 4th in the 1943 state semi-pro tournament. Softball was also popular with the center hosting a 20-team softball tournament in 1944. Many of the participating teams came from outside the center. Two "Old Timers" leagues formed in 1943 and included a seven day tournament that featured 14 block teams. Some of the Old Timer games were played in front of crowds of 500 or more (Mullan, 1999). Similar participation occurred in 1944 when the old timers attracted "great throngs of people" to their games (Kleinkopf, 1944). Baseball perhaps meant more to the Issei than to all other evacuees as indicated by the following *Minidoka Irrigator* column (Jawn, 11 September 1943, p. 7):

> *"Anytime you can't find your 'pop', just go out to the baseball field and ...you'll find him there. Since evacuation, our 'old men' have been eating and sleeping baseball day and night. 'Bull sessions' are always going on by boiler rooms and the main topic seems to be about baseball. Yup! Old man baseball reigns supreme among our dads and have helped make life more pleasant for him. Without this game, he'd be lost..."*

Swimming and generally playing in the waters of the North Side Canal were common until drownings occurred in June and September 1943 (Staff, 26 June 1943; Staff, 4 September 1943). Two swimming holes were subsequently constructed using North Side Canal water (Figures 5.13 and 5.20). Fishing in the North Side Canal was also a common activity where trout, squaw fish, and carp were caught (Kleinkopf, 1943).

An area near the high school was surrounded by berms to serve as the skating rink but it is not clear whether it was ever used because it did not initially hold water (Kleinkopf, 1942; 1943). A

Figure 5.20. Swimming at swimming hole #1, Minidoka Relocation Center. North Side Canal water flows into pool and out again. Average pool depth was six feet. Francis Stewart photograph, August 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 78, Section G, WRA # -238, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 9: Minidoka Relocation Center, Hunt, Idaho.

rink was built and used for ice skating near Block 44 along the North Side Canal (Burton and Farrell, 2001). Ice hockey was played at Minidoka after center residents received a donation of gear from the Seattle Civic Ice Arena (Staff, 27 January 1943). Kids also sledded on the low hills of the center (Figure 5.21)

Scouting was a common activity for kids with strong Boy Scout and Girl Scout troops forming at Minidoka that offered kids the opportunity to leave the center's confines for camping trips (Kleinkopf, 1942; 1943). Summer camps for Boy and Girl Scouts were held in the Sawtooth Mountains to the north of the center (Staff, 1 July 1944; Staff, 16 September 1944a)

A combination gymnasium/auditorium that was initiated in October 1943 was never fully completed because of issues between evacuee laborers and the center administration (Kleindkopf, 1943; Burton and Farrell, 2001). As a result, Minidokans did not have the

Figure 5.21. Young evacuees sled on the low volcanic hills of the Minidoka Relocation Center. Francis Stewart photograph, December 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 24, Section C, WRA # -727, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 9: Minidoka Relocation Center, Hunt, Idaho.

basketball games, volleyball matches, plays, and large public performances that occurred at other centers.

Culture and Art. The culture of Minidoka was purposefully American. This was seen in the language, dress, housing, meals, recreation, and business interactions. However, Japanese cultural influences were also seen throughout the center. The Issei often conversed in Japanese. Buddhism had a strong following in the center and included traditional ceremonies including the *Obon* (a festival to honor the dead) (Staff, 16 September 1944b). Mess hall meals included traditional foods such as rice, tofu, and *shoyu*. New Years' celebrations involved *Mochi-gome* (sticky rice pounded and formed into balls) in each of the three New Years in the center (Staff, 2 January 1943; Staff, 27 November 1943; Staff, 16 December 1944). Traditional board games such as *go*, *shogi*, and *karuta* were also played in the center (Staff, 9 January 1943). Evacuees used their traditional flower arranging and landscaping skills at Minidoka to create sagebrush displays and gardens (Eaton, 1952). Despite the lack of trees, traditional woodworking flourished at Minidoka as evidenced in intricate woodcarvings, wood shaping of walking canes, and sagebrush and greasewood scultptures (Eaton, 1952) (Figure 5.22). One evacuee even painted small stones as characters of Japanese folk tales (Eaton, 1952).

Figure 5.22. Minidoka evacuee polishing greasewood to make furniture. Francis Stewart photograph, December 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 25, Section C, WRA # A-780, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 9: Minidoka Relocation Center, Hunt, Idaho.

Faith and Spirituality. Various editions of the *Minidoka Irrigator* reveal that Protestants, Catholics, and Buddhists practiced their respective faiths at Minidoka (e.g., Staff, 16 September 1944b). Five protestant denominations combined to form the Federated Christian Church. The two EuroAmerican pastors and eight Japanese American pastors who served the combined church each moved from the Seattle area to be closer to their congregations. Episcopalians had their own services as well as two schools in the center. The Catholics were served by a priest who had moved to the area from Seattle. Three Buddhist churches operated in the center–Hunt, Nichiren, and United (Staff, 16 September 1944b; Hall, 1987; Fiset, 1997).

Health. The Minidoka Hospital complex consisted of 17 buildings located near the west end of the center (Figure 5.15) (Burton et al., 2002). The health care system at Minidoka was apparently poorly equipped and operated. Evacuees, particularly the Issei, depended on traditional Japanese medicine including *Hari* (a form of Japanese acupuncture), *Moxa* (application of a burning material to a particular vital spot), and *Anma* (a form of massage) (Hall, 1987).

Several health issues of note occurred during the center's three years of operation. Approximately 60 residents experienced ptomaine poisoning in September 1942. Residents were also plagued with widespread intestinal flu from time to time. At one point, the center's water supply was contaminated thus the administration was forced to use huge amounts of chlorine to make it safe (Hausler, 1964). The causes of much of the center's illness can likely be traced back to the different living conditions–i.e., crowding, stress, climate, and diet–than what residents had experienced prior to evacuation.

Government. The WRA expected that Minidoka evacuees would establish a form of self-government. Block Managers addressed the day-to-day issues of center operation. Because they were appointed by the center administration, they were considered "stooges" and "WRA dogs" by the evacuees (Hausler, 1964). In response to the expectation of self-government, two delegates were elected by each of their respective residential blocks. These delegates, in turn, selected a seven-member committee to draft a self-government charter. A draft of the charter was presented to Project Director Harry Stafford in November 1942. Stafford subsequently rejected the charter, supposedly because disturbances at other centers dictated that the time was not right for self-government at Minidoka. After pressure from the WRA Chief Dillon Myer and the 70 block delegates, center administrators suggested that evacuees submit a new charter. This charter was approved by the Project Director but subsequently rejected by evacuee voters in June 1943 by a two to one margin. With this rejection, Minidoka was the only center without a form of self-government. Possible reasons for the failure to ratify the charter included poor presentation of the charter to the voters prior to the vote, general apathy, an already functioning informal form of governance within the blocks, and the sense that any form of self-government was really a farce when U.S. citizens were incarcerated within a relocation center. It was not until late December 1943 that a charter was approved for self-government within the center. A Community Council elected in mid-February 1944 was to submit recommendations to the Project Director, organize committees to assist the Council in its work, and determine the rules of discipline under which the center would operate. Committees established by the council examined issues surrounding employment, food, housing, and public relations. Ultimately, Minidoka's self-government was never more than an advisory body (Hausler, 1964; Hall, 1987).

Community. Minidoka was often considered a "model center"in terms of internal harmony (Hall, 1987). Perhaps this was because Seattle and Portland neighborhoods were housed as homogenous neighborhoods in the center blocks (Takami, 1998). In general, the Washington evacuees occupied the west end of the residential area and the Oregon evacuees occupied the east end (Hall, 1987). However, the dynamic nature of the center populace slowly changed this pattern over time.

While the center was relatively quiet in terms of internal disturbances, its residents practiced passive resistance and protest of evacuation and incarceration via open complaints, work stoppages and slowdowns, internal elections, uncooperativeness, smuggling, possession of contraband, and practice of Japanese customs (Hall, 1987). The more passive nature of Minidoka evacuee's resistance to WRA policies may be attributed to their origins and the relative geographic homogeneity of the center as opposed to the "hotbed" of racial discrimination nearer the West Coast (Hall, 1987; Weglyn, 1996). One may also attribute some of the passiveness to the work of the center administration who were proactive in dealing with center issues including putting respected Issei elders in charge of leading community discussions on complex and controversial topics such as Japanese participation in the war (Spicer et al., 1969; Weglyn, 1996). As a result, the "loyalty questionnaire"(Appendix C) and the subsequent military draft for young men had less negative effect on Minidoka than on many of the other centers.

Unsettled conditions were present, especially in the months immediately following the opening of the center. These conditions resulted from a variety of issues including the fact that the Japanese Americans were relocated to bleak southern Idaho, incarcerated behind a barbed wire and temporarily electrified fence, lived under substandard conditions, and were subsequently expected to join the armed forces to prove their patriotism (Hall, 1987). The center's relocation policy was also a source of friction between the evacuees and the administration (Spicer et al., 1969). Boilermen and janitors went on strike for six days in the cold winter of 1944. The strike originated because of issues surrounding the unsuccessful resolution of a staff shortage, dislike of the EuroAmerican Superintendent of Maintenance, and low wages. Other evacuee workers went out on a sympathy strike. The lack of hot water threw the community into conflict. The issue was eventually resolved when the administration resolved some of the staffing issues (Iwamoto, 1946). Mail carriers went on strike soon after the draft began because of staff cutbacks and perhaps because the mail included draft notices. Thirty-four Minidoka evacuees were convicted of draft evasion in federal court in Boise. Most of these were sentenced to 39 month sentences in a Federal penitentiary plus required to pay $300 fines (Hall, 1987).

Interaction with Surrounding Areas

The Outside World. Interactions with the surrounding areas occurred through the building of the center, outside employment, music, sports, school activities, and shopping. Interactions with areas outside the center were much more common here than in the California and Arizona centers because Minidoka was outside the Military Exclusion Zone.

Minidoka musicians played in the surrounding areas. These included Louie Sato and his Harmonaires who played at area high schools. The Minidoka Mass Choir played in Jerome, Twin Falls, and Burley (Ricketts, 1982; Yamaguchi, 1989).

The center's baseball teams played surrounding community teams and typically fared very well (Kleinkopf, 1943; 1944). Minidoka student teachers visited surrounding schools to observe techniques and methods. The welcomes received at these schools were a morale boost for the aspiring teachers. Other students participated in competitions at schools outside the center (Kleinkopf, 1943). Students enrolled in the summer school program in 1944 were treated to a stay at a Baptist Church camp in the Sawtooth Mountains north of the center (Kleinkopf, 1944).

Evacuees were often able to secure passes for shopping in Twin Falls and Jerome and make the trip by bus from the center (Kleinkopf, 1943). Jerome and Twin Falls businesses regularly advertised in the *Minidoka Irrigator* as did a private bus company that offered service to Jerome, Twin Falls, and Eden. The presence of the evacuees in these towns was met with mixed reactions. Merchants, with a few exceptions, generally enjoyed the increased business (Kleinkopf, 1943). Local residents at times resented these visits because of Japanese customs often displayed by the evacuees and the way the evacuees often congregated in small groups as they traveled about town (Kleinkopf, 1942). Further, evacuees often competed for the same hard-to-find items as the local residents (Kleinkopf, 1943).

In addition to local trips, evacuees could also leave the center on short-term, seasonal, and indefinite leaves. Short-term leaves ranged from several days to a few weeks and were typically for personal business or medical issues. Seasonal leaves were granted to evacuees for seasonal agricultural employment. The purpose of indefinite leaves was to permanently depart the centers for relocation to the "outside world", join the armed forces, be interned in a Department of Justice Internment Camp, committed to an institution, or repatriated to Japan (U.S. War Relocation Authority, 1946).

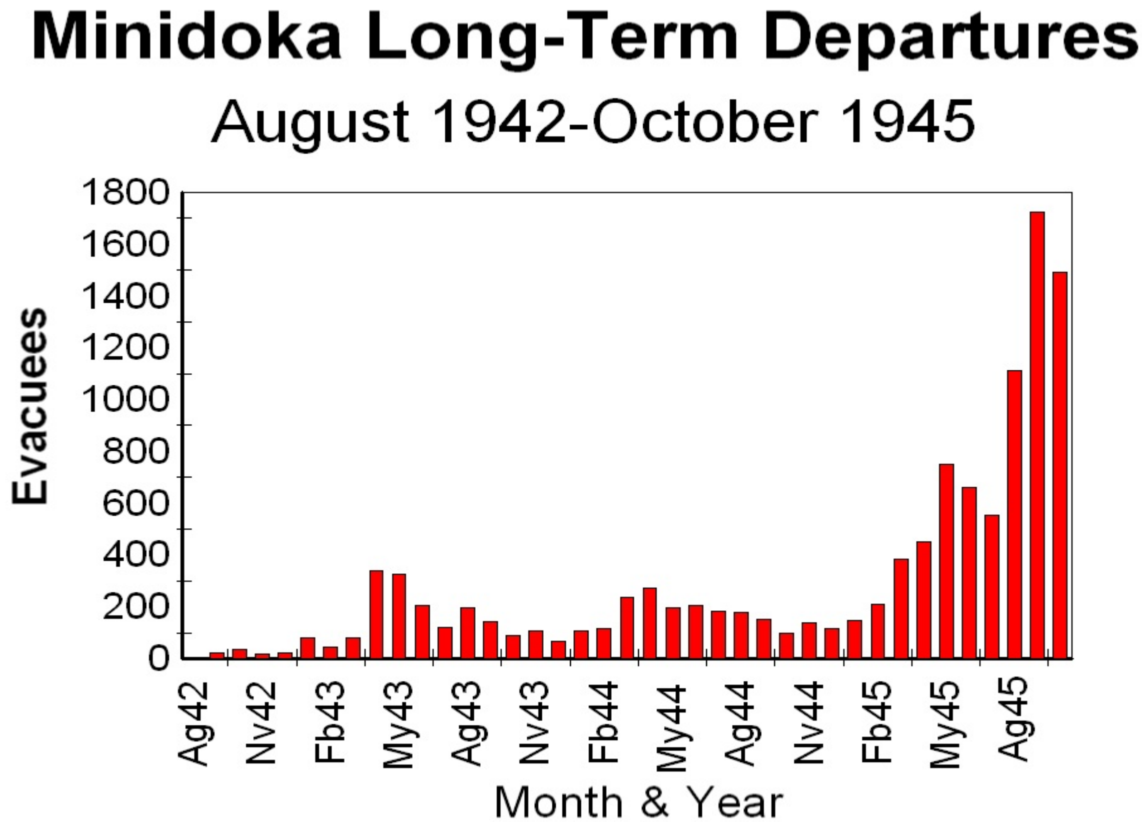
Through pleas of patriotism and economic need the center administration, farmers, and sugar beet companies were able to get Minidoka evacuees to area farm fields to help harvest crops. This occurred in spite of the initial negative comments made about Japanese Americans by Idaho Governor Chase Clark. Evacuees who worked in the farm fields outside the center could live in the center and commute to the fields each day, could live on the farms on which they worked, or could live in Government-run labor camps. Evacuees were generally well-received by the area's farmers despite the fact that most came from urban backgrounds and were not used to hard, physical farm labor. Approximately 2,000 men, women, and high school age children answered the call to work in the region's farm fields resulting in the late start of Minidoka High School in fall 1942 (Sims, 2000). Japanese American laborers (from Minidoka as well as those living in the surrounding area) harvested 24% of Idaho's 78,000 acres of sugar beets in 1942. This acreage resulted in approximately 255,000 tons of sugar beets. Overall, most were treated well by the surrounding communities after some initial rocky times (Fiset, 1999). A positive aspect of these seasonal leaves were the interactions with the local populace surrounding Minidoka (Sims, 2000). Long-time area resident Claire Ricketts' family hired a small crew of Japanese Americans to top sugar beets and help harvest sugar beets, potato, and bean crops. While initially apprehensive, he ultimately said he couldn't have asked for finer workers and finer people (Claire Ricketts, oral communication, 14 June 2003). It was in the labor camps that the Japanese Americans interacted with other "outsiders"–migratory workers from the Midwest and Southern U.S. as well as Mexico and Jamaica (Sims, 2000). Some of Minidoka's Japanese Americans who chose to work outside the center on Minidoka Project farmlands were housed at an old Civilian Conservation Corps (CCC) camp in Paul in fall 1942 (Figure 5.11) (Stene, 1997). Subsequent Minidoka farm workers also likely interacted with Mexicans brought into the Burley area in spring 1943, and the German and Italian prisoners of war who were brought to work in the area beginning in spring 1944 (Stene, 1997; Jaehn, 2000).

Long-term departure or "relocation" from Minidoka was encouraged early on but was generally slow until April 1943 (Figure 5.23). From then until the August 1945, relocation increased but did so in a seasonal pattern. The peaks typically occurred in March, April, and May while the lows occurred in October, November, and December. The peaks and lows may have been associated with employment opportunities. Ninety-four evacuees relocated in 1942, 1,799 in 1943, 1,992 in 1944, and 7,483 in 1945 (U.S. War Relocation Authority, 1946). Minidokans relocated to 36 of the 48 states plus Alaska and Hawaii (Figure 5.24). The initial movement out of the center was to nearby cities–especially Salt Lake City and Denver. Later, Chicago became a primary destination (McLaughlin, 1945). Once the West Coast Exclusion Order was lifted in January 1945, it is likely that Seattle and Portland became main destinations. Ultimately, evacuees most commonly relocated to Washington state (3,370), Idaho (2,047), Oregon (1,587), Illinois (1,162), and Utah (709) (McLaughlin, 1945).

Minidoka had the highest number of military volunteers (219) of any of the centers. Another 375 Minidokans were drafted into the armed services. Interestingly, Minidoka also had a relatively high number of Selective Service violations. Forty men were charged because they refused to report for their physical exams although resistance was not organized (U.S. War Relocation Authority, 1946; Muller, 2001). Many of the center's soldiers became part of the famous 442nd Regimental Combat Team, a much decorated unit noted for bravery, success in battle, and high casualties in the European Theater of Operations (Yamaguchi, 1989). Of the ten relocation centers, Minidoka had the highest numbers of casualties with 34 killed, three missing in action, and 91 wounded (U.S. War Relocation Authority, 1946).

Other Relocation Centers. Minidoka interacted with the other nine relocation centers through the transfers of evacuees and the exchange of goods. Unlike most other relocation centers, Minidoka did not compete in sports with other centers.

Figure 5.23. Indefinite leaves (i.e., relocations), Minidoka Relocation Center, August 1942-October 1945. Data from U.S. War Relocation Authority (1946, p. 35).



early 270 Bainbridge Island, Washington Japanese Americans who were initially evacuated to the Owens Valley Reception Center (later became the Manzanar Relocation Center) were moved to Minidoka in early 1943 because Minidoka was closer to Washington state and because of conflicts with California evacuees at Manzanar (Burton and Farrell, 2001; Burton et al., 2002). A total of 335 Minidokans were transferred to Tule Lake because they or other members of their family answered "no" to questions 27 and 28 on the"loyalty questionnaire" (Appendix C). Minidoka, in turn, received 1,643 Tule Lake evacuees in late summer/early fall 1943 who were deemed "loyal" because of their responses on the "loyalty questionnaire." Thirty-two Minidokans were repatriated to Japan in September 1943 (U.S. War Relocation Authority, 1946).

The Tule Lake Relocation Center provided school desks and chairs from its furniture manufacturing facility (Kleinkopf, 1942). Minidoka also received produce, including turnips, carrots, and beets, from Tule Lake (Staff, 31 October 1942). Shingiku seed was obtained from Gila River Relocation Center . In turn, Minidoka shipped daikon seed to Tule Lake in 1944. While the agriculture records show that Minidoka shipped surplus produce to other centers, it is unclear from these documents which centers received this produce (Rice and Beebout, 1946).

Figure 5.24. Geography of Minidoka indefinite leaves (i.e., relocations), August 1942-October 1945. Data from McLaughlin (1945).

Closing Minidoka and Another Relocation

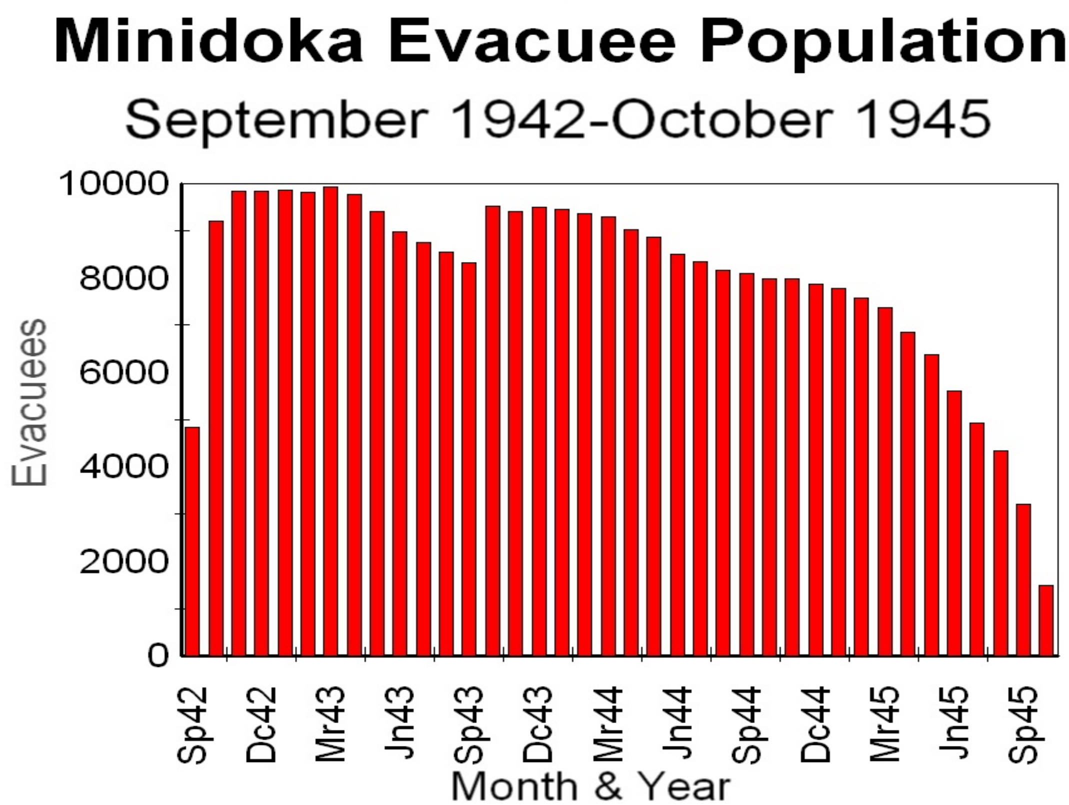
Public Proclamation #21 on 17 December 1944 ended the West Coast Exclusion Order that had been in effect since 1942. As of 2 January 1945, evacuees could begin moving back to the West Coast, including the Seattle and Portland areas. All relocation centers were slated to be closed by the end of 1945.

Initially, the closing date for Minidoka was 15 November 1945 (Kleinkopf, 1945). On 1 June 1945, over 5,600 evacuees remained in Minidoka (Figure 5.25). By VJ (i.e., Victory over Japan) day on 14 August 1945, more than 3,200 evacuees remained in the center (U.S. War Relocation Authority, 1946). Closing the dining halls in blocks speeded up the process of relocation as they were the social centers of the block communities. The WRA provided evacuees with $25, $3 per diem as they traveled, and a train ticket (Hall, 1987). Families were also eligible for other assistance plus up to $300/family to purchase furnishings for their new homes (Kleinkopf, 1945; Hall, 1987). However, nearly 1,500 evacuees remained until the last month of the center's existence (U.S. War Relocation Authority, 1946). Many of those remaining in the final months of the center were the elderly and the very young (Yamaguchi, 1989). All evacuees were moved out of the center by 23 October 1945 (Kleinkopf, 1945). Interestingly, in the closing days, German prisoners of war from the Rupert, Idaho Prisoner of War Camp were employed at the center (Kleinkopf, 1945). Yasusuke Kogita, creator of one of Minidoka's "most spectacular gardens", hired a trucking company to haul all of the basalt boulders and many of the carefully tended plants in his garden back to Seattle where he recreated the garden in front of his small hotel in Seattle's International District (Tamura, 2002).

Impacts of Minidoka on Today's South Central Idaho Landscape

Evacuee Dispersion. The 1950 census showed that 37 Japanese Americans were living in Jerome County as compared to the 36 that lived there in 1940. Similar small increases were seen in all adjacent counties. The overall Idaho Japanese American population increased from 1,191 to 1,973 between 1940 and 1950 (U.S. Bureau of the Census, 1942; 1952). Some Minidoka evacuees likely settled in the sugar beet farming communities of Caldwell, Weiser, and Payette on Idaho's Western Snake River Plain (U.S. War Relocation Authority, 1946). At least 2,000 Japanese Americans lived on the western Snake River Plain in 1946 but the number had dropped to about 1,500 by 1947 (U.S. War Agency Liquidation Unit, 1947). Overall, 3,500 Japanese Americans settled in Idaho in the 1940s but is not clear how many of these were from Minidoka (Hall, 1987). Others settled just across the Snake River in the Oregon communities of Nyssa, Ontario, and Vale (U.S. War Relocation Authority, 1946). Many of Minidoka's residents wanted to return to the Seattle and Portland areas (Staff, 23 December 1944). Apprehension about their reception likely delayed the return of many (Hall, 1987). However, nearly 60% of Seattle's 1940 population had returned by 1947 (U.S. War Agency Liquidation Unit, 1947, p. 255-256). It is unclear how many returned to the Portland, Oregon area.

Figure 5.25. Resident population, including evacuees on short term and seasonal leave, Minidoka Relocation Center. Data from U.S. War Relocation Authority (1946, p. 18).



Land Dispersion. Minidoka Relocation Center returned 30,000 acres of land (including the farm lands) surrounding the main part of center to the U.S. Bureau of Reclamation in January 1945 (Staff, 3 February 1945). Following closure of the center, the main part of the center reverted to the Bureau of Reclamation on 9 February 1946 (U.S. National Park Service, 2006). The first drawing for former center lands occurred in February 1947 with 43 farm units going to World War II veterans. Another 46 small farms were allotted by lottery in 1949 (Burton et al., 2002).

Infrastructure Dispersion. The recreation halls were sold and removed beginning in September 1945 for $1,000-1,100 each (Kleinkopf, 1945). Scrap lumber and furniture was sold by the truckload to area residents (Kleinkopf, 1945). Each "homesteader" on the former center lands was entitled to two entire barracks plus several smaller outbuildings and various surplus items from the center (Schrontz Roberts-Wright, 1994; U.S. National Park Service, 2006). Initially, the 1947 farm lottery winners lived in Block 30 of the relocation center, sharing common bathroom, shower, and laundry facilities until they were able to move barracks to their own homesteads (Figure 5.15) (Burton et al., 2002). The Bureau of Reclamation gave some of the surplus buildings and equipment to nonprofit groups such as schools, churches, and public agencies (Stene, 1997).

The barracks and various other center buildings ended up being the houses, garages, barns, machine sheds, and various outbuildings of the homesteaders (Schrontz Roberts-Wright, 1994). One can see the former center buildings at farms throughout the Hunt Area, especially along Hunt Road (Claire Ricketts, oral communication, 14 June 2003) (Figure 5.26). Center buildings were moved to Jerome where a former mess hall now serves as the Veterans of Foreign Wars hall (Burton et al., 2002, p. 213). Another mess hall is located at the Jerome Airport and yet another is located at the Jerome County Fairgrounds. Some of the barracks ended up as far away as Twin Falls where they were remodeled into motels (Virginia Ricketts, 14 June 2003, oral communication). Those buildings not trucked from the site was likely burned, buried, or pushed aside.

Remains of Minidoka. Burton and Farrell (2001) and Burton et al. (2002) describe in detail the nature of Minidoka as of about 2000. Along with two students, I also visited the area in June 2003. Much remains at the center but this evidence is scattered about a large area. The most prominent and distinguishing feature is the stone guard house and stone chimney of the former waiting room at the center entrance (Figure 5.27).

Little remains of the evacuee residential area. Once buildings and foundations were removed, this area was farmed (Figure 5.28). Only the foundation of the sewage treatment plant remains within presently cultivated lands (Burton et al., 2002).

Figure 5.26. Former Minidoka Relocation Center barracks turned into a house on a farmstead in the Hunt area. Author photograph, June 2003.

Figure 5.27. Remains of entrance station at Minidoka Relocation Center. Author photograph, June 2003.

Figure 5.28. Farmland in mid-distance on former evacuee residential area, Minidoka Relocation Center. Land in foreground is not farmed because of shallow soils and/or difficulty getting water to site. View east from the uplands near the western boundary of the former camp. Author photograph, June 2003.

The most intact portion of the center are the former administration, staff housing, warehouse, and motor pool areas (Figure 5.15). Concrete slabs, foundations, footings, manholes, stone-lined walkways, and scattered trees remain in this area (Figure 5.29). A root cellar remains (Figure 5.30) as does the depression of one of the center's swimming holes (Burton et al., 2002). The walkways and decorative boulders of the former center entrance garden also remain (Figure 5.31). In the surroundings that were once center farmland, evacuee constructed irrigation canal drops are still in use.

Idaho's Central Snake River Plain Today. The central Snake River Plain today is a land of contrasts, especially when seen on a hot summer day. Roughly 40-50% of the former center lands are currently irrigated and occupied by farmsteads. These irrigated areas are literal "oases" with lush, green crops, rows of tree windbreaks, and farmsteads including houses with lawns. The farmland of many of these acres was developed by the Japanese Americans in 1942-1945. New roads were built to serve the homesteaders. Over time, farmers on the irrigated lands have raised sugar beets, beans, alfalfa, hay, various small grains, canola, potatoes, beef cattle, and dairy cattle on the lands that were once part of the Minidoka Relocation Center (Schrontz Roberts-Wright, 1994). The remaining unfarmed portions of the former center are mantled by a brown and dry covering of sagebrush and grasses. Black basalt, visible because of a thin soil covering, often pokes out at the surface in these areas. Cattle graze these unfarmed areas when

Figure 5.29. Overgrown concrete slab in former administration area. Also, note trees from the center in the background. View northeast. Author photograph, June 2003.

Figure 5.30. Remains of the large root cellar, Minidoka Relocation Center. Author photograph, June 2003.

Figure 5.31. Remains of entrance garden, Minidoka Relocation Center. View along overgrown walkway. Note boulders of former garden in left middle distance. Also, note entrance station in background. Author photograph, June 2003.

their grasses are briefly lush in the spring months. The oases and the associated human settlement depend on irrigation water from the upper Snake River. The flows of the upper Snake, in turn, depend on the climate of a large area including western Wyoming and eastern Idaho, and on human uses of this water upstream. The flows of the Snake River upstream of Milner Dam are now fully-appropriated, mostly for agricultural purposes, thus little water is left in the river for other uses. With other interests, including fish and wildlife, recreation, and public health, increasingly expecting a portion of this water, one wonders what this landscape will look like in another 50 years (Wulfhorst and Glenn, 2002).

The estimated Jerome County population as of 2005 was 19,638, an increase of 7.1% since the 2000 census. This rate of growth is 3.3% less than the overall growth of Idaho (U.S. Census Bureau, n.d.). Jerome and Twin Falls are the service centers for the area. The human population density in this largely agricultural county is 30.6 people/mi^2 as compared to the state average of 15.6 people/mi^2. The population of the area is more than 97% white but more than 23% of those classified as white are Latinos (U.S. Census Bureau, n.d.).

Efforts at recognition, protection, and enhancement of the former site of the Minidoka Relocation Center have been slow but ultimately, effective. In August 1979, a six acre parcel including the former center entrance was listed on the National Register of Historic Places. The site became an Idaho Centennial Landmark in May 1990. The ceremony celebrating this designation dedicated new commemorative plaques as well as sidewalks and a parking area at the site of the former center entrance. In January 2001, a nearly 73 acre parcel was designated as the new Minidoka Internment National Monument. This parcel includes not only the former entrance but land extending to the former center's root cellar (Figure 5.15). The purpose of the National Monument is to provide opportunities for public education and interpretation of the evacuation and detention of Japanese Americans during World War II. The General Management Plan completed in November 2006, among other things, seeks to stabilize and protect existing center remains such as the former root cellar as well as acquire and restore an entire residential block on site (U.S. National Park Service, 2006). The land occupied by the National Monument continues to be held by the U.S. Bureau of Reclamation. The monument is currently threatened by a proposal to build a confined animal feedlot for approximately 10,000 heat of cattle one mile upwind of the site (Ron James, written communication, 16 February 2007). House Resolution 161 introduced in early 2007, would expand the boundaries and redesignate the national monument to be the Minidoka National Historic Site (Congressional Budget Office, 2007).

A historical marker and interpretative sign is located on Idaho Highway 25 at the turnoff to the former center. The Jerome County Historical Museum in Jerome has an ongoing exhibit and various resources related to the center. The Idaho Farm and Ranch Museum located just north of Twin Falls has two Minidoka barracks, one of which is used to show the history of the Minidoka Relocation Center.

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Longtime residents Claire and Virginia Ricketts told students Paul Blanton and Zak Steigmeyer, and I about the Hunt area during World War II, and patiently answered our questions. Peg Roberson opened the Jerome County Historical Museum on a Sunday morning so we could explore the wealth of information there. Twin Falls teacher Ron James showed us around the former center site. Blackfoot, Idaho resident Hero Shiosaki told us about life as a Japanese American during World War II in the Idaho. Paul Blanton and Eli Asher tracked down information while Carla Jellum and Jared Treser created most of the maps and other figures in this chapter. Ron James, Nancy Lillquist, Robert Sims, and Morris Uebelacker critiqued an earlier version of this chapter. Thank you all.

References

Ames, D., 2003: Soil Survey of Jerome County and Part of Twin Falls County, Idaho. U.S.D.A.–Natural Resources Conservation Service. Washington, D.C.: Government Printing Office.

Arrington, L.J., 1966: *Beet Sugar in the West: A History of the Utah-Idaho Sugar Company, 1891-1966*. Seattle: University of Washington Press.

Arrington, L.J., 1994: *History of Idaho: Volume 2*. Moscow: University of Idaho Press.

Athearn, R.G., 1969: The Oregon Short Line. *Idaho Yesterdays*, 13 (4): 2-18.

Bailey, R.G., 1995: Description of the Ecoregions of the United States (2nd edition). *USDA Forest Service Miscellaneous Publication* 1391. Washington, D.C.: Government Printing Office.

Boone, L., 1988: *Idaho Place Names: A Geographical Dictionary*. Moscow: University of Idaho Press.

Burton, J.F. and Farrell, M.M., 2001: This is Minidoka: An Archaeological Survey of Minidoka Internment National Monument, Idaho. Western Archaeological and Conservation Center, *U.S. Department of the Interior--National Park Service Publications in Anthropology* 80.

Burton, J.F., Farrell, M.M., Lord, F.B. and Lord, R.W., 2002: *Confinement and Ethnicity: An Overview of World War II Japanese American Relocation Sites*. Seattle: University of Washington Press.

Chase, J., 2000: My Dear Bishop: A Report from Minidoka. *Idaho Yesterdays,* 44 (2): 3-6.

Clawson, K.L., Start, G.E., Ricks, N.R., 1989: Climatography of the Idaho National Engineering Laboratory (second edition). DOE/ID-12118. U.S. Department of Energy Idaho Operations, Idaho Falls, ID.

Congressional Budget Office, 2007: H.R. 161 Minidoka National Historic Site Act. As reported to the Senate Committee on Energy and Natural Resources on June 26, 2007. http://www.cbo.gov/ftpdocs/82xx/doc8272/hr161.pdf. Accessed 30 August 2007.

Eaton, A.H., 1952: *Beauty Behind Barbed Wire: The Arts of the Japanese in Our War Relocation Camps*. New York: Harper and Brothers Publishers.

Etulain, R.W., 1974: Basque Beginnings in the Pacific Northwest. *Idaho Yesterdays*, 18 (Spring): 26-32.

Fenneman, N.M., 1931: *Physiography of Western United States*. New York: McGraw-Hill Book Company, Inc.

Fiege, M., 1999: *Irrigated Eden: The Making of an Agricultural Landscape in the American West*. Seattle: University of Washington Press.

Fiset, L., 1997: *Imprisoned Apart: The World War II Correspondence of an Issei Couple*. Seattle: University of Washington Press.

Fiset, L., 1999: Thinning, Topping, and Loading: Japanese Americans and Beet Sugar in World War II. *Pacific Northwest Quarterly,* 90 (3): 123-139.

Gentry, J.R., 1987: Czechoslovakian Culture in the Buhl-Castleford Area. *Idaho Yesterdays*, 30 (4): 2-14.

Gentry, J.R., 1995: Euro-American Encounters with the Twin Falls Area, 1864-1868. *Idaho Yesterdays*, 38 (4): 12-19.

Greeley, R., 1987: The Snake River Plain. *In* Baker, V.R., Greeley, R., Komar, P.D., Swanson, D.A. and Waitt, R.B., Jr., Columbia and Snake River Plains *In* Graf, W.L., editor, *Geomorphic Systems of North America*. Geological Society of America Centennial Special Volume 2. Boulder, Colorado: Geological Society of America, pp. 444-468.

Griffiths, J.F. and Driscoll, D.M., 1982: *Survey of Climatology*. Columbus, Ohio: Charles E. Merrill Publishing Company.

Hall, D.L., 1987: Internment and Resistance: The Japanese American Experience in the Minidoka Relocation Center, 1942-1945. Master of Arts in History, Washington State University, Pullman, WA.

Hausler, D. E., 1964: History of the Japanese-American Relocation Center at Hunt, Minidoka County, Idaho. M.S. Thesis in History, Utah State University, Logan.

Henshall, M.S., 1975: Pioneer Portraits: Henry and Fumiko Fujii. *Idaho Yesterdays* 19 (1): 20-27.

Iwata, M., 1992: *Planted in Good Soil: The History of Issei in United States Agriculture*, Volume 2. New York: Peter Lang.

Iwamoto, K., 1946: Economic Aspects of the Japanese Relocation Center in the United States. Department of Economic, Master of Arts Thesis, Stanford University.

Jaehn, T., 2000: Unlikely Harvesters: German Prisoners of War as Agricultural Workers in the Northwest. *Montana*, 50 (3): 46-57.

James, R.L., 1993: "Why No Chinamen are Found in Twin Falls". *Idaho Yesterdays*, 36 (4): 14-24.

Japanese American National Museum, n.d.: Minidoka. http://www.janm.org/projects/clasc/minidoka.htm. Accessed 2 February 2007.

Jarrett, R.D. and Malde, H.E., 1987: Paleodischarge of the late Pleistocene Bonneville Flood, Snake River, Idaho, Computed from New Evidence. *Geological Society of America Bulletin*, 99: 126-134.

Jawn, 1943: Our "Old Men". *Minidoka Irrigator*, 11 September, p. 7.

Kleinkopf, A., 1942: Relocation Center Diary: 1942. Transcribed from the Twin Falls Library, Idaho copy by Minidoka Internment National Monument, Hagerman, Idaho.

Kleinkopf, A., 1943: Relocation Center Diary: 1943. Transcribed from the Twin Falls Library, Idaho copy by Minidoka Internment National Monument, Hagerman, Idaho.

Kleinkopf, A., 1944: Relocation Center Diary: 1944. Transcribed from the Twin Falls Library, Idaho copy by Minidoka Internment National Monument, Hagerman, Idaho.

Kleinkopf, A., 1945: Relocation Center Diary: 1945. Transcribed from the Twin Falls Library, Idaho copy by Minidoka Internment National Monument, Hagerman, Idaho.

Kleinkopf, A., 1946: Relocation Center Diary: 1946. Transcribed from the Twin Falls Library, Idaho copy by Minidoka Internment National Monument, Hagerman, Idaho.

Lovin, H.T., 1987: The Carey Act in Idaho, 1895-1925. *Pacific Northwest Quarterly* 78 (4): 122-133.

Maeda, L., 1976: Life at Minidoka: A Personal History of the Japanese-American Relocation. *The Pacific Historian,* 20 (4): 379-387.

Malde, H.E., 1968: The Catastrophic Late Pleistocene Bonneville Flood in the Snake River Plain, Idaho. *U.S. Geological Survey Professional Paper* 596.

McLaughlin, V.V., 1945: Final Report of the Relocation Division, Minidoka Relocation Center, Hunt, Idaho. Reel #90, Records of the War Relocation Authority, 1942-1946, Field Basic Documentation, National Archives, Washington, D.C.

Meyers, J.S., 1962: Evaporation From the 17 Western States. *U.S. Geological Survey Professional Paper* 272-D.

Miller, K., 1990: Minidoka Relocation Center Marks 47th Year: Pilgrimage to Hunt Camp in 1985 draws former residents. *South Idaho Press*, 20 May.

Mullan, M.J., 1999: Sport, Ethnicity and the Reconstruction of the Self: Baseball in America's Internment Camps. *The International Journal of the History of Sport,* 16 (1): 1-21.

Muller, E.L., 2001: Free to Die For Their Country: The Story of the Japanese American Draft Resisters in World War II. Chicago: University of Chicago Press.

Murphy, R.F. and Murphy, Y., 1986: Northern Shoshone and Bannock. *In* D'Azevedo, W.L., ed., *Handbook of North American Indians*, Volume 11: *Great Basin*. Washington, D.C.: Smithsonian, pp. 284-307.

Naske, C.M., 1983: The Relocation of Alaska's Japanese Residents. *Pacific Northwest Quarterly*, 74 (3): 124-132.

Oviatt, C.G., Currey, D.R. and Sack, D., 1992: Radiocarbon Chronology of Lake Bonneville, Eastern Great Basin, USA. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 99: 225-241.

Paulson, R.W., Chase, E.B., Roberts, R.S. and Moody, D.W. (compilers), 1991: Idaho Floods and Droughts. *In* National Water Summary 1988-89. *U.S. Geological Survey Water-Supply Paper* 2375, pp. 255-262.

Peterson, F.R., 1995: Confronting the Desert *In* T. Shallat, editor, *Snake: The Plain and its People*. Boise, Idaho: Boise State University.

Rember, W.C. and Bennett, E.H., 1979: Geologic Map of the Twin Falls Quadrangle, Idaho. *Idaho Department of Lands–Bureau of Mines and Geology, Geologic Map Series*, 1:125,000-scale.

Rhodes-Jones, C., 1979: An Evolving View of the Landscape: Trappers, Tourists, and the Great Shoshone Falls. *Idaho Yesterdays*, 23 (2): 19-27.

Rice, L.E. and Beebout, R.D., 1946: Report of the Agriculture Section, Minidoka Relocation Center, Hunt, Idaho. Reel #89, Records of the War Relocation Authority, 1942-1946, Field Basic Documentation, National Archives, Washington, D.C.

Ricketts, V., 1982: Thousands Housed at Desert Relocation Camp. *In* (Sparhawk, D., editor) The History of the North Side: The First 75 Years. *North Side News*, 5 August 1982, p. 54-55.

Schrontz Roberts-Wright, B.M., 1994: *Hunt for Idaho: Evacuees 1942-1945 and Homesteaders 1947-1949-T.P.* Self-published.

Schwantes, C.A.,1991: *In Mountain Shadows: A History of Idaho*. Lincoln: University of Nebraska Press.

Scott, M.K., 1984: The Greek Community in Pocatello, 1890-1941. *Idaho Yesterdays*, 28 (3): 29-36.

Sims, R.C., 1978: The Japanese American Experience in Idaho. *Idaho Yesterdays,* 22 (1): 2-10.

Sims, R.C., 1979: A Fearless, Patriotic, Clean-Cut Stand: Idaho's Governor Clark and the Japanese-American Relocation in World War II. *Pacific Northwest Quarterly,* 70 (2): 75-81.

Sims, R.C., 1986: Japanese Americans in Idaho. *In* R. Daniels, S.C. Taylor, and H.H.L. Kitano, eds. *Japanese Americans: From Relocation to Redress*. Salt Lake City: University of Utah Press, pp. 103-111.

Sims, R.C., 2000: "You Don't Need to Wait Any Longer to Get Out": Japanese American Evacuees as Farm Laborers During World War II. *Idaho Yesterdays,* 44 (2): 7-13.

Sone, M., 1953: *Nisei Daughter*. Seattle: University of Washington Press, 238 pp.

Spicer, E.H., Hansen, A.T., Luomala, K. and Opler, M.K., 1969: *Impounded People: Japanese Americans in the Relocation Centers*. Tucson: University of Arizona Press.

Staff, 1942: 3,600 Men to Start Work on Jap Camp: Many Questions Arise About Japanese Camp; Governor Chase Clark Here. *The North Side News*, 30 April, p. 1.

Staff, 1942: Vegetables Arrive From Tule Lake. *Minidoka Irrigator*, 31 October, p. 3.

Staff, 1942: 1,300 Japanese Books Arrive; Nagai to Supervise Library. *Minidoka Irrigator*, 11 November, pp. 5.

Staff, 1942: Adult Classes Ready to Start: Schedule Based on Survey Returns. *Minidoka Irrigator*, 2 December, pp. 3.

Staff, 1942: Gravel Will Ease Road Conditions. *Minidoka Irrigator*, 19 December, pp. 6.

Staff, 1943: Mochi-Gome Arrives. *Minidoka Irrigator*, 2 January, pp. 3.

Staff, 1943: Fans Schedule Karuta Contest. *Minidoka Irrigator*, 9 January, p. 3.

Staff, 1943: Gravel Walks Laid by Hospital, Civic Center. *Minidoka Irrigator*, 13 January, pp. 3.

Staff, 1943: Ice Hockey Loop Looms: Equipment Received From Seattle. *Minidoka Irrigator*, 27 January, p. 6.

Staff, 1943: Twin Falls Residents Donate Bulbs, Shrubs, Flower Seeds to Hunt. *Minidoka Irrigator*, 27 March, pp. 8.

Staff, 1943: Three Tons of Books Swell Central Library; Includes Travel, Fiction. *Minidoka Irrigator*, 15 May, pp. 3.

Staff, 1943: Plants in Hotbeds are Transplanted: Davidson Voices Hope for Four Hundred Acres of Vegetables Planted by End of June. *Minidoka Irrigator*, 19 June, pp. 3.

Staff, 1943: 11-Year Old Youth Victim of Treacherous Canal Current. *Minidoka Irrigator*, 26 June, p. 1.

Staff, 1943: 21-Year Old Drowns. *Minidoka Irrigator*, 4 September, p. 1.

Staff, 1943: Cooperative Has Modest Beginning. *Minidoka Irrigator*, 25 September, p. 3.

Staff, 1943: 15,000 lbs. Mochi-Gome Ordered for New Years. *Minidoka Irrigator*, 27 November, pp. 1.

Staff, 1944: Preparations For Scout Camps Made: 75 Boy Scouts Participate in Camporee at Clay Caves. *Minidoka Irrigator*, 1 July, p. 3.

Staff, 1944a: Girl Scouts Play Prominent Role in Center Activities. *Minidoka Irrigator*, 16 September, p. 4.

Staff, 1944b: Buddhist, Catholic, Protestant Churches Active in Minidoka. *Minidoka Irrigator*, 16 September, p. 3.

Staff, 1944: 10,000 Pounds of Mochi-gome Here. Minidoka Irrigator, 16 December, p. 1.

Staff, 1944: 9 Families Apply for Return to West Coast: Survey Indicates 800 Families Would Like to Return to Coast. *Minidoka Irrigator*, 23 December, p. 1.

Staff, 1945: Farm Land Returned to Bureau. *Minidoka Irrigator*, 3 February, p. 1.

Stearns, H.T., Crandall, L. And Steward, L.G., 1938: Geology and Ground-Water Resources of the Snake River Plain in Southeastern Idaho. *U.S. Geological Survey Water-Supply Paper* 774.
Stene, E., 1997: The Minidoka Project. Bureau of Reclamation History Program, Denver, Colorado. http:www.usbr.gov/dataweb/projects/idaho/minidoka/history.html. Accessed 18 January 2006.

Takami, D.A., 1998: *Divided Destiny: A History of Japanese Americans in Seattle*. Seattle: University of Washington Press.

Tamura, A.H., 2002: Gardens Below the Watchtower: Gardens and Meaning in the World War II Japanese-American Internment Camps. Master of Landscape Architecture Thesis, University of Washington, Seattle.

Thye, C.J., 1947: The Bureau Reclaims its Own. *The Reclamation Era,* 33 (4): 90-92, 94.

U.S. Army–Western Defense Command, 1943: *Final Report: Japanese Evacuation from the West Coast 1942*. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1913: *Thirteenth Census of the United States Taken in the Year 1910, Volume II: Population 1910: Reports by States, with Statistics for Counties, Cities and Other Civil Divisions: Alabama-Montana.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1922: *Fourteenth Census of the United States: 1920, Population: Composition and Characteristics of the Population by States.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1932: *Fifteenth Census of the United States: 1930, Population: Volume III: Reports by States, Showing the Composition and Characteristics of the Population for Counties, Cities, and Townships or Other Minor Civil Divisions, Part 1: Alabama-Missouri.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1943: *Sixteenth Census of the United States: 1940. Population Volume II: Characteristics of the Population. Part 2: Florida-Iowa.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1952: *Census of Population: 1950, Volume II, Characteristics of the Population, Part 12, Idaho*. Washington, D.C.: Government Printing Office.

U.S. Census Bureau, n.d.: *State and County QuickFacts: Jerome County, Idaho*. http://quickfacts.census.gov/qfd/states/16/16053.html. Accessed 31 January 2007.

U.S. Census Office, 1901: *Twelfth Census of the United States, Taken in the Year 1900. Census Reports Part I: Population.* Washington, D.C.: Government Printing Office.

U.S. Department of Agriculture, 1954: Diagnosis and Improvement of Saline and Alkali Soils. Agriculture Handbook #60.

U.S. Forest Service, n.d.: Chapter 48: Intermountain Semi-Desert–Section 342D–Snake River Basalts. Ecological Subregions of the United States. www.fs.fed.us/land/pubs/ecoregions/ch48.html. Accessed 25 January 2007.

U.S. Geological Survey, 1955: Quality of Surface Waters of the United States 1951. *Water-Supply Paper* 1200.

U.S. Geological Survey, 1994: Ground Water Atlas of the United States: Segment 7–Idaho, Oregon, Washington. *Hydrologic Investigations Atlas* 730-H, 31 pp.

U.S. Geological Survey, n.d.: USGS Annual Surface Water Statistics for the Nation–13088000 SNAKE RIVER AT MILNER, ID. http://nwis.waterdata.usgs.gov/nwis/annual. Accessed 2 February 2007.

U.S. National Park Service, 2006: General Management Plan, Minidoka Internment National Monument. National Park Service, Seattle, Washington.

U.S. National Park Service, n.d.: Minidoka Relocation Center - 1945 (map). http://www.nps.gov/archive/miin/map6.jpg. Accessed 30 January 2007.

U.S. Natural Resources Conservation Service, n.d.: Ecological and Interpretive Groups: Land Capability Classification, NSSH Part 622 (Exhibit 2). *National Soil Survey Handbook*. http://soils.usda.gov/technical/handbook/contents/part622.html. Accessed 29 March 2007.

U.S War Agency Liquidation Unit, 1947: People in Motion: The Postwar Adjustment of the Evacuated Japanese Americans. Washington, D.C.: Government Printing Office.

U.S. War Relocation Authority, 1946: The Evacuated People: A Quantitative Description. Washington, D.C.: Government Printing Office.

Waldman, C., 2000: *Atlas of the North American Indian*. New York: Fa
cts on File, Inc..

Weglyn, M.N., 1996: *Years of Infamy: The Untold Story of America's Concentration Camps*. Seattle: University of Washington Press.

Western Regional Climate Center, n.d.a: Climate of Idaho. State Narratives. http://www.wrcc.dri.edu/narratives/IDAHO.htm. Accessed 25 January 2007.

Western Regional Climate Center, n.d.b: Western U.S. Climate Historical Summaries. Idaho Climate Summaries: Shoshone 1 WNW (108380). http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?id8380. Accessed 25 January 2007.

Williams, T.R. and Bedinger, M.S., 1984: Selected Geologic and Hydrologic Characteristics of the Basin and Range Province, Western United States: Pleistocene Lakes and Marshes. *U.S. Geological Survey Miscellaneous Investigations Series Map* I-1522-D.

Wulfhorst, J.D. and Glenn, E., 2002: Irrigation, Community, and Historical Development Along the Upper Snake River. *Agricultural History*, 76 (2): 434-447.

Works Progress Administration, 1937: *Idaho: A Guide in Word and Picture*. Caldwell, Idaho: The Caxton Printers, Ltd.

Yamaguchi, J., 1989: *This Was Minidoka*. Nagaoka, Japan: Nagai Printing Company.

CHAPTER 6

TULE LAKE

Introduction

The Tule Lake Relocation Center was located at about 41º53' N latitude, 121º23'W longitude, and 4,050 feet elevation in north central California's Modoc County (Figure 6.1). The California-Oregon border lies just seven miles north. The center was located on about 7,400 acres of land previously managed by the U.S. Bureau of Reclamation (U.S. Army–Western Defense Command, 1943). Newell is now located at the site of the former center while Tulelake (the town) is about seven miles northwest (Figure 6.1). The relocation center was named after Tule Lake, the former lake that occupied the Tule Lake Basin (Figure 6.1). The area lies within six miles of the northern boundary of Lava Beds National Monument, a National Park Service-managed area focused on volcanic landscapes and their relationships to the Modoc War. Klamath Falls, Oregon, is about 35 miles northwest, and Alturas, the Modoc County seat, is approximately 60 miles southeast.

The following pages address: 1) the physical and human setting in which Tule Lake was located; 2) why north central California was selected for a relocation center; 3) the structural layout of Tule Lake; 4) the origins of Tule Lake's evacuees; 5) how Tule Lake's evacuees interacted with the physical and human environments of north central California; 6) relocation patterns of Tule Lake's evacuees; 7) the fate of Tule Lake after closing; and 8) the impact of Tule Lake on north central California some 60 years after closing.

Physical Setting

Physiography, Geology and Landforms. The Tule Lake Relocation Center lay on the northwest margin of the Great Basin section of the Basin and Range physiographic province (Fenneman, 1931) (Figure 6.2). The Basin and Range consists of north-trending mountain ranges separated by low relief basins, and extends from southern Oregon and Idaho into northern Mexico, and from eastern California to western Utah (Fenneman, 1931). The Tule Lake Basin is surrounded by Sheepy Ridge to the west, Bryant and Stukel Mountain to the north, the Clear Lake Hills to the east, and the Medicine Lake Highlands to the south (Turner, 2002). The Southern Cascade Mountains of the Cascade-Sierra Mountains province lies to the west while the Harney section of the Columbia Plateaus is located north of the area (Fenneman, 1931) (Figure 6.3). Mount Shasta, a 14,162 foot, composite cone volcano capping the Southern Cascades, is plainly visible from the former relocation center on a clear day (Figure 6.4). Total relief over the former relocation center is about 750 feet with elevations ranging from about 4,780 feet on top of "The Peninsula" to 4,030 feet on the basin floor farmland to the northwest (Figure 6.5). In contrast, the Medicine Lake Highland 20 miles to the southwest ranges to just over 7,900 feet elevation. The slopes of

Figure 6.1. Modoc County, California and adjacent counties. Adapted from American Automobile Association's California Roadmap (1995).

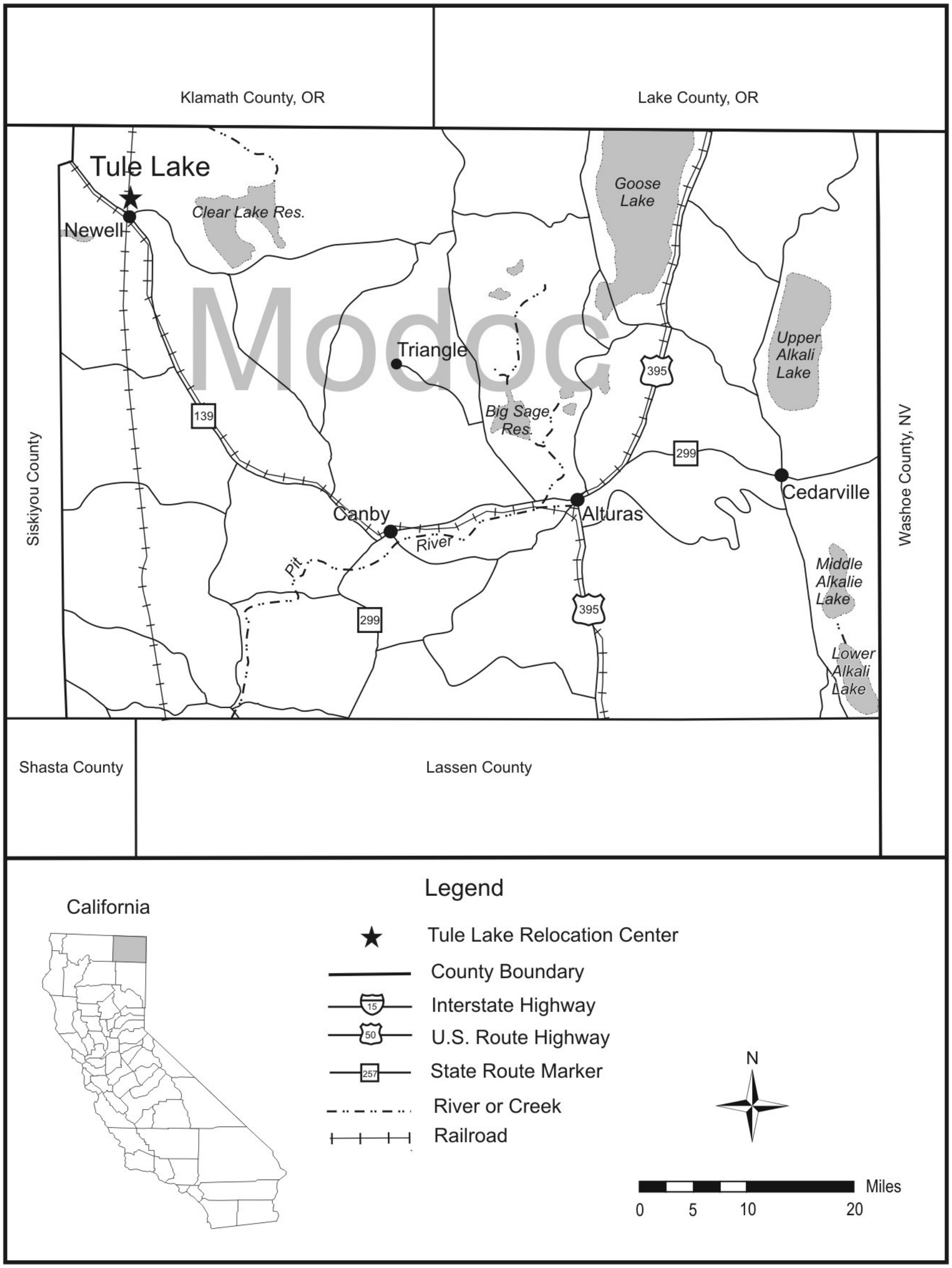


Figure 6.2. Tule Lake and the Great Basin within the Basin and Range physiographic province. Adapted from Fenneman (1931, Plate 1).

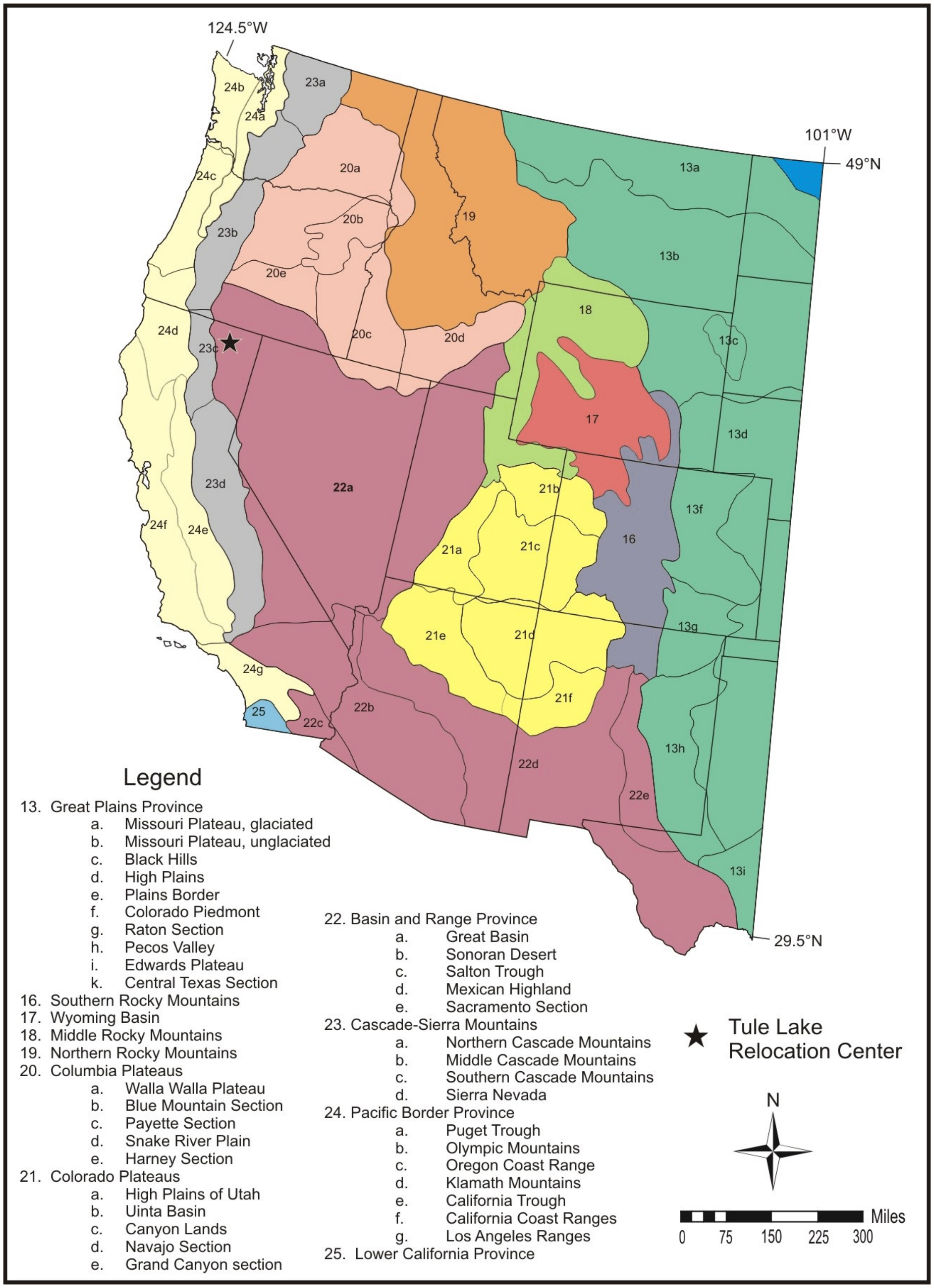


Figure 6.3. Cumulative historical map of the Tule Lake Basin area, including the Tule Lake Relocation Center.

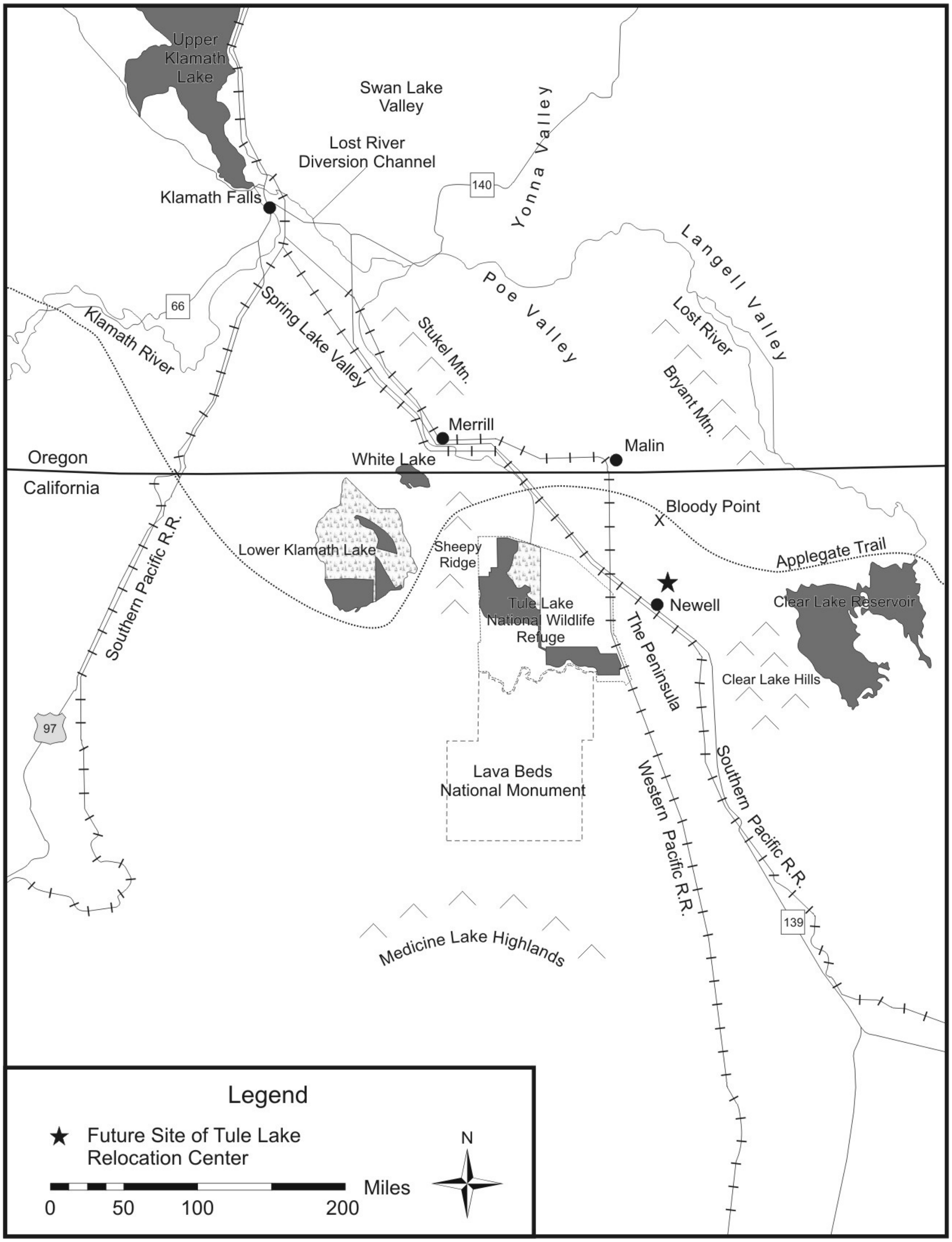


Figure 6.4. Mt. Shasta from former Tule Lake Relocation Center farmlands, Tule Lake Basin, California. Author photograph, June 2003.

The Peninsula are very steep (i.e., up to 70% gradient) while literally no slope is evident on the lands of the basin floor.

The geology of the Tule Lake Basin has been shaped primarily by tectonic, volcanic, and lake processes. The Tule Lake Basin is a *graben* (i.e., a down-dropped fault block) bounded by late *Cenozoic* (i.e., past 6 million years) normal faults on the west, east, and north (Donnelly-Nolan and Champion, 1987; Adam et al., 1989; Lavine, 1994) (Figure 6.6). The faults give the overall landscape a repetitive, linear appearance. Lava flows from the Medicine Lake Highlands, a large volcanic complex, formed the south end of the basin (Lavine, 1994) (Figure 6.6). Lava Beds National Monument is located on the north flanks of the Medicine Lake Volcano. The rough, nearly impassable terrain of its lava flows, spatter cones, and cinder cones played a key role in the Modoc War of 1872-1873 (Thompson, 1971). The basalts and andesites of the Modoc Plateau (including Lava Beds National Monument) reached the surface via north and northwest-trending normal faults (Hannah, 1977; Donnelly-Nolan and Champion, 1987; Lavine, 1994). The late *Miocene* and early *Pliocene* (i.e., about 10-5 million years before present) (yr BP) Devils Garden lava field comprises the upland to the east of the Tule Lake Basin (McKee et al., 1983) (Figure 6.6). A line of volcanics occurs from The Peninsula south to Prisoners Rock (Figure 6.6). All formed from hydrovolcanic eruptions about 270,000 yr BP as rising basaltic magma came in contact with groundwater or perhaps a shallow lake. The resulting violent steam explosions created ash that settled and hardened around each of the craters forming a *tuff ring* at

Figure 6.5. Topographic map of Tule Lake Relocation Center, California and vicinity. Adapted from U.S. Geological Survey Tulelake California-Oregon 1:100,000-scale topographic map.

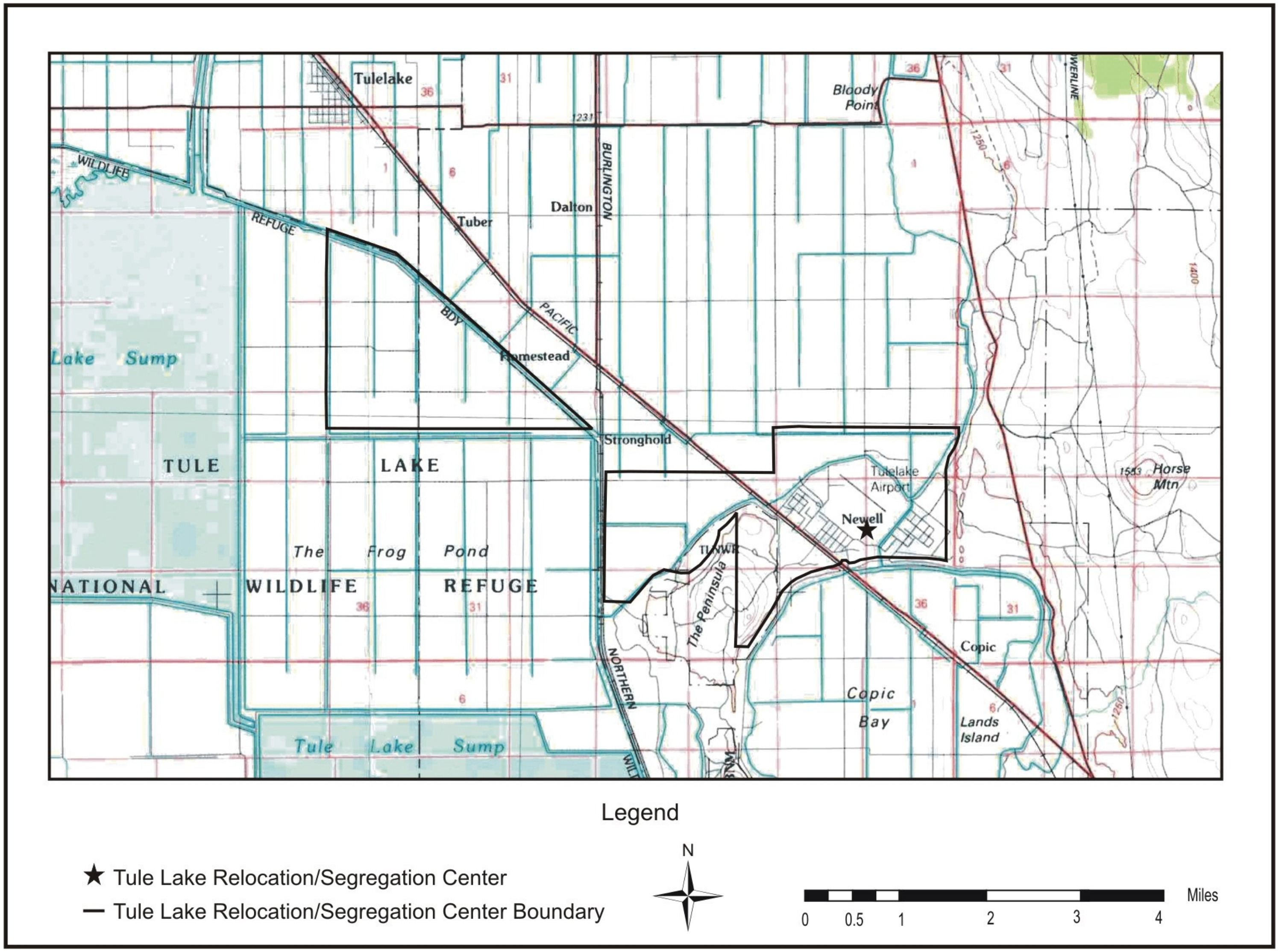
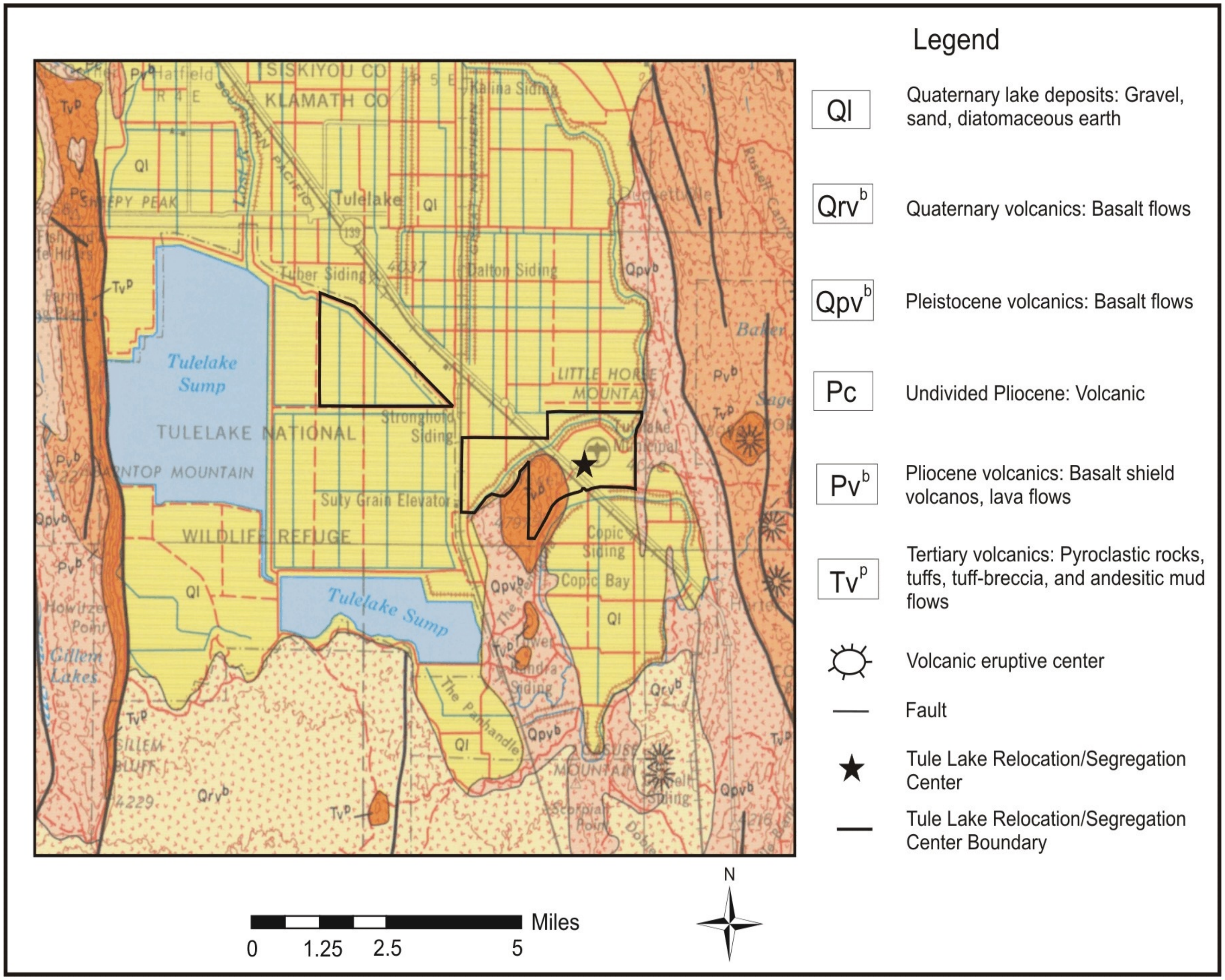


Figure 6.6. Geology of the Tule Lake Relocation Center, California and vicinity. Adapted from Gay (1958).



the North Crater and *tuff cones* on the main part of The Peninsula and at Prisoners Rock, the highest of which rises approximately 740 feet above the basin floor. The asymmetrical shapes and deposits of the cones suggests that southwest winds were blowing during the eruptions. Continued volcanic activity in the absence of water resulted in basalt *dikes* (linear fissures filled with magma), a lava lake, and lava flows (Lavine, 1994). The large lava lake that formed in The Peninsula tuff cone spilled out to the west and southwest to form a lava flow (Lavine, 2002).

Once the former southward drainage of the Tule Lake Basin was blocked by the Medicine Lake volcanics, a topographically-, and sometimes, hydrologically-closed basin was the result. Sediment cores that reached 1,100 feet below the current basin floor reveal that lakes have been intermittently present in the Tule Lake basin for approximately the past three million years (Adam et al., 1989; Bradbury, 1992). At its maximum extent, late *Pleistocene* (i.e., about 2 million to 10,000 yr BP) Lake Modoc covered an area of 1,096 mi^2 that included the Tule Lake, Upper Klamath Lake, and Lower Klamath Lake basins, as well as Spring Lake, Poe, Swan Lake, Yonna, and Langell valleys (Figure 6.7). Shore features evident to an elevation of 4,240 feet above sea level indicate a maximum lake depth of 210 feet but seem out of place in the now-drained condition of the Tule Lake Basin (Dicken, 1980). Well-developed *cuspate spits* (i.e., pointed, curvilinear beach deposits) trend off the northeast end of The Peninsula and off the west side of the Clear Creek Hills to the east to merge as a *baymouth barrier* that separates the Tule Lake Basin proper from “Copic Bay” (Figure 6.5). The erosive effects of historic lake levels as much as 23 feet above the basin floor are seen as shorelines on the Prisoners Rock tuff cone south of the Tule Lake Relocation Center (Cleghorn, 1959).

Weather and Climate. The climate of the area is characterized by four distinct seasons. The middle latitude, intermediate elevation, east of the Cascade Range-setting leads to hot, dry summers and cool to cold, moist winters. The area’s climate is classified as Mediterranean (Koppen Csb) (Griffiths and Driscoll, 1982).

The 1932-1960 average January temperature at Tulelake was about 30ºF while the average July temperature was about 65ºF (Figure 6.8). The mean annual temperature during this same period was approximately 47ºF (Western Regional Climate Center, n.d.a). The middle latitude setting results in a systematic change in sun angles, thus distinct temperature pattern, throughout the year. The continental location leeward of the Cascade Range means clear skies are the norm for much of the year enhancing the daily and annual temperature range. The intermediate elevation depresses temperatures in all seasons. The growing season (i.e., last 32ºF killing frost of spring to the first 32ºF killing frost of the fall) at Tulelake five out of ten years is only 80 days and stretches from 12 June to 7 September (Western Regional Climate Center, n.d.a). However, frost may occur in any month (Turner, 2002).

Annual precipitation averaged 10.3 inches/year in Tulelake during the period 1932-1960 (Figure 6.8). Average precipitation did not exceed 1.3 inches in any month during this period (Western Regional Climate Center, n.d.a). The dry conditions result from the overall dominance of high barometric pressure (i.e., Pacific High), position in the lee of the Cascade Range (i.e.,

Figure 6.7. Late Pleistocene Lake Modoc in relation to other paleo-lakes and paleo-floods in the Great Basin, Western U.S. Adapted from Williams and Bedinger (1984).

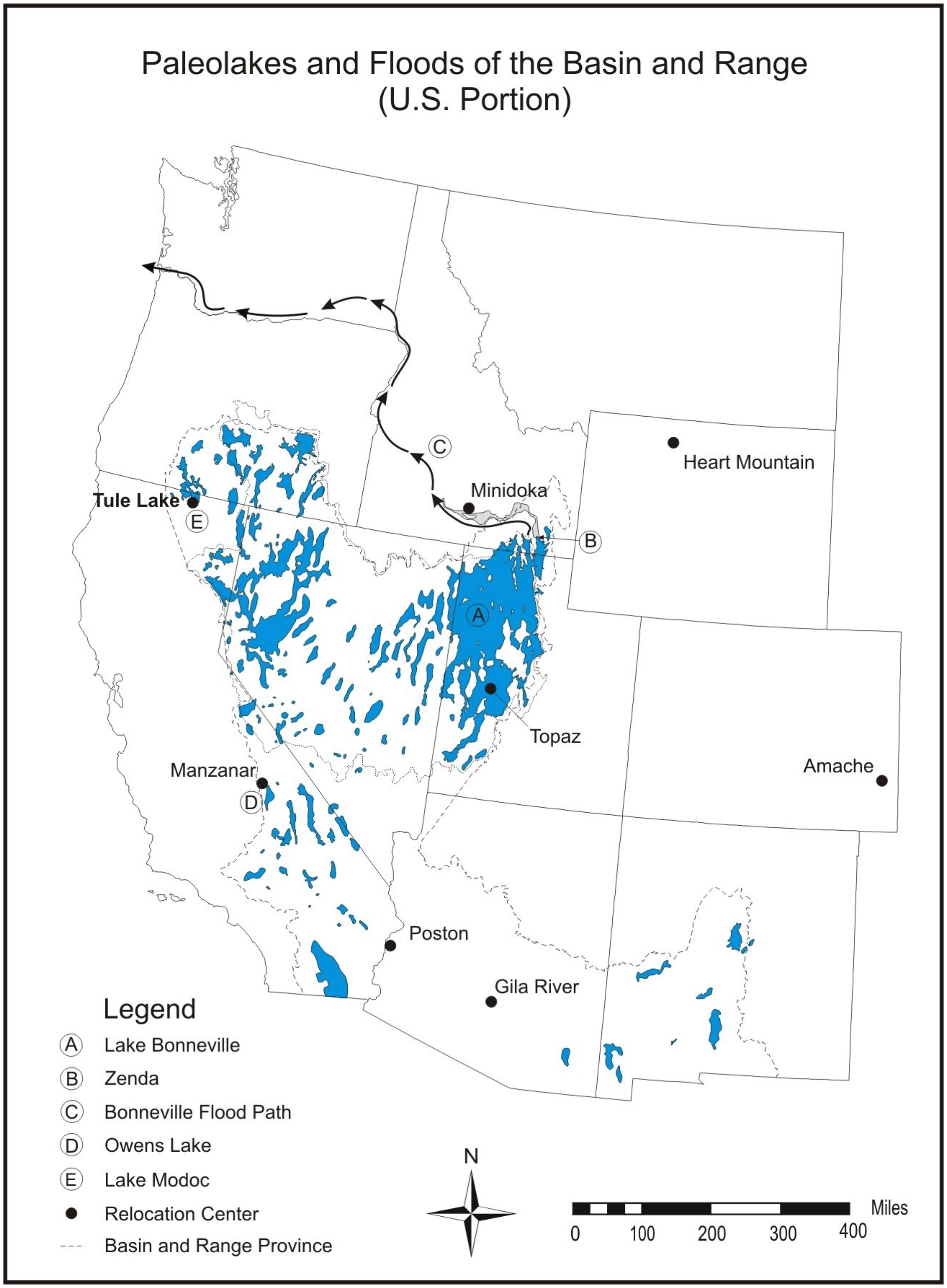
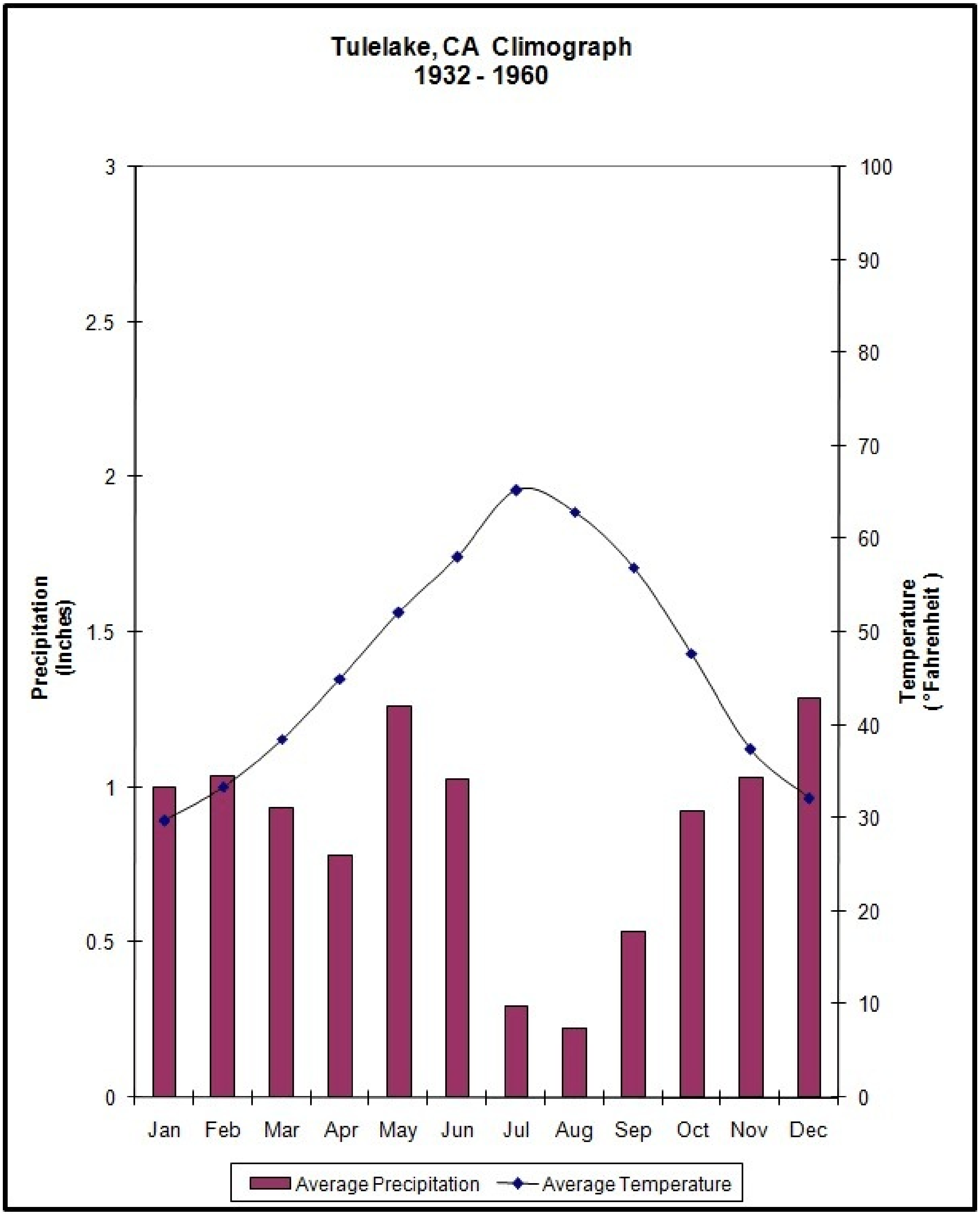


Figure 6.8. Tulelake, California climograph, 1932-1960. Data from Western Regional Climate Center (n.d.a).



rrainshadow), and location about 150 miles inland of the Pacific Ocean. Tulelake exhibits very similar seasonal precipitation patterns to areas east of the Cascade Range and West of the Rockies in Northern California, Oregon, Washington, and Idaho–i.e., wet winters and generally dry summers. Approximately 60% of the site's precipitation falls in October-March as a result of the weakening and shifting of the Pacific High to the south that allows mid-latitude cyclones to penetrate the area. The Pacific High causes generally dry summers (Western Regional Climate Center, n.d.a; n.d.b). Mount Hebron (about 33 miles to the west) averages about five thunderstorm days/year, with most occurring in the spring months (Jahnke, 1994). Annual snowfall averaged nearly 19 inches/year at Tulelake during the 1932-1960 (Western Regional Climate Center, n.d.a). Annual lake evaporation was approximately 44-46 inches/year during the 1946-1955 period so irrigation is necessary for most crops (Meyers, 1962).

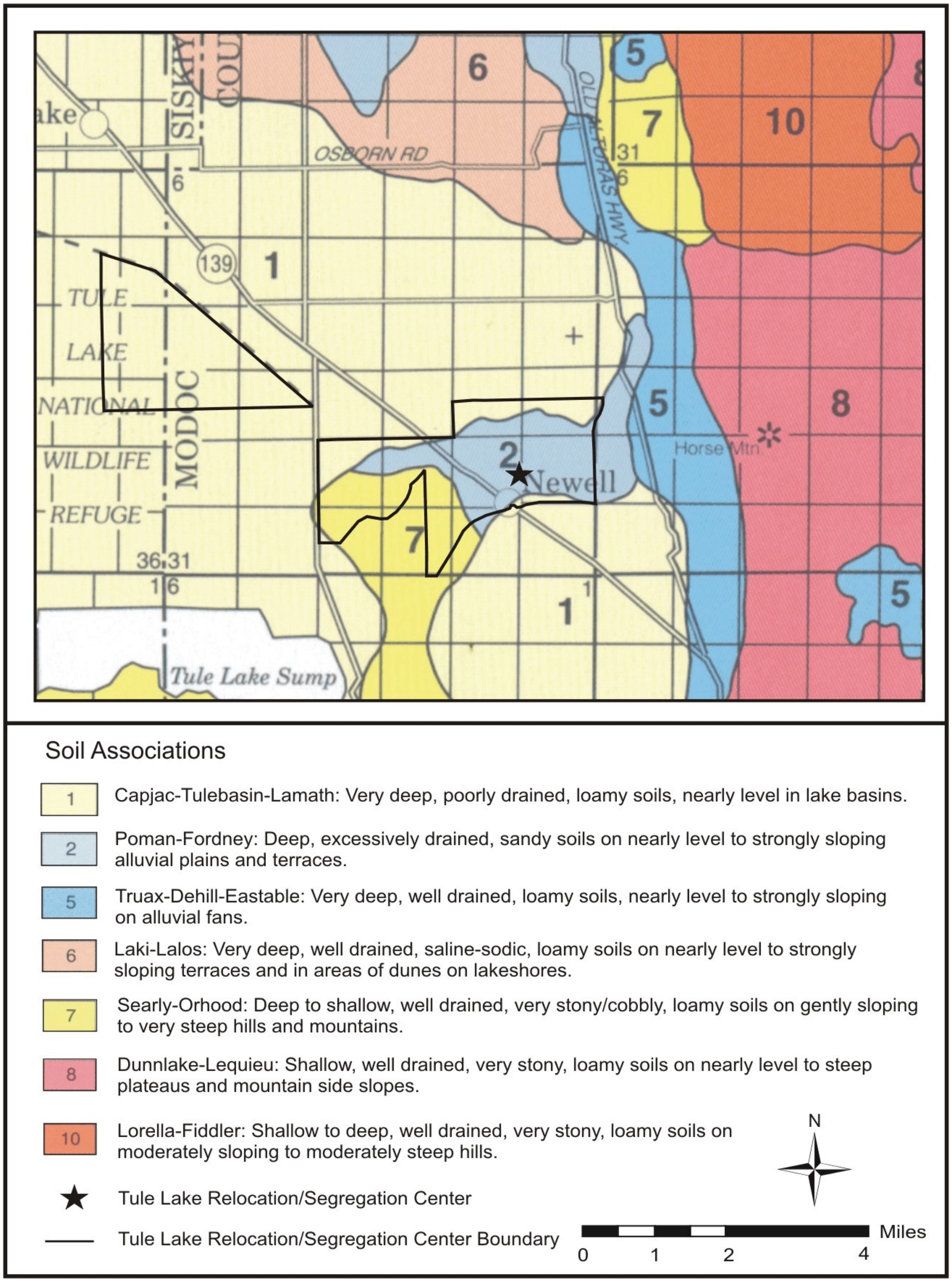
As is generally characteristic of semi-arid areas, Tulelake has experienced significant annual variability in its precipitation record over the 1932-1960 period of record. Three significant statewide droughts occurred during this same period–1928-1937, 1943-1951, and 1959-1962 (Paulson et al., 1991). Tulelake recorded a 29 year low of 4.8 inches of precipitation in one of those drought years (1959). Conversely, the area has also been impacted by relatively large amounts of precipitation–i.e., 16.6 inches fell in 1948 (Western Regional Climate Center, n.d.a). Major flooding occurred in north central California in December 1937 and December 1955 (Paulson et al., 1991).

Various accounts mention the frequent and often strong winds of the Tule Lake Basin. Prevailing winds in the area are from the southwest (Jahnke, 1994). Flagged trees at the site of the former relocation center indicate generally west winds.

Soils. The soils of the former Tule Lake Relocation Center are a function of the five soil forming factors–i.e., parent material, topography, climate, biota, and time. Parent materials on the hills are volcanic rocks (e.g., basalts, andesites, and tuffs) and volcanic sediments (e.g, volcanic ash and cinders). Conversely, the paleolake shorelines between the hills and the basin floor are composed of lake and stream-derived volcanic sediments. Lake sediments and volcanic ash comprise the basin floor parent material. Likewise, soil textures vary depending on parent material and topographic position–i.e., gravelly, sandy loams occur on the steeper slopes of The Peninsula while mucky, silty, clay loam is found on the basin floor. Soils on The Peninsula are less than nine inches deep. In comparison, basin floor profiles extend to more than 60 inches. Soils in the well- to excessively-drained soils of the shorelines and The Peninsula range from neutral to mildly alkaline pH while the poorly drained basin floor sediments are mildly to moderately alkaline (Jahnke, 1994). Calcareous lake snails are visible in the soils of the basin floor.

Mollisols formed on the organic-rich, stable portions of hills (Stukel series) and shorelines (Fordney and Laki series) because the climate of the area is sufficiently wet to support native grasses (Figure 6.9). Mollisols (Tulebasin series) also characterize the portion of the basin floor that has been sufficiently stable to support aquatic vegetation. Poorly developed *inceptisols*

Figure 6.9. Soil associations of the Tule Lake Basin, California and vicinity. Data from Jahnke (1994).



(Capjac series) characterize wet portions of the basin floor while *entisols* (Karoc series) suggest active slopes and resistant bedrock on the steepest parts of The Peninsula (Jahnke, 1994).

All soils of the shoreline zone and lake basins are Land Capability Classification (LCC) Class III soils with severe limitations that reduce the crop choices or require special conservation practices when irrigated (U.S. Natural Resources Conservation Service, n.d., Part 6.22). All are either limited by excess water or erosion susceptibility (Jahnke, 1994). The soils of the main part of the center had not been farmed prior to the siting of the center because of their low quality (Jones, 1973).

Water. Tule Lake Relocation Center was situated in a topographically and hydrologically *closed basin* that was hydrologically open at various times in the geologic past. The basin is the sump for the Lost River to the north and drainage from the Medicine Lake Highlands to the south (Bradbury, 1992). Most of the flow from the latter is subsurface. The Lost River originates in the Clear Lake Hills to the east of the Tule Lake Basin, and flows north, west, and finally south before entering the Tule Lake basin (Figure 6.3). The topographic maps show few other streams reaching the Tule Lake Basin floor in this jumbled, porous volcanic terrain. The nearby Klamath River flows south from Upper Klamath Lake into northern California (Figure 6.3), then generally west through the Cascade and Siskiyiou Ranges to reach the Pacific Ocean. Given the very low gradient divide separating the Tule Lake Basins from the Klamath River, it is likely that the Lost River flowed into the Klamath River in prehistoric times (Cleghorn, 1959; Adam et al., 1989). Conversely, the Klamath River flowed into the Lost River, and ultimately into the Tule Lake Basin as recently as 1883 (Clark and Miller, 1999).

Lakes and marshes that have alternatively occupied the basin since at least three million yr BP were the result of changing precipitation and temperature regimes (Bradbury, 1992). Percolation resulted in significant losses of lake water when Tule Lake levels rose to a level that they flooded the marginal basalt flows of the basin. The basin must have received large inputs of water to maintain a relatively deep lake under such conditions (Adam et al., 1989). Late Pleistocene Lake Modoc reached 4,240 feet elevation and was about 210 feet deep (Dicken, 1980). Prior to EuroAmerican alterations, historic Tule Lake levels fluctuated between 4,054 and 4,084 feet elevation with depths up to 53 feet (Bradbury, 1992). The gently sloping nature of the north end of the Tule Lake Basin (including the Lost River delta) means that a small change in lake level would impact a large area of the basin floor. In the 1820s, the shoreline of Tule Lake lay about three miles from the future site of Merrill (Figure 6.3). The Applegate Trail (see below) of 1846-1862 passed through the northeastern basin floor from Bloody Point to the Natural Bridge on the Lost River (Figure 6.3). Conversely, snowy winters beginning in 1889 helped raise Tule Lake until it lay about a mile from Merrill (Figure 6.3) (Cleghorn, 1959; Turner, 2002). However, since the second decade of the 20th century, human manipulations have drastically changed the surface water picture in the Tule Lake Basin (see below).

Groundwater in the Tule Lake Basin comes from the Tule Lake sumps and underflow from nearby volcanic rocks. This groundwater appears to exist as at least two bodies–an upper unconfined body in the old lake sediments, and a lower confined body in the underlying volcanic rocks. Groundwater *specific conductance* in the upper, unconfined aquifer ranges from about 260-845 micromhos of dissolved solids (either as sodium, calcium, or magnesium bicarbonate or sulfate). Lower, confined aquifer groundwater has about 130 micromhos of dissolved solids (primarily sodium bicarbonate) (Hotchkiss, 1968). As a result, salinity hazard is medium to high for the upper water and low for the lower water (U.S. Department of Agriculture, 1954). Basin residents have long noted the poor tasting groundwater of shallow wells (Turner, 2002).

Biota. The Tule Lake Relocation Center lay in the Mediterranean Regime Mountains–Sierran Steppe-Mixed Forest-Coniferous Forest-Alpine Meadow Province (Bailey, 1994) (Figure 10.10). Vegetation patterns in the area result from climate, soil moisture, soil chemistry, and human land uses.

The mixed forest-steppe uplands surrounding the Tule Lake Basin are covered with a mix of ponderosa pine (*Pinus ponderosa*), Western juniper (*Juniperus occidentalis*), and sagebrush (*Artemisia* spp.) (Bailey, 1995; U.S. Forest Service, n.d.). Rabbitbrush (*Chrysothamnus* spp.) is present on the more porous soils on the margins of the basin. Prior to its drainage, Tule Lake's margin was dominated by bulrushes (*Scirpus* spp.) and cattails (*Typha* spp.) (Bradbury, 1992). Saltgrass (*Distichlis spicata*) grows in the uncultivated portions of the basin floor indicating soils of those areas tend toward being saline.

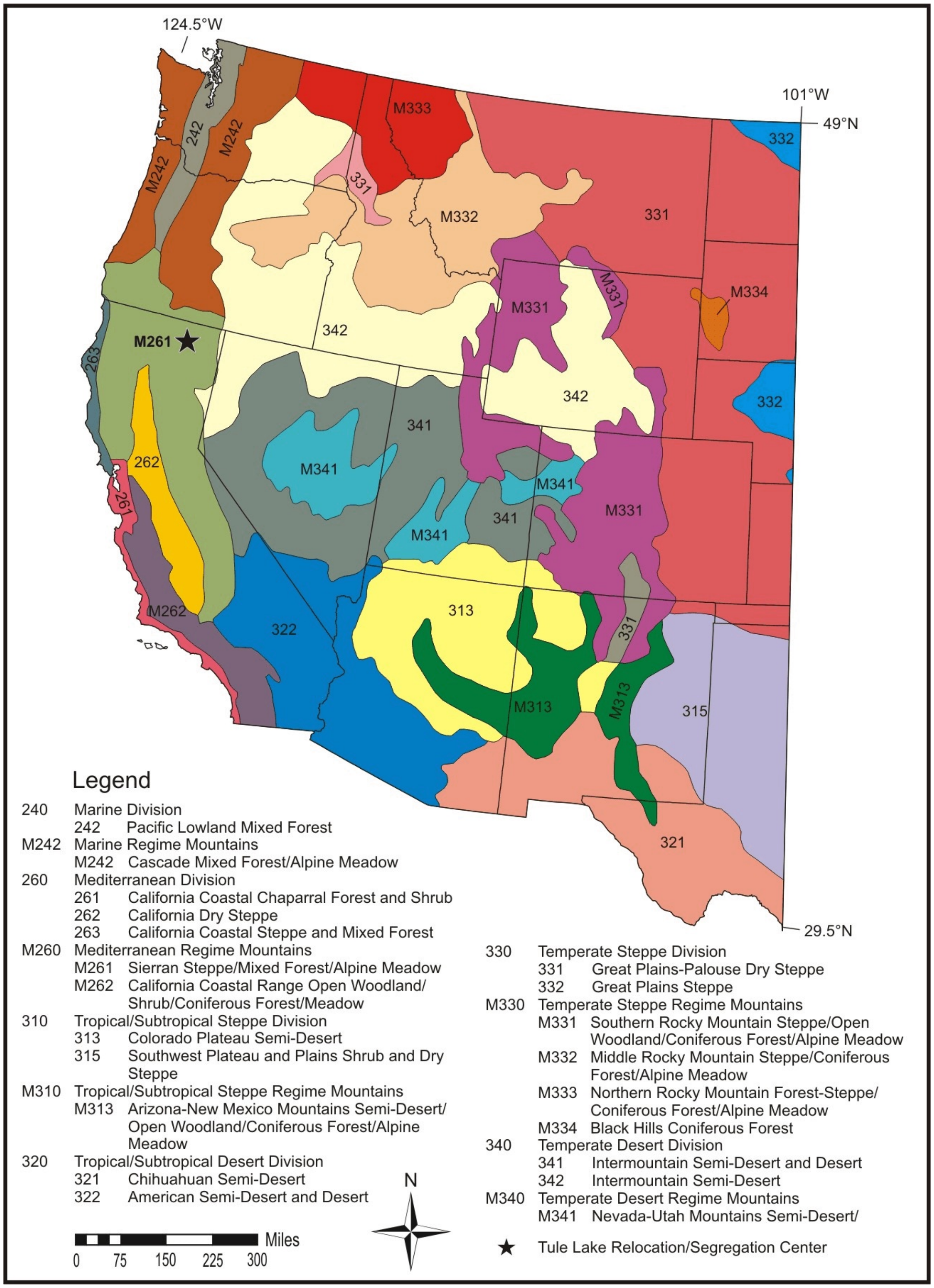
Large mammals of the area include mule deer (*Odocoileus hemionus*), pronghorn (*Antilocapra americana*), and black bear (*Ursus americanus*). Small mammals of the area are various squirrels, bushytail wood rats (*Neotoma cinerea*), yellow-bellied marmots (*Marmota flaviventris*), yellow-haired porcupines (*Erethizon dorsatum*), long-eared chipmunks (*Tamias quadrimaculatus*), jackrabbits (*Lepus* spp.), and Trowbridge's shrews (*Sorex trowbridgii*). Predators such as mountain lions (*Puma concolor*), coyotes (*Canus latrens*), bobcats (*Felis rufus*), red foxes (*Vulpes vulpes*), and fishers (*Martes pennanti*) may also be found here. The area is home to a variety of upland and riparian birdlife, and numerous waterfowl migrate through this area each year. Birds of prey include various owls, hawks, eagles, falcons, and osprey (Bailey, 1995; U.S. Forest Service, n.d.).

Human Setting

Race and Ethnicity. Prior to the arrival of Japanese Americans at the Tule Lake Relocation Center in 1942, the Tule Lake Basin had seen several races and ethnic groups over time including Native Americans, British, and Czechoslovakians.

North central California lies in the Plateau Culture Area (Waldman, 2000). Native Americans have occupied the general area for at least 7,000 years. The Klamaths and the closely-related Modocs depended on the lakes and marshes of the upper Klamath River Watershed for all aspects of subsistence. The Modocs were specifically focused on Lower Klamath Lake, Tule Lake, Lost River, Clear Lake, and Goose Lake (Figure 6.3). There, they foraged for a variety of

Figure 6.10. Ecoregion map showing Tule Lake's location in the Mediterranean Regime Mountains–Sierran Steppe-Mixed Forest-Coniferous Forest-Alpine Meadow ecoregion provinces. Adapted from Bailey (1995, Foldout Map).



aquatic resources including waterfowl, molluscs, and larger game (Stern, 1998). Three major Modoc "divisions" were in existence at the time of EuroAmerican contact: a group extending from Lower Klamath Lake to the western shore of Tule Lake totaling eight winter villages; a group of five winter villages centered on the mouth of the Lost River; and a group of 12 winter villages on the eastern shore of Tule Lake, the upper Lost River, Clear Lake, and the western shore of Goose Lake (Figure 6.3). Each of the villages had from 15-140 inhabitants and followed an annual cycle of hunting and gathering (see below) (Ray, 1963). Between 400-600 total Modocs lived in the area at the time of EuroAmerican contact (Stern, 1998).

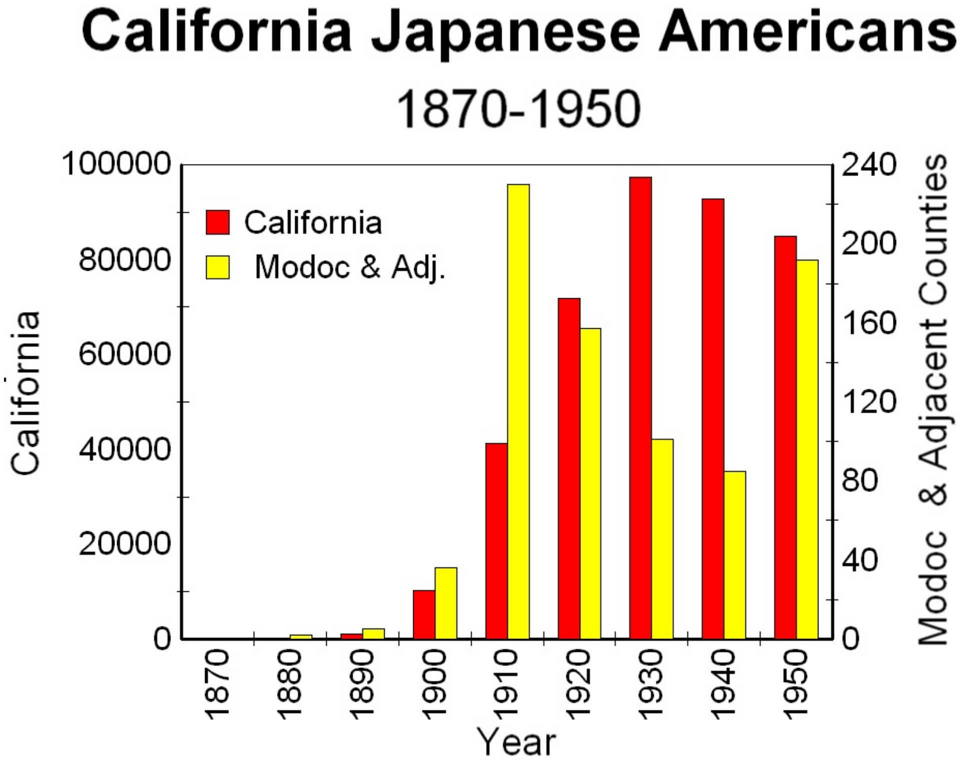
Tensions between Modocs and EuroAmericans mounted as settlers used the Southern Emigrant (or Applegate) Trail beginning in 1846 to cross the Tule Lake Basin en route to the Willamette River Valley. Further, the emigrant-transported smallpox that devastated the tribe beginning in 1847 also decimated its leadership culminating in numerous, small bands that attacked wagon trains as retribution for the problems caused them (Emerson, 1996; Turner, 2002). Fort Klamath, located between Upper Klamath Lake and Crater Lake, was completed by 1863 as a garrison to protect emigrants and local residents from Indian attack. In 1864, the Indian Superintendent of Oregon, at the Council Grove Treaty, persuaded the Klamath, Modoc, Snake, and Paiute of the area to move to a new reservation located between the north end of Upper Klamath Lake and Fort Klamath. Unfortunately, this treaty neglected to recognize the importance of young Modoc leaders such as Captain Jack and failed to foresee the impact of placing Modocs on a reservation sited on the traditional lands of the Klamaths. Captain Jack eventually departed the reservation with a group of Modocs to again settle in the Lost River Valley in April 1870 (Turner, 2002). The increasing numbers of white settlers in the area complained to the Indian Bureau about the presence of Modocs there (Murray, 1959). A request to establish a reservation in the Lost River Valley was denied by the Indian Bureau. In November 1872, after several months of negotiations, a new Indian Superintendent of Oregon forced the issue by bringing in the U.S. Army to arrest Captain Jack and his fellow leaders. Thus began the Modoc War, a war that involved the Modocs and the U.S. Army, as well as EuroAmerican citizens of the area. This war reached its apex when Captain Jack's band withdrew to Lava Beds at the south end of Tule Lake (now Lava Beds National Monument) and held off a vastly numerically superior group of U.S. Army soldiers in January 1873 (Turner, 2002). With the defeat of the U.S. Army at Lava Beds, the U.S. Secretary of War proposed that the U.S. negotiate a settlement with the Modocs via a Peace Commission (Thompson, 1971). At the April 1873 Peace Commission meeting, the Modocs killed two of the commissioners, incensing the soldiers and the general public, some of whom had been sympathetic to the Modoc cause (Turner, 2002). The subsequent manhunt for the Modoc leaders resulted in more deaths on both sides before many of the Modocs surrendered (Thompson, 1971). Captain Jack finally surrendered in June 1873 (Murray, 1959). The U.S. Army ultimately hung him and three of his associates–Schonchin John, Boston Charley, and Black Jim–for killing the Peace Commissioners (Murray, 1959). The remaining 157 members of Captain Jack's band were moved to the Quapaw Reservation in Oklahoma's Indian Territory. Those that survived the disease and impoverishment of the Reservation were allowed to move back to the Klamath Basin in 1910 (Turner, 2002). By World War II, approximately 330 Modocs remained in northern California and southern Oregon (Stern, 1998).

Like the other, more northerly, relocation center sites, the Tule Lake Valley was outside the sphere of direct influence of the Spaniards and their successors, the Mexicans. The earliest EuroAmericans to travel through the area were explorers in search of furs. The first such explorer, Peter Skene Ogden of the Hudson's Bay Company, traveled through the area in late fall and early winter 1826. En route, he traded with the Modocs and Klamaths but was generally disappointed with the numbers of beaver seen and caught in the country (Davies, 1961). John C. Fremont mapped and named Rhett Lake (now Tule Lake) in spring 1846 while on an intelligence gathering trip for the U.S. Army (Fremont, 1887). Lindsey Applegate and Jesse Scott, in 1846, pioneered a more direct route for settlers coming to the Oregon Territory than the traditional northern route. This route took them through the northern portion of the Tule Lake Basin (Haines, 1976). The U.S. Army Corps of Topographical Engineers, led by Lieutenants Williamson and Abbot, arrived in the Klamath Lakes area in August 1855 to survey possible routes for a railroad connecting San Francisco with the Columbia River. At that time, they noted that Tule Lake was about 14 miles long (north-south) and eight miles wide (Williamson and Abbot, 1855).

A group of 20 Czechoslovakian families from Moravia, Slovakia, and Bohemia emigrated to the northern Tule Lake Basin in fall 1909 by way of the Omaha, Nebraska area. In the northern Tule Lake Basin, they farmed after clearing and leveling the lands. They also played an instrumental role in settling Malin where, among other enterprises, they developed a cheese and produce facility. The name "Malin" was given the town by Alois Kalina, a Czechoslovakian immigrant who was reminded of an Eastern European town surrounded by a lush, fruit- and vegetable-filled landscape. To preserve their language and cultural traditions, the Czechs established a Bohemian school and Bohemian Hall. In July 1928, they even hosted the Grand Pacific Sokol Festival, a traditional competition of team calisthenics (Turner, 2002).

The first significant numbers of Japanese entering California did so through the port of San Francisco in the late 1860s. Once in northern California, they worked wherever laborers were sought including railroads, mines, smelters, meat packing plants, logging camps, lumber mills, general construction crews, fishing boats, farms, and canneries (Iwata, 1992). California's Japanese American population grew rapidly from 33 in 1870 to over 41,300 in 1910 (Figure 6.11) (U.S. Census Bureau, 1895; U.S. Bureau of the Census, 1913a). In 1910, 30,000 California Japanese Americans were employed in agriculture. Over time, they increasingly became farm operators or were involved in marketing produce (Iwata, 1992). However, most of the Japanese and their associated agricultural activity was found south of Chico in the northern Sacramento River Valley portion of California's Central Valley. The total Japanese population of Modoc County, adjacent Lassen, Shasta, and Siskiyou counties in far northern California as well as Washoe County, Nevada, and Klamath and Lake counties, Oregon also increased but reached its cumulative peak of 230 in 1910 (Figure 6.11). By 1940, the Japanese population of this seven county area was only 85. Japanese were not present in Modoc County until 1910 with a peak county population of four in 1940 (U.S. Bureau of the Census, 1913a; 1943a).

Figure 6.11. Persons of Japanese descent in California, and in Modoc County, adjacent Lassen, Shasta, and Siskiyou counties, California, Washoe County, Nevada, and Klamath and Lake counties, Oregon, 1870-1950. Data from U.S. Census Bureau (1895, p. 442-443;1901, p. 571-572); U.S. Bureau of the Census (1913a, p. 166; 1913b, p. 86, 511; 1922, 25, 615, 837; 1932a, p. 266; 1932b, p. 144, 630; 1943a, p. 567-568; 1943b, p. 753; 1943c, p. 1004; 1952a, p. 5-179; 1952b, p. 28-41; 1952c, p. 37-79).



Economic Geography. The pre-World War II economic geography of the Tule Lake Basin progressed from hunting, fishing, and gathering to agriculture, transportation, and tourism. All of the above activities, in one way or another, depended on water.

Hunting, fishing, and gathering were the primary subsistence strategies of the Modocs who lived on the lakes and rivers of the area. Fishing began in the March when they moved from their winter villages to traditional sites on area rivers and streams to fish suckers, collect roots of early plants such as desert parsley (*Lomatium* spp.), and collect freshwater clams (Ray, 1963; Stern, 1998). Following the end of the sucker run in May, the Modocs would move to sites where the epos (*Carum oreganum*) root crops were dug by the women and trout were fished by men. Waterfowl eggs were also gathered at this time. They would move again in late June or early July to moist meadows of montane forests where women dug camas (*Cammasia quamash*) bulbs and men would continue to fish and hunt waterfowl and various small game (Ray, 1963). The yellow pond lilly (*Nuphar polysepalum*) and its seeds were gathered in July as well (Stern, 1998).

By late July, the women had shifted to gathering white (or death) camas (*Zygadenus venenosis*), various other roots, and water-lily (*Nuphar polysepalum*) seeds while the men hunted antelope on the upland plains and mountain sheep in the lava beds. Seed collecting took the Modoc to all parts of their traditional territory. Lowland berries and fruits were gathered by the women in late August and September while the men harvested the second run of suckers. Deer and elk hunting, and huckleberry (*Vaccinium* spp.) gathering pulled the groups to higher elevations in late September. Hunting continued until deep snows arrived. All food beyond subsistence needs was smoked and/or dried for use in the lean winter months. These stored foods were supplemented with fishing and hunting throughout the winter as food needs dictated. The Modocs also obtained fish through trade with the Klamaths (Ray, 1963).

Agriculture began in the Tule Lake Basin with the influx of emigrants in the 1840s and grew rapidly following the removal of the Modocs in 1873. Agricultural development was spurred by the growth of Klamath Falls and subsequent wagon, railroad, and automobile traffic. By the late 1870s and 1880s, high quality cattle were being raised on Carr Land and Livestock Company lands in the Tule Lake Basin. In fact, Durham bulls of this herd were confined to The Peninsula in Tule Lake (Turner, 2002). The first attempts at irrigated agriculture using Lost River waters occurred in the Langell Valley upstream of the Tule Lake Basin in 1868 (Turner, 1988) (Figure 6.3). Early irrigated agriculture efforts along the lower Lost River was impeded by the lack of river and floodplain gradient, and by nearby impassable ridges. Recognizing the difficulties of irrigating with Lost River water, the Van Brimmer Canal was completed in 1886 and carried water from White Lake and Lower Klamath Lake to farmlands west and south of the Lost River (Figure 6.3) (Clark and Miller, 1999; Turner, 2002). Soon after, a flume system was constructed to take water from the Van Brimmer Canal to the east side of the Lost River Valley. Later efforts succeeded in strengthening the connection between White Lake and Lower Klamath Lake in an effort to provide more irrigation water to the lower Lost River Valley. By 1904, the Little Klamath Irrigation Ditch Company had an agreement to provide water for more than 10,000 acres in the Tule Lake Basin (Turner, 2002).

The U.S. Government's interest in Tule Lake Basin irrigation came about following the passage of the Newlands Reclamation Act in 1902. By early 1905, the newly formed U.S. Reclamation Service had convinced the states of California and Oregon to cede their water rights from Lower Klamath Lake and Tule Lake to the U.S. Government for the development of a reclamation project (U.S. Bureau of Reclamation, 2000). The first steps toward the completion of a federal reclamation project in the Tule Lake Basin were the construction of the "A", "B", and "C" canals linking Upper Klamath Lake and the Link River with the lower Lost River Valley by 1909 thus providing water for irrigation (Figure 6.3) (Turner, 2002). The Lost River Diversion Channel was constructed in 1912 to divert much of the river's flow to the Klamath River. The intended result of this was to dry up Tule Lake thus making the lake bed available for irrigated agriculture (Strantz, 1953; U.S. Bureau of Reclamation, 2000). By 1923, the lake area had been reduced to about 2% of its 1907 98,600 acre area (Turner, 2002).

Clear Lake Dam on the upper Lost River and Gerber Dam on Miller Creek (a tributary to the Lost River), both completed in the first decades of the 20^{th} century, tamed the floods of the watershed further preventing Lost River waters from entering the Tule Lake Basin (U.S. Bureau of Reclamation, 2000). The U.S. Reclamation Service purchased the Little Klamath Irrigation Ditch Company in preparation for large scale irrigated agriculture in the basin). However, the privately-held Van Brimmer Ditch Company continued to operate because it had a vested water right. In its continuing operation, it diverted its water from the Klamath Project waters beginning in 1910 (Clark and Miller, 1999). The timing of the Reclamation Service's buyouts was fortuitous as the waters from Lower Klamath Lake were sufficiently alkaline to have caused salinization issues on the Tule Lake Basin lands (Turner, 2002). The first irrigable Tule Lake Basin lands opened for settlement occurred in 1922 with subsequent land openings in 1927, 1928, 1929, 1930, 1931, 1937, and 1940 (Strantz, 1953).

Because the Tule Lake basin has been the evaporative sump for the Lost River until relatively recent historical times, salts had built up in its soils. Agriculture, therefore, had to adjust by leaching salts from the soil upper horizons, and by growing somewhat salt-tolerant crops (Oregon State Water Resources Board, 1971). Over time, potatoes and barley, as well as alsike clover, sugar beets, and alfalfa, were the primary crops grown in the basin . Potatoes grown on Klamath Project lands were used for human consumption while barley was grown for breweries as well as cattle feed. Approximately one-half of the alfalfa raised there was fed to local livestock while the rest was shipped to western Oregon dairies. Alsike clover was grown as a seed crop, and as an excellent rotation with potatoes and barley (Strantz, 1953; Pease, 1965). As of 1940, farmers leased lands in the southeastern portion of the Tule Lake Basin from the U.S. Government and grew dryland barley (Pease, 1965). The sheltered and fertile lands bordering The Peninsula on the west side of Copic Bay grew lush crops of fruit and vegetables (Figure 6.5) (Turner, 2002).

Problems arose in the 1930s when 37,000 acres of the basin floor set aside for excess irrigation waters to collect and ultimately evaporate was filling with water and impinging on U.S. Government lands leased to farmers. At the same time, U.S. Fish and Wildlife officials were concerned that insufficient water was available in this "sump", causing a botulism problem in migratory waterfowl. To solve these problems, the sump was reduced by over 50%, allowing more area for leased farming, and more fresh water was moved through the system by pumping from the sump into a tunnel through Sheepy Ridge into Lower Klamath Lake (Turner, 1988).

The Tule Lake Basin has played a significant role in the region's transportation patterns for at least the past 150 years. Topography and water guided emigrants northwestward across the basin from Bloody Point to the Natural Bridge of the Lost River as they headed toward the Willamette Valley. Further, argonauts from the Willamette Valley passed southward through the Tule Lake Basin on the "California-Oregon Trail" en route to the goldfields east of Sacramento beginning in 1848 (Pease, 1965; Turner, 2002). Over time, the importance of various routes through the basin have waxed and waned. In 1867, the east-west route became known as the Yreka-Surprise Valley Road while the north-south route was not shown on a map. By 1880, the east-west route was subordinate to the north-south route, and by 1912, the east-west route was no longer shown

(Pease, 1965). Railroads entered the basin by the late 1920s when the Southern Pacific Railroad built to the northwest to connect Alturas with Klamath Falls (Figure 6.3). By 1931, the Western Pacific completed a connection from its transcontinental line in California's Feather River Canyon northward to link with the Great Northern Railroad at Klamath Falls (Pease, 1965; Turner, 2002). Among other things, these railroads transported raw logs from the forested highlands to the south through the basin en route to Klamath Falls mills. However, neither of these railroads transported passengers through the basin as of 1940; instead, a gravel and subsequently paved road was built parallel to the Southern Pacific Railroad line from Alturas and Canby to Klamath Falls via the Tule Lake Basin (Pease, 1965; Turner, 2002) (Figure 6.3).

Tourism played a modest role in the pre-World War II economic geography of the Tule Lake Basin. Tour boats traveled the waters of Tule Lake beginning near the turn of the century. After its establishment in 1925, tourists visited Lava Beds National Monument to explore the lava tubes and cinder cones of the area. The aura of the area was magnified by the fact that the lava beds were the place that Captain Jack's band held off the U.S. Army (Works Progress Administration, 1939; Turner, 2002). The Tule Lake Wildlife Refuge was established in 1928 to help replace the migratory waterfowl habitat lost when Lower Klamath Lake was drained. It was more than tripled in size to 37,000 acres in 1936 (Foster, 2002).

Three small communities developed in the Tule Lake Valley –Merrill (officially incorporated in 1903), Malin (officially incorporated in 1922), Tulelake (officially incorporated in 1937) (Turner, 2002) (Figure 6.3). Unfortunately, the American Guide Series book on California (Works Progress Administration, 1939) did not include these towns in its routes around California, and no town census data is available for the period just prior to the World War II.

Why this Location?

Upon being asked by the War Relocation Authority (WRA) to identify potential sites for a Japanese American relocation center, the U.S. Bureau of Reclamation nominated a 1,100 acre site on the northeastern side of The Peninsula in the southeastern Tule Lake Basin (Figure 6.3). They further identified 3,575 acres for the center's agricultural programs (Turner, 2002). The Peninsula site was likely chosen because of the available federal lands and irrigation water, high agricultural potential, proximity to a railroad, and distance from sites of military significance (Jacoby, 1996). Soon after news of the Army's decision to locate a relocation center at Tule Lake leaked out, the residents of the various communities of the Tule Lake Basin protested to various government officials, voicing racial and economic concerns. The U.S. Secretary of War provided assurances that local residents would be protected from the Japanese Americans by military police and that the center would be abandoned at the end of war with center lands reverting to their former status (Turner, 2002).

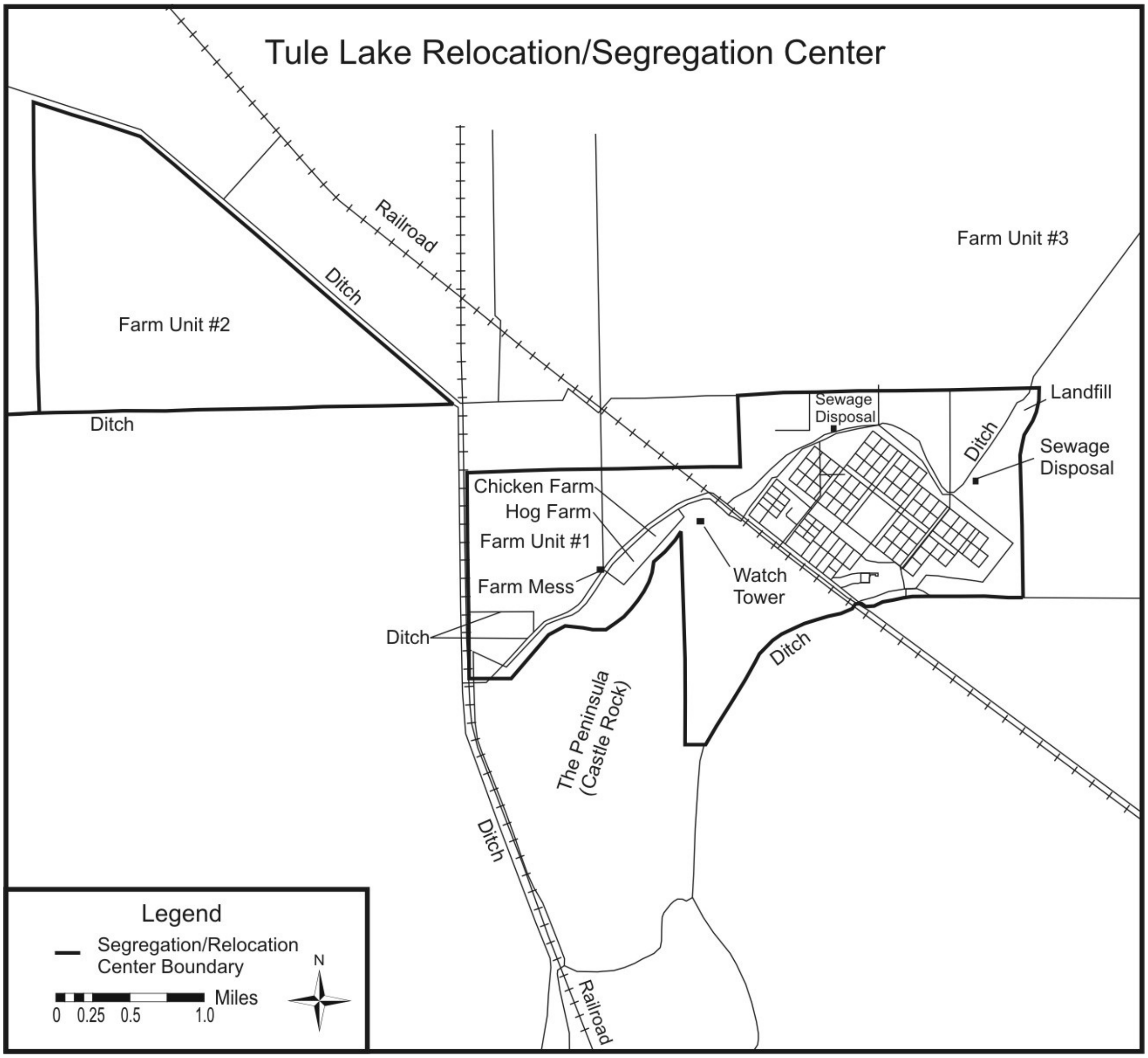
Building Tule Lake

The Fort J. Twaits and the Morrison-Knudsen companies were awarded the general contract to construct the Tule Lake Relocation Center in mid-April 1942. Initially, it was to be built near the southern end of The Peninsula in Copic Bay (Figure 6.5). However, poor drainage conditions in the site's low-lying soils forced the companies to move to the northeastern side of The Peninsula. There, the well-drained land classified by the U.S. Bureau of Reclamation as "cheap pasture" was actually part of a porous cuspate spit/baymouth barrier trending off the end of The Peninsula. One month later, on 24 May, the center was deemed essentially complete, and included over 1,000 buildings. At its peak construction, 3,000 men had been involved in the effort. The War Relocation Authority and the Bureau of Reclamation named the site "Newell" in honor of Frederick Newell, the first director of the U.S. Reclamation Service. Newell also became the official U.S. Post Service designation for the site (Turner, 2002).

The main portion of the center was aligned at an angle of about 310º along the Central Pacific Railroad and California State Highway 139 (Figure 6.12). It consisted of a military police compound, administration area and hospital, warehouse and industrial areas, and the evacuee residential area. The evacuee residential area was separated from the other areas by a 400 foot-wide fire break. Roads throughout the main developed area were paved or graveled with red cinders. Roads oriented northwest were numbered streets while the perpendicular roads were generally numbered avenues. When Tule Lake became a segregation center in fall 1943 (see below), a six foot high, lighted, barbed wire-topped, "man-proof" fence was constructed around the entire evacuee residential area. This fence was punctuated by 19 guard towers. A lower warning fence was constructed around the perimeter within this fence. A stockade, surrounded by a fence and watch towers, added to the penitentiary-feel of the center (Burton et al., 2002).

Eight "wards" existed in the evacuee residential portion of Tule Lake with most composed of nine residential blocks. The wards were separated by 200 foot-wide firebreaks. Each of the early constructed evacuee residential blocks consisted of 13 barracks, one mess hall, two latrine-shower buildings, one laundry building, one ironing building, and one community services (i.e., recreation) building (Figures 6.13 & 6.14). An additional women's latrine-shower building was subsequently added to each of these blocks. Twenty-six later-constructed blocks each had a combination men's and women's latrine-shower building and combination laundry-ironing building. At its maximum, Tule Lake had 66 residential blocks with each block serving approximately 275 evacuees (Jacoby, 1996; Burton et al., 2002). Each 20 feet x 100 feet barracks consisted of four to six single-room apartments (Sakoda, 1943). The barracks were wood-framed, sheathed with one-inch thick boards, and covered with black tarpaper. Based on U.S. Army Corps of Engineers employee's observations on a warm spring 1942 day, barracks were not initially slated for insulation (Burton et al., 2002). After someone pointed out that winters were indeed cold at Tule Lake, a crew set about lining each of the evacuee barracks with gypsum board (Jacoby, 1996). The WRA provided each evacuee with a U.S. Army cot, a straw-filled mattress, and wool U.S. Army blankets. Each apartment was also furnished with a single light bulb suspended from the ceiling and an coal heating stove (Turner, 2002). All other furniture was constructed or purchased by evacuees. Evacuees used scrap lumber from the

Figure 6.12. Overall map of the Tule Lake Relocation Center. Adapted from Burton et al. (2002, p. 281).



center's construction to build furniture as well as add partitions to the interiors of the barracks and to construct porches at their entryways. As a comparison, staff housing at Tule Lake was sheathed in ship-lap siding, and had indoor plumbing, oil burning circulating heaters, kitchens, and store- bought furniture (Jacoby, 1996).

Domestic water for the center came from seven wells, was treated, and stored in three separate, elevated storage tanks, two of which took advantage of The Peninsula's topography. Two sewage treatment plants took care of the center's waste (Burton et al., 2002). Irrigation water for the center's farms came from the Klamath Project irrigation system.

Figure 6.13. Detailed map of main part of Tule Lake Relocation Center. Adapted from Burton et al. (2002, p. 288).

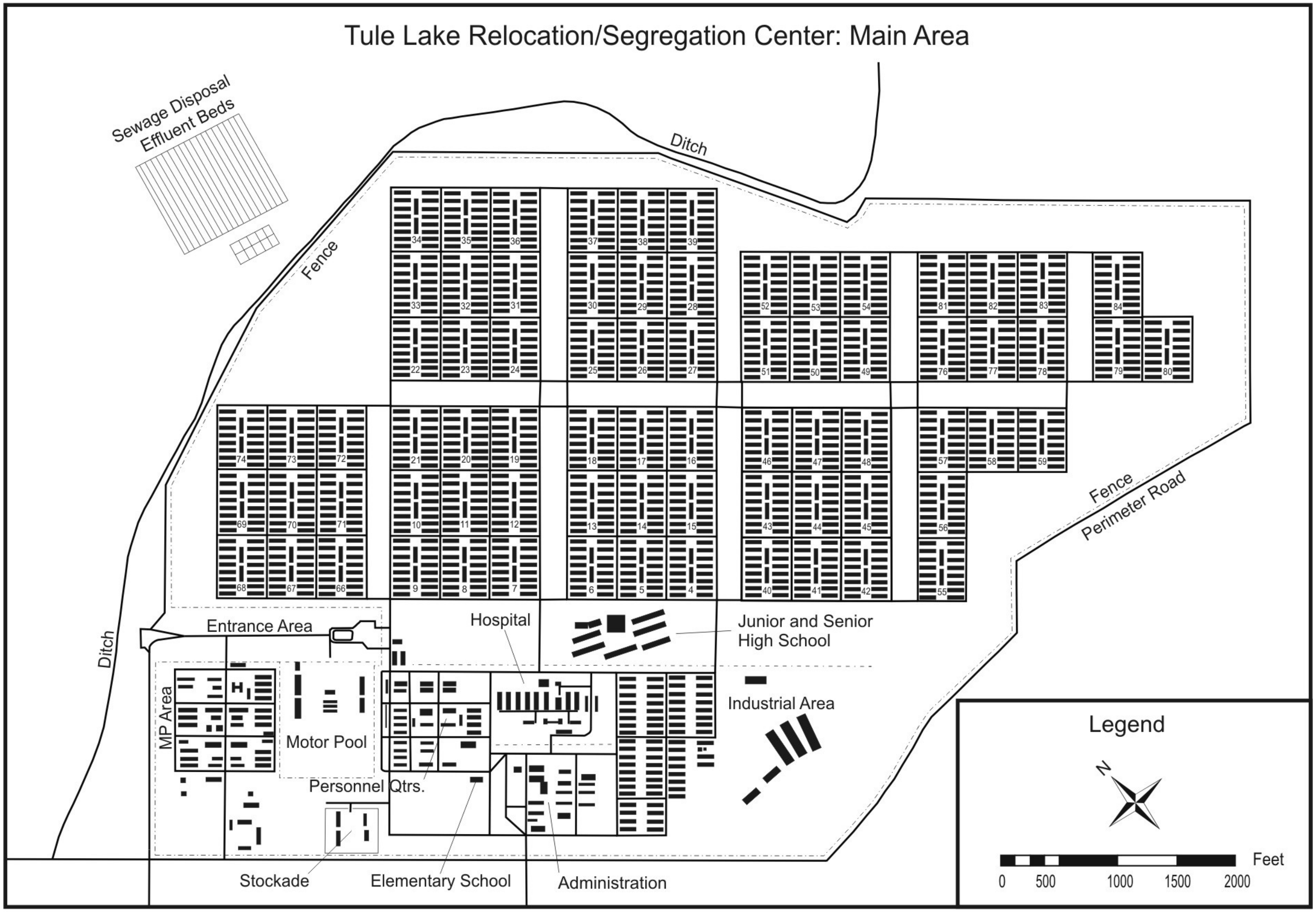


Figure 6.14. High-oblique airphoto of main portion of the Tule Lake Relocation Center. Note the evacuee residential area on the center and left portions of the photograph. North is in lower left corner of the photograph. U.S. Army Signal Corps photograph, July 1945. Courtesy of the Bancroft Library, University of California, Berkeley. Japanese American Evacuation and Resettlement Records, Part II: Internment in Relocation Centers, 1942-1944. Section 5: War Relocation Authority–Relocation Centers. Tule Lake Relocation Center, Newell, California.

Origins of the Evacuees

Tule Lake's initial (i.e., pre-segregation) evacuees came primarily from California's Sacramento (4,984), Placer (1,807), Yuba (476), Los Angeles (396), San Joaquin (379), Yolo (334), Alameda (320), San Francisco (236), Santa Clara (234), Butte (195), and Monterey (127) counties (Figure 6.15). Another 25 California counties contributed 374 evacuees. Other evacuees came from Washington, Oregon, and Alaska. Washington evacuees came primarily from King (2,703), Pierce (946), Clark (115), and Cowlitz (111) counties, while another 460 came from 16 other counties. Oregon's evacuees came from Hood River (425), Multnomah (312), Marion (175), and

13 other counties (226). Alaska and other states outside the evacuated area contributed another 11 evacuees (U.S. War Relocation Authority, 1946).

Evacuees transferred from the Sacramento (4,676), Pinedale (4,012), Marysville (2,453), Portland (350), Puyallup (289), Salinas (112), and to a lesser extent, Fresno, Merced, Pomona, Santa Anita, Stockton, Tanforan, Tulare, and Turlock assembly centers (Figure 6.15) (U.S. Army–Western Defense Command, 1943). Included among the Pinedale Assembly Center was the entire Japanese American community of Bellevue, Washington (Neiwert, 2005). Additionally, a significant number of evacuees came directly to Tule Lake from their homes in California's southern San Joaquin Valley and from "a rural area" south of Seattle, Washington" (Jacoby, 1996; Burton et al., 2002). Urban and rural evacuees were approximately equal in numbers at the center (Japanese American National Museum, n.d).

The first evacuees arrived at Tule Lake on 27 May 1942 from the Portland and Puyallup assembly centers as volunteers to help prepare the center for the remainder of the evacuees (U.S. War Relocation Authority, 1946). These, like most other evacuees, arrived at the center by train (Jacoby, 1996). With a maximum population of 18,789 reached on Christmas Day 1944, Tule Lake was largest of the ten relocation centers, and was the largest California city north of Sacramento at its peak population (U.S. War Relocation Authority, 1946).

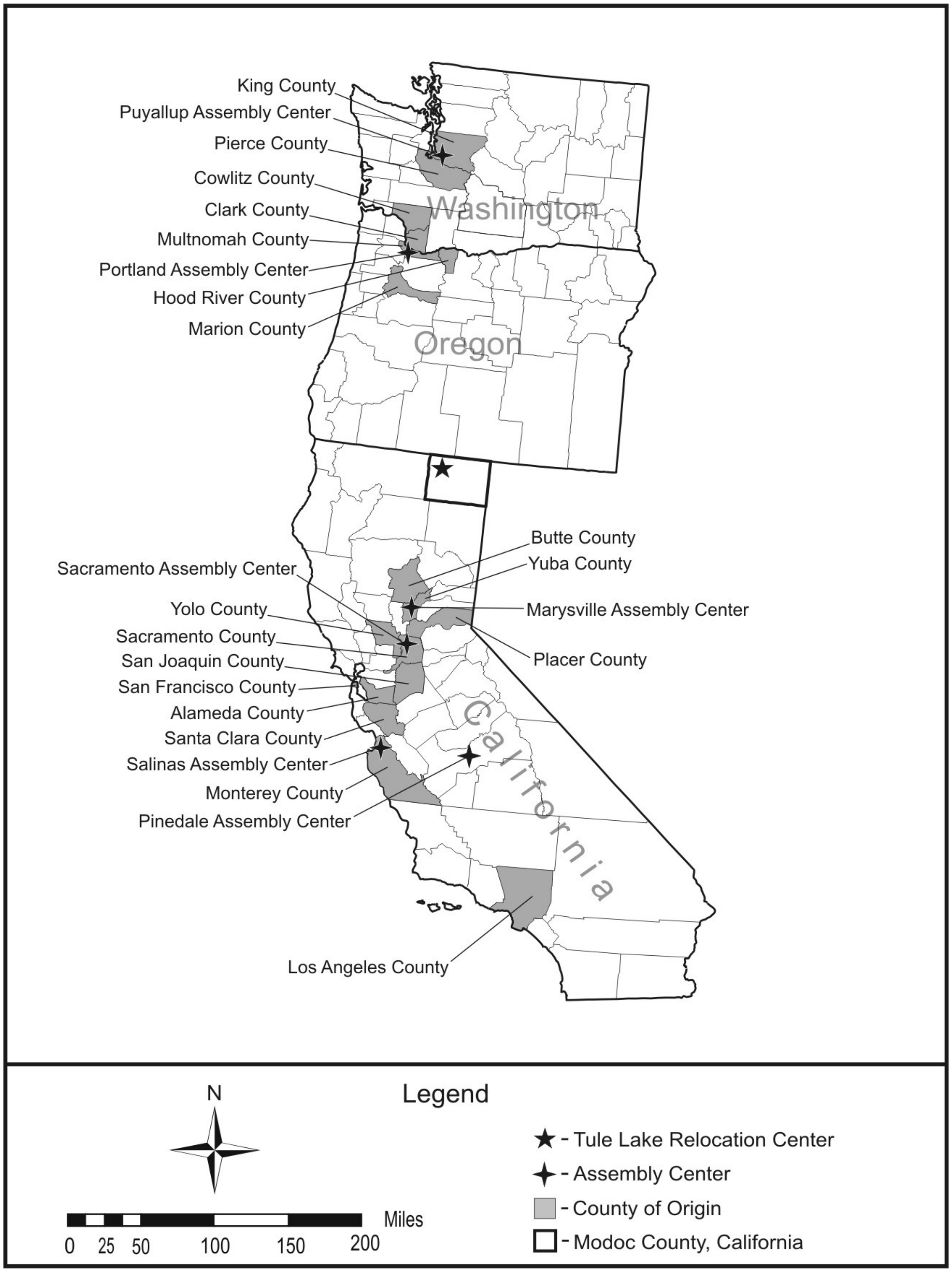
Interaction of Evacuees with North Central California's Environments

Physical Environment. Of all of the eight western relocation centers, the climate of Tule Lake may have been the most pleasant. It does not appear to have had the extremes that characterized many of the other centers. However, the Tule Lake Basin climate was still very different from the interior lowlands of California and coastal Washington and Oregon, from which most of the evacuees came. It was hot and dry in the summer, and cold and wet in the winter. As a result, summers were dusty and winters were muddy (King, 1973). The most frequent comments about the physical environment of Tule Lake were the windy and dusty conditions that evacuees encountered there.

One evacuee described the environment as:

> *...Dust. Dust. The weather of Tule Lake, as unpredictable as a woman in a millinery shop. Snow in May, Indian Summer in November–but all the year round, wind, wind, and more wind. Wind gentle as a baby's breath; strong enough to rattle the windows; wild enough to shriek between the telephone wires–whirling dust and papers like a miniature tornado–sending fine dust particles seeping through the windows; blanketing furniture and floor with a coating of white. Dust. Dust. Dust.*
>
> Morimitsu (1943, p. 56)

Figure 6.15. The Western United States origins of Japanese Americans evacuated to the Tule Lake Relocation Center beginning in May 1942. Data from U.S. Army–Western Defense Command, (1943, p. 381, 383) and U.S. War Relocation Authority (1946, p. 61-66).



An evacuee further tells of a Tule Lake duststorm:

Today is no day for anyone to be outside. The sky is black and overcast. The wind is relentlessly blowing and churning up the loose ground and no nook or crevice is immune to the ubiquitous dust. I came home from work and found the room gritty and filthy with grime. Powdery white dust had sifted through the edges of windows and settled on the bed, the shelves, the books, and all the clothings hung on nails. The dust disgusts and sickens me inside. One sleeps and eats with dust. No one acts human in a duststorm. Like animals, all evacuees seek shelter and all activities come to a standstill. Human rationalization is blotted out and all minds are assailed with rancor and hatred. Its only fortunate that these duststorms are sporadic and are usually accompanied by refreshing rainfalls. The ground hardens and evacuees return to normal routine.

Staff (27 May 1943, p. 103-104)

Cold was another issue to be dealt with at the center. The barracks were "insulated" only with gypsum board, and were heated with coal stoves (Jacoby, 1996). Gypsum board was installed in all of the barracks by the end of October 1942 (Staff, 22 October 1942). The original sheet metal stoves burned out with the heavy use of coal in the center and were replaced with cast iron stoves but not before a large percentage of the population was inconvenienced by this oversight (Jacoby, 1996). Residents piled soil around the base of the barracks to block airflow and keep them warmer in the winter months (Staff, 1 June 1944). Fortunately, winter average monthly temperatures during the operation of the center were generally similar to the 1931-1960 averages (Western Regional Climate Data Center, n.d.a).

Most summer monthly temperatures during the 1942-1945 period were several ^{o}F warmer than the long-term average (Western Regional Climate Center, n.d.a). However, based on its lack of mention in center newspaper, extreme summer heat does not appear to have been an issue for evacuees at Tule Lake.

Tule Lake experienced overall slightly wetter conditions than normal during its approximately five years in existence. However, precipitation showed tremendous variability even during this brief period with a approximately 13 inches of precipitation in 1945 and only 8 inches in 1946 (Western Regional Climate Data Center, n.d.a). Muddy conditions typically followed precipitation in the center (Figure 6.16). Snowfall during the center's existence was quite variable ranging from nearly 35 inches in 1943 to approximately 14 inches in 1945 (Western Regional Climate Center, n.d.a). In the days immediately following heavy snowfalls, The Peninsula (known to evacuees as "Castle Rock") became a sledder's paradise prior to the center becoming a high security segregation center (Figure 6.17) (Morimitsu, 1943).

Agriculture. The basic goals of the Tule Lake agricultural program were to grow crops and animals that would feed the evacuees of the center as well as those at other relocation centers. surpluses beyond these needs would be sold on the open market. Additionally, the agricultural

Figure 6.16. Muddy conditions on the Tule Lake streets following snowmelt. Francis Stewart photograph, February 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 30, Section D, WRA # B-174, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 11: Tule Lake Relocation Center, Newell, California.

program was intended to provide meaningful employment for evacuees (U.S. War Relocation Authority, 1943; Jarrett, 1946). The pragmatic nature of the program was perhaps best stated by E.L. Utz, the WRA Chief of Agricultural Production, to technical staff at Tule Lake: “W.R.A. is not a research agency. What we are interested in is good production at reasonable cost” (Staff, 20 August 1942).

Figure 6.17. Tule Lake evacuees pull sleds up the slopes of Castle Rock (i.e., The Peninsula) amid fresh snow. Francis Stewart photograph, January 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 29, Section D, WRA # A-978, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 11: Tule Lake Relocation Center, Newell, California.

The agricultural program was ideally suited to do this with fine soils available for farming as well as ample water, level lands, a decent growing climate, and significant numbers of rural, agriculture-oriented evacuees (Staff, 24 June 1942a). A 4-H program was established to involve children in agriculture, acreage was set aside for high school vocational agriculture students, and adult education courses were taught to those with little experience in farming (Staff, 4 July 1942; 7 July 1942; Jarrett, 1946). A staff composed of agronomists, botanists, entomologists, plant pathologists, and soil scientists was established to provide technical assistance to the farm program (Staff, 21 July 1942).

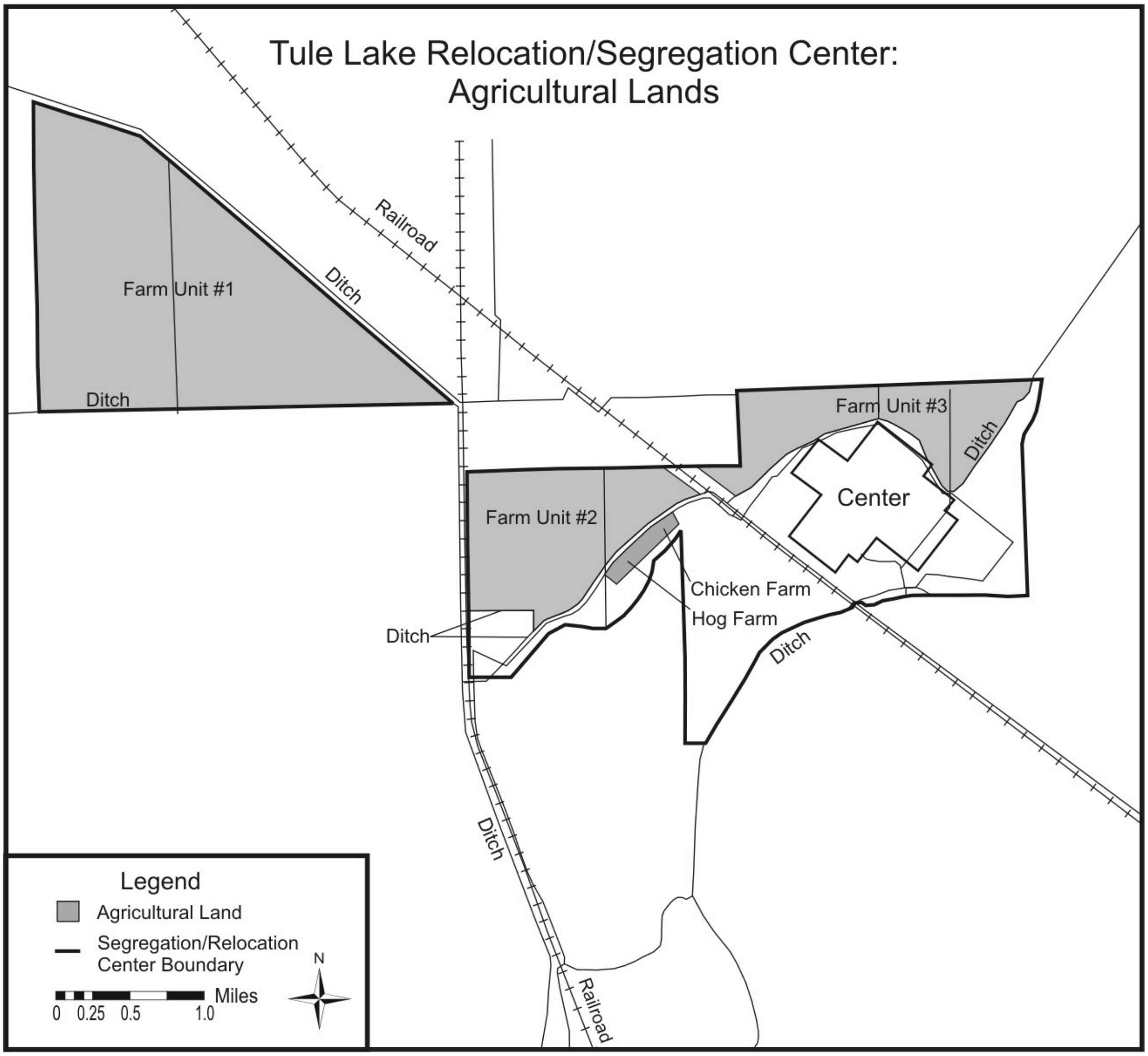
It was expected that the relocation center agricultural program would develop irrigation and drainage systems parallel to the plans of the U.S. Reclamation Service, and that additional lands would be reclaimed from the former lakebed (Staff, 17 August 1942; Cates, 1980). However, various personnel, equipment, and supply realities forced the WRA to scale back its agricultural plans early in the center's life and only limited Bureau of Reclamation-approved improvements were completed (Hayden, 1942). Ultimately, three agricultural areas were developed (Figure 6.18). Unit #1 (also known as the League of Nations tract because of the various nationalities of farmers working the land prior to the relocation center establishment), located about six miles northwest of the main part of the center, consisted of 2,300 acres that was farmed in 1942 and 1943. Unit #2 consisted of approximately 700 acres just north and west of the main part of the center. The 475 acres of Unit #3 lay north and east of the main part of the center (Jarrett, 1946). Following segregation in fall 1943, each farm was surrounded by a security fence, an inner warning fence, and 16 guard towers (Burton et al., 2002).

The Tule Lake agricultural program consisted of crops grown for direct human consumption, livestock, and the feed crops for livestock. The Tule Lake farm program began in spring 1942 and continued through 1945 (Jarrett, 1946). Twenty-nine different types of produce were grown on a total of 3,579 acres over four growing seasons (Tables 6.1 and 6.2). These included traditional cool weather root crops like potatoes, onions, carrots, and rutabagas. Warm weather vegetables such as tomatoes, cucumbers, and celery were not successfully grown until the 1945 growing season (Staff, 7 September 1945). Traditional Japanese vegetables grown on center farmland included daikon, gobo, and nappa. Peak production occurred in 1943. Total produce production peaked in 1943 at over 10,000,000 pounds. Produce was stored and preserved for subsequent center consumption or shipment to other centers in a variety of manners including packing houses, grain elevators, above- and below-ground root cellars, and a pickling plant (Staff, 4 September 1942; 4 November 1942; 9 January 1943; 13 January 1943; 26 July 1943). Additionally, the laundry/ironing buildings within the blocks were often used for the fermentation of vegetables to make the traditional Japanese *tsukemono*, a sauerkraut-like food (Jacoby, 1996). While firm tonnages are not available, excess produce was shipped to other centers beginning in fall 1942 and continued through at least 1943. These farm produce successes occurred despite a generally short growing season and persistent labor shortages at Tule Lake (Jarrett, 1946).

Five different feed crops were grown for center livestock on a total of 4,096 acres over four growing seasons (Tables 6.1 and 6.2). Among these feed crops were four different types of grain as well as alfalfa. As opposed to produce, peak feed crop production occurred in 1945 when grain and alfalfa were sold on the open market as well as used in the center (Jarrett, 1946).

The livestock operation was located in Unit #2 and consisted of hog, chicken, and turkey farms (Tables 6.1 and 6.3). Hogs were raised primarily on center garbage (Figure 6.19). The first hogs were slaughtered in November 1942 and the last in early January 1946 with an average of 50 per week during most of each of those years. A total of 1.5 million pounds of dressed pork was produced by the center hog farms during 1942-1946 despite facility and cultural issues (Table 6.3). A slaughterhouse was completed by August 1943 but refrigeration facilities were not in place until August 1944. Even with facilities in place, slaughterhouse workers were hard to obtain because of their low standing in Japanese society (Jarrett, 1946). Over 1,600 chickens were butchered and over 29,000 dozen eggs were collected during the operation of the chicken

Figure 6.18. Agricultural lands of the Tule Lake Relocation Center. Adapted from Burton et al. (2002, p. 295).



farm from 1942-1944 (Table 6.3). Chickens were primarily fed to center hospital patients. The chicken operation was beset by problems including a fire that killed 6,000 birds and destroyed much of a brooder house, high mortality rates from inadequate facilities, and labor shortages. Turkeys were successfully raised in 1943 prior to the major November center conflict (see below) (Jarrett, 1946).

Business and Industry. The Tule Lake Relocation Center included a wide variety of Consumer Cooperative businesses located in recreation buildings of the center's blocks. These businesses

Table 6.1. Produce, feed crops, and livestock raised at the Tule Lake Relocation/Segregation Center, 1942-1945. Data from Jarrett (1946).

Produce	Produce (cont.)	Feed Crops	Livestock
beans	onions (dry)	alfalfa	Chickens
beets	onions (green)	barley	Hogs
broccoli	parsnips	corn (field)	Turkeys
cabbage	peas	oats	
carrots	potatoes	rye	
cauliflower	pumpkin		
celery	radish		
cucumbers	rutabagas		
daikon	shingiku		
endive	spinach		
garlic	squash		
gobo	Swiss chard		
lettuce	tomatoes		
mustard greens	turnips		
nappa			

included general stores, canteens, beauty parlor, barber shop, radio repair shop, shoe repair shop, and bank. Additionally, a fish store was located in one of the firebreaks (Jacoby, 1996; Burton et al., 2002). Evacuees also shopped via mail order catalogs (Sakoda, 1943).

Tule Lake initially included three types of industry, two of which were aimed at food. A bakery and a tofu factory as well as a furniture factory were present in the warehouse area (Burton et al., 2002).

Landscaping and Gardening. Unlike many of the other relocation centers, little mention is made of gardens and landscaping at Tule Lake. It is not clear why this is the case; however, available water may have been an issue. From the center's inception, the well-based, domestic water

Table 6.2. Produce and feed crops raised at Tule Lake Relocation/Segregation Center, 1942-1945. Data from Jarrett (1946).

	1942	**1943**	**1944**	**1945**	***Total***
Produce					
Total Acres Harvested	1,425	1,300	400	454	*3,579*
Total Production (lbs)	9,116,841	10,022,679	4,628,464	6,136,524	*29,904,508*
Consumed at Center (lbs)	?	?	?	?	*?*
Shipped to Centers (lbs)	?	?	?	?	*?*
Sold on Market (lbs)	?	?	?	1,500,000	*1,500,000*
Shrinkage & spoilage	?	?	?	?	*?*
Market Value ($)	?	?	?	$202,505	*$1,046,660*
Feed Crops					
Total Acres Harvested	850	1,802	850	594	*4,096*
Total Production (lbs)	?	998,584	1,534,465	2,239,350	*4,772,399*
Fed at Center (lbs)	?	?	?	?	*?*
Shipped to Centers	?	?	?	?	*?*
Market Value ($)	?	?	?	?	*$74,076*
Market Value ($)	?	?	?	?	*$74,076*

supply was used for not only human consumption and other domestic purposes, but also for main area gardens and lawns. As a result, domestic water shortages plagued the center from July 1942 until mid-May 1945 (Staff, 24 July, 1942; 4 May 1945). A main area irrigation system was initiated in mid-July 1944 but not completed until June 1945 helped alleviate this problem by taking water from a canal and dispersing it downslope through each of the wards (Staff, 13 July 1944; Staff, 1 June 1945).

Tule Lake's gardens often relied on the gathering of natural materials. However, evacuees sometimes used human-made materials such as oil barrels to serve as ponds (King, 1973). One local commented that the Japanese "raised the most beautiful gardens that we have ever seen here; they raised things that have never been raised since they left" (Ager, 1973). Beautification

Table 6.3. Livestock raised at Tule Lake Relocation/Segregation Center, 1942-1945. Data from Jarrett (1946).

	1942	**1943**	**1944**	**1945**	***Total***
Chickens	?	?	0	0	?
Total Number Butchered	?	?	0	0	*1,654*
Meat Dressed Weight (lbs)	?	?	0	0	*4,962*
Market Value ($)	?	?	0	0	*?*
Eggs (dozen)	?	?	0	0	*29,595*
Market Value ($)	?	?	0	0	*?*
Hogs					
Total Butchered	?	?	?	?	*?*
Dressed Weight (lbs)	?	?	?	619,953	*1,500,000*
Market Value ($)	?	?	?	$153,870	*>$153,870*
Total Sold	?	?	?	381	*>381*
Dressed Weight (lbs)	?	?	?	34,126	*>34,126*
Market Value ($)	?	?	?	$6,826	*>$6,826*
Dressed Weight (lbs)	?	?	?	?	*?*
Market Value ($)	?	?	?	?	*?*
Turkeys					
Total Butchered	0	?	0	0	*?*
Dressed Weight (lbs)	0	9,595	0	0	*9,595*
Market Value ($)	0	$3,112	0	0	*$3,112*

was also enhanced by center Boy Scouts who planted 10,000 trees within the center beginning in April 1943 and over 12,000 bare-root shrubs sent by Washington State University (Staff, 11 July 1942; Staff, 9 April 1943). Evacuees also enhanced the looks of the center by modifying their barracks with entryways and awnings (Figure 6.20).

Figure 6.19. Feeding hogs mess hall garbage, Tule Lake Relocation Center. Francis Stewart photograph, November 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 28, Section D, WRA # A-473, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 11: Tule Lake Relocation Center, Newell, California.

Education. Education in the center occurred at the nursery, K-12, and adult levels. Eight nursery schools operated in the center in fall 1942, serving children from 18 months to 4 years in age (Jacoby, 1996). The K-12 school system at Tule Lake was based on a progressive "community schools" curriculum developed by Stanford University's School of Education (James, 1987). The Tule Lake school system, like those at other relocation centers, suffered, at least initially, from available classroom space, textbooks, and equipment (Kanda, 1984). Classes were first held in barracks within the blocks. Until classroom furniture was constructed evacuee students sat on the floor and wrote on cracked benches (James, 1987; Jacoby, 1996). An absence of teaching materials and teacher attrition also plagued the schools (James, 1987). For example, students in a typing class never had access to a typewriter so instead used paper keyboards

Figure 6.20. View down a Tule Lake street showing entryway modifications evacuees made to barracks. Francis Stewart photograph, November 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 28, Section D, WRA # A-462, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 11: Tule Lake Relocation Center, Newell, California.

(Commission of Wartime Relocation and Internment of Civilians, 1982). A formal high school building was not completed until February 1944. It included four classroom buildings connected by covered walkways, a science and crafts building, a shop building, a library, an auditorium/gymnasium, and an administration building (Burton et al., 2002). K-12 courses were taught by Caucasian teachers and assisted by evacuees who typically did not have teaching education background or teaching experience because of pre-war prejudice against Japanese teachers (Jacoby, 1996). Teacher and assistant turnover was a huge issue because of center instability (see below). Out of a peak staff of about 200, 313 teachers quit their jobs between February and September 1943. During the same period, 197 new teachers were hired (James, 1987). Classes ground to a halt several times–once when several hundred high school students were taken out of school for two weeks to help harvest the potato crop in fall 1942 and again when teachers staffed the registration tables for the “loyalty questionnaire” (Appendix C) in February 1943.

With the development of Tule Lake as a segregation center beginning in fall 1943, education in the center changed dramatically. No public school was held from summer 1943 until January 1944 because of a succession of crises and the subsequent declaration of martial law. As a form of protest against the U.S. Government, evacuees developed private schools as complements to, or replacements for, the center's public schools (James, 1987). Students in the Japanese language schools were educated on a variety of subjects in Japanese ways of learning and via Japanese language (Takeshita, 1984). When the public schools reopened in January 1944, they had only 68% of their pre-segregation enrollment. By fall 1944, public school enrollment at Tule Lake stood at about 2,300 students, about 50% of what it was in fall 1942 while, at the same time, private Japanese language schools enrolled about 4,300 students (James, 1987). Reflective of the above problems, the Tule Lake center schools never received accreditation from the State of California (Myer, 1971).

Elementary school-age children of Caucasian staff attended a separate school near the staff housing area. High school age children of staff attended Tulelake High School (Burton et al., 2002; Turner, 2002).

Adult education courses ranged from English to flower arranging to woodworking. By August 1942, 35 adult education courses were offered in the center (Jacoby, 1996). Over 880 evacuees enrolled in woodworking classes alone in August 1942 as a way build or learn to build various furniture items for evacuee apartments (Staff, 18 August 1942).

Recreation. The center's recreation program focused on the recreation buildings in each of the residential blocks as well as the outside open spaces throughout the center and, later, the gymnasium/auditorium. The program included a variety of athletic events including touch football, basketball, baseball, and track and field (Otani, 1943; Jacoby, 1996). To some, basketball was the center favorite while others saw baseball as more popular (Otani, 1943; Jacoby, 1996). Baseball was sufficiently popular that the center newspaper, the *Newell Star,* published a 74 page "book" on the 1944 center baseball season (Staff, 31 December 1944). Other sports mentioned in various editions of the center newspapers included boxing, volleyball, weight lifting, tennis, and table tennis. *The Daily Tulean Dispatch* and later, *The Newell Star*, typically dedicated at least an entire page of each issue to center sports. Local baseball, basketball, football, wrestling, track and field, and volleyball teams all show up in these issues.

Other popular recreational activities included variety shows, programs centered around the observance of holidays, dances, and board games (Figure 6.21) (Jacoby, 1996). Scouting activities and movies also show up frequently in the pages of the center newspapers. Less organized but nonetheless popular activities included hiking, kite flying, ice skating, and sledding. Hiking was a favored activity on Castle Rock adjacent to center. On one organized hiking trip, some 2,000 evacuees ascended the hill (Staff, 22 September 1942). Kite fliers took advantage of the winds of the area (Staff, 6 August 1942). With the cold and snow of winter

Figure 6.21. Farm foremen posed in front of the Labor Day Parade prize winning float, Tule Lake Relocation Center. Francis Stewart photograph, September 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 33, Section D, WRA # D-227, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 11: Tule Lake Relocation Center, Newell, California.

came opportunities to ice skate on artificial rinks within the blocks and sled on Castle Rock (Figure 6.17) (Staff, 12 January 1943; Morimitsu, 1943).

Tule Lake also had several libraries to serve the reading needs of the evacuees. Libraries were typically formed on book and magazine donations from individuals and churches (Staff, 24 June 1942b). The California State Library system also made much of its collection available for loan to Tule Lake evacuees (Staff, 10 August 1942).

Culture and Art. The arts appear to have flourished at Tule Lake, partly because the evacuees had time to spend on them and partly because art, and its resulting beauty, had always been a part of Japanese culture. Japanese culture, in turn, flourished at Tule Lake as at no other center, likely because segregation congregated those most “Japanese” in their beliefs (see below).

Artificial flowers were made from the ample mollusc shells left by Tule Lake prior to human diversion of the Lost River waters into the Klamath Basin (Eaton, 1952). Mollusc shells were also used for jewelry, pictures, and small household decorations (King, 1973). Classes in flower arrangement were taught to overflow crowds. To meet the material needs of the classes, four "Procurement Clerks" left the center each day to scour the surrounding environment for flower arranging materials such as cattails, tules, willows, wild plums, and sagebrush. When the local resources were depleted, they were able to travel to the Modoc National Forest to obtain cedar, mahogany, and pine greens (Eaton, 1952).

A small tea room was constructed within one of the Tule Lake barracks to teach the tea ceremony (Eaton, 1952). Japanese folklore was also very popular at Tule Lake (Okihiro, 1984). Traditional foods such as *mochi* (i.e., sticky rice pounded and molded into balls) and *tsukemono* were served at the center on special occasions (Staff, 27 May 1943; Staff, 9 January 1943). A Japanese language library included periodicals and books. Another library was established for books received from Japan via Red Cross shipments (Staff, 3 February 1943; 18 January 1945). Japanese language versions of the center newspapers began in September 1942 and continued until February 1946. Traditional Japanese athletic activities included *sumo* and *judo*. Sumo tournaments, complete with traditional ceremonies, occurred during the center's existence including several events after segregation (Figure 6.22) (Opler, 1945). More than 1,000 evacuees were enrolled in the judo program in spring 1944 (Staff, 18 May 1944).

Figure 6.22. A sumo tournament at Tule Lake Segregation Center. John Bigelow photograph, October 1944. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 34, Section D, WRA # G-755, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 11: Tule Lake Relocation Center, Newell, California.

Faith and Spirituality. Various editions of *The Daily Tulean Dispatch* and later, *The Newell Star*, show that at least four different churches were present within the confines of Tule Lake. Buddhism was the dominant religion of the center with eight Buddhist churches (Jacoby, 1996; Burton et al., 2002). In fact, many evacuees expressed a new or renewed interest in Buddhism at Tule Lake, likely because of segregation and the concentration of evacuees who were more oriented toward Japan (Kitagawa, 1967). Three non-denominational Christian churches, one Catholic church, and at least one Seventh Day Adventist church were also present (Staff, 5 October 1944; Jacoby, 1996; Burton et al., 2002). Religious traditions were observed at Tule Lake. Buddhists celebrated *Obon* (i.e., event honoring one's dead ancestors) while Christmas and Easter were celebrated by Christians (e.g., Staff, 17 July 1942; 30 March 1945).

Health. The center's health care needs were served by the 225-bed center hospital under the direction of a Caucasian but otherwise staffed by Japanese American physicians. This professional staff included twelve physicians or surgeons, seven registered nurses, eleven dentists, and twelve pharmacists. Early on, the hospital had an excellent reputation among evacuees and hospital staff; however, this changed beginning in fall 1942 when a new Caucasian director was appointed to the position. By fall 1943, conditions had deteriorated such that, during a riot, a group of *Kibei* (i.e., second generation Japanese Americans born in the U.S. and educated in Japan) entered the hospital and assaulted the director (Jacoby, 1996). Many evacuee physicians also relocated from the center to medical positions outside the military exclusion zones (see below) during the new director's regime (Cates, 1980). Hospital facilities and personnel were minimal and the result was that serious medical cases ended up in deaths that should not have been. Further, unsanitary conditions occurred in the operating room because of faulty construction (Somekawa, 1984).

Among the center's health problems were tuberculosis, including 75 reported, active cases in fall 1942, and intestinal distress likely associated with the generally low quality of the center's domestic water supply (Cates, 1980). The presence of ample, nearby water in irrigation canals and the Tule Lake sump led to mosquito problems at the center thus fears of mosquito-borne diseases. Hospital Sanitation Department personnel treated all nearby stagnant water, as well as irrigation ditches, with repellent oil and chemicals to prevent the hatching of mosquito larvae (Staff, 17 August 1944). Barracks windows were also screened to keep the insects away from evacuees (Staff, 23 July 1942).

Government. The Tule Lake Relocation Center had several forms of "self-government", including a Block Managers Committee and a Community Council. The Block Managers were selected by the center's EuroAmerican administration. A Temporary Council, consisting of Nisei from each of the 62 evacuee residential blocks, was in place until after a charter was ratified in November 1942. An Issei Planning Board was elected soon after to act in an advisory capacity to the administration. A 28 member Permanent Council was also elected in the days following the ratification of the charter.

As at other centers, the power of the evacuee government was quite limited. The various arms of evacuee government acted as advisory groups and sounding boards for the administration, and transmitted the policy and procedure information to evacuees in each of the residential blocks. Further, government at the center was muddied the birth of various committees including the Mess Workers and the Farm committees (Cates, 1980).

The registration crisis (see below), and the administration's response to this crisis, led to mass resignations by the elected evacuees on the Council, Block Managers Committee, and the Planning Board (Cates, 1980). It is unclear to what degree self-government operated in the months following the registration crisis.

Community. Tule Lake, like all of the centers, was beset with internal problems. This was unavoidable given the generally uncomfortable conditions, the mixing of Japanese Americans from different regions and different socioeconomic levels, and the relocation center-caused demise of the Issei-dominated family structure. However, Tule Lake's internal problems far surpassed those of the other centers.

The registration program, including the Application for Leave Clearance (or more commonly known as the "loyalty questionnaire") (Appendix C), was given to the center populace beginning in mid-February 1943. Evacuees were troubled that the application implied that the U.S. Government would force evacuees to leave the center. This did not sit well with many residents, especially if they would need to relocate to new parts of the country rather than the West Coast. Answering yes to Question 28 of the loyalty questionnaire forced Issei to renounce their Japanese citizenship without being able to become U.S. citizens. Stemming from these issues were many questions from the evacuees, and the administration did a poor job of responding to the questions. By the time they did, the issue had become polarized within the relocation center blocks and few evacuees initially registered. Threats by the administration and the military did little good. When the administration arrested a group of those who had not registered, a general strike of evacuee workers was called. Of the total 10,843 evacuees eligible to register, 3,218 ultimately did not. Of the 7,625 that registered, 1,238 answered "no" to question 28 of the loyalty questionnaire. No other center failed to register more than 26 evacuees, and only Manzanar had a higher number of "no" answers (War Relocation Authority, 1946; Jacoby, 1996).

Segregation of "loyal" evacuees from "disloyals" occurred because the WRA decided that it was in the best interest of center harmony not to mix the two groups in the same center. Tule Lake became the WRA Segregation Center for the disloyals in September 1943 because of the size of the center and the existing number of disloyals there. Segregees included those who: 1) had applied for repatriation; 2) had answered "no" to the loyalty question or had refused to answer the question; 3) were denied indefinite leave clearance due to "adverse evidence in their files"; 4) were Department of Justice camp aliens recommended for detention; and 5) were members of the four groups above who chose to remain with their families (Commission on Wartime Relocation and Internment of Civilians, 1982).

Segregation highlighted the differences between loyal and disloyal thus leading to more conflict prior to most of the loyals departing on indefinite leaves (see below) or to other centers. Some loyals, known as the "Old Tuleans" remained at Tule Lake after segregation because they did not want to move to other centers or to move to the outside world via indefinite leaves. Further, they likely remained in the center as a way to keep families together. This problem became worse as the disloyals came in from other centers because they were generally even more agitated than the bulk of the remaining Tule Lake population. This was especially true of the approximately 1,000 Kibei who came to the center from Hawaii (Jacoby, 1996). Segregation at Tule Lake ultimately was a much larger issue than at other centers because of the shear volume of change–i.e., Tule Lake transferred 6,538 loyal evacuees to Amache, Gila River, Heart Mountain, Jerome, Minidoka, and Topaz while receiving 12,173 disloyal segregees from the other nine relocation centers. The result of segregation was that Tule Lake became the most geographically diverse of the ten centers including evacuees from California, Hawaii, Oregon, and Washington (U.S. War Relocation Authority, 1946). Housing and employment inequities came about because of segregation further fueling center unrest.

Several strikes occurred during Tule Lake's operation. A labor dispute in early October 1943 resulted in the firing and subsequent rehiring of 43 coal car workers. A farm truck accident that led to the death of a farm worker in the same month sparked a farm work stoppage near the height of the harvest season. Because the Tule Lake agricultural program was so important to Tule Lake, as well as many of the other centers, evacuee workers were recruited from other centers to help harvest the crops (Jacoby, 1996).

The discovery of Caucasian WRA employees stealing food from an evacuee food warehouse and an ensuing fight sparked a large group of evacuees to block trucks, ostensibly transporting food for the strikebreakers at the farm, from leaving the administrative area (Jacoby, 1996). As a result, the project director called in the military police who stayed in control of the center until mid-January 1944 (Jacoby, 1996). Associated with the military takeover of the center, a stockade was added thus creating a "prison within a prison". Within the stockade was the "bull pen", a group of unheated tents where prisoners had a blanket or two and no extra clothes to ward off the winter cold. While in operation, the stockade housed over 350 "troublemaking" men who had no legal recourse (Jacoby, 1996). At least two such men were interred in the stockade for no apparent reason and subjected to various torture at the hands of the U.S. Army (Yamanaka, 1984). The gap between the more extremist disloyals and the moderates further widened because the moderate "Old Tuleans" did not object to the stockade (Jacoby, 1996).

The rescinding of the West Coast Exclusion Order in December 1944, led to further conflicts in the center. At that time, 3,066 evacuees at Tule Lake who the Justice Department deemed unsuitable for relocation to the West Coast. These included those who: 1) had refused to register for Selective Service; 2) had refused to serve in the U.S. armed forces; 3) had refused to swear allegiance to the U.S.; 4) had submitted a written statement of loyalty to Japan; 5) were agents or operatives of Japan; and 6) requested revocation of U.S. citizenship. Shortly after this, U.S. Department of Justice hearings officers came to Tule Lake to give loyalty rehearings to any evacuees who wished to change their answers to the loyalty questionnaire. This sparked the extreme elements of the center to began pressuring other evacuees, especially the American-born Nisei to expatriate. Within weeks, more than 2,000 Tuleans had applied for repatriation. Ultimately, 5,000 evacuees applied for repatriation. The U.S. Department of Justice attempted to reduce or eliminate these requests by identifying 1,500 very pro-Japanese individuals, quickly approving their repatriation requests, and removing them from Tule Lake in preparation for repatriation. Following the surrender of Japan in August 1945, approximately 3,000 of those who had earlier requested repatriation changed their minds and asked that they regain their U.S. citizenship so they could relocate to the U.S. Ultimately, all but 450 Kibei were allowed to relocate and regain their U.S. citizenship status (Jacoby, 1996).

Interaction with Surrounding Areas

The Outside World. Like the other centers within the West Coast Command's restricted areas–i.e., Gila River, Manzanar, and Poston–Tule Lake evacuees had limited contact with local residents. This was especially true following segregation. Local residents had mixed reactions to the Japanese Americans, ranging from welcoming them because of their past experiences and perceived economic impact on the area, to ambivalence and hatred because of the Japanese attack on Pearl Harbor (Ager, 1973; Jones, 1973).

Initial reaction to the planned construction of the center in the Tule Lake Basin was negative because of racial and economic concerns. Construction of the center lured away much of the basin's labor force, leaving farmers and merchants in a bind. Those farming the prime League of Nations tract of the U.S. Bureau of Reclamation lands were upset when they lost their leases to the center. However, local residents who worked in or near the center had frequent interactions with the evacuees, and for the most part, these were positive. The economic impact of the center on local towns was especially appreciated during construction of the center. Construction workers lived in Tulelake, as did subsequent families who helped operate the center (Turner, 2002). Many locals were hired to help build the center and some stayed on to help operate it as well (Jones, 1973). Evacuees were initially allowed to go to Tulelake but this practice ended after about the first two weeks of the center's operation (Ager, 1973).

Unlike the German and Italian prisoners of war (POW's) housed at a camp on the west side of the Tule Lake Basin, Japanese Americans were not allowed to work in the local farm fields (Ager, 1973; Turner, 2002). Because of this, it seems unlikely that the evacuees interacted with the POW's in the area. However, local farmers did interact with evacuees working on the center farms. Evacuees even purchased chickens from local farmers to supplement their diets in the center. Evacuees were also encountered wandering in the local hills east and south of the center, presumably before segregation (Jones, 1973). Community members complained that evacuees enjoyed "special food privileges" not available to those on the outside. Investigations revealed that this was not the case and that the WRA's average daily cost of feeding each evacuee was $0.45 (Cates, 1980; Turner, 2002). Antagonism toward evacuees extended to the local government.

A sign in the Modoc County Sheriff's Office read:

JAP HUNTING LICENSE
ISSUED HERE
Open Season Now
No Limit

Cates (1980, p. 270)

The various protests and unrest that characterized much of the Tule Lake Relocation Center's history did little to help the local's perception of the Japanese Americans (Turner, 2002). Local Caucasians were also concerned that the Japanese would remain in the area and farm the rich soils of the Tule Lake Basin following the closing of the center (Jones, 1973).

Accounts differ as to the openness of the center to visitors. One source stated that visitors were regularly welcome at the center (Jacoby, 1996). One example of this was a farm field day held at the center. This field day was used to show local farmers what evacuees were raising on their farm lands, and included a dinner served within the main part of the center (Schindler, 1973). A Klamath Falls minister helped arrange visits between evacuees and church members (Turner, 2002). Tule Lake athletic teams competed with Klamath Falls teams at the Tule Lake Relocation Center on at least several occasions (e.g., Staff, 9 March 1943; Staff, 22 April 1943). Presumably, interactions between locals and the center population decreased dramatically when the center became a segregation center in fall 1943.

Evacuees could leave the center on short-term, seasonal, and indefinite leaves. Short-term leaves ranged from several days to a few weeks and were typically for personal business or medical issues. Seasonal leaves were granted to evacuees for seasonal agricultural employment. The purpose of indefinite leaves was to permanently depart the centers for relocation to the "outside world", join the armed forces, be interned in a Department of Justice Internment camp, be committed to an institution, or be repatriated to Japan (U.S. War Relocation Authority, 1946).

Tule Lake evacuees were allowed to depart on seasonal leaves beginning in late summer 1942 to help harvest various crops including sugar beets throughout the Intermountain West. However, relatively few of Tule Lake's evacuees answered the call to help farmers and the war effort because of fear of repercussions by the pro-Japanese element within the center (Turner, 2002). A total of 990 seasonal leaves were issued in 1942, 1,050 in 1943, and only one following segregation in 1944 (War Relocation Authority, 1946). Included among those on seasonal leaves were significant numbers of the Bellevue, Washington Japanese American community, many of whom ended up working for farmers in northern Montana (Neiwert, 2005).

Relocation from the center was encouraged early on but essentially ended with the changing focus of the center to segregation. However, relocation did not reduce Tule Lake's population in the same way as it did other centers because Tule Lake received many more disloyal evacuees than the loyal evacuees it sent to other centers. Because of this imbalance, Tule Lake reached its peak population in December 1944 (Figure 6.23). Relocation was generally slow from the center's inception through March 1943 (Figure 6.24). More than 100 evacuees relocated from the center in each of the months from April 1943 until September 1943. Monthly relocations did not again exceed 100 until January 1945, one month after the West Coast exclusion order was lifted. In only two of the next 14 months did relocation fall below 100. Overall, 1,508 departed in 1943, only 205 departed in 1944, 11,781 departed in 1945, and 7,341 departed in 1946. Various editions of the *Daily Tulean Dispatch* and later, the *Newell Star* plus Holland et al. (1946), show that Tuleans relocated to 39 states plus the District of Columbia (Figures 6.25 and 6.26).

Only 57 Tuleans volunteered to serve in the U.S. Armed Forces during World War II. Thirty-two of these became war casualties including 10 killed. Reflective of the controversy surrounding the loyalty questionnaire, Tule Lake had 27 Selective Service violations; however, none of the accused were convicted (U.S. War Relocation Authority, 1946). Many of the Tuleans who volunteered for the U.S. Army became part of the famous 442nd Regimental Combat Team that served valiantly in the European Theater of Operations (e.g., Doi, 1984; Kanda, 1984).

Figure 6.23. Resident population, incuding evacuees on short-term and seasonal leaves, Tule Lake Relocation/Segregation Center, California. Data from U.S. War Relocation Authority (1946, p. 18).

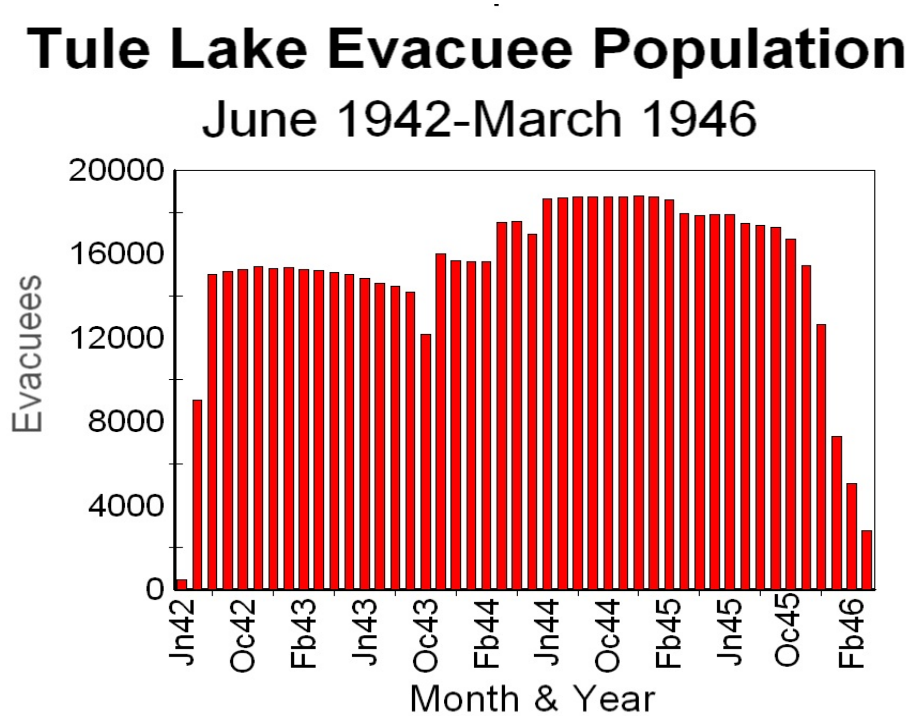
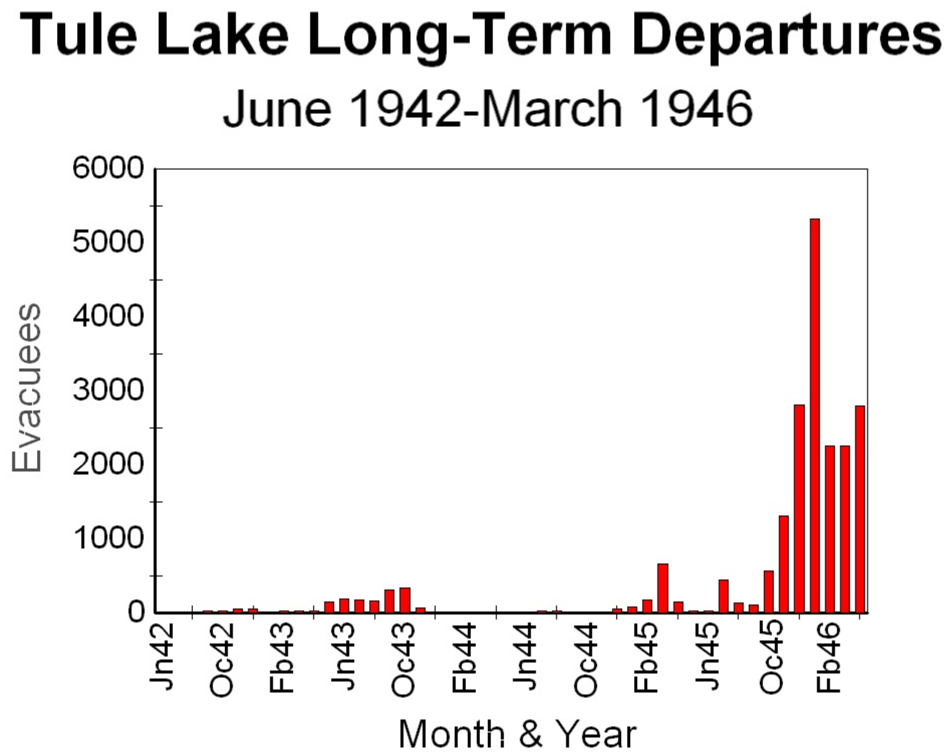


Figure 6.24. Indefinite leaves (i.e., relocations), Tule Lake Relocation/Segregation Center, May 1942-March 1946. Data from U.S. War Relocation Authority (1946, p. 40).



Other Relocation Centers. Tule Lake's interactions with other centers were primarily limited to evacuee transfers and farm produce shipments. Tule Lake athletic teams apparently did not compete with the teams of other relocation centers.

Tule Lake received a total of 12,173 "disloyal" evacuees from each of the other nine relocation centers. In turn, the center transferred 6,538 "loyal" evacuees to Amache, Gila River, Heart Mountain, Jerome, Minidoka, and Topaz (U.S. War Relocation Authority, 1946). Twenty Tulean "troublemakers" were sent to Moab, Utah and subsequently the Leupp, Arizona isolation center (U.S. War Relocation Authority, 1946; Cates, 1980). A total of 4,423 Tuleans were repatriated to Japan beginning in September 1943 after answering "no" to the loyalty questionnaire. The majority of these individuals were segregees who were transferred to Tule Lake from other centers (U.S. War Relocation Authority, 1946).

Farm produce was shipped to Gila River, Heart Mountain, Manzanar, Minidoka, Poston, and Topaz, as well as various assembly centers (Staff, 31 August 1942; 3 September 1942; 9 September 1942; 6 October 1942; 21 August 1943; Jarrett, 1946). Conversely, Tule Lake received produce from Gila River and Manzanar (Staff, 9 January 1943; 9 October 1943). Farm

Figure 6.25. Geography of Tule Lake Relocation/Segregation Center indefinite leaves (i.e., relocations), May 1942-March 1946. Data from Holland et al (1946).

Figure 6.26. Former Tulean Atsusa Sakuma mixes a spray mixture to combat potato blight on a farm near Chicago. Sakuma relocated to the Midwest from the Tule Lake Relocation Center. Prior to evacuation, he was a strawberry farmer in Washington state's Skagit Valley near Mt. Vernon. Charles Mace photograph, July 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 41, Section E, WRA # H-13, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 11: Tule Lake Relocation Center, Newell, California.

workers from Poston and Heart Mountain came to the center in October 1943 during the period of unrest to complete the farm harvest (Jarrett, 1946).

Closing Tule Lake and Another Relocation

Public Proclamation #21 on 17 December 1944 ended the West Coast Exclusion Order that had been in effect since 1942. All relocation centers were to be closed by the end of 1945. However, on 18 October 1945, WRA chief Dillon Myer and U.S. Department of the Interior head Harold Ickes announced that the Tule Lake Relocation Center would remain open until 1 February 1946 (Staff, 18 October 1945). This announcement coincided with the beginning of the rapid emptying of Tule Lake. On 1 October 1945, the center's evacuee population was 16,740 (Figure 6.23). By 1 January 1946, the population stood at 7,303. Because of the large number of evacuees remaining in the center as of 1 February 1946, including several hundred who wished to repatriate to Japan, the center remained open beyond the 1 February deadline (Staff, 31 January 1946). All evacuees were either relocated or repatriated, and the center officially closed by 20 March 1946 (U.S. War Relocation Authority, 1946).

Impacts of Tule Lake on Today's North Central California Landscapes

Evacuee Dispersion. Long term residents don't recall any Japanese Americans remaining in the Tule Lake Basin after the closure of the Tule Lake Relocation Center (Jones, 1973). The 1950 census showed that 17 Japanese lived in Modoc County as opposed to the four who lived there in 1940. The Japanese population of Modoc and the six surrounding counties rose from 85 in 1940 to 192 in 1950 suggesting that relatively few Japanese Americans relocated from Tule Lake to nearby parts of north central California, south central Oregon, and northwest Nevada (U.S. Bureau of the Census, 1943a; 1943b; 1943c; 1952a; 1952b; 1952c). This may, in part, reflect the fact that the Tule Lake Basin and surroundings were geographically distinct from the areas from which most of the evacuees came. It may also be reflected in the dissension that wracked the Tule Lake center. However, it is likely that most of Tule Lake's evacuees relocated to points south in California after the closure of the center (James, 1987).

Land Dispersion. After closure in March 1946, some of the former center's lands were distributed to war veteran homesteaders while other parcels were retained by the U.S. Bureau of Reclamation (Burton et al., 2002). The parcels allocated to war veterans included lands immediately north, west, and south of the main part of the former center (Turner, 2002). One land parcel was also allocated to the California Department of Transportation for use as a maintenance facility (U.S. National Park Service, 2001).

Infrastructure Dispersion. Soon after the closing of Tule Lake Relocation Center, the Bureau of Reclamation transferred some of the buildings to war veteran homesteaders while retaining others for the management of Bureau lands (Thye, 1947). Of those transferred, some whole barracks were taken away while others were dismantled in place (King, 1973). The approximately 980 buildings retained were held for later transfer to homesteaders, government agencies, and non-profit groups. Most of the retained buildings were removed between July and December 1946 (Burton et al., 2002). Various surplus items, including heating stoves, beds, mattresses, blankets, hand tools, and fertilizer, were given to homesteaders. Equipment from the hospital was made available to area hospitals (Thye, 1947). Equipment or buildings from the center were dispersed as far afield as Lakeview and Klamath Falls, Oregon as well as Yreka and Alturas, California (Turner, 2002). It is not clear why numerous buildings remained in the Military Police compound; however, these were purchased around 1963 and turned into a subdivision on site (Figure 6.12) Burton et al., 2002).

Remains of Tule Lake. Much evidence remains of the center. Burton et al. (2002) describe in detail the nature of Tule Lake as of about 2000. Further, along with two students, I visited the former center in June 2003. As opposed to most of the other seven western relocation centers, numerous center buildings are still in place at Newell. This is especially true within the former military police compound where at least 33 buildings remain as does the original road and security fence network (Figure 6.27). Two buildings remain in the former administration area including the former administrative staff recreation building, now the Newell General Store (Figure 6.28). The jail is still in place as well (Figure 6.29). A total of eight buildings remain in the former warehouse and industrial areas. Most of the evacuee residential area has been displaced by the Tule Lake Airport thus all buildings, most of the concrete slabs, and much of the road network is gone. The best remaining evidence of the former evacuee residential area is found in Ward 8 east of the airport where the red cinder road network, concrete slabs of the latrines and laundry facilities, and sewer manholes remain (Figure 6.30). It is in this section that the basalt rock remains of numerous barrack gardens can be found (Figure 6.31); however, no evidence of former garden ponds was seen. Part of the "man-proof" fence remains on the north side of the former evacuee residential area (Figure 6.32). Much evidence also remains of the farm operations in the surrounding areas including irrigation and drainage infrastructure in the farmlands, roads and foundations at the hog farm and chicken farm, sewage treatment plants, and landfill (Burton et al., 2002).

A display at the Museum of Local History in Tulelake notes that many Tule Lake Relocation Center barracks ended up in and around the surrounding communities of Tulelake, Malin, and Merrill. Literally hundreds of the former barracks can still be seen throughout the Tule Lake Basin (Figure 6.33) (Pease, 1965; Turner, 2002). A large monument located along California Highway 139 includes a state historical marker that commemorates the center. The Museum of Local History at the Tulelake-Butte Valley Fairgrounds in Tulelake includes an exhibit and gift shop with books on the relocation center. The City of Tulelake Library has a modest collection of oral histories related to the relocation/segregation center. Lava Beds National Monument also has a collection of artifacts from the center (Burton et al., 2002). The Klamath Falls Bureau of Reclamation office has maps, photographs, reports, and files related to agriculture in the relocation center. The 17 February 2006 designation as a National Historic Landmark will provide protection for the center's remains at Newell as well as opportunities for reflection and education (U.S. National Park Service, 2006).

Figure 6.27. Former Tule Lake Relocation/Segregation Center military police compound barracks, Newell, California. Author photograph, June 2003.

Figure 6.28. Former Tule Lake Relocation/Segregation Center administrative staff recreation building. As of June 2003, building served as grocery store. Author photograph, June 2003.

Figure 6.29. Remains of the Tule Lake Segregation Center jail beneath arrow. Author photograph, June 2003.

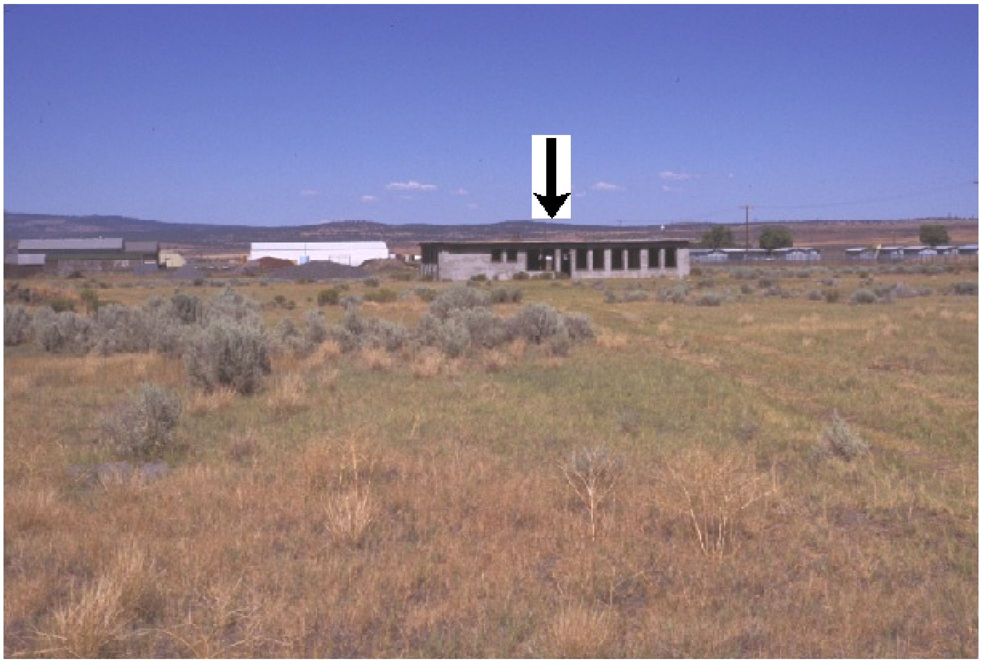


Figure 6.30. Remains of a latrine concrete slab in the evacuee residential area east of Tule Lake airport. Bulldozed concrete lying atop slab. Author photograph, June 2003.

Figure 6.31. Subtle basalt boulder remains of evacuee barracks garden within the evacuee residential area, Tule Lake Relocation/Segregation Center. Eight inch by five inch yellow field notebook for scale in the middle of the former garden. Author photograph, June 2003.

Figure 6.32. Remains of Tule Lake Segregation Center's "man-proof" perimeter fence and a cinder perimeter road. Author photograph, June 2003.

Figure 6.33. Former Tule Lake Relocation/Segregation Center staff housing building now in Tulelake, California. Author photograph, June 2003.

North Central California's Tule Lake Basin Today. The Tule Lake Basin has been an area of significant change in the 60 years since the Tule Lake Relocation/Segregation Center closed. Much of the change and resulting conflict has centered on agriculture and water.

Soon after the last evacuee departed, the Tulelake Growers Association used the main part of the center as a camp for farm laborers of a variety of ethnic and racial backgrounds. Homesteaders also lived at the former center until their barracks were moved to their homesteads. During this time, the Tulelake Growers Association used several of the WRA warehouses for grain storage. A general store opened in the former WRA Administration recreation hall and the Bureau of Reclamation occupied several buildings in its supervisory role over the site. By 1949, Grandview Elementary School was operating at the site for the various homesteader's children. With a school, store, café, bus stop, and full utilities, Newell was awarded official townsite status by the Bureau of Reclamation in 1949. City lots were auctioned off by the Bureau of Reclamation beginning in 1951. At around the same time, Tulelake Airport was constructed on lands formerly occupied by evacuee barracks to provide ready access for sportsmen coming to the area, and later for the area's crop-dusting needs. Despite other attempts at growth including the Newell Potato Cooperative and the United States Pumice Supply Company locating in former WRA warehouses, Newell's population leveled off beginning in the late 1950s. A primary cause of this was that insufficient private farmland was adjacent to Newell to support a full-fledged town, and more-established Tulelake was only seven miles away. Through time, Newell has had its share of downs including closures of a pumice plant, a potato packing warehouse, and the school (Turner, 2002). However, as of June 2003, Newell had regained its elementary school, and retained its grocery store and the Tulelake Airport (Figure 6.34). Additionally, it continued to serve as housing for low-income families, many of whom work in area agriculture.

Drawings were held in 1946, 1948, and 1949 to allocate a total of 216, 80-acre Bureau of Reclamation farm units to World War II veteran "homesteaders". Some of these farm units were on land previously occupied and/or farmed by the evacuees. Each homesteader received one complete barracks from the former Tule Lake Segregation Center. These newcomers mostly continued to grow what farmers had long grown in the basin–barley, alfalfa, clover, flax, and potatoes. Perhaps because of the successes of the Japanese American farmers on Tule Lake Relocation Center lands, some area farmers following World War II tried growing carrots, celery, sugar beets, strawberries, and melons. However, the short growing seasons and distances to markets steered them back to their long-time staples. By the 1960s, approximately 66% of the original post-World War II homesteaders had sold out and left the farming because of the weather, business, and remoteness issues (Turner, 2002).

While some farmers have benefitted economically from waterfowl by catering to hunters, others' farmlands have sustained significant damages from migratory waterfowl and hunters alike (Pease, 1965; Turner, 2002; Wilson, 2002). As a result of these damages and the desire for more

Figure 6.34. View south at Newell, California and the base of The Peninsula. Author photograph, June 2003.

farmland, farmers pressured the Bureau of Reclamation to open the entire League of Nations tract to homesteading. Conversely, wildlife enthusiasts wanted the lands to be part of the Tule Lake Wildlife Refuge. In 1964, the issue was resolved in favor of wildlife when these lands were incorporated into the refuge (Foster, 2002). Additional lands at The Peninsula were placed under Tule Lake Wildlife Refuge jurisdiction in 1980 to protect birds of prey nesting habitat. These transactions have led to the growth of the Tule Lake National Wildlife Refuge to over 38,000 acres (Turner, 2002).

In recent years, the use of Klamath River water has been at the center of controversy. Endangered Species listings occurred for Klamath River Basin endemics short-nose sucker *(Chasmistes brevirostris*) and the Lost River sucker (*Delistes luxatus*) in 1988, followed by Coho salmon (*Oncorhychus kisutch*) in 1997. These listings have led to conflict between irrigated farmers, U.S. Bureau of Reclamation, National Marine Fisheries Service, and U.S. Fish and Wildlife Service employees, Klamath and Yurok tribal members, sportsmen, commercial fishermen, and members of various environmental groups. Several drier-than-normal years have intensified the conflicts and forced managing agencies to decide how to use the very limited water resources of the Klamath Basin. After numerous court hearings, lobbying of politicians, public demonstrations, and acts of non-violent, civil disobedience, the issue of how to provide water for basin agriculture, while at the same time maintaining sufficient flows for endangered species, has yet to be answered (Turner, 2002). Attempts at providing a water bank to enhance Klamath River flows have led to conflict between farmers who are pumping groundwater to sell to the U.S. Government, and homeowners who are seeing their well water levels drop as a result of the pumping (Clarren, 2005). Part of the salmon issue may be resolved if PacificCorp removes the four lower dams on the Klamath River, re-opening 350 river miles of spawning habitat (Wilkison, 2006).

As of 2000, the population of Modoc County was 9,449, a 2.4% decline since 1990 (U.S. Census Bureau, n.d.). With much of the county federally owned and with the uncertain status of water available for agriculture, it is likely that population will continue to gradually decline or remain level in the coming years. Each of the four towns of the Tule Lake Basin–Merrill, Malin, Tulelake, and Newell–struggle to remain economically and socially viable given the proximity to growing Klamath Falls and the uncertainty of agriculture (Turner, 2002).

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References

Adam, D.P., Sarna-Wojcicki, A.M., Rieck, H.J., Bradbury, J.P., Dean, W.E., and Forester, R.M., 1989: Tulelake, California: The Last 3 Million Years. *Palaeogeography, Palaeoclimatology, Palaeoecology,* 72:89-103.

Ager, E.F., 1973: O.H. 1348, Tule Lake Segregation Center. Fullerton: California State University Oral History Program, 7 pp.

Bailey, R.G., 1995: Description of the Ecoregions of the United States (2nd edition). *USDA Forest Service Miscellaneous Publication* 1391. Washington, D.C.: Government Printing Office.

Bradbury, J.P., 1992: Late Cenozoic Lacustrine and Climatic Environments at Tule Lake, Northern Great Basin, USA. *Climate Dynamics,* 6: 275-285.

Burton, J.F., M.M. Farrell, F.B. Lord, and R.W. Lord, 2002: *Confinement and Ethnicity: An Overview of World War II Japanese American Relocation Sites*. Seattle: University of Washington Press.

Cates, R.T., 1980: Comparative Administration and Management of Five War Relocation Authority Camps: America's Incarceration of Persons of Japanese Descent During World War II. PhD Dissertation, University of Pittsburg.

Clark, M. and Miller, E.D., 1999: Notes on Early Water Use in the Klamath Basin. *The Journal of the Shaw Historical Library,* 13: 19-41.

Clarren, R., 2005: 'Water Bank' Drags River Basin Deeper into Debt. *High Country News*, http://www.hcn.org/servlets/hcn.Article?article_id=15843. Accessed 29 March 2007.

Cleghorn, J.C., 1959: Historic Water Levels of Tule Lake, California-Oregon and Their Relation to the Petroglyphs. Klamath Falls, Oregon: Klamath County Museum.

Commission on Wartime Relocation and Internment of Citizens, 1982: *Personal Justice Denied. Report of the Commission on Wartime Relocation and Internment of Citizens*. Washington, D.C.: Government Printing Office.

Davies, K.G. (editor), 1961: Peter Skene Ogden's Snake Country Journal, 1826-27. London: The Hudson's Bay Record Society.

Dicken, S.N., 1980: Pluvial Lake Modoc, Klamath County, Oregon, and Modoc and Siskiyou Counties, California. *Oregon Geology,* 42 (11): 179-187.

Doi, S., 1984: *In* (Tateishi, J., editor) *And Justice for All: An Oral History of the Japanese American Detention Camps*. New York: Random House, pp. 157-167.

Donnelly-Nolan, J.M. and Champion, D.E., 1987: Geologic Map of Lava Beds National Monument, Northern California. *U.S. Geological Survey Miscellaneous Investigations Series Map* I-1804.

Eaton, A.H., 1952: *Beauty Behind Barbed Wire: The Arts of the Japanese in our War Relocation Camps*. New York: Harper and Brothers Publishers.

Emerson, W., 1996: *The Applegate Trail of 1846: A Documentary Guide to the Original Emigrant Route to Oregon*. Ashland, Oregon: Ember Enterprises.

Fenneman, N.M., 1931: *Physiography of Western United States*. New York: McGraw-Hill Book Company, Inc..

Foster, D., 2002: Refuges and Reclamation: Conflicts in the Klamath Basin, 1904-1964. *Oregon Historical Quarterly,* 103 (2): 150-187.

Fremont, J.C., 1887: *Memoirs of my Life*. Chicago: Belford, Clarke & Company.

Gay, T.E. and Aune, Q.A., 1958: Alturas Sheet *In* (Jenkins, O.) *Geologic Map of California*. Division of Mines, California Department of Natural Resources, 1:250,000 scale.

Griffiths, J.F. and Driscoll, D.M., 1982: *Survey of Climatology*. Columbus, Ohio: Charles E. Merrill Publishing Company.

Haines, F., 1976: *The Applegate Trail: Southern Emigrant Route 1846.* Ashland, Oregon: Ember Enterprises, Publishers.

Hannah, J.L., 1977: Tectonic Setting of the Modoc Region, Northeastern California. *In Short Contributions to California Geology Special Report* 129. California Division of Mines and Geology. pp. 35-39.

Hayden, B.E., 1942: Annual Project History and O & M Report of the Klamath Project, Oregon-California for Calendar Year 1942. Klamath Falls, Oregon: U.S. Bureau of Reclamation.

Holland, W.K., Murphy, C., Kirkman, C. and Brown, P.B. 1946. General Outline and History of the Relocation Division, Tule Lake Center. Reel 114, Records of the War Relocation Authority, 1942-1946: Field Basic Documentation Located at the National Archives, Washington, D.C.

Hotchkiss, W.R., 1968: A Geologic and Hydrologic Reconnaissance of Lava Beds National Monument and Vicinity, California. *U.S. Geological Survey Open-File Report* I 19.2: Ev2.

Iwata, M., 1992: *Planted in Good Soil: The History of the Issei in United States Agriculture*, Volume 1. New York: Peter Lang.

Jacoby, H.S., 1996: *Tule Lake: From Relocation to Segregation*. Grass Valley, California: Comstock Bonanza Press.

Jahnke, J.J., 1994: Soil Survey of Butte Valley-Tule Lake Area, California, Parts of Siskiyou and Modoc Counties. U.S. Department of Agriculture-Natural Resources Conservation Service, Washington, D.C.: Government Printing Office.

James, T., 1987: The Education of the Japanese Americans at Tule Lake, 1942-1946. *Pacific Historical Review,* 56 (1): 25-58.

Japanese American National Museum, n.d.: Tule Lake. http://www.janm.org/projects/clasc/tule.htm. Accessed 28 March 2007.

Jarrett, W.T., 1946: General Outline and History of the Agricultural Program at Tule Lake Center. Reel 114, Records of the War Relocation Authority 1942-1946: Field Basic Documentation. National Archives, Washington, D.C.

Jones, R.L., 1973: O.H. 1351, Tule Lake Segregation Center. Fullerton: California State University Oral History Program, 7 pp.

Kanda, J., 1984: *In* (Tateishi, J., ed.) *And Justice For All: An Oral History of the Japanese American Detention Camps*. New York: Random House, pp. 120-123.

King, R.E., 1973: O.H. 1353, Tule Lake Segregation Center. Fullerton: California State University Oral History Program, 8 pp.

Kitagawa, D., 1967: *Issei and Nisei: The Internment Years*. New York: Seabury Press.

Lavine, A., 1994: Geology of Prisoners Rock and The Peninsula: Pleistocene Hydrovolcanism in the Tule Lake Basin, Northeastern California. *California Geology,* 47 (4): 95-103.

Lavine, A. and Aalto, K.R., 2002: Morphology of a Crater-Filling Lava Lake Margin, The Peninsula Tuff Cone, Tule Lake National Wildlife Refuge, California: Implications for Formation of Peperite Textures. *Journal of Volcanology and Geothermal Research,* 114: 147-163.

McKee, E.H., Duffield, W.A. and Stern, R.J., 1983: Late Miocene and Early Pliocene Basaltic Rocks and Their Implications for Crustal Structure, Northeastern California and South-Central Oregon. *Geological Society of America Bulletin,* 94: 292-304.

Meyers, J.S., 1962: Evaporation from the 17 Western States. *U.S. Geological Survey Professional Paper* 272-D.

Moritmitsu, A.T., 1943: Fleeting Impressions *In A Tule Lake Interlude: First Anniversary Tule Lake W.R.A. Project, May 27, 1942-1943*. Newell, California: Tulean Dispatch, pp. 56.

Murray, K.A., 1959: The Modocs and Their War. Norman: University of Oklahoma Press.

Myer, D.S., 1971: *Uprooted Americans: The Japanese Americans and the War Relocation Authority During World War II.* Tucson: University of Arizona Press.

Neiwert, D., 2005: *Strawberry Days: How Internment Destroyed a Japanese American Community*. New York: Palgrave.

Okihiro, G.Y., 1984: Religion and Resistance in America's Concentration Camps. *Phylon*, 45 (3): 220-233.

Opler, M.K., 1945: A "Sumo" Tournament at Tule Lake Center. *American Anthropologist,* 47 (1): 134-139.

Oregon State Water Resources Board, 1971: Klamath Basin. Salem, Oregon: State Water Resources Board.

Otani, K., 1943: Athletics. *In A Tule Lake Interlude: First Anniversary Tule Lake W.R.A. Project, May 27, 1942-1943*. Newell, California: *Tulean Dispatch*, 27 May, pp. 60-62.

Paulson, R.W., Chase, E.B., Roberts, R.S., and Moody, D.W., 1991: Arizona: Floods and Droughts. National Water Summary 1988-89: Hydrologic Events and Floods and Droughts. *U.S. Geological Survey Water-Supply Paper* 2375, pp. 197-206.

Pease, R.W., 1965: Modoc County: A Geographic Time Continuum on the California Volcanic Tableland. *University of California Publications in Geography,* Volume 17. Berkeley: University of California Press.

Ray, V.F., 1963: *Primitive Pragmatists: The Modoc Indians of Northern California*. Seattle: University of Washington Press.

Sakoda, J., 1943: The Tule Lake Project *In A Tule Lake Interlude: First Anniversary Tule Lake W.R.A. Project, May 27, 1942-1943*. Newell, California: *Tulean Dispatch*, 27 May, pp. 33-45.

Schindler, C.W., 1973: O.H. 1356, Tule Lake Segregation Center. Fullerton: California State University Oral History Program, 4 pp.

Somekawa, E., 1984: *In* Tateishi, J., editor, *And Justice For All: An Oral History of the Japanese American Detention Camps*. New York: Random House, pp. 146-151.

Spicer, E.H., 1969: *Impounded People: Japanese-Americans in the Relocation Centers*. Tucson: University of Arizona Press.

Staff, 1942a: Raise 2000 Acres of Vegetables Here. *Tulean Dispatch*, 24 June, pp. 4.

Staff, 1942b: Library Books. *Tulean Dispatch*, 24 June, pp. 5.

Staff, 1942: To Educate Farmers. *Tulean Dispatch*, 4 July 1942, pp. 5.

Staff, 1942: 4-H Club. *Tulean Dispatch*, 7 July, pp. 3.

Staff, 1942: Landscape. *Tulean Dispatch*, 11 July, pp. 5

Staff, 1942: Bon Festival Brings Color to Tule Lake. *Tulean Dispatch*, 17 July, pp. 1.

Staff, 1942: Colony Farm on Science Basis. *Tulean Dispatch*, 21 July, pp. 1.

Staff, 1942: Chase Mosquitoes Out. *Daily Tulean Dispatch*, 23 July, pp. 1.

Staff, 1942: Don't Waste Water. *Daily Tulean Dispatch*, 24 July, pp. 1.

Staff, 1942: Kite-Flying Favorite Pastime of Tuleans. *Daily Tulean Dispatch*, 6 August, pp. 3

Staff, 1942: Cal State Library to Lend Books. *Daily Tulean Dispatch*, 10 August, pp. 3

Staff, 1942: 2500 Acres of Vegetables Planted. *Daily Tulean Dispatch*, 17 August, pp. 2.

Staff, 1942: 850 Enrolled in Woodwork Class. *Daily Tulean Dispatch*, 18 August, pp. 1.

Staff, 1942: Frost Terror Worries Farmers. *Daily Tulean Dispatch*, 20 August, pp. 2.

Staff, 1942: Vegetables Shipped. *Daily Tulean Dispatch*, 31 August, pp. 1.

Staff, 1942: Farm Products Being Shipped. *Daily Tulean Dispatch*, 3 September, pp. 1.

Staff, 1942: Farm Harvest in Full Swing. *Daily Tulean Dispatch*, 4 September, pp. 1.

Staff, 1942, Tulean Farm Products Being Shipped to WCCA. *Daily Tulean Dispatch*, 9 September, pp. 3.

Staff, 1942: 2000 Climb "Castle Rock" on Hiking Trip. *Daily Tulean Dispatch*, 22 September, pp. 1.

Staff, 1942: Manzanar Gets our Vegetables. *Daily Tulean Dispatch*, 6 October, pp. 3.

Staff, 1942: Sheet Rock Insulation to be Completed Soon. *Daily Tulean Dispatch*, 22 October, pp. 3.

Staff, 1942: Grain Elevators. *Daily Tulean Dispatch*, 4 November, pp. 2.

Staff, 1943: "Tsukemono" Pickling Plant in Full Operation Here. *Daily Tulean Dispatch*, 9 January, pp. 1.

Staff, 1943: Skaters Cut Ice on Rinks Made Artificially Here. *Daily Tulean Dispatch*, 12 January, pp. 1.

Staff, 1943: Our Own 'Gem' Spuds Enough Until June. *Daily Tulean Dispatch*, 13 January, pp. 2.

Staff, 1943: Plan Library for Japanese Literature. *Daily Tulean Dispatch*, 3 February, pp. 3.

Staff, 1943: Local Barbell Team Beats Klamath Falls. *Daily Tulean Dispatch*, 9 March, pp. 4.

Staff, 1943: Planting of 10,000 Trees is to Start. *Daily Tulean Dispatch*, 9 April, pp. 1.

Staff, 1943: Barbell Team Beats Klamath Again. *Daily Tulean Dispatch*, 22 April, pp. 4.

Staff, 1943: A Nisei Diary *In* Nakamura, G.R., editor, *In A Tule Lake Interlude: First Anniversary Tule Lake W.R.A. Project, May 27, 1942-1943*. Newell, California: *Tulean Dispatch*, 27 May, pp. 96-109.

Staff, 1943: Huge Potato Bin Started. *Daily Tulean Dispatch*, 26 July, pp. 2.

Staff, 1943: Ship Local Vegetables. *Daily Tulean Dispatch*, 21 August, pp. 1.

Staff, 1943: Manzanar Ships Melons to Tule. *Daily Tulean Dispatch,* 9 October, pp. 3.

Staff, 1944: Extensive Judo Program Mapped Out. Newell Star, 18 May, pp. 6.

Staff, 1944: Space Required Under Barracks Says Robertson. *Newell Star*, 1 June, pp. 1.

Staff, 1944: Colony Irrigation System to Augment Water Supply. *Newell Star*, 13 July, pp. 1.

Staff, 1944: Hospital Wages Ceaseless War on Mosquitoes. *Newell Star*, 17 August, pp. 1.

Staff, 1944: Church Services. *Newell Star*, 5 October, pp. 3.

Staff, 1944: Baseball: Tule Lake Center 1944. *Newell Star*, 31 December, 74 pp.

Staff, 1945: New Library to Feature Books Sent By Japan. *Newell Star*, 18 January, pp. 1.

Staff, 1945: Annual Easter Service to be Conducted This Sunday. Newell Star, 30 March, pp. 4.

Staff, 1945: Water Shortage Predicted Unless Supply Conserved. Newell Star, 4 May, pp. 2.

Staff, 1945: May Complete the Irrigation System in June. *Newell Star*, 1 June, pp. 1.

Staff, 1945: Last Month's Harvest Total Highest of Year. *Newell Star*, 7 September, pp. 5.

Staff, 1945: Ickes, Myer Say Tule Lake to Close On or Before Feb. 1, 1946. *Newell Star*, 18 October, pp. 1.

Staff, 1946: Tule Lake Center Operation to Continue for Short Time. *Newell Star*, 31 January, pp. 1.

Strantz, M.K., 1953: Reclamation Accomplishments 1905-1953: Klamath Project Oregon-California. California Projects Office. Klamath Falls, Oregon: U.S. Bureau of Reclamation.

Stern, T., 1998: Klamath and Modoc. *In* Walker, D.E., Jr., editor, Plateau (Volume 12), *Handbook of North American Indians*. Washington, D.C.: Smithsonian Institution, pp. 446-466.

Takeshita, B., 1984: *In* Tateishi, J., editor, *And Justice For All: An Oral History of the Japanese American Detention Camps*. New York: Random House, pp. 242-249.

Thompson, E.N., 1971: *Modoc War: Its Military History & Topography*. Sacramento: Argus Books.

Thye, C.J., 1947: The Bureau Reclaims its Own. *Reclamation Era,* 33 (4): 90-92, 94.

Turner, S., 1988: Reclamation–A New Look for the Tule Lake and Klamath Basins. *Journal of the Shaw Historical Library,* 2 (2): 25-70.

Turner, S., 2002: *The Years of Harvest: A History of the Tule Lake Basin* (3rd Edition). Eugene, Oregon: Spencer Creek Press.

U.S. Army–Western Defense Command, 1943: Final Report: Japanese Evacuation from the West Coast 1942. Washington, D.C.: Government Printing Office.

U.S. Bureau of Reclamation, 2000: Klamath Project: Historic Operation. Klamath Falls, Oregon: Klamath Basin Area Office.

U.S. Bureau of the Census, 1913a: *Thirteenth Census of the United States Taken in the Year 1910, Volume II, Population 1910: Alabama-Montana.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1913b: *Thirteenth Census of the United States Taken in the Year 1910, Volume III, Population 1910: Nebraska-Wyoming, Alaska, Hawaii, and Puerto Rico.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1922: *Fourteenth Census of the United States Taken in the Year 1920, Volume III: Population 1920: Composition and Characteristics of the Population by States,* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1932a: *Fifteenth Census of the United States, 1930, Population, Reports by States Showing the Composition and Characteristics of the Population for Counties, Cities, and Townships or Other Minor Civil Divisions, Volume III, Part 1: Alabama-Missouri.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1932b: *Fifteenth Census of the United States, 1930, Population, Reports by States Showing the Composition and Characteristics of the Population for Counties, Cities, and Townships or Other Minor Civil Divisions, Volume III, Part 2: Montana-Wyoming.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1943a: *Sixteenth Census of the United States: 1940, Volume II, Characteristics of the Population: Part 1: Alabama-District of Columbia.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1943b: *Sixteenth Census of the United States: 1940, Volume II, Characteristics of the Population: Part 4: Minnesota-New Mexico.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1943c: *Sixteenth Census of the United States: 1940, Volume II, Characteristics of the Population: Part 5: New York-Oregon.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1952a: *A Report of the Seventeenth Decennial Census of the United States Census of Population: 1950, Volume II: Characteristics of the Population, Part 5: California*. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1952b: *A Report of the Seventeenth Decennial Census of the United States Census of Population: 1950, Volume II: Characteristics of the Population, Part 28: Nevada*. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1952c: *A Report of the Seventeenth Decennial Census of the United States Census of Population: 1950, Volume II: Characteristics of the Population, Part 37: Oregon*. Washington, D.C.: Government Printing Office.

U.S. Census Bureau, n.d.: Modoc County, California. State and County Quickfacts. http://quickfacts.census.gov/qfd/states/06/06049.html. Accessed 29 March 2007.

U.S. Census Office, 1895: *Report on the Population of the United States at the Eleventh Census: 1890, Part I.* Washington, D.C.: Government Printing Office.

U.S. Census Office, 1901: *Twelfth Census of the United States, Taken in the Year 1900. Census Reports Part I: Population.* Washington, D.C.: Government Printing Office.

U.S. Department of Agriculture, 1954: Diagnosis and Improvement of Saline and Alkaline Soils. *Agriculture Handbook* No. 60.

U.S. Forest Service, n.d.: Section M261G–Modoc Plateau. *In* Chapter 33–Sierran Steppe-Mixed Forest–Coniferous Forest *In Ecological Subregions of the United States*. http://www.fs.fed.us/land/pubs/ecoregions/ch33.html. Accessed 22 November 2006.

U.S. National Park Service, 2001: Tule Lake Relocation Center, California. *Report to the President: Japanese-American Internment Sites Preservation*. http://www.cr.nps.gov/history/online_books/internment/reporta2.htm. Accessed 29 March 2007.

U.S. Natural Resources Conservation Service, n.d.: Ecological and Interpretive Groups: Land Capability Classification, NSSH Part 622 (Exhibit 2). *National Soil Survey Handbook*. http://soils.usda.gov/technical/handbook/contents/part622.html. Accessed 29 March 2007.

U.S. National Park Service, 2006: Secretary Norton Announces Designation of National Historic Landmarks. *U.S. Department of the Interior News*. http://www.doi.gov/news/06_News_Releases/060217.htm. Accessed 3 August 2007.

U.S. War Relocation Authority, 1943: Agricultural Handbook (Supplementing Manual Section 40.1). 26 October, 1943.

U.S. War Relocation Authority, 1946: The Evacuated People: A Quantitative Description. Washington, D.C.: Government Printing Office.

Waldman, C., 2000: *Atlas of the North American Indian*. New York: Facts on File, Inc.

Western Regional Climate Center, n.d.a: Tulelake, California (049053). (http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca9053. Accessed 29 March 2007.

Western Regional Climate Center, n.d.b: Climate of California. http://www.wrcc.dri.edu/narratives/CALIFORNIA.htm. Accessed 29 March 2007.

Wilkison, B., 2006: Dam Removal Considered on the Klamath. High Country News, http://www.hcn.org/servlets/hcn.Article?article_id=16233. Accessed 29 March 2007.

Williams, T.R. and Bedinger, M.S., 1984: Selected Geologic and Hydrologic Characteristics of the Basin and Range Province, Western United States: Pleistocene Lakes and Marshes. *U.S. Geological Survey Miscellaneous Investigations Series Map* I-1522-D.

Williamson, R.S. and Abbot, H.L., 1857: Report of Lieut. Henry L. Abbot, Corps of Topographical Engineers Upon Explorations for a Railroad Route, from the Sacramento Valley to the Columbia River. *In* Reports of Explorations and Surveys to Ascertain the Most Practicable and Economical Route for a Railroad from the Mississippi River to the Pacific Ocean. U.S. House of Representatives 33rd Congress, 2nd Session, Executive Document #91.

Wilson, R.M., 2002: Directing the Flow: Migratory Waterfowl, Scale, and Mobility in Western North America. *Environmental History*, 7 (2): 247-266.

Works Progress Administration, 1939: *California: A Guide to the Golden State* (American Guide Series, Federal Writers Project). New York: Hastings House Publishers.

Yamanaka, M., 1984: *In* Tateishi, J., editor, *And Justice For All: An Oral History of the Japanese American Detention Camps*. New York: Random House, pp. 113-119.

CHAPTER 7

TOPAZ

Introduction

The Topaz Relocation Center was located at about 39º25' N latitude, 112º46'W longitude, and about 4,580 feet elevation in Millard County of west central Utah (Figure 7.1). The site lies about three miles northwest of Abraham and approximately 11 miles northwest of Delta in the Sevier Desert. Salt Lake City is about a 135 mile drive to the northeast. Topaz was named after Topaz Mountain, a prominent peak approximately 25 miles northwest of the site (Burton et al., 2002). However, the center was officially known as the "Central Utah Relocation Project" and sometimes called the "Abraham Relocation Center"or "The Jewel of the Desert" (U.S. Army–Western Defense Command, 1943; Taylor, 1993; Burton et al., 2002). U.S. highway 50 lies seven miles south of the site and traverses Nevada and Utah.

The following pages address: 1) the physical and human setting in which Topaz was located; 2) why west central Utah was selected for a relocation center; 3) the structural layout of Topaz; 4) the origins of Topaz' evacuees; 5) how Topaz' evacuees interacted with the physical and human environments of west central Utah; 6) relocation patterns of Topaz evacuees; 7) the fate of Topaz after closing; and 8) the impact of Topaz on west central Utah some 60 years after closing.

Physical Setting

Physiography, Geology and Landforms. The Topaz Relocation Center occupied the Great Basin portion of the Basin and Range physiographic province (Fenneman, 1931) (Figure 7.2). The Basin and Range consists of north trending mountain ranges separated by low relief basins. It stretches from southern Oregon and Idaho into northern Mexico, and from eastern California to western Utah (Fenneman, 1931). Topaz lay on a basin floor surrounded by nine small mountain ranges, all within 35 miles of the center. Starting with the ranges to the north and moving clockwise, these include the McDowell Mountains, Gilson Mountains, Canyon Mountains, Pavant Range, Cricket Mountains, House Range, Little Drum Mountains, Drum Mountains, and Thomas Range (Figure 7.3). The basin floor lands of the former relocation center are nearly horizontal. Total relief over the entire center is only about 40 feet, ranging from about 4,600 feet in the south and east to 4,560 feet in the north and west (Figure 7.4). Elevations rise more abruptly just west of the Old River Bed in the foothills of the Little Drum Mountains. The House Range to the west and the Canyon Mountains to the east reach nearly 10,000 feet in elevation.

The geology of the area is relatively youthful consisting of volcanic rocks as well as lake-, river-, and wind-deposited sediments. The approximately three million year old *rhyolite* of Smelter Knolls and 300,000 year old Smelter Knolls *basalt* form the nearest bedrock of the adjacent uplands (Figure 7.5). Lake Bonneville, the largest of western North America's late *Pleistocene*

Figure 7.1. Millard County, Utah and adjacent counties. Adapted from Official Utah Highway Map (1990).

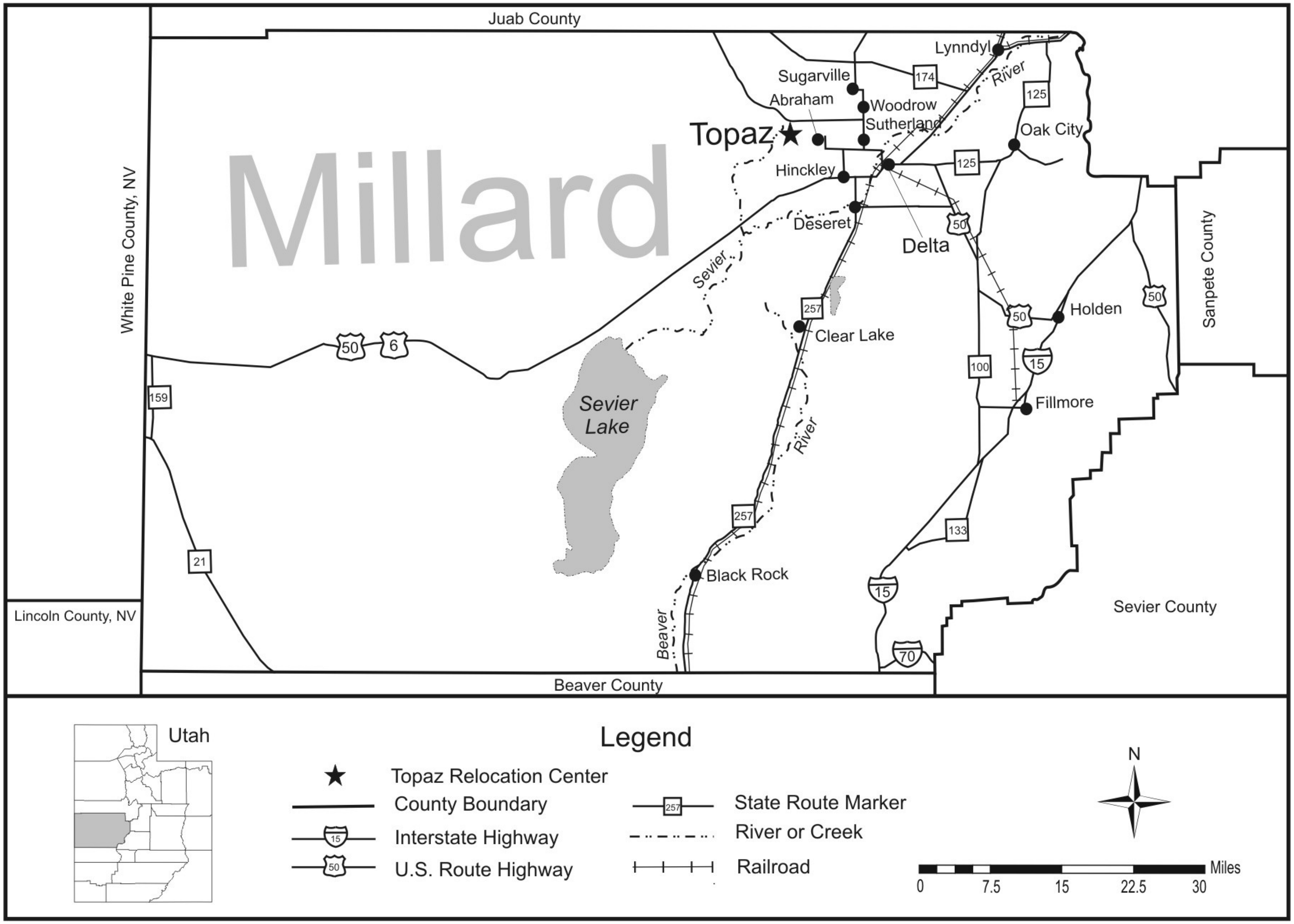


Figure 7.2. Topaz and the Great Basin within the Basin and Range physiographic province. Map adapted from Fenneman (1931, Plate 1).

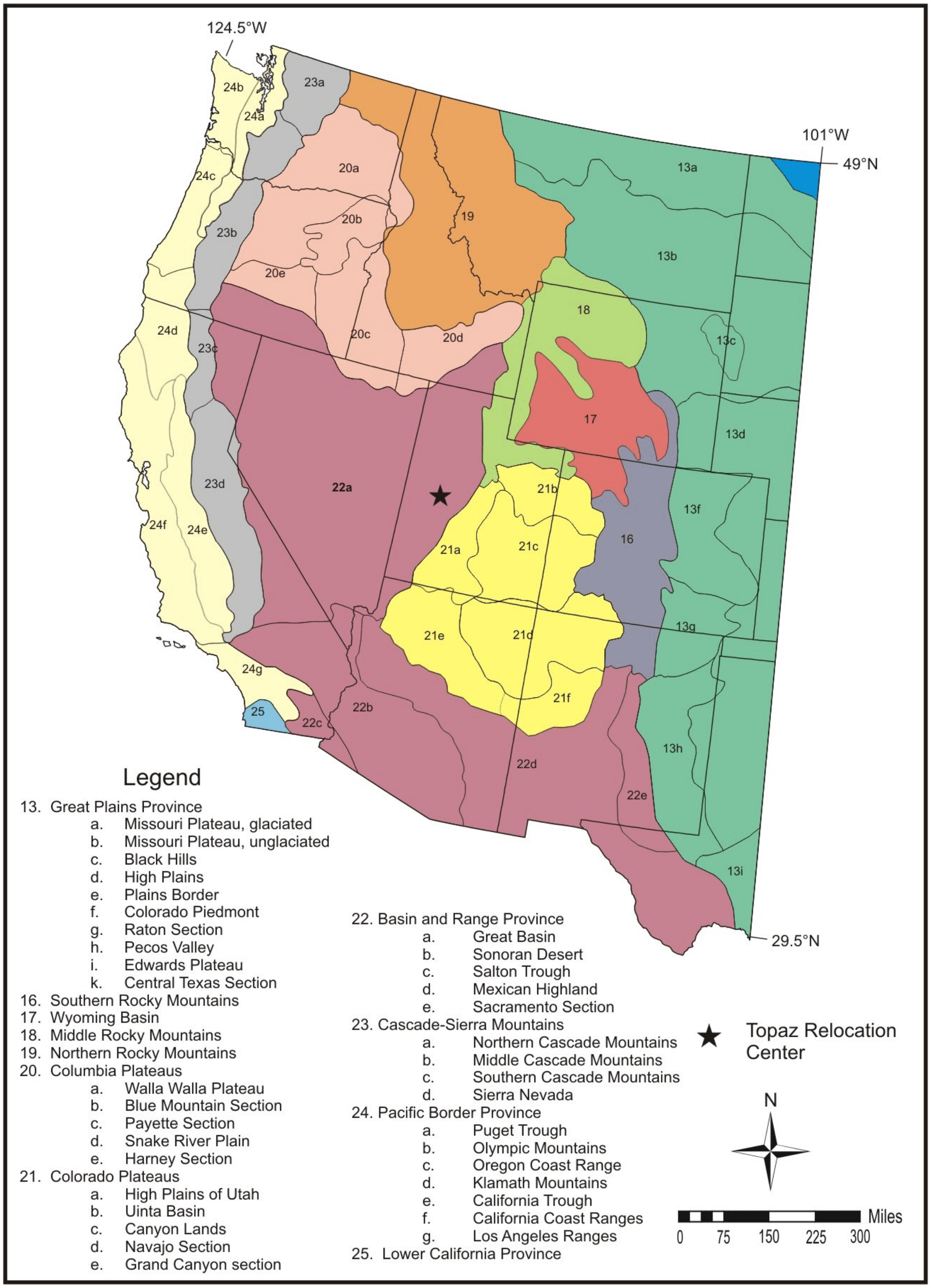


Figure 7.3. Cumulative historical map for Utah's Sevier Desert area including the Topaz Relocation Center.

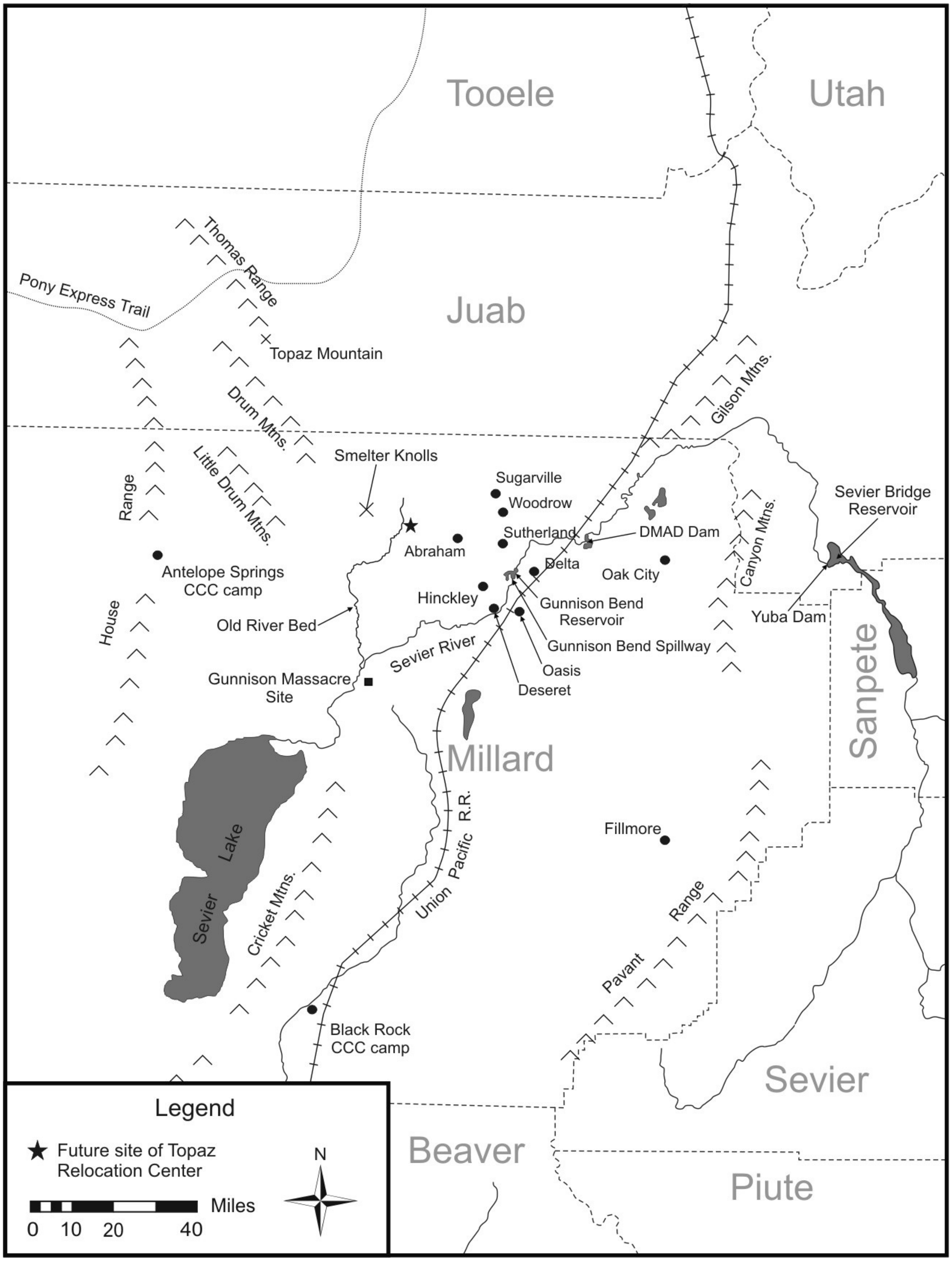


Figure 7.4. Topographic map of Topaz Relocation Center and vicinity. Adapted from U.S. Geological Survey Delta, Utah 1:100,000-scale topographic map (1980). Yellow and blue shaded areas are public lands.

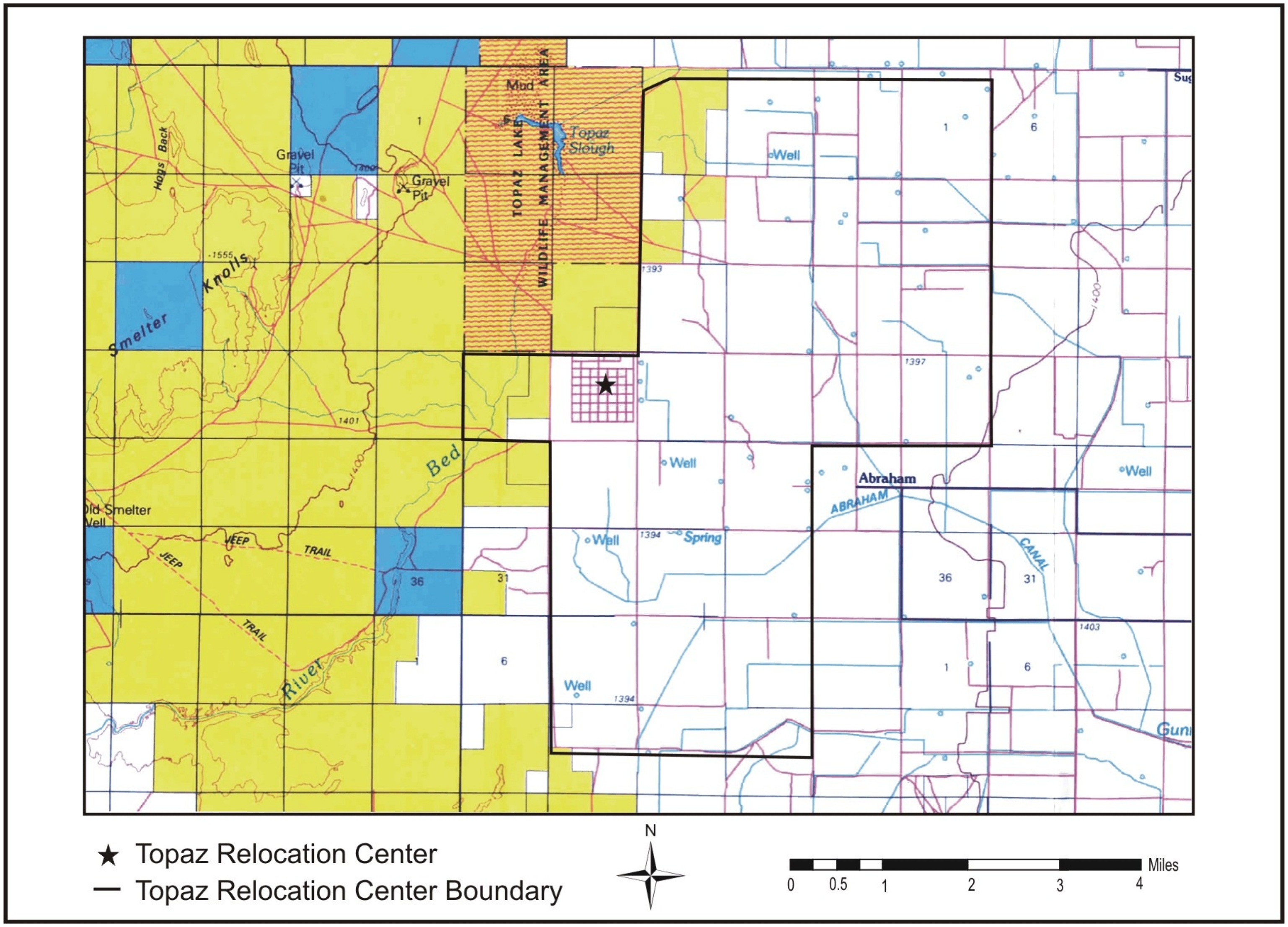
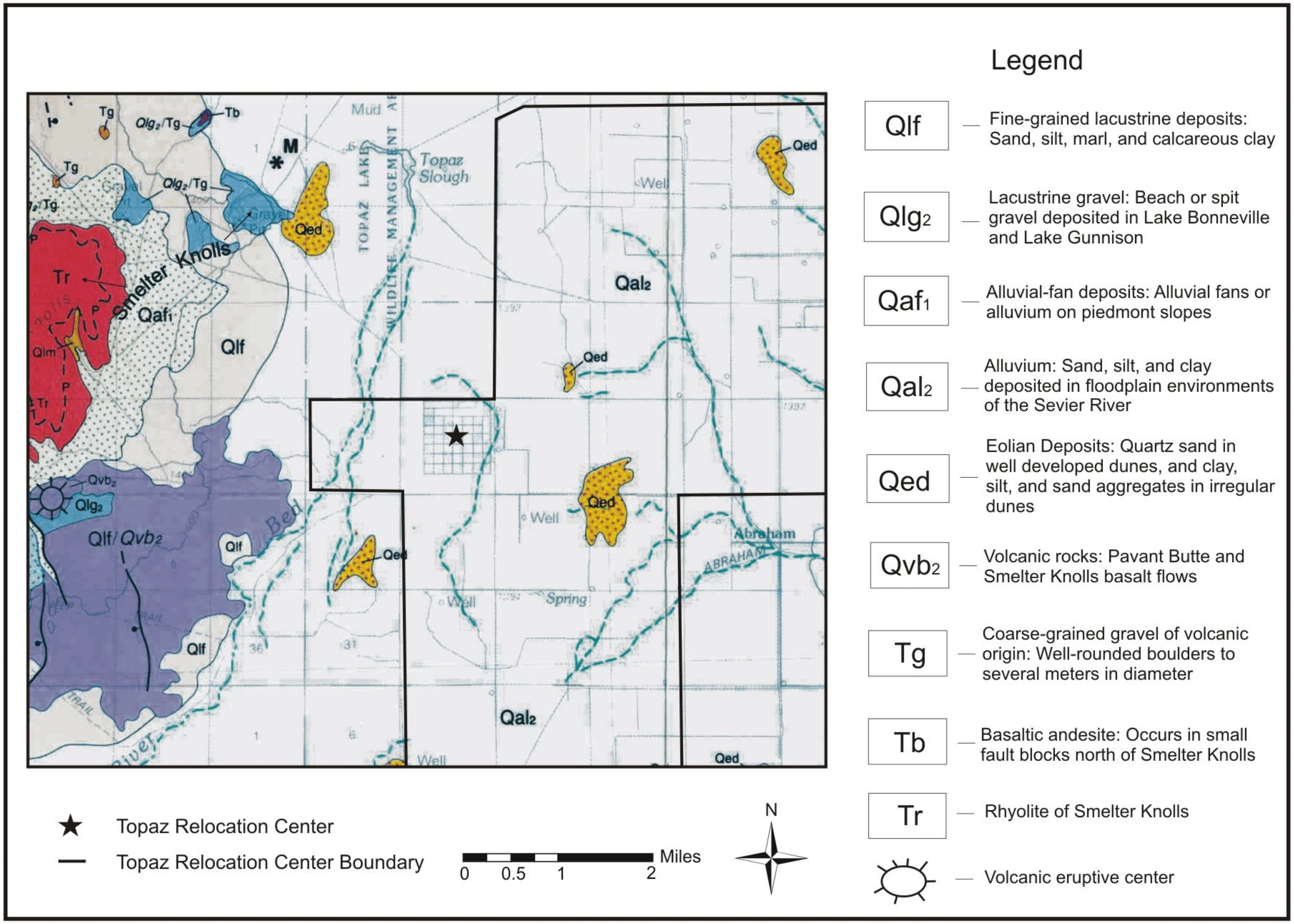


Figure 7.5. Geology of Topaz Relocation Center and vicinity. Adapted from Oviatt (1989).



(i.e., about two million to 10,000 years before present) lakes, inundated this area to an elevation of about 5,090 feet (Oviatt, 1989) (Figure 7.6). Following the Bonneville Flood that flowed down the Snake River drainage (see CHAPTER 5–MINIDOKA), Lake Bonneville's water level dropped approximately 530 feet to a point where it was confined to the Great Salt Lake Basin to the north. A separate lake, Lake Gunnison, occupied the Sevier Lake Basin by shortly after about 12,500 years before present (Currey and James, 1982; Oviatt, 1988). Delta gets its name from the late Pleistocene deltaic sediments deposited during Lake Bonneville's lowering phase (Oviatt, 1989). Lake Bonneville and Lake Gunnison were connected at that time by the northeastward-flowing river in the Old River Bed (Gilbert, 1890; Oviatt, 1989). Lake Gunnison was probably no deeper than 50 feet but covered approximately 770 mi^2 of the Sevier Desert in a shallow lake/deltaic system. At its highest level of 4,560 feet, Lake Gunnison reached the very lowest portions of what later became the Topaz Relocation Center. Subsequent desiccation dropped the lake level below the Old River Bed threshold thus confining the waters to the Sevier Desert and resulting in what has since been known as Sevier Lake. During the *Holocene* (i.e., last 10,000 years), Sevier Lake remained below 4,535 feet (Oviatt, 1988). During this period, the early to late Holocene Sevier River deposited sands, silts and clays in floodplain environments throughout the area. These deposits formed a broad, low gradient alluvial fan that radiates approximately 13 miles north, west, south, and southeast of the fan's apex just north of Delta (Figure 7.1). The alluvial fan is the cause of surface elevations that gently decline to the west and northwest on the lands that subsequently became Topaz. Late Holocene dunes and associated blowouts are scattered throughout as are abandoned channels of the Sevier River thus adding relief to this otherwise planar surface (Oviatt, 1989).

Weather and Climate. The mid-latitude, moderate elevation, continental setting east of the Sierra Nevada and multiple Basin Ranges, and west of the Rockies is characterized by four distinct seasons punctuated by hot, dry summers and cold, dry winters (Figure 7.7). The climate of the area is classified under the Koppen system as Midlatitude Desert (BWk) (Griffiths and Driscoll, 1982).

The mid-latitude setting results in a systematic change in sun angles and temperatures throughout the year (Figure 7.7). The mid-continental location further enhances temperature extremes because of the relatively low *specific heat* (i.e., amount of heat required to raise temperature) of land as compared to water. The intermediate elevations of the site mean that it is generally colder than similar sites at lower elevations (Western Regional Climate Center, n.d.a). The 1931-1960 average January temperature at Deseret about 10 miles southeast of Topaz was 26ºF while the average July temperature was 74ºF. The mean annual temperature during the same period was nearly 50ºF (Western Regional Climate Center, n.d.b). The mountains to the north and east prevent most frigid Arctic air masses from reaching western Utah (Eubanks, 1979; Western Regional Climate Center, n.d.a). Clear skies, combined with moderate elevations and corresponding thinner atmosphere, lead to rapid daytime heating and nighttime cooling. As a result, the area often experiences large daily and annual temperature ranges. The *growing season* (i.e., last 32ºF killing freeze of spring to the first 32ºF killing freeze of fall) at Deseret five out of ten years averages 117 days with the last killing freeze of spring typically occurring around

Figure 7.6. Pleistocene lakes and floods of the Basin and Range, and adjacent areas. Adapted from Williams and Bedinger (1984).

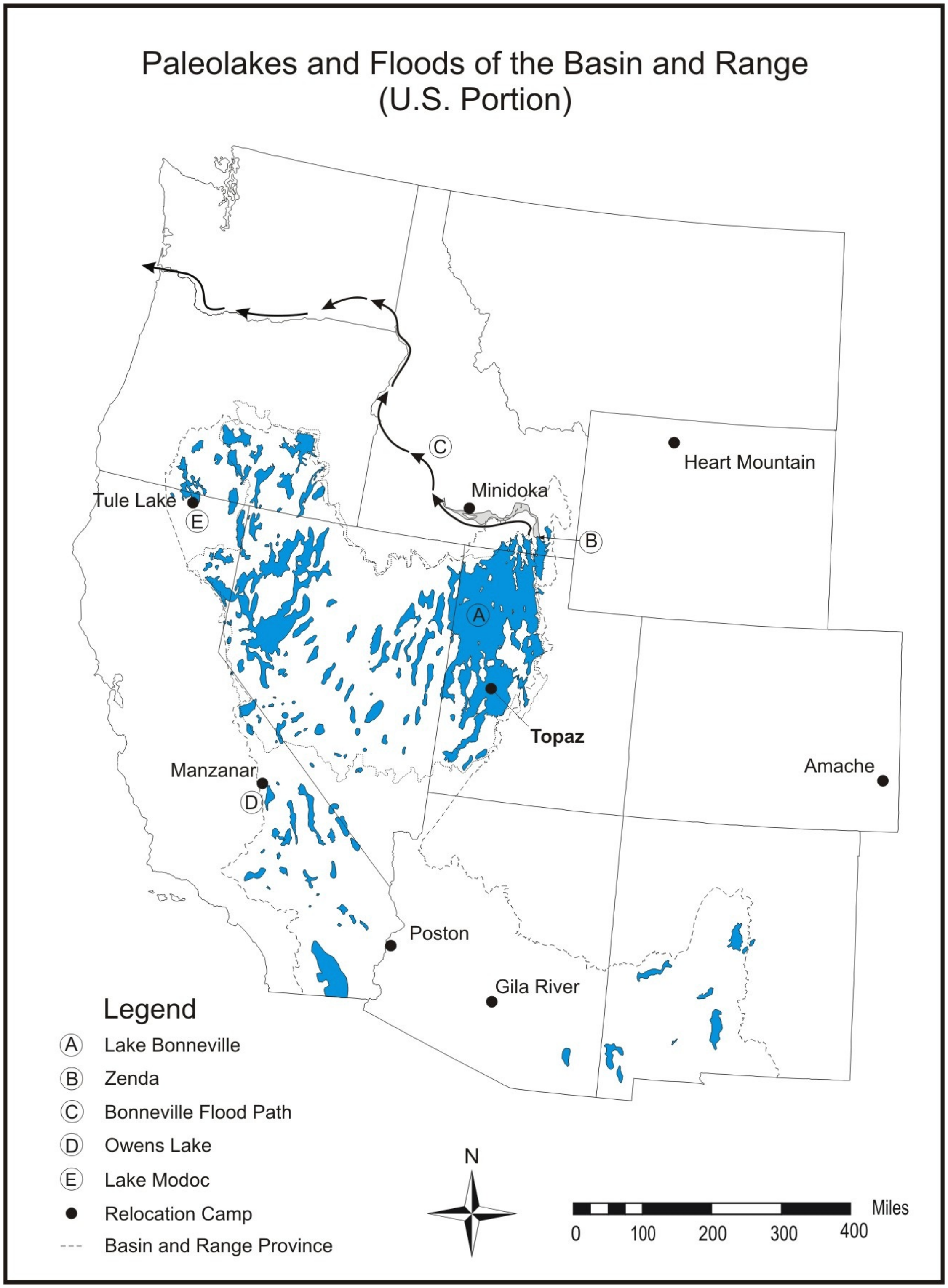
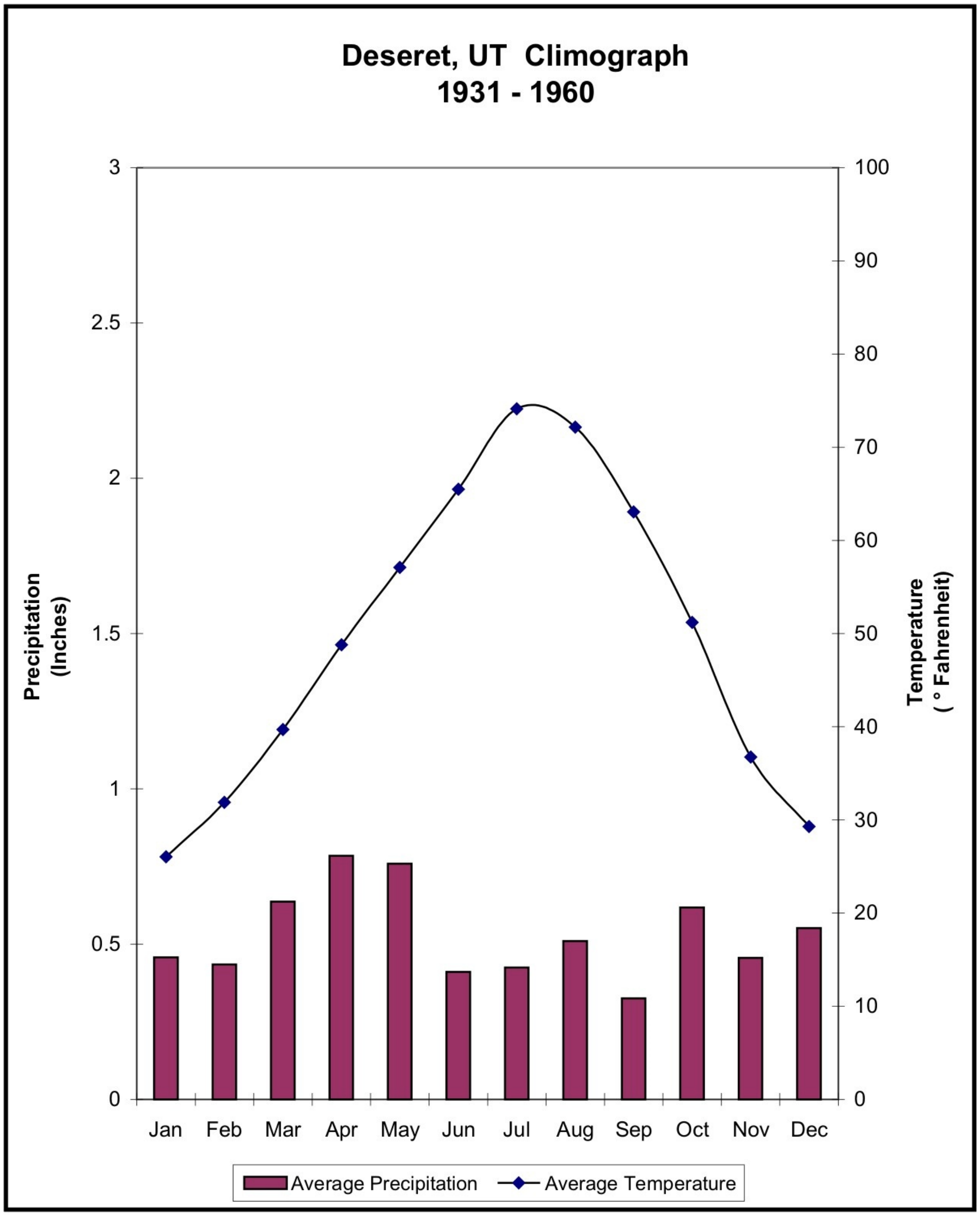


Figure 7.7. Climograph showing 1931-1960 mean temperature and precipitation for Deseret, Utah. Data from Western Regional Climate Center (n.d.b).



23 May and the first freeze of fall near 19 September (Western Regional Climate Center, n.d.b).

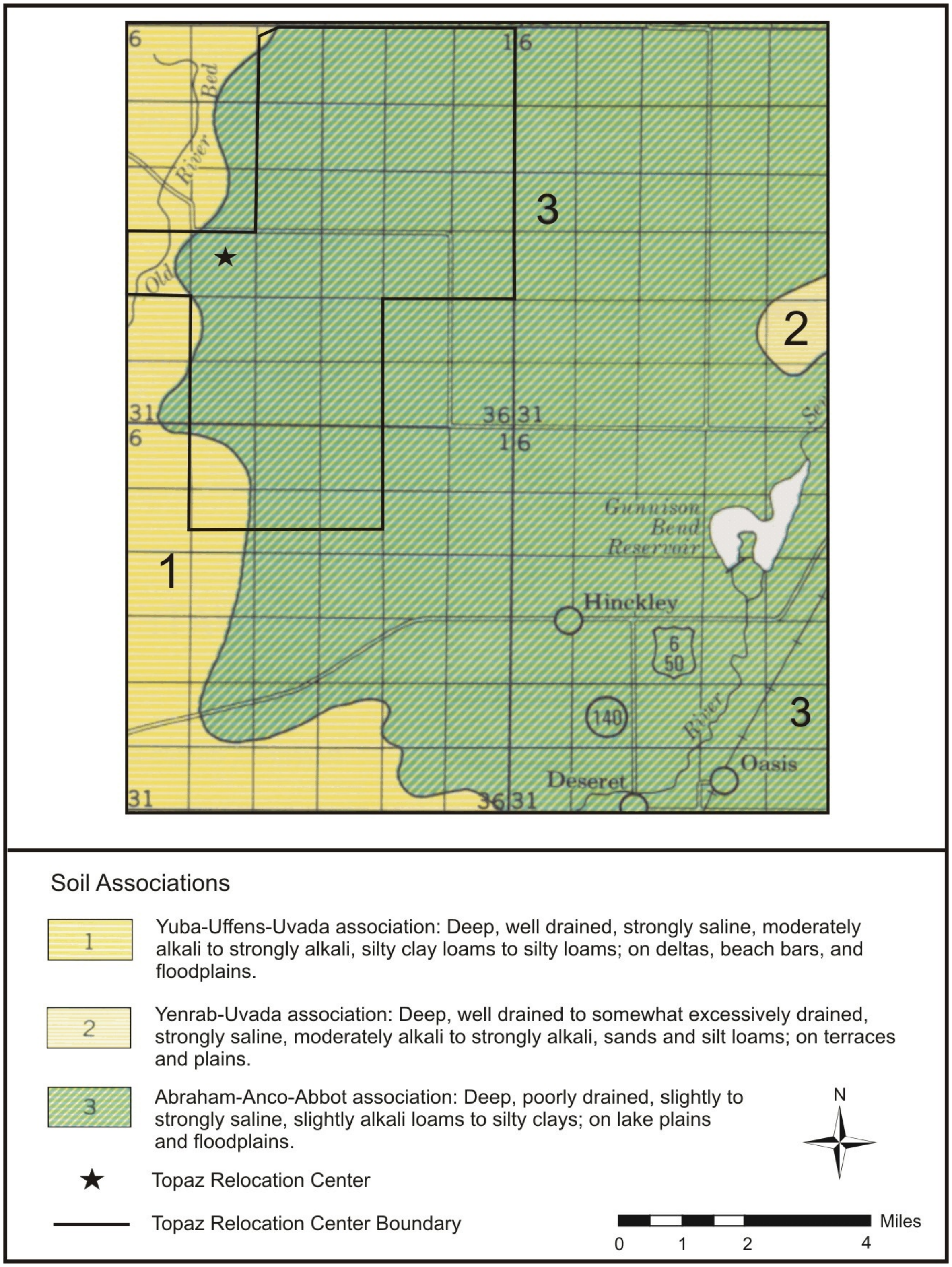
Annual precipitation was approximately 6.4 inches/year in Deseret (Figure 7.7) during the period 1931-1960 (Western Regional Climate Center, n.d.b). Unlike the temperature data, precipitation does not display a strong seasonal pattern. No single month averaged more than one inch of precipitation during the 1931-1960 period (Western Regional Climate Center, n.d.b). Because of cool to cold conditions, much of the winter precipitation falls as snow. Snowfall averaged approximately 18 inches/year (Western Regional Climate Center, n.d.b) during the period 1931-1960. The general aridity of the site is the result of the location inland of the Cascade Range, Sierra Nevada Range and the Basin Ranges to the west, and the fact that moist Pacific air masses must traverse these ranges before arriving in the eastern Great Basin. By the time they arrive in the vicinity of Delta, these air masses have taken on much of the character of the land beneath them–i.e., hot and dry in the summer and cold and relatively dry in the winter. Fall and early winter precipitation results from frontal systems. Spring precipitation is associated with the passage of fronts and stagnating (i.e., cutoff) upper level lows (Richardson, 1977). Summer precipitation is primarily associated with thunderstorms that gain their moisture from the subtropical Pacific, Gulf of Mexico, subtropical Atlantic Ocean, and from moisture evaporated from the ground surfaces (Paulson et al., 1991). As in other semi-arid settings, variability in precipitation is the norm here (Dutton, 1962). Precipitation has varied significantly from year to year–i.e., 11 inches in 1941 to 2.8 inches in 1950, Of particular interest during the 1931-1960 period was the significant drought of 1930-1936 (Paulson et al., 1991). With annual evaporation at about 44 inches/year, it is no surprise that crops need irrigation, and that salts build up in soils as a result of these evaporated waters (see below) (Meyers, 1962).

Winds are a regular occurrence in the Sevier Desert. The average wind direction in most months is from the south but with the passage of winter fronts, winds often shift to the northwest. The highest wind speeds are typically associated with the passage of late fall-early winter fronts or summer thunderstorms (Richardson, 1977; Sherm Tolbert, oral communication, 23 June 2003). Winds are likely directed by the north-south trending mountain ranges in the area.

Soils. The soils of the Sevier River fan/delta are a function of the five soil forming factors–i.e., parent material, topography, climate, biota, and time. Parent materials are primarily floodplain, alluvial fan, deltaic, and lake sediments thus are fine-textured (i.e., silty clays to loams) and deep (more than 60 inches). As a result of the low relief and generally fine texture, some of the soils are poorly drained. Poor drainage combined with the area's arid climate concentrates salts via evaporation so soils are alkaline and/or saline. The native desert scrub vegetation means that little organic matter accumulates atop or within the soils. The geologically youthful nature of the Sevier River alluvial fan and the Old River Bed have provided little time for soil development.

In those places of poor drainage, hence less leaching and weathering processes, the resulting immature soils are *entisols* (e.g., Abbott, Abraham, Anco, Penoyer, Poganeab, and Toddler series) (Figure 7.8). Conversely, *aridisols* (e.g., Drum, Uffens, and Uvada series) form in well-drained areas where more soil formation occurs (Stott, 1977). Most of the irrigable soils (i.e., Abraham, Anco, Drum, Penoyer, and Poganeab) are Land Capability Classification (LCC) IIw soils that have some limitations because of excess water that may reduce crop choices or require modest conservation practices. Non-irrigable soils (Toddler, Uffens, Uvada, and Yenrab) are all LCC VIIs soils with severe cropping and grazing limitations due to alkalinity and salinity (U.S. Natural Resources Conservation Service, n.d., Part 6.22).

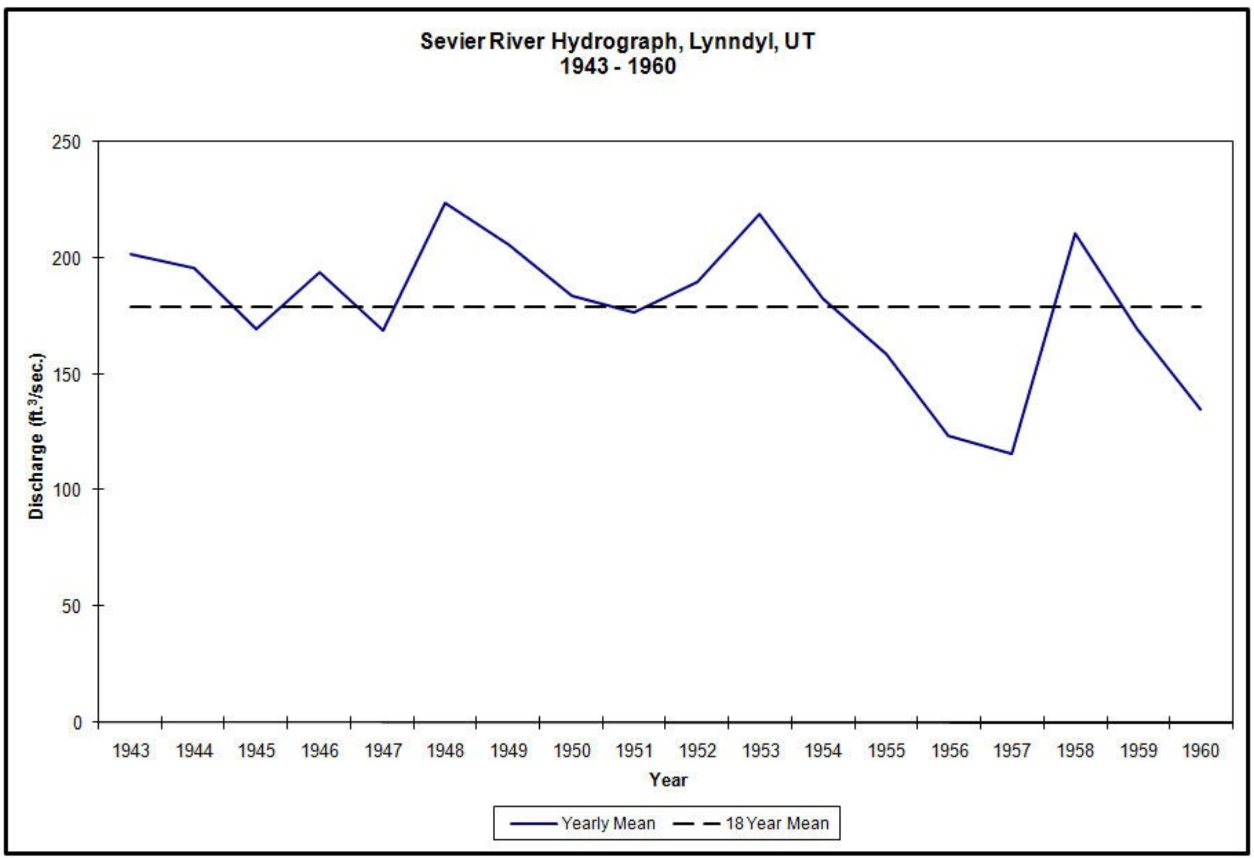
Figure 7.8. Soils of the Topaz Relocation Center and vicinity. Adapted from Stott (1977).



Water. The lands of the Topaz Relocation Center are situated in the Sevier River Watershed. The Sevier River originates in the Markagunt Plateau and Pink Cliffs area of southcentral Utah. Lying within the hydrologic Great Basin, the Sevier River does not drain to any of the oceans; instead, it flows north, west, and finally south to terminate in the Sevier Desert, seasonally forming Sevier Lake (Figure 7.3). Sevier River discharge at Lynndyl over the period 1943-1960 averaged 179 cubic feet per second with higher than average discharge occurring in 1943 and 1944, and lower than average occurring during 1945 (U.S.G.S., n.d.) (Figure 7.9). Sevier River water at Lynndyl, with an average *specific conductance* of 2,790 micromhos and the *sodium-absorption ratio* of 40, had a high salinity hazard and a very high sodium hazard (U.S. Department of Agriculture, 1954; U.S. Geological Survey, 1955).

In prehistoric times, *distributary channels* of the Sevier River formed when the river left the confines of the canyon just north of Delta thus enabling the development of the broad alluvial fan on which much of the relocation center subsequently occupied. However, irrigated agriculture has redirected the flow of the Sevier River and farming practices have largely erased these former channels. Irrigation canals and ditches emanating from Gunnison Bend Reservoir (Figure 7.3)

Figure 7.9. Mean annual discharge for the Sevier River at Lynndyl, Utah, 1943-1960. Data from U.S. Geological Survey (n.d.).



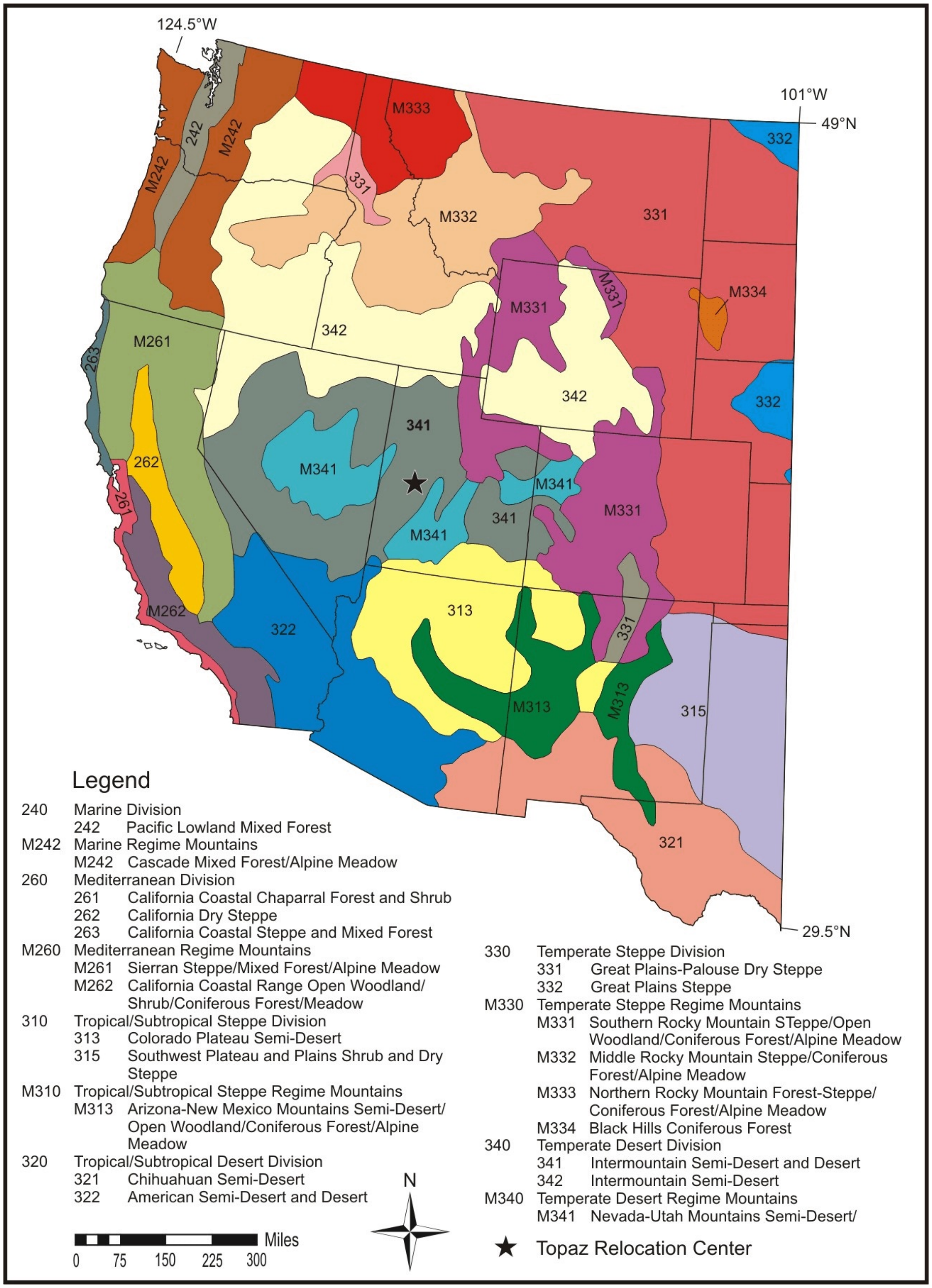
now dissect much of the land that subsequently became part of Topaz Relocation Center. The Old River Bed on the margins of these lands seasonally carries water south to Sevier Lake. Sevier Lake was a dry to shallow lake from 1880 through the period of occupation at Topaz (Paulson et al., 1991).

The primary aquifer for Sevier Desert groundwater is the gravel, sand, silt, and clay filling the basin as a result of previous stream, lake, and wind action. Groundwater in the area is recharged by precipitation and irrigation, infiltration from streams and irrigation canals, flow from the consolidated rocks of the area, and flow from other groundwater basins. Groundwater flow on the gently sloping alluvial fan that originates near Delta generally parallels that of the topography. Specific conductance of groundwater from three wells in the vicinity of Topaz ranged from 601 to 1,050 micromhos These are classified as medium to high salinity hazards for irrigation (Mower and Feltis, 1968). Additionally, Baker Hot Springs, a natural geothermal area, lies approximately 18 miles north of Topaz at the toe of a recent volcanic eruptive center.

Biota. Topaz lies in the Intermountain Semi-Desert and Desert Ecoregion (Bailey, 1994, Plate 1) (Figure 7.10). Vegetation patterns in the area are a function of climate and associated soil moisture, soil chemistry, and human land uses. Three general groupings of vegetation are found in the area – *xerophytes* (i.e., plants adapted to low amounts of moisture), *hydrophytes* (i.e., plants adapted to growing in water or in saturated soils), and *phreatophytes* (i.e., plants adapted to high amounts of moisture). Shadscale (*Atriplex concertifolia*) and sagebrush (*Artemisia* spp.) are the dominant xerophytes of the area and may occur with antelope bitterbrush (*Purshia tridentata*), spiny hopsage (*Atriplex spinosa*), and horsebrush (*Tetradymia canescens*) (Mower and Feltis, 1968; Bailey, 1995). Sagebrush is especially common on the slopes adjacent to the relocation center. In those portions of the area where standing water is present (e.g., Topaz Slough just north of the former residential portion of the center) (Figure 7.4), hydrophytes such as cattails (*Typha* spp.), bulrush (*Scirpus* spp.), and watercress (*Rorippa nasturtium-aquaticum*) may be found. Phreatophytes in the area include greasewood (*Sarcobatus vermiculatis*), saltgrass (*Distichlis stricta*), pickleweed (*Allenrolfea occidentalis*), and saltcedar (*Tamarisk gallica*), all of which prefer saline conditions. Saltcedar, an invasive species that tends to choke out more ecologically beneficial native species such as willow (*Salix spp.*) and cottonwood (*Populus spp.*), likely showed up first in the Sevier River Basin as an ornamental plant on homesteads. It has been in the Sevier River Basin since at least 1950 (Mower and Feltis, 1968).

Mammals of the area include mule deer (*Odocoileus Hemionus*), pronghorn antelope (*Antilocapra americana*), ground squirrels (*Spermophilus* spp.), jackrabbits (*Lepus* spp.), kangaroo mice (*Microdipodops* spp.), and wood rats (*Neotoma* spp.). Predators such as coyotes (*Canus latrans*), kit foxes (*Vulpes macrotis),* mountain lions (*Puma concolor*), bobcats (*Lynx rufus*), and badgers (*Taxidea taxus*) may be found here. The area is also home to a variety of bird life including burrowing owls (*Athene cunicularia*), American kestrel *(Falco sparverius*), golden eagle (*Aquila chrysaetos*), ferruginous hawk (*Buteo regalis*), ravens (*Corvus corax*), various other western hawks, and sage grouse (*Centrocercus* spp.) (Bailey, 1995).

Figure 7.10. Ecoregion map showing Topaz' location within the Intermountain Semi-Desert ecoregion province. Adapted from Bailey (1995, Foldout Map).



Human Setting

Race, Ethnicity, and Religion. The lower Sevier River lies in the Great Basin Culture Area. The Utes, Southern Paiute, and Western Shoshone who occupied or at least traveled through these lands on a seasonal basis were mostly small game hunters and plant resource gatherers (Waldman, 2000). At the time of EuroAmerican contact, Utes inhabited the area (Simpson, 1983). The particular band of Utes that occupied the Sevier Lake area were known as the Pahvants, most of whom were relocated to the Uintah Reservation in northeastern Utah in the 1870s as conflicts increased between them and the incoming members of the Church of Jesus Christ of Latter Day Saints (i.e., the Mormons). Some remain in their traditional lands living in small settlements southeast of Delta near Kanosh and Koosharem (Callaway et al., 1986).

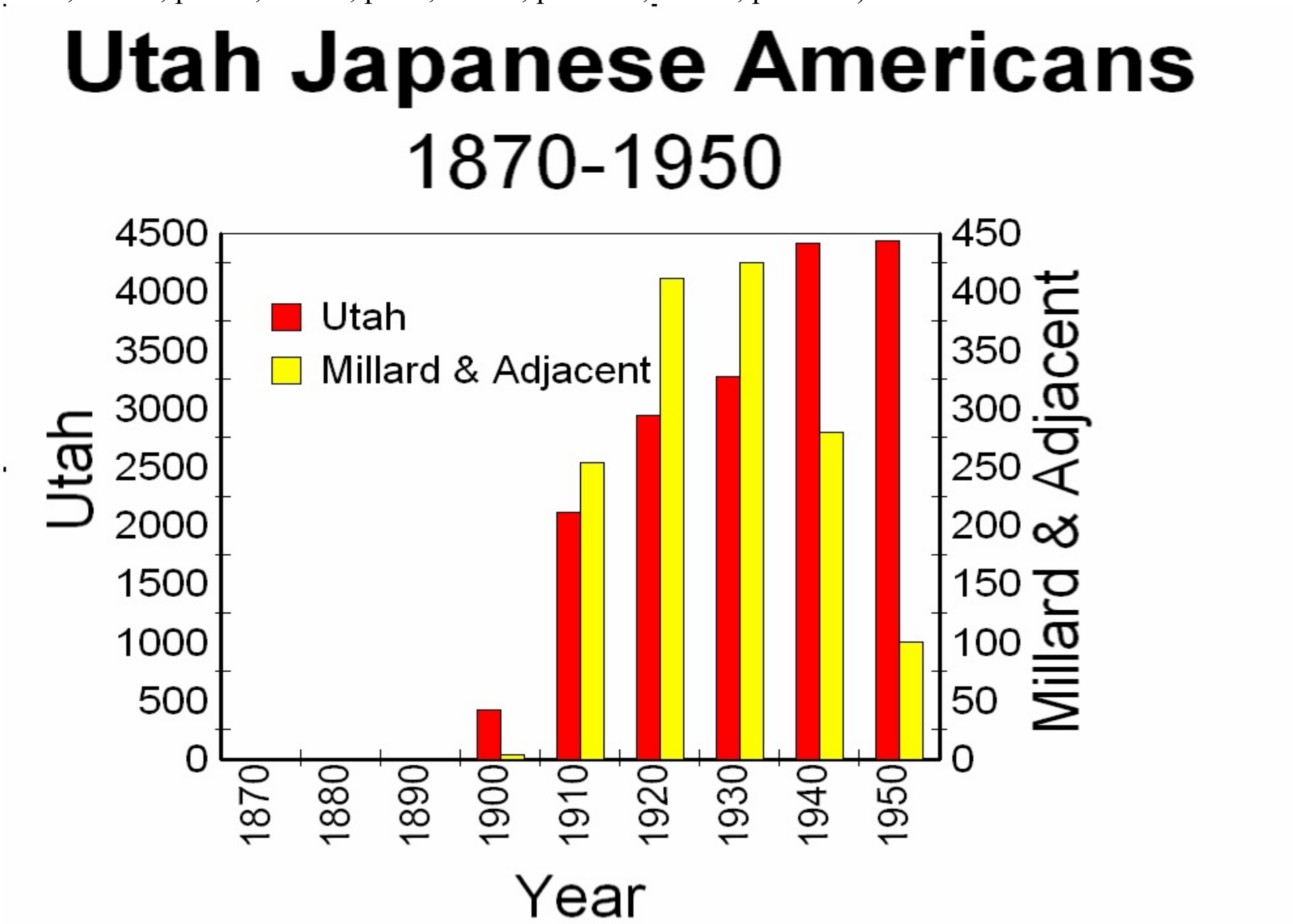
The dominant non-Native American group to settle the Sevier River alluvial fan area were the Mormons who were largely Caucasians of European descent. Mormons first arrived in Utah in 1847 after departing Illinois and Missouri because of religious persecution (Works Progress Administration, 1941).

Persons of Japanese descent apparently first visited Utah when a Japanese acrobatic group performed in Salt Lake City in Spring 1870 (Butler, 1998). The first Japanese American immigrants to Utah were Japanese female prostitutes who moved from Butte, Montana to Ogden in about 1890, and later to Salt Lake City (Papanikolas and Kasai, 1976; Iwata, 1992). Japanese male railroad and mine laborers soon followed. In 1905, 76% of Utah's Japanese labor force was involved in railroads and another 10% worked in mining, especially at the Bingham copper mines near Salt Lake City and the coal mines in east central Utah's Carbon County (Papanikolas and Kasai, 1976; Cederlof, 1985; Iwata, 1992). By the early 1900s, Salt Lake City had established itself as the economic and cultural center of Utah Japanese with its own *Nihonmachi* (i.e., Japantown) established early on (Papanikolas and Kasai, 1976; Taylor, 1993). Ogden was also a significant Japanese center (Walz, 2001).

Soon after their arrival, many Japanese laborers began shifting to farming, especially in northern Utah. The first Japanese American agricultural labor gang came to Utah in 1903 to farm sugar beets (Iwata, 1992; Walz, 2000). By 1910, Japanese farm acreage mostly consisted of sugar beets (88%) but vegetable farming was increasing in importance. Japanese Americans were raising 75% of the Utah Canning Company's tomatoes by 1920 (Iwata, 1992). Of particular note were the nationally renowned celery and strawberries Japanese American farmers raised in the counties along the west face of northern Utah's Wasatch Range (Papanikolas and Kasai).

The Japanese American population in Utah climbed dramatically over time–from 4 in 1890 to 4,409 50 years later (Figure 7.11). On the eve of the Pearl Harbor bombing, most Japanese Americans were concentrated in the northern Utah counties on the Wasatch Front–Box Elder, Weber, Davis, Salt Lake, and Utah counties (Arrington, 1986). Millard County's Japanese American population was non-existent before 21 were recorded in the 1910 census. They reached their peak in 1920 (66), then fell to 16 by 1940 (U.S. Bureau of the Census, 1913; 1922;

Figure 7.11. Persons of Japanese descent in Utah, 1870-1950. Data from U.S. Census Bureau (1901, 572) and U.S. Bureau of the Census (1913, p. 86, 880; 1922, p. 615, 21; 1932, p. 144, 1104; 1943a, p. 753; 1943b, p. 51; 1952a, p. 28-41; 1952b, p. 44-61).



1932; 1943). The total Japanese American population of Millard County, adjacent Beaver, Juab, Sanpete, and Sevier counties, Utah, and White Pine and Lincoln counties, Nevada generally mirrored the overall Utah pattern rising from 4 in 1900 to 425 in 1930, before dropping to 280 in 1940 (Figures 7.1 and 7.11) (U.S. Census Bureau, 1901; U.S. Bureau of the Census, 1913; 1922; 1932; 1943a; 1943b). A Japanese American businessman owned a sugar beet farm near Delta in the early 1900s. Just prior to the establishment of the Topaz Relocation Center, at least five Japanese American families lived in the Delta area. Three of the families depended on the railroad for their incomes while the other two were farmers (Papanikolas and Kasai, 1976; Taylor, 1993; Jane Beckwith, written communication, 21 March 2007).

Voluntary relocation from the West Coast early in 1942 brought 519 Japanese Americans to Utah (Commission on Wartime Relocation and Internment of Civilians, 1982). Part of this movement reflected a “push factor” of Japanese Americans out of California. However, Utah also presented a “pull factor” to the coastal Japanese because of Utah’s large Mormon population. In a historical sense, Mormons had long admired the Japanese, largely because of similarities in value systems thus it was logical that Japanese Americans would choose to locate to this state. Just prior to the opening of Topaz, a public opinion survey revealed that 66% of the 5,000 Utahns polled approved of a policy allowing citizen Japanese Americans to work outside the relocation centers. It appears that Utahns were more receptive to Japanese Americans than were residents of the other western states (Arrington, 1986). Also, an agricultural labor shortage in the state helped attract voluntary evacuees (Taylor, 1986). Among these were several families who settled along the Green River in Emery County where they farmed and worked on others' sugar beet fields. Although not initially welcomed to the area, they were apparently able to overcome some of the anti-Japanese sentiment (Geary, 1996). The largest voluntary, inland relocation of World War II resulted in 140 Japanese Americans, led by prominent Oakland businessman Fred Wada, settling in the town of Keetley near Park City in Wasatch County in early spring 1942. Colony members created a productive truck garden specializing in lettuce and strawberries in initially rocky, hilly, sagebrush-covered lands. Hay was raised on other lands while the worst lands were used for cattle grazing (White, 1994).

Economic Geography. The economic geography of the lower Sevier River Basin prior to the establishment of Topaz ranged from hunting and gathering to agriculture to transportation. Both of the latter were intimately related to water, either in terms of direct precipitation or Sevier River flows.

The Pahvant Ute subsisted on hunting and gathering. They hunted big game (e.g., deer and antelope), small game (e.g., rabbits and ground squirrels), upland birds, waterfowl, and insects (including cicadas, crickets, and ants). They also likely fished the Sevier River and gathered a variety of berries, roots, seeds, and nuts on adjacent lands (Callaway et al., 1986).

Agriculture has long been the economic mainstay of the area. However, it has taken the focused efforts of the Mormon Church and the U.S. Government to achieve this. Mormons drawn back to Utah during the "Utah War" in 1857-1858, visited the lower Sevier River Valley in spring 1858 (Arrington, 1997). Some of this group settled on the lower Sevier in 1859, built a small earthen dam near the present town of Oasis, and attempted to use the dam to divert water to irrigate adjacent lands (Figure 7.3). Early winter ice floes destroyed the structure (Arrington, 1951). Thus began a nearly 50 year struggle involving at least 12 dams to tame the river and settle the lower Sevier area. Settlement of the area ebbed and flowed with the fortunes of the dams and their related irrigation canals.

The construction of a dam on the lower Sevier River in 1860 led to the founding of the town of Deseret. By 1861, 142 families had settled there (Ridd, 1963). Unfortunately, this dam washed out in 1861 as did dams in 1862, 1863, and 1868. The 1868 dam failure caused discouraged settlers to move to the Oak Creek area to found Oak City (Figure 7.3). Between 1868 and 1874, the area was only seasonally occupied by stockmen wintering their animals (Arrington, 1951). Non-Mormons from the Tintic Mining District to the north began building a new dam in spring 1875 near the location of the previous failed dams. Soon after, they sold out to a group of

Mormons who completed a new dam later that spring. Dam failure occurred in 1881, and again in 1881-1882, and 1884. Subsequently, the Gunnison Bend Dam was constructed about three miles north of Oasis impounding the Gunnison Bend Reservoir (Ridd, 1963) (Figure 7.3). Its survival set the stage for long-term settlement and farming along the lower Sevier River. Abraham, about 3 miles southeast of the residential portion of the subsequent relocation center, originated in 1892 after the Deseret and Salt Lake Agricultural and Manufacturing Company had constructed an irrigation system and cleared lands in the area (Figure 7.3). Each of the dam rebuilds and associated canal systems was assisted directly or indirectly by the Mormon Church (Arrington, 1951).

In 1902, the Deseret Reservoir and Irrigation Company began to build a large earthen dam about 60 miles upstream of Deseret that would be known as the Sevier Bridge Dam thus impounding the Sevier Bridge Reservoir (Figure 6.3). This dam was completed by 1909, and its reservoir would provide water storage for the dry season and flood control in the wet months for the lower Sevier. The Sevier Bridge Dam (later named the Yuba Dam) was subsequently raised and the reservoir capacity was more than doubled by 1916 (Arrington, 1951; Ridd, 1963).

The final large component of the lower Sevier irrigation system–the DMAD Dam and Reservoir–was constructed as a joint venture of the Delta, Melville, Abraham, and Deseret irrigation companies (hence the name "DMAD") about six miles upstream of Delta (Figure 7.3) following the failure of two dams just north of Delta in 1909 and 1910 (Ridd, 1963). The impetus behind the dam was the 1894 Carey Act which allowed states to obtain up to 1,000,000 acres of undeveloped, arid, federal lands within their borders then partner with private entities to develop these lands for irrigated agriculture development. In 1908, 43,120 acres in the area had been set aside by provisions of the Carey Act to receive government assistance in reclamation and irrigation (Ridd, 1963). The North Tract, one of two tracts of these Carey Act lands, included the lands of the subsequent Topaz Relocation Center.

Delta, too, owes its existence to the Carey Act as it was founded in 1907 by a group of investors who were looking to capitalize on the impounded waters of the Sevier to irrigate lands on the Sevier River alluvial fan. The town was first named "Melville" and later "Burtner" before being named Delta (Lyman, n.d.). The nearby Sugarville area was opened for settlement in 1908 (Stevenson, 1978).

Irrigation and high evaporation rates led to waterlogging and salinization problems in the area, beginning first in the lowest elevation and earliest irrigated lands. Soon after 1900, the lands adjacent to Deseret, Abraham, Oasis, and Hinckley had become so saline that crops repeatedly failed. Abraham was nearly abandoned by 1905 (Arrington, 1951). Ten years later, waterlogged soils and associated salinization problems began to appear in Sugarville (Stevenson, 1978). The remaining farmers worked to put drainage channels in place to drain excess waters and salts from the soils. They also switched to more alkaline-tolerant crops such as sugar beets as one way to adjust for increasingly saline soils. Drainage system costs, combined with a 1920s dry period, insect infestations in alfalfa fields, and a sugar beet blight were too much for many farmers who subsequently lost title to their lands. As farmers defaulted on their loans and bondholders refused to pay state and county taxes, the county ended up with much of the land in the area of the future Topaz Relocation Center (Ridd, 1963; Stevenson, 1978).

Amelioration of drought conditions in 1936, combined with a court ruling that permitted private individuals to regain title to much of the useful land, led to agricultural revitalization of the area (Ridd, 1963). Electricity and indoor plumbing reached the Abraham area in 1938 (Sherm Tolbert, oral communication, 23 June 2003). Grains, alfalfa, and alfalfa seed replaced sugar beets in the local economy (Stevenson, 1978). Alfalfa grown here was ground for poultry feed and shipped elsewhere in Utah and to California (Harold Taylor, oral communication, 23 June 2003). By 1940, nearly 25% of the alfalfa seed grown in the U.S. was grown in the Delta area (Works Progress Administration, 1941).

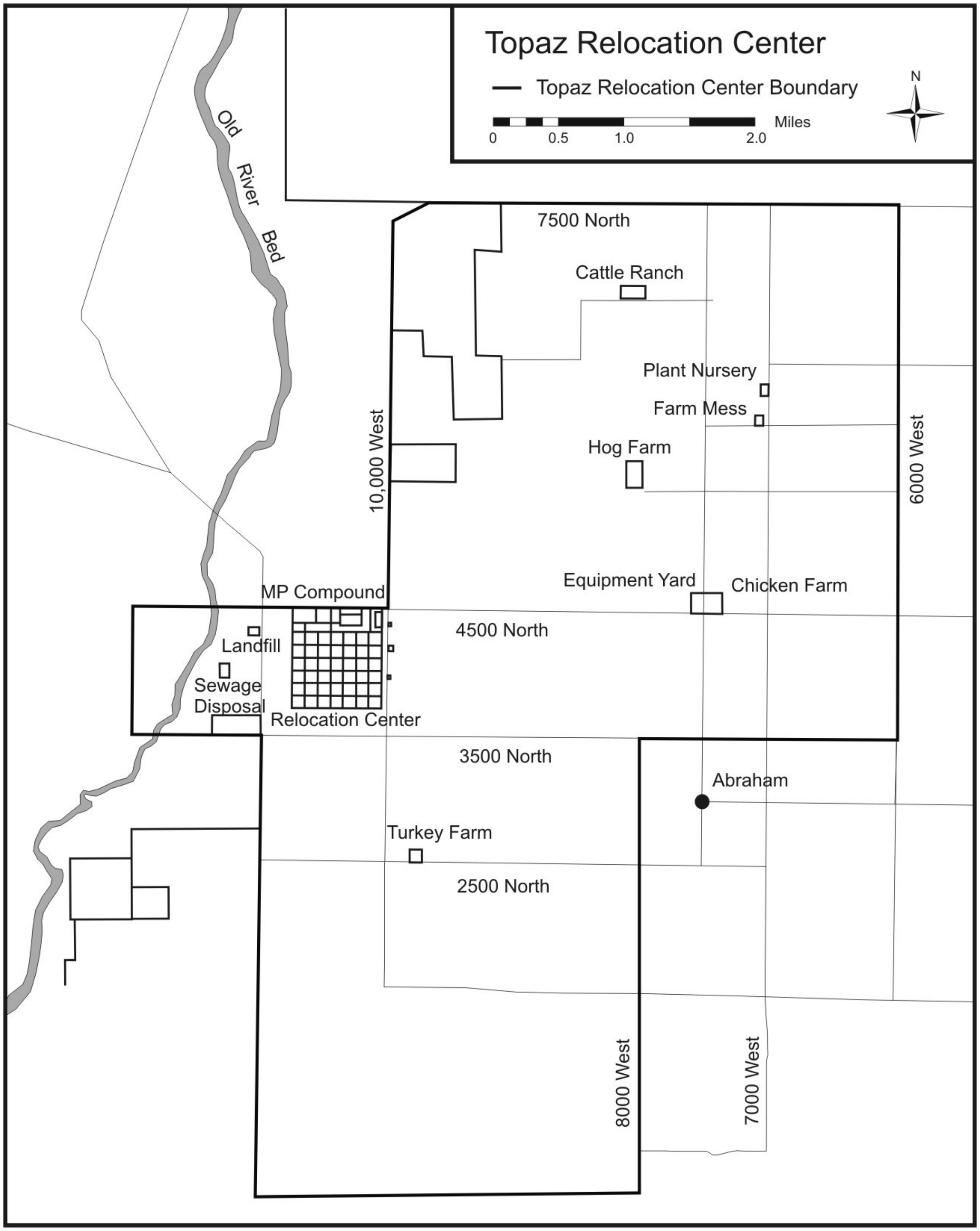
The lower Sevier River Valley has also served as a transportation corridor over time. While the area was generally off the beaten path of the early explorers, Father Escalante, in 1776, was the first to describe the Sevier River calling it the "Santa Ysabel" (Simpson, 1983,). He also referred to the valley as "Valle Solado" or Valley of Salt presumably in reference to the saline and alkaline soils of the area (Arrington, 1997). An early Mormon route passed through the area although subsequent routes across the Great Basin primarily passed to the north of area (Simpson, 1983). Captain E.G. Beckwith, after the massacre of his superior Captain Gunnison and seven of his men on the Sevier River by Pahvant Indians in October 1853, explored a route for a railroad in the area (Works Progress Administration, 1941; Simpson, 1983). By 1905, the San Pedro, Los Angeles and Salt Lake City railroad had constructed a line through Delta thus connecting Ogden, Utah with Los Angeles. This line became part of the Union Pacific Railroad in 1921 (Lyman, n.d.; Utah Rails, n.d.). As of 1940, Delta was served by the railroad as well as U.S. highway 6 that, depending on the section, was paved, oiled, or graveled (Works Progress Administration, 1941).

Around 1940, Delta was a town of 1,183 dependent on farming and small mines for its economic mainstay. Secondary communities in the area were Hinckley (678 population) and Deseret (411 population) (Works Progress Administration, 1941). Sutherland was perhaps the size of Deseret at that time but Abraham consisted only of a handful of families (Jane Beckwith, written communication, 21 March 2007).

Why this Location?

Because it lay outside the military exclusion zone, Utah was likely chosen as a state in which to site a relocation center. The U.S. Government's first choice for a relocation center site was in the Canyon Mountains east of Delta and south of Oak City (Figure 7.3). However, the site near Abraham was chosen in June 1942 at the urging of local citizens who wanted to use evacuees as an agricultural labor force to replace the young men who had gone to war (Figure 7.12) (Jane Beckwith, oral communication, 23 June 2003; U.S. National Park Service, n.d.). Another consideration was the large amount of available land near Abraham and the availability of Sevier

Figure 7.12. Overall map of the Topaz Relocation Center. Adapted from Burton et al. (2002, p. 260).



River irrigation water for these lands. Although the Union Pacific Railroad came through Delta and gravel roads connected Delta to the proposed site, the center was sufficiently isolated as to not pose a threat to Delta and the surrounding small communities.

The proposed relocation center site consisted of a mix of public and private lands. Of the 18,840 acres in the project, 1,400 were public lands, 8,840 were owned by Millard County as a result of non-payment of taxes in the 1930s, and 8,600 acres were privately held. Among the private acres were 60 different owners and 13 farmsteads. Approximately 3,800 acres were in cropland (i.e., alfalfa, grains, and sugar beets) prior to the U.S. Government obtaining the land. The remainder was former crop, pasture or farmstead lands that was primarily covered with greasewood and salt grass (U.S. Army–Western Defense Command, 1943; Palmer, 1945; Arrington, 1997; Sherm Tolbert, oral communication, 23 June 2003). Te landscape between Delta and the main portion of the relocation center was covered with alfalfa fields and greasewood brush when the evacuees arrived in late summer/early fall 1942 (Okubo, 1983). Some debate exists as to whether the lands of the main portion of Topaz had ever been farmed (Sherm Tolbert, oral communication, 23 June 2003; Jane Beckwith, written communication, 21 March 2007).

The U.S. Government paid Millard County $1/acre for the land (Arrington, 1997). Residents were forced to sell their lands to the U.S. Government at fair market value (Sherm Tolbert, oral communication, 23 June 2003). In addition, the Government purchased 19,971 shares of Sevier River water that would be delivered from the Gunnison Bend Reservoir by the Abraham, Delta and Deseret canal companies (Ota, 30 September 1942; Palmer, 1945).

Building Topaz

A crew of 800 men began construction on 10 July 1942. The center was sufficiently (approximately 66%) done to open on 11 September 1942; however, it was not fully complete until January 1943. Initial construction cost nearly $4 million with another $1 million spent on subsequent structures and improvements (Arrington, 1997; Burton et al., 2002). Construction of the center caused significant economic growth in the area (Harold Taylor, oral communication, 23 June 2003). Over 620 buildings were constructed during the center's life (Figure 7.13). While most of these buildings were constructed with new materials on-site, some of Topaz' buildings were recycled from Civilian Conservation Corps (CCC) camps at Antelope Springs and Black Rock as well as Callao at the eastern base of western Utah's Deep Creek Range and Grand Junction, Colorado (Figure 7.3). The Antelope Springs buildings were ultimately used as the Christian and Buddhist churches at Topaz (Staff, 12 January 1943; Staff, 13 May 1943; Staff, 6 October 1943; Kelsey, 1996; Burton et al., 2002).

Topaz consisted of the evacuee residential area plus administration, staff housing, military police, hospital, maintenance, motor pool, and warehouse areas (Figure 7.13). Also included within the evacuee residential area were a variety of services including post office, fire station, community auditorium/gymnasium, schools, libraries, churches, athletic fields, and a community garden plot. The main portion of the center was surrounded by a barbed wire fence punctuated by guard

Figure 7.13. Detailed map of the central portion of the Topaz Relocation Center. Adapted from Burton et al. (2002, p. 261).

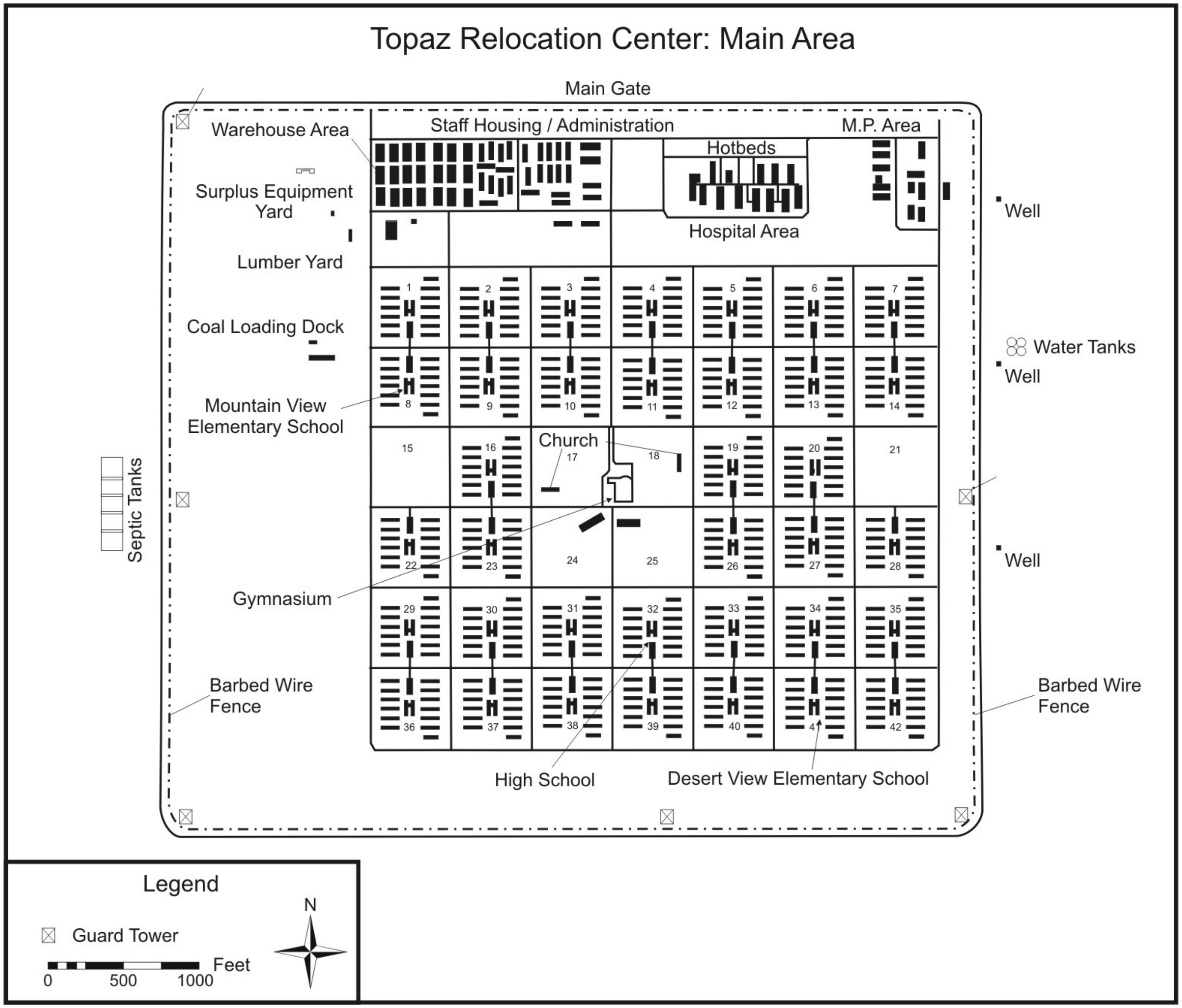


Figure 7.14. Agricultural lands of the Topaz Relocation Center. Adapted from Burton et al. (2002) and Palmer (1945).

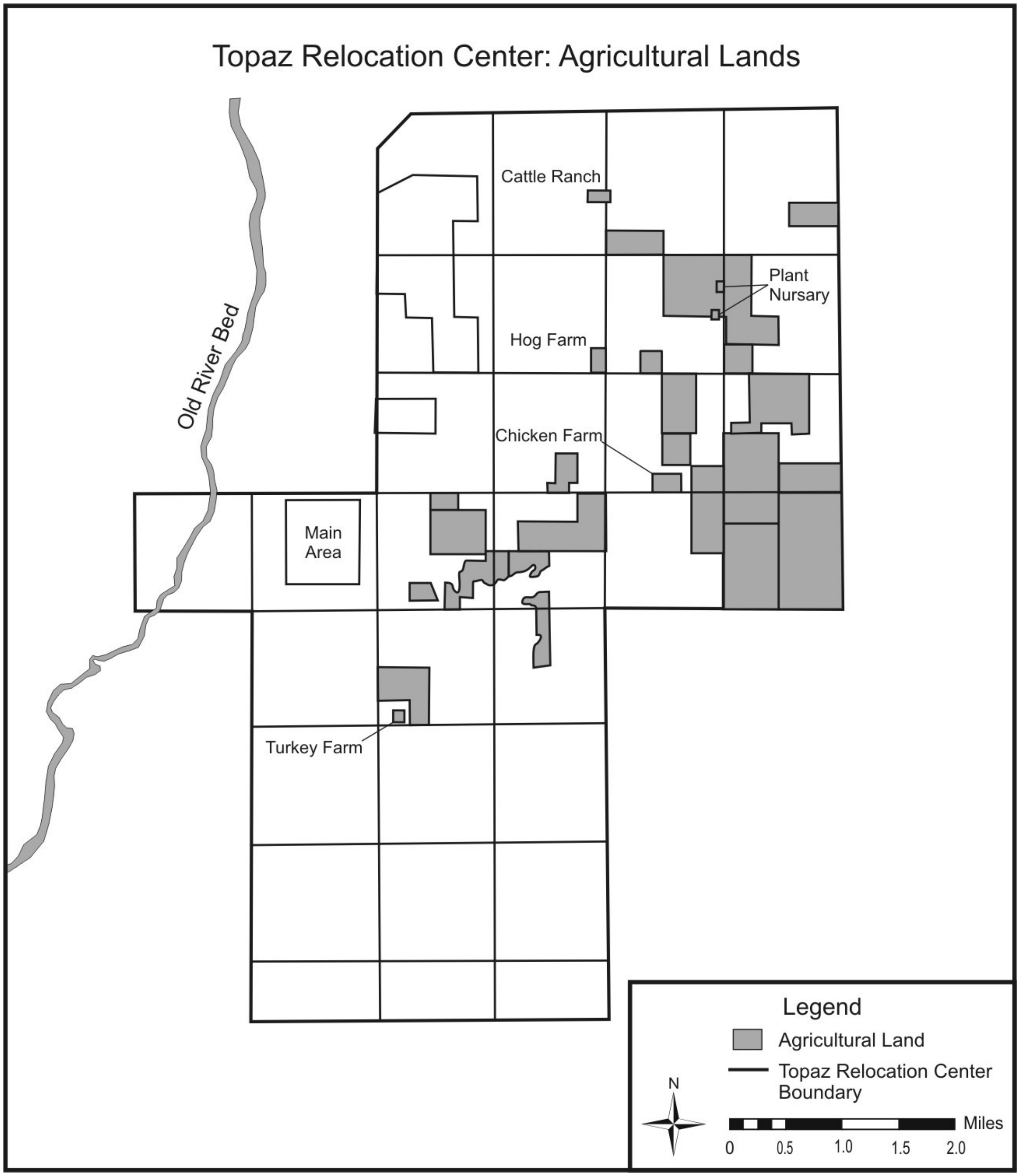


Figure 7.15. View of Topaz looking west from water tower. Note the dust hanging over the camp and the approaching storm to the west. Francis Stewart photograph, March 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 10, Section A, WRA # B-280, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 4: Central Utah Relocation Center, Topaz, Utah.

towers staffed with armed guards (Arrington, 1997). A cemetery was located at the center but all of the deceased were sent to Salt Lake City for cremation, and the ashes were held until residents could return to the West Coast (Okubo, 1983). The center's farmlands lay generally to the east (Figures 7.14).

The main portion of Topaz was laid out in a square fashion within U.S. Public Land Survey section 20 thus aligned to True North. The center had 36 residential blocks and six recreation blocks (Figure 7.13 and 7.15) (Jane Beckwith, written communication, 21 March 2007). The blocks were separated by north-south roads named after trees, and east-west roads named after minerals and rocks (Burton et al., 2002). Each residential block had 12 barracks, one mess hall, one H-shaped laundry-latrine-shower building, and one recreation building, and was designed to serve 250-300 evacuees (Figure 7.13) (Arrington, 1997; Burton et al., 2002). Each 120 feet x 20 feet barracks consisted of six single-room apartments that ranged in size from 14 feet x 20 feet to 26 feet x 20 feet (Taylor, 1993, p. 93; Jane Beckwith, written communication, 21 March 2007). In September 1942, the inner walls of the apartments had bare 2 x 4 inch studs exposed, lacked ceilings, and were without coal burning stoves (Uchida, 1982). Each apartment was furnished by the War Relocation Authority (WRA) with cots, mattresses, blankets, a bare-bulb ceiling light, and a closet space (Okubo, 1983; Arrington, 1997). Evacuees were expected to construct other amenities including room partitions, shelves, tables, chairs, and closets. This was accomplished by using leftover lumber from the center's construction and as well as lumber from the construction of the Remington Arms Plant in Salt Lake City (Arrington, 1997). The exterior walls of each of the barracks were poorly fit pine boards covered with tarpaper (Taylor, 1993). Wood battens held down the tar paper. Roofs were covered with green rolled, asphalt roofing. Barracks were elevated off the ground on stacked lumber scraps but apparently no skirting was ever formally installed around the bases. Individuals may have used gypsum board scraps as skirting after December 1942 (see below) (Jane Beckwith, written communication, 21 March 2007). With poor construction and few skirted barracks, the pervasive winds of the area would blow under the building and up through the cracks in the floors (Taylor, 1993).

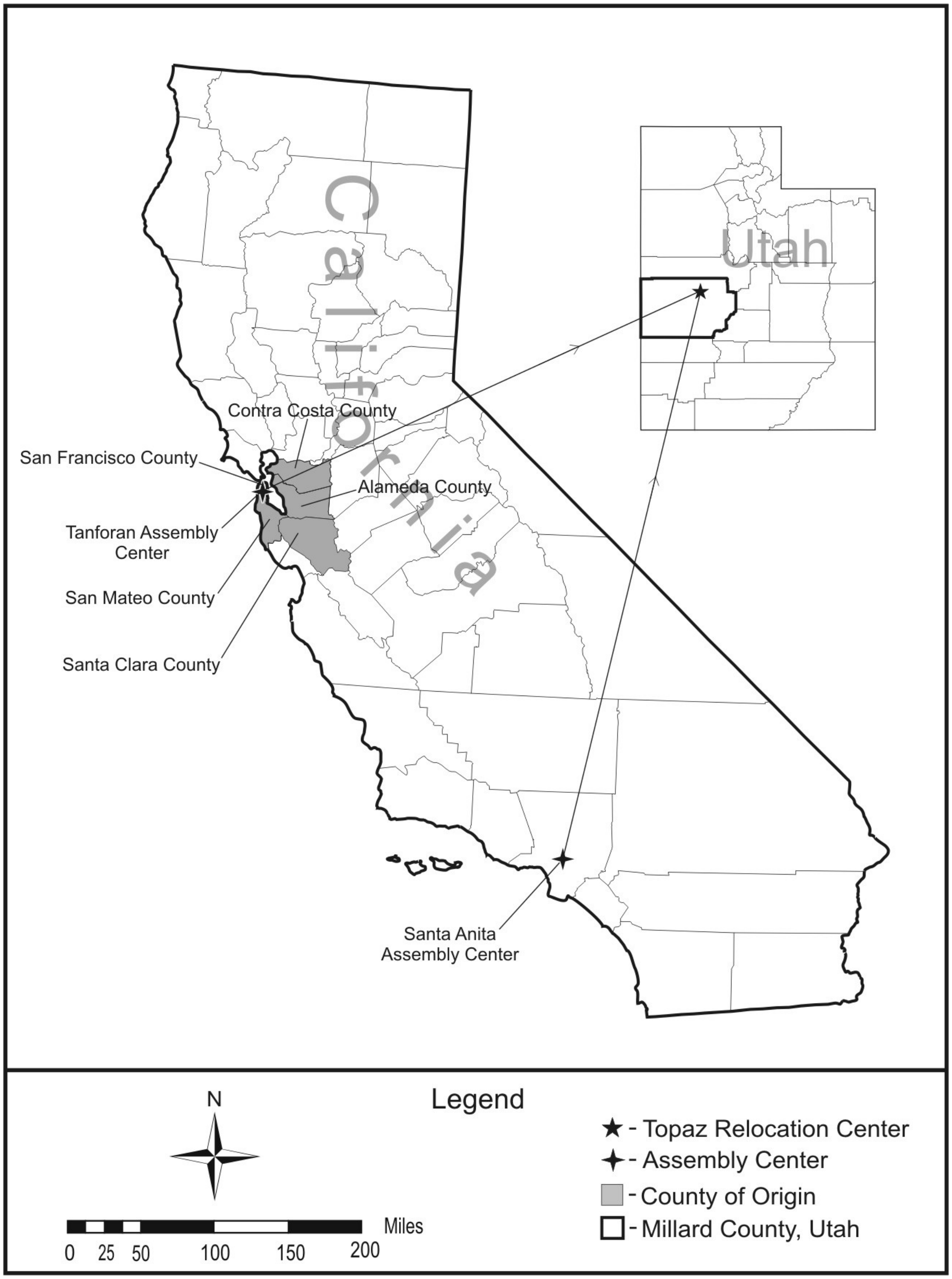
Domestic water for the center came from three deep wells located just east of the residential area that were cumulatively capable of providing 1.3 million gallons/day (Figure 7.13). The well waters were pumped into four large, elevated, redwood water towers and stored until being gravity fed to the mess halls, latrine and shower facilities, and various administrative buildings around the center. Arrington (1997, p. 24) notes that "all reports indicate that the water was almost undrinkable," presumably because of the salt content. The sewage treatment plant was located just west of the residential portion of the center, near the Old River Bed (Figure 7.13).

Origins of the Evacuees

Nearly all of Topaz' original evacuees came from California via the Tanforan (7,673) and Santa Anita (577) assembly centers (Figure 7.16) (U.S. Army–Western Defense Command, 1943). Specifically, the California evacuees originated from the San Francisco Bay area including Alameda (3,679), San Francisco (3,370), San Mateo (722), Santa Clara (135), and Contra Costa (129) counties as well as 23 other California counties (Figure 7.16). Another 226 came directly from Hawaii and a total of 39 came from other states including Washington and Oregon (U.S. War Relocation Authority, 1946).

The Topaz evacuee population was "overwhelmingly urban" (Japanese American National Museum, n.d.). As of 1 January 1943, approximately 62% of the evacuees were American citizens (U.S. War Relocation Authority, 1946). Evacuees traveled three days by rail from California to reach Topaz. The first to arrive were those from the Tanforan Assembly Center on 11 September 1942. Tanforan and Santa Anita evacuees kept arriving until 15 October (U.S. Army–Western Defense Command, 1943). Included among the baggage on these trains were 5,000 donated books from the library established at Tanforan, and borrowed pianos and organs

Figure 7.16. The Western United States origins of Japanese-Americans evacuated to Topaz Relocation Center in August and September 1942. Data from U.S. Army–Western Defense Command, (1943, p. 381, 383) and U.S. War Relocation Authority (1946, p. 61-66).



for the center's churches (Taylor, 1993). With a maximum population of 8,130 reached in mid-March 1943, Topaz was Utah's 5th largest city behind Salt Lake City, Ogden, Provo, and Logan (U.S. War Relocation Authority, 1946; Arrington, 1997; Wilson, 2001).

Interaction of Evacuees with West Central Utah's Environments

Physical Environment. The first memorable interaction evacuees had with West Central Utah's physical environment was with dust and wind. The fine-textured sediments of the former bed of Lake Bonneville were exposed to the ever-present winds when construction crews removed all vegetation cover in the area (Uchida, 1982).
Okubo (1983, p. 123) describes her arrival at Topaz:

The bus struggled through the soft alkaline dirt, past the white administration barracks and the black resident barracks to Block 4 Mess Hall. This, together with the laundry building, was the induction center for the day. As we stepped out of the bus, we could hear band music and people cheering, but it was impossible to see anything through the dust. The band was a group of former Boy Scouts from Berkeley. When we finally battled our way into the safety of the building we looked as if we had fallen into a flour barrel.

The wind blew much of the time (Okubo, 1983). The combination of high winds and erodible sediments led to terrible dust storms (Figure 7.15). Young teacher Yoshiko Uchida (1980, p. 241) describes one such storm:

> *That night the wind reached such a terrible force I was sure our barracks would be blown apart. Pebbles and rocks rained against the walls, and the paper we stuffed into the cracks was quickly blown back into the room. Dust seeped in like smoke. For hours the wind shrieked around us like a howling animal, rattling and shaking our flimsy barracks. I wondered what I would do if I ever had a roomful of children under my care during another such storm but faced the sobering reality that actually there was not a thing I could do.*

A fierce windstorm in early June 1944 caused structural damage to 75 buildings while the roofing paper was torn off another 40. Doors, windows, and chimneys were damaged on yet other buildings (Staff, 10 June 1944).

To counteract the wind and associated dust, evacuees and the administration flooded the area south of the residential portion of the center, plowed land thus leaving a rough surface to impede the wind, attempted to plant previously unvegetated areas, and spread gravel on the disturbed areas between the barracks (Staff, 8 April 1943; 22 April 1943; 6 May 1943; Okubo, 1983). The gravel for these efforts was likely volcanic cinders from nearby quarries at Smelter Knoll (Figure 7.5). Many of these attempts at dust reduction were thwarted by the re-excavation of the center's water and sewage system because of the initial poor quality of the pipes and the corrosive nature of the alkaline soils. In addition to dust, west winds also brought the stench of the sewage treatment plant into the residential portion of the center (Okubo, 1983).

California evacuees unaccustomed to the continental climate had to learn to adjust to large seasonal as well as daily swings in temperature. Temperatures could vary as much as 50ºF in one day, an unheard of variation in a coastal setting (Uchida, 1980). Evacuees dealt with the cold of winter by huddling around the coal stoves in each of the barracks apartments and by wearing army surplus coats from World War I–typically in sizes 38 and 44. Barracks were winterized by adding gypsum board over the uninsulated bays between the 2 x 4 inch framing studs beginning in December 1942 (Okubo, 1983). Coal for heating the camp came from the Deer Creek and Castle Valley mines in northwestern Emery County, Utah. Later, evacuees were sent to mine coal from the Dog Valley mine in southwestern Emery County (Geary, 1996). Luckily, Topaz internees experienced an overall about 5ºF warmer-than-usual first winter but the minimum temperature recorded during this period was still -9ºF (Staff, 18 May 1943).

High temperatures were also an issue. In 1943, temperatures exceeded 100ºF for seven days including five straight days in July with a high of 105ºF (Staff, 29 July 1943). Approximately 4,000 straw hats were sold in the center stores in one day with the onset of hot weather in 1943 (Okubo, 1983). Wood lined pits observed in June 2003 on the northwest sides of mess halls may have been cool storage areas as a mechanism of dealing with the heat. Luckily for evacuees, average warm season month (April-September) temperatures were all cooler during the years the center was in operation than the long-term average temperatures (Western Regional Climate Center, n.d.b).

The first snow of the year, and indeed the first snow in many of the evacuees lives, fell on 28 October 1942 (Staff, 29 October 1942). A two-day blizzard in mid-March 1944 dropped only three or four inches of snow but resulted in drifts four feet deep in places (Staff, 15 March 1944). Snowfall during 1942-1945 averaged about three inches less than the 30 year average (Western Regional Climate Center, n.d.b). Melting snowfall, like subsequent rains, did not infiltrate the soil well thus created very muddy conditions. Spring and summer rainfall or irrigation combined with the center's non-absorbent soils to create an ideal breeding ground for mosquitoes. Evacuees were faced with swarms of mosquitoes outside or the intense heat of the inside of the barracks until window screens were made available (Okubo, 1983). Average annual precipitation during 1942-1945 was slightly than the 1931-1960 average (Western Regional Climate Center, n.d.b).

Sunset was often a beautiful time at Topaz. The combination of the warm ground, sunsets made brilliant by the dusty sky, and the rising moon were a sensory experience to behold (Uchida, 1982). Others spoke fondly of the clear, starry night skies and the smell of sagebrush after a rain (Sekerak, 1986).

Agriculture. The primary goals of the agricultural program were to feed the center's evacuees and to serve as training for evacuees prior to relocation. An earlier goal of raising sufficient produce and livestock to serve needs beyond the center was partially abandoned because of the reality of the farm situation at Topaz (Palmer, 1945). As a result of these goals, much of the center's lands were initially dedicated to agricultural enterprises. Of the 18,840 acres of the center, approximately 10,370 had been cultivated at some point prior to its establishment; however, only about 3,800 acres were under cultivation at the time the U.S. Government took over the lands (Palmer, 1945). Part of the "reality" mentioned above lay in the state of center lands–i.e., despite the fact that over 50% of the center lands had once been used for agriculture, much needed to be done with these lands to make the agricultural program successful including land clearing (Figure 7.17), leveling, irrigation, and drainage ditch construction (Palmer, 1945). Further, Topaz agriculturalists needed to add manure to truck crop beds to boost nutrients as well as bacterial action (Figure 7.18).

Figure 7.17. Topaz evacuees clearing brush from farmland. Tom Parker photograph, October 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 10, Section A, WRA # E-45, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 4: Central Utah Relocation Center, Topaz, Utah.

Figure 7.18. Topaz farmers inoculating soils with bacteria by creating a bed of native soil, adding a layer of barnyard manure, then covering it with another layer of native soil. With time, the bacteria was spread onto the native soils, and later added to farm fields. Tom Parker photograph, October 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 10, Section A, WRA # E-22, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 4: Central Utah Relocation Center, Topaz, Utah.

The Topaz agricultural operation included produce, feed crops, and livestock (Table 7.1). Twenty-six different types of produce were raised on 237 total acres of camp lands in 1943 and 1944 (Tables 7.1 and 7.2). The most successful of the crops in terms of tonnage produced were onions, daikon, cantaloupe, spinach, and Swiss chard (Palmer, 1945). Most of the in-season vegetable needs of the camp were met by the center's farms (Palmer, 1945). Vegetables grown on center lands won praise from Utah State Agricultural College and won awards at the Millard

Table 7.1. Crops and livestock raised at the Topaz Relocation Center, 1943 & 1944. Data from Palmer (1945).

Produce	**Produce** (continued)	**Feed Crops**	**Livestock**
asparagus	daikon	alfalfa	beef
beans (green)	eggplant	alfalfa seed	chickens
beets (table)	kohl rabi	barley	hogs
broccoli	lettuce	beets (mangles)	turkeys
cabbage	melons	clover (sweet)	
cantaloupe	onions	corn (field)	
carrots	peas	oats	
cauliflower	peppers	sunflower seed	
celery	potatoes	wheat	
Chinese cabbage	spinach (mustard)		
chard (swiss)	squash		
corn (sweet)	tomatoes		
cucumbers	turnips		

Country Fair (Arrington, 1997). Planting of seedlings rather than seeds seemed to work better in terms of survival and yield so greenhouses were constructed in winter 1944 in which to start plants. These were located adjacent to the hospital and heated with waste steam from the hospital boiler room (Staff, 1 February 1944; Palmer, 1945) (Figure 7.13) That produce not consumed fresh was pickled by the kitchens of the various mess halls (Palmer, 1945). A root cellar for the storage and preservation of crops was constructed in winter 1943-1944 in the industrial area (Staff, 8 April 1944; Palmer, 1945; Burton et al., 2002). While deemed mostly successful, the vegetable crop portion of the agricultural program was hampered by clayey, alkaline soils, a short growing season, a large daily range of temperature, winds, a lack of proper machinery and commercial fertilizer, transportation issues to and from the farm lands, and a lack of farm-knowledgeable labor (Palmer, 1945).

Nine different feed crops were raised at Topaz including alfalfa, alfalfa seed, barley, mangles beets, sweet clover, field corn, oats, sunflower seeds, and wheat on a total of 4,745 acres in 1943 and 1944 (Tables 7.1 and 7.2). Much of the feed crop needs of the center’s livestock were

Table 7.2. Produce and feed crop yields, Topaz Relocation Center, 1942-1945. Data from Palmer (1945).

	1942	1943	1944	1945	*Total*
Produce					
Total Acres Harvested	0	188	237	0	*425*
Total Production (lbs)	0	660,635	776,752	0	*1,437,387*
Consumed at Center (lbs)	0	660,635	776,752	0	*1,437,387*
Shipped to Centers (lbs)	0	0	0	0	*0*
Total Market Value ($)	0	$9,951	$22,314	0	*$32,265*
Feed Crops					
Total Acres Harvested	0	3,305	4,745	0	*8,050*
Total Production (lbs)	0	1,780,881	1,230,256	0	*3,011,137*
Fed at Center (lbs)	0	1,780,881	1,230,256	0	*3,011,137*
Shipped to Centers (lbs)	0	0	0	0	*0*
Market Value ($)	0	$28,813	$24,713	0	*$53,526*

met by this program (Palmer, 1945). However, the center was only able to raise about 33% of their livestock grain needs because of problems associated with irrigation labor and weather.

The livestock operation consisted of poultry (chickens and turkey), beef, and hogs (Table 7.1). A total of 1,210 turkeys were butchered in 1943 and 1944 yielding 16,432 pounds (dressed weight) for the camp's mess halls (Table 7.2). Chickens were raised in 1943, 1944, and 1945 producing nearly 9,200 butchered birds with a cumulative dressed weight of 26,462 pounds for mess hall preparation (Table 7.2). Approximately 82,730 dozen eggs were produced in the camp poultry unit in 1943, 1944, and 1945 (Table 7.2). The poultry unit was providing about 75% of the camp's egg needs at peak production in winter 1944-1945. The beef program raised over 1,460 animals totaling 689,898 dressed weight pounds for consumption at the center in 1943, 1944, and 1945 (Table 7.2). Nearly 290 live cattle were sent to the Minidoka Relocation Center in 1944 and 1945 after additional cattle raising infrastructure was in place at Topaz. Another 66 were sold in Ogden, Utah in 1945. The 2,983 hogs butchered at Topaz in 1943, 1944, and 1945 provided 494,712 pounds of pork to camp mess halls (Table 7.2). The beef and pork produced was sufficient to supply all of the camp's needs. Beef made up approximately 33% of the total retail value of the nearly $390,000 in agricultural products raised by the Topaz agricultural operation. Similar to the crops programs, problems plagued the livestock programs including

Table 7.3. Livestock yields, Topaz Relocation Center, 1942-1945. Data from Palmer (1945).

	1942	**1943**	**1944**	**1945**	***Total***
Beef Cattle					
Total Butchered	0	192	783	487	*1,462*
Dressed Weight (lbs)	0	122,112	329,643	238,143	*689,898*
Market Value ($)	0	$21,370	$60,984	$46,653	*$129,007*
Shipped to Centers	0	0	263	25	*288*
Dressed Weight (lbs)	0	0	141,704	16,725	*158,429*
Market Value ($)	0	0	$25,814	$4,461	*$30,275*
Sold on Open Market	0	0	0	66	*66*
Dressed Weight (lbs)	0	0	0	28,552	*28,552*
Market Value ($)	0	0	0	$5,550	*$5,550*
Chickens					
Total Butchered	0	268	4,436	4,494	*9,198*
Dressed Weight (lbs)	0	563	9,271	16,628	*26,462*
Market Value ($)	0	$197	$3,551	$5,773	*$9,521*
Eggs (dozen)	0	807	27,954	53,973	*82,734*
Market Value ($)	0	$274	$10,958	$23,208	*$34,440*
Turkeys					
Total Butchered	0	889	321	0	*1,210*
Meat Total Weight (lbs)	0	12,002	4,430	0	*16,432*
Market Value ($)	0	$4,800	$1,772	0	*$6,572*
Hogs					
Total Butchered	0	555	1,640	788	*2,983*
Dressed Weight (lbs)	0	93,240	272,240	129,232	*494,712*
Market Value ($)	0	$16,317	$53,774	$27,304	*$97,395*

inexperienced labor, lack of infrastructure (including animal shelters, fences, and corrals), disease, lack of slaughtering facilities, and pasture irrigation issues (Palmer, 1945).

Business and Industry. Businesses within the center were run by Topaz Consumer Cooperative Enterprises, Inc. These included general, department, dry goods, shoe and clothing stores as well as a fish market, barber shop, beauty parlor, optical shop, photo studio, movie theaters, laundry and dry cleaning businesses, shoe repair shop, watch repair shop, electrical repair shop, mail order service, and bank (Arrington, 1997).

Industry at Topaz was primarily limited to serving the center rather than serving other centers or outside center markets. Center industries included a furniture factory, adobe brick unit, roof jack manufacturing facility, ice cream plant, bean sprout plant, and soybean cake and milk plant that created tofu (Arrington, 1997). Once it became operational in February 1943, the tofu plant produced 1,500 lbs of tofu/week for Topaz' dining halls (Taylor, 1993).

Landscaping and Gardening. Evacuees planted vegetation for shade and beauty despite the fact that an irrigation system was never completed in the residential blocks (Palmer, 1945). Trees and shrubs (including juniper, tamarisk, and elm–Staff, 3 December 1942) from surrounding areas were transported in for planting in the center in fall 1942 (Okubo, 1983) (Figure 7.19). Small shrubs were also distributed to each of the blocks that first autumn in honor of Arbor Day (Okubo, 1983). Utah State Agricultural College's Forestry Department sold the center 7,500 small trees including Siberian elms, Russian olives, and black locusts (Palmer, 1945). Another 1,200 tamarisk trees as well as truckloads of willows and wild currants came from center farm lands and as far away as Clear Lake south of Delta (Figure 7.1) (Palmer, 1945). Fruit trees and berry bushes were also planted in spring 1943 (Staff, 22 April 1943). A plant nursery was developed on the southwest corner of the main portion of the center to aid in starting various plants (Staff, 23 January 1943). Despite all of these efforts, the harsh growing environment led to the demise of many of the trees and shrubs (Arrington, 1997; Uchida, 1982). Only about 10% of the trees and shrubs survived until 1945 (Palmer, 1945) . It is no surprise that few trees or shrubs are seen in historical photographs of the camp.

Victory and decorative gardens including ponds were found throughout the evacuee residential portion of the center (Burton et al., 2002). Evacuees watered the gardens via "bucket brigades" from the laundry buildings and protected the plants from wind with whatever cardboard or lumber they could scavenge (Okubo, 1983). While many families initially planted victory gardens within the residential blocks, they did not prosper presumably because of the poor soils, heat, and winds (Arrington, 1997).

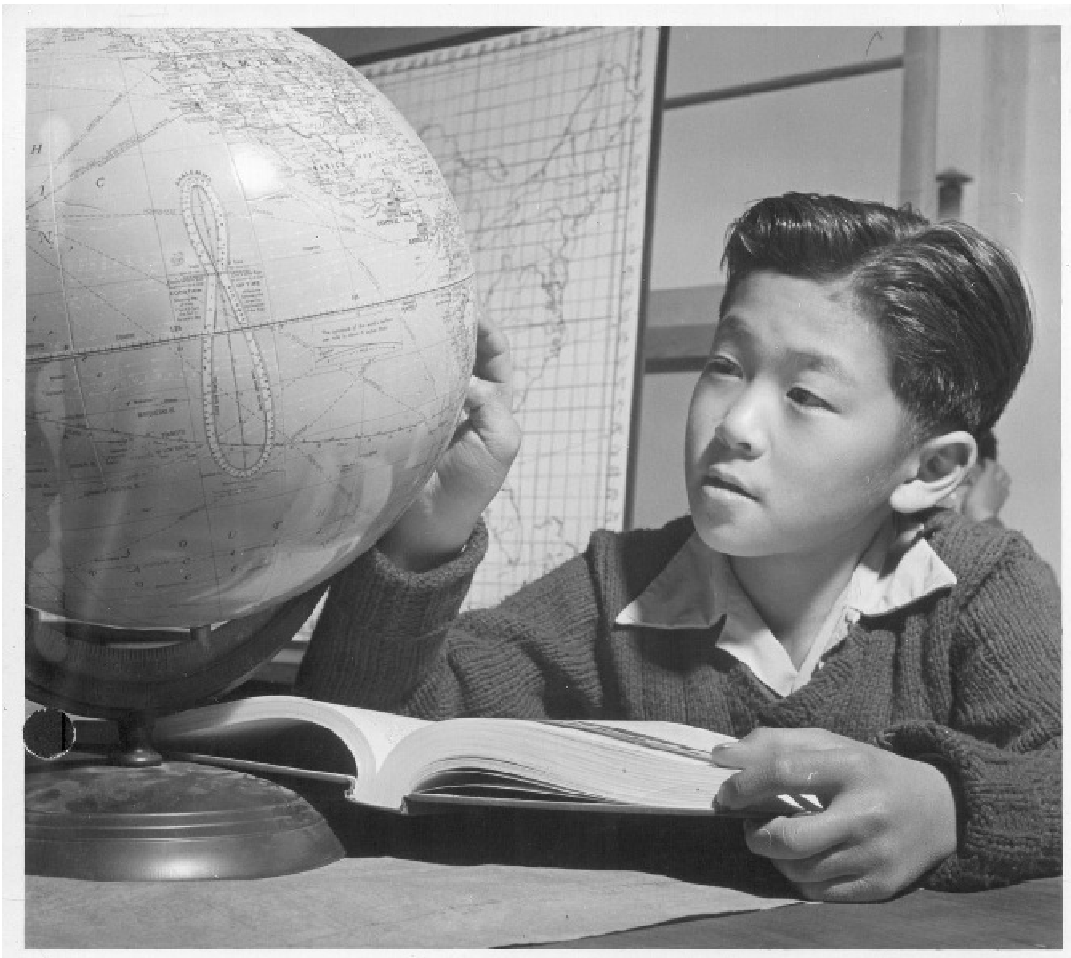
Education. The education infrastructure at Topaz consisted of four pre-school nurseries, two elementary schools–Desert View in Block 41 and Mountain View in Block 8–, and a junior-senior high school in Block 32 (Uchida, 1982; Sekerak, 1986; Wilson, 2001) (Figure 7.13). Enrollments at the nursery schools averaged 180 while each elementary school had an average of 675 students (Figure 7.20). The combined junior-senior high school averaged more than 1,200

Figure 7.19. Evacuees prepare to excavate a mature tree from a site on the Topaz camp lands to be transplanted to the hospital area. Tom Parker photograph, October 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 10, Section A, WRA # E-29, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 4: Central Utah Relocation Center, Topaz, Utah.

students (Arrington, 1997). Approximately 50% of the 90 fully certified teachers were Caucasian while the others were Japanese American (Arrington, 1997). The education program was hampered by initially un-weatherized facilities, a lack of teaching equipment and school supplies, inept administrators, a high turnover of teachers, and an experimental curriculum (Uchida, 1982; Sekerak, 1986; Wilson, 2001).

The adult education program was particularly popular with 150 classes and more than 3,000 evacuees enrolled in everything from Americanization and auto mechanics to radio repair and

Figure 7.20. First grader studying geography at one of Topaz' elementary schools. Francis Stewart photograph, March 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 10, Section A, WRA # B-317, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 4: Central Utah Relocation Center, Topaz, Utah.



sewing (Arrington, 1997; Kawakami, 1986). The Topaz Public Library was a tremendous resource for the community with 7,000 books and several thousand issues of periodicals. The library received outside newspaper subscriptions to the Oakland Tribune and the San Francisco Chronicle, and subscriptions to approximately 50 magazines (Kawakami, 1986). Boasting an average weekly patronage of 2,500, the library had a rental collection of best sellers, weekly classical music recording concerts, library notes and book reviews in the Topaz Times, and linked with the Salt Lake County library and the college libraries of Utah and the University of California-Berkeley for interlibrary loan services (Kawakami, 1986; Arrington, 1997).

Recreation. As at the other relocation centers, evacuee boredom was a problem at Topaz. The fine Topaz Public Library did much to alleviate this issue as did various recreational activities. Ping pong, badminton, and card games were often played indoors. Basketball, tennis, golf (Figure 7.21), football, and baseball were the main outdoor games with baseball being the most popular (Okubo, 1983). Intense rivalries developed between the block's softball teams. The evening games often drew 100 or more spectators (Mullan, 1999). Evacuees constructed a grassless golf course as well as bare baseball and softball diamonds, a football field, and tennis and volleyball courts. Topaz High School did well in athletic events played against other school teams from Millard and adjacent counties (Arrington, 1997). An indicator of the importance of sports to the lives of Topazeans is that an entire page of each issue of the center's newspaper, the *Topaz Times,* was typically devoted to sporting events at Topaz. Sumo wrestling was also practiced here, and kites were made and flown in the ample winds of the center (Okubo, 1983).

Figure 7.21. Golf at Topaz. Tom Parker photograph, October 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 10, Section A, WRA # E-53, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 4: Central Utah Relocation Center, Topaz, Utah.

Swimming occurred in the center's irrigation ditches but a formal swimming pool was never excavated. Evacuees played in the water at the abandoned CCC camp at Antelope Springs, located in the House Range 30 miles west of Topaz, when travel to the setting was possible (Figure 7.3) (Sherm Tolbert and Jane Beckwith, oral communication, 23 June 2003). Despite the construction of several ice skating rinks at the center, ice skating appears to have been more limited here than in the more northern centers because of Topaz' warmer winter temperatures and the fact that evacuees didn't have ice skates (Staff, 21 December 1943; Staff, 23 December 1944; Okubo, 1983; Jane Beckwith, oral communication, 23 June 2003).

Scouting was a common activity for kids with strong Boy Scout, Girl Scout, and Campfire Girls groups at Topaz (Arrington, 1997). Scouts attended summer camp at Antelope Springs (Staff, 8 July 1943). YMCA, YWCA, 4-H, USO and various social clubs and organizations also formed at Topaz (Arrington, 1997).

Despite being outside the military exclusion areas, evacuees were initially kept under tight security within the main portion of the center unless they had official business outside. However, following the shooting of evacuees James Wakasa by Topaz security guards (see below), security loosened and evacuees could increasingly travel to outside areas (Okubo, 1983; Jane Beckwith, written communication, 21 March 2007). In the surroundings, residents hiked, hunted arrowheads, trilobites, and Lake Bonneville molluscs, and fished (Arrington, 1997). While hiking in the area west of the center, two evacuees discovered the Little Drum Mountains meteorite. At the time, it was the ninth largest meteorite found in the U.S. and the largest found in Utah. The Smithsonian subsequently purchased it (Staff, 11 October 1944; Arrington, 1997). Evacuees fished in irrigation ditches within the agricultural portion of the center. Antelope Springs was a camping spot for the Japanese Americans (Okubo, 1983; Jane Beckwith, oral communication, 23 June 2003).

Culture and Art. As at other camps, the culture of Topaz was purposefully American despite the ethnic backgrounds of the evacuees. This was seen in the language, dress, housing, meals, recreation, and business interactions. However, Japanese cultural influences were also seen throughout the center. The Issei often conversed in Japanese and the Public Library included a large collection of Japanese language books (Arrington, 1997). Evacuees celebrated the traditional Japanese New Year by making *mochi*, a sticky rice that is pounded and molded into cakes (Okubo, 1983). Buddhists continued traditional celebrations such as *Hanamatsuri* (a flower festival) with a parade and folk dances and *Bon Odori* (a festival for the dead) (Staff, 12 August 1943; Okubo, 1983).

Arts and crafts abounded at the center with traditional calligraphy, stone work especially seen in gardens, stone polishing, woodwork, artificial flower creation and arrangement, doll- and doll clothing-making, knitting, jewelry making, and painting. An art school even operated in the center (Gesensway and Roseman, 1987; Obata, 2000). Art and hobby shows were held in the center to show off the work of the local artists. Of the more ingenious items were finger rings of cellophane or toothbrush handles and hats made of interwoven citrus fruit wrappings and potato

Figure 7.22. Mollusc shell "flowers" created by evacuee Grace Oshita while interned at Topaz. Author photograph, June 2003.

sack strings (Okubo, 1983). Snail and mussel shells were found in the former sediments of Lake Bonneville and turned into lapel ornaments, brooches, and necklaces (Figure 7.22). *Trek*, an art and literary magazine, was also briefly published. The drawings and paintings of numerous artists, including Mini Okubo and Chiura Obata, reveal the many sides of life at Topaz (Okubo, 1983; Gesensway and Roseman, 1987; Obata, 2000).

Faith and Spirituality. Evacuees were essentially free to practice their respective religions in the center. Approximately 40% of the evacuees were Buddhists and 40% were Christians. Buddhist, non-denominational Protestant, Seventh Day Adventist, and Roman Catholic congregations met regularly in the center. Separate services were often held in English and Japanese. The Buddhist Church in America headquarters even relocated to Topaz during World War II. Apparently, the Mormon church was also present in the camp as some evacuees converted to Mormonism while at Topaz (Staff, 10 October 1942a; Arrington, 1997).

Health. The Topaz health care system was adequate despite generally poor planning by the WRA, chronic understaffing, professional jealousies, and under-equipped and understocked facilities (Fiset, 1999). Residents complained about high rates of illness in the center with frequent colds and upset stomach issues (Uchida, 1982). The strange food and water caused intestinal stress referred to as the "Topaz trots" by center newcomers (Taylor, 1993). However, death rates were lower and birth rates were higher in Topaz than for the Japanese populations of Washington, Oregon, and California in 1940. Epidemic-scale health problems often associated with poor housing and crowded living conditions were largely avoided with aggressive vaccination, "block nurse," public education, and sanitation programs. However, the nationwide influenza outbreak in December 1943 did not spare Topaz with 1,100 cases reported in mid-December 1943. Tuberculosis led to 26 hospitalizations and 7 deaths. The actual number of tuberculosis cases in the camp was likely much higher because of the stigma of reporting the disease (Fiset, 1999). Increased blood pressure- and gastric ulcer-cases were reported during 1945, presumably as the result of the uncertainty over relocation (Taylor, 1993).

Government. Topaz' government was centered on the residential blocks, each of which was composed of 250-300 evacuees. An appointed and salaried, typically Issei, Block Manager took care of day-to-day affairs in the blocks. Community Council representatives, the other arm of Topaz' self-government, were elected by members of each residential block. The Council dealt with over-arching policies and procedures governing the camp including community ceremonies, hospital issues, labor relations, leave clearances, mess hall food, military enlistment, and relocation planning. Initially, only Nisei were eligible to serve as Council members because of the administration's rule that one had be over 21 and an American citizen to do so. With the relocation of many Nisei, the administration changed the rules to allow Issei membership on the Council. All evacuees 18 and older could vote (Arrington, 1997).

Community. Despite efforts of the administration and resident leaders, "community" was not easily attained at Topaz. At least four factors led to community problems in Topaz: origins of the evacuees, the fluid nature of the population, the "loyalty questionnaire," and administration-evacuee friction.

The Santa Anita and Tanforan evacuees did not get along well and tended to remain as separate communities within Topaz. An even poorer fit with either of these groups were the approximately 230 Hawaiian Japanese who arrived at Topaz in 1943. Most of the Hawaiians were eventually transferred to Tule Lake because of their strong pro-Japan stances (Staff, 13 March 1943; Taylor, 1993).

Starting within several weeks of the opening of Topaz, evacuees began departing on seasonal work leaves (see below) (Staff, 30 September 1942). Soon after, residents were leaving for college opportunities and more permanent relocations (Staff, 10 October 1942b).

The "loyalty questionnaire" (see Appendix C) and subsequent draft registration led to conflict in the center beginning in winter 1943. Pro-Japanese leaders tried to intimidate those who were undecided on whether to register for the draft. The loyalty questionnaire ultimately resulted in over 1,400 Topazeans being sent to Tule Lake in September 1943. Among this group were those who responded “no” to questions 27 and 28 of the questionnaire, those who wished to be repatriated to Japan, and those who were suspected of disloyalty by the WRA. Also included in this group were family members who did not wish to be separated from loved ones in any of the three categories above (Okubo, 1983).

Tensions between the administration and residents was especially high following the killing of James Wakasa, who was shot by a sentry while near the west perimeter fence supposedly after the sentry had warned him to get away (Taylor, 1993). It is unclear where the sentry thought Wakasa was going to escape to. Uncertain how the Topaz population would respond to the killing of Wakasa, the Military Police commander put his force on a general alert that included arming each of the men with machine guns and tear gas. This, in turn, caused great alarm among the evacuees during the two days that the general alert was in effect. The shooting of James Wakasa had been preceded by other instances of sentries firing at evacuees near the perimeter fence but all were warning shots. The funeral, the arrangements for which caused conflict between the evacuees and the administration, attracted approximately 2,000 evacuees (Figure 7.23). Following Wakasa’s funeral, the community council, administration, and the military

Figure 7.23. Large crowd gathered at James Wakasa’s funeral at Topaz. Russell Bankson photograph, April 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 10, Section A, WRA # C-917, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 4: Central Utah Relocation Center, Topaz, Utah.

eventually worked out a compromise to prevent any future shootings but some of the distrust of the evacuees for the military and administration remained long after the affair (Arrington, 1997; Taylor, 1993).

Interaction with Surrounding Areas

The Outside World. Numerous individuals visited Topaz. Visitors included church groups, Utah's Governor and first lady, Utah state legislators, and former members of the British Parliament (Uchida, 1982). Topaz shared talent shows and summer theater with the neighboring towns of Delta and Hinckley, and Topaz evacuees went to Delta for shopping (Arrington, 1997). This often occurred in what was termed "block shopping"–i.e., one resident of a particular block shopped for the remainder of the block on any particular trip (Okubo, 1983). Perhaps the most pervasive interaction between Topaz and outside communities occurred through sport. The *Topaz Times* sports page reveals that the Topaz High School "Rams" football, basketball, and baseball teams competed numerous times with nearby communities. Church groups, including the American Friends Service Committee, provided gifts for the residents of Topaz. Correspondences that began with these gifts lasted long after the residents relocated outside the centers (Uchida, 1982).

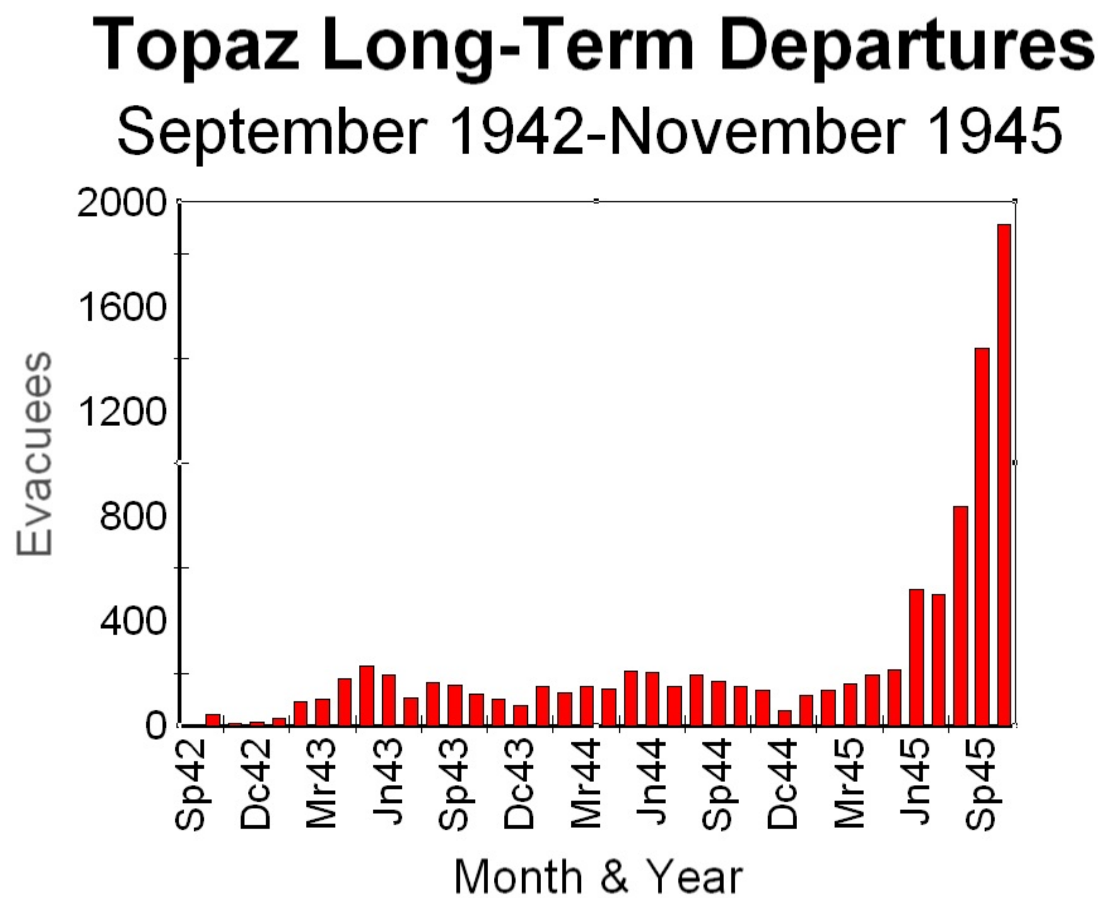
Some of the produce grown by the Japanese American colony in Keetley, Utah approximately 165 miles to the northeast was sent to Topaz (White, 1994). The colonists, many of whom had moved to Keetley from the San Francisco Bay area, also visited Topaz on many occasions because of the family and friendship ties. In turn, evacuees from Topaz, as well as Amache, Minidoka, and Manzanar, visited, worked at, and used the Keetley colony as a stopping over point during relocation (Taylor, 1986).

In addition to the above shopping, entertainment, and sports reasons, evacuees could leave the center on short-term, seasonal, and indefinite leaves. Short-term leaves ranged from several days to a few weeks and were typically for personal business or medical issues. Seasonal leaves were granted to evacuees for seasonal agricultural employment. The purpose of indefinite leaves was to permanently depart the centers for relocation to the "outside world," join the armed forces, be interned in a Department of Justice Internment Camp, be committed to an institution, or be repatriated to Japan (U.S. War Relocation Authority, 1946).

Topaz evacuees worked in a variety of seasonal jobs, often agriculture-related, throughout Utah and the Intermountain West. Some worked in Delta while others worked in northern and southern Utah in sugar beets and orchards (Taylor, 1993). Evacuees worked for two growing seasons in the orchards of Utah Valley south of South Lake City along with German prisoners of war (POW's) (Daynes and Kimball, 2001). Nearly 1,000 evacuees worked outside Topaz during fall 1942 at various jobs including sugar beet harvest, fruit harvest, and construction (Arrington, 1986).

Relocation from the center was encouraged early on but was generally slow until March 1943 (Figure 7.24). This initial rise was likely sparked by registration process including the February 1943 loyalty questionnaire (Taylor, 1991). From then until the center closed in October 1945, only three months had less than 100 relocations. Relocations took on a cyclic pattern in 1943 and 1944 with peak relocations occurring in May and the lowest relocation levels in December. Only 64 departed in 1942, 1,533 in 1943, 1,819 in 1944, and 6,022 in 1945 (U.S. War Relocation Authority, 1946). Topaz evacuees relocated to at least 32 states with favored destinations in the Midwest (especially Chicago, Cleveland, Des Moines, Detroit, Milwaukee, and Minneapolis-St. Paul), the Intermountain West (especially Denver and Salt Lake City), and the East Coast (especially New York City) (Figure 7.25) (U.S. War Relocation Authority, 1945; Taylor, 1993). Utah was a favored place for resettlement because of the tolerance of the Mormons, especially in the more urban areas (Arrington, 1986; Taylor, 1991). While Utah's reception of evacuees was generally considered to more favorable than that in other western states, all was not good.

Figure 7.24. Indefinite leaves (i.e., relocations), Topaz Relocation Center, September 1942-October 1945. Data from U.S. War Relocation Authority (1946, p. 35).



Northern Utah was off-limits to Japanese relocation from September 1943 until January 1945 because of complaints by the local populace (Taylor, 1991). As elsewhere, those who relocated received mixed receptions ranging from warm welcomes to outright hostility including shootings (Taylor, 1993).

The National Japanese American Student Relocation Council assisted in relocating students who were among the first residents to permanently leave the center. Many Topaz residents headed to Midwestern and Eastern cities (Uchida, 1982) (Figure 7.25). Brigham Young University, Utah State Agricultural College's (now Utah State University) branch campus in Cedar City, and the University of Utah welcomed students of Japanese descent; however, it is not clear how many Topaz students took advantage of these nearby opportunities for higher education. The Logan campus of Utah State Agricultural College did not to accept Japanese American students because of military contracts and training taking place there (Welker, 2002).

Over 470 Topazeans served in the U.S. armed forces during World War II. Of these, 80 volunteered and 392 were inducted. Many of the soldiers joined the all-Nisei 442nd Regimental Combat Team where they earned honors for bravery in the European Theater of Operations. Thirty-six of these soldiers (~8%) were either wounded or killed in action (U.S. War Relocation Authority).

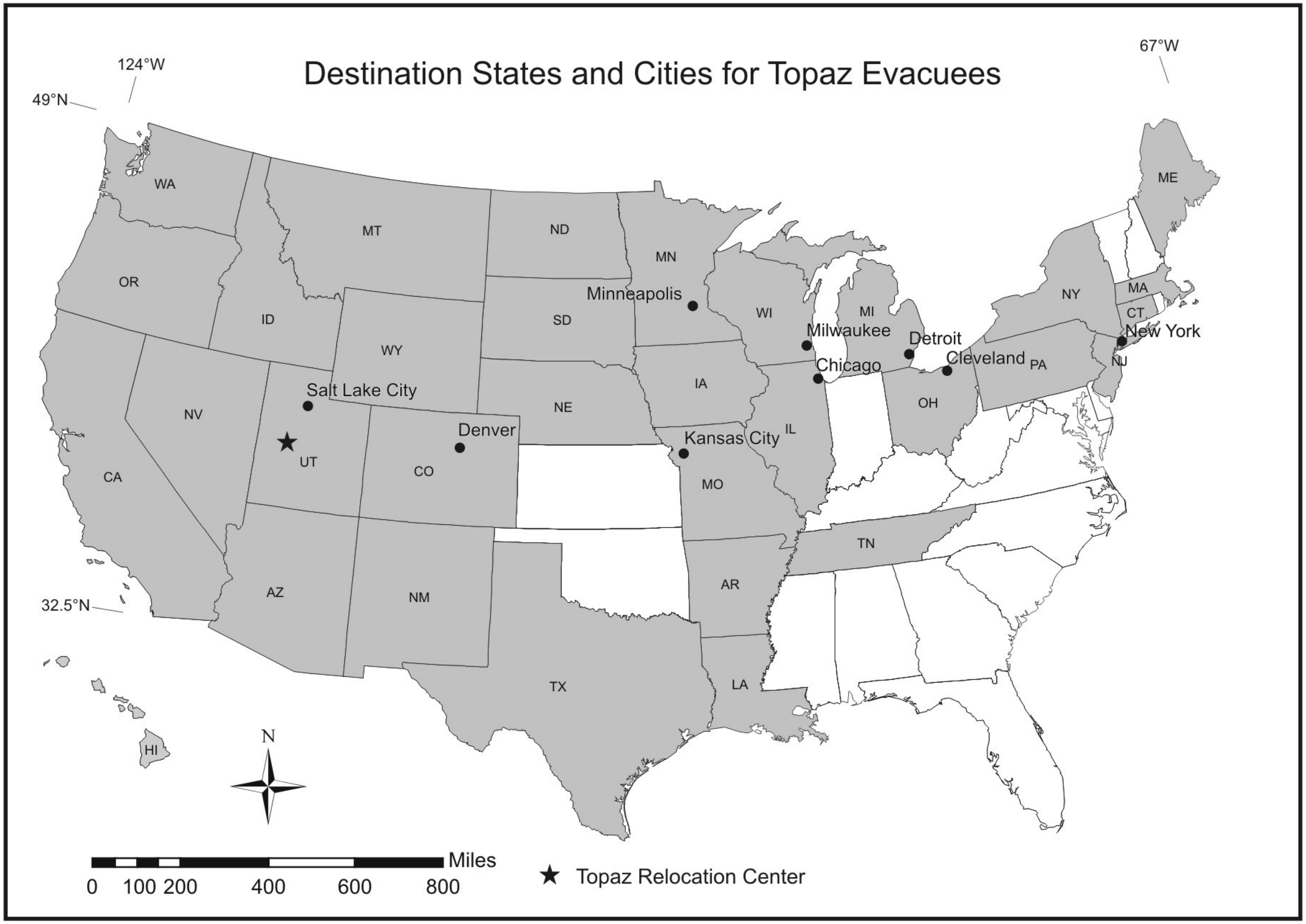
Other Relocation Centers. Topaz interacted with the other relocation centers through the transfers of evacuees and the exchange of goods. Nearly 140 evacuees transferred from Topaz to eight other relocation centers, excluding Tule Lake. A total of 1,459 Topaz evacuees relocated to Tule Lake because they or members of their families answered "no" to questions 27 and 28 on the loyalty questionnaire (Appendix C). Thirteen evacuees were sent to the Leupp, Arizona Isolation Center (U.S. War Relocation Authority, 1946). Topaz, in turn, received 1,558 "loyal" Tuleans in September and November 1943 and another 611 evacuees from the other nine camps regardless of the loyalty issue. Eighteen of the Topaz evacuees who answered "no" the loyalty questionnaire were repatriated to Japan in September 1943 (U.S. War Relocation Authority, 1943).

Topaz also interacted with other relocation centers through its agricultural program. Topaz provided beef cattle to Minidoka. The center, in turn, received cabbage, potatoes, carrots, and turnips from Tule Lake and daikon from Gila River Relocation Center (Staff, 19 September 1943; 11 December 1943; 22 March 1944). Topaz also received surplus farm equipment from the Jerome, Arkansas Relocation Center when it ceased agriculture operations prior to closure (Staff, 5 April 1944).

Closing Topaz and Another Relocation

Public Proclamation #21 pm 17 December 1944 ended the West Coast Exclusion Order that had been in effect since 1942. As of 2 January 1945, evacuees could begin moving back to the West

Figure 7.25. Geography of Topaz indefinite leaves (i.e., relocations), September 1942-October 1945. Data from U.S. War Relocation Authority (1945) and Taylor (1993, p. 117-118).



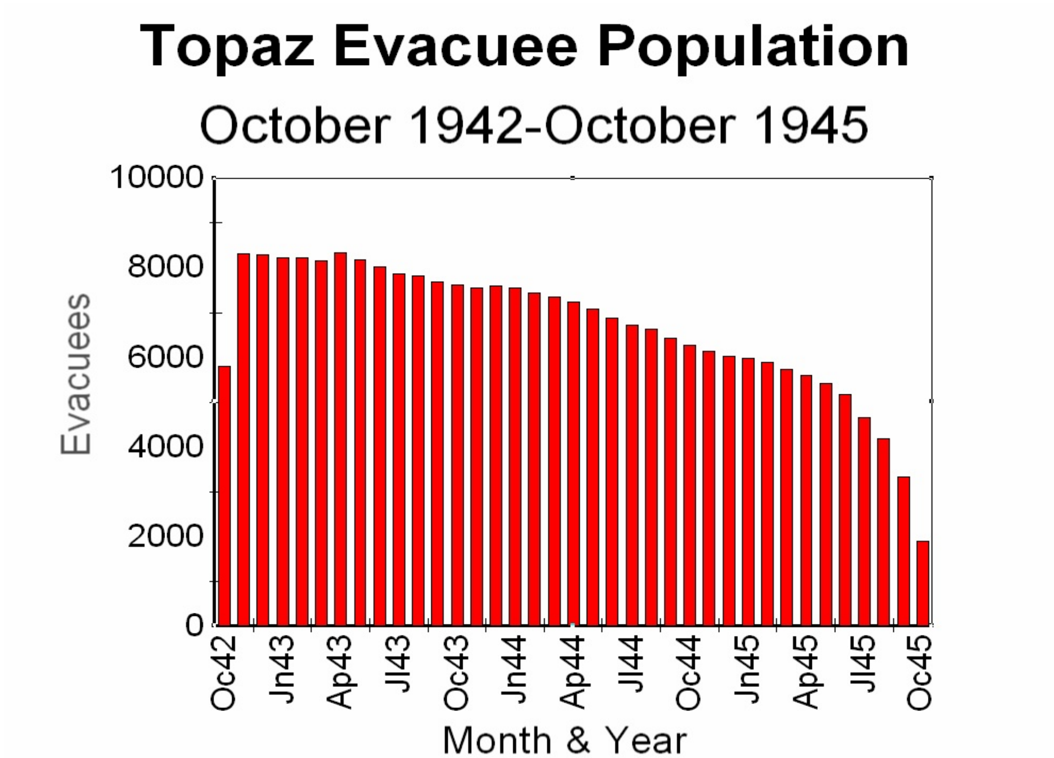
Coast. All relocation centers were to be closed by the end of 1945 (Staff, 18 December 1944). The first Topaz family left for the West Coast on 3 January 1945 (Figure 7.26) (Staff, 3 January 1945a). At that time, nearly 6,000 evacuees were in the center, and all but 272 were eligible to relocate at that time (Figure 7.27) (Staff, 3 January 1945b). Despite favorable reports from those who had relocated to the West Coast, over 5,000 evacuees were still at Topaz as of 1 June 1945 (Staff, 6 January 1945; U.S. War Relocation Authority, 1946). On 12 July, WRA Director Dillon Myer announced that Topaz would close by 1 November (Staff, 13 July 1945). By VJ (i.e., Victory over Japan) day on 14 August 1945, more than 3,300 evacuees remained at Topaz. Nearly 1,900 relocated during the centers's last month and 500 remained until the final week (U.S. War Relocation Authority, 1946; Taylor, 1993). Topaz officially closed on 31 October 1945 (U.S. War Relocation Authority, 1946).

Impacts of Topaz on Today's Central Utah Landscape

Evacuee Dispersion. The 1950 census showed that Millard County had no Japanese Americans as compared to the 16 who were there in 1940. These data mirror a long-time resident's memory that no evacuees remained in the Delta area following the closure of Topaz (Sherm Tolbert, oral

Figure 7.26. Mrs. Saku Moriwaki (center) and her two year old daughter, Suga Ann were the first Topaz evacuees to relocate to the West Coast following the lifting of the West Coast Exclusion Order. Charles Mace photograph, January 1945. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 78, Section H, WRA # -592, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 4: Central Utah Relocation Center, Topaz, Utah.

Figure 7.27. Resident population, including evacuees on short term and seasonal leave, Topaz Relocation Center. Data from U.S. War Relocation Authority (1946, p. 18).



communication, 23 June 2003). Further, only 100 persons of Japanese descent lived in the Utah and Nevada counties surrounding Millard County in 1950 as opposed to 264 in 1940 (Figure 7.11) (U.S. Bureau of the Census, 1952a; 1952b). However, "several thousand" evacuees initially remained in Utah (especially in Salt Lake City) but this number dwindled as economic opportunities declined (Arrington, 1986). The 1950 census showed that Utah's Japanese American population had increased by just over 400 over the 1940 census (Figure 7.11), likely partly as a result of Topaz evacuees and Keetley colonists remaining in the state (U.S. Bureau of Census, 1942;1952b; Taylor, 1986; Kelen and Fuller, 1988). Approximately 60% of those interned at Topaz eventually moved back to California (Taylor, 1993).

Land Dispersion. The center was intended to be used after World War II for the rehabilitation of returning soldiers and as a place to demonstrate new agricultural practices (Taylor, 1993). However, this plan was subsequently dropped for no apparent reason. Following closure of the center, the Federal Land Bank of Berkeley, acting for the Federal Farm Mortgage Corporation, sold the center lands for 1$/acre (Arrington, 1997). Residents who were forced to sell their lands to the federal government had the option of purchasing their lands back (Sherm Tolbert, oral communication, 23 June 2003).

Infrastructure Dispersion. Center buildings were first made available to public entities and subsequently sold to private parties. The gymnasium/auditorium went to Southern Utah State College (now Southern Utah University) in Cedar City (Taylor, 1993). Some buildings went to the University of Utah in Salt Lake City, to the Branch Agricultural College, other schools, or to various private parties in the area. Barracks were sold for $250/half (Arrington, 1997; Jane Beckwith, oral communication, 23 June 2003). Many buildings were also dismantled on site and sold as scrap lumber. The main portion of the center was cleared of buildings in 1946 and 1947 (Jane Beckwith, oral communication, 23 June 2003).

Remains of Topaz. Burton et al. (2002) describe in detail the nature of Topaz as of about 2000. Along with two students, I also visited the area in June 2003. Much evidence of the former center remains of the main portion as well as in the outlying areas. Mess hall and laundry-latrine-shower concrete slabs, gravel roads, gravel walkways, and decorative gardens are common on the lands of the main portion of the former center (Figures 7.28, 7.29 and 7.30). The remains of decorative gardens were found throughout the center. Evidence of these gardens is especially common along one or more sides of the mess halls, along walkways, and along the barracks. Counter to the observations of Burton et al. (2002), ample evidence exists for rock used in these gardens including basalts likely from nearby Smelter Knolls as well as crystalline rocks from more distant sources. Concrete- and rock-lined pools of all shapes and size are also common, at least in Blocks 11, 12, and 5. Trees, including tamarisk, Russian olive, and elm, and

Figure 7.28. Remains of latrine slab after cast iron salvage, Topaz Relocation Center. Shrubs adjacent to slab are greasewood (*Sarcobatus vermiculatus*). Author photograph, June 2003.

Figure 7.29. Remains of rock-lined walkway within residential block, Topaz Relocation Center. Five inch by eight inch field notebook for scale. Author photograph, June 2003.

shrubs planted during 1942-1943 remain (Figure 7.31). Remnants of the center's baseball fields are also present (Figure 7.32). This main portion of the center also shows evidence of extensive modification with ditches excavated to salvage cast iron pipes and to drain water from site, garbage dumping, debris left from target practice, houses built on the site, and center landfill looting. Many of the center's buildings remain on farmsteads in the area adjacent to the former residential portion of the center (Figure 7.33). Others can be seen in Delta. A portion of a dining hall is on Delta High School property (U.S. National Park Service, n.d.).

Figure 7.30. Remains of Block 11 barracks garden pond, Topaz Relocation Center. Five inch by eight inch yellow field notebook for scale. Author photograph, June 2003.

Figure 7.31. Tamarisk (*Tamarisk gallica*) likely planted in 1942 and 1943, Topaz Relocation Center. Small shrubs are mostly greasewood (*Sarcobatus vermiculatis*) native to the saline soils of the area. Author photo, June 2003.

Figure 7.32. Remains of the block 15 baseball backstop, Topaz Relocation Center. Author photograph, June 2003.

Figure 7.33. Former center farm equipment shed or animal barn, northeast of main portion of Topaz Relocation Center. Author photograph, June 2003.

The Topaz Relocation Center was listed on the National Register of Historic Places in 1974 and became a National Historic Landmark in 2007 (U.S. National Park Service, n.d.; U.S. Department of the Interior, 2007). The Topaz Museum Board purchased 417 acres of the 640 acres that was the residential and administrative portion of the center from local residents. With recent acquisitions of land, 626 acres of the former main portion of the center is protected by the Topaz Museum Board (Topaz Museum Board, 2002; Jane Beckwith, written communication, 21 March 2007). Two houses remain in the former evacuee residential blocks 33 and 35, and a mobile home resides in block 42. The U.S. Bureau of Land Management manages lands just west of the former residential and administration portion of the center (National Park Service, n.d.). The agricultural portion of the center is now all in private ownership with much of the land used for agricultural purposes. A monument, including interpretative plaques, is located on the northwest boundary of the former residential/administration portion of the center. A historical marker is also present in the Delta City Park. The Topaz Museum Board continues to rent space from the Great Basin Museum in Delta until a Topaz Museum can be constructed (Jane Beckwith, written communication, 21 March 2007). The Topaz portion of the Great Basin Museum includes one-half of a restored barracks, and documents and artifacts from Topaz.

Utah's Lower Sevier River Area Today. The Delta "oasis" today is shaped by water just as it has been for the past century, and just as it was when approximately 8,100 evacuees lived at Topaz from 1942-1945. Drought impacted the area from 1953-1965, and again from 1974-1978. In this land of extremes, the area was also shaped by floods in 1983-1984. The mid-1980s flooding on the Sevier River took out the DMAD Dam spillway and released three feet of water through the town of Deseret (Walker, n.d). Further downstream, it resulted in a Sevier Lake that was as much as 35 feet deep after it had essentially been a seasonally wet playa since about 1880 (Paulson et al., 1991).

Despite the vagaries of weather and climate that, in turn, affect the discharge of the Sevier River, the Delta oasis continues to be an irrigated agricultural landscape. In addition to the alfalfa seed industry, dairies have come to the Delta area for the advantages of cheap land, rural population, and dry weather (Harold Taylor, oral communication, 23 June 2003). As it did in 1945, agriculture occurs on the former farmlands of Topaz but stops abruptly just east of the former main portion of the center (Figure 7.33).

The construction of the Intermountain Power Project, including two large, coal-fired electricity plants, for Los Angeles Department of Power and Water about ten miles north of Delta resulted in a population and economic boom in the area in the early to mid-1980s. Delta's population climbed from 1,930 residents in 1980 to 6,670 in 1984 during the "boom." However, the "bust" that followed the completion of construction brought Delta's population down to about 3,000 residents by 1990. The population today is approximately the same, a number suggesting that the economy has also stabilized following the boom-bust cycle of construction (Brown et al., 2005). Mining in the nearby mountains has diversified the economy of the area. Delta's location on U.S. Highway 50 and its relative proximity to Great Basin National Park have also enhanced its tourism appeal over time. The promotion of the Great Basin Heritage Route that includes Delta and Topaz should further enhance tourist travel through the area (Great Basin Heritage Area Partnership, n.d.).

As of 2005, the estimated population of Millard County was 12,284, a 1% decrease since 2000. The population density of the county is 1.9 persons/mi^2, a far cry from the statewide average of 27.2 persons/mi^2. Nearly 87% of the county residents are white and non-Latino. Only Latinos, at 11% of the population, have a significant impact on the race and ethnicity in the county (U.S. Census Bureau, n.d.).

Figure 7.34. Former Topaz Relocation Center farmlands now being farmed. Author photograph, June 2003.

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References

Arrington, L.J., 1951: Taming the Turbulent River: A Story of Mormon Desert Conquest. *Western Humanities Review,* 5 (Autumn): 393-406.

Arrington, L.J., 1986: Utah's Ambiguous Reception: The Relocated Japanese Americans. *In* Daniels, R, Taylor, S.C. and Kitano, H.H.L., editors, *Japanese Americans: From Relocation to Redress*. Salt Lake City: University of Utah Press, pp. 92-98.

Arrington, L.J., 1997: *The Price of Prejudice: The Japanese-American Relocation Center in Utah During World War II.* Delta, Utah: Topaz Museum.

Bailey, R.G., 1995: Description of the Ecoregions of the United States (2nd edition). *USDA Forest Service Miscellaneous Publication* 1391, Washington, D.C.: Government Printing Office.

Brown, R.B., Dorius, S.F. and Krannich, R.S., 2005: The Boom-Bust-Recovery Cycle: Dynamics of Change in Community Satisfaction and Social Integration in Delta, Utah. *Rural Sociology*, 70 (1): 28-49.

Burton, J.F., Farrell, M.M., Lord, F.B., and Lord, R.W., 2002: *Confinement and Ethnicity: An Overview of World War II Japanese American Relocation Sites*. Seattle: University of Washington Press.

Butler, W., 1998: The Iwakura Mission and its stay in Salt Lake City. *Utah Historical Quarterly,* 66 (1): 26-47.

Callaway, D., Janetski, J. and Stewart, O.C., 1986: Ute *In* D'Azevedo, W.L., ed., *Handbook of North American Indians*, Volume 11: *Great Basin*. Washington, D.C.: Smithsonian, pp. 336-367.

Cederlof, A.P., 1985: The Peerless Coal Mines. *Utah Historical Quarterly,* 53 (4): 336-356.

Commission on Wartime Relocation and Internment of Citizens, 1982: *Personal Justice Denied*. Report of the Commission on Wartime Relocation and Internment of Citizens, Washington, D.C.: Government Printing Office.

Currey, D.R. and S.R. James, 1982: Paleoenvironments of the Northeastern Great Basin and Northeastern Basin Rim Region: A Review of Geological and Biological Evidence. *Society American Archaeology Paper,* 2: 27-52.

Daynes, G. and Kimball, R.I., 2001: "By their fruits ye shall know them": A Cultural History of Orchard Life in Utah Valley. *Utah Historical Quarterly,* 69 (3): 215-231.

Dutton, C.E., 1962: Irrigable lands of the valley of the Sevier River. *In* Powell, J.W., *Report on the Lands of the Arid Region of the United States*. Cambridge, Massachusetts: Belknap Press.

Eubanks, M.E. and Brough, R.C., 1979: *Mark Eubank's Utah Weather*. Salt Lake City: Weatherbank, Inc.

Fenneman, N.M., 1931: *Physiography of Western United States*. New York: McGraw-Hill Book Company, Inc.

Fiset, L., 1999: Health Care at the Central Utah (Topaz) Relocation Center. *Journal of the West,* 38 (2): 34-44.

Geary, E.A., 1996: *A History of Emery County*. Salt Lake City: Utah State Historical Society.

Gesensway, D. and Roseman, M., 1987: *Beyond Words: Images From America's Concentration Camps*. Ithaca, N.Y.: Cornell University Press.

Gilbert, G.K., 1890: Lake Bonneville. *U.S. Geological Survey Monograph* 1.

Great Basin Heritage Area Partnership, n.d.: Great Basin Heritage Route. http://www.greatbasinheritage.org/mission.htm. Accessed 9 February 2007.

Griffiths, J.F. and Driscoll, D.M., 1982: *Survey of Climatology*. Columbus, Ohio: Charles E. Merrill Publishing Company.

Iwata, M., 1992b: *Planted in Good Soil: The History of the Issei in United States Agriculture* (Volume 2). New York: Peter Lang.

Japanese American National Museum, n.d.: Topaz. http://www.janm.org/projects/clasc/topaz.htm. Accessed 6 February 2007.

Kawakami, T.S., 1986: Camp memories: Rough and Broken Shards. *In* Daniels, R., Taylor, S.C. and Kitano, H.H.L. (eds), *Japanese Americans: From Relocation to Redress*. Salt Lake City: University of Utah Press, pp. 27-30.

Kelen, L.G. and S.T. Fuller, 1988: *The Other Utahns: A Photographic Portfolio*. Salt Lake City: University of Utah Press.

Kelsey, M.R., 1996: *The Story of Black Rock, Utah*. Provo, Utah: Kelsey Publishing.

Lyman, E.L., n.d.: Delta. *In* Utah History Encyclopedia, http://www.media.utah.edu/UHE/index_frame.html. Accessed 8 February 2007.

Meyers, J.S., 1962: Evaporation From the 17 Western States. *U.S. Geological Survey Professional Paper* 272-D.

Mower, R.W. and Feltis, R.D., 1968: Ground-Water Hydrology of the Sevier Desert Utah. *U.S. Geological Survey Water-Supply Paper* 1854.

Mullan, M.J., 1999: Sport, Ethnicity and the Reconstruction of the Self: Baseball in America's Internment Camps. *The International Journal of the History of Sport,* 16 (1): 1-21.

Obata, C., 2000: *Topaz Moon*. Berkeley, California: Heyday Books.

Okubo, M., 1983: *Citizen 13660.* Seattle: University of Washington Press.

Ota, D., 1942: Agriculture–Irrigation. *Topaz Times*, 30 September, pp 4.

Oviatt, C.G., 1988: Late Pleistocene and Holocene lake fluctuations in the Sevier Lake Basin, Utah, USA. *Journal of Paleolimnology,* 1: 9-21.

Oviatt, C.G., 1989: Quaternary Geology of Part of the Sevier Desert, Millard County, Utah. *Utah Geological and Mineral Survey Special Studies* 70.

Palmer, W.W., 1945: Closing Report Agricultural Section. Reel #16, Records of the War Relocation Authority, 1942-1946. Field Basic Documentation. National Archives, Washington, D.C.

Papanikolas, H.Z. and Kasai, A., 1976: Japanese Life in Utah. *In* Papanikolas, H.Z., editor, *The Peoples of Utah*. Salt Lake City: Utah State Historical Society, pp. 333-362.

Paulson, R.W., Chase, E.B., Roberts, R.S., and Moody, D.W., 1991: Utah: Floods and Droughts. *In* National Water Summary 1988-89: Hydrologic Events and Floods and Droughts, *U.S. Geological Survey Water-Supply Paper* 2375, pp. 527-533.

Richardson, E.A., 1977: Climate. *In* Stott, L.H., *Soil Survey of Delta Area, Utah: Part of Millard County*. U.S. Department of Agriculture-Soil Conservation Service, Washington, D.C.: U.S. Government Printing Office, pp. 72-73.

Ridd, M.K., 1963: The Influences of Soil and Water Conditions on Agricultural Development in the Delta Area, Utah. PhD Dissertation, Northwestern University, Evanston, Illinois.

Sekarak, E.G. 1986. A teacher at Topaz. *In* Daniels, R., Taylor, S.C., and Kitano, H.H.L., editors, *Japanese Americans: From Relocation to Redress*. Salt Lake City: University of Utah Press, pp. 38-43.

Simpson, J.H., 1983: *Report of the Explorations Across the Great Basin of the Territory of Utah For a Direct Wagon-Route From Camp Floyd to Genoa, in Carson Valley in 1859.* Reno: University of Nevada Press.

Staff, 1942: Outside Work. *Topaz Times*, 30 September, pp. 1.

Staff, 1942a: The Churches. *Topaz Times*, 10 October, pp. 3.

Staff, 1942b: Student Relocation. *Topaz Times*, 10 October, pp. 4.

Staff, 1942: The City: Residents See Season's First Snowfall. *Topaz Times*, 29 October, pp. 1.

Staff, 1942: Thousands of Trees Planted. *Topaz Times*, 3 December, pp. 1.

Staff, 1943: Dismantle CC Buildings for WRA Use. *Topaz Times*, 12 January, pp. 1.

Staff, 1943: Agricultural Survey. *Topaz Times*, 23 January, pp. 3.

Staff, 1943: Gala Program to Greet Newcomers. *Topaz Times*, 13 March, pp. 1.

Staff, 1943: Public Works Plans Dust Control Program. *Topaz Times*, 8 April, pp. 4.

Staff, 1943: Landscaping Progresses. *Topaz Times*, 22 April, pp. 3.

Staff, 1943: Dust Control Steps for Hospital Taken. *Topaz Times*, 6 May 1943, pp. 3.

Staff, 1943: Topaz Receives 4 CCC Buildings. *Topaz Times*, 13 May, pp. 3.

Staff, 1943: Weather–It's been a Mild Winter. *Topaz Times*, 18 May 1943, pp. 3.

Staff, 1943: 65 Leave for Summer Camp. *Topaz Times*, 8 July, pp. 1.

Staff, 1943: City Swelters for Fifth Day. *Topaz Times*, 29 July 1943, pp. 5.

Staff, 1943: Bon Odori to Climax Buddhists Fete Sunday. *Topaz Times*, 12 August, p. 4.

Staff, 1943: Topaz Gets Vegetables From Tule. *Topaz Times*, 19 September, pp. 2.

Staff, 1943: 12 CCC Buildings to be Transferred to Project. *Topaz Times*, 6 October 1943, pp. 2.

Staff, 1943: Tule Vegetables Sent to Project. *Topaz Times*, 11 December, pp. 1.

Staff, 1943: Community Ice Rink Now Being Constructed. Topaz Times, 21 December, pp. 2.

Staff, 1944: Plans for Hot Houses Near Hospital Made. *Topaz Times*, 1 February, pp. 2.

Staff, 1944: Weather. *Topaz Times*, 15 March, pp. 1.

Staff, 1944: Gila Daikon to be Sent Here. *Topaz Times*, 22 March, pp. 2.

Staff, 1944: Farm Equipment Arrives From Jerome Center. *Topaz Times*, 5 April, pp. 1.

Staff, 1944: Root Cellar Now Used by Ag. Dept. *Topaz Times*, 8 April, pp. 3.

Staff, 1944: Damage Caused by Wind Storm. *Topaz Times*, 10 June, pp. 1.

Staff, 1944: Meteorite Found Near Topaz, Specimen Sent to Washington. *Topaz Times*, 11 October, pp. 1, 3.

Staff, 1944: Coast Re-Opens. *Topaz Times*, 18 December, pp. 1.

Staff, 1944: Ice Skaters to Have Music Sun. *Topaz Times*, 23 December, pp. 5.

Staff, 1945: Moriwaki's 1st to Leave for Calif. *Topaz Times*, 3 January, pp. 1.

Staff, 1945b: Coast Opens Today to All But 272 Topazeans. *Topaz Times*, 3 January, pp. 1.

Staff, 1945: Most Topazeans Do Not Plan Coast Return Now. *Topaz Times*, 6 January, pp. 1.

Staff, 1945: Topaz to Close Nov. 1: Myers Urges Residents to Plan Relocation Now. *Topaz Times*, 13 July, pp. 1.

Stevenson, J.G., 1978: History of Sugarville, Millard County, Utah: 1908-1977. Provo, Utah: Self-published.

Stott, L.H., 1977: Soil Survey of Delta Area, Utah: Part of Millard County. U.S. Department of Agriculture-Soil Conservation Service. Washington, D.C.: Government Printing Office.

Taylor, S.C., 1986: Japanese Americans and Keetley Farms: Utah's Relocation Colony. *Utah Historical Quarterly,* 54(4): 328-344.

Taylor, S.C., 1991: Leaving the Concentration Camps: Japanese American Resettlement in Utah and the Intermountain West. *Pacific Historical Review,* 60 (May): 169-194.

Taylor, S.C., 1993: *Jewel of the Desert: Japanese American Internment at Topaz*. Berkeley: University of California Press.

Topaz Museum, 2005: Sixty Years Later Topaz Museum Board Closes on 92 Acre Land Deal. http://www.topazmuseum.org/landclose.html. Accessed 9 February 2007.

Topaz Museum Board, 2002: Good news regarding land acquisition. *Topaz Times Newsletter*, 2 (1), pp. 3.

Uchida, Y., 1980: Topaz, City of Dust. *Utah Historical Quarterly* 48 (Summer): 234-243.

Uchida, Y., 1982: *Desert Exile: The Uprooting of a Japanese American Family*. Seattle: University of Washington Press.

U.S. Army–Western Defense Command, 1943: Final Report: Japanese Evacuation from the West Coast 1942. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1913: *Thirteenth Census of the United States Taken in the Year 1910, Volume III: Population 1910.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1922: *Fourteenth Census of the United States Taken in the Year 1920, Volume III: Population 1920: Composition and Characteristics of the Population by States,* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1932: *Fifteenth Census of the United States: 1930, Population: Reports by States Showing the Composition and Characteristics of the Population for Counties, Cities, and Towships or Other Minor Civil Divisions, Volume III, Part II: Montana-Wyoming.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1943a: *Sixteenth Census of the United States: 1940, Volume II, Characteristics of the Population: Part 4: Minnesota-New Mexico.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1943b: *Sixteenth Census of the United States: 1940, Volume II, Characteristics of the Population: Part 7: Utah-Wyoming.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1952a: *A Report of the Seventeenth Decennial Census of the United States Census of Population: 1950, Volume II: Characteristics of the Population, Part 28: Nevada*. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1952b: *A Report of the Seventeenth Decennial Census of the United States Census of Population: 1950, Volume II: Characteristics of the Population, Part 44: Utah*. Washington, D.C.: Government Printing Office.

U.S. Census Bureau, n.d.: State & County QuickFacts: Millard County, Utah. http://quickfacts.census.gov/qfd/states/49/49027.html. Accessed 8 February 2007.

U.S. Census Office, 1895: *Report on the Population of the United States at the Eleventh Census: 1890, Part I.* Washington, D.C.: Government Printing Office.

U.S. Census Office, 1901: *Twelfth Census of the United States, Taken in the Year 1900. Census Reports Part I: Population.* Washington, D.C.: Government Printing Office.

U.S. Department of Agriculture, 1954: Diagnosis and Improvement of Saline and Alkaline Soils. *Agriculture Handbook* #60.

U.S. Department of the Interior, 2007: Interior Secretary Kempthorne Designates 12 National Historic Landmarks in 10 States. http://www.doi.gov/news/07_News_Releases/070404.html. Accessed 14 May 2007.

U.S. Geological Survey, 1955: Quality of Surface Waters of the United States, 1951. *Water-Supply Paper* 1200.

U.S. Geological Survey, n.d.: USGS Annual Surface Water Statistics for the Nation–1022400. Sevier River near Lynndyl, Utah. http://nwis.waterdata.usgs.gov/nwis/annual. Accessed 8 February 2007.

U.S. National Park Service, n.d.: Topaz Relocation Center, Utah. *In Report to the President: Japanese-American Internment Sites Preservation*. http://www.cr.nps.gov/history/online_books/internment/reporta4.htm. Accessed 8 February 2007.

U.S. Natural Resources Conservation Service, n.d.: Ecological and Interpretive Groups, Exhibit 622-2, Land Capability Classification, *In National Soil Survey Handbook*. http://soils.usda.gov/technical/handbook/contents/part622p2.html#cap_cls. Accessed 5 February 2007.

U.S. War Relocation Authority, 1945: Central Utah Final Accountability Report. October. Part 1 of 2. http://digital.lib.usu.edu/cgi-bin/docviewer.exe?CISOROOT=/Topaz&CISOPTR=7913&CISOSHOW=7675. Accessed 28 March 2007.

U.S. War Relocation Authority, 1946: The Evacuated People: A Quantitative Description. Washington, D.C.: Government Printing Office.

Utah Rails, n.d.: San Pedro, Los Angeles, and Salt Lake Railroad. http://www.trainweb.org/utahrails/rr/splasl.html. Accessed 5 February 2007.

Waldman, C., 2000: *Atlas of the North American Indian*. New York: Facts on File, Inc.

Walker, R., n.d.: Sevier River Flooding 1983-1984. http://www.waterhistory.org/histories/delta3/ Accessed 8 February 2007.

Walz, E., 2000: From Kumamoto to Idaho: The Influence of Japanese Immigrants on the Agricultural Development of the Interior West. *Agricultural History,* 74 (2): 404-418.

Walz, E., 2001: Japanese Settlement in the Intermountain West, 1882-1946. *In* Mike Mackey, editor, *Guilt by Association: Essays on Japanese Settlement, Internment, and Relocation in the Rocky Mountain West*. Powell, Wyoming: Western History Publications, pp. 1-24.

Welker, R.T., 2002: Utah schools and the Japanese American student relocation program. *Utah Historical Quarterly,* 70 (1): 4-20.

Western Regional Climate Center, n.d.a: Climate of Utah. http://www.wrcc.dri.edu/narratives/UTAH.htm. Accessed 5 February 2007.

Western Regional Climate Centera, n.d.b: Deseret, Utah (422101). http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ut2101. Accessed 5 February 2007.

White, M.C., 1994: Keetley, Utah: The birth and death of a small town. *Utah Historical Quarterly,* 62 (3): 246-260.

Wilson, M.R., 2001: Wanda Robertson: A Teacher for Topaz. *Utah Historical Quarterly,* 69 (2): 120-138.

Works Progress Administration, 1941: *Utah: A Guide to the State*. (American Guide Series). New York: Hastings House.

CHAPTER 8

MANZANAR

Introduction

The Manzanar Relocation Center, initially referred to as the "Owens Valley Reception Center", was located at about 36º44' N latitude and 118º09'W longitude, and at about 3,900 feet elevation in east-central California's Inyo County (Figure 8.1). Independence lay about six miles north and Lone Pine approximately ten miles south along U.S. highway 395. Los Angeles is about 225 miles to the south and Las Vegas approximately 230 miles to the southeast. The relocation center was named after Manzanar, a turn-of-the-century fruit town at the site that disappeared after the City of Los Angeles purchased its land and water. The Los Angeles Aqueduct lies about a mile to the east.

The Works Progress Administration (1939, p. 517-518), on the eve of World War II, described this area as:

> *This section of US 395 penetrates a land of contrasts–cool crests and burning lowlands, fertile agricultural regions and untamed deserts. It is a land where Indians made a last stand against the invading white man, where bandits sought refuge from early vigilante retribution; a land of fortunes–past and present–in gold, silver, tungsten, marble, soda, and borax; and a land esteemed by sportsmen because of scores of lakes and streams abounding with trout and forests alive with game. The highway follows the irregular base of the towering Sierra Nevada, past the highest peak in any of the States–Mount Whitney–at the western approach to Death Valley, the Nation's lowest, and hottest, area.*

The following pages address: 1) the physical and human setting in which Manzanar was located; 2) why east central California was selected for a relocation center; 3) the structural layout of Manzanar; 4) the origins of Manzanar's evacuees; 5) how Manzanar's evacuees interacted with the physical and human environments of east central California; 6) relocation patterns of Manzanar's evacuees; 7) the fate of Manzanar after closing; and 8) the impact of Manzanar on east central California some 60 years after closing.

Physical Setting

Physiography, Geology and Landforms. The Manzanar Relocation Center lay at the boundary of the Great Basin section of the Basin and Range physiographic province and the Sierra Nevada section of the Cascade-Sierra Mountains (Fenneman, 1931) (Figure 8.2). The Basin and Range consists of north-trending mountain ranges separated by low relief basins. It stretches from southern Oregon and Idaho into northern Mexico, and from eastern California to western Utah

Figure 8.1. Inyo County, California and adjacent counties. Adapted from American Automobile Association California Roadmap (1995).

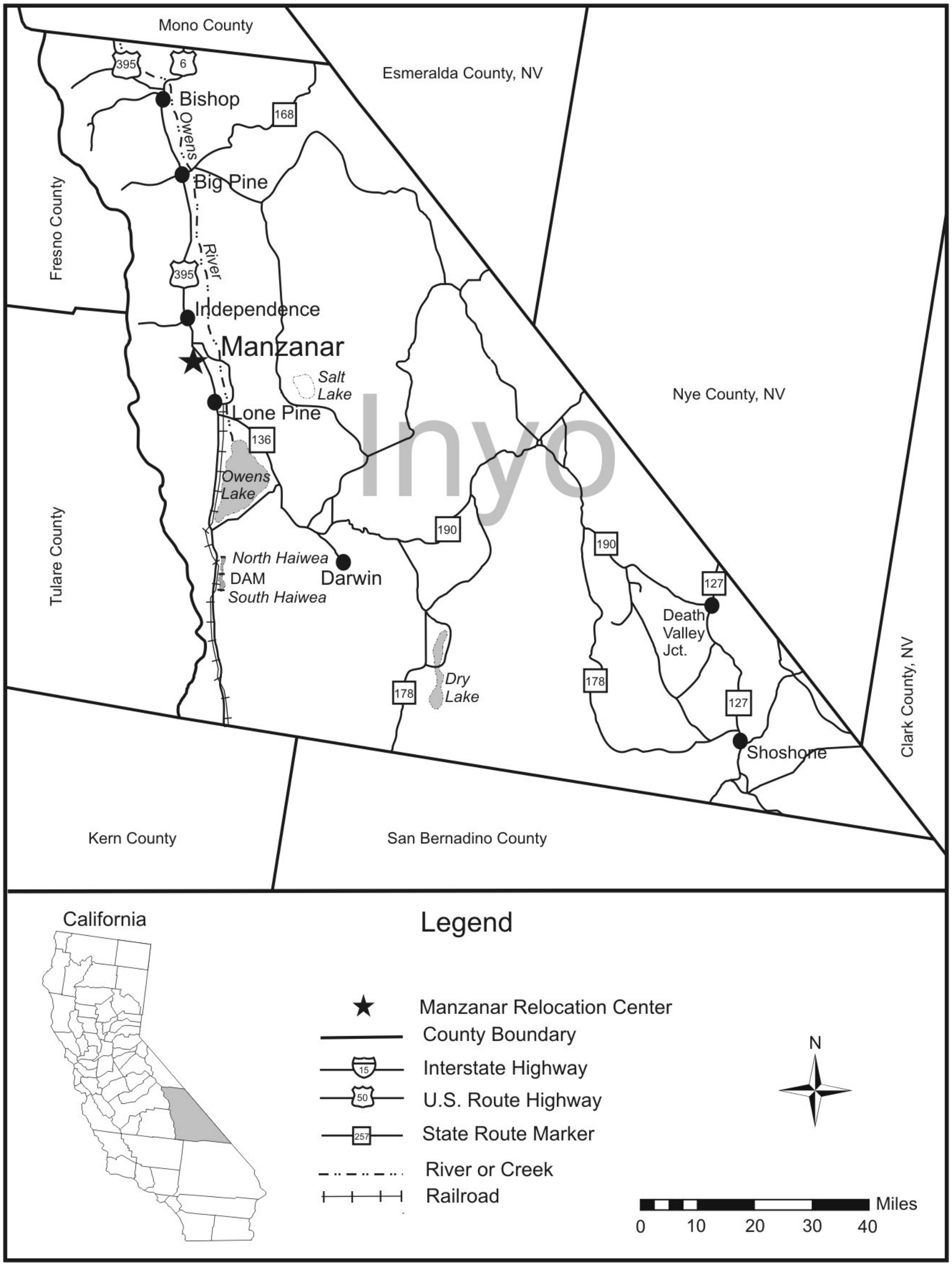
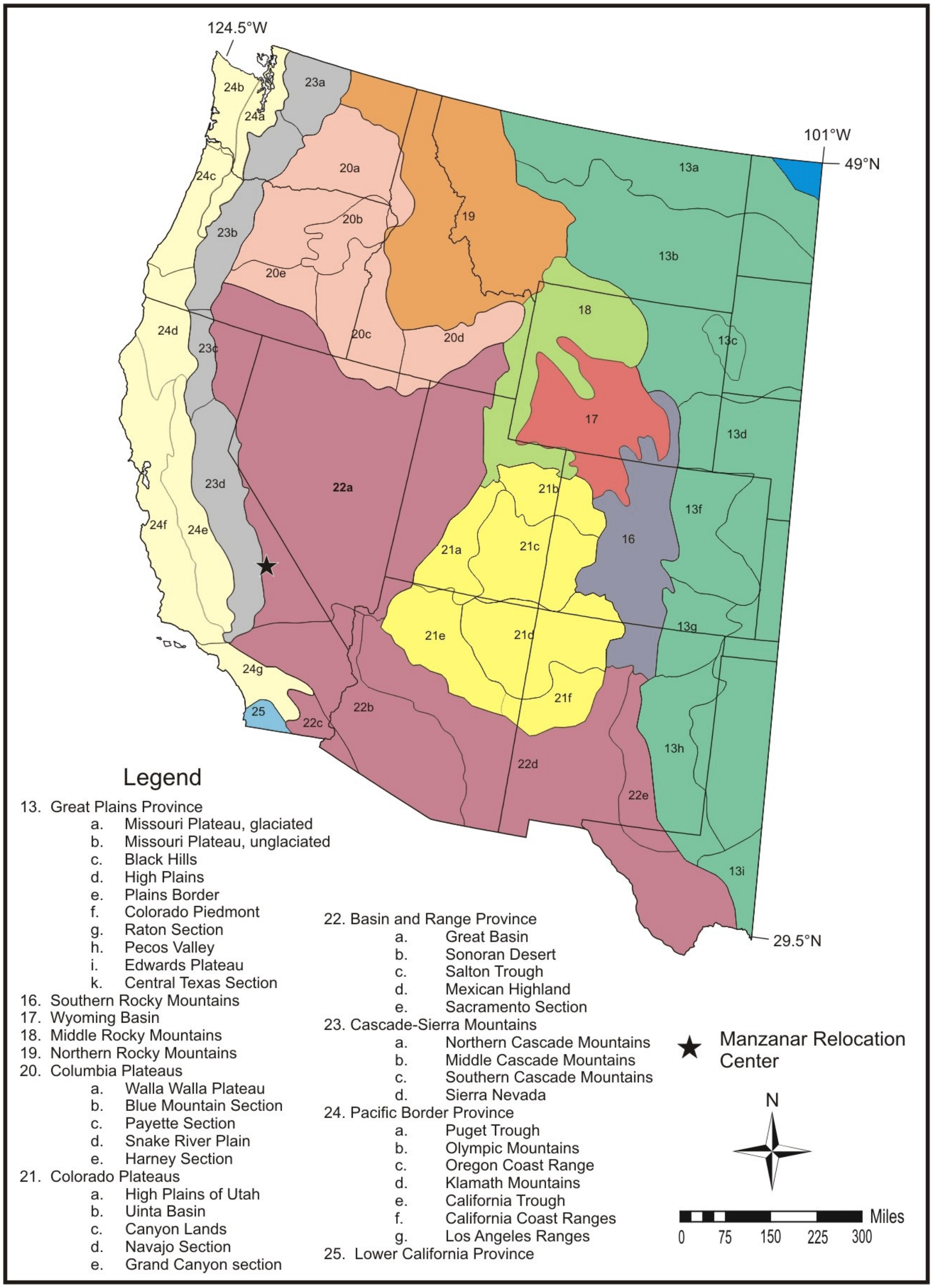


Figure 8.2. Manzanar and the Great Basin within the Basin and Range physiographic province. Map adapted from Fenneman (1931, Plate 1).



(Fenneman, 1931). The Sierra Nevada portion of the Cascade-Sierra Mountains is an approximately 400 mile long, north-northwest oriented, asymmetrical mountain range with a gentle west face and an abrupt east face (Fenneman, 1931). Manzanar lay in the north-northwest trending Owens Valley and in the shadow of the nearby Sierra Nevada Range. The Inyo Mountains are immediately east and the White Mountains lie to the northeast (Figure 8.3). Elevations over the former relocation center range from about 4,265 feet on the western boundary to approximately 3,800 feet on the eastern boundary. The gradient over these lands is about about 170 feet/mile. However, nearby Mount Williamson towers to 14,375 feet in the Sierra Nevada Range while 13 miles to the northeast, the Owens River lies at about 3,660 feet. Nearby Mount Inyo in the Inyo Range rises to just over 11,100 feet.

The geology of the area ranges from bedrock mountains to recent fill in the lowlands. The Sierra Nevada Range in the vicinity of Manzanar is composed of *Mesozoic* (i.e., approximately 250-65 million years ago) intrusive igneous rocks including granodiorite and granite, and a small amount of metavolcanic (i.e., metamorphosed volcanic) rock (Moore, 1981; Stone et al., 2000) (Figure 8.4). The Alabama Hills, just south of Manzanar, mostly consists of Mesozoic volcanic *tuff* (i.e., volcanic ash that has hardened to form rock). Across Owens Valley, the Inyo Mountains are composed of *Paleozoic* (i.e., about 550-250 million years ago) sedimentary and metamorphic rocks that were intruded by Mesozoic plutons and covered by Mesozoic lava flows. Both mountain ranges are characterized by steep topography (Figure 8.5). Lying downslope of the exposed bedrock of the Sierra Nevada Range are late *Cenozoic* (i.e., about the last five million years) stream-deposited *alluvium* and slope process-deposited *colluvium* in the form of massive, gently sloping, coarse-textured, coalescing alluvial fans (Figures 8.4 and 8.5). The bulk of the Manzanar Relocation Center sits on younger, but now inactive, coarse-textured alluvial fan deposits at the base of the *piedmont* (i.e., gently sloping surface at the base of a mountain range). Much of the sediment of these fans likely has its origins in the glaciers that occupied the high portions of the watersheds above Manzanar (Stone et al., 2000). The Owens Valley floor is mantled with low relief, fine-grained, late Cenozoic paleo-Lake Owens deposits, the predecessor to contemporary Owens Lake (Figure 8.6). Paleo-Lake Owens, at its greatest depth of about 260 feet, extended upvalley of Independence to an elevation of 3,805 feet between 27,000 and 15,300 years before present (yr B.P.) (Bacon et al., 2006). At its highstand, this lake overflowed into a series of paleolake basins to the south and east (Gale, 1914). Paleolake deposits have been incised by the recent Owens River. Recent wind transported *eolian* sand sheets blanket the shore features and deposits of paleo-Lake Owens, especially on the east side of the valley.

Two Cenozoic fault zones have visibly altered the landscape of the area. The Sierra Nevada Frontal Fault Zone serves as the general boundary between bedrock and more recent deposits along the east face of the Sierra Nevada and has played a major role in creating the topographic contrasts in the area (Figure 8.5) (Stone et al., 2000). Up to 9,840 feet of vertical displacement is evident along this fault zone (Beanland and Clark, 1994). As a result of this faulting, Owens Valley can be considered a complex *graben* (i.e., block dropped by faulting) while the adjacent mountain ranges are each *horst* (i.e., block uplifted by faulting) (Hollett et al., 1991). The Owens Valley Fault Zone runs just east of the former center (Figure 8.4). The 1872 Lone Pine

Figure 8.3. Cumulative historical map of the Owens Valley area, including the Manzanar Relocation Center. Adapted from Mariposa, Fresno, and Death Valley 1:250,000 U.S. Geological Survey topographic maps.

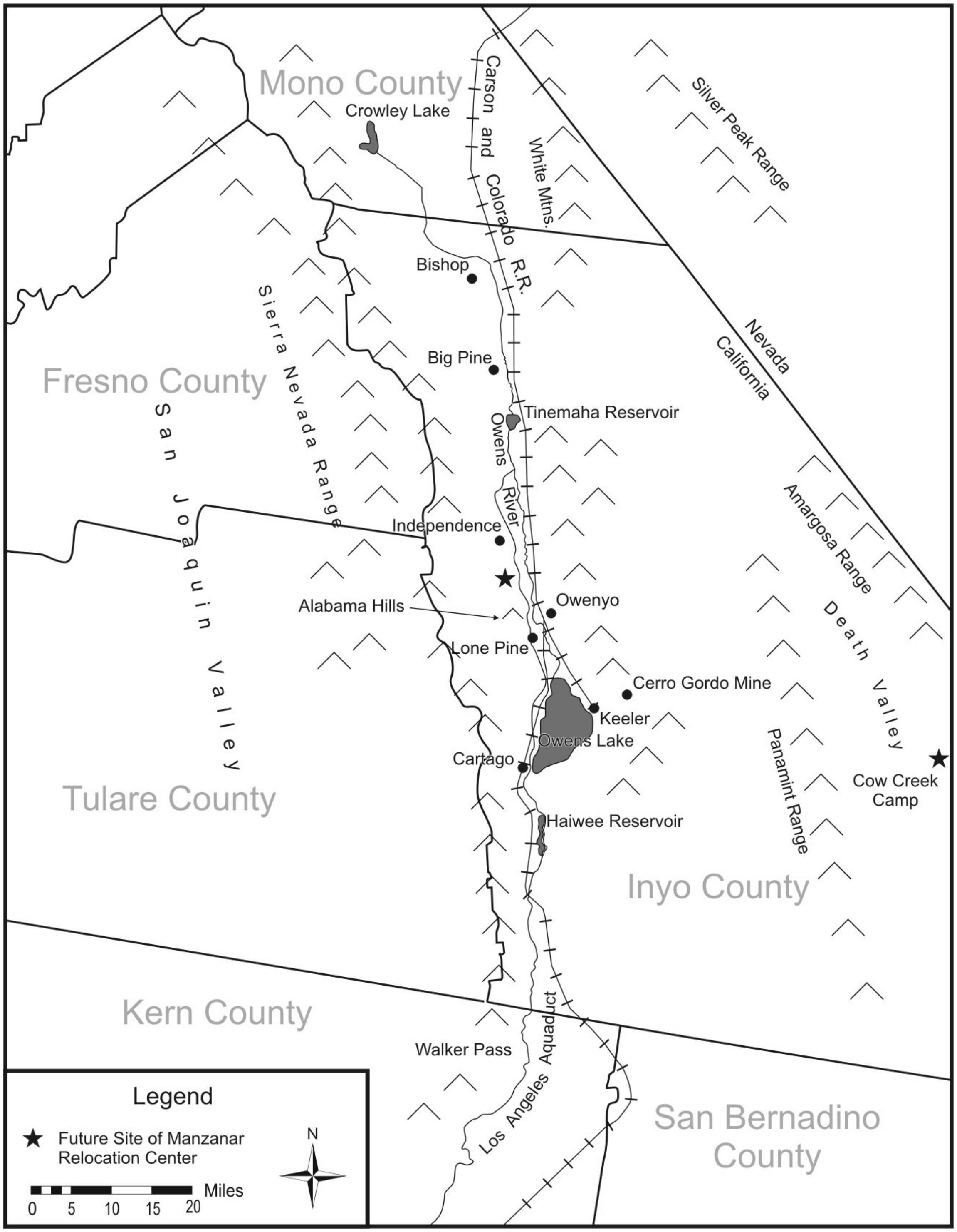


Figure 8.4. Geology of the Manzanar Relocation Center, California and vicinity. Adapted from Stone et al. (2000).

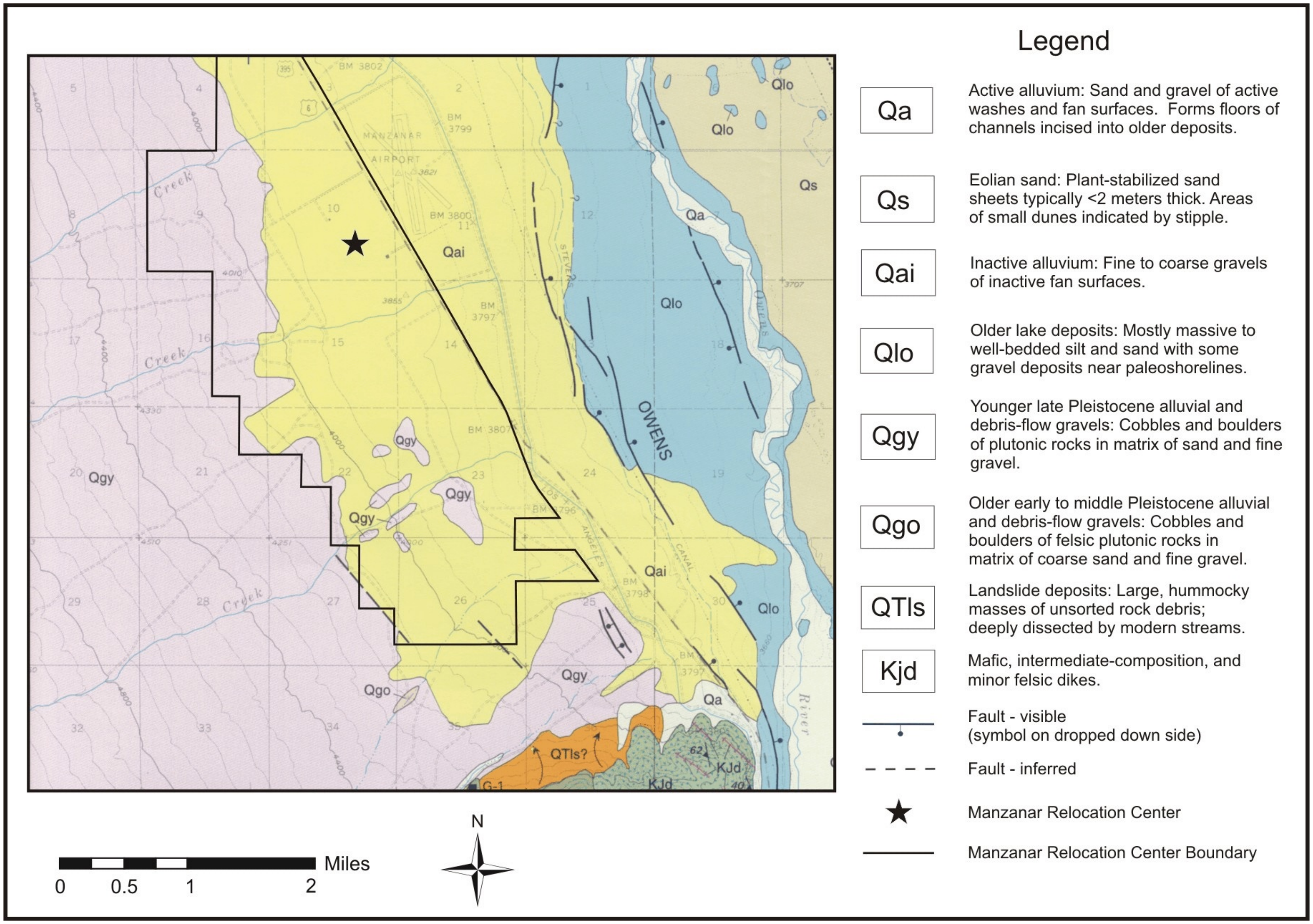


Figure 8.5. Topographic map of Manzanar Relocation Center, California and vicinity. Adapted from U.S. Geological Survey Mount Whitney, California 1:100,000-scale topographic map.

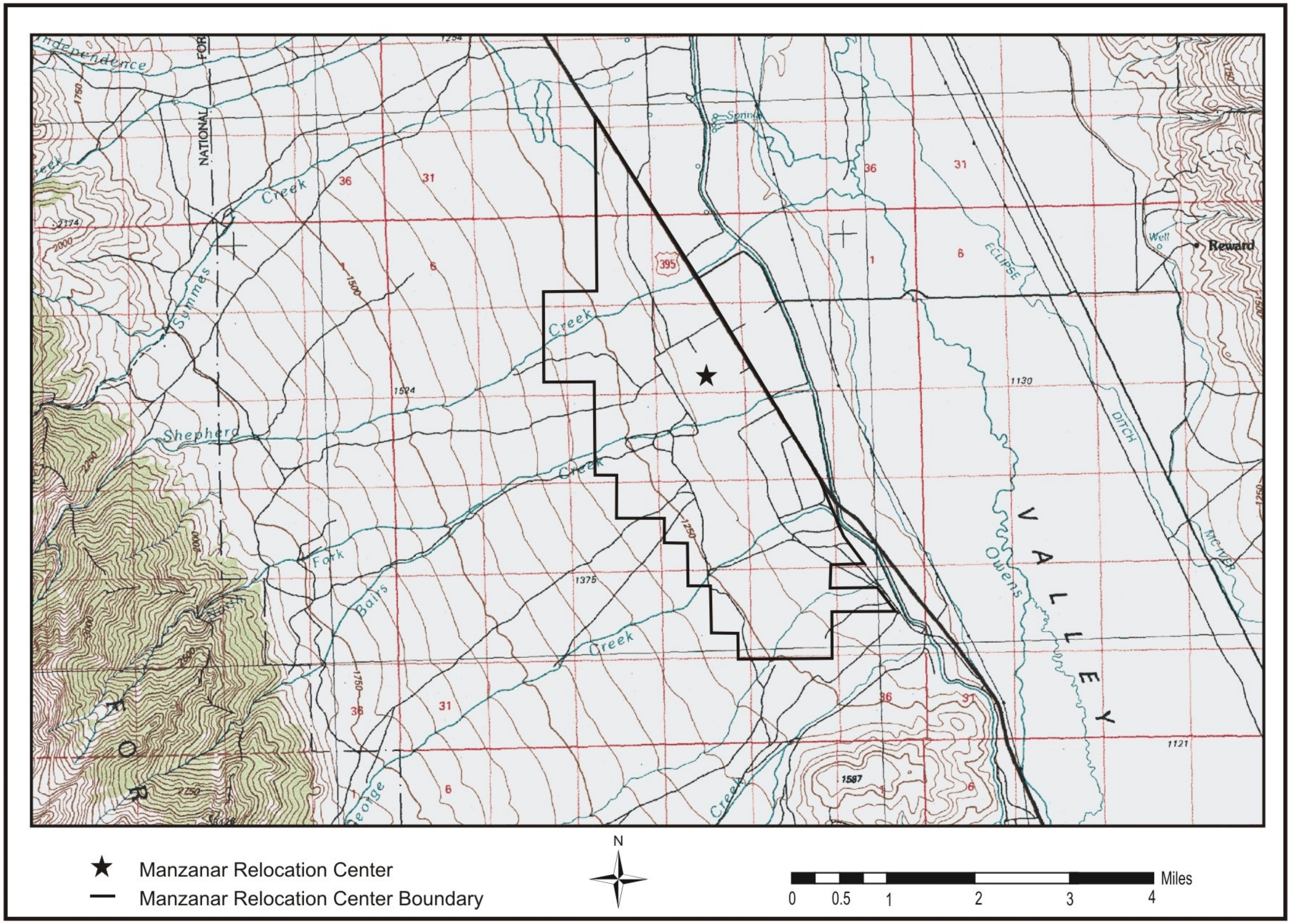
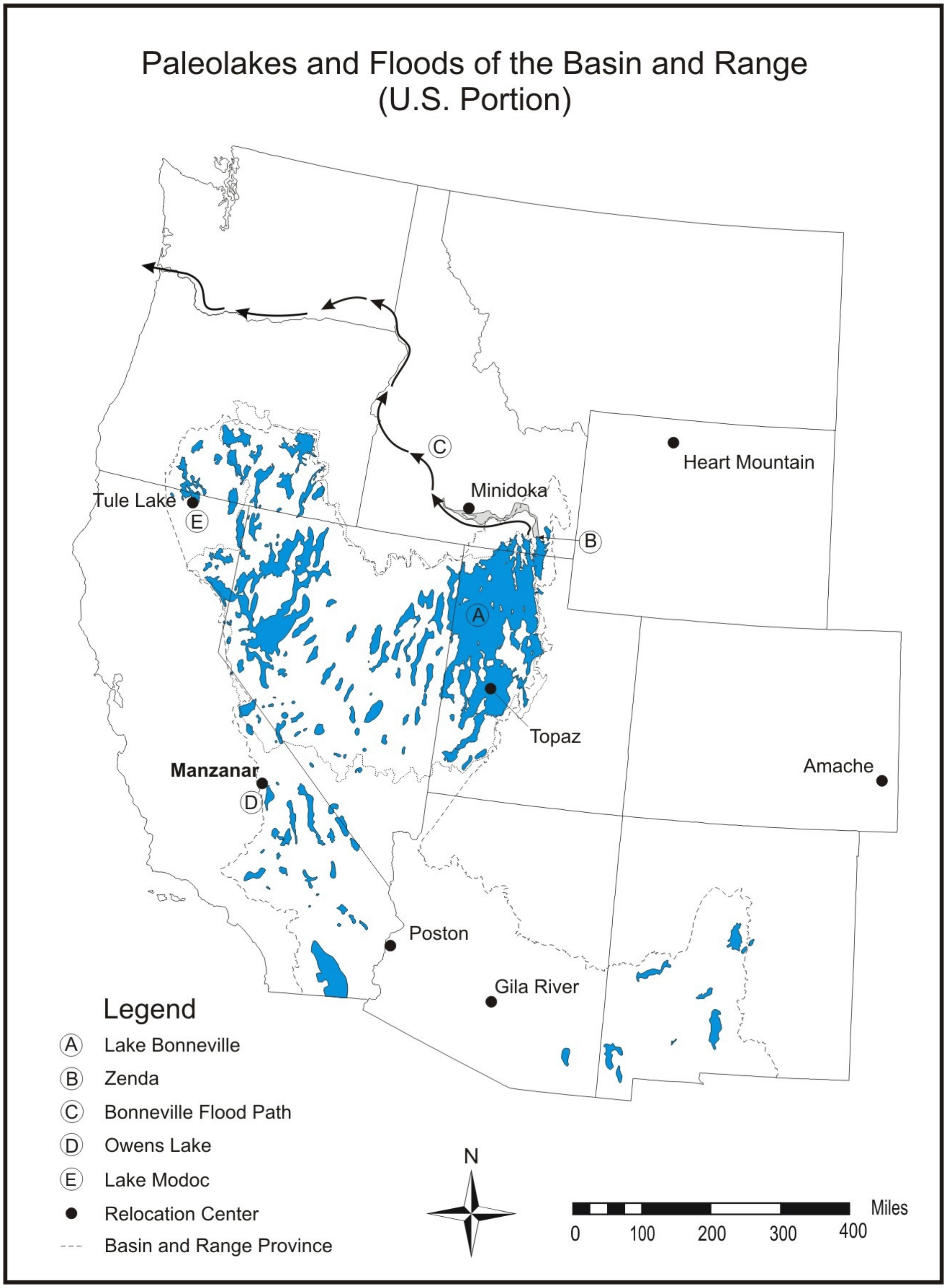


Figure 8.6. Late Pleistocene Owens Lake and Owens River in relation to other paleo-lakes and paleo-floods in the Great Basin, Western U.S. Adapted from Williams and Bedinger (1984).



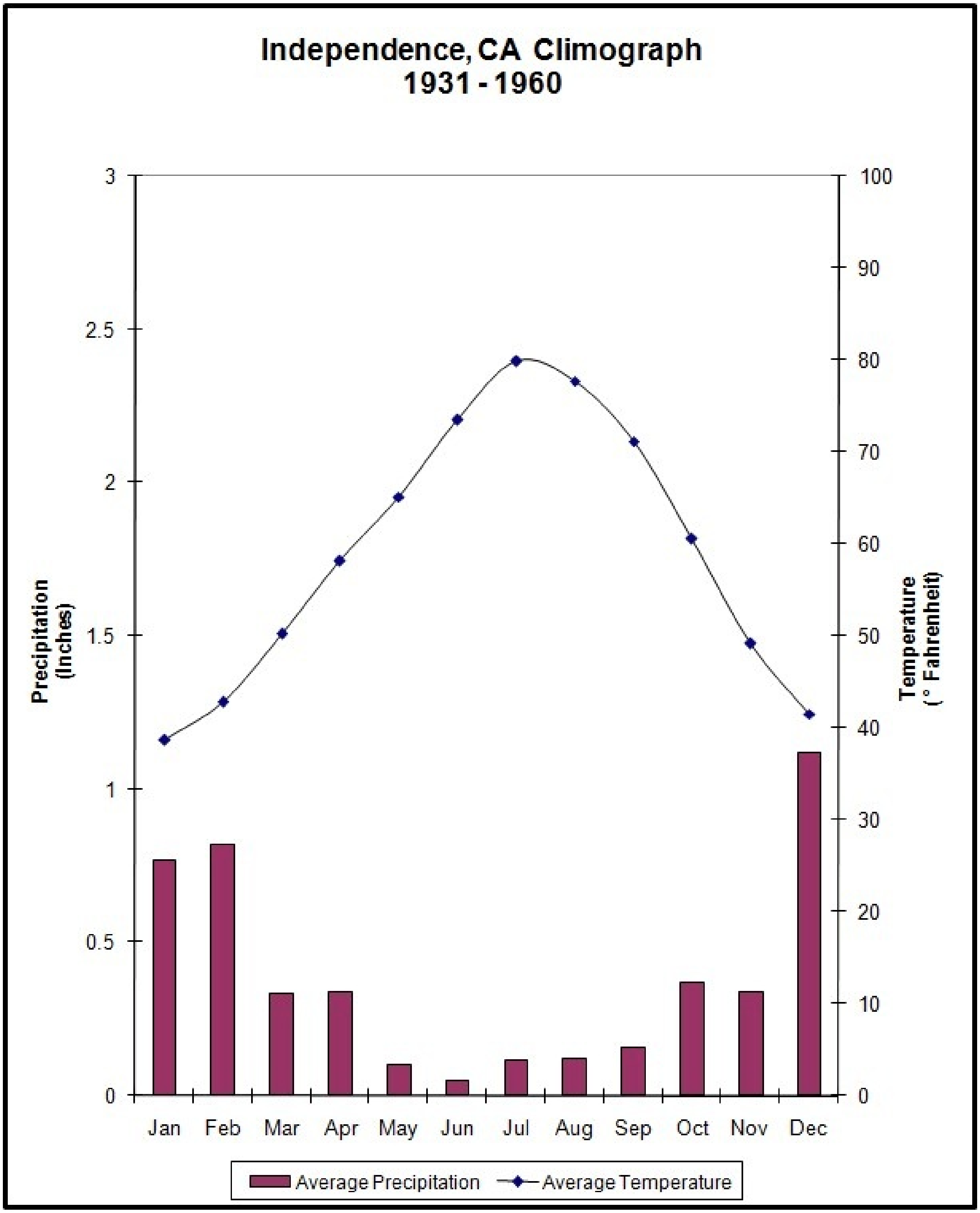
earthquake that occurred along the Owens Valley Fault Zone registered a Magnitude 8 on the Richter scale (Stone et al., 2000). Lone Pine's adobe and brick structures were devastated by this "great quake" killing 27 residents, fully 10% of the town's population. Most of the earthquake's slip was horizontal and dextral (i.e., right lateral), amounting to as much as 33 feet in Lone Pine. Approximately 3-7 feet of vertical offset occurred near Manzanar (see Plates 1 and 2 in Beanland and Clark, 1994).

Weather and Climate. The middle latitude, intermediate elevation, east of the Sierra Nevada-setting leads to hot, dry summers and cool to cold, moist winters. The climate of the area is classified under the Koppen system as a cold desert (BWk).

The mid-latitude setting results in a systematic change in sun angles and distinct temperature patterns throughout the year (Figure 8.7). The continental, leeward location east of the Sierra Nevada Range means clear skies for much of the year thus enhancing the daily temperature range. The intermediate elevation decreases temperatures in all seasons, as compared to other nearby, lower elevation settings. The 1931-1960 average January temperature at Independence was about 39ºF while the average July temperature was 80ºF (Figure 8.7). The mean annual temperature during the same period was nearly 59ºF (Western Regional Climate Center, n.d.a). The growing season (i.e., last 32ºF killing frost of spring to the first killing frost of the fall) at Independence five out of ten years is 210 days extending from 9 April to 2 November (Western Regional Climate Center, n.d.a).

Annual precipitation was approximately 4.6 inches/year in Independence (Figure 8.7) during the period 1931-1960 hence the moniker "Land of Little Rain" (Austin, 1950; Western Regional Climate Center, n.d.a). Average precipitation did not exceed 1.1 inches in any month during this period. The dominance of high barometric pressure (i.e., Pacific High), position in the lee of the Sierra Nevada Range, and location approximately 180 miles inland of the Pacific Ocean causes the overall dry conditions of the area. The seasonality of the precipitation (i.e., 81% of the precipitation falls from October through March) results from the shifting of the Pacific High. The weakening and equatorward shifting of the Pacific High allows mid-latitude cyclones to penetrate the area in the winter. Summers are dry because of the dominance of the Pacific High over the area thus shifting storm tracks to the north (Western Regional Climate Center, n.d.b). While annual precipitation is generally low, Independence has experienced significant variability in its precipitation record over the same period–a high of 10.2 inches/year in 1945 and a low of 1.8 inches in 1953 (Western Regional Climate Center, n.d.a). Precipitation also changes markedly with elevation in the vicinity of Manzanar. Independence received 4.6 inches/year during the 1931-1960 period; however, it is likely that high elevations of the Sierra Nevada Range just 10-15 miles west received 20-25 inches/year. Bishop, located about 30 miles to the north, averages about 13 thunderstorms/year, with most occurring in July (Tallyn, 2002). Annual snowfall averaged approximately nine inches/year at Independence during the 1931-1944 period. Like overall precipitation, annual snowfall totals range widely–e.g., from no snowfall in 1931 and 1934 to nearly 21 inches in 1933 (Western Regional Climate Center, n.d.a). Three significant droughts occurred during the 1931-1960 period–1928-1937, 1943-1951, and 1959-

Figure 8.7. Independence, California climograph, 1931-1960. Data from Western Regional Climate Center (n.d.a).



1962 (Paulson et al, 1991). With annual lake evaporation averaging 36-40 inches/year during the 1946-1955 period and precipitation at about five inches/year, irrigation is required for most southern Owens Valley crops (Meyers, 1962).

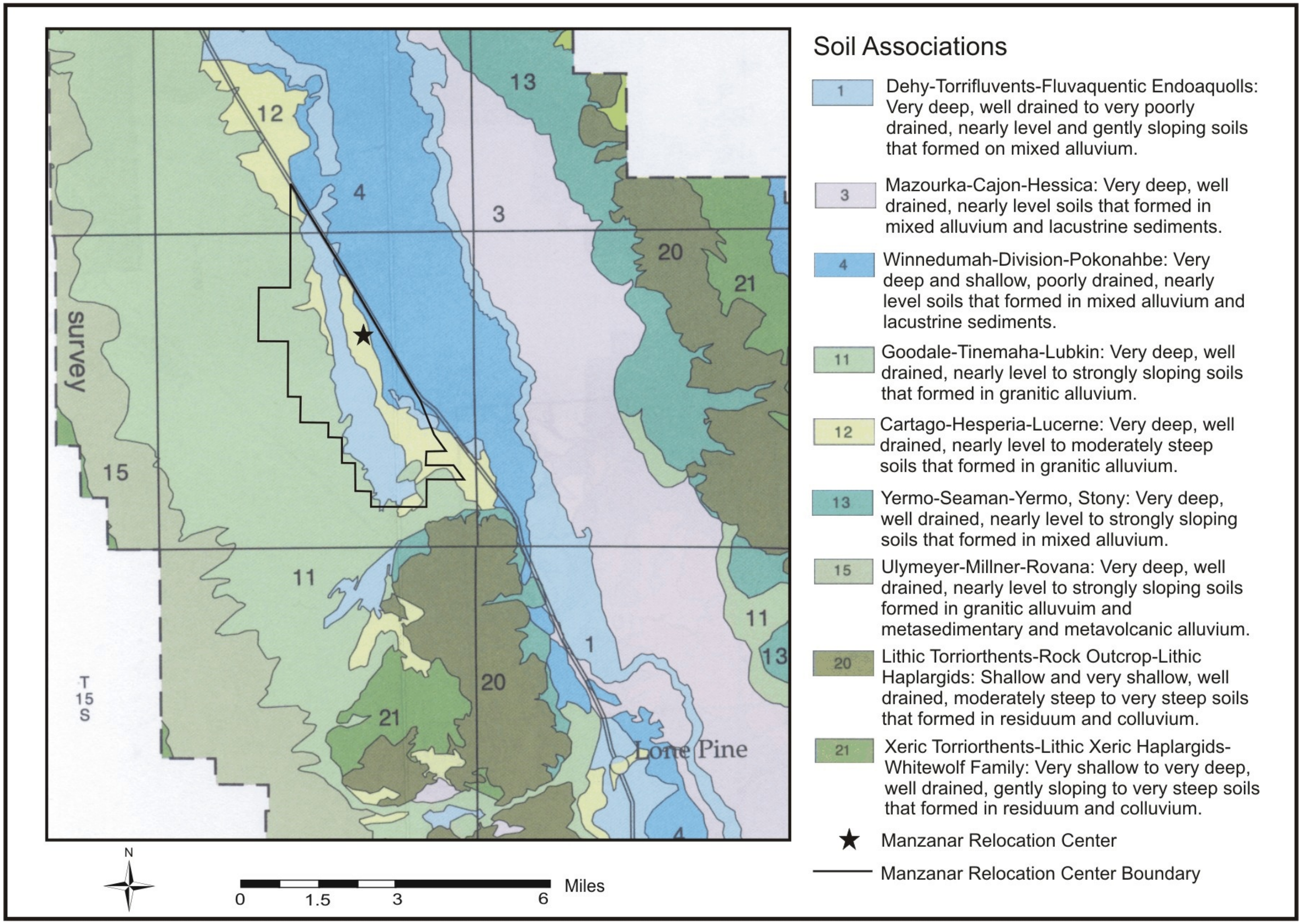
Various accounts mention the frequent and often strong winds of Owens Valley that generally follow the long axis of the valley, flowing either north or south (Hollett et al., 1991). Winds result from barometric pressure gradients that shift with the passage of fronts and cyclones through the seasons.

Soils. The soils of the former Manzanar Relocation Center are a function of the five soil forming factors–i.e., parent material, topography, climate, biota, and time. Parent materials are nearly all alluvium associated with alluvial fans and fan terraces formed at the base of the Sierra Nevada Range. Soils range from sand to clay textures but tend toward coarser textures with ample gravels. Poorly developed *entisols* (e.g., Inyo Series) form where sandy parent material predominates (Figure 8.8). All are deep (>60 inches) and most are well drained. Soil pH ranges from slightly acid to strongly alkaline, with most soils tending toward alkaline as expected in a semi-arid environment. The native desert scrub vegetation of the area means that little organic matter accumulated atop or within the soils except in moist areas. Organic-rich *Mollisols* (Dehy, Conway and Morey series) and *histosols* (Rindge Series) formed in those areas where sufficient water accumulates to develop more lush vegetation. Other *entisols* (Cartago and Goodale series) may reflect the lack of time for soil development while *aridisols* (Lubkin, Reinhakel, Spainhower, Tinemaha, and Winnedumah series) are remnants of older alluvial fan surfaces that have had sufficient time for soil development (Tallyn, 2002). Such variety in soil formation is characteristic of alluvial fan surfaces.

All of the soils of the Manzanar Relocation Center site are Land Capability Classification (LCC) VI or VII soils thus fit in the category of "Land Limited in Use–Generally Not Suited to Cultivation." The LCC VI soils have severe limitations that make them generally unsuitable for cultivation and limit their use primarily to pasture. These include the Cartago, Conway, Lubkin, Spainhower, and Tinemaha series, and their associated complexes. These soils are limited by excessive erosion or water. The LCC VII soils have very severe limitations that make them unsuitable for cultivation and restricted to grazing, woodland, and wildlife. These include the Dehy, Goodale, Inyo, Morey, Reinhakel, Winnedumah series and their associated complexes. These soils are limited by excessive erosion, excessive water, and problems in the rooting zone including coarse texture (Tallyn, 2002; U.S. Natural Resources Conservation Service, n.d., Part 6.22). Based on these soil characteristics, it is surprising that agriculture has occurred at the site over time (see below).

Water. Manzanar Relocation Center was situated in the Owens River Watershed, a *hydrologically closed basin* (i.e., surface water terminates in an inland basin rather than the ocean) drainage system in historical times. The Owens River originates along the east face of the Sierra Nevada Range above Crowley Reservoir, and flows south-southeast paralleling the Sierras and the White and Inyo mountains to the east. It is a low gradient stream that meanders along the

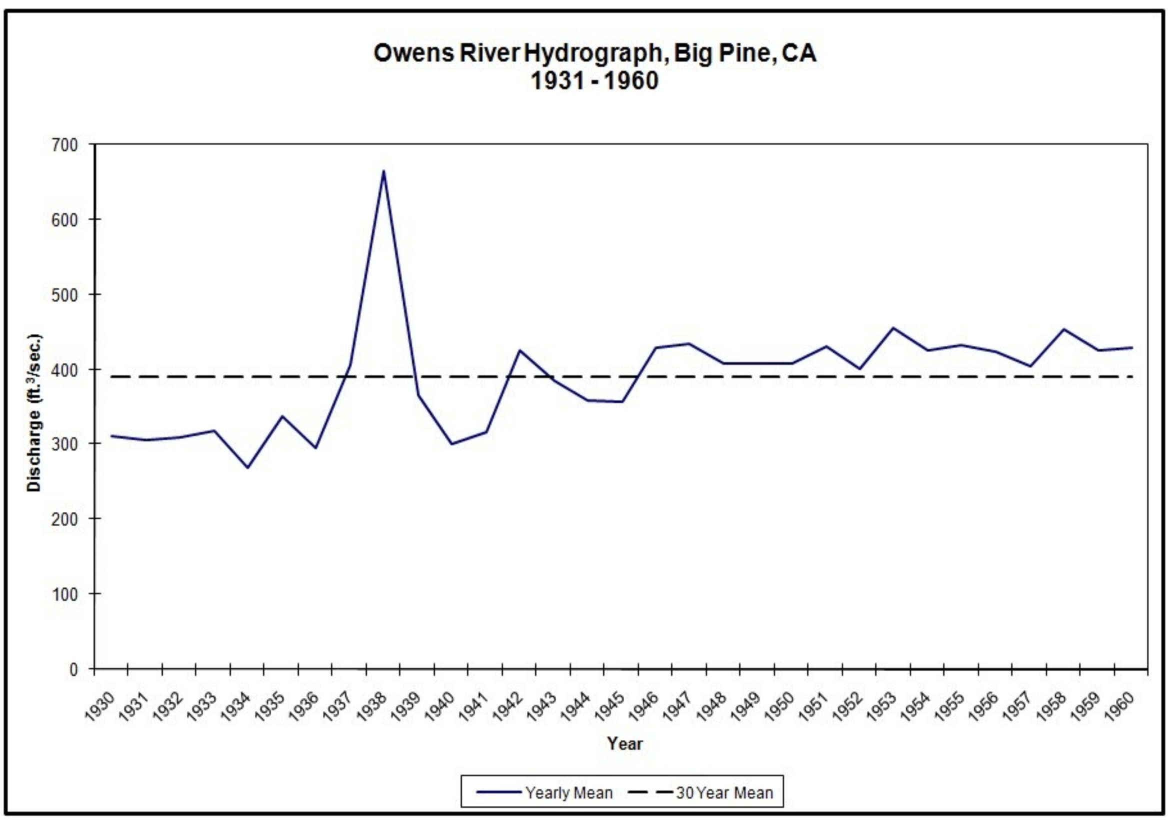
Figure 8.8. Soils of the Manzanar Relocation Center, California and vicinity. Adapted from Tallyn (2002).



bottom of the Owens Valley but is pushed to the east because of the extensive alluvial fans from the east face of the Sierra Nevada Range. Prior to early 20th century upstream irrigation and water removal by the City of Los Angeles, the river terminated in Owens Lake. At that time, Owens Lake's surface area was greater than 100 mi^2 with a depth of more than 20 feet. Since the water diversions, evaporation exceeds Owens River flow to the basin floor in all but very wet years so Owens Lake is now best thought of as a *playa* (i.e., seasonally wet basin) (Hollett et al., 1991). The 1931-1960 annual discharge of the Owens River at Big Pine shows generally below average discharge in 1931-1936 and generally higher than average discharge from 1946-1960 (Figure 8.9). The years between 1936 and 1946 displayed more variability including extremely high discharge in 1937 and 1938, and two of the lower discharge years on record.

Numerous tributary streams flow out of the Sierra Nevada toward the Owens River. At Manzanar, four named tributaries flow out of the Sierra Nevada Range–Shepherd, Bairs, George, and Hogback creeks (Figure 8.5). Shepherd, George and Hogback creeks are perennial while Bairs is intermittent. Characteristic of alluvial fans, all have *distributaries* that branch on the upper surface, thus distributing stream flow to different parts of the fans. According to the topographic maps of the area, only Shepherd Creek persists to the Owens River channel. The

Figure 8.9. Mean annual discharge for the Owens River at Big Pine, California. Data from http://nwis.waterdata.usgs.gov/nwis/annual.calendar_year/.



Flooding on these streams is likely a winter storm season phenomenon as well as being associated with spring snowmelt events (Paulson et al., 1991).

Groundwater levels are generally near the surface in the Owens River Valley. In 1984, groundwater others are intercepted by the Los Angeles Aqueduct, the Stevens Canal, or the porous sediments at the alluvial fans' lower ends. Levels ranged from 20-70 feet below the surface at Manzanar. Ground water in Owens Valley is generally of excellent quality. *Specific conductance* (i.e., a measure of the amount of salts dissolved in water) ranged from 180-192 micromhos. These values fall well within acceptable levels for public supply (Hollett et al., 1991).

Biota. The Manzanar Relocation Center lay in the Intermountain Semi-Desert and Desert Province near its boundary with the American Semi-Desert and Desert (Bailey, 1994) (Figure 8.10). Vegetation patterns in the area are a function of climate and associated soil moisture, soil chemistry, and human land uses. Big sagebrush (*Artemisia tridentata*) is the dominant *xerophyte* (i.e., desert plant) shrub of the area and may occur with antelope bitterbrush (*Purshia tridentata*), shadscale (*Atriplex concertifolia*), rabbitbrush (*Chrysothamnus* spp.), wild rose (*Rosa woodsii*), and spiny hopsage (*Atriplex spinosa*). In areas with high concentrations of soil salts, *halophytes* (i.e, salt tolerant plants) such as greasewood (*Sarcobatus vermiculatis*) and various saltbushes (*Atriplex* spp.) are more common (Bailey, 1995; U.S. National Park Service, n.d.a).

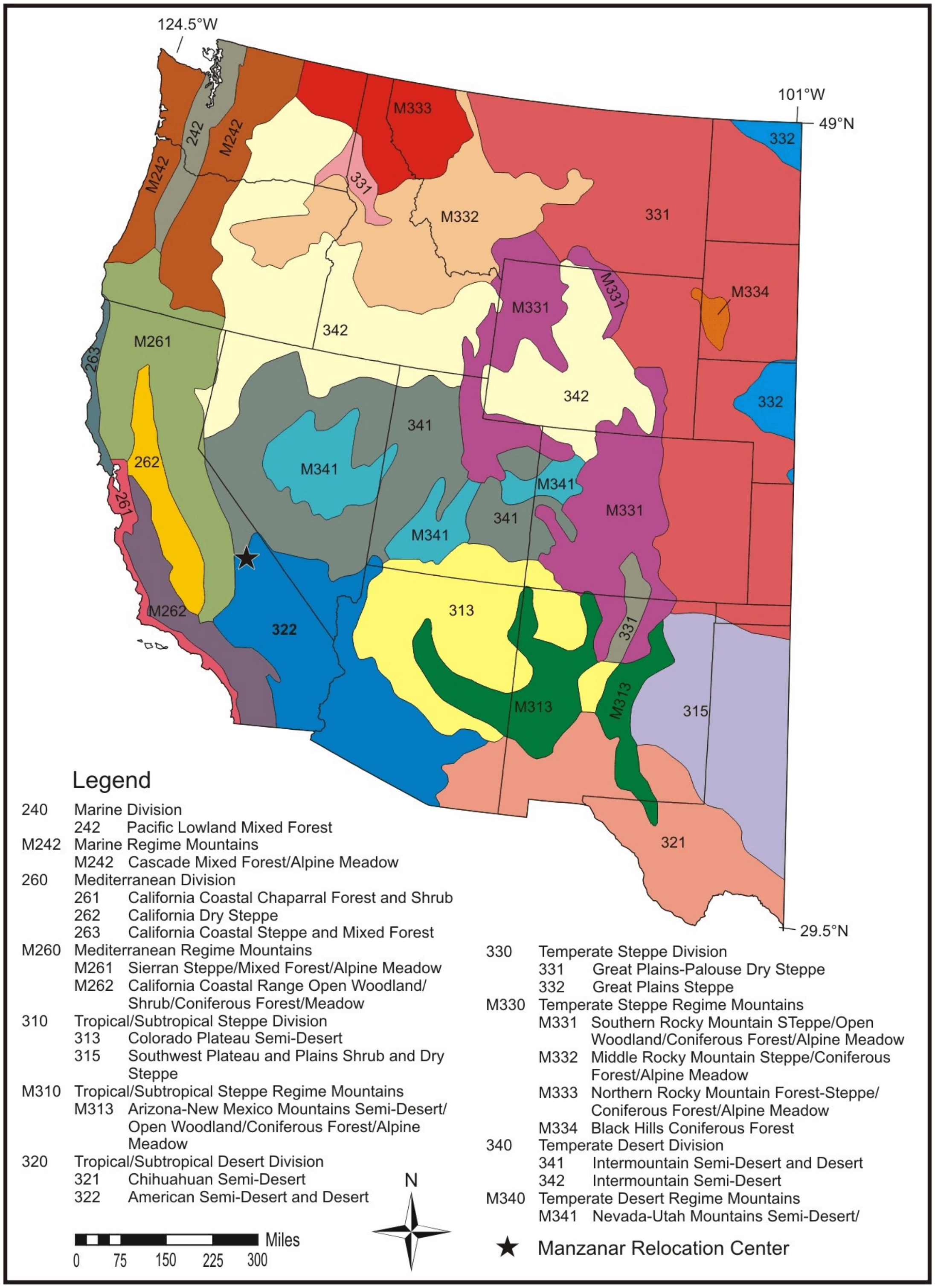
Mammals of this province include mule deer (*Odocoileus hemionus*), ground squirrels (*Spermophilus* spp.), jackrabbits (*Lepus* spp.), kangaroo mice (*Microdipodops* spp.), and wood rats (*Neotoma* spp.). Predators such as kit foxes (*Vulpes macrotis),* mountain lions (*Puma concolor*), bobcats (*Lynx rufus*) and badger (*Taxidea taxus*) may be found here. The area is also home to a variety of bird life including burrowing owls (*Athene cunicularia*), American kestrel *(Falco sparverius*), golden eagle (*Aquila chrysaetos*), ferruginous hawk (*Buteo regalis*), various other western hawks, and numerous songbirds (Bailey, 1995; U.S. National Park Service, n.d.b).

Human Setting

Race and Ethnicity. Owens Valley has seen a variety of races and ethnic groups over time. These have included Native Americans, Caucasians (primarily from the Midwestern U.S. and northern Europe), Mexicans, Chinese, and Japanese.

East-central California (including the Owens River Valley) lies in the Great Basin Culture Area (Waldman, 2000). Native Americans have occupied Owens Valley for at least the past 5,500 years. Since the time of EuroAmerican contact, the 1,000-2,000 Native Americans have been characterized separately as "Owens Valley Paiute" because of their unique, semi-permanent dwellings, sociopolitical organization and interactions, and irrigated agriculture (Liljeblad and Fowler, 1986). Tensions between Owens Valley Paiute and EuroAmericans mounted as growing communities devoured the mountain forests for lumber, the valley meadows for stock feed, and the wildlife on which the Native Americans depended (Unrau, 1996a). By winter 1861-1862, the Owens Valley Paiute resorted to raids on cattle herds to satisfy their hunger. The U.S. Army was

Figure 8.10. Ecoregion map showing Manzanar's location on the boundary of the American Semi-Desert and Desert and Intermountain Semi-Desert and Desert ecoregion provinces. Adapted from Bailey (1995, Foldout Map).



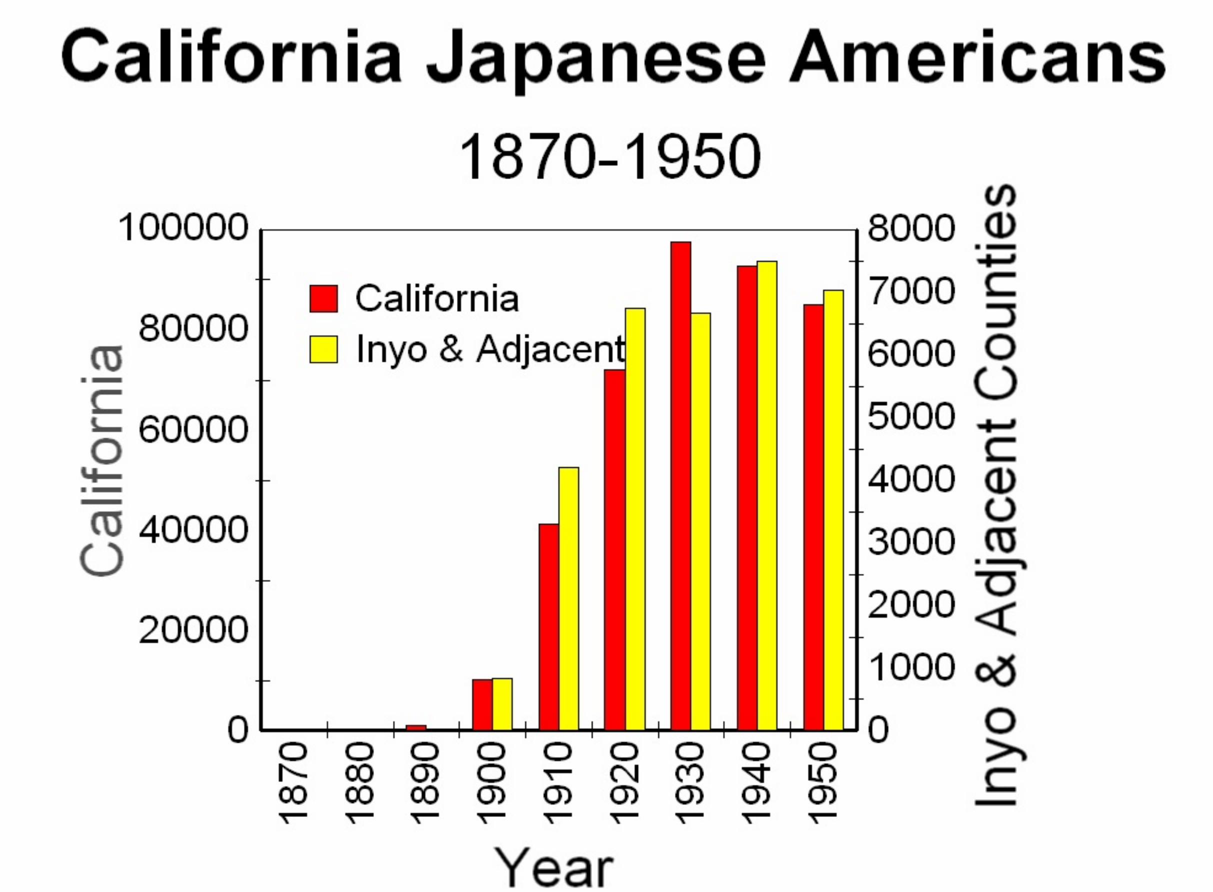
called in and established Camp Independence near present-day Independence to protect the white settlers from the Owens Valley Paiute (Wehrey, 2006). Ensuing conflict and the military's "scorched earth" policy of destroying Indian homes and food supplies led to the surrender and subsequent removal of about 1,000 Owens Valley Paiute in spring and summer 1863 to the San Sebastian Indian Reservation near Fort Tejon in California's southern San Joaquin Valley. Poor conditions on the reservation led many of the Owens Valley Paiute to escape and return to the Owens Valley. Sporadic attacks against the whites occurred until the military re-established Camp Independence soon after 1864 (Unrau, 1996a). By 1870, approximately 1,150 Owens Valley Paiute lived in the valley on the margins of the white settlements working for whites in a variety of capacities including farming, ranching, and mining (Sauder, 1990; Unrau, 1996a). The 356 acre Fort Independence Reservation near Independence was established in 1915 and enlarged in 1916 (Van Horn, 2001; Wehrey, 2006). Three other small Indian Reservations were established at each of the other Owens Valley towns in 1937–Lone Pine Indian Reservation, Big Pine Indian Reservation, and Bishop Indian Reservation (Van Horn, 2001). By the early 1930s, the Owens Valley Paiute lived in each of the towns of the area and worked on nearby ranches and highway crews. They continued to hunt, gather pine nuts, and various seeds. Other than some traditional arts and crafts, as well as shaman and herbal-based medicine, Paiute culture had essentially disappeared by the 1930s. An Indian Service census recorded 970 Owens Valley Paiute in 1930 (Steward, 1933).

Owens Valley apparently did not feel the direct influence of the Spaniards or their successors, the Mexicans, prior to the 20th century. In 1834, Joseph Walker led a beaver trapping expedition through Owens Valley becoming the first Caucasian to travel through the area (Lawton et al., 1976). Walker likely traveled through the valley again in 1843 as he led an emigrant party west from northwestern Nevada over Walker Pass and into Southern California (Lawton et al., 1976). Most of the early EuroAmerican farmers of Owens Valley were from the Midwest, Middle Atlantic, and New England states. British, Germans, and Canadians were also prominent among the early immigrants to the valley (Sauder, 1990). Basque sheep herders were present in the vicinity of Bishop and, to a lesser extent, Big Pine, as sheep grazing increased in the valley (Brown, 1977).

Mexicans came to the area in search of gold after the 1849 gold rush (Brown, 1977). Many worked for the salt mining companies on Owens Lake and lived at Cartago in the 1930s (Salas, 2006). A few Mexican families were living in Lone Pine prior to World War II (Branson, 1977). Chinese followed the Mexicans into Owens Valley mining gold, especially in the White Mountains (Brown, 1977). Chinese miners worked at Cerro Gordo east of Owens Lake (Figure 8.3) (Branson, 1977). Chinese also worked as cooks at area hotels and restaurants, and on the railroads of the valley (Kelley, 1977). Independence even had a Chinatown (Fausel, 2006).

California's Japanese population grew rapidly over time from 33 in 1870 to 94,456 in 1930, then dropped to 92,717 in 1940 (Figure 8.11). The population of Inyo and adjacent Fresno, Kern, Mono, San Bernadino, and Tulare counties, California as well as adjoining Clark, Esmerelda, and Nye counties, Nevada generally mirrored the California trend (Figure 8.11). However, when

Figure 8.11. Persons of Japanese descent in California, 1870-1950. Data from U.S. Census Office (1895, p. 442; 1901, p. 571) and U.S. Bureau of the Census (1913a, p. 166; 1913b, p. 86; 1922, p. 25, 615; 1932a, p. 266; 1932b, p. 144; 1943a, p. 567; 1943b, p. 753; 1952a, p. 5-179; 1952b, p. 28-41).



considering Inyo County alone, it is clear that Japanese Americans were relatively foreign to the inhabitants of Owens Valley prior to the opening of Manzanar in March 1942. The U.S. Census shows no Japanese Americans in Inyo County until 1910 when 41 were identified. Eighty-two Japanese were present in 1920, 20 in 1930 and only 1 in 1940 (U.S. Bureau of the Census, 1913; 1922; 1932a; 1943a). Several Japanese worked in a Bishop hotel around the turn of the century and several Japanese gardeners lived and worked in Bishop at about the time of World War I (Bell, 1977; Brierly, 1977). A Japanese man was also a section foreman at the railroad station near Independence prior to World War II (Kelley, 1977).

Economic Geography. The pre-World War II economic geography of the Owens Valley and Manzanar centered on hunting and gathering, agriculture, military, mining, tourism, and transportation. All of these activities, in one way or another, depended on the ready availability of water.

Hunting, fishing, and gathering was practiced by the Owens Valley Paiute who lived seasonally in Owens Valley proper but whose range of influence stretched from the Owens Valley floor to the high Sierra, Inyo, and White mountains. Deer and mountain sheep were hunted in the mountains. Fishing of native suckers, pupfish, and minnows in the Owens River and its tributaries also played a role in their economy. Gathering played a much larger role in their local economies and included roots and bulbs, seeds (e.g., Indian ricegrass), and berries from across the area. Brine fly pupae and larvae were gathered from the shores of saline Owens Lake, and pinyon nuts, acorns, and caterpillars of the pandora moth were collected from the mountain forests and woodlands (Lawton et al., 1976; Liljeblad and Fowler, 1986).

The first agriculturalists of the valley were also the Owens Valley Paiute. It is likely that their agricultural patterns originated *in situ*, independent of other Native American influences and well before the arrival of EuroAmericans (Lawton et al., 1976). In the Owens Valley Paiute agricultural system, *hydrophytic* (i.e., water-loving) native species were irrigated in those areas that were naturally wet (Liljeblad and Fowler, 1986). The plants irrigated included wild hyacinth (*Dichelostemma pulchella*) and yellow nut-grass (*Cyperus esculentus* L.) (Lawton et al., 1976). Irrigation occurred via diversion dams on the tributary creeks emanating from the Sierra Nevada and ditches necessary to convey the waters from the creeks to the fields (Steward, 1930). Native Americans irrigated and harvested plots every other year, likely to reduce competition from other species and to increase the numbers and sizes of the wild hyacinth and yellow nut-grass tubers (Steward, 1933). The size of the irrigated plots suggests that agriculture played a significant role in the diets of the Native Americans. Ten well-defined areas of past Native American irrigation are located in the 57-mile stretch of Owens Valley between Rock Creek north of Bishop southward to Independence Creek at Independence. All are found at 4,000-5,000 feet elevation at the eastern base of the Sierra Nevada Range, and most occur north of Big Pine. The approximately 2,000 Native American occupants and the thirty permanent villages scattered from Round Valley in the north to Owens Lake in the south made this valley one of the most densely populated in the region, likely reflecting early agriculture (Lawton et al., 1976).

Mining indirectly resulted in perhaps the largest land use changes in Owens Valley since the shrinking of paleo-Lake Owens to Holocene levels (Lawton et al., 1976). Gold and silver discoveries north of Owens Valley in 1859-1860, as well as several subsequent prospects in the Inyo Range, attracted a stream of miners and others determined to “strike it rich” (Sauder, 1995; Unrau, 1996a). It was those peripherally associated with mining who directly caused most of the changes–i.e., the influx of ranchers and farmers who provided much of the food of the mining camps but displaced the Owens Valley Paiute as they grew that food. Independence originated in 1861 as a trading post to serve those traveling to the mines. Lone Pine formed two years later (Hoover et al., 1966). Nearly all of Owens Valley’s early mining camps were located in or at the base of the White or Inyo Mountains. Mining began at Cerro Gordo east of Owens Lake in 1865 and operated continuously until 1877 (Figure 8.3). The yield of approximately $17,000,000 in silver, made this the richest silver mining district in California history (Unrau, 1996a; Wehrey, 2006). The decline of Cerro Gordo and the closure of Camp Independence in the late 1870s ended a period of relative economic prosperity in the Owens Valley (Unrau, 1996a). Mining of the various salts associated with the Owens Lake bed began in 1885 and have included sodium carbonate (i.e., “soda ash”), trona, and borax over time (Bateman et al., 1978).

Contemporary agriculture started in Owens Valley with cattle and rapidly shifted to include crops. As stated above, this was a response to the needs of mining camps in the area. Cattle were driven from southern California over Walker Pass and up Owens Valley to the mining camps beginning in 1861 (Sauder, 1995). To avoid the long trek from southern California and to take advantage of the local grazing opportunities, ranches soon sprang up in Owens Valley. Samuel Bishop established the first stock ranch near the town that now bears his name in summer 1861, and within several months, Owens Valley’s ranch numbers had swelled to nearly a dozen (Chalfant, 1933; McGrath, 1984). Bishop thus grew to serve the ranchers and farmers as well as miners and tourists of the area (Works Progress Administration, 1939). At least one ranch developed in the Lone Pine area during this time. A drought during the period 1862-1864 forced stockmen to develop a system of *transhumance* whereby they trailed large flocks of sheep and herds of cattle through the Owens Valley each spring en route to the Mono Basin and the high summer pastures of the Sierra Nevada Range before returning to their lowland farms west of the Sierra Nevada Range for the winter months (Unrau, 1996a).

Farming soon followed the cattle to the area. The Midwestern U.S. transplants to the area brought a three-crop rotation to the lands. Corn and hay were fed to livestock while wheat was sold for their cash crop along with cattle in nearby towns and mining camps. Over time, the cropping system changed to alfalfa each year on some plots while other plots had a two-crop rotation of corn and small grains (Sauder, 1990). The more permanent settlers and settlements associated with farming required more government (Sauder, 1995). Inyo County thus formed in 1866 with Independence as its county seat (Chalfant, 1933). Conflicts between farmers and stockmen in the 1870s were resolved generally in favor of the farmers by 1875 when stockmen were deemed responsible for cattle-related destruction of fenced or unfenced farm property year round (Sauder, 1990). Just prior to the start of World War II, approximately 20-30 cattle ranches operated in the vicinity of Lone Pine (Brown, 1977).

Early on, agriculture between George and Shepherd creeks was largely controlled by the Shepherd family (Figure 8.5). By the late 1880s, John Shepherd had 1,300 acres of land (including a large portion of what later became the Manzanar Relocation Center) and 66% of the water rights of Shepherd Creek. The Shepherd agricultural empire included cattle, sheep, fruit (e.g., apples, pears, peaches, apricots, nectarines, plums, and cherries), corn, wheat, and hay. By 1893, 28 families lived on properties in the vicinity of George and Shepherd creeks. In 1905, John Shepherd sold his 1,300 acre Shepherd Ranch to the George Chaffey family, who set out to develop an irrigation colony. The resulting Owens Valley Improvement Company platted a subdivision (Manzanar Irrigated Farms) within which they laid out a townsite (Manzanar) and, by 1910, installed a water system adjacent to the highway that would later be known as US 395. The Spanish name “Manzanar” (meaning apple orchard or apple grove) was chosen because apples were a reasonable crop for the climate of the area and the completion of the Southern Pacific “Jawbone” spur line from Mojave up the west side of Owens Lake to Owenyo in 1913 provided growers with a ready transportation link to southern California (Figure 8.3) (Unrau, 1996a; Roddy, 2006; Wehrey, 2006). Lots at Manzanar were sold beginning in 1910. Over time, all facets of a small town began to develop including a school, community hall, garage, lumber yard, blacksmith shop, store, post office, cannery and apple packinghouse (Unrau, 1996a; Roddy, 2006). By 1912, 20,000 apple trees had been planted at Manzanar. The Manzanar Fruit and Canners Association was incorporated in summer 1918 to deal with preserving, packing, handling, and selling the fruits and vegetables raised at the site. In 1920, 203 people lived at Manzanar and the adjacent George Creek settlements (Unrau, 1996a). While Manzanar fruit was prized for its size and quality, late spring frosts in three out of every five years damaged crops (Roddy, 2006). Because of this, most the owners of Manzanar lands were happy to sell when the City of Los Angeles came to Owens Valley to secure land and water rights in the early to mid-1920s. Despite the City of Los Angeles' purchase of Manzanar and its water, the City maintained and operated the orchards until 1933 (Taylor, 2006). Even in the late 1920s, 20-30 families were living at or near Manzanar. However, by the eve of World War II, only one family remained. Few, if any, houses remained at that time on the Manzanar property but hardy orchard trees still grew there (Zediker, 2006).

Water is the bond that ties most, if not all, of Owens Valley's economic activities together. Farms and ranches developed on the well-watered alluvial fans at the base of the Sierra Nevada Range. All four primary EuroAmerican communities in Owens Valley developed on major streams emanating from the Sierra Nevada. Interestingly, all four were located on the former irrigated fields of the Owens Valley Paiute. Most of the discharge of the tributary streams exiting the Sierra Nevada had been appropriated by farmers by the late 1870s. The Desert Land Act of 1877 gave title to 640 acres of irrigable land to farmers who brought a portion of these lands under irrigation within three years. By 1901, Owens River water was diverted through nearly 200 miles of irrigation canals and ditches, most of which were located in the north end of the valley. Southern Owens Valley irrigation systems grew more slowly because of less water draining from the southern Sierra Nevada Range thus fewer farmers were present to work cooperatively in its subjugation (Sauder, 1995).

The next major change in Owens Valley land use occurred early in the 20th century. At the transition from the 19th to the 20th century, Los Angeles' population was growing at a phenomenal rate,–i.e., doubling between 1890 and 1900, and expected to triple by 1910 (Wehrey, 2006). City leaders realized that it would need additional water supplies to keep up with its population growth. Realizing the amount of water available in Owens Valley and that an aqueduct could carry water from there 225 miles south Los Angeles, the City began purchasing land and water rights to those lands in Owens Valley in the first decade of the 20th century. Los Angeles' efforts were supported by Progressive U.S. President Theodore Roosevelt and his administration. The aqueduct was completed in 1913, transporting water to the San Fernando Valley just north of Los Angeles, where it was initially used to irrigate farmlands because of insufficient domestic or industrial needs for it. A drought in the early 1920s, combined with continued rapid population growth in Los Angeles, put the City of Los Angeles back in the water acquisition business in the northern Owens Valley. This later period of acquisition caused much more concern among Valley residents, and anger and violence toward the City since its quest for water was dividing communities and neighbors. The financial collapse of the only banks in the

Owens Valley effectively ended opposition to the City because Valley residents no longer had money to hold out. By 1933, the City of Los Angeles owned 95% of all Owens Valley farmland, and 85% of all town property (Reisner, 1993; Unrau, 1996a).

Owens Valley has long served as a transportation corridor between the towering Sierra Nevada Range to the west, and the Basin Ranges to the east. Native Americans likely used Owens Valley as a transportation corridor. The valley was an early route of travel for fur trappers and subsequent immigrants, each using Walker Pass as the exit point to Southern California (Lawton et al., 1976). By the late 1850s and early 1860s the Valley had become a great "thoroughfare" to gold mining boom towns in the Eastern Sierra Nevada Range (Chalfant, 1933). A main stagecoach road and Wells Fargo offices were located throughout the Owens Valley by 1880 (Beck and Haase, 1974). The Carson and Colorado Railroad, a narrow gauge affectionately referred to as "Slim Princess", was constructed southward from Carson City, Nevada to dead end at Keeler, on the east side of Owens Lake, in 1883 (Figure 8.3) (Bateman et al., 1978). In 1913, the Southern Pacific completed the "Jawbone" spur line to haul construction materials for the Los Angeles Aqueduct (Unrau, 1996a; Roddy, 2006). Thus, southern Owens Valley was served by two railroads beginning in 1913. U.S. highway 395 was paved through the valley by 1931 (Cooper, 2006).

Tourism has long played a key role in the economic geography of Owens Valley. Tourism especially took off when road paving was complete from Los Angeles through the Owens Valley (Hopkins, 1977). In 1940, one million tourists traveled through the valley bound for points north on US 395 or to horse pack, hike, fish or hunt in the Sierras (Works Progress Administration, 1939; Wehrey, 2006). The movie industry, loosely associated with tourism, has been a mainstay in the Alabama Hills north and west of Lone Pine area since before 1920 (Figure 8.3). Approximately 150 films, most of which were westerns, were made there between 1919 and 1989, and included famous actors and actresses such as Lucille Ball, Humphrey Bogart, Clark Gable, Steve McQueen, Gregory Peck, John Wayne, and Shelley Winters (Holland, 1990).

Four primary but small communities developed in the Owens Valley–Bishop (population 1,159), Big Pine (population 200), Independence (population 408), and Lone Pine (population 360) as of 1939 (Works Progress Administration, 1939) (Figure 8.1). Lone Pine, with its mix of Americans, Asians, Chileans, French, Indians, Mexicans, and Swiss in 1873, was probably the most racially diverse of the Owens Valley towns (Unrau, 1996a). On the eve of World War II, cattle ranching, along with tourism and mining, were the main economic activities helping keep Lone Pine afloat. Independence had long depended on government as the county seat and as the regional office for Los Angeles Department of Power and Water (Brown, 1977).

Why this Location?

Initially, the U.S. Army wanted to place <u>all</u> West Coast Japanese evacuees in Owens Valley. However, the City of Los Angeles balked at this plan because of the huge amount of water required for such an undertaking (Ewan, 2000).

Figure 8.12. View west at Manzanar with the towering Sierra Nevada Range in the background. Also, notice dust over center. Dorothea Lange photograph, July 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 78, Section C, WRA # -838, War Relocation Authority Photographs of Japanese American Evacuation and Resettlement, Series 8: Manzanar Relocation Center, Manzanar, California.

The proposed 6,000 acre Manzanar Relocation Center site lay entirely on City of Los Angeles lands (U.S. Army–Western Defense Command, 1943) (Figure 8.12). The U.S. Army Corps of Engineers chose the site in late February because of its distance from any vital defense projects, relative inaccessibility, and its "general geography" after considering at least three other sites in Owens Valley including the south end of Owens Lake, at Bishop, and on the east side of the valley (Brown, 1977, p. 27; Unrau, 1996a). Manzanar included ample relatively level ground and available water from tributary streams emanating from the Sierra Nevada Range. Soon after news of the Army's decision to locate a relocation center at Manzanar leaked out, the City of Los Angeles and residents of the various communities of the Owens Valley were in an uproar. Los Angeles officials were concerned for the safety of the Los Angeles Aqueduct against perceived threats of sabotage. Army General John DeWitt assured the City of Los Angeles that the U.S. military would make take adequate provision to protect the water in the Los Angeles Aqueduct. A Declaration of Taking granted the Western Defense Command legal right to lease the land from the City of Los Angeles during the wartime emergency. Winning over the residents of

Owens Valley was another matter. The Inyo County Board of Supervisors was upset that they were not consulted prior to site selection. Other residents did not want Japanese Americans and they did not want a prison camp there. Only after editorials in the local newspapers espoused patriotism and after promises from the Wartime Civilian Control Authority (WCCA) that the Japanese would undertake a series of public works projects for the benefit of the valley did the valley resident's clamor fade (Unrau, 1996a).

Building Manzanar

Land clearing and utility ditch excavation began on 15 March 1942 and building construction initiated two days later. Approximately 600 men worked 10 hours a day to complete the center. Portions of the center were deemed sufficiently complete to welcome the first trainload of 400 evacuees on 1 April (Unrau, 1996).

The 540 acre main area consisted of 67 blocks, 36 of which were residential while the remaining were for staff housing, administration, warehouses, garages, hospitals, and firebreaks (Figures 8.13 and 8.14). Rather than being aligned to True North, the blocks and associated roads paralleled U.S. highway 395. Roads throughout the main developed area were paved or oiled. East-west roads were numbered while north-south roads were lettered. The central developed area was surrounded by a five-strand, barbed wire fence punctuated by eight guard towers (Burton et al., 2002).

Each residential block in Manzanar consisted of 14 barracks, one mess hall, two latrine-shower buildings, one laundry building, one ironing building, one community services (i.e., recreation) building, and a fuel oil tank, and served approximately 250 evacuees (Figure 8.14) (Houston and Houston, 1973; Burton et al, 2002). Each 20 feet by 100 feet barracks consisted of four to six single-room apartments ranging in size from 16 feet by 20 feet, 20 feet by 20 feet, and 24 feet by 20 feet (Unrau, 1996a; Burton et al., 2002; R. Potashin, 4 June 2007, written communication). Evacuee barracks, mess halls, and recreation halls were elevated off the ground on concrete piers, framed in wood, sheathed with boards, and covered with black tarpaper. The latrine-shower, laundry, and ironing buildings all sat on concrete slabs (Armor and Wright, 1988; Unrau, 1996a; Burton et al., 2002). Eventually, evacuees covered the inside walls of the barracks with gypsum board and the floors with a linoleum-like product (Houston and Houston, 1973; Unrau, 1996a). The WCCA, and subsequently the War Relocation Authority (WRA), provided cots, straw-filled mattresses, three U.S. Army blankets, and an oil heating stove for each evacuee apartment (Houston and Houston, 1973; Armor and Wright, 1988). All other furniture needed to be made or purchased by the evacuees. As a comparison, staff housing at Manzanar was painted, air conditioned, and had indoor plumbing and refrigerators (Commission on Wartime Relocation and Internment of Citizens, 1982).

Domestic water was diverted from the main branch of Shepherd Creek and stored in a 540,000 gallon reservoir on a distributary channel about 0.5 mile northwest of the main part of camp. Water was chlorinated en route to the reservoir. This dependence on surface rather than ground water resulted in water shortages in the dry season (Staff, 16 October 1943). Irrigation water

Figure 8.13. Overall map of the Manzanar Relocation Center. Adapted from Burton et al. (2002, p. 164).

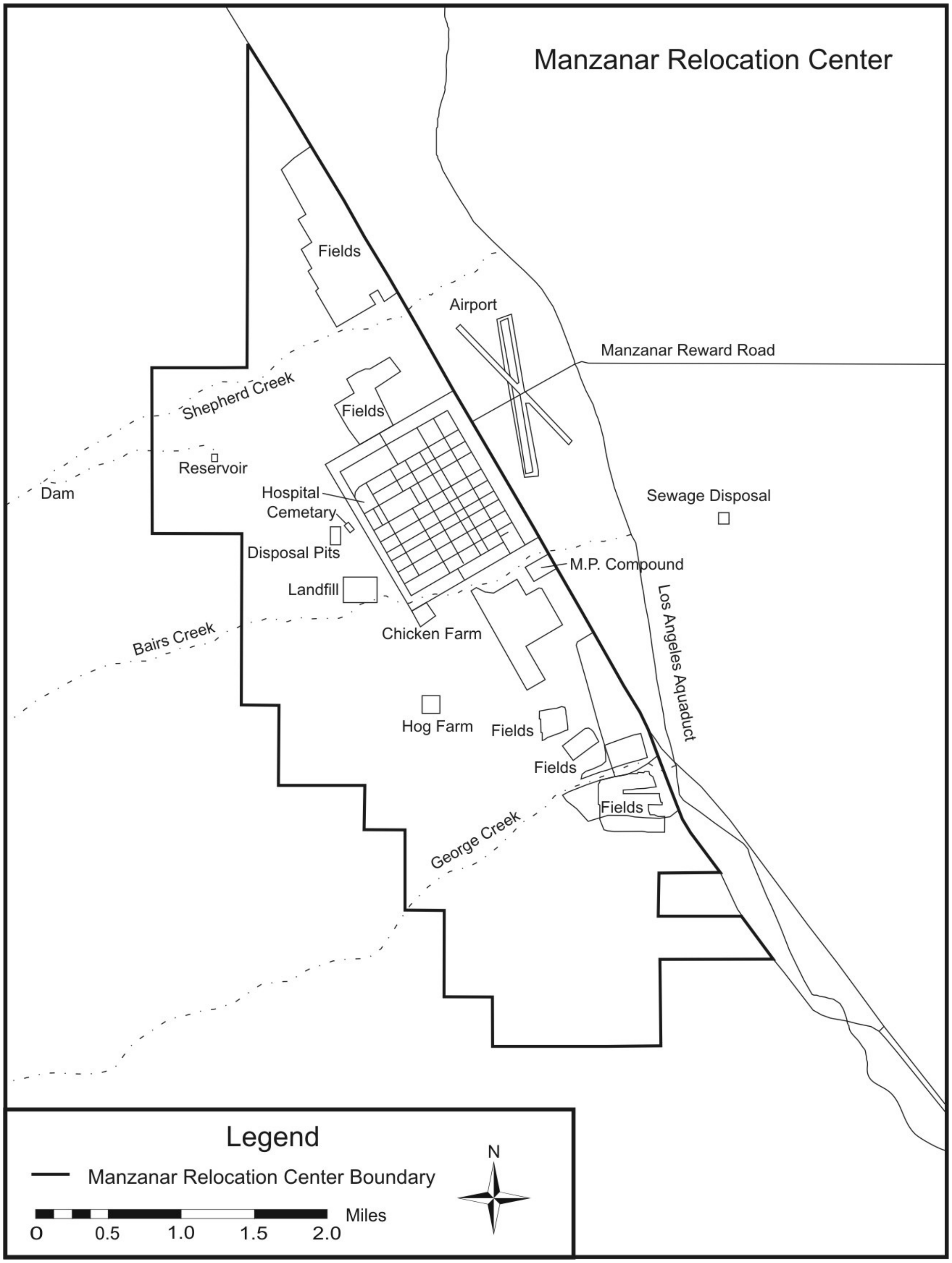
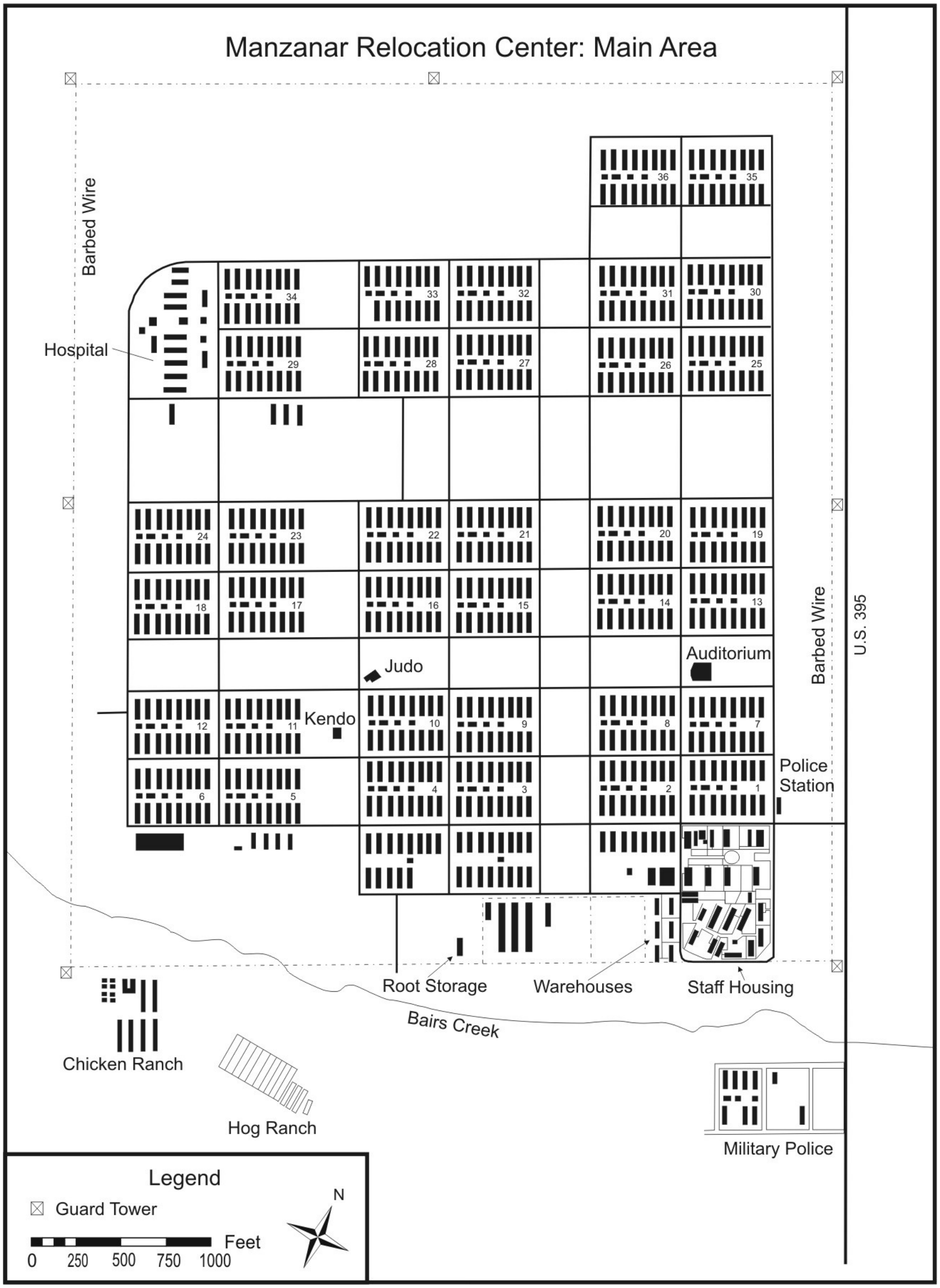


Figure 8.14. Detailed map of main part of Manzanar Relocation Center. Adapted from Burton et al. (2002, p. 165).



came from streams emanating from the Sierra Nevada Range and from two wells in the camp (Unrau, 1996a).

Materials coming to the center typically arrived by train at Lone Pine. Six evacuees worked there to offload material and arrange transport to Manzanar (Burton et al., 2002).

Origins of the Evacuees

Evacuees came primarily from California's Los Angeles (8,828), Sacramento (370), and San Joaquin (178) counties (Figure 8.15). Another 21 California counties contributed 414 evacuees. Alaska, Arizona, Oregon, Washington, and "other states" away from the West Coast added 248 evacuees with 226 of these coming from Washington's Kitsap County (i.e., Bainbridge Island) (U.S. War Relocation Authority, 1946). Most evacuees came directly from Los Angeles County to Manzanar because of its 21 March-1 June 1942 role as an Assembly Center (U.S. Army–Western Defense Command, 1943). Others moved directly from Stockton, California (Burton et al., 2002). The Santa Anita Assembly Center provided 128 evacuees. Fresno, Pamona, Puyallup, Tanforan, Tulare, and Turlock sent another 190 evacuees (U.S. Army–Western Defense Command, 1943).

An interesting aspect of Manzanar's population was the inclusion of all Japanese American orphans who were living in the restricted zone at the time of mandatory evacuation. This included even those orphans who were one-half Japanese living in Caucasian homes or those who were as little as 1/32nd Japanese (Burton et al., 2002). Japanese American orphans came primarily from three orphanages–Shonien (also known as the Japanese Children's Home of Southern California) in the Los Angeles area, the Catholic Maryknoll Home in the Los Angeles area, and the Salvation Army Japanese Children's Home in San Francisco. Sadly, some of the orphans who came to live at the Manzanar Children's Village were orphaned by FBI arrests of their widowed fathers. Eventually, 101 Japanese American orphans were housed at the Manzanar Children's Village (Nobe, 1999).

Because of the influence of Los Angeles County, the overall evacuee population of the center was mostly urban (Japanese American National Museum, n.d). As of 1 January 1943, nearly 65% of Manzanar's evacuees were U.S. citizens (U.S. War Relocation Authority, 1946).

The first evacuees arrived at Manzanar on 21 March 1942 (U.S. War Relocation Authority, 1946). These early voluntary evacuees traveled to Manzanar in personal automobiles as well as by bus and train to help get the center in shape for the reception of many more evacuees to come (Unrau, 1996a). Subsequent evacuees mostly traveled by train to Lone Pine, then were bused to Manzanar (Figure 8.16) (Aigner, 1977). The main body of evacuees began arriving on 1 April 1942 (Unrau, 1996a). The last to arrive was a small contingent from the Santa Anita Assembly Center in late October 1942 (U.S. Army–Western Defense Command, 1943). With a maximum population of 10,046 reached in late September 1942, Manzanar was the largest city between Los Angeles and Reno, and the fifth largest of the relocation centers (U.S. War Relocation Authority,

Figure 8.15. The Western United States origins of Japanese Americans evacuated to the Manzanar Relocation Center in March-October 1942. Data from U.S. Army–Western Defense Command, (1943, p. 381, 383) and U.S. War Relocation Authority (1946, p. 61-66).

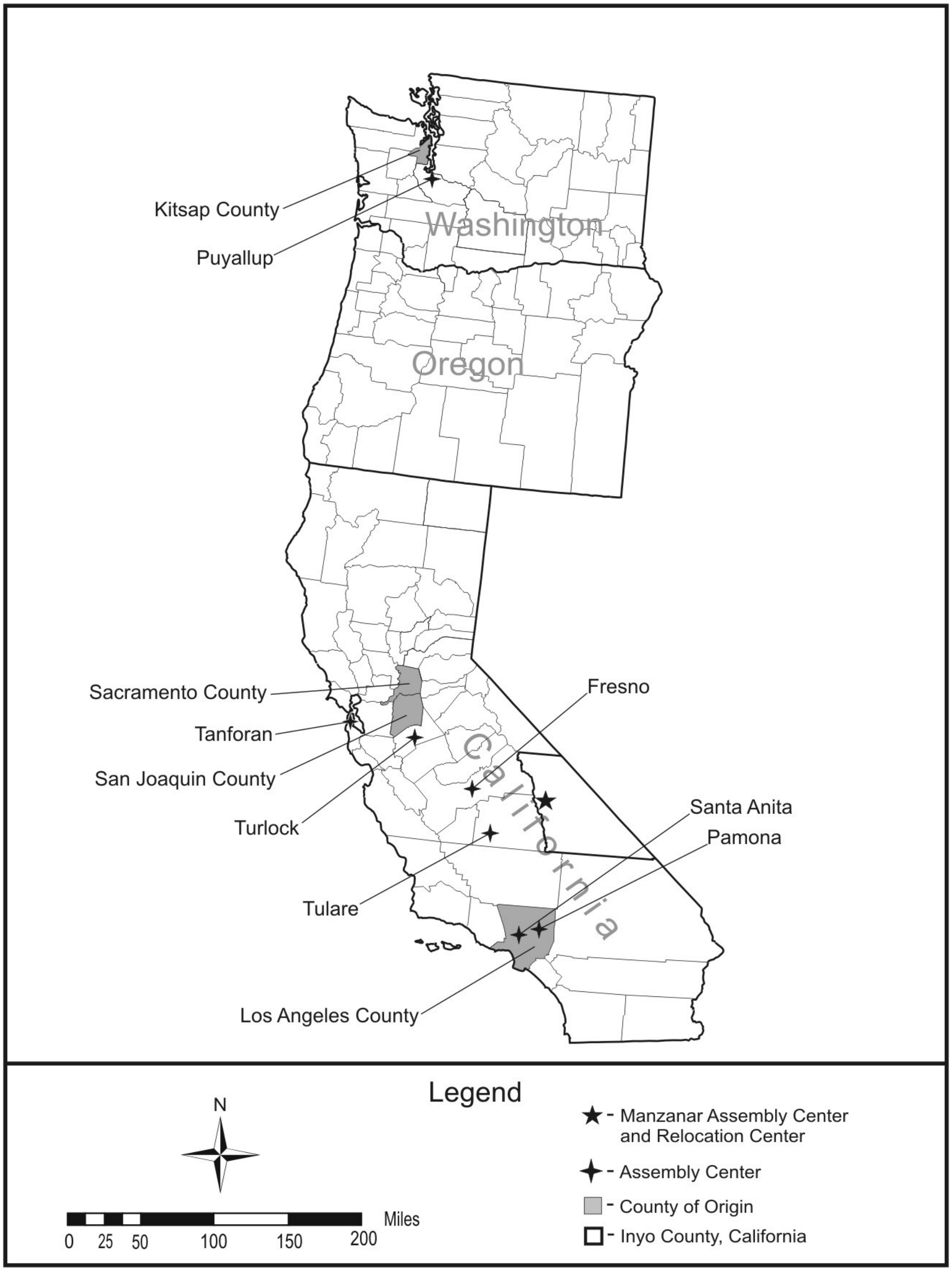
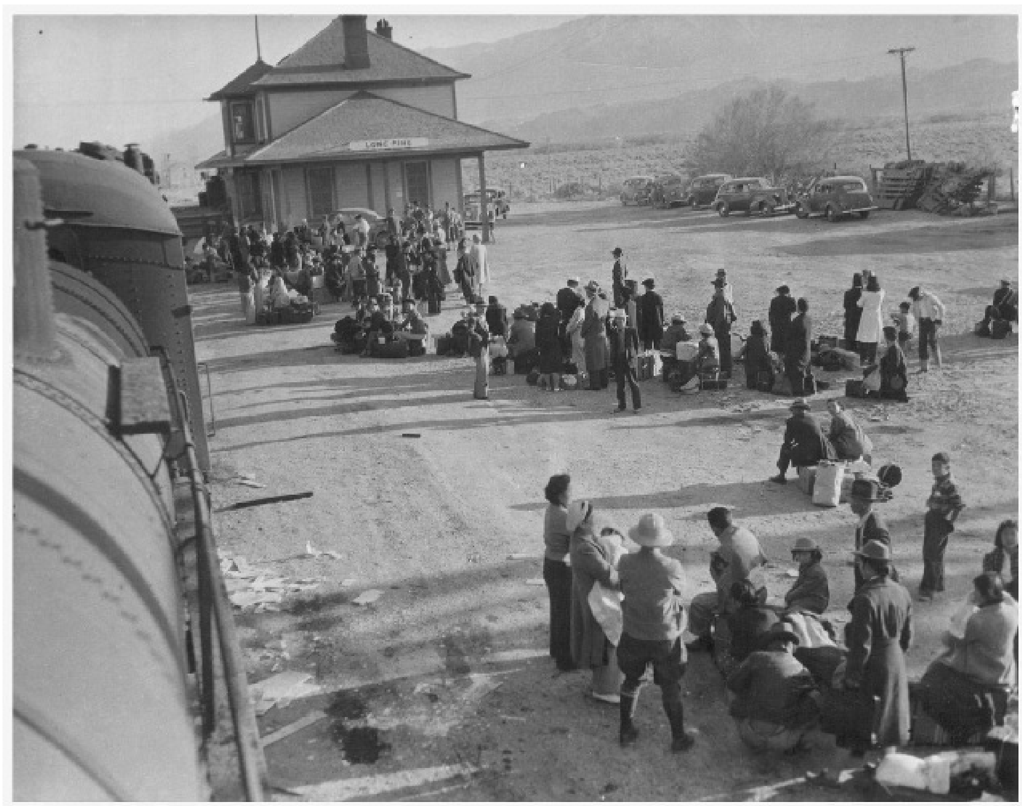


Figure 8.16. Evacuees waiting at Lone Pine Railroad Station for bus transport to Manzanar. Clem Albers photograph, April 1942. Courtesy of Bancroft Library, University of California, Berkeley. Volume 78, Section A, WRA # -15, War Relocation Authority Photographs of Japanese American Evacuation and Resettlement, Series 12: Relocation: new homes, etc (various places).



1946; Wehrey, 2006). Manzanar's peak population was approximately 2,000 more than the entire population of the Owens Valley (Vent and Vent, 1972)!

Interaction of Evacuees with East Central California's Environments

Physical Environment. The most frequent comments about the physical environment of Manzanar were the windy and dusty conditions. One evacuee described her arrival as:

> *It was late afternoon. The first thing I saw was a yellow swirl across a blurred, reddish setting sun. The bus was being pelted by what sounded like splattering rain. It wasn't rain. This was my first look at something I would soon know very well, a billowing flurry of dust and sand churned up by the wind through Owens Valley.*
>
> Houston and Houston (1973, p. 14)

Another evacuee similarly described his arrival at Manzanar:

> *Well, we left about 9:00 a.m. from Venice with a line of buses and we got there about dusk. We got there right in the middle of one of those windstorms that were very common in Manzanar. The dust was blowing so hard you couldn't see more than about fifteen feet ahead. At the arrival of the buses, people would come out to meet us. They had friends coming in on them. Everybody that was out there had goggles on to protect their eyes from the dust, so they looked like a bunch of monsters from another world or something. It was a very eerie feeling to get into a place under conditions like that.*
>
> Fukasawa (1991, p. 236-237)

Judging from articles in the center's newspaper, the *Manzanar Free Press*, severe winds and associated duststorms were most frequent from March through June. Winds were so severe that they ripped the roof off a latrine, and in another event, damaged over 50 center roofs (Staff, 5 June 1943; Staff, 16 May 1945). To combat the dust problem, evacuees nailed tin can lids over knot holes and lath over the shrinkage cracks in the barracks (Houston and Houston, 1973). The linoleum-like flooring that was installed in late summer and fall 1942 was very effective in reducing the amount of dust entering the barracks. Evacuees planted lawns around the barracks to help keep down the dust (Staff, 12 August 1942). Further, the USDA-Soil Conservation Service developed a plan to plant 21,000 trees and 25,000 shrubs as a way to anchor the soils as well as reduce wind speeds in the vicinity of the camp (Ewan, 2000).

Cold was another issue to be dealt with at the center. The nearly 4,000 feet elevation resulted in low temperatures, especially in late fall, winter, and early spring. Cold winds also descended the valleys of the Sierra bringing low temperatures and wind chill. Oil stoves were installed in the barracks to ward off the cold, and World War I army surplus clothing was provided to evacuees. Later, a clothing alterations shop was established, partially to make the old U.S. Army clothing better fit the evacuees (Houston and Houston, 1973). Luckily for evacuees who were not used to cold conditions, slightly warmer October-March temperatures occurred during 1942-1945 as compared to the 1931-1960 climate normal (Western Regional Climate Data Center, n.d.a).

Heat is mentioned in the various literature of the camp but does not seem to have been the problem that dust and cold were. Some evacuees constructed cellars beneath barracks likely in which to keep cool in the hot summers (Burton et al., 2002). The common "garden ponds" of the camps, combined with the shade of landscaped plants, also provided a measure of relief from the summer heat. Luckily, evacuees faced mean monthly temperatures for warm seasons in 1942-1945 that were slightly cooler than the 1931-1960 average (Western Regional Climate Data Center, n.d.a).

The relocation center experienced overall slightly wetter conditions than normal during its four years of operation. However, precipitation showed tremendous variability even during this brief period with 8.7 inches of precipitation in 1943 and only 2.5 inches in 1944 (Western Regional

Climate Data Center, n.d.a). Snowfall during the center's existence was also quite variable ranging from 2.9 inches in 1942 (but none in the last one-half of 1942 when the evacuees were at Manzanar) to nearly 16 inches in 1944 (Western Regional Climate Center, n.d.a). Evacuees received the first snow of the center's existence (and perhaps the first snowfall for many evacuees) in December 1943 (Staff, 8 December 1943). Approximately 15 inches of snow fell in one storm in February 1944 (Staff, 26 February 1944).

While the above suggests that Owens Valley was a foreign, harsh, and sometimes stark, place, others found it beautiful. This was especially true regarding the views of the mountains at sunrise or sunset (Houston and Houston, 1973). One evacuee stated "We arrived at Manzanar in the early morning, before sunrise. Beautiful. All pink. The mountains around there were all pink. So beautiful" (Takamura, 1987).

Agriculture. The dual goals of the Manzanar agricultural program were to feed the camp and to provide meaningful employment opportunities for evacuees (McConnell and Hill, 1946). To accomplish this, land had to be cleared and leveled, and irrigation diversions, canals and ditches needed to be constructed before irrigated agriculture could take place. Ultimately, Manzanar farmlands and livestock areas were arrayed to the north and south of the main part of center (Figure 8.17).

The Manzanar agricultural program consisted of crops grown for direct human consumption , hogs, chickens, and beef cattle, and feed crops for the livestock (Figure 8.18). Twenty-nine different types of produce were grown on a total of 870 acres over three growing seasons (Tables 8.1 and 8.2). These crops were chosen based on the need for well-balanced diets and food value per pound of vegetables (McConnell and Hill, 1946). Manzanar's climate and soils seemed especially conducive to root crops resulting in high yields and high quality (Unrau, 1996b). Onions, beets, potatoes, radishes, turnips, and nappa were successful as were cabbage, cucumbers, eggplant, melons, peppers, squash, string beans, and tomatoes (McConnell and Hill, 1946). In addition, approximately 7,000 pounds of bean sprouts were grown by the industrial section of the center each month (Unrau, 1996b). Victory gardens in the firebreaks within the main part of the center, and apples and pears gleaned from remnants of old Manzanar orchards further supplemented Manzanar's agricultural production (Burton et al., 2002). Overall, the produce portion of the agricultural program was "very successful" (McConnell and Hill, 1946, p. 16). Approximately 80% of the vegetables used in its mess halls came from the center's farms (Unrau, 1996b). This was advantageous because Manzanar vegetables were less expensive, fresher, and of the types that the Japanese evacuees would readily eat (McConnell and Hill, 1946). The center shipped nearly 11% (by weight) of the vegetables raised there to other relocation centers including carrots to Tule Lake and Poston, and honeydew melons and watermelons to Tule Lake (Unrau, 1996b). Manzanar tomatoes were so plentiful in October 1943 that 14 tons were sold to the Anaheim Cannery (Staff, 13 October 1943).

However, Manzanar's agricultural program was initially hampered by disagreements between the City of Los Angeles and the WRA over how water and fertilizers were used, and how City water was priced for use on the center's farm lands (Unrau, 1996b). Farm equipment was also initially

Figure 8.17. Agricultural lands of the Manzanar Relocation Center. Adapted from Burton et al. (2002, p. 170).

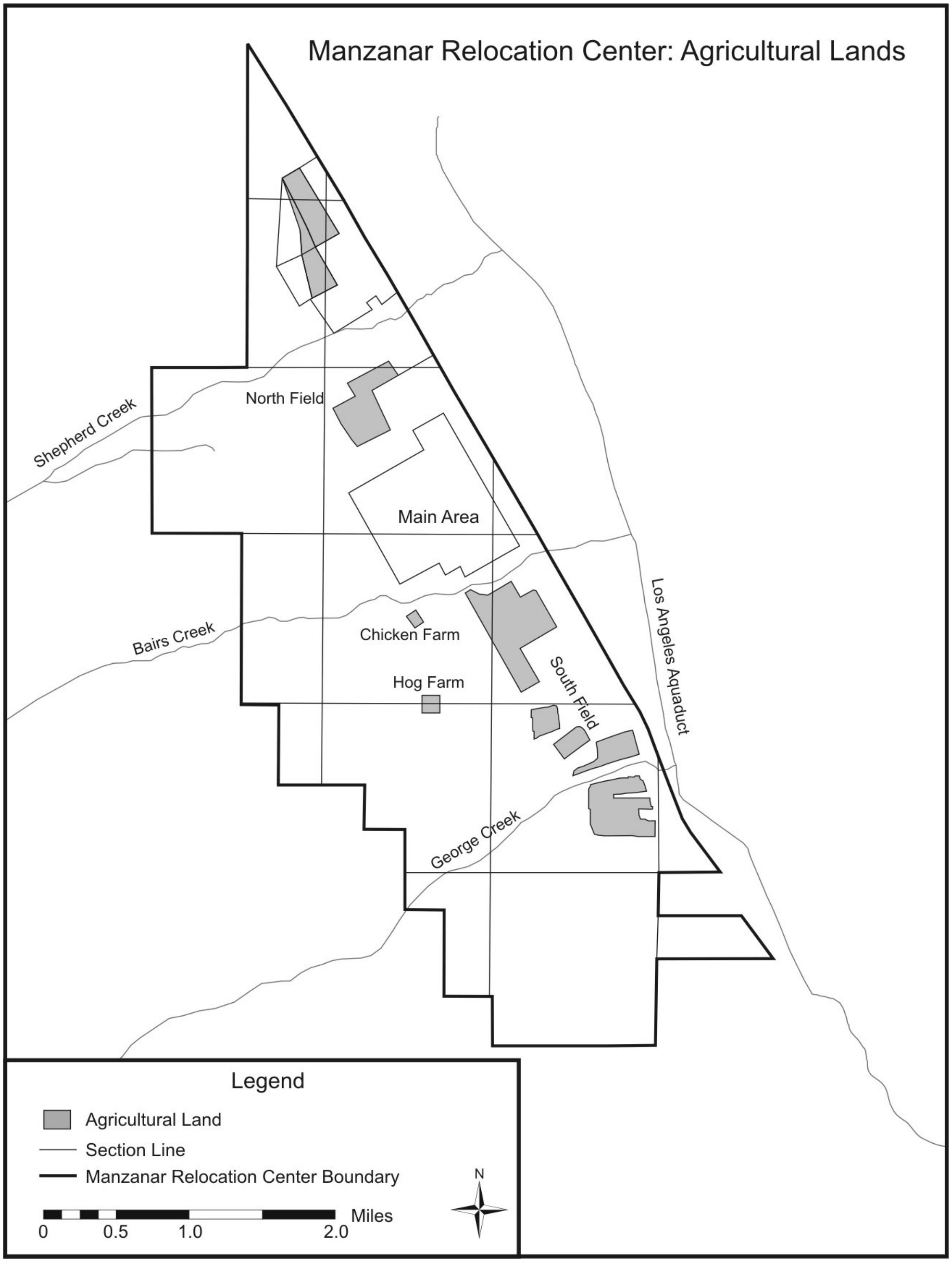


Figure 8.18. Irrigating corn on newly cleared lands on the south end of Manzanar Relocation Center. Dorothea Lange photograph, June 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 21, Section C, WRA # C-750, War Relocation Authority Photographs of Japanese American Evacuation and Resettlement, Series 8: Manzanar Relocation Center, Manzanar, California.

in short supply, and labor problems plagued the agricultural program in its early months, particularly because of the requirement that evacuee farm laborers be escorted to and from the agricultural fields by Caucasians (McConnell and Hill, 1946). Finally, the hot, dry summers were not conducive to crops like lettuce, peas, dry beans, and sweet potatoes, and alkaline soils on some of the center's lands were also a problem (Unrau, 1996b).

The livestock program consisted of beef cattle, chickens, and hogs (Table 8.1). Chickens were raised for eggs and meat on alfalfa, milo corn, wheat, and barley raised and milled at the center beginning in 1943 (Tables 8.1, 8.2 and 8.3). As this provided only about 50% of the grain feed needs of the center's poultry operation, feed wheat and barley were shipped in from other relocation centers (McConnell and Hill, 1946; Unrau, 1996b). At peak production, nearly 6,900 chickens were butchered in 1944 and over 60,000 dozens of eggs were produced in 1945 (Table 8.3). The poultry operation was terminated in November 1945 just prior to the closure of the

Table 8.1. Crops and livestock raised at the Manzanar Relocation Center, 1942-1945. Sources: Unrau, 1996b, p. 559-565; McConnell and Hill, 1946).

Produce	**Produce** (cont)	**Feed Crops**	**Livestock**
asparagus	onions (dry)	alfalfa	beef cattle
bean sprouts	onions (green)	barley	chickens
beans (dry)	peas	milo corn?	hogs
beans (string)	peppers	milo	
beets	potatoes (Irish)	wheat	
cabbage	potatoes (sweet)	corn beans	
carrots	radishes		
cucumbers	sage		
daikon	squash		
eggplant	spinach		
gobo	tomatoes		
honey dew melons	turnips		
kaboucha	uri		
lettuce	watermelon		
nappa			

camp (McConnell and Hill, 1946). Hog production began in fall 1943 and continued until the close of the center in November 1945 (McConnell and Hill, 1946). Production was delayed because the City of Los Angeles would not allow the center to raise hogs for fear of water pollution. It was not until after the U.S. Government obtained the lands from the City via condemnation that the center was able to raise hogs. Just over 2,000 hogs cumulatively weighing nearly 400,000 pounds were delivered to the center's mess halls after being raised on mess hall kitchen "garbage" and camp-grown feed crops (McConnell and Hill, 1946) (Table 8.3). The beef cattle operation began in late fall 1943 but was terminated a year later after the realization that the herd could not be maintained in the condition necessary for slaughtering without additions to the alfalfa and corn feed crops raised. Such additions were not possible because of a shortage of irrigation water in the summer months (McConnell and Hill, 1946). As a result, only 361 beef cattle were raised totaling nearly 140,000 pounds dressed weight in 1944 (Table 8.3).

Table 8.2. Produce and feed crops raised at Manzanar Relocation Center, 1942-1945. Data (including farm product values) from McConnell and Hill (1946).

	1942	1943	1944	1945	*Total*
Produce					
Total Acres Harvested	120	440	310	0	*870*
Total Production (lbs)	1,434,000	3,332,647	2,980,554	0	*7,747,201*
Consumed at Center (lbs)	1,276,890	3,181,272	2,801,079	0	*7,259,241*
Shipped to Centers (lbs)	157,110	151,375	179,475	0	*847,960*
Sold on Market (lbs)	0	0	0	0	*0*
Shrinkage & spoilage	0	0	0	0	*0*
Market Value ($)	$43,496	$105,967	$67,765	0	*$217,228*
Feed Crops					
Total Acres Harvested	0	110	45	0	*155*
Total Production (lbs)	0	242,000	186,000	0	*428,000*
Fed at Center (lbs)	0	242,000	186,000	0	*428,000*
Shipped to Centers	0	0	0	0	*0*
Sold on Market (lbs)	0	0	0	0	*0*
Market Value ($)	0	$2,420	$2,130	0	*$4,550*

Guayule, a plant used to produce latex for rubber, was experimentally grown at Manzanar beginning in spring 1942 as a way to enhance the scientific understanding of the plant and provide educational opportunities for evacuees. Scientists experimented by propagating guayule from cuttings, hybridization, and processing the plants for rubber extraction (Unrau, 1996).

Manzanar agriculturalists engaged in several unique practices to deal with environmental issues. The over-abundance of rabbits was addressed through the acquisition of five greyhounds and afghans (Staff, 20 March 1943). Evacuees dealt with the persistent Owens Valley winds by planting barley windbreaks (Staff, 12 June 1943; Unrau, 1996b).

Business and Industry. Manzanar included a wide variety of Consumer Cooperative businesses located in barracks and recreation buildings of the center's evacuee blocks. Stores included

Table 8.3. Livestock raised at Manzanar Relocation Center, 1942-1945. Data (including farm product values) from McConnell and Hill (1946).

	1942	1943	1944	1945	Total
Beef Cattle					
Total Butchered	0	0	361	0	*361*
Dressed Weight (lbs)	0	0	139,505	0	*139,505*
Market Value ($)	0	0	$23,560	0	*$23,560*
Chickens					
Total Number Butchered	0	2,077	6,881	6,760	*15,718*
Meat Dressed Weight (lbs)	0	6,000	21,370	20,480	*47,850*
Market Value ($)	0	$1,800	$6,296	$5,839	*$13,935*
Eggs (dozen)	0	0	53,420	60,435	*113,855*
Market Value ($)	0	0	$20,453	$25,067	*$45,520*
Hogs					
Total Butchered	0	0	1,217	849	*2,066*
Dressed Weight (lbs)	0	0	226,289	169,836	*396,125*
Market Value ($)	0	0	$37,567	$29,721	*$67,288*

general, gift, canteen, flower, and sporting goods stores, and a fish market. Service-oriented businesses included a beauty parlor, barber shop, movie theater, check cashing service, mail order service, shoe repair shop, sewing/dressmaking, watch repair, laundry services, and photography studio (Unrau, 1996b).

Initially, the WRA had ambitious plans for industry at Manzanar. These were toned down after the December 1942 riot (see below) when the WRA reconsidered its plans and saw a burgeoning industrial program as a disincentive to evacuee relocation (Unrau, 1996b). Industry at Manzanar included a camouflage net factory, mattress factory, furniture factory, garment factory (Figure 8.19), food processing unit, and shoyu and tofu plant. Most of the industrial operations were located on the south end of the relocation center (Figure 8.13). Because labor unions complained about unfair labor practices, most of Manzanar's industry was focused on internal use. A notable exception was the camouflage net factory that operated on a contract from the U.S. Army to the Southern California Glass Company. It was a major source of conflict within the center because

Figure 8.19. Evacuee seamstress in the Manzanar Relocation Center garment factory. Dorothea Lange photograph, July 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 20, Section C, WRA # B-196, War Relocation Authority Photographs of Japanese American Evacuation and Resettlement, Series 8: Manzanar Relocation Center, Manzanar, California.

employees were limited to U.S. citizens (i.e., only *Nisei*–second generation Japanese born in the U.S.–and *Kibei*–i.e., second generation Japanese born in the U.S. but educated in Japan) and because of disparities in work hours and pay rates as compared to other center employees. After six months of sporadic operation punctuated by protests and shut downs, the factory closed in December 1942 (Unrau, 1992a). A mattress factory operated in part of the old camouflage net factory after its closure. The employees of this factory produced over 4,000 mattresses before closing when the center had all it needed (Unrau, 1996b; Burton et al., 2002). A garment factory began operation in summer 1942 producing a variety of clothing that was needed by the evacuees at Manzanar and other relocation centers, and that could not be readily obtained on the open market. The main items sewn were hospital uniforms, overalls, coveralls, dresses, blouses, and shirts. A furniture shop built office furniture (including desks, chairs, and filing cabinets), baby furniture for the Children's Village, and school furniture. Additionally, the shop made Christmas toys from scrap lumber and sold them in the Manzanar Cooperative Enterprises stores. A clothing alterations shop operated from 1943 until the center closed, altering clothing obtained from outside sources that was too large for the evacuees. A typewriter repair center and a domestic sewing machine repair center operated beginning in early 1943 while a sign shop operated from early 1943 until spring 1944 (Unrau, 1996b).

Food processing plants also operated at Manzanar. Approximately 1,500 gallons of *shoyu* (i.e., a type of soy sauce) was produced each month at a better quality and lower cost than could be obtained from the outside. Approximately 12,500 pounds of *tofu* (i.e., soybean curd) were produced each month. *Miso* (i.e., a rich, salty, soybean-based condiment) was also produced at the center. Surplus vegetables were pickled (especially root crops) or dehydrated (especially peas, beans, carrots, and turnips) (Unrau, 1996b). Mulberry tea was dried on a small scale (Girdner and Loftis, 1969). A 26 feet by 100 feet root cellar was located west of the factory area in which Irish potatoes, onions, winter squash, sweet potatoes, carrots, turnips, and cabbage were successfully stored (Figure 8.13) (Burton et al., 2002). Many of the individuals employed in the industrial section were able to relocate with the skills learned or honed while in the industrial section (Unrau, 1996b).

Landscaping and Gardening. Gardening in Manzanar consisted of victory gardens as well as ornamental gardens. Here, as elsewhere, garden creation and the act of gardening helped evacuees deal with the trauma of incarceration. The resulting gardens helped buffer the evacuees from the often harsh environments of the centers and created a more habitable environment. Gardening was also a way to lay claim to those spaces that otherwise the WRA may have controlled. Garden construction, and associated material collection, was also a way for evacuees to shed some of the WRA's control by leaving the center, however briefly, to collect materials for gardens. Further, gardening was a way for the Japanese, especially the *Issei* (first generation Japanese Americans born in Japan), to stay in touch with their Japanese traditions. Taken to the extreme, gardening at Manzanar was an act of defiance. In fact, the riot that broke on 6 December 1942 began in Block 22, the site of the beautiful mess hall garden that fused ancient Japanese garden design with the frontier west, pre-World War II Los Angeles, and the environment of Manzanar (Tamura, 2004). A main player in that riot, Harry Ueno, initiated the construction of the first garden pool of the center near the Block 22 mess hall (Ueno, 1986).

WRA officials encouraged evacuees to plant lawns to hold down the readily erodible soils. Evacuees went well beyond this in creating numerous ornamental gardens and landscaping that graced Manzanar as at no other relocation center (Figure 8.20). This was likely because Manzanar incarcerated the largest number of urban landscape professionals of any of the centers, and such professionals tended to create more elaborate gardens than did rural Japanese. Further, the location of Manzanar in the Owens Valley where ample raw materials could be had within a short distance of the center favored the creation of ornamental gardens. Parks, block or mess hall gardens, and personal gardens were the resulting varieties of ornamental gardens in the center, and were often inspired by Japanese gardening traditions. Most were located in the open areas adjacent to barracks or in firebreaks separating the residential blocks (Tamura, 2004). These

Figure 8.20. Barracks garden and pond, Manzanar Relocation Center. Dorothea Lange photograph, June 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 23, Section C, WRA # C-865, War Relocation Authority Photographs of Japanese American Evacuation and Resettlement, Series 8: Manzanar Relocation Center, Manzanar, California.

gardens typically included concrete-lined ponds, waterfalls, walkways, and bridges (Burton et al., 2002). Ornamental gardens were enhanced by the transfer of plants with evacuees when they came to Manzanar, and by the development of a lath house nursery in which to start and nurture young plants. The *Manzanar Free Press* initiated a "Best Garden Contest" as a way to promote ornamental Japanese gardens (Tamura, 2004).

Evacuees also constructed public parks, including ponds and gardens, at various places in and around Manzanar (Figure 8.13) (Burton et al., 2002). Merritt Park (also previously known as Rose Park and Pleasure Park), in the northwestern portion of the center, included over 100 species of flowers, two small lakes, a waterfall, a bridge, and a Japanese tea house. Cherry Park and North Park were also located in the northwestern portion of Manzanar. Parks south of the main portion of the center were used with restrictions once rules were relaxed about travel outside the main center. Some of the parks were constructed from the ground up while others built on existing features such as trees remaining from the earlier ranches of the area (Burton et al., 2002).

Manzanar's victory gardens were typically planted in the firebreaks between residential blocks (Figure 8.21) and often were bordered by flowers. A large plot was typically set aside in each firebreak, and within this plot, each family or individual was allotted space for a victory garden. Irrigation for these plots required cooperation in its development and operation. Approximately 200 individuals or families were involved with victory gardens at Manzanar and it was an especially rewarding activity for the older Issei of the center. The vegetable crops of the victory gardens were either enjoyed within the family groups or were donated to the mess halls (Unrau, 1996).

Education. Manzanar offered a K-12 course curriculum with an elementary school and a high school (Unrau, 1996b). Initially, the school system was a mess–i.e., classes for the various grades were taught all over the center, teachers were volunteers, and equipment and suppliers were in very short supply (Houston and Houston, 1973). The December 1942 riot resulted in an approximately one month closure of the school until conditions within the center had stabilized. This break allowed the administration to resolve some of the negative issues surrounding the schools (Unrau, 1996b). By the 1943-1944 school year, the high school was consolidated into two blocks and the elementary school occupied one block. The equipment and supplies issue had largely been resolved by then as well (Houston and Houston, 1973).

Figure 8.21. Victory gardener and her 10 feet by 50 feet garden plot, Manzanar Relocation Center. Dorothea Lange photograph, July 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 21, Section C, WRA # C-686, War Relocation Authority Photographs of Japanese American Evacuation and Resettlement, Series 8: Manzanar Relocation Center, Manzanar, California.

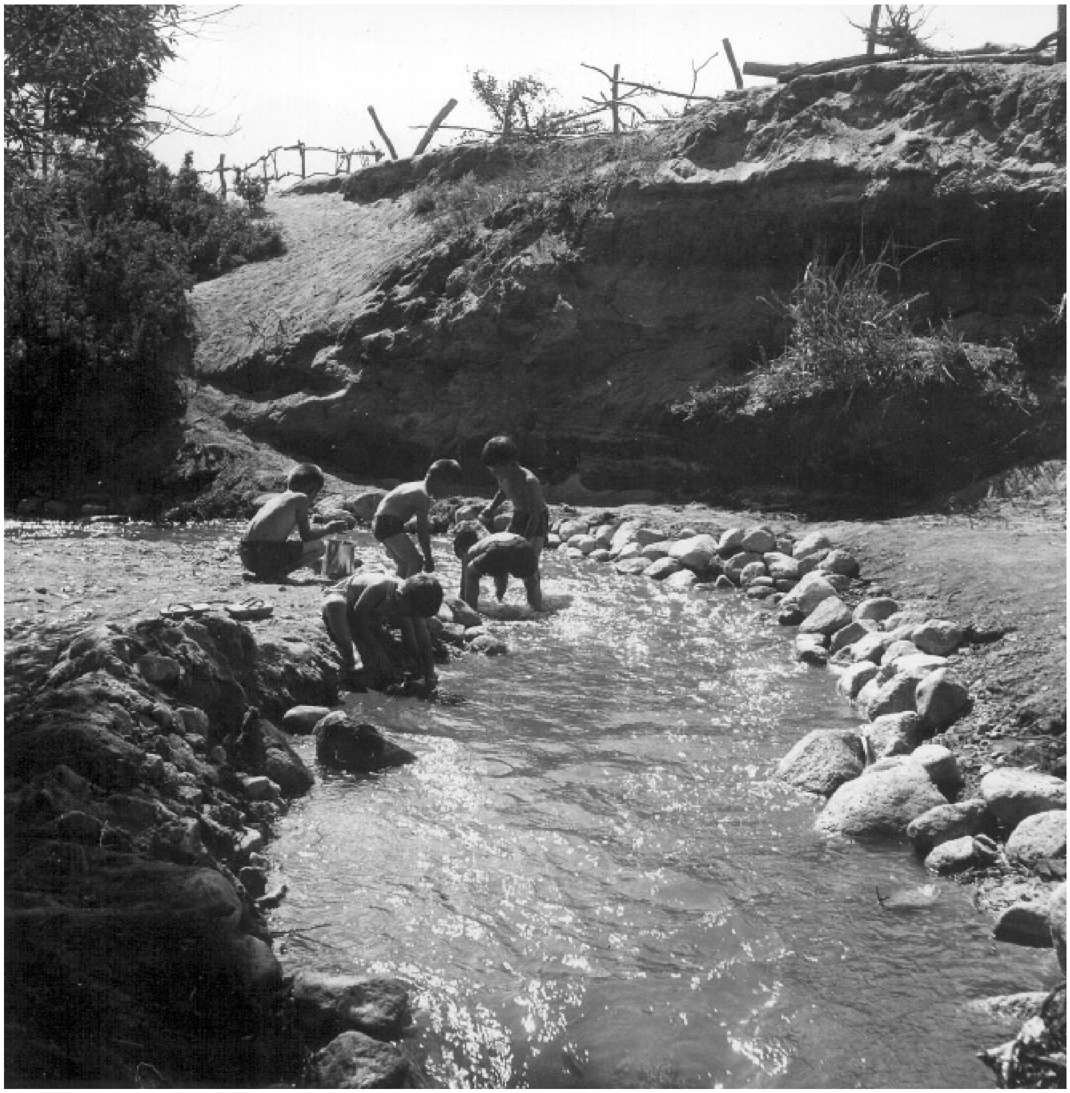
The adult education program was designed to meet the needs of four audiences: 1) those who wanted to learn English; 2) those who wished to earn junior college credits; 3) those who desired personal development; and 4) those who wanted to become more employable. Despite military registration, seasonal leaves, and relocation, the adult education program continued to enroll students in a variety of subjects into early 1945 (Unrau, 1996b).

Recreation. Center recreation occurred in a variety of forms–gardening (see above), sports, scouting, music, movies, dance, arts and crafts, reading, and various children's activities (Unrau, 1996). Basketball courts, baseball and softball diamonds, and tennis courts were scattered throughout the residential blocks. Some blocks had playground equipment (Burton et al., 2002). The center newspaper, the *Manzanar Free Press,* dedicated an entire page in each 4-6 page issue to center sports. Local baseball, basketball, football, wrestling, track and field, and volleyball teams all appeared in these issues. A nine hole sand golf course was constructed southwest of the center (Unrau, 1996a. Scouting, glee clubs, movies and traveling shows were also common in the center. Evacuees could participate in a variety of music and dance activities (Houston and Houston, 1973). An outdoor theater was built for movies (Unrau, 1996b). Bands including the "Sierra Stars" (hillbilly music) and the "Jive Bombers" (big band dance music) formed among the evacuees but unlike those at some other centers, these apparently did not leave the confines of Manzanar (Houston and Houston, 1973). The Manzanar library system had a main library plus four branch libraries throughout center (Commission on Wartime Relocation and Internment of Civilians, 1982). An area around Bairs Creek (west of the main portion of the center) (Figure 8.13) became a popular picnic area as evacuees developed the area with landscaping and walks, bridges, and fireplaces (Unrau, 1996a). Evacuees also swam and fished the streams in and near the center (Figure 8.22).

Culture and Art. As in other relocation centers, the culture of Manzanar was decidedly American. This was seen in language, dress, housing, meals, recreation, and business interactions. It could also be seen in the pages of the Manzanar High School Year Book (Gentile, 1988). However, Japanese traditions were also evident throughout the center. Buddhism had a strong following in the center including traditional ceremonies such as *Hana Matsuri* (i.e., the flower festival commemorating the birth of Buddha) (Staff, 8 April 1944). Traditional Japanese baths were constructed and used in the center (Takamura, 1987). Evacuees made *mochi* (i.e., rice cakes) during the winter holiday season serving it early in the New Year (Staff, 1 January 1943). Traditional Japanese sports such as *judo* and *kendo* (i.e., martial art of Japanese fencing) were also practiced in the center. In fact, a judo building was located between Blocks 10 and 16, and a kendo platform was between Blocks 10 and 11 (Burton et al., 2002) (Figure 8.14).

Art flourished in the center, perhaps because of the need for beauty in the dry landscape. Traditional needlework was practiced as was artificial flower creation and arrangement (Figure 8.23) (Houston and Houston, 1973). Manzanar gardeners also grew flowers, some of which ended up in exhibitions at the center. Other arts included stonework and landscaping with the ample raw stone materials from the area (Figure 8.19) (Eaton, 1952).

Figure 8.22. Evacuee children playing in one of the creeks draining the Sierra Nevada and running through Manzanar Relocation Center. Dorothea Lange photograph, July 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 22, Section C, WRA # C-788, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 8: Manzanar Relocation Center, Manzanar, California.



Faith and Spirituality. Various editions of the *Manzanar Free Press* show that at least three different churches were present within the confines of Manzanar. These included Buddhist, Protestant, and Catholic congregations. Buddhists and Christians celebrated traditional events while in Manzanar. A well-admired priest who lived among the evacuees within the center helped convert many evacuees to Catholicism (Houston and Houston, 1973).

Figure 8.23. Evacuees display their paper flower arrangement at an art exhibit at Manzanar Relocation Center. Francis Stewart photograph, June 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 24, Section C, WRA # D-549, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 8: Manzanar Relocation Center, Manzanar, California.

Health. Health was a key issue, especially early on in the history of Manzanar. Evacuees were sickened with fevers and vomiting by the numerous immunizations they received upon entry to the center. The food also initially made evacuees sick, especially with diarrhea known as the "Manzanar Runs" (Houston and Houston, 1973). Health care facilities and the personnel to deal with such issues were also initially limited at Manzanar. However, a 250 bed hospital was completed in July 1942 in the northwest corner of the main portion of the center (Figure 8.14). The 19 building hospital group included general, obstetrical, and isolation wards, as well as x-ray and surgical facilities, a pharmacy, an ear, nose, and throat clinic, and an outpatient clinic. Staffing over time also appears to have improved to the point that is was adequate to meet the needs of the evacuees (Unrau, 1996a).

Government. Government at Manzanar was unsettled, especially during the center's first year of existence. Government centered on the residential blocks, each of which was composed of about

250 evacuees. Temporary Block Leaders were initially selected by the WCCA, and subsequently elected by evacuees to serve as a Community Council. All evacuees 21 years of age or older, including non-U.S. citizens, were eligible to vote and to be elected. It was the job of Block Leaders to handle the day-to-day affairs of the evacuee blocks. Soon after the management of the camp changed to the hands of the WRA, non-citizens were barred from voting or being elected to the council. Because of this change and the fact that the administration had the final say on all laws and regulations governing the center, frustration increased among the evacuees. The failure of the center administration to listen to the Block Leaders further widened the split between evacuees and administration. In December 1942, evacuees failed to support a camp charter because of further discontent with the administration, and camp governance reached a stalemate (Unrau, 1996a).

In January 1943, Project Director Merritt set out to resolve the issue by first recognizing the importance of the Issei elders in center governance. Merritt even went so far as to appoint a respected Issei to serve as the chairman of the Block Managers. Because of Merritt's efforts and the spontaneous formation of a Peace Committee comprised of evacuees, a new spirit of cooperation that arose in the days following the December 1942 riot (see below) resulted in a center government that proved to be effective in promoting peace, goodwill, and Americanization (Unrau, 1996b).

Community. Next to Tule Lake, Manzanar was likely the most tumultuous relocation center. This may have been the result of the close proximity of some of the key Japanese American Citizens League (JACL) members with those who had been treated especially poorly during the evacuation–e.g., the Terminal Island, California residents who had been given 48 hours to evacuate (Weglyn, 1996).

Early signs of unrest showed in August 1942 when a group of young men called a meeting to discuss the WRA's ruling that Kibei could not leave the center on seasonal leaves to work in neighboring states. The meeting quickly became heated when the Nisei attending were verbally attacked for their collective roles in the evacuation, conditions in the center, and collaboration with center administration. At this meeting, the Kibei also verbally attacked the Manzanar Citizens Federation, a group with similar values as the JACL. This so-called "Kibei Meeting" so angered center administrators that they prohibited the use of Japanese language in public gatherings. Another result of the meeting was harassment and intimidation of Nisei who were intending to run for political office within the blocks during late summer and fall (Spicer, 1969). Violence occurred on 6 December 1942 when Fred Tayama, a JACL leader who was suspected of being a Government informant, was assaulted. The outspoken leader of the Kitchen Workers Union, Henry Ueno, was arrested for the assault. The arrest occurred after Ueno had accused the administration of pilfering sugar and meat from the mess halls. During a mass meeting of Issei and Kibei in the aftermath of Ueno's arrest, a blacklist was created consisting of the Nisei who were suspected of being government informants. An even larger rally of the more extreme members of the anti-JACL, anti-administration center element called for retribution and the immediate release of Henry Ueno. The crowd headed toward the center jail where it ran into a large group of military police. Evacuees threw rocks, sand, and insults at the troops. When the crowd would not disperse as asked, the commander in charge of the troops ordered tear gas shot into the crowd. In the ensuing confusion, some of the evacuees ran toward the troops. A driver-less truck was also released by the several evacuees and it headed into the group of soldiers. The soldiers fired at the evacuees and the truck. One evacuee was killed instantly, another died later, and another nine were injured. Martial law was soon declared and in effect for the next two weeks during which many of the evacuees refused to work. Sixteen instigators of the uprising were sent to a Citizen Isolation Center near Moab, Utah. Those 65 evacuees who were targeted by the Issei and Kibei and suspected of being informants were removed from Manzanar and briefly placed at the Cow Creek Camp in Death Valley, California before being released to the outside world (Figure 8.3) (Weglyn, 1996). The Manzanar Riot, while a tragedy, did ultimately help clear the air between evacuees and the administration, and helped lead the way to reasonable relations between the groups. With Nisei and Kibei leaders removed from camp, the Issei became the primary leaders. A single community organization resulted, elected by the people of each block without regards for citizenship and with direct access to the administration (Spicer, 1969).

The February 1943 registration program also caused problems within the Manzanar community. The initial wording of question 28 on the "loyalty questionnaire" (Appendix C) resulted in confusion and ultimately negative responses by the evacuees. Initially, nearly 62% of those 17 years of age or older answered "no" to question 28. Because of the segregation ramifications of the loyalty questionnaire (see below), the administration was allowed to reword the question, and those who had already completed registration were recalled to again answer it. Even with this rewording, 59% answered "no" or with qualifications to question 28 (Unrau, 1996b). A variety of reasons were put forth for the relatively low "yes" vote on question 28 including the possible link of the question's response to army service, belief that there was no future for evacuees in America, bitterness associated with the evacuation and with the Manzanar riot, family pressure, fear of loss of any Japanese citizenship rights, pressure from gangs within the center, and a misunderstanding of the question.

Interaction with Surrounding Areas

The Outside World. The evacuees of Manzanar appear to have had little contact with local residents, likely because of their location within the military exclusion zone. Local residents had mixed reactions to the Japanese Americans in the area ranging from welcoming them because of their perceived economic impact on the area to ambivalence to outright disdain (Brown, 1977).

The economic impact of the center on local towns was especially felt during construction and during its early stages of operation. Many locals were hired and paid good wages to build the center. Economic impacts also occurred following the completion of construction. Evacuees were initially allowed to shop in Lone Pine under guard and did so without problems until locals complained and petitioned the WRA to stop the practice (Hopkins, 1977; Salas, 2006; Wehrey, 2006). Another example of an economic interaction occurred with the center newspaper. The *Manzanar Free Press* was printed three times a week by the Chalfant Press in Bishop thus accounting for about 25% of Chalfant Press' overall business (Cooper, 2006). Likely because of

Manzanar's location within the military exclusion area, it appears that local residents did not hire Japanese Americans for labor needs while Manzanar was in operation (Hopkins, 1977).

Early on, when evacuees played baseball on Sundays with the center construction crew, locals would come and watch (Kelley, 1977). A center football team played a team from Big Pine at Manzanar (R. Potashin, 19 June 2007, oral communication). Manzanar also hosted social gatherings and fairs, and invited locals to these events (Miller, 1977a). Manzanar doctors covered for civilian doctors in their absence, and locals sought out evacuee dentists (Branson, 1977; Pedneau, 1977). Evacuees would sneak through the perimeter fence at night to go outside the camp to fish the streams flowing from the Sierra Nevada until daybreak before slipping back into camp (Zischank, 2006). Locals had positive encounters with these fishers (Harry, 1977). Evacuees also went into the mountains with trucks to gather rocks and trees for their barracks and mess hall gardens (Zischank, 2006). Later, they were allowed to depart the main portion of the center, with permission, for picnics and even camping (Houston and Houston, 1973).

Local EuroAmericans also reacted negatively toward the Japanese. The general attitude seemed to be one of anger against the Japanese Americans for the Pearl Harbor "sneak attack" and anger at the U.S. Government for building Manzanar without any discussion with the community. On the other hand, few residents were scared of the Japanese Americans, especially once they realized that they would be kept under guard within a fenced camp (Aigner, 1977). Several residents complained that wartime rationing of precious foodstuffs did not appear to extend to Manzanar Japanese Americans (Gillespie, 1977). Local businesses, despite the potential to benefit, were probably the most negative toward the evacuees. A Japanese American soldier, home on furlough and dressed in full army uniform, was refused service by a Lone Pine barber who said "We don't take any damn Japs here" (Cragen, 1977, p. 164). The Lone Pine bakery owner wouldn't sell baked goods to those who wanted to take the goods to their evacuee friends at the center (Miller, 1977b).

Evacuees could depart the center on short-term, seasonal, and indefinite leaves. Short-term leaves ranged from several days to a few weeks, and were typically, for personal business or medical issues. Seasonal leaves were granted to evacuees for seasonal agricultural employment. The purpose of indefinite leaves was to permanently depart the centers for relocation to the "outside world", join the armed forces, be interned in a Department of Justice Internment Camp, be committed to an institution, or be repatriated to Japan (U.S. War Relocation Authority, 1946).

Manzanar evacuees began to depart the center on seasonal agricultural leaves to Idaho in June 1942 (Staff, 9 June 1942). Despite rumors of racism, discrimination, low wages, and substandard housing in the seasonal leave settings, just over 1,000 Manzanar evacuees departed the center for Idaho and Montana sugar beet work in fall 1942 (Unrau, 1996b). Seasonal agricultural leaves continued for evacuees through fall 1944 with Idaho, Montana, and Oregon serving as the key destination states (Heath, 1946).

Relocation from the center was encouraged early on; however, relocation was generally slow in the first years of the center. Only 98 evacuees departed in 1942 (U.S. War Relocation Authority, 1946). Among these were three students who headed to the University of Nebraska in early fall 1942 (Staff, 1 October 1942). Monthly relocations approached or exceeded 100 only in April, May, and June, 1943 (Figure 8.24). It was not again until April 1944 that monthly relocations neared this number. Beginning in April 1944, however, and continuing until the center closed in November 1945, only three months had less than 100 relocations. Over 960 departed in 1943, 1,288 more departed in 1944, and 5,396 departed in 1945 (U.S. War Relocation Authority, 1946). The pace of relocation increased in the spring of each year suggesting that employment opportunities or perhaps the pervasive winds may have helped drive evacuees out of center. Manzanar evacuees relocated to 40 states in the U.S. with Chicago, New York, Denver, Salt Lake City, Milwaukee, Cleveland, Minneapolis-St. Paul, St. Louis, and Philadelphia being the preferred cities (Heath, 1946; see various issues of the *Manzanar Free Press* for city destinations) (Figure 8.25).

Over 170 evacuees from Manzanar served in the U.S. armed forces during World War II. Of these, 42 volunteered and 132 were inducted. Of these, 17 (10%) were war casualties with three dead and 14 wounded in action. Despite the controversy that surrounded registration and the "loyalty questionnaire", Manzanar had no Selective Service violations (U.S. War Relocation Authority, 1946). Many of the Manzanar evacuees who joined or were drafted into the U.S. armed forces became members of the highly decorated 442nd Regimental Combat Team that

Figure 8.24. Indefinite leaves (i.e., long-term departures or relocations), Manzanar Relocation Center, May 1942-November 1945. Data from U.S. War Relocation Authority (1946, p. 37).

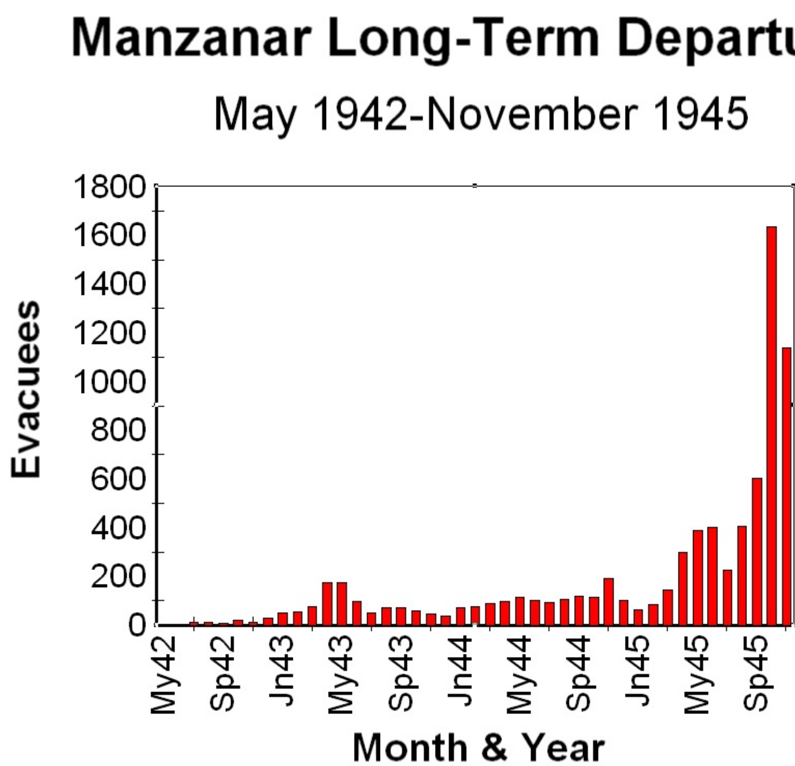
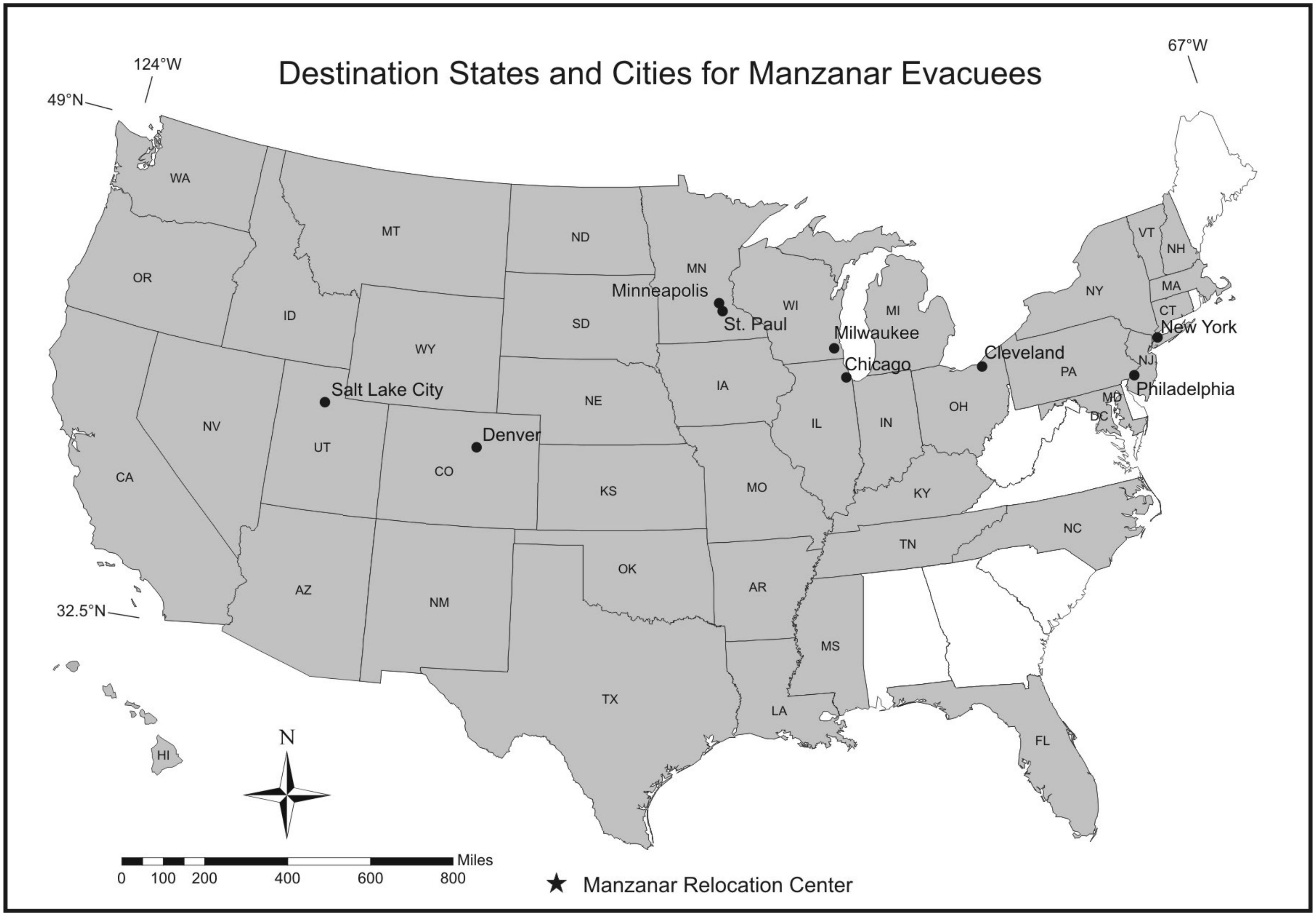


Figure 8.25. Geography of Manzanar indefinite leaves (i.e., relocations), May 1942-November 1945. Data from Heath (1946, p. 50).



served with distinction in the European theater of operations while others served in the Military Intelligence Service where they were vital to the ultimate success of the U.S. in the Pacific (Unrau, 1996b).

Other Relocation Centers. Interactions between Manzanar and the other relocation centers were quite limited. Manzanar sent surplus agricultural crops to Poston and Tule Lake on at least several occasions (Unrau, 1996b). It does not appear that Manzanar athletic teams played other relocation center teams.

Manzanar transferred 290 segregees to Tule Lake Relocation Center in October 1943 and 1,875 in February 1944 because they or members of their families answered “no” to questions 27 and 28 on the “loyalty questionnaire” (Appendix C). However, unlike most other centers, Manzanar did not receive any “loyal” Tuleans in return. Thirteen Manzanar residents who answered “no” to the “loyalty questionnaire” were repatriated to Japan in September 1943. Twenty-seven Manzanar evacuees were sent to the Moab, Utah and subsequently the Leupp, Arizona Isolation Center because of their roles in the December 1942 riot (U.S. War Relocation Authority, 1946).

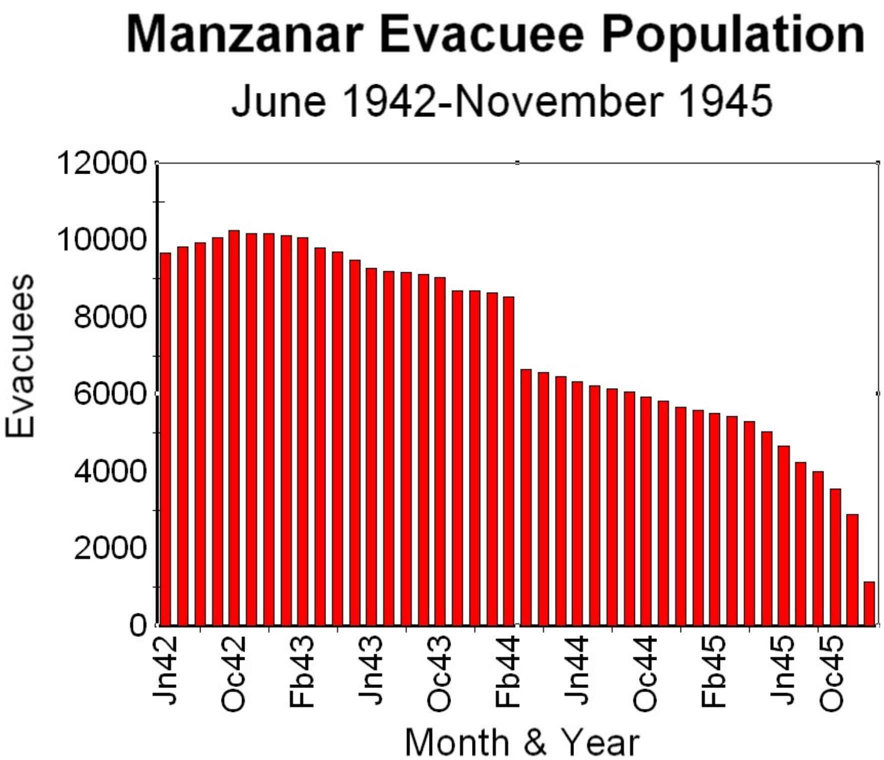
Closing Manzanar and Another Relocation

Public Proclamation #21 on 17 December 1944 ended the West Coast Exclusion Order that had been in effect since 1942. Soon after, WRA Director Dillon Myer announced that all relocation centers would close by the end of 1945 (Staff, 17 February 1945). On 1 January 1945, Manzanar’s population was nearly 5,600 evacuees (Figure 8.26). By 1 June, it had declined by about 950 evacuees, and on VJ (i.e., Victory over Japan) day in mid-August, the population was about 3,700. In its final 52 days, 3,312 evacuees departed the center (Figure 8.24). Manzanar officially closed ahead of schedule on 21 November 1945 (War Relocation Authority, 1946).

Impacts of Manzanar on Today’s East-Central California Landscape

Evacuee Dispersion. The 1950 census shows no persons of Japanese descent in Inyo County as compared to one in 1940 (U.S. Bureau of the Census, 1943a; 1952a). This may, in part, reflect the fact that the Owens Valley was a very foreign place for the largely urban population of Manzanar. It may also reflect the City of Los Angeles’ ownership thus little land or water was available for new housing in Owens Valley (Brierly, 1977). These data are backed up by Bell (1977) who recalls no Japanese Americans living in the immediate area of Manzanar after the center’s closure. The cumulative Japanese American population of Inyo as well as adjoining California and Nevada counties declined by about 6% to 6,960 between 1940 and 1950 (Figure 8.11). The Japanese American population of all adjoining counties except Fresno and Nye counties declined during the period, and only Fresno showed a significant increase in persons of Japanese descent (U.S. Bureau of the Census, 1952a; 1952b). These data suggest that relocation did play a role in affecting the ethnic makeup of the area. Overall, California’s Japanese American population declined by 7,760 (approximately 8.5%) between 1940 and 1950, reflecting relocations to states east of the military exclusion zones and repatriation to Japan (Figure 8.11) (U.S. Bureau of the Census, 1943a; 1952a).

Figure 8.26. Resident population, including evacuees on short term and seasonal leave, Manzanar Relocation Center. Data from U.S. War Relocation Authority (1946, p. 18).



Land Dispersion. Following closure of the center, most of the land and all of the water rights were returned to the City of Los Angeles (Wehrey, 2006).

Infrastructure Dispersion. The U.S. War Assets Administration initially handled the salvage of the Manzanar's buildings and various equipment (Burton et al., 2002). Twenty-five former staff housing buildings remained on a 19 acre portion of the former camp under a 5 year lease with the City of Los Angeles where they were used for a war veterans housing project until at least August 1948 (Unrau, 1996b; Burton et al., 2002; Wehrey, 2006). The auditorium was leased to the Independence Veterans of Foreign Wars until 1951. The Inyo County Road Department used the structure until it was purchased by the National Park Service in 1996 (Burton et al., 2002). Buildings were transferred to various government agencies, sold to military veterans, or sold to the general public in summer and fall 1946. Many of the buildings purchased by the general public left in the form of stacks of boards. However, it seems likely that many of the 60 barracks purchased by Independence and Lone Pine veterans were kept intact for transport to those nearby towns. All remaining buildings (approximately 560) and all concrete structures protruding above the ground surface were cleared from the site in late fall 1946 and winter 1947 (Unrau, 1996).

Remains of Manzanar. Burton et al. (2002) describe in detail the nature of Manzanar as of about 2000 where much evidence remains of the center. Further, I visited the former center in

December 2002 at a time of distinct change in the site's management. While only three of the original more than 800 Manzanar buildings remained on site, much of the ground-level infrastructure was still in place (Burton et al. (2002). Roads, sidewalks, foundations, concrete piers, concrete slabs (Figure 8.27), manholes, gardens (Figure 8.28), irrigation ditches (Figure 8.29), and relocation center-era trash remains on the site. In fact, remnants of the early 20th century Manzanar orchards still remain (Figure 8.30). However, *rills* (a small channel measured in inches) and *arroyos* (a larger channel measured in feet characteristic of drylands), especially in the western portions of the center (hence higher on the alluvial fans), have eroded into many of the center's roads in the years since 1945 (Figure 8.31).

At least 14 former relocation center buildings were moved to nearby Independence and Lone Pine (Burton et al., 2002). My reconnaissance in December 2002 suggests that many Manzanar buildings are in these communities where they have been used as houses, various outbuildings, churches, club buildings, and motels (Figure 8.32).

The recently opened U.S. National Park Service Manzanar Interpretive Center is located in the former relocation center auditorium. Located west of the central portion of the center, the relocation center cemetery is the site each April for the Manzanar Pilgrimage (Figure 8.33) (Burton et al., 2002). The Eastern California Museum in Independence has an impressive collection of documents, photographs, and artifacts related to Manzanar.

Figure 8.27. Block 25 latrine and mess hall concrete slabs remaining at Manzanar Relocation Center. View west toward partially snow-covered Inyo Range. Author photograph, December 2002.

Figure 8.28. Block 34 mess hall garden, Manzanar Relocation Center. View northeast toward Inyo Range. Author photograph, December 2002.

Figure 8.29. Remains of irrigation ditch in farm lands just north of main portion of Manzanar Relocation Center. Note partially buried boards that were used to divert water into furrows. Eight inch by five inch yellow field notebook for scale. Author photograph, December 2002.

Figure 8.30. Rows of early 20th century fruit trees remaining in the northwestern portion of Manzanar Relocation Center. Sierra Nevada Range in background. Author photograph, December 2002.

Figure 8.31. Post-war headward erosion into center roadbed in northwestern portion of Manzanar Relocation Center. View east toward Inyo Range. White Author photograph, December 2002.

Southern Owens Valley and Manzanar Today. The years immediately following the closure of Manzanar were relatively quiet in Owens Valley. Agriculture continued with over 100 farms and ranches on more than 300,000 acres of valley land in 1960. However, the City of Los Angeles' insatiable desire for water resulted in the completion of a second aqueduct in the southern end of the valley in 1970. With much of this water provided by increased groundwater pumping, valley residents were very concerned about the potential effects of pumping on valley groundwater levels. A subsequent lawsuit filed by Inyo County accusing the City of Los Angeles of failing to comply with the California Environmental Quality Act led to approximately 20 years of litigation. The controversial Long Term Water Agreement of 1991 called for joint Los Angeles/Inyo County management of Owens Valley groundwater pumping. This agreement has failed to solve many of the problems associated with groundwater pumping and re-watering of the lower Owens River. Los Angeles' removal of Owens Valley water also greatly enhanced the issue of blowing dust from the Owens Lake basin (Wehrey, 2006). Owens Lake, now a playa, provides 6% of all of the dust emitted in the U.S. each year. Because of the health hazard of the minuscule PM-10 particulates, the City of Los Angeles now needs to reduce the amount of sodium, silicon, sulfate, and arsenic-laced dust blowing off the playa (Ewan, 2000). A 1998 Memorandum of Agreement between the City of Los Angeles and the Great Basin Unified Air Pollution Control District imposed a 2006 deadline by which the City needed to meet federal air quality standards (Wehrey, 2006; Great Basin Unified Air Pollution Control District, n.d.). In December 2006, the Great Basin Unified Air Pollution Control District and City of Los Angeles reached an agreement on what additional steps the City needed to do to reduce air pollution to acceptable levels (Great Basin Unified Air Pollution Control District, n.d.).

The economy of the area increasingly depends on tourism, especially snow skiing. In 2003, a record 3 million people traveled through the valley. In addition, the movie business continues to be an important player in the economy of the valley (Wehrey, 2006). The economic basis of Lone Pine is now primarily tourism and secondarily cattle ranching (Ewan, 2000).

As of 2000, the population of Inyo County was 17,945, a 1.8% decline since 1990 (U.S. Census Bureau, n.d.). With 92% of the county federally owned and another 4% in City of Los Angeles ownership, it is likely that population growth will be negligible or slow in the coming years (Wehrey, 2006). Amazingly, the City of Los Angeles Department of Water and Power now boasts that its water and land grab of the early 20th century preserved Owens Valley from the rampant population growth experienced throughout much of California (Ewan, 2000)!

Manzanar lay forgotten for several decades following its closure in late November 1945. Erosion and subsequent deposition by streams and by sheetwash from up fan took a toll on the remains of the camp (Figure 8.34). In 1969, a group of former Manzanar evacuees held the first Manzanar Pilgrimage (Embrey, 2001). Increasing interest in its preservation led to designation as a California Historic Landmark in 1972 and placement on the National Register of Historic Places in 1976 (U.S. National Park Service, 2001). The compromise wording on the plaque

Figure 8.32. Former Manzanar barracks converted into Budget Inn Motel, Lone Pine, California. Author photograph, December 2002.

Figure 8.33. Cemetery monument, northwestern portion of Manzanar Relocation Center. View toward cloud-shrouded Sierra Nevada Range. Author photograph, December 2002.

commemorating the 1972 Historic Landmark designation was controversial to some (Garrett and Larson, 1977; Embrey, 2001):

> *In the early part of World War II, 110,000 persons of Japanese ancestry were interned in relocation centers by Executive Order 9066 issued on February 19, 1942. Manzanar, the first of ten such concentration camps, was bounded by barbed wire and guard towers, confining 10,000 persons, the majority being American citizens. May injustices and humiliation suffered here as a result of hysteria, racism, and economic exploitation never emerge again.*

By the 1980s, the National Park Service had inventoried all ten relocation centers and found that Manzanar was the best preserved. In 1985, it was designated a National Historic Landmark and established as the Manzanar National Historic Site in 1992. The site is to be managed as a "cultural landscape based on the World War II relocation center period" (U.S. National Park Service, 2001). Like the earlier wording on the plaque, all did not initially agree with the National Historic Site designation. However, locals eventually bought into the proposal because of the potential tourist dollars that could come to the area (Alisa Lynch, oral communication, 16 December 2002). The Owens Lake Paiute resented the establishment of a Manzanar National Historic Site when the Japanese were only "wronged" in the valley for three and one-half years as opposed to the decades of injustices they have endured. War veterans also saw the honoring of Japanese as a slap in the face against those who fought the Japanese Imperial Army in World War II (Ewan, 2000).

The preferred alternative of the 1996 General Management Plan for the Manzanar National Historic Site proposed to highlight the Japanese American relocation theme, and secondarily, Native American habitation and use and early Anglo-American settlement and use as a compromise to complaints from various groups. The plan proposed to preserve existing center features as well as add one or more barracks and various block support structures (e.g., latrine, mess hall and laundry building) within a demonstration block. The center would again be surrounded by a perimeter fence, and one guard tower would be reconstructed along that fence (U.S. National Park Service, 1996). The City of Los Angeles officially turned over 814 acres to the National Park Service at the 1997 Manzanar Pilgrimage in trade for land elsewhere (Embrey, 2001; U.S. National Park Service, n.d.). The Manzanar Committee, a citizen's advocacy group, celebrated the 30th anniversary of the Manzanar Pilgrimage in April 1998 (Embrey, 2001). A $5.2 million remodel of the former center auditorium initiated in April 2002 resulted in the historic site's visitor center in April 2004 (Figure 8.34) (U.S. National Park Service, 2006a). A relatively intact mess hall located in nearby Bishop was obtained and hauled to the site in December 2002 to be part of the demonstration block mentioned above (U.S. National Park Service, 2006b). In September 2005, a guard tower was reconstructed along the east side of Manzanar's perimeter (U.S. National Park Service, 2006c).

The National Park Service's initial foray into Japanese American relocation at Manzanar raises issues about the role of the agency in shaping America's social conscience–i.e., should the agency be the source of social conscience or the caretaker of social conscience–especially regarding the sites of shameful episodes of our Nation's past termed "sites of shame" (Rancourt, 1993; Winks, 1994; Hays, 2003).

Acknowledgments

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Figure 8.34. Former auditorium undergoing extensive renovation, Manzanar Relocation Center. View northeast with Inyo Range in background. Author photograph, December 2002.

References

Aigner, N.O., 1977: *In* Garrett, J.A. and Larson, R.C., *Camp and Community: Manzanar and the Owens Valley*. Japanese American Oral History Project, Fullerton: California State University, pp. 136-147.

Armor, J. And Wright, P., 1988: *Manzanar*. New York: Times Books.

Austin, M., 1950: *The Land of Little Rain*. Boston: Houghton Mifflin Company.

Bacon, S.N., Burke, R.M., Pezzopane, S.K. and Jayko, A.S., 2006: Last Glacial Maximum and Holocene Lake Levels of Owens Lake, Eastern California, USA. *Quaternary Science Reviews,* 25: 1264-1282.

Bailey, R.G., 1995: Description of the Ecoregions of the United States (2nd edition). *USDA Forest Service Miscellaneous Publication* 1391. Washington, D.C.: Government Printing Office.

Bateman, P., Cragen, D., and Smith, G., 1978: Roadsides *In* Smith, G., editor, *Deepest Valley: A Guide to Owens Valley, its Roadsides and Mountain Trails*. Los Altos, California: William Kaufmann, Inc., pp. 15-67.

Beanland, S. and Clark, M.M., 1994: The Owens Valley fault zone, eastern California, and surface faulting associated with the 1872 earthquake. *U.S. Geological Survey Bulletin* 1982.

Beck, W.A. and Haase, Y.D., 1974: *Historical Atlas of California*. Norman: University of Oklahoma Press.

Bell, R., 1977: *In* Garrett, J.A. and Larson, R.C., *Camp and Community: Manzanar and the Owens Valley*. Japanese American Oral History Project, Fullerton: California State University, pp. 180-187.

Branson, D.H., 1977: *In* Garrett, J.A. and Larson, R.C., *Camp and Community: Manzanar and the Owens Valley*. Japanese American Oral History Project, Fullerton: California State University, pp. 97-105.

Brierly, A.A., 1977: *In* Garrett, J.A. and Larson, R.C., *Camp and Community: Manzanar and the Owens Valley*. Japanese American Oral History Project, Fullerton: California State University, pp. 97-105.

Brown, R.L., 1977: *In* Garrett, J.A. and Larson, R.C., *Camp and Community: Manzanar and the Owens Valley*. Japanese American Oral History Project, Fullerton: California State University, pp. 16-42.

Burton, J.F., Farrell, M.M., Lord, F.B., and Lord, R.W., 2002: *Confinement and Ethnicity: An Overview of World War II Japanese American Relocation Sites*. Seattle: University of Washington Press.

Chalfant, W.A., 1933: *The Story of Inyo*. Bishop, California: Chalfant Press.

Commission on Wartime Relocation and Internment of Citizens, 1982: *Personal Justice Denied*. Report of the Commission on Wartime Relocation and Internment of Citizens. Washington, D.C.: Government Printing Office.

Cooper, M.L., 2002: *Remembering Manzanar: Life in a Japanese Relocation Camp*. New York: Clarion Books.

Cragen, D.C., 1977: *In* Garrett, J.A. and Larson, R.C., *Camp and Community: Manzanar and the Owens Valley*. Japanese American Oral History Project, Fullerton: California State University, pp. 159-167.

Eaton, A.H., 1952: *Beauty Behind Barbed Wire: The Arts of the Japanese in our War Relocation Camps*. New York: Harper and Brothers Publishers.

Embrey, S.K., 2001: From Manzanar to the Present: A Personal Journey. *In* Harth, E., editor, *Last Witnesses: Reflections on the Wartime Internment of Japanese Americans*. New York: Palgrave, pp. 167-185.

Ewan, R.F., 2000: *A Land Between: Owens Valley, California*. Baltimore: Johns Hopkins University Press.

Fausel, N.R., 2006: *In* Wehrey, J., editor, *Voices From This Long Brown Land: Oral Recollections of Owens Valley Lives and Manzanar Pasts*. New York: Palgrave. pp 31-35.

Fenneman, N.M., 1931: *Physiography of Western United States*. New York: McGraw-Hill Book Company, Inc.

Fukasawa, G., 1991: In Hansen, A.A., editor, *Japanese American World War II Evacuation Oral History Project, Part I: Internees*. Westport, CT: Meckler Publishing, pp. 219-274.

Gale, H.S., 1914: Salines in the Owens, Searles, and Panamint Basins, Southeastern California. *U.S. Geological Survey Bulletin* 580-L.

Garrett, J.A. and Larson, R.C., 1977: *Camp and Community: Manzanar and the Owens Valley*. Japanese American Oral History Project. Fullerton: California State University.

Gentile, N.J., 1988: Survival Behind Barbed Wire: The Impact of Imprisonment on Japanese-American Culture During World War II. *Maryland Historian,* 19 (2): 15-32.

Gillespie, M., 1977: *In* Garrett, J.A. and Larson, R.C., editors, *Camp and Community: Manzanar and the Owens Valley*. Japanese American Oral History Project. Fullerton: California State University, pp. 106-114.

Girdner, A. and Loftis, A., 1969: *The Great Betrayal: The Evacuation of the Japanese-Americans During World War II.* London: Collier-Macmillan Ltd.

Great Basin Unified Air Pollution Control District, n.d.: Owens Lake. http://www.gbuapcd.org/owenslake/index.htm. Accessed 13 March 2007.

Griffiths, J.F. and Driscoll, D.M., 1982: *Survey of Climatology*. Columbus, Ohio: Charles E. Merrill Publishing Company.

Gudde, E.G., 1969: *California Place Names: The Origin and Entymology of Current Geographical Names*. Berkeley: University of California Press.

Harry, F., 1977: *In* Garrett, J.A. and Larson, R.C., editor, *Camp and Community: Manzanar and the Owens Valley*. Japanese American Oral History Project. Fullerton: California State University, pp. 188-194.

Hays, F., 2003: The National Park Service: Groveling Sycophant or Social Conscience: Telling the Story of Mountains, Valley, and Barbed Wire at Manzanar National Historic Site. *Public Historian,* 25 (4): 73-80.

Heath, W.A., 1946: Final Report of the Relocation Division. Manzanar Relocation Center, Manzanar, California. Reel #77, Records of the War Relocation Authority, 1942-1946, Field Basic Documentation, National Archives, Washington, D.C.

Holland, D., 1990: *On Location in Lone Pine: A Pictorial Guide to Movies Shot in and Around California's Alabama Hills*. USA: Holland House.

Hollett, K.J., Danskin, W.R., McCaffrey, W.F. and Walti, C.L., 1991: Geology and Water Resources of Owens Valley, California. *U.S. Geological Survey Water-Supply Paper* 2370-B.

Hoover, M.B., Rensch, H.E. and Rensch, E.G.--Revised by W.N. Abeloe, 1966: *Historic Spots in California* (3rd Edition). Stanford: Stanford University Press.

Hopkins, J. B., 1977: *In* Garrett, J.A. and Larson, R.C., editors, *Camp and Community: Manzanar and the Owens Valley*. Japanese American Oral History Project. Fullerton: California State University, pp. 43-56.

Houston, J.W. and Houston, J.D., 1973. *Farewell to Manzanar*. New York: Bantam Books.

Iwata, M.,1992: *Planted in Good Soil: The History of the Issei in United States Agriculture* (Volume 1). New York: Peter Lang.

Japanese American National Museum, n.d.: Manzanar. http://www.janm.org/projects/clasc/manzanar.htm. Accessed 30 October 2006.

Kelley, A.T., 1977: *In* Garrett, J.A. and Larson, R.C., editors, *Camp and Community: Manzanar and the Owens Valley*. Japanese American Oral History Project. Fullerton: California State University, pp. 58-75.

Lawton, H.W., Wilke, P.J., DeDecker, M. and Mason, W.M., 1976: Agriculture Among the Paiute of the Owens Valley. *Journal of California Anthropology,* 3 (1): 13-50.

Liljeblad, S. and Fowler, C.S., 1986: Owens Valley Paiute. *In* D'Azevedo, W.L., editor, *Handbook of North American Indians*, Volume 11–*Great Basin*. Washington, D.C.: Smithsonian Institution, pp. 412-434.

McConnell, H.R. and Hill, H.A., 1946: Agriculture Section. Manzanar Relocation Center, Manzanar, California. Reel #78, Records of the War Relocation Authority, 1942-1946. Field Basic Documentation, National Archives, Washington, D.C..

McGrath, R.D., 1984: *Gunfighters, Highwaymen and Vigilantes: Violence on the Frontier*. Berkeley: University of California Press.

Meyers, J.S., 1962: Evaporation from the 17 Western States. *U.S. Geological Survey Professional Paper* 272-D.

Miller, P., 1977a: *In* Garrett, J.A. and Larson, R.C., editors, *Camp and Community: Manzanar and the Owens Valley*. Japanese American Oral History Project. Fullerton: California State University, Fullerton, pp. 195-204.

Miller, H.E., 1977b: *In* Garrett, J.A. and Larson, R.C., editors, *Japanese American Oral History Project*. Fullerton: California State University, Fullerton, pp. 206-212.

Moore, J.G., 1981: Geologic Map of the Mount Whitney Quadrangle, Inyo and Tulare Counties, California. *U.S. Geological Survey Geologic Quadrangle Map* GQ-1545.

Nobe, L.N., 1999: The Children's Village at Manzanar: The World War II Eviction and Detention of Japanese American Orphans. *Journal of the West,* 38 (2): 65-71.

Paulson, R.W., Chase, E.B., Roberts, R.S., and Moody, D.W., 1991: Arizona: Floods and Droughts. National Water Summary 1988-89: Hydrologic Events and Floods and Droughts. *U.S. Geological Survey Water-Supply Paper* 2375, pp. 197-206.

Pedneau, B.K., 1977: *In* Garrett, J.A. and Larson, R.C., editor, *Camp and Community: Manzanar and the Owens Valley*. Japanese American Oral History Project. Fullerton: California State University, pp. 214-219.

Rancourt, L.M., 1993: Remembering Manzanar. *National Parks*, 67 (5-6): 30-46.

Reisner, M., 1993: *Cadillac Desert: The American West and its Disappearing Water*. New York: Penguin Books.

Roddy, E., 2006: *In* Wehrey, J., editor, *Voices From This Long Brown Land: Oral Recollections of Owens Valley Lives and Manzanar Pasts*. New York: Palgrave, pp. 81-93.

Salas, C.L., 2006: *In* Wehrey, J., editor, *Voices From This Long Brown Land: Oral Recollections of Owens Valley Lives and Manzanar Pasts*. New York: Palgrave, pp. 98-107.

Sauder, R.A., 1990: The Agricultural Colonization of a Great Basin Frontier: Economic Organization and Environmental Alternation in Owens Valley, California, 1860-1925. *Agricultural History,* 64 (4): 78-101.

Sauder, R.A., 1995: Mountains and Lowlands: Human Adaptation in the Owens Valley. *In* Wyckoff, W. and Dilsaver, L.M., editors, *The Mountainous West: Explorations in Historical Geography*. Lincoln: University of Nebraska Press, pp. 305-330.

Smith, G., 1978: *Deepest Valley: A Guide to Owens Valley, its Roadsides and Mountain Trails*. Los Altos, California: W. Kaufman.

Spicer, E.H., 1969: *Impounded People: Japanese-Americans in the Relocation Centers*. Tucson: University of Arizona Press.

Staff, 1942: Works Corps Leaves for Idaho: Sugar Beet Field Call 200 Volunteers. *Manzanar Free Press,* 9 June, pp. 1.

Staff, 1942: Lawns vs. dust. *Manzanar Free Press*, 12 August, pp. 2.

Staff, 1942: First Student Relocations. *Manzanar Free Press*, 1 October, pp. 1.

Staff, 1943: Traditional Mochi-Tsuki Held for Coming New Year. *Manzanar Free Press*, 1 January, pp. 1.

Staff, 1943: Agriculture. *Manzanar Free Press*, 20 March, pp. 4.

Staff, 1943: Windstorm Damages Several Apartments. *Manzanar Free Press*, 5 June, pp. 1.

Staff, 1943: Unusual Weather Dangers Crops at Local Farm. *Manzanar Free Press*, 12 June, pp. 1.

Staff, 1943: Sell Tomatoes to Anaheim Cannery. *Manzanar Free Press*, 13 October, pp. 1.

Staff, 1943: Remind Residents Water Control Still in Effect. *Manzanar Free Press*, 16 October, pp. 1.

Staff, 1943: First Snow Here Since Evacuation. *Manzanar Free Press*, 8 December, pp. 1.

Staff, 1944: Worst Snow Storm in Manzanar History Causes Inconveniences. *Manzanar Free Press*, 26 February, pp. 1.

Staff, 1944: Two-Day Festical to Commemorate Birth of Buddha. *Manzanar Free Press*, 8 April, pp. 1.

Staff, 1945: All Centers to Close January 1946 Myer Tells Rowher. *Manzanar Free Press*, 17 February 1945, pp. 1.

Staff, 1945: Over 50 Roofs Damaged by Manzanar Duststorm. *Manzanar Free Press*, 16 May, pp. 1.

Steward, J.H., 1930: Irrigation Without Agriculture. *Papers of the Michigan Academy of Sciences, Arts and Letters,* 12: 149-156.

Steward, J.H., 1933: Ethnography of the Owens Valley Paiute. *University of California Publications in American Archaeology and Ethnology,* 33 (3): 233-350 + plates.

Stone, P., Dunne, G.C., Moore, J.G. and Smith, G.I., 2000: Geologic Map of the Lone Pine 15' Quadrangle, Inyo County, California. *U.S. Geological Survey Geologic Investigations Series Map* I-2617.

Takamura, K.,1987: *In* Gesensway, D. and Roseman, M., editors, *Beyond Words: Images From America's Concentration Camps*. Ithaca, New York: Cornell University Press, pp. 117-129.

Tallyn, E.F., Jr., 2002: Soil Survey of Benton-Owens Valley Area, California, Parts of Inyo and Mono Counties. U.S. Department of Agriculture–Natural Resources Conservation Service.

Tamura, A.H., 2004: Gardens Below the Watchtower: Gardens and Meaning in World War II Japanese American Incarceration Camps. *Landscape Journal,* 23: 1-21.

Tateishi, J. Y., 2001: Memories From Behind Barbed Wire. In Harth, E., editor, *Last Witnesses: Reflections on the Wartime Internment of Japanese Americans*. New York: Palgrave, pp. 129-138.

Taylor, V., 2006: *In* Wehrey, J., editor, *Voices From This Long Brown Land: Oral Recollections of Owens Valley Lives and Manzanar Pasts*. New York: Palgrave, pp. 61-77.

Ueno, H.Y. (Embrey, S.K., Hansen, A.A. and Mitson, B.K., interviewers), 1986: *Manzanar Martyr: An Interview With Harry Y. Ueno*., Oral History Program, Fullerton: California State University.

U.S. Army–Western Defense Command, 1943: Final Report: Japanese Evacuation from the West Coast 1942. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1913a: *Thirteenth Census of the United States Taken in the Year 1910, Volume II, Population 1910: Alabama-Montana.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1913b: *Thirteenth Census of the United States Taken in the Year 1910, Volume III, Population 1910: Nebraska-Wyoming, Alaska, Hawaii, and Puerto Rico.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1922: *Fourteenth Census of the United States Taken in the Year 1920, Volume III: Population 1920: Composition and Characteristics of the Population by States,* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1932a: *Fifteenth Census of the United States, 1930, Population, Reports by States Showing the Composition and Characteristics of the Population for Counties, Cities, and Townships or Other Minor Civil Divisions, Volume III, Part 1: Alabama-Missouri.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1932b: *Fifteenth Census of the United States, 1930, Population, Reports by States Showing the Composition and Characteristics of the Population for Counties, Cities, and Towships or Other Minor Civil Divisions, Volume III, Part 2: Montana-Wyoming.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1943a: *Sixteenth Census of the United States: 1940, Volume II, Characteristics of the Population: Part 1: Alabama-District of Columbia.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1943b: *Sixteenth Census of the United States: 1940, Volume II, Characteristics of the Population: Part 3:Kansas-Michigan.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1952a: *A Report of the Seventeenth Decennial Census of the United States Census of Population: 1950, Volume II: Characteristics of the Population, Part 5: California.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1952b: *A Report of the Seventeenth Decennial Census of the United States Census of Population: 1950, Volume II: Characteristics of the Population, Part 28: Nevada.* Washington, D.C.: Government Printing Office.

U.S. Census Bureau, n.d.: Inyo County, California. http://quickfacts.census.gov/qfd/states/06/06027.html. Accessed 13 March 2007.

U.S. Census Office, 1895: *Report on the Population of the United States at the Eleventh Census: 1890, Part I.* Washington, D.C.: Government Printing Office.

U.S. Census Office, 1901: *Twelfth Census of the United States, Taken in the Year 1900. Census Reports Part I: Population.* Washington, D.C.: Government Printing Office.

U.S. Department of Agriculture, 1954: Diagnosis and Improvement of Saline and Alkaline Soils. *Agriculture Handbook* No. 60.

U.S. Geological Survey, n.d.: USGS Annual Surface Water Statistics for the Nation–10277500. Owens River at Big Pine, California. http://nwis.waterdata.usgs.gov/nwis/annual. Accessed 11 March 2007.

U.S. National Park Service, 1996: Manzanar National Historic Site, California General Management Plan and Environmental Impact Statement. Independence, California: National Park Service.

U.S. National Park Service, 2001: Manzanar National Historic Site, California. *In* Report to the President: Japanese-American Internment Sites Preservation. http://www.cr.nps.gov/history/online_books/internment/reporta1.htm. Accessed 9 November 2006.

U.S. National Park Service., 2006a: Auditorium Restoration. http://www.nps.gov/manz/parkmgmt/auditorium-restoration.htm. Accessed 13 November 2006.

U.S. National Park Service, 2006b: Mess Hall Move. http://www.nps.gov/manz/parkmgmt/mess-hall-move.htm. Accessed 13 November 2006.

U.S. National Park Service, 2006c: Guard Tower. http://www.nps.gov/manz/parkmgmt/guard-tower.htm. Accessed 13 November 2006.

U.S. National Park Service., n.d.a: History of Manzanar National Historic Site. http://www.nps.gov/archive/manz/Manzhis.htm. Accessed 10 November 2006.

U.S. National Park Service, n.d.b: Manzanar Plant List, Manzanar National Historic Site. http://www.nps.gov/manz/naturescience/plants.htm. Accessed 25 May 2007.

U.S. National Park Service, n.d.c: Manzanar Bird List, Manzanar National Historic Site. http://www.nps.gov/manz/naturescience/animals.htm. Accessed 25 May 2007.

U.S. Natural Resources Conservation Service, 1973: Ecological and Interpretive Groups: Land Capability Classification, NSSH Part 622 (Exhibit 2). National Soil Survey Handbook. http:/www.soils.usda.gov/technical/handbook/contents/part622p2.html. Accessed 15 November 2006.

U.S. War Relocation Authority, 1946: The Evacuated People: A Quantitative Description. Washington, D.C.: Government Printing Office.

Unrau, H.D., 1996a: The Evacuation and Relocation of Persons of Japanese Ancestry During World War II: A Historical Study of the Manzanar War Relocation Center (Volume 1). U.S. National Park Service.

Unrau, H.D., 1996b: The Evacuation and Relocation of Persons of Japanese Ancestry During World War II: A Historical Study of the Manzanar War Relocation Center (Volume 2). U.S. National Park Service.

Van Horn, L., 2001: American Indian Links to Manzanar. *Cultural Resources Management,* 24 (5): 16-18.

Vent, G.A. and Vent, H.J., 1972: Owens Valley, Case Study in Historical Geography and Sequent Occupance. *Pacific Historian,* 16 (1): 61-73.

Waldman, C., 2000: *Atlas of the North American Indian*. New York: Facts on File, Inc.

Weglyn, M.N., 1996: *Years of Infamy: The Untold Story of America's Concentration Camps*. Seattle: University of Washington Press.

Wehrey, J., 2006: *Voices From This Long Brown Land: Oral Recollections of Owens Valley Lives and Manzanar Pasts*. New York: Palgrave.

Western Regional Climate Center, n.d.a: Independence, California (044232). http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca4232. Accessed 27 October 2006.

Western Regional Climate Center, n.d.b: Climate of California. http://www.wrcc.dri.edu/narratives/CALIFORNIA.htm. Accessed 14 March 2007.

Williams, T.R. and Bedinger, M.S., 1984: Selected Geologic and Hydrologic Characteristics of the Basin and Range Province, Western United States Pleistocene Lakes and Marshes. *U.S. Geological Survey Miscellaneous Investigations Series Map* I-1522-D.

Winks, R., 1994: Sites of Shame. *National Parks,* 68 (3-4): 22-23.

Works Progress Administration, 1939: *California: A Guide to the Golden State* (American Guide Series). New York: Hastings House Publishers.

Zediker, L.R., 2006: *In* Wehrey, J., editor, *Voices From This Long Brown Land: Oral Recollections of Owens Valley Lives and Manzanar Pasts*. New York: Palgrave, pp. 125-136.

Zischank, N.C., 2006: *In* Wehrey, J., editor, *Voices From This Long Brown Land: Oral Recollections of Owens Valley Lives and Manzanar Pasts*. New York: Palgrave, pp. 152-167.

CHAPTER 9

POSTON

Introduction

The Poston Relocation Center (also known as the Colorado River Relocation Center), was located at about 33º57' N latitude, 14º26' W longitude, and 320 feet elevation in southwest Arizona's Yuma County (Figure 9.1). Since 1983, the lands of the former relocation center have been located in La Paz County (La Paz County, n.d.). Poston consisted of three camps–Poston I, Poston II, and Poston III–each spaced about three miles apart. The sites are located along the Mohave Road that extends south from Parker to Ehrenberg. Parker and Arizona highway 95 lie about 13 miles north of Poston I while U.S. Interstate 10 is about 22 miles south at Ehrenberg. Phoenix is 170 miles to the southeast and Las Vegas is 200 miles north. Poston's namesake was Charles Debrille Poston, Arizona's first Superintendent for Indian Affairs. Charles Poston was directly responsible for the establishment of the Colorado River Indian Reservation in 1865 envisioning an irrigated agricultural oasis for the Native Americans there (Leighton, 1945; Burton et al., 2002).

The following pages address: 1) the physical and human setting in which Poston was located; 2) why southwest Arizona was selected for a relocation center; 3) the structural layout of Poston; 4) the origins of Poston's evacuees; 5) how Poston's evacuees interacted with the physical and human environments of southwest Arizona; 6) relocation patterns of Poston's evacuees; 7) the fate of Poston after closing; and 8) the impact of Poston on southwest Arizona some 60 years after closing.

Physical Setting

Physiography, Geology and Landforms. The Poston Relocation Center occupied the Sonoran Desert section of the Basin and Range physiographic province (Fenneman, 1931) (Figure 9.2). The Basin and Range consists of north-trending mountain ranges separated by low relief basins. It stretches from southern Oregon and Idaho into northern Mexico, and from eastern California to western Utah (Fenneman, 1931). Poston lay in the north-trending Parker Valley, a portion of the Colorado River floodplain (Figure 9.3). The Big Maria Mountains and the Riverside Mountains border the Parker Valley on the west while the Mesquite Mountains and the Dome Rock Mountains form the eastern boundary of the valley. Elevations in the Big Maria Mountains extend to just over 2,900 feet. Total *relief* over the entire former center's lands is only about 29 feet, ranging from 339 feet at the main canal in the north to 310 feet at some abandoned channels near Poston III (Figure 9.4). The gradient over these lands is approximately 3.5 feet/mile. Although imperceptible on the area's topographic map, the floodplain slopes gently toward the Colorado River Harris (1923).

Figure 9.1. La Paz County, Arizona and adjacent counties. Adapted from Official Arizona Road Map (1975).

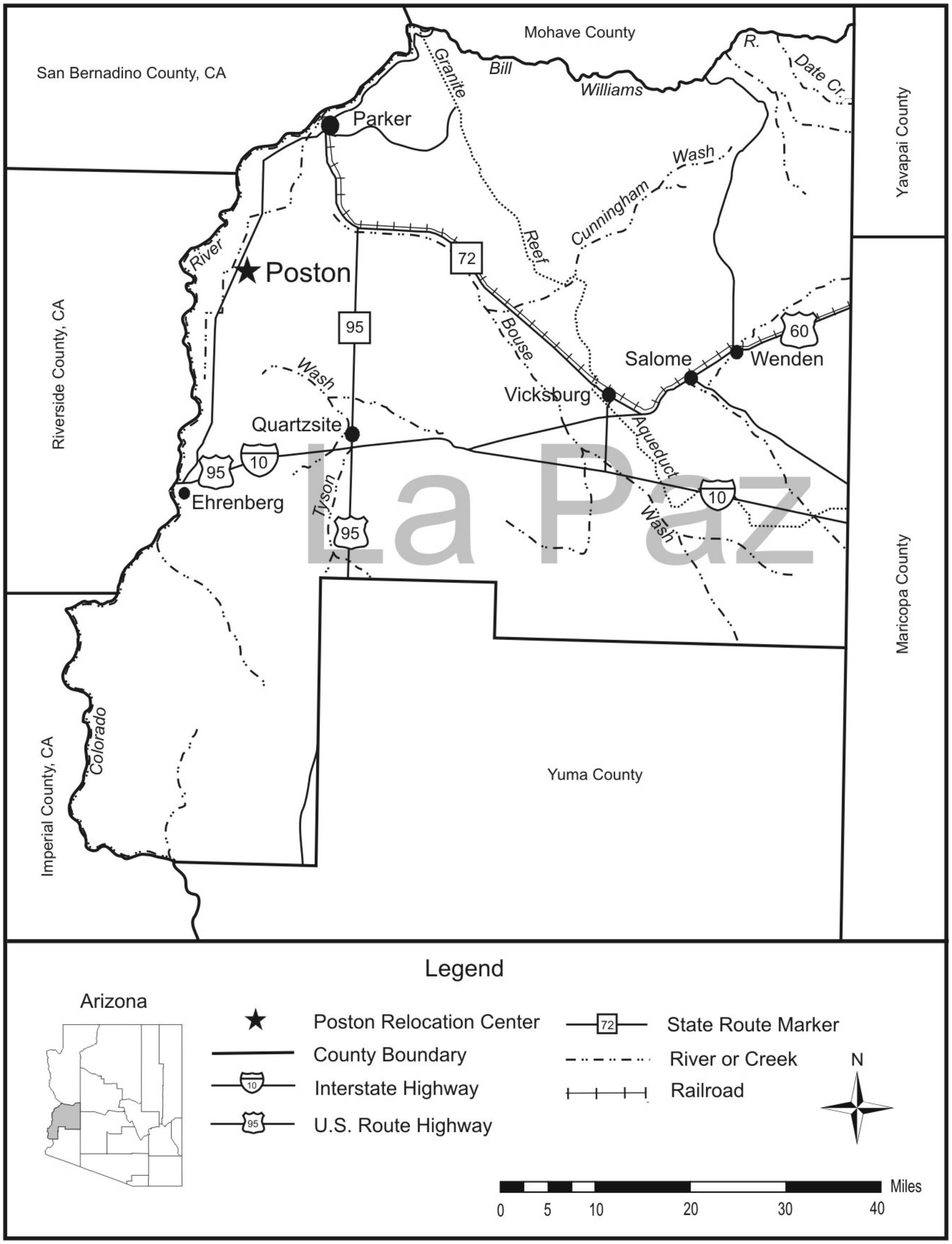


Figure 9.2. Poston and the Sonoran Desert within the Basin and Range physiographic province. Map adapted from Fenneman (1931, Plate 1).

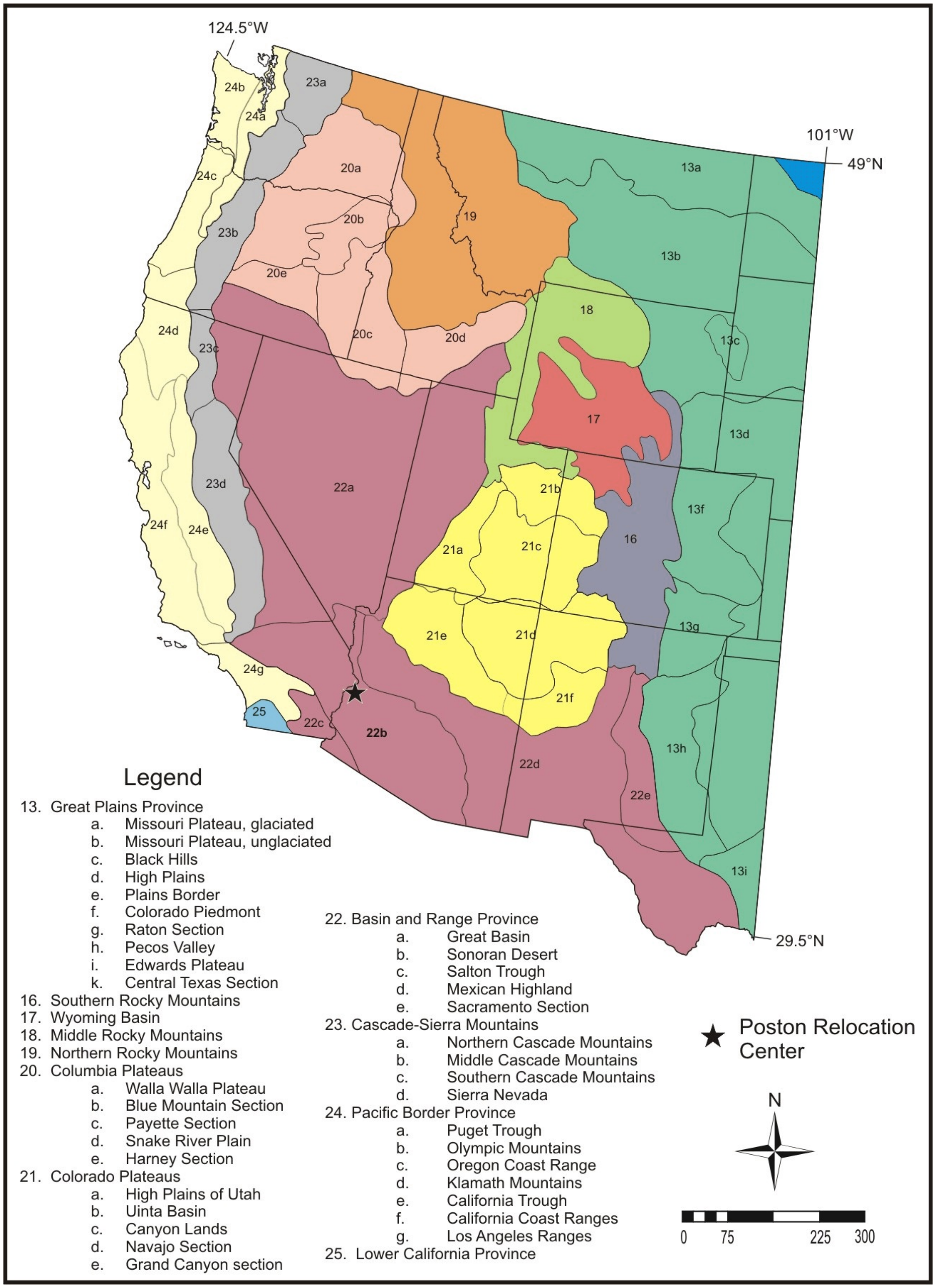


Figure 9.3. Cumulative historical map for the Lower Colorado River Basin area including the Poston Relocation Center.

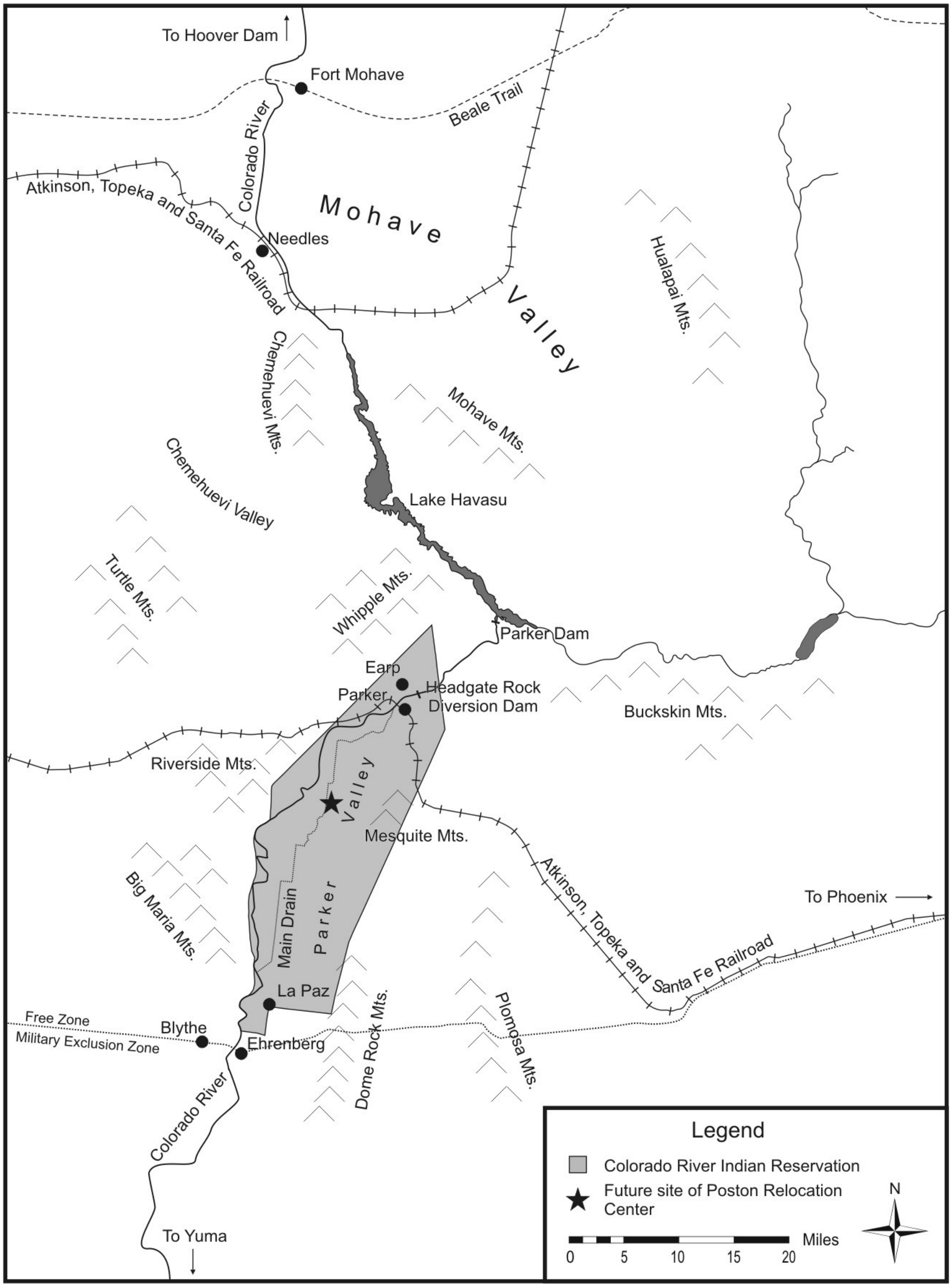


Figure 9.4. Topographic map of Poston Relocation Center and vicinity. Adapted from U.S. Geological Survey Parker, Arizona 1:100,000-scale topographic map.

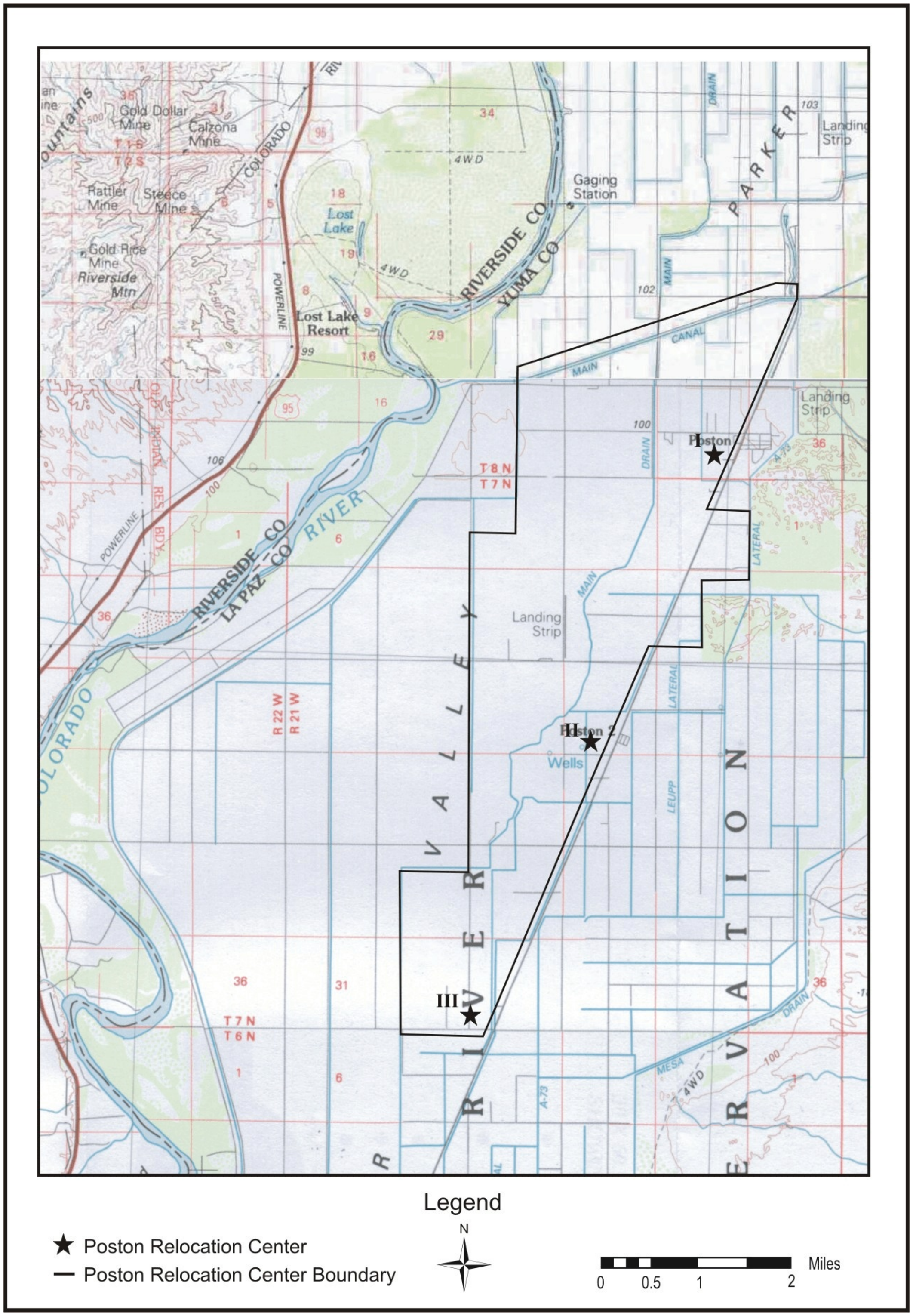
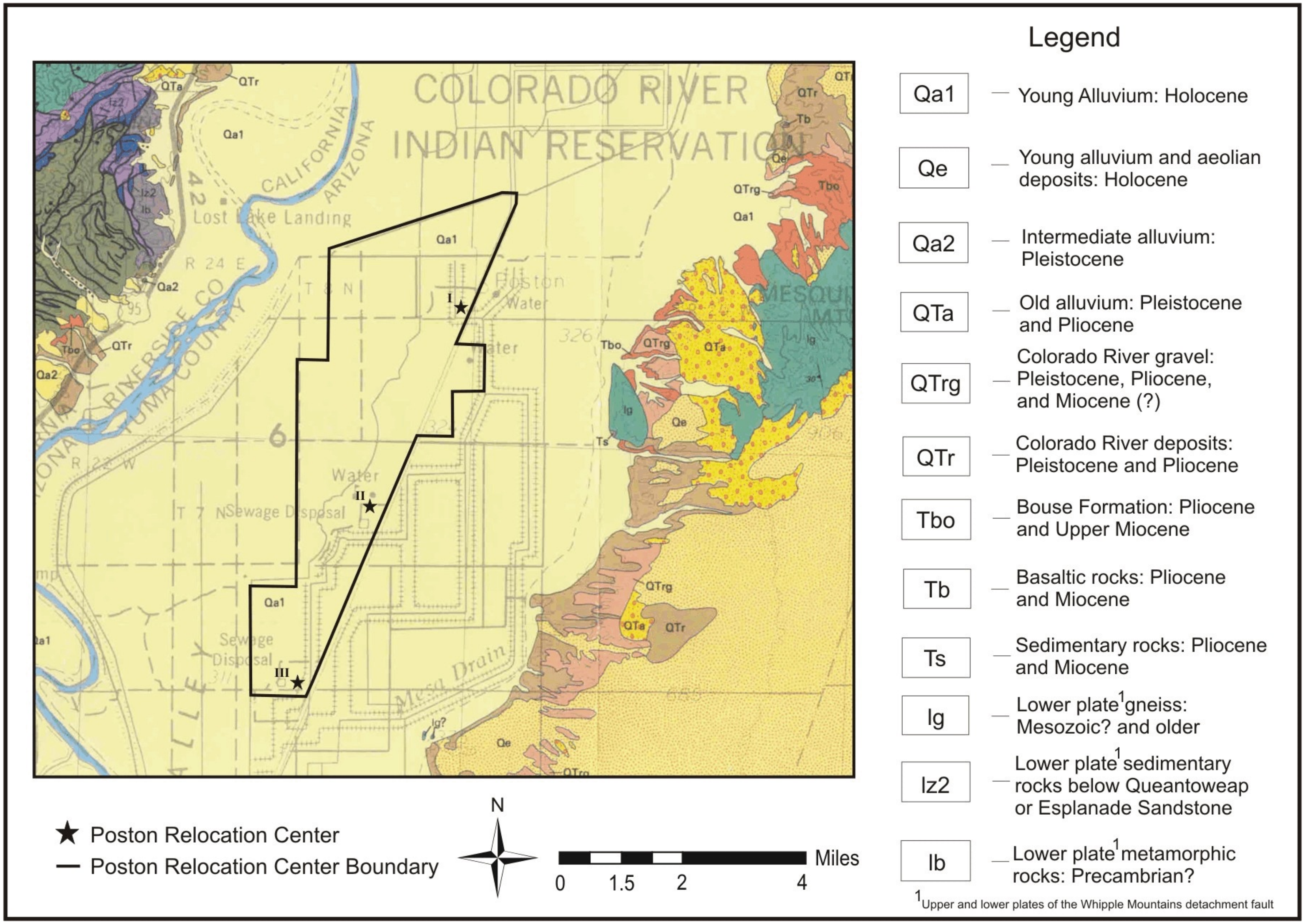


Figure 9.5. Geology of Poston Relocation Center and vicinity. Adapted from Carr (1991).



The geology of the area differs from the floodplain lowlands to the adjacent uplands. The lowlands consist of *Holocene* (i.e., past 10,000 years) *alluvium* on the floodplain of the Colorado River. Late *Cenozoic* (i.e., 65 million years ago to present) alluvium as well as Cenozoic volcanics, late Mesozoic/early Cenozoic sedimentary rocks, and *Mesozoic* (i.e., about 240-65 million years ago) metamorphics border the recent floodplain sediments on the east (Figure 9.5). These are mantled by Holocene *eolian* (i.e., windblown) sediments that likely blew off the Colorado River floodplain. The western edge of the Parker Valley is composed of Cenozoic alluvium, Mesozoic metamorphic and sedimentary rocks, Paleozoic sedimentary rocks, and Precambrian metamorphic rocks (Figure 9.5). The eolian blanket so common east of the Parker Valley is absent here. A series of faults cut the rocks of the Big Maria Mountains west of Poston I (Carr, 1991).

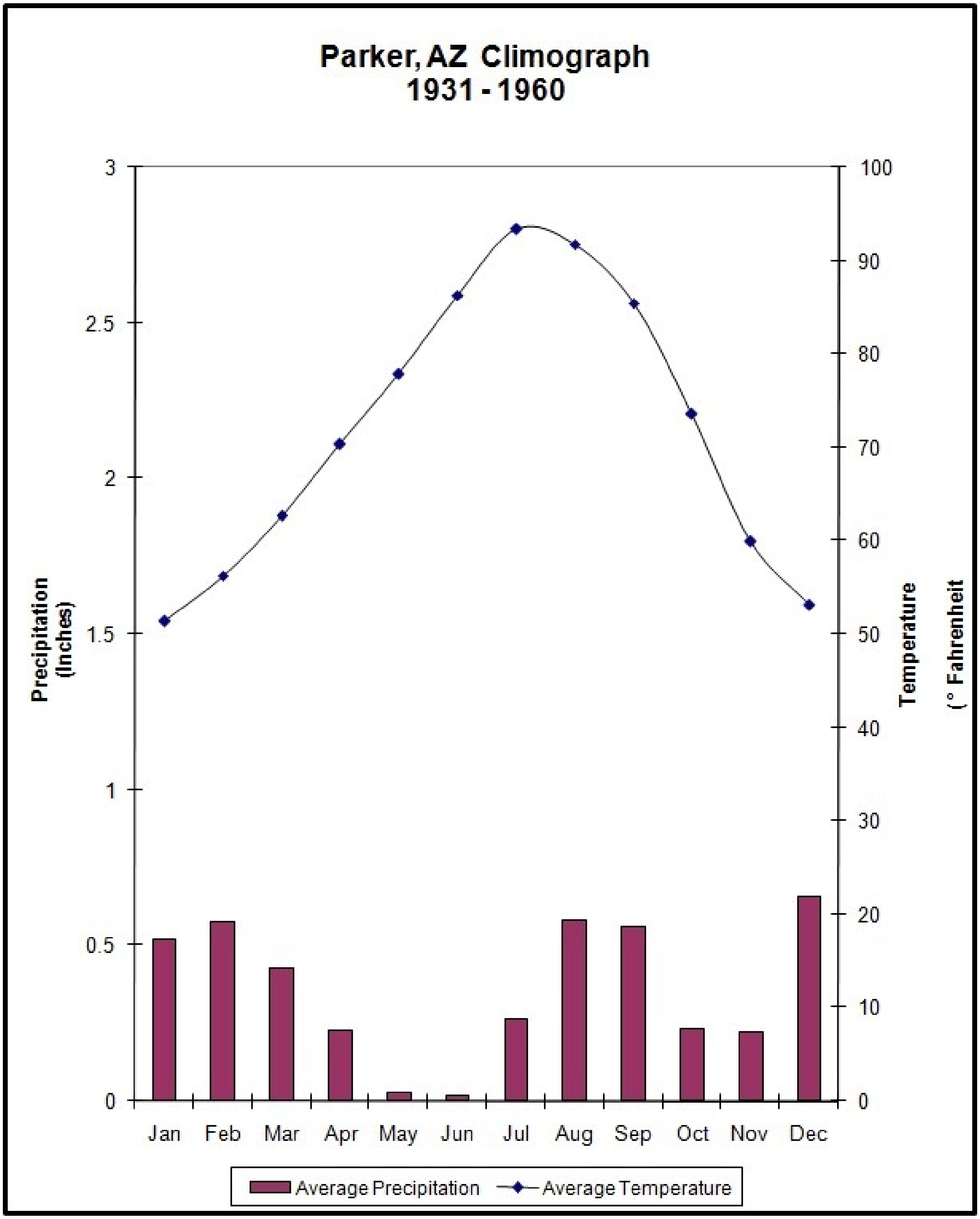
In general, the Parker Valley floor is a very low relief surface. Examined over small areas, however, the land displays more topographic contrast than initially seen. This is especially true of land west of Mohave Road that shows very little relief except for curvilinear depressions. These features are past channels and sloughs of the Colorado River when it once more actively flooded and meandered across its entire floodplain. East of Mohave Road, one sees even less relief. Those very few areas that do show elevation changes end abruptly at U.S. Public Land Survey boundaries indicating the lands have been leveled for farming. In the bigger picture, the Colorado River has a meandering planimetric form and generally flows south along the western margins of the study area.

Weather and Climate. The climate of the area is characterized by hot, dry summers and mild, dry winters. It is classified under the Koppen system as a hot Desert (BWh) (Griffiths and Driscoll, 1982).

The hot summers and mild winters are a product of the mid-latitude setting that ensures a high to moderate sun angle year round while the continental location means clear skies for much of the year. Sunlight is thus used primarily for heating rather than *latent heat* conversions (i.e., evaporation). Further, the low elevation conditions of the site mean that temperatures are generally warmer than adjacent, higher sites. The 1931-1960 average January temperature at Parker was about 51ºF while the average July temperature was 93ºF (Western Regional Climate Center, n.d.) (Figure 9.6). The mean annual temperature during this same period was nearly 72ºF. The average daily maximum temperature exceeds 100ºF in June, July, August, and September while average daily minimum temperatures during these same months range from 71º to 80ºF (Nelson, 1986, p.76). The growing season (i.e., last 32ºF killing frost of spring to the first killing frost of the fall) at Parker in five out of ten years is 297 days extending from 17 February to 2 December (Western Regional Climate Center, n.d.).

Annual precipitation was approximately four inches/year in Poston during the period 1931-1960 (Figure 9.6). Average precipitation did not exceed 0.6 inches in any month during this period (Western Regional Climate Center, n.d.). The general aridity of the site is the result of the subtropical high pressure zone and the inland location (Paulson et al., 1991). Precipitation

Figure 9.6 Climograph showing 1931-1960 mean temperature and precipitation for Parker, Arizona. Data from Western Regional Climate Center (n.d.).



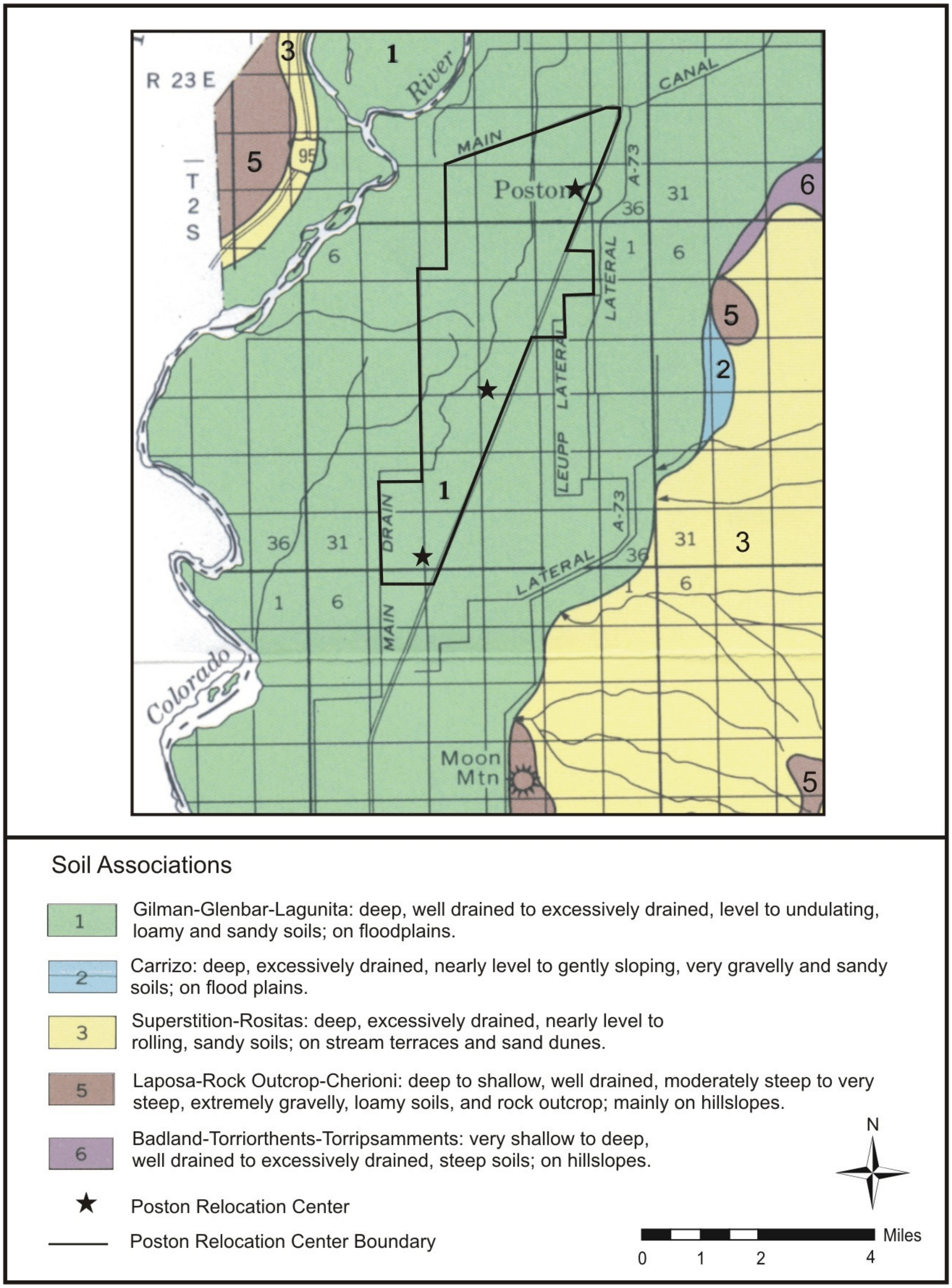
occurs in the summer when moist, marine air from the Pacific (including the Gulf of California only about 160 miles distant) and the Atlantic (i.e., Gulf of Mexico) moves inland as a result of intense land surface heating and resulting convective uplift. Some of the moist air moving inland may also be the remnants of tropical storms. Most of the summer and early fall precipitation occurs as torrential events (Sellers and Hill, 1974). Winter precipitation is typically associated with fronts and cyclones originating over the Pacific Ocean and driven inland by the jet stream (Paulson et al., 1991). Measurable snowfall only occurred once in the previous 70 years at Parker–13 December 1932 (Sellers and Hill, 1974). Two significant droughts occurred during the 1931-1960 period–1932-1936 and 1942-1964. The latter was the most significant to strike the area in the previous 350 years (Paulson et al., 1991). With annual lake evaporation at approximately 84 inches/year during the 1946-1955 period, crops in the area need ample irrigation and salts may build up in soils as a result of these evaporated waters (Meyers, 1962). Relative humidity is higher than one might expect in this inland desert because of proximity to the Colorado River (Burton et al., 2002). However, average values (i.e., 18-46% at the coolest time of day as opposed to 11-35% at the hottest time of day) were still low in comparison to other inland sites (Sellers and Hill, 1974).

The eolian sediments east of the Colorado River floodplain suggest that prevailing, or at least the geomorphically most significant, winds are from the west. Strong winds ranging to 75mph may occur in summer and in winter (Nelson, 1986).

Soils. The soils of the Parker Valley area are a function of the five soil forming factors–i.e., parent material, topography, climate, biota, and time. Parent material is primarily alluvium associated with the Colorado River floodplain. Alluvial soils range from sand to clay textures and are deep (>60 inches). The study area's soils are well to excessively drained. The arid climate concentrates salts via evaporation thus all soils are alkaline and nearly all have the potential to be saline. The native desert scrub vegetation of the area means that little organic matter accumulates atop or within the soils. There has been little time for soil development because of the geologically active nature of the floodplain (Nelson, 1986).

Reflecting their youth and resulting immature development, all soils of the study area are floodplain *entisols* (i.e., Aqualt, Cibola, Gadsden, Gilman, Glenbar, Holtville, Kofa, Lagunita, Meloland, and Vint series) (Figure 9.7) (Nelson, 1986). Soils are either Land Capability Classification (LCC) I (i.e., few limitations that restrict their use--Gilman and Glenbar series), II (i.e., some limitations that reduce the choice of plants or require moderate conservation practices--Cibola and Meloland series), III (i.e., severe limitations that reduce the choice of plants or require special conservation practices--Gadsden and Vint series, and Holtville-Kofa complex), and IV (i.e., very severe limitations that restrict the choice of plants, require very careful management, or both--Glenbar and Lagunita series). The limitations of the LCC II, III, and IV soils are associated with problems within the rooting zone, especially salinity or sodium issues (Nelson, 1986; U.S. Natural Resources Conservation Service, n.d.).

Figure 9.7. Soils of the Poston Relocation Center and vicinity. Data from Nelson (1986).



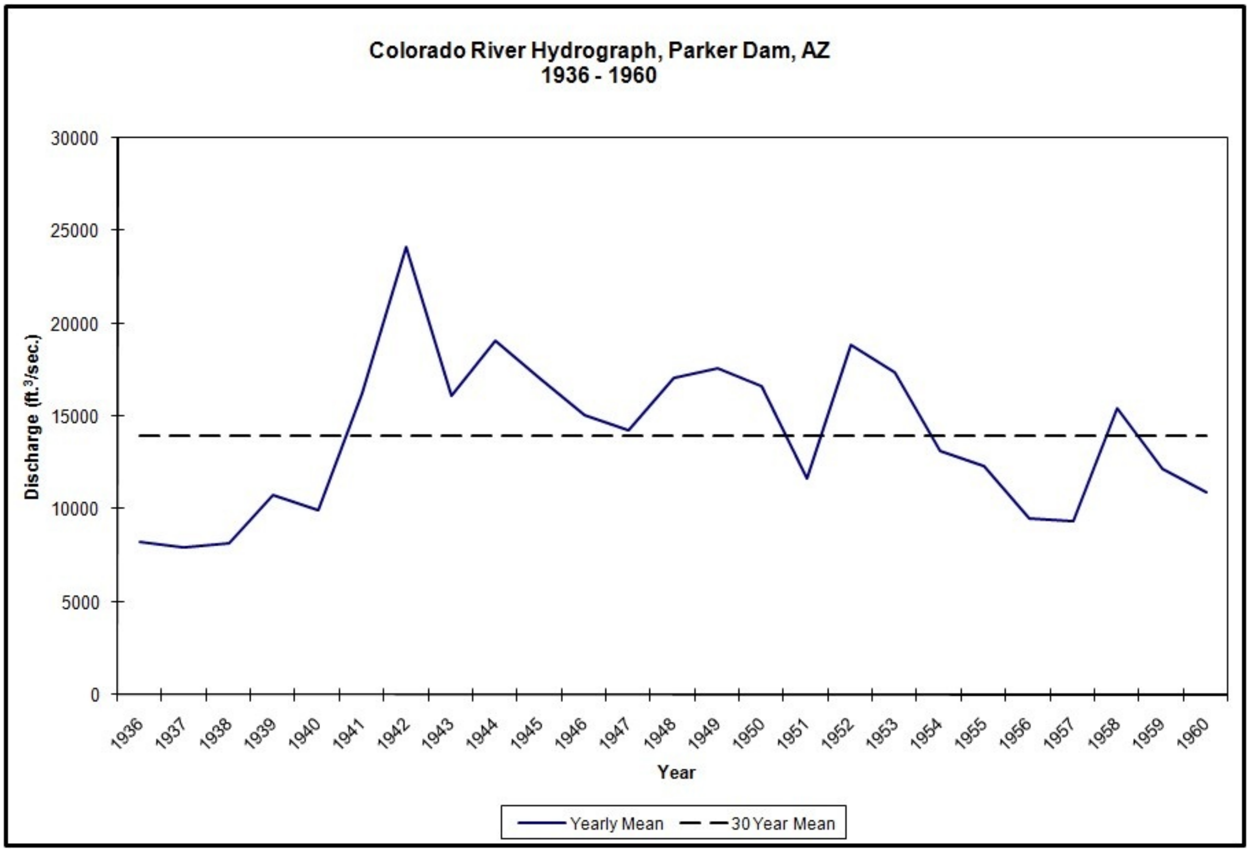
Water. The lands of the Poston Relocation Center are situated in the Colorado River Watershed. The Colorado River originates in the mountains of northern Colorado and flows southwest across Colorado, Utah, and Arizona until bending south to form the Arizona - California border. Prior to the completion of Hoover Dam upstream in 1935, Parker Valley was inundated by annual floods that began in late April or early May and continued into the summer, often reaching peak discharge in June (Stewart, 1966c). These floods are the source of the alluvial parent materials, hence immature alluvial soils, in the Parker Valley (Metzger et al., 1973). Discharge on the Colorado River just below Parker Dam over the period 1936-1960 averaged 13,969 ft^3/second with higher than average discharge occurring in 1941-1950, and again in 1952, 1953, and 1958 (Figure 9.8) (USGS, n.d.). At a local scale, a tropical disturbance dumped nearly three and one-half inches of precipitation on the Parker Valley on 5 September 1939 resulting in massive flooding and $10,000 in damages to area crops (Sellers and Hill, 1974). Very low discharge was recorded in 1935-1938, and again in 1956 (USGS, n.d.). Colorado River water at Hoover Dam about 150 miles upstream from Parker averaged a *specific conductance* of 977 micromhos and a *sodium-absorption ratio* of 12 thus had a high salinity hazard and a medium sodium hazard for irrigation (U.S. Department of Agriculture, 1954; U.S. Geological Survey, 1955).

Other than the Colorado River, the Parker Valley is naturally dry–i.e., no springs or natural reservoirs (i.e., “tanks”) were shown on an early map of Colorado River Indian Reservation water resources (Ross, 1923). However, 1940-1941 groundwater levels in the Poston area were very near the surface and declined from north to south reflecting irrigation patterns as well as the land surface. For example, the ground surface elevation near the north end of the former center was about 330 feet above sea level (asl). The groundwater elevation there was between 310 and 315 feet asl. Conversely, ground surface and groundwater elevations at the south end of the former center were 313 and 290-295 feet asl, respectively (Metzger et al., 1973). Groundwater has generally medium to high salinity levels. Shallow groundwater in the vicinity of Poston showed a specific conductivity of approximately 988-2061 micromhos in the shallow, 575-3933 micromhos in the intermediate zone, and 579-657 micromhos in the deeper units of groundwater (Metzger et al., 1973).

Biota. The Poston Relocation Center lay in the American Semi-Desert and Desert Ecoregion of the northern portion of the Sonoran Desert (Bailey, 1994) (Figure 9.9). Vegetation patterns in the area are a function of climate, proximity to the Colorado River, and associated soil moisture, as well as soil chemistry and humans. Natural vegetation of the Colorado River floodplain can be separated into more *xeric* species on the dry, upper surfaces and more *hydric* species on the lower, more moist surfaces closer to the river. Upper surfaces have creosote bush *(Larrea tridentata*), mesquite (*Prosopis pubescens*), catclaw (*Acacia greggii*), and various cacti. Willow (*Salix* spp.), various rushes, arrowweed (*Pluchea sericea*), and cottonwood (*Populus* spp.) grew nearer water (Harris, 1923; Stewart, 1983; Harris, 1999).

Large native mammals are not common in this area but may include kit foxes (*Vulpes macrotis)* and coyotes (*Canis latrans*). Western spotted skunks *(Spilogale gracilis)*, Merriam kangaroo mice (*Dipodomys merriami*), pocket mice (*Chaetodipus penicillatus)*, antelope ground squirrel

Figure 9.8. Mean annual discharge for the Colorado River below Parker Dam, Arizona, 1936-1960. Data from U.S. Geological Survey (n.d.).



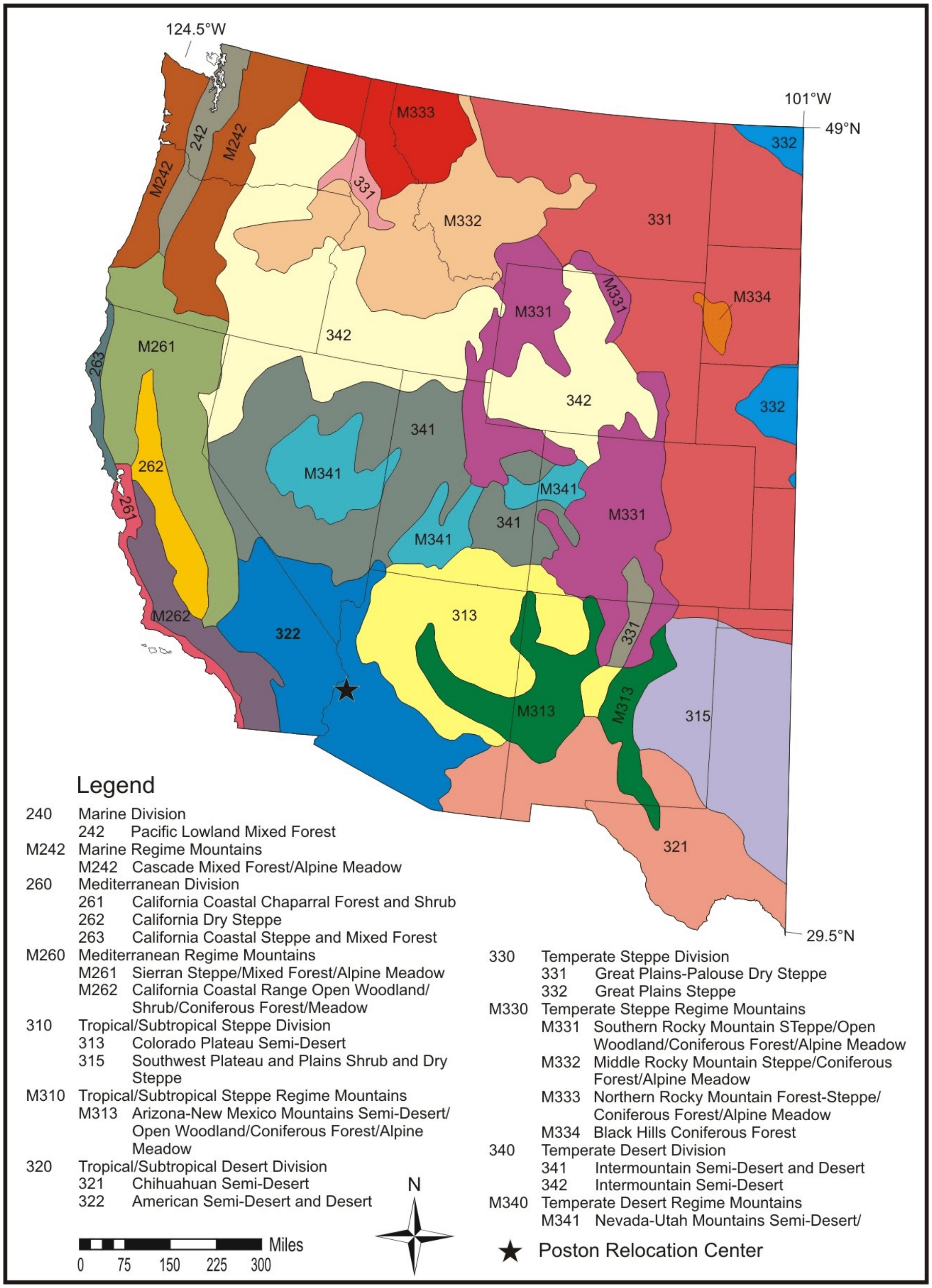
(*Ammospermophilus leucurus*), and roadrunners (*Geococcyx californianus*) are also present here. Reptiles include a variety of snakes and lizards (Bailey, 1995; Harris, 1999). Humpback chub (*Gila cypha*) and striped mullets (*Mugil cephalus*) are the common, traditional fish species in the Colorado River (Stewart, 1983).

Human Setting

Race and Ethnicity. Southwestern Arizona, including the Parker Valley, lies in the Southwest Culture Area (Waldman, 2000). Over time, numerous Native American tribes have lived in the area. As of first contact with the Spaniards, the portion of the Colorado River extending from present-day Ehrenberg, Arizona to Fort Mohave was the traditional region of the Mohave Indians (Figure 9.3) (Stewart, 1983).

The first EuroAmerican to travel through the area was Don Juan de Onate, the Spanish governor of New Mexico, in 1604-1605. Subsequently, Franciscan padre Francisco Garces encountered the Mohaves in 1776. Mohaves likely assisted the Yuma Indians to the south in driving the

Figure 9.9. Ecoregion map showing Gila River's location within the American Semi-Desert and Desert ecoregion province. Adapted from Bailey (1995, Foldout Map).



Spaniards from the country by the late 18th century after relations soured with the Spaniards. Few, if any, ensuing interactions apparently occurred between the Mohaves and the Spaniards or the subsequent Mexicans (Stewart, 1966a; Walker and Bufkin, 1979; Laylander, 2004).

American fur trappers and traders traveled through the country beginning in 1826 and included Jedediah Smith, James O. Pattie, Kit Carson, and Peter Skene Ogden (Stewart, 1966b). Government railroad surveyors also passed through the area in 1851 as did American steamboat crews in 1858 (Sitreaves, 1853; Stewart, 1969). During all of these contacts, the Mohaves were the primary occupants of the Parker Valley area but were in frequent conflict with other tribes in the area including the Chemehuevi. By the mid-19th century, the Chemehuevi Indians had settled on the west side of the Colorado River in the vicinity of present-day Parker with the tacit approval of the Mohave (Stewart, 1968; Stewart, 1969).

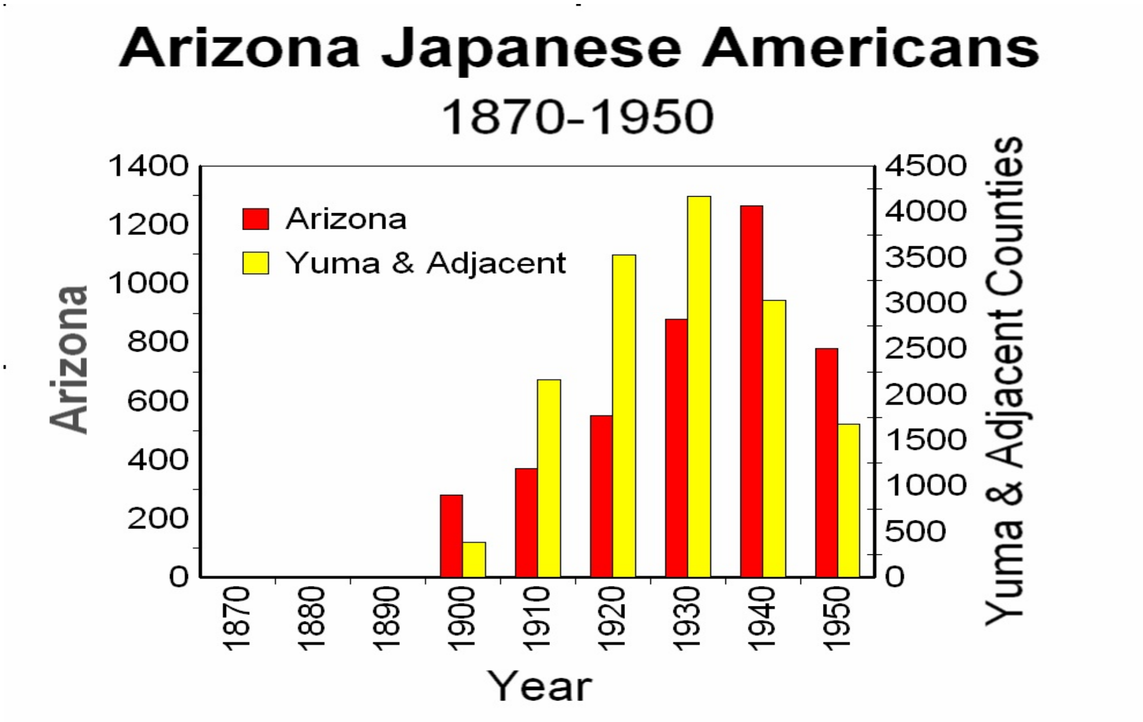
The sovereignty of the Mohaves began to change after they attacked a wagon train bound for southern California in 1858 on the Beale Trail. This attack led to skirmishes with U.S. soldiers and the establishment of a military post later named Fort Mohave in the Mohave Valley north of present-day Parker in 1859. A resounding defeat at the hands of U.S. troops in a subsequent 1859 battle resulted in the Mohaves ending all hostilities with the whites (Steward, 1966a; 1969).

The discovery of gold at La Paz in the foothills of the Dome Rock Mountains south of Parker forced Arizona's Superintendent of Indian Affairs Charles Poston to recommend that a reservation be established in the Colorado River Valley (Figure 9.3) (Stewart, 1969). The Colorado River Indian Reservation was established in 1865 as a reserve for the tribes of the Colorado River and its tributaries (Fontana, 1963). As early as 1931, Colorado River Indian Reservation Superintendent C.H. Gensler was making plans to bring more Indians onto the reservation as a way to help other impoverished Indians and as a way to utilize the ample irrigable lands of the reservation (Fontana, 1963). The constitution and by-laws of the Colorado River Indian Reservation prevented this from occurring without the agreement of the Tribal Council. However, in 1939, Commissioner of Indian Affairs John Collier gave the tribal council an ultimatum–i.e., either agree to settle the impoverished colonist Indians or risk losing the land to whites because of the underutilized lands of the reservation at the time (Fontana, 1963). On the eve of Japanese relocation to the Parker area, the Native American population of the Colorado River Indian Reservation was 1,200 (Okimoto, 2001).

The first person of Japanese descent to enter southern Arizona was likely Hachiro Onuki, an *Issei* (i.e., first generation Japanese American born in Japan) who quickly realized the financial advantages of providing water to Tombstone, Arizona silver miners in the 1870s. The profits from Onuki's venture enabled him, along with other investors, to start the Phoenix Illuminating Gas and Electric Company in 1886, and subsequently Garden City Farms in 1900 (Iwata, 1992; Walz, 1997). Onuki thus played a key role in Arizona's mining industry, the development of Phoenix, and in agricultural beginnings in the Salt River Valley. Subsequently, many of the Japanese men who moved to the state for employment opportunities were able to save money and start their own businesses. With their increasing prosperity, many married, fathered children, and generally put down roots, especially in south central Arizona (Walz, 1997). The Japanese American population in Arizona thus climbed over time with most located in Maricopa County (Walz, 1997) (Figures 9.1 and 9.10).

The total Japanese American population of Yuma County, the adjacent three Arizona counties–Maricopa, Mohave, and Yavapai– and the three contiguous California counties–Imperial, Riverside, and San Bernadino–(Figure 9.1)–generally mirrored the overall Arizona pattern through the 1930 census. However, the population of this seven county area dropped by nearly 30% to 3,032 by 1940 (U.S. Census Office, 1895; 1901; U.S. Bureau of the Census, 1913; 1922; 1932; 1943a; 1943b). It is not clear why the drop occurred between 1930 and 1940 but it could have been related to the same anti-Japanese hostilities that surfaced in Maricopa County (see CHAPTER 10–GILA RIVER). When examined alone, Yuma County, subsequent home of the Poston Relocation Center, had few Japanese Americans through time with 32 first showing up in the 1910 census and a high of 49 in 1930. By 1940, only 13 Japanese Americans remained (U.S. Census Office, 1895; 1901; U.S. Bureau of the Census, 1913; 1922; 1932; 1943a). Following the bombing of Pearl Harbor, the West Coast military exclusion zone included a narrow strip in southern Arizona. State residents put pressure on the military to

Figure 9.10. Persons of Japanese descent in Arizona, 1870-1950. Data from U.S. Census Office (1895, p. 442; 1901, p. 571) and U.S. Bureau of the Census (1913, p. 80, 166; 1922, p. 19, 25; 1932, p. 157, 266; 1943, p. 376, 567-568; 1952a, p. 3-48; 1952b, 5-179).



expand the zone to include more of the state so it was changed to pass through Phoenix on U.S. Highway 60 (now known as Grand Avenue). The refined military exclusion zone thus included the area encompassed by the Poston Relocation Center. Those Japanese Americans living north of U.S. 60 could remain in that area but could not cross south of the line without a special permit. Those that lived south of the line were sent to the Mayer Assembly Center, near Prescott in northern Arizona (Russell, 2003).

Economic Geography. The ancestors of the Mohave Indians lived along the lower Colorado for at least 1,000 years in a lifestyle akin to that of the historic Mohave (Stewart, 1969). The first solid record of the economic geography of the Parker area comes from Onate's 1604-1605 expedition. A Franciscan friar on that expedition noted that the Mohaves were growing corn (i.e., maize), beans, and pumpkins as well as gathering mesquite beans and grass seeds in the Colorado River Valley. These crops were produced using *floodwater farming* whereby the spring and early summer floods replenished soil moisture and nutrients in the floodplain adjacent to the Colorado River. Crops were planted soon after the recession of the floodwaters where they ripened quickly in the reinvigorated, moist soil under the intense summer sun. Other crops grown in the area were melons, sunflowers, gourds, and tobacco. Following contact with the Spaniards, the Mohaves grew wheat and cowpeas (i.e., black-eyed peas). The winter rains sometimes led to a second planting of corn or pumpkins in February or March. Other plants were semi-cultivated including crowfoot grass, panic grass, and curly dock. The Mohaves further supplemented their agricultural foodstuffs with wild plants (e.g., mesquite beans) and small game animals (e.g., rabbits) (Stewart, 1966a; 1966c).

When the decision was made to put the Colorado River Indians on a reservation, Superintendent of Indian Affairs Poston, engineer Adolphus Waldemar, and Mohave subchief Ireteba traveled the river to choose a site that would be suitable for irrigated agriculture. Over the objections of Ireteba, Poston and Waldemar chose the current site of the reservation based on their estimates of reclamation costs per acre. However, Ireteba did not like the site because of soil and river flow patterns; rather, he favored a site upriver nearer Fort Mohave and the Mohave Valley. Others also pointed out problems with this site including the alkaline soils, need for daily irrigation, and the huge task of getting water out of the Colorado River channel and onto the land (Caylor, 2000). Nevertheless, the Colorado River Indian Reservation was established in 1865 as a reserve for the tribes of the Colorado River and its tributaries (Fontana, 1963). The reservation size was increased in 1873 and again in 1874 to include lands along the Arizona and California sides of the Colorado River (Walker and Bufkin, 1979). The Colorado River Indian Reservation was designed as an area where different tribes could attempt to support themselves through irrigated agriculture and not be in the way of EuroAmerican expansion (Caylor, 2000).

However, to confine these tribal members to a reservation and to expect them to support themselves with irrigated agriculture meant that the U.S. Government needed to provide a major irrigation system. Charles Poston thus received a $120,000 appropriation from Congress to build the first federally sponsored irrigation project on the Colorado River Indian Reservation in 1865. Mohave Indians completed a canal that brought irrigation water to Indian lands in 1875 but the project soon failed because of insufficient water at the headgate, the unstable nature of the sandy soils in which the canal flowed, and the alkaline/saline soils that were irrigated. Subsequent irrigation schemes were derailed when the pumps used at the headgates were destroyed by the heavily silted water. Wells and water wheels also ultimately failed in putting water on the land. The Mohave Indians survived by returning to their floodwater farming roots or by hand watering their farm plots. However, the total irrigated acreage farmed on the reservation only averaged about 400 acres in the 1890s (i.e., 215 acres via traditional methods and 186 acres by pump-driven irrigation). With so little land farmed, the Mohave were forced to depend on meager government rations or work away from the reservation to fend off starvation. Spurred not by Indian starvation but by fear that Mexico would appropriate un-used Colorado River waters, Congress provided another $50,000 for construction of a new pumping plant in 1910. At about the same time that the new pumping plant was completed, Colorado Indian Reservation Indians received 10 acre land allotments based on an amended version of the 1904 Indian Allotment Act. While the pumping plant apparently worked, new issues arose–i.e., the ground was becoming waterlogged and alkaline/saline because of the addition of irrigation waters and subsequent evaporation (Caylor, 2000). By 1927, 20% of the original Indian allotment lands were of no use because of the waterlogging and alkalinity/salinity problems (Metzger et al., 1973). By this time, the U.S. Government had spent nearly $1 million on irrigation on the Colorado River Indian Reservation (Caylor, 2000).

The high costs of clearing and leveling Parker Valley farmlands led to the leasing of allotted lands by non-Indian farmers. The Office of Indian Affairs had initiated a policy of leasing Indian lands to non-Indian lessees beginning in the 1890s as a way to provide the reservation with much needed cash. By 1918, lessees farmed more than twice the land cultivated by Indians. This gap had widened by 1925. Those Indians who could afford to improve their ground, and whose ground was somewhat resistant to waterlogging and alkalinity/salinity issues, were able to earn decent money especially with cotton between 1917 and 1922. As a way to improve the conditions for Native Americans on the Colorado River Indian Reservation, private and state officials worked on a plan beginning in 1914 that involved the combined use of groundwater and Colorado River floodwater to irrigate more lands. This would directly help Native American farmers. Further, the funds gained from leasing these newly irrigated lands to non-Native Americans would provide much needed funds for programs to help Native American families. However, the U.S. Government balked at the benefits of such a project over larger scale development of Colorado River water sources for the lands (Caylor, 2000). This plan was not helped by the poor results from limited attempts at using groundwater for irrigation in the area just south of Parker (Metzger, Loeltz and Irelna, 1973). However, these discussions helped spark the Boulder Canyon Project (i.e., Hoover Dam) that would provide irrigation water storage for the lower Colorado River when it was completed in 1936 (Works Progress Administration, 1940; Caylor, 2000). While waiting for completion of Hoover Dam, wells were drilled in the northern part of the Colorado River Indian Reservation in 1934 to lower groundwater thus reduce waterlogging. These were used until 1937 or 1938 when the incising channel of the Colorado River, caused by construction of Hoover Dam and the damming of the Colorado River sediments, helped lower groundwater tables throughout the floodplain. The completion of the Headgate Rock Diversion Dam in late June 1942 ended the sporadic pumping attempts that had gone on for years. At the time of its completion, the irrigated lands on the reservation were primarily in the two townships north of Poston (Metzger et al., 1973; U.S. Bureau of Reclamation, n.d.). Thus, the agricultural heritage of the area long predated 1942 and was limited to Indian and subsequent leasee farming. Apparently, Japanese Americans were not involved in agriculture in the Parker Valley prior to 1942; however, they were growing spring and fall lettuce as well as cantaloupes in the Yuma Valley to the south in the 1930s (Iwata, 1992).

In addition to agriculture, transportation has long been a key form of economic activity along the lower Colorado River. Early Spanish explorers and American fur trappers and traders made use of the Colorado River Valley, its water, and the Mohave's produce in their travels. Parker, the largest town on the Colorado River Indian Reservation, owes its existence to transportation. Parker formed as a result of the Atkinson, Topeka, and Sante Fe Railroad coming through the area in 1905-1906 (Walker and Bufkin, 1979; Barnes, 1988). It is likely that Japanese Americans worked on the railroad or in the area during railroad construction. In the early 20th century, Parker was the only town on the Colorado River Indian Reservation (Ross, 1923).

On the eve of the evacuation of Japanese Americans to Poston, Parker had a population of 1,200 including a significant number of Native Americans. The town served as a regional trade center for the mining and grazing interests in the area (Works Progress Administration, 1940). At that time, Arizona highways 72 and 95 jointly passed through Parker as did the Atkinson, Topeka, and Sante Fe Railroad (Works Progress Administration, 1940, Appendices; Bailey, 1971). The Indian Agency (i.e., "Silver City") was located one mile south of Parker to serve the Colorado

River Indian Reservation, and subsequently would serve as the administrative headquarters for the Poston Relocation Center (Leighton, 1945).

Why this Location?

Arizona was likely chosen as a state in which to locate a relocation center because it lay well inland of the Pacific Coast. At least five sites in Arizona were considered for relocation centers–Beardsley near Phoenix, Cortaro Farms near Tucson, the Fort Mohave Indian Reservation on the Colorado River, the Gila River Indian Reservation south of Phoenix, and the Poston site near Parker on the Colorado River Indian Reservation. The former three were rejected because they would be either too expensive to build or too close to key military installations (Madden, 1969; Burton et al., 2002). Ultimately, the Colorado River Indian Reservation and the Gila River Indian Reservation sites were chosen as Arizona's relocation centers. These Indian reservation sites were two of eight reservation sites offered up by Commissioner of Indian Affairs John Collier who believed that the U.S. Department of Interior's past experience in dealing with Native Americans made it a logical choice to deal with the evacuated Japanese Americans (Bernstein, 1991).

The proposed 71,600 acre Poston Relocation Center site lay entirely on Colorado River Indian Reservation lands thus it would become "...a reservation within a reservation" (U.S. Army–Western Defense Command, 1943; Estes, n.d.). The site was advantageous to the WRA because of the available space, availability of Colorado River irrigation water, potential for agriculture, and access to highways and railroads. While the Atkinson, Topeka, and Sante Fe Railroad as well as Arizona highways 72 and 95 came through Parker, the center was sufficiently isolated as to not pose a threat to residents of the area.

The site was chosen by the U.S. Army and the Office of Indian Affairs in March 1942 over the objections of the Colorado River Indian Reservation tribal council, Superintendent of the Colorado River Indian Reservation agency Charles Gensler, and assistant to the Commissioner of Indian Affairs Fred Daiker. The tribe wanted no part in inflicting injustices on the Japanese Americans similar to what they had suffered (Okimoto, 2001; Burton et al., 2002). However, the tribal council knew that outward opposition to the relocation center could lead to condemnation by, thus loss of the land to, the War Relocation Authority (WRA) (Flores, 1994). Gensler did not want the Japanese because they would get in the way of his proposed guayule (i.e., a plant used to create synthetic rubber) growing plan (Bernstein, 1991). Daiker also saw the placement of the Japanese on the reservation as yet another injustice to American Indians (Bernstein, 1991). The Office of Indian Affairs was willing to host a relocation center at the site as a way to develop the reservation's irrigation system, subjugate the many potential acres of farmland (i.e., of 100,000 potentially irrigable acres, only 7,000 were currently being farmed), create the necessary living infrastructure for existing and "colonist" Indians, and ultimately enhance economic development, much of which would be paid for by President Roosevelt's emergency war fund. The Japanese could provide the labor to accomplish these goals (Okimoto, 2001). The selection process was aided by the Office of Indian Affairs promises that the developed farmlands would benefit tribes in addition to the Mohave and Chemeheuevi (Cravath, n.d.).

Building Poston

A crew headed by renowned contractor Del Webb began construction of Poston I on 27 March 1942 (Burton et al., 2002). They cleared the land for Poston I in one day, and the crew of 5,000 men completed the camp in less than three weeks. Because pine lumber was in short supply, heart redwood was used for the construction of many barracks walls; however, the redwood shrunk as it dried in Poston's intense heat leaving large gaps in the walls. Webb's builders had to go back and cover the cracks with "millions of feet" of thin wood strips (Finnerty, 1991, p. 41-43). The first group of Japanese Americans arrived on 8 May 1942 to help prepare the center for the subsequent arrival of the main body of evacuees (Burton et al., 2002). Within the next three weeks, 7,450 evacuees would move into Poston (Leighton, 1945). Four months later, Webb's company had completed Poston II and III (Finnerty, 1991).

Poston Relocation Center consisted of three main camps–Poston I, Poston II, and Poston III, each of which was laid out in a rectangle that was truncated on its east side by the Mohave Road (Figure 9.11, 9.12, 9.13, 9.14, and 9.15). The blocks within were separated by numbered east-west running streets, and lettered north-south oriented streets. A single fence surrounded the

Figure 9.11. Overall map of the Poston Relocation Center. Adapted from Burton et al. (2002, p. 218).

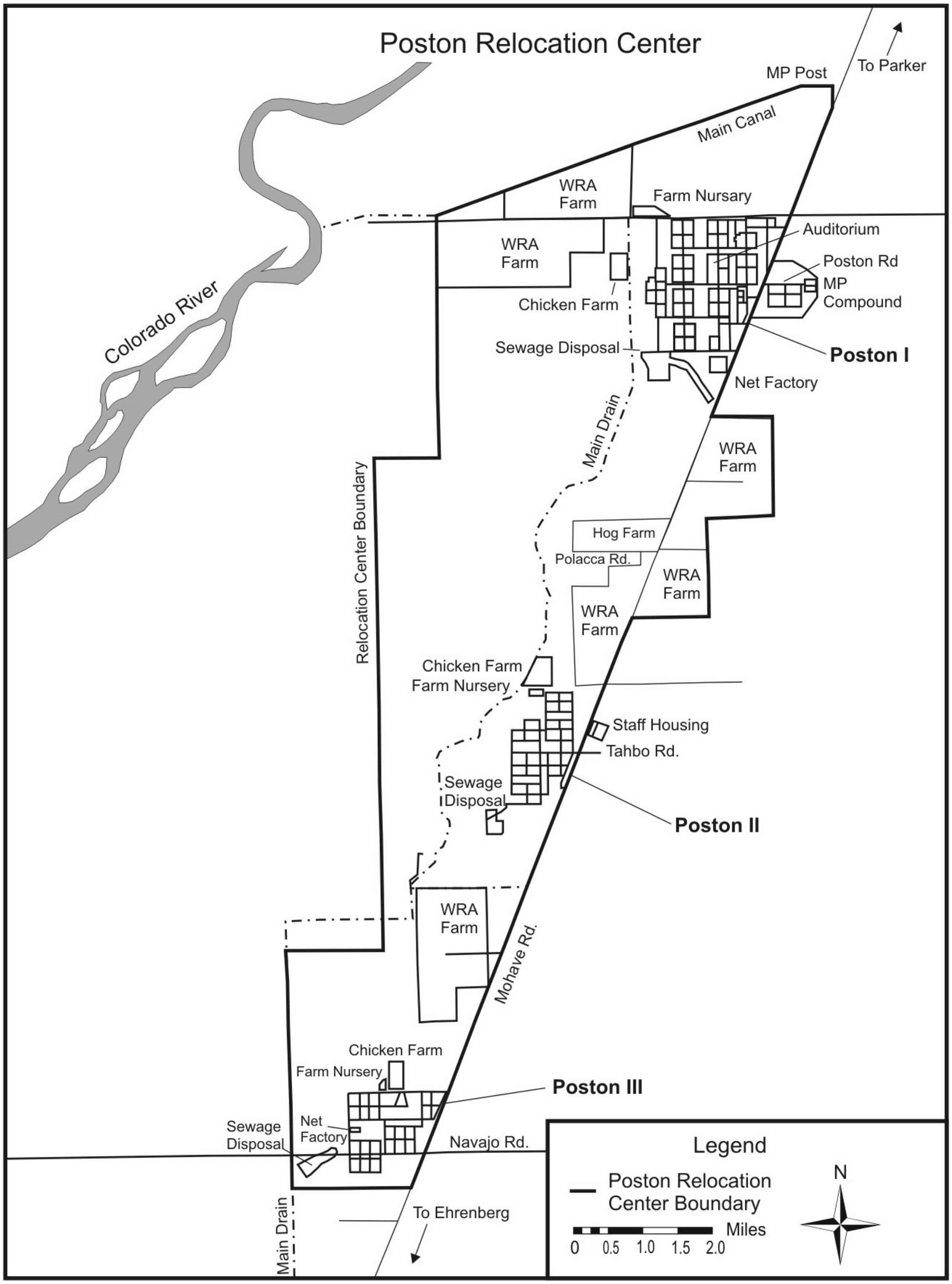
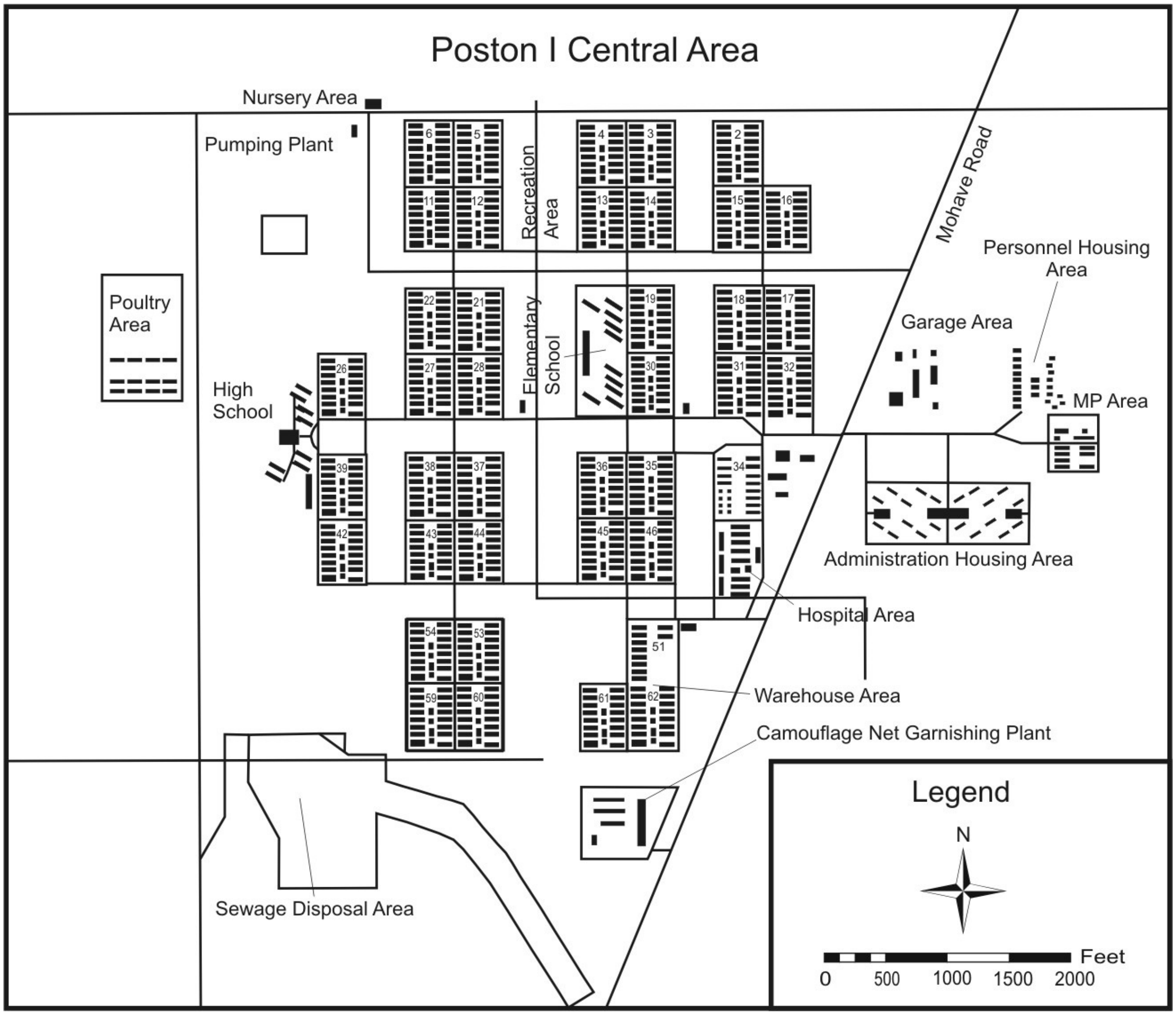


Figure 9.12. Detailed map of Poston I, Poston Relocation Center. Adapted from Burton et al. (2002, p. 220).



three camps but unlike most of the other relocation centers, Poston did not have guard towers along the fence (Burton et al., 2002). It is unclear why the WRA built three smaller camps rather than one larger center.

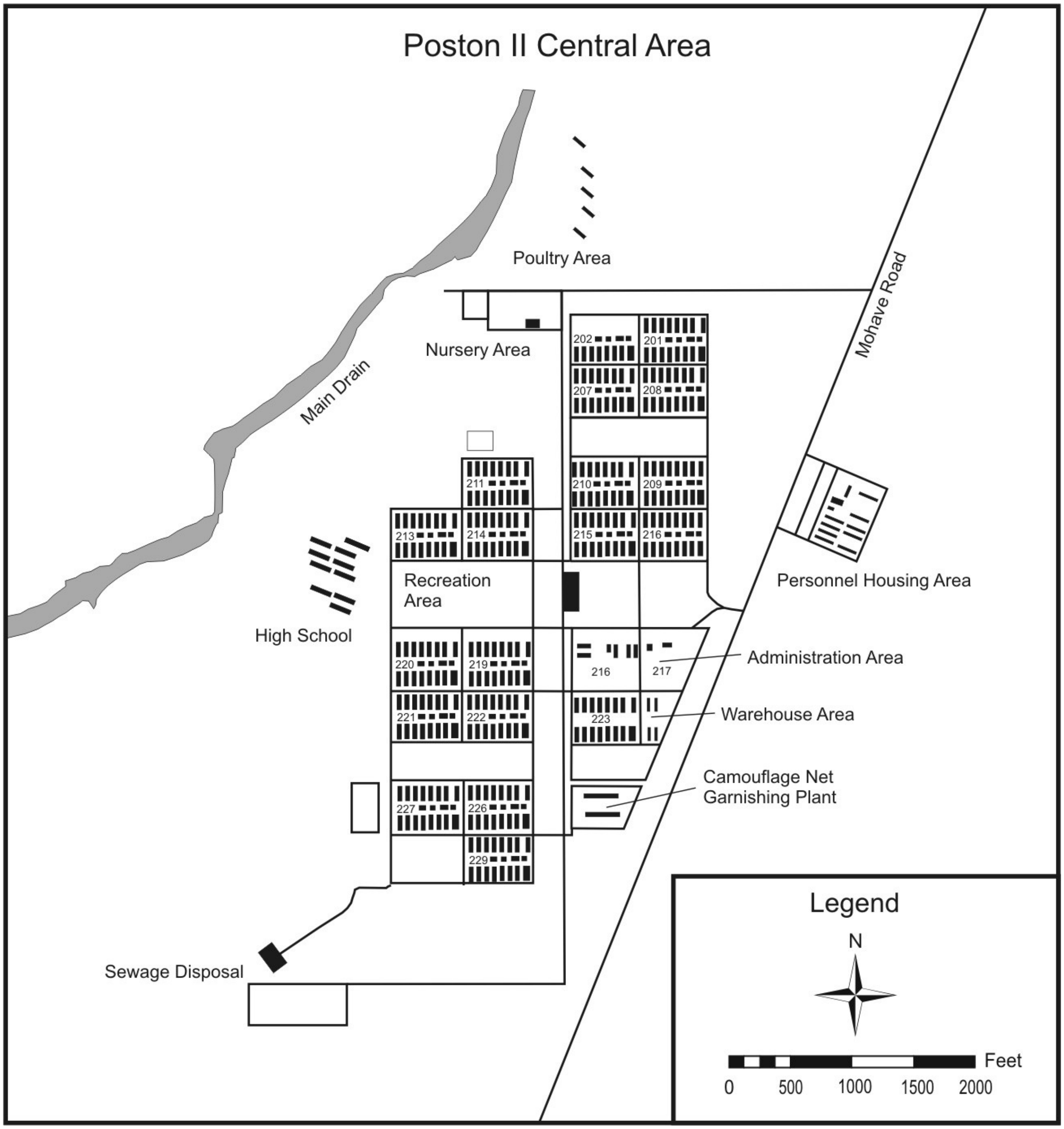
Poston I was the northernmost and largest of the three camps (Figure 9.12). It stretched north-south and lay between the Main Drain to the west and the Mohave Road to the east. The main portion of this camp had 27 residential blocks for evacuees as well as administration offices, staff housing areas, warehouses, hospital, fire station, ice storage, butcher shop, maintenance shops, a crematory, and a military police compound. Poston I had elementary and high school complexes

Figure 9.13. Oblique aerial view of Poston II, Poston Relocation Center. Fred Clark photograph, June 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 1, Section A, WRA # A-191, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 1: Colorado River Relocation Center, Poston, Arizona.

constructed of adobe because lumber was in short supply and because the Office of Indian Affairs wanted structures that would last for subsequent Native American students (Okimoto, 2001; Burton et al., 2002). A sewage treatment plant, a domestic water pumping plant, a chicken farm, and a farm nursery also served the camp. Irrigation ditches ran through Poston I to provide water for landscaping, victory gardens, and swimming pools. A large outdoor stage was also present. In addition to camp operations and the agricultural program, camouflage net, tofu, and box factories located in Poston I provided employment opportunities. School and community athletic fields were located in various vacant blocks and firebreaks (Burton et al, 2002).

Poston II was located along Mohave Road between Poston I and III (Figure 9.14). It had 18 evacuee residential blocks, an elementary school, a high school, administration area (including cold storage, medical clinic, fire station, post office, and office buildings), staff housing, garage

Figure 9.14. Detailed map of Poston II, Poston Relocation Center. Adapted from Burton et al. (2002, p. 224).



area, warehouses, a camouflage net factory, chicken farm, farm nursery, domestic water supply, and a sewage treatment plant. Lateral A Canal bisected the camp and was diverted into an excavated depression to create a large swimming pool (Burton et al., 2002).

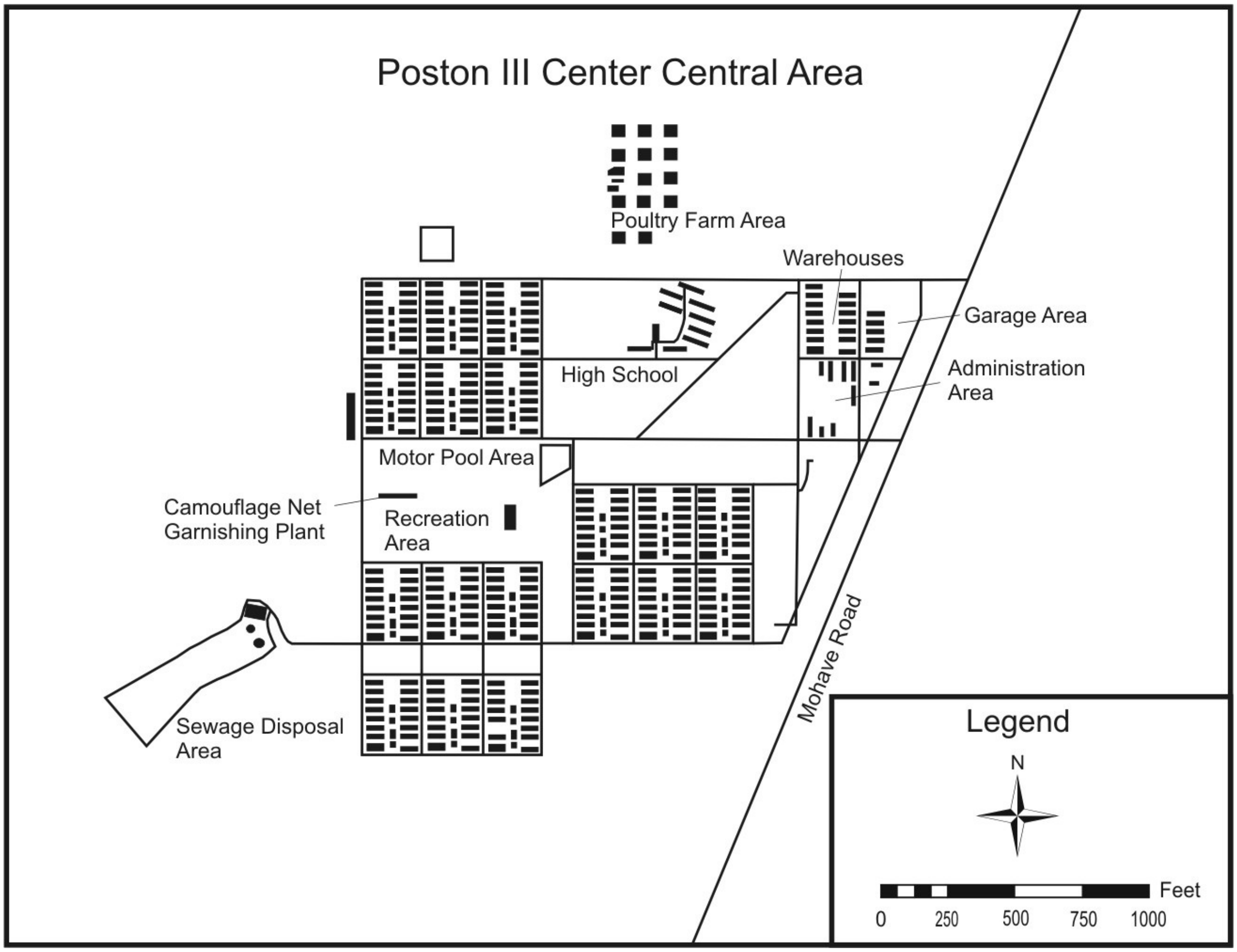
Poston III was the southern-most of the three camps, located at the end of Mohave Road (Figure 9.15). Like Poston II, it included 18 evacuee blocks as well as administration area including a medical clinic and fire station, garage area, camouflage net factory, warehouse area, elementary school, high school, swimming pools, motor pool, outdoor stage, dry goods store, chicken farm, farm nursery, and sewage treatment plant (Burton et al., 2002). Unlike Poston I and II, Colorado River irrigation water was not available within Poston III (Sharp, 1945).

Each residential block in Poston I, II, and III consisted of 14 barracks, one mess hall, two latrine-shower buildings, one laundry building, one ironing building, one community services (i.e., recreation) building, and a fuel oil shed and was designed to serve 250-300 evacuees (Figures 9.12, 9.14, and 9.15) (Harris, 1999; Burton et al, 2002). Each 20 feet x 100 feet barracks consisted of four to six single-room apartments ranging in size from 16 feet by 20 feet, 20 feet by 20 feet, and 24 feet by 20 feet (Estes and Estes, 1996; Okimoto, 2001). Evacuee barracks were constructed differently than those at all other centers, presumably because of the extreme summer heat in southwestern Arizona. While all had tarpaper covering their sides and roofs, each had a double roof to act as insulation against the extreme heat at the site (Burton et al., 2002). However, these double roofs were apparently prone to blowing off in windstorms (Estes and Estes, 1996). Barracks were elevated off the ground on wooden posts sitting on concrete footings (Leighton, 1945). Apartment partitions stopped before reaching the barracks roofs thus sound traveled the length of the barracks (Fujita-Rony, 2005). The WRA provided cots, straw-filled mattresses, two U.S. Army blankets, a single light bulb suspended from the ceiling, and later, a heating stove (Figure 9.16) (Harris, 1999). All other furniture needed to be made or purchased by evacuees (Fujita-Rony, 2005). Roads and walkways within the center were graveled (Staff, 30 January 1943; 16 March 1943). Ultimately, roads were oiled (Staff, 25 July 1943).

Domestic water came from wells located at each of the camps. Despite the relatively high salinity of the area's groundwater (see *Water* section above), evacuee accounts do not mention the undesirability of this water for human use. Domestic water was stored in large above-ground storage tanks before being piped to the various blocks of the camps (Burton et al., 2002). Irrigation water came from the Colorado River via the Headgate Rock Diversion Dam and the Main Canal (Figure 9.3) (Staff, 1 August 1942).

Materials and personnel coming to the center typically arrived by train at Parker, then were moved to the center by truck or bus. A warehouse facility was built along the railroad in Parker to provide temporary storage for the items arriving by train (Burton et al., 2002). Evacuees subsequently constructed a highway (i.e., Mohave Road) from the north to the south end of the center (Staff, 25 July 1943).

Figure 9.15. Detailed map of Poston III, Poston Relocation Center. Adapted from Burton et al. (2002, p. 226).



Origins of the Evacuees

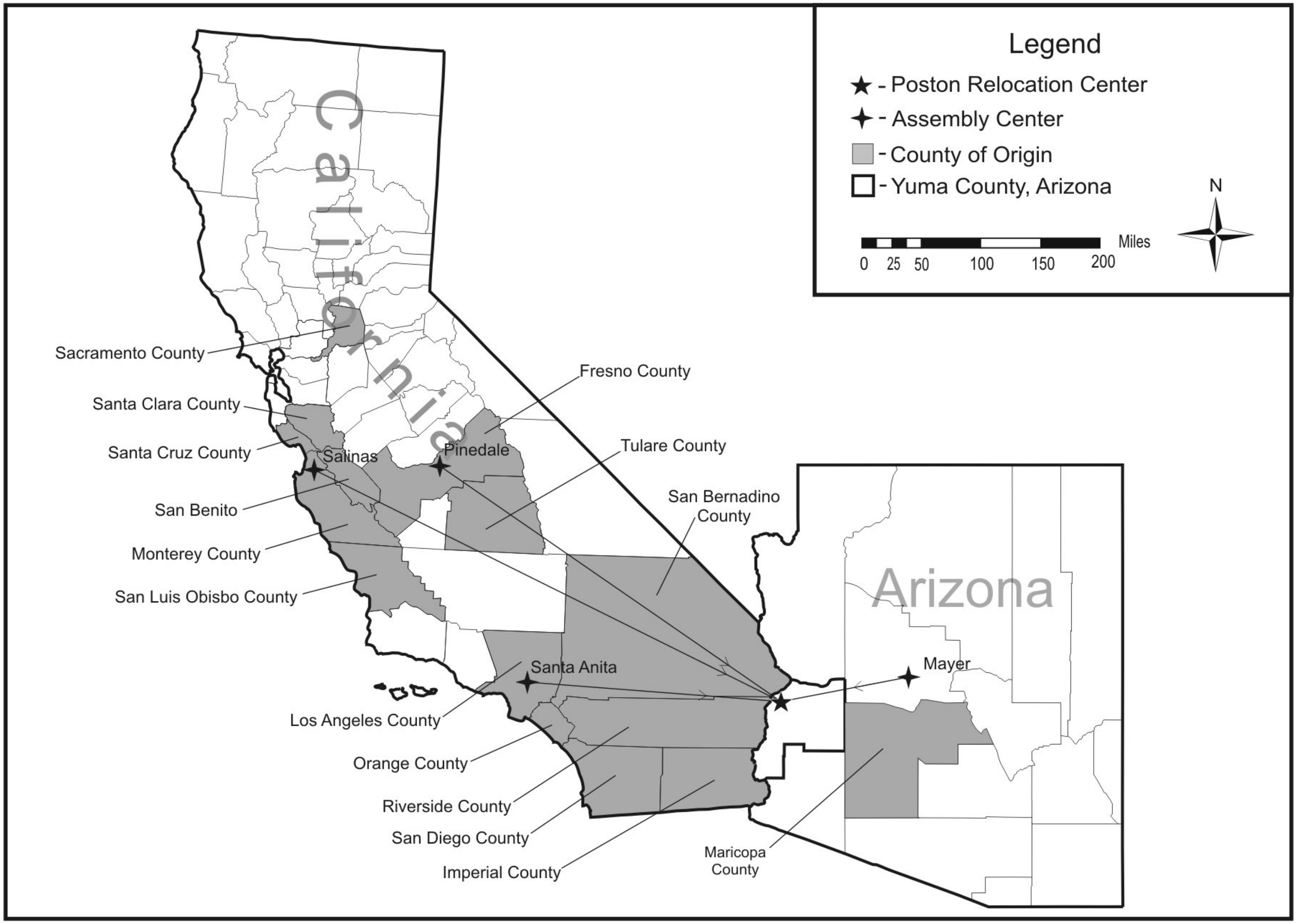
Evacuees came from California via the Salinas (3,482), Santa Anita (1,556), and Pinedale (697) assembly centers, and Arizona from the Mayer (246) Assembly Center (Figure 9.17). Additionally, eight other assembly centers each contributed less than 100 evacuees (U.S. Army–Western Defense Command, 1943). Specifically, evacuees came from California's Los Angeles (2,750), Tulare (1,952), San Diego (1,883), Orange (1,636), Fresno (1,590), Imperial (1.512), Monterey (1,506), Santa Cruz (1,222), Sacramento (561), Riverside (503), Santa Clara (463), San Benito (430), San Bernadino (374), and San Luis Obispo (104) counties (Figure 9.17) (U.S. War Relocation Authority, 1946). The largest number of evacuees (11,738) came directly to Poston, primarily from California's San Joaquin and Imperial valleys, without first being

Figure 9.16. Filling straw mattresses with straw at Poston Relocation Center. Fred Clark photograph, May 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 1, Section A, WRA # A-147, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 1: Colorado River Relocation Center, Poston, Arizona.

incarcerated in assembly centers (Japanese American National Museum, n.d; Bailey, 1971). Others came directly to Poston from North San Diego County (Estes and Estes, 1996). Given the discrepancy between the California county and assembly center numbers, it is likely that most or all of those who were direct evacuees were from California. Arizona's Maricopa County contributed 213 evacuees and another 26 statewide, and Washington, Oregon, and "other states" provided 26 (U.S. War Relocation Authority, 1946). The population of the center was mostly rural (Japanese American National Museum, n.d).

The first evacuees arrived at Poston on 8 May 1942 (U.S. War Relocation Authority, 1946). Among them was famed modernist artist Isamu Noguchi (Maeda, 1994). The early evacuees traveled to the center entirely by bus. Later evacuees came to the center by train via Barstow,

Figure 9.17. The Western United States origins of Japanese-Americans evacuated to the Poston Relocation Center in May-October 1942. Data from U.S. Army–Western Defense Command, (1943, p. 381, 383) and U.S. War Relocation Authority (1946, p. 61-66).



California to Parker, and from Parker to Poston on buses (Bailey, 1971; Estes and Estes, 1996). Some evacuees also arrived in their own automobiles (Ota, 1984). Because early arrivals at Poston, like those at Manzanar, came directly from their homes to the center, Poston was considered an Assembly Center and a Relocation Center (Daniels, 1972). The last evacuees to arrive were from Santa Anita in southern California on 26 October 1942 (U.S. Army–Western Defense Command, 1943). With a maximum population of 17,814 reached in early September 1942, Poston was Arizona's 3rd largest city behind Tucson, and Phoenix (Staff, 30 September 1942; U.S. War Relocation Authority, 1946). The Japanese American population outnumbered the Native American population on the reservation by approximately 15 to 1 (Estes and Estes, 1999). As of 1 January 1943, approximately 67% of Poston's residents were American citizens (U.S. War Relocation Authority, 1946).

Interaction of Evacuees with Southwestern Arizona's Environments

Physical Environment. Evacuee interactions with the physical environment were primarily shaped by heat, wind, dust, and the overall harsh nature of the setting. The first impressions of the center were telling for many individuals. The first word that came to mind for a young school teacher was "bleakness" (Harris, 1999, p. 20). An evacuee described it as:

> *The bus trip to Poston III was long and dusty. So dusty that the sky was blotted out completely. At first we tried to keep the windows of the school bus that was transporting us closed, but it was so hot - over 100 degrees that people, especially the older people, and the kids, were getting sick. So we opened the windows. Immediately everyone was covered with dust. When Kiyo Ochi and her group got off the bus everyone was covered by this thick layer of dust. I know you won't believe this, but its really true, friends couldn't recognize each other.*
>
> Estes and Estes (1996, p. 130)

The first impressions of another evacuee were similar:

> *Extreme heat that can melt iron. No trees, no flowers, no singing birds, not even the sound of an insect. All at once a strong wind began to blow, sandy dust whirled into the sky, completely taking the sunshine and light from us. That night a full moon shone in the wilderness.*
>
> Estes and Estes (1996, p. 131)

The heat was perhaps the most noticeable aspect of the center, especially given that most of the evacuees were originally from coastal California. The highest temperature of 1942 or 1943 was 121°F in July 1943. The average high temperature for June, July, August, and September 1943 exceeded 100°F with July at 111°F (Staff, 7 December 1943, p. 3)! Evacuees initially tried to keep cool by using water to wet themselves, their bedding, and their apartment floors (Girdner and Loftis, 1969). The media reported that cellars excavated beneath evacuee barracks were used for hoarding food for an imminent Japanese invasion. However, one evacuee stated “In fact, we were digging cellars under the barracks to try to stay cool. We would sit around in the hole and play cards to while our time away. That is where I learned to play pinochle” (Hane, 1990, p. 573). While most of the administrative buildings had evaporative coolers, the evacuees were expected to go without or purchase their own. As of May 1943, approximately 58% of the barracks apartments had some form of cooler (Staff, 18 May 1943). The common “garden ponds” of the camps, combined with the shade of landscaped plants, also provided a measure of relief from the heat. Luckily for the evacuees, mean monthly temperatures for the warmest season months of April-September during 1942-1945were slightly cooler than the 1931-1960 average (Western Regional Climate Data Center, n.d.). The positive aspects of the heat were that activities could occur outside throughout much of the year.

While the winter average temperatures were considered mild, temperatures could be uncomfortably cold, especially in barracks lacking insulation or even wall board. Oil and kerosene stove installation did not begin until after cold weather arrived in late fall 1942 (Staff, 17 December 1942). Until then, evacuees built outdoor bonfires out of scrap lumber to keep warm (Okimoto, 2001).

The relocation center experienced slightly drier conditions than normal during its four years in existence. Overall, the mean annual precipitation for 1942-1945 was nearly 0.5 inches less than during the 1931-1960 climate normal (Western Regional Climate Data Center, n.d.). However, severe thunderstorms brought torrential rains and damaging winds (see below). One such thunderstorm resulted in the flooding of Poston I streets to a depth of three to four inches (Staff, 24 July 1942). Another “melted” adobe bricks at the amphitheater, washed out roads, and flooded various portions of Poston III. Illustrating the isolated nature of thunderstorms, little precipitation or wind was received at Poston I or II during the latter event (Staff, 18 August 1943).

The winds, known as “Poston Zephyrs”, seemed to blow all of the time (Estes and Estes, 1996). Combined with the recently disturbed soils, duststorms (i.e., “Arizona Fog”) were a common occurrence, especially in the winter (Girdner and Loftis, 1969; Tsuchiyama, 1990). Winds blew so hard at times that the resulting duststorms halted outside activities (Staff, 19 August 1942). Seventy mile per hour winds associated with a severe thunderstorm destroyed the roofs of 41 barracks at Poston I in July 1942 (Staff, 24 July 1942). Dust found its way into everything making life more difficult for people used to cleanliness (Estes and Estes, 1996). The dust problem was at least partially resolved through the installation of a linoleum-like floor covering in the barracks (Okimoto, 2001). Evacuee landscaping must have also served to hold down the loose soils of the site. Wetting soils and planting vegetative cover were the main ways of trying to anchor the soils thus reducing blowing dust (Figure 9.20). It was because of the intense summer heat and the ever-present dust that Poston I, II, and III earned their nicknames “Roaston”, “Toaston”, and “Duston” (Cates, 1980, p. 98).

Figure 9.18. Evacuee sprinkling surfaces within the residential blocks to prevent dusty conditions, Poston Relocation Center. Note the dusty sky in the background. Fred Clark photograph, May 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 1, Section A, WRA # A-165, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 1: Colorado River Relocation Center, Poston, Arizona.

The floodplain soils were also an issue. Buses carrying evacuees from Parker to Poston got stuck in the soft dust of the road (Okimoto, 2001). One evacuee commented on her arrival that "We are at Camp No. 3 (i.e., Poston III). It is not quite complete. It is so sandy that everyone's hair looks gray" (Estes and Estes, 1999, p. 23). Another evacuee commented: "Not much social visiting going on at all. The afternoons are still too hot to do so, and who wants to walk around in dust up to the ankles" (Estes and Estes, 1999, p. 25). The center's soils were also one of the raw materials of the adobe that the evacuees used to construct the school buildings in each of the three camps (Okimoto, 2001).

Evacuees interacted with wildlife as well. Rattlesnakes, scorpions, and even gila monsters were encountered by evacuees and mentioned in the pages of the center newspapers, the *Official Daily Press Bulletin* and the *Poston Chronicle* (e.g., Staff, 7 August 1942; 8 October 1942; Staff, 22 October 1942).

While the above suggests that the Sonoran Desert of the Poston Relocation Center was a foreign, stark, and harsh place, some found it beautiful. Caucasian teacher Catherine Embree Harris (1999, p. 19-20) described it this way:

> *In the early morning, the rising sun tinted the outlines of the eastern mesas in gold, then sent piercing rays to streak the western ones until the heavens were awash with brilliant light. The sky was wide and limpid. The evening sky changed from brown to pale to violet, and back to deep purple and into darkness. Gradual alterations, undramatic, but beautiful.*

Agriculture. The goals of Poston's agricultural program were to feed the residents of Poston, feed the evacuees in the other relocation centers, provide food and other crops for the war effort, and to sell any surpluses on the open market, all while providing employment opportunities for evacuees (Myer, 11 July 1942; Sharp, 1945). By November 1942, however, the goals were changed to focus production solely on meeting the needs of the center (Sharp, 1945). Further, the original establishment of the center on the Colorado River Indian Reservation was predicated on the evacuees "subjugating" (i.e., clearing and leveling) a large amount of previously un-farmed land that would serve as the basis for an enlarged Indian farming program following the war (Okimoto, 2001). Therefore, 25,000 acres were initially dedicated to agricultural enterprises, and much of the hopes of the center were placed on agriculture (Staff, 20 October 1942; Sharp, 1945).

William C. Sharp, Poston's first Farm Supervisor, stated that "the land of this valley is as good an area for farming as that which exists anywhere in the southwestern United States" (Staff, 5 August 1942b). However, the evacuees first had to clear and level the land, build canals and laterals, and provide drainage to prevent the buildup of irrigation water and salts before planting. Farmlands were scattered the length of the entire center including areas in evacuee residential blocks and in firebreaks between the blocks of each of the camps (Figure 9.19). A total of 167 acres was farmed within the residential blocks of the camps (Sharp, 1945). An 80-acre piece of ground was also developed by the Poston II Agricultural Department near the Indian School about five miles north of Poston I (Staff, 3 November 1942). Native vegetation removal and land leveling began in summer 1942 and continued until 1945 (Sharp, 1945). Irrigation water first reached the Poston I area by early fall 1942 followed by Poston II and III in November 1942 after evacuees constructed more than 40 miles of irrigation canals, laterals, and sub-laterals (Staff, 4 November 1942; 9 May 1943; Sharp, 1945). Planting of cucumbers and nappa first occurred in late summer and early fall 1942. Many plants, including vegetables, flowers, and trees, were started in each of the camp nursery *lathhouses*, then transplanted into the fields as seedlings (Sharp, 1945). Planting occurred in the spring and the fall, and irrigation occurred by flood or by furrow (Staff, 16 October 1942; 3 November 1942). By 1945, Poston agriculturalists had grown 42 different types of produce for human consumption, although 28 were ultimately identified as ideal for the conditions at the site (Table 9.1). The long growing season ensured not only variety but also fresh vegetables nearly year-round. The climate of the area also resulted in high annual productivity/acre on the center's farmlands (Table 9.2). A total of 7,237,620 lbs of

Figure 9.19. Agricultural lands of the Poston Relocation Center. Adapted from Burton et al. (2002, p. 227).

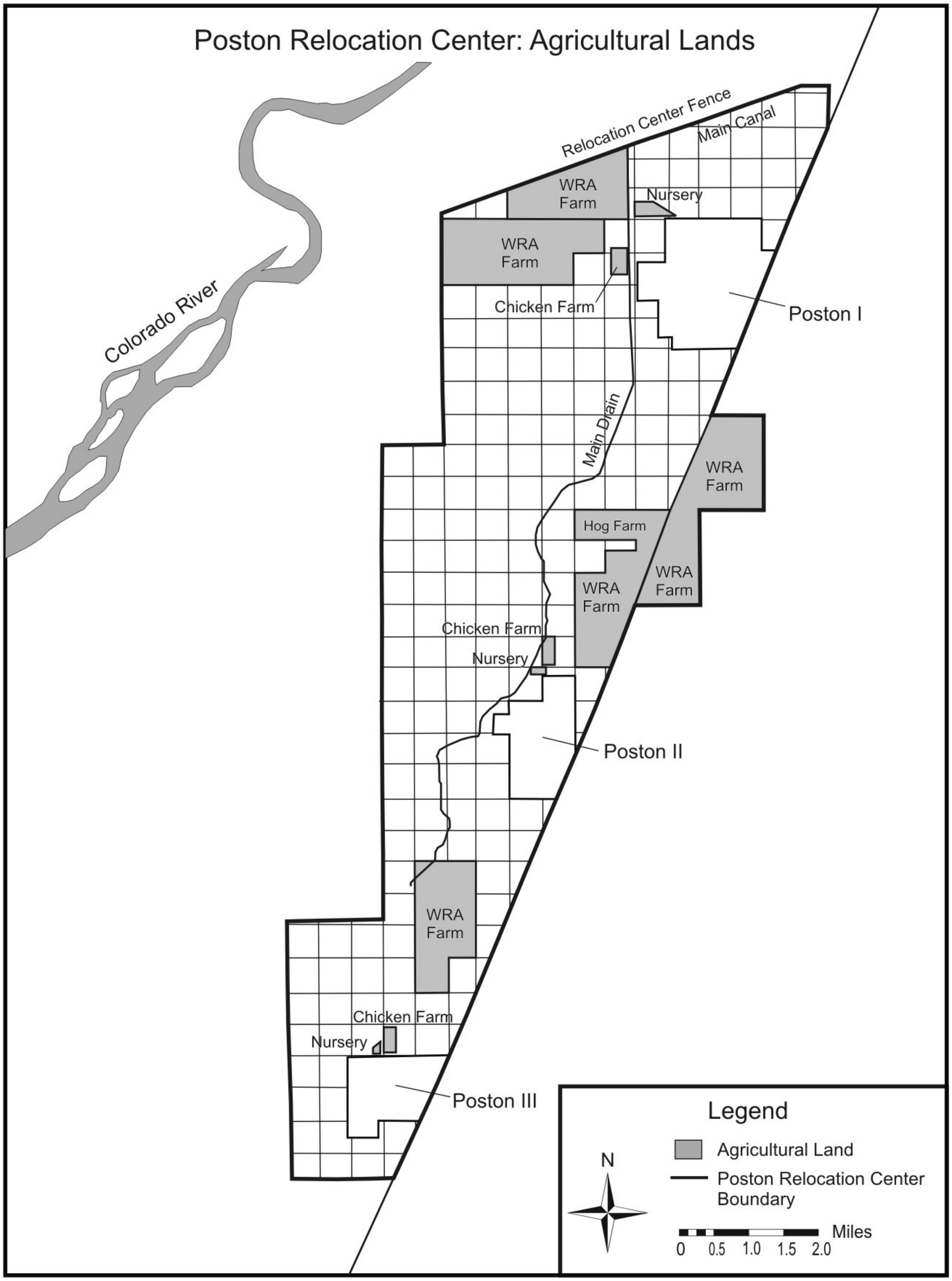


Table 9.1. Crops and livestock raised at the Poston Relocation Center, 1942-1945. Data from Sharp (1945, Tables 1-12).

Produce	Produce (cont)	Feed Crops	Livestock
ao uri	okra	alfalfa	chickens
beans (azuki)	onions (dry)	barley	fish
beans (green)	onions (green)	milo-maize	hogs
beans (sasage)	parsley	sesbania	
beets (table)	peanuts	wheat	
broccoli	peas		
cabbage	potatoes (irish)		
cantaloupe	potatoes (sweet)		
carrots	pumpkins		
casaba	radish	**War Crops**	
cauliflower	spinach	guayule	
celery	shiru-uri		
cucumbers	peas		
daikon	squash (banana)		
eggplants	squash (Italian)		
gobo	squash (zuccini)		
grapes	*Swiss chard*		
honeydew	togan		
lettuce	tomatoes		
mustard greens	turnips		
nappa	watermelons		

produce was grown at Poston from 1942-1945 on 1,004 acres with the highest production occurring in 1944 (Table 9.2). The largest producers in terms of weight were cabbage, nappa, watermelon, daikon, carrots, and spinach (Sharp, 1945). Unlike the cooler relocation center sites, Poston did not have a root cellar for produce storage apparently because fresh produce was available much of the year. However, excess produce was pickled for out-of-season use in the mess halls (Staff, 27 April 1943).

Farm innovations included seed farms, lath house farm nurseries, and the use of newspapers on seedlings for heat and dust protection (Staff, 26 June 1943). Seed farms were started because of a shortage of traditional Asian seeds. These included nappa, onion, daikon, shingeku (Staff, 2 August 1942; Kadani, 9 May 1943). Vegetables and flowers were started in shaded lathhouse nurseries in each of the camps. The Poston I nursery grew a variety of plants including flowers (e.g., Shasta daisy, calendula, larkspur, snapdragons, kochia, and petunia–Staff, 13 October 1942, p. 4).

Four different feed crops were grown at the center on a total of 858 acres (Table 9.1). Approximately 2,244,000 pounds of feed was raised in 1943 and 1944 with a market value of $19,312. Additionally, wheat was planted in 1945 but not harvested before the land was returned to the Office of Indian Affairs. Sesbania (i.e., a nitrogen-fixing plant) was also planted in 1943 and 1944 as a soil-building crop (Sharp, 1945). The WRA was very disappointed with the feed

Table 9.2. Produce and feed crops yields, Poston Relocation Center, 1942-1945. Data from Sharp (1945, Tables 1-13, 24).

	1942	**1943**	**1944**	**1945**	***Total***
Produce					
Total Acres Harvested	35	330	424	215	*1004*
Total Production (lbs)	125,600	2,607,234	3,326116	1,178,670	*7,237,620*
Consumed at Center (tons)	125,600	2,607,234	3,326116	1,178,670	*7,237,620*
Shipped to Centers (tons)	0	0	0	0	*0*
Total Market Value ($)	?	?	?	?	*$368,721*
Feed Crops					
Total Acres Harvested	0	55	803	0	*858*
Total Production (lbs)	0	44,000	2,200,000	0	*2,244,000*
Fed at Center (tons)	0	44,000	2,200,000	0	*2,244,000*
Shipped to Centers (tons)	0	0	0	0	*0*
Market Value ($)	0	$1,144	$18,168	0	*$19,312*

crop yields attributing them to initially poorly leveled lands. Further, soils were highly variable in fertility. Native American horses and cattle damaged crops. Finally, evacuees did not seem interested in raising feed crops, likely because they did not see the ready benefits of growing them (Sharp, 1945).

In addition to feed crops, Guayule production was attempted at Poston as a way to create rubber for the war effort. Unfortunately, the 60,000 seedlings planted at Poston died before reaching maturity (Leighton, 1945).

Chickens and hogs were raised at Poston (Tables 8.1 and 8.3) (Staff, 14 August 1943). Chickens were raised for meat and eggs in 1943-1945. Peak meat production occurred in 1943 when 13,588 birds yielded over 41,200 pounds of meat. Peak egg production occurred in 1944 when Poston hens laid over 46,000 dozen eggs. Hogs were raised in 1942-1945 reaching a peak production of 309,386 pounds of pork from 1,527 butchered animals in 1944. In addition to the pork produced, hogs were important as waste management tools in consuming the center's garbage (Sharp, 1945). A slaughterhouse and a butcher shop were built for the processing of the hogs (Staff, 23 March 1943a; Staff, 17 August 1944). A unique aspect of Poston's livestock program was its fish farming project. The project focused on pond-raising of carp, sunperch, catfish, and bass for human consumption, and using the sediments of the ponds to fertilize the agricultural soils. However, the project ultimately failed because summer temperatures were too hot for the shallow ponds required for enhancing agricultural soils (Sharp, 1945).

Table 9.3. Livestock yields, Poston Relocation Center, 1942-1945. Data from Sharp (1945, Tables 14-24).

	1942	**1943**	**1944**	**1945**	***Total***
Chickens					
Total Butchered	0	13,588	9,969	17,039	*40,596*
Meat Total Weight (lbs)	0	41,217	31,692	60,213	*133,122*
Market Value ($)	0	$14,838	$11,409	$21,677	*$47,924*
Eggs (dozen)	0	14,374	46,154	66,483	*127,011*
Market Value ($)	0	$6,037	$19,385	$27,923	*$53,345*
Hogs					
Total Butchered	1	610	1,527	1,155	*3,293*
Dressed Weight (lbs)	203	123,592	309,386	234,015	*667,196*
Market Value ($)	$35	$21,011	$52,596	$39,783	*$113,425*

The center's agricultural programs were enhanced by the center's newspapers that reported weekly on the doings of the school's agriculture classes and Future Farmers of America clubs. Agricultural classes were also offered to adult evacuees (Staff, 20 February 1943). A fair was held at Poston in October 1942 (Staff, 20 October 1942) as a way to celebrate and honor the importance of agriculture there.

The center's various agricultural programs ended by early August 1945 (Staff, 30 May 1945). Overall, the programs was marginally successful. For example, project administrators set a goal that 35% of the center's vegetable needs would be supplied by its own agricultural program. In the first year of the project only 9% of these needs were supplied in-house. This deficit was made up with purchases from outside sources or transfers from other relocation centers (Staff, 13 June 1943). The agriculture program was hampered by a lack of readily farmable land, an initial paucity of irrigation water, and a lack of farm labor (Kadani, 18 April 1943). Predators including coyotes and weasels caused problems for poultry operations (Staff, 18 May 1944; 9 December 1944). Further, most of the program's most capable supervisors relocated to other states by May 1943 (Staff, 23 May 1943).

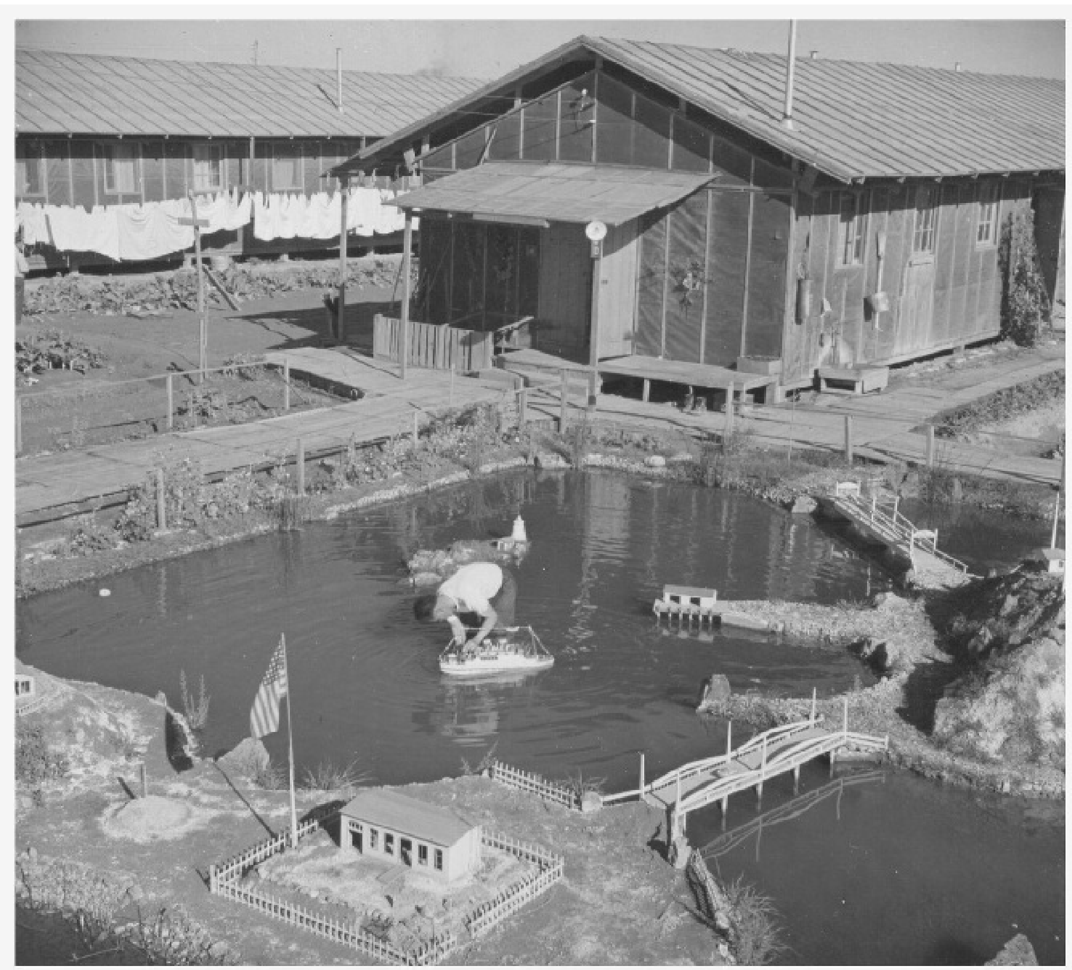
Business and Industry. Businesses within the center were run by and for evacuees within the Community Cooperative Enterprises. Businesses within the "coop" included dry goods canteens (i.e., general stores), and beauty and barber shops, (Bailey, 1971; Burton et al., 2002). It is likely that, similar to other relocation centers, shoe and clothing stores, optical shops, laundries, dry cleaners, shoe repair shops, and electrical repair shops were also present at Poston. Pay for coop employees was the same as for other evacuee workers in the center–$12/month for common and semi-skilled labor, $16/month for skilled workers, and $19/month for professionals (Fujita-Rony, 2005).

Industry at Poston included camouflage net, tofu, charcoal, chow mein, noodle, and pickling factories. The camouflage net factories were operated in each of the three camps of Poston. Tofu production began in Poston I in April 1943 providing a traditional food for evacuees (Staff, 14 April 1943). A charcoal factory made charcoal from the numerous mesquite trees in the area (Staff, 8 January 1943). It is not clear how long the charcoal factory operated or where its product was used. Between 1,200-1,500 lbs of chow mein and Japanese noodles were produced daily (Girdner and Loftis, 1969). A pickling factory was constructed to preserve vegetables grown on the project farms and used in the mess halls (Staff, 27 April 1943).

Landscaping and Gardening. Evacuees planted trees and shrubs, gardens, and lawns for beauty, shade, and cooling in the harsh environment. Much of this was done on the initiative of the evacuees. Cacti and wild grasses were transplanted from the undeveloped areas on the margins of the camps to the spaces around the barracks. Castor beans were also planted along the barracks (Harris, 1999). The U.S. Department of Agriculture donated 18,000 Chinese elms to the center. Nurseries at the camps also provided tree and shrub seedlings to evacuees for planting in the residential blocks. Trees were planted in all of the public places within each of the three camps including the administration, hospital, military police, fire stations, churches, schools, parks, and along roads (Sharp, 1945). Date palms were transplanted from the Office of Indian Affairs headquarters south of Parker to Poston I and III (Staff, 30 May 1944).

Carefully raked stone gardens indicative of traditional Japanese gardens could be found scattered throughout the camps (Harris, 1999). Further, evacuees built numerous concrete-lined garden ponds as centerpieces to barracks gardens that were often filled with carp (Figure 9.20) (Eaton, 1952; Harris, 1999). Evacuees also constructed ornate entry ways that, combined with plantings, radically altered the appearances of barracks (Eaton, 1952). Evacuees established public parks at various places within the camps. One example was Wade Head Park (named after the center director) in Poston I that included a bridge over the canal (Staff, 22 July 1942).

Figure 9.20. Landscaping at Poston I, Poston Relocation Center. Francis Stewart photograph, December 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 1, Section A, WRA # -804, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 1: Colorado River Relocation Center, Poston, Arizona.



Education. Poston I, II, and III each had their own K-12 school systems complete with elementary and high schools. The schools in each camp were initially housed in recreation buildings within blocks throughout each of the centers. All told, approximately 5,300 students were in grades K-12 in Poston at any one time. The schools were initially plagued by poor facilities, including a lack of partitions between adjacent classrooms, and inadequate equipment and supplies (Harris, 1999). The furniture situation was initially so bad that students had to bring their own chairs! Three to four students would share a single textbook, no maps were available, and laboratory equipment was non-existent (Estes and Estes, 1999). Further, shortages of qualified teachers and the inability of the WRA to increase funding for the schools hampered the education program (Bailey, 1971). However, soon after the establishment of the camps, construction began on adobe school structures (Figure 9.21). Once complete, these buildings were well-designed and comfortable (Harris, 1999). By May 1944, Parker Valley High School many of the above issues had been resolved and the school received accreditation from the State Accrediting Committee of Arizona (Staff, 25 May 1944).

The adult education program was very popular with evacuees. Courses taught ranged from English aimed at Issei to calculus, fashion design, and shorthand designed to help evacuees find outside employment and relocate (Staff, 13 January 1943).

Recreation. As at other centers, recreation in the form of reading, arts and crafts, various performances, movies, dances, clubs, and sports, were a main diversion for all ages. Each of the camps had large libraries, the smallest of which in December 1942 had 3,100 books and a membership of about 50 percent of Poston III (Estes and Estes, 1999). New acquisitions were advertised weekly in the *Poston Chronicle*. Arts and crafts such as woodcarving, embroidery, crochet, knitting, sewing, and artificial flower arrangement were all practiced in the camps. Resident poetry was published in the *Poston Bungei* (Smith, 1995). The various pages of the *Official Daily Press Bulletin* and the *Poston Chronicle* show that fashion and talent shows as well as drama and musical groups graced the stages of the camps. Further, movies and dances were also common. Clubs included scouting, boys clubs, and girls clubs while the traditional board games *go* and *shogi* were played by the older men.

Sports were perhaps the most popular center activities when considering participation and spectatorship. Baseball, softball, track and field, volleyball, basketball, football, wrestling, ping pong, tennis, badminton, and boxing were all popular as were traditional Japanese sports of *judo* and *sumo* wrestling. A crowd of 1,500 “rabid fight fans” watched a boxing match while 5,500 fans attended a basketball championship game at Poston (Staff, 1 December 1942; Staff, 23 March 1943b). Gambling was a huge, albeit illegal, activity in the camps (Nishimoto, 1995). Water sports were also popular at Poston given the proximity of the camps to irrigation canals and the Colorado River. Youth swam in the numerous swimming pools of each of the camps. However, the swimming ponds and sloughs were occasionally closed because of the presence of coliform bacteria (e.g., Staff, 4 August 1942). Fishing in the canals, human-made swimming

Figure 9.21. Adobe bricks drying at Poston Relocation Center. Francis Stewart photograph, December 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 2, Section A, WRA # A-821, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 1: Colorado River Relocation Center, Poston, Arizona.

ponds, and the Colorado River was so popular that a center-wide fishing contest was held (Figure 9.22) (Staff, 8 September 1943). Kite contests took advantage of the ample winds of the center (Staff, 26 August 1942).

Culture and Art. The WRA made sure that the culture and art of Poston, as at other relocation centers, was purposefully American. This was seen in language, dress, housing, meals, recreation, and business interactions. However, Japanese cultural influences were inevitable and visible throughout the center. The Issei often conversed in Japanese, and the *Poston Chronicle* had a Japanese language edition beginning in late October 1942. Buddhism has a strong

Figure 9.22. Fishing for carp in irrigation canal, Poston Relocation Center. Francis Stewart photograph, June 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 3, Section A, WRA # D-567, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 1: Colorado River Relocation Center, Poston, Arizona.

following in the camp (see below). New Years was celebrated with the traditional *mochi* (i.e., mashed, sticky rice molded into balls) (Staff, 1 October 1943). A bathhouse was established in the center as were traditional tea ceremonies (Bailey, 1971). The Issei often sought out traditional *hari* and *moxa* medicinal practioners rather than the modern medicine of the Poston hospital (Bailey, 1971). A form of theater, *Kabuchi*, was performed at an outdoor amphitheater in Poston (Bailey, 1971). Sumo wrestling was second in popularity only to softball at Poston with at least seven sumo rings present in the center (Staff, October 1942).

Faith and Spirituality. Various editions of the *Official Daily Press Bulletin* and the *Poston Chronicle* show that at least four different churches were present within the confines of each of the camps of the Poston Relocation Center. These included Buddhist, non-denominational Christian, Catholic, and Seventh Day Adventist churches. Services were initially given in English only but when conditions later relaxed, English and Japanese versions were held as well (Harris, 1999). At least two sects of Buddhists had their own temples at Poston I while Buddhist temples were also present in Poston II and III (Bailey, 1971). Buddhist celebrations occurring in the camps included such traditional ceremonies as the *Obon* (i.e., festival of the dead) (Staff, 25 August 1942), *Grand Bonenkai* (i.e., end of year party) (Staff, 29 December 1942), and *Hana Matsuri* (i.e., Buddha's birthday) (Staff, 6 April 1943). Christian services were noted as Issei or *Nisei* (i.e., second generation Japanese American born in the U.S.) (Staff, 10 October 1942). A vacation bible school organized by a Japanese American Baptist minister enrolled 800 children for a two month session and 500 children for a month session (Smith, 1995).

Health. Health care in Poston was limited (Ota, 1984). The 250-bed hospital in Poston I was poorly designed, ill-equipped, and chronically short of qualified personnel (Harris, 1999).

Heatstroke was one of the first large scale issues the Poston health care community had to deal with (Girdner and Loftis, 1969). Dehydration apparently killed two babies while they were still in the hospital (Cates, 1980). The ever-present dust caused desert silicosis, resulting in respiratory problems. Further, dysentery and its associated violent diarrhea occurred in epidemic proportions (Bailey, 1971). An infantile paralysis outbreak occurred at Poston III and flies were thought to be the carrier of the disease (Staff, 13 March 1943). Tuberculosis was also present in all three Poston camps. In an eight month period, 140 cases of tuberculosis were identified (Cates, 1980). Patients with tuberculosis were sent to Phoenix for isolation and treatment (Staff, 17 April 1943). Mosquitoes represented a health problem related to malaria and sleeping sickness. These insects were common in the camps because of the amount of standing water in ponds, beneath evaporative coolers, and in areas of irrigation and sewage runoff (Staff, 18 June 1943). As a result, mosquito control was carried out in and around the camps (Figure 9.23). Mental health was also an issue with several suicides reported in the center (Bailey, 1971).

Government. Each of the three camps at Poston had a representative-form of a community government composed of a Community Council elected by the eligible voters of each evacuee residential block. Under the original constitution drafted by the evacuees Civic Planning Board, all evacuees had the right to vote and hold office within Poston. However, the WRA subsequently issued an order stating that only U.S. citizens were eligible to vote thus leaving the natural community leaders, the Issei, without a formal voice in center governance (Staff, October 1942b; Bailey, 1971).

The Project Director and a Caucasian staff employed by the War Relocation Authority oversaw the camp, especially after 1 January 1944. Prior to that, the WRA jointly managed Poston with the Office of Indian Affairs (Fujita-Rony, 2005).

Community. "Community" is a concept that takes time and level headedness to accomplish. It also requires common core values; unfortunately, these common values were not always present at Poston. The relocation center had a mix of urban and rural evacuees. It also had Issei, Nisei, and *Kibei* (i.e., third generation Japanese Americans born in the U.S. and educated in Japan) whose values and beliefs differed from those of the Issei and Nisei. These differences acted

Figure 9.23. Mosquito control unit, Poston Relocation Center. Francis Stewart photograph, May 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 3, Section A, WRA # B-503, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 1: Colorado River Relocation Center, Poston, Arizona.

against the development of a community, especially in the center's early months. For these and other reasons, Poston could be characterized as a more contentious center than most. Working conditions and pay resulted in strikes that slowed the making of adobe bricks and the farm programs (Nishimoto, 1995). Moreover, voluntary conscription and the military draft brought conflict to the community. Perhaps indicative of internal conflict at Poston was the fact that Poston had the third highest number of military volunteers of the ten relocation centers but also had the highest number of draftees who failed to report for duty (U.S. War Relocation Authority, 1946).

The best known of the Poston conflicts was the "Poston Strike". Residents at Poston were initially upset by the lack of heating stoves as cold weather arrived in fall 1942. Further, promised clothing and clothing allowance money was late in arriving as were the paltry evacuee salaries. While the administration was cash short, they spent money to fence the center rather than taking care of evacuees' needs (Burton et al., 2002). The Issei were frustrated that they were excluded from the Community Council (Spicer, 1969). The administration prevented committees of this council from fully investigating suspected wrongdoing by mess hall and hospital management (Spicer, 1969). The situation came to a head on 18 November when one of the Nisei councilmen, a suspected administration informer, was severely beaten in Poston I. The FBI came into the camp, and after a brief investigation, arrested two men and placed them in the center jail. The community became increasingly concerned that the men would be taken out of the camp to a jail elsewhere and tried in a different setting. A crowd gathered at the center jail and announced that they would not allow those arrested to be taken outside the center. Soon the crowd numbered in the hundreds. The temporary Community Council resigned after the acting project director rejected their request to release the suspects until a later trial. As support rose for those arrested, the atmosphere became increasingly tense. Issei community leaders called for a strike in which all but the most essential workers were to stay home from work until this and other underlying issues were resolved. For several days and nights demonstrations, speeches, and open defiance of the administration occurred in the center until leaders from both sides could hammer out a resolution. That resolution called for the Issei to be the true voices of the evacuees, who would work for law and order, smooth operation of the center, and true community organization (Spicer, 1969). As a result, community improved markedly after the strike.

Interaction with Surrounding Areas

The Outside World. As at Gila River, much suggests that nearby communities and Arizona as a whole wanted little to do with Poston evacuees. Evacuees did have the freedom to walk outside the boundaries of the relocation center to gather stones for gardens or wood for carving, or to swim or fish in the Colorado River (Bowers, 1997). However, little interaction apparently occurred between the approximately 18,000 Japanese Americans and the 1,200 Native Americans on the Colorado River Indian Reservation (Figure 9.24). The Poston Relocation Center camps were primarily self-contained, and enclosed within a barbed wire fence. The Colorado River Indian Reservation members had their own school and likely attended to their business in Parker (Okimoto, 2001). Those interactions that did occur appear to have been centered on sporting events and on trade or rent of agricultural items including horses (Okimoto, 2001; Fujita-Rony, 2005). The Poston Japanese Americans also taught the Native Americans how to better farm the soils of the Colorado River floodplain (Staff, 1992). Further interactions occurred when 17 Hopi colonist families began to move into Poston II as the remaining 1,024 Japanese evacuees there were preparing to move out (Okimoto, 2001). Further, Navajos from the Flagstaff area were employed at the center beginning in mid-September 1945 doing a variety of jobs (Staff, 26 September 1945). All indications are that these interactions went well, perhaps because the Japanese Americans and the Native Americans had much in common in terms of treatment by the U.S. Government (Okimoto, 2001). Center officials initially promoted the idea that Japanese American families could develop land on their own outside the center boundaries (Staff, 20 October 1942; Cates, 1980). However, this idea was later rejected and local residents were assured that no evacuees would stay on reservation lands they had developed (Girdner and Loftis, 1969).

Little has been written about the interaction of Poston's Japanese Americans with Parker-area EuroAmerican residents. Poston's high schools competed against Parker High School in athletic events with no apparent problems (e.g., Staff, 30 December 1942). While it was suggested that Poston try to win goodwill with Parker's residents by offering to perform music in Parker, limited evidence exists that this happened (Staff, 10 January 1943; 18 April 1943). On at least one occasion, Parker and Poston Boy Scouts teamed up to recycle waste paper, then socialized with each other for the rest of the day (Staff, 6 June 1944). Parker Valley cotton farmers benefitted from the Poston labor force during labor-short World War II (Staff, 11 November

Figure 9.24. Henry Welsh, local Mohave and chairman of the Colorado River Indian Reservation Tribal Council. Clem Albers photograph, April 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 1, Section A, WRA # A-306, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 1: Colorado River Relocation Center, Poston, Arizona.

1942). Incoming or outgoing Poston evacuees used the railhead at Parker, and evacuees provided the labor force at the center warehouse in Parker thus some interaction between evacuees and local residents must have taken place (Staff, 22 September 1942). Parker businesses no doubt benefitted and depended on the business of the center. For example, the Parker Lumber and Supply Company advertised in the center's *Official Daily Press Bulletin* that it had evaporative coolers for sale (Staff, 15 September 1942). Merchants eventually had to tighten restrictions on evacuee purchases because they were leaving little for the "regular" patrons (Girdner and Loftis, 1969). However, it was not until February 1944 that Parker businesses formally invited Poston residents to shop in Parker (Staff, 24 February 1945). And once there, racism was plainly visible in Parker.

A sign on the entrance door of the Grandview Hotel read:

Japs Keep Out
You Rats

Estes and Estes (1999, p. 28)

Others have reported that Parker business owners refused to serve evacuees or were only willing to serve them outside their businesses (Staff, 1992; Harris, 1999, p. 52). A young Nisei U.S. Army soldier home on leave was struck in the head by a baseball-bat wielding Parker businessman for no apparent reason other than being of Japanese descent. Apparently, other EuroAmerican Parker residents treated the local Indian population similarly (Harris, 1999).

Much suggests that Arizona officials wanted little to do with the Poston Japanese Americans. In March 1942, Arizona Governor Sidney Osborn protested that Arizona should not be used as a "dumping ground" for "enemy aliens." Arizona legislators, responding to constituent's fears of economic competition and their desires to discourage evacuees from settling in Arizona, enacted a law that prohibited business transactions with any persons "whose movements were restricted by law." This law was subsequently struck down by the Maricopa County Superior Court and this court's decision was subsequently upheld by the Arizona State Supreme Court (Caruso, 1973). Despite the change in boundaries that placed all of Arizona's Maricopa County out of the military exclusion zone, hence theoretically open for Japanese resettlement in March 1943, resettlement was halted there because of anti-Japanese sentiment in the Salt River Valley (Staff, 5 March 1943; 27 May 1943). Arizona Senator McFarland publicly stated his desire that no Japanese Americans relocate to Arizona (Staff, 6 July 1943). Further, Arizona did not set up an office to assist evacuees in locating jobs in Arizona (Madden, 1969). Given California's traditional animosity toward Japanese Americans, it is likely that interactions, if they occurred, were similarly negative.

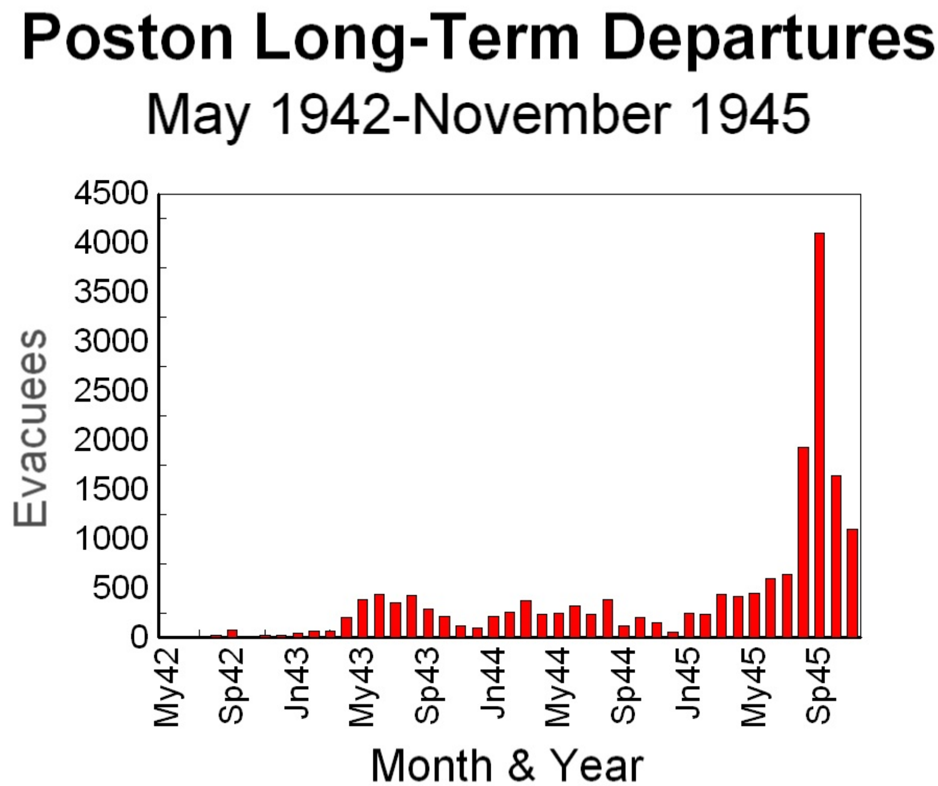
In addition to attending to business in Parker, evacuees could leave the center on short-term, seasonal, and indefinite leaves. Short-term leaves ranged from several days to a few weeks, and were typically for personal business or medical issues. Seasonal leaves were granted to evacuees for seasonal agricultural employment. The purpose of indefinite leaves was to permanently depart the centers for relocation to the "outside world", join the armed forces, be interned in a Department of Justice Internment Camp, be committed to an institution, or be repatriated to Japan (U.S. War Relocation Authority, 1946).

Young men and women from Poston were allowed to leave Poston on seasonal leaves beginning in fall 1942 to help harvest various crops including sugar beets throughout Colorado, Idaho, Montana, Nebraska, and Wyoming. They encountered blatant racism on at least several occasions but were instrumental in helping the farmers raise and harvest their crops (Estes and Estes, 1999).

Despite being uprooted from their homes, and incarcerated in Assembly Centers and subsequently in Poston, relocation from the center was encouraged early on. Beginning in March 1943, Poston evacuees were required to register for relocation. Registration, coupled with a streamlined leave application process, helped speed up relocation (Estes and Estes, 1996). The numbers of relocations increased beginning in April 1943, with only one month in the next 31 months having less than 100 evacuees relocating (Figure 9.25). In 1943, 2,675 had departed, 2,789 more departed in 1944, and 11,782 departed in 1945 (U.S. War Relocation Authority, 1946). However, relocation from Poston could best be referred to as a trickle until at least mid-1945. Reasons that the evacuees gave as to why they did not relocate included too little cash given by the center to help with relocation ($100), belief that they would not be able to find jobs, and fear that they would face anti-Japanese hostility in their chosen place of relocation. At least at Poston they were safe, fed three meals a day, had a place to sleep, and had a supportive community around them. Even after the West Coast Exclusion Order was lifted in December 1944, evacuees were reluctant to return to the West Coast. Only after announcing that Poston would officially close by the end of November 1945, and that the schools would close at the end of the 1944-45 school year, did the pace of relocation increase. This pace was further enhanced by administration-sponsored scouting parties that checked out relocation possibilities in various West Coast locales (Estes and Estes, 1996). As at Gila River, relocations peaked in the warm season months in 1943 (May-August) and 1944 (March-August) (Figure 9.25) suggesting that the oppressive heat of the center may have played a role in pushing evacuees out of the centers. Relocation was often enhanced by various individuals or groups. In one instance, the parents of a Caucasian teacher helped students relocate to points east (Harris, 1999). Various editions of the *Poston Chronicle* show that Poston evacuees relocated to at least 35 states in the U.S. with Chicago, Cleveland, Denver, Des Moines, Detroit, Kansas City, Milwaukee, Minneapolis-St. Paul, New York, Philadelphia, Salt Lake City, and St. Louis as the preferred cities (Figure 9.26).

With over 610 serving in the U.S. armed forces during World War II, Poston had the distinction of providing the most soldiers to the war effort of any of the relocation centers. Only 116 of these volunteered while 495 were drafted (U.S. War Relocation Authority, 1946). Many of the soldiers served in the much-decorated, all-Nisei 442nd Regimental Combat Team made famous by its successes in the European Theater of Operations (Bailey, 1971). Casualties totaled 17%

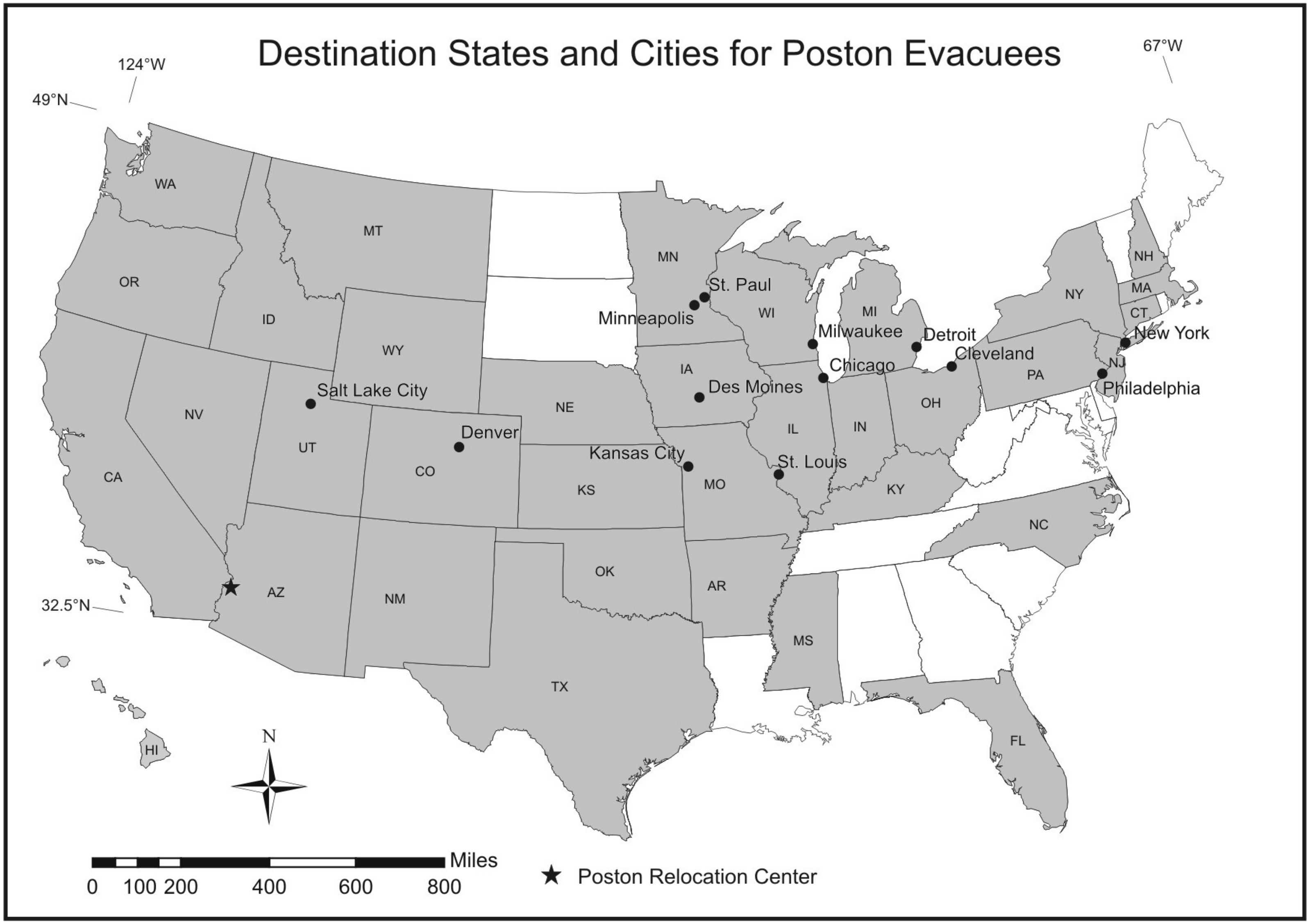
Figure 9.25. Indefinite leaves (i.e., relocations), Poston Relocation Center, July 1942-November 1945. Data from U.S. War Relocation Authority (1946, p. 32).



with 16 killed, 86 wounded, and 2 missing in action. Interestingly, Poston also had the highest number of Selective Service violations. One-hundred and twelve Poston evacuees failed to report for their physical exams or induction after they were drafted. Of these, 106 were convicted (U.S. War Relocation Authority, 1946).

Other Relocation Centers. Poston interacted with other relocation centers primarily in the transfer of evacuees, by trading agricultural crops, and through athletic competitions. Poston residents visited family or close friends at other centers by obtaining visitor permits (Staff, 7 October 1942). The pages of the *Poston Chronicle* often list these visitations. A group of Poston men went to Tule Lake to help with the harvest of the potato crop after Tule Lake evacuees went on strike (Staff, 31 October 1943). Poston transferred 1,355 "disloyal" evacuees to the Tule Lake Segregation Center in October 1943 and another 74 in March 1944 because they or members of their families answered "no" to questions 27 and 28 of the "loyalty questionnaire" (Appendix C). Unlike most of the other centers, Poston did not receive any "loyal" Tuleans in return. Thirty Poston residents who answered "no" to the "loyalty questionnaire" were repatriated to Japan in September 1943 (U.S. War Relocation Authority, 1946).

Figure 9.26. Geography of Poston indefinite leaves (i.e., relocations), June 1942-November 1945. Data from relocation sections of various issues of *Poston Chronicle*.



While evidence is lacking for Poston shipping farm produce to other relocation centers, the center did receive produce from Tule Lake on at least several occasions (Staff, 10 August 1943; 21 August 1943).

Poston baseball teams traveled to relatively nearby Gila River. Additionally, Amache baseball teams came to Poston for games (Staff, 11 July 1944; 7 September 1944).

Closing Poston and Another Relocation

Public Proclamation #21 on 17 December 1944 ended the West Coast Exclusion Order that had been in effect since 1942. All relocation centers were to be closed by the end of 1945 (Staff, 19 December 1944).

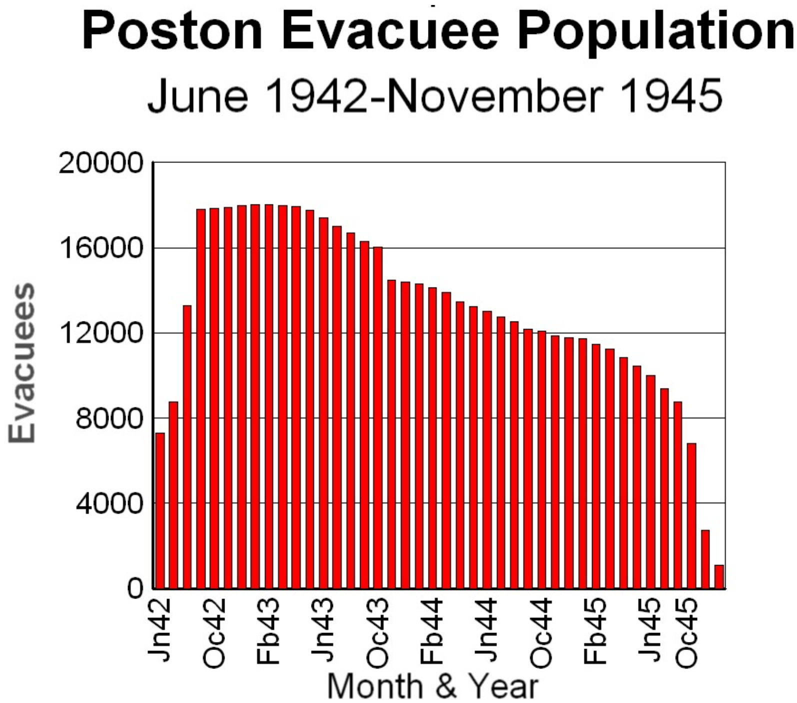
On 23 June 1945, the center administration announced that Poston II and III would close on 1 October 1945. Poston I would remain open until 1 December (Estes and Estes, 1996). As of 1 January 1945, 11,710 evacuees lived in Poston's three camps (Figure 9.27). By 1 June, Poston evacuees still nearly totaled 10,000. The pace of relocations increased after that. Poston II and III were closed on 29 September 1945 while Poston I officially closed on 28 November 1945 (U.S. War Relocation Authority, 1946; Japanese American National Museum, n.d.).

Impacts of Poston on Today's Southwestern Arizona Landscape

Evacuee Dispersion. The 1950 census only showed four persons of Japanese descent in Yuma County as opposed to 13 in 1940 suggesting that few remained in the immediate area after its closure. The Japanese population of Yuma County and the six adjacent Arizona and California counties dropped by nearly 50% between 1940 and 1950. However, the number of Japanese Americans in adjacent Maricopa County in 1950 rose to 730 from its 1940 population of 534 (Figure 9.10) (U.S. Bureau of the Census, 1943; 1952a; 1952b). Further, 818 Japanese American evacuees relocated to Arizona directly from the various relocation centers (U.S. War Relocation Authority, 1946). Because of the location of Poston and Gila River in Arizona, it seems likely that most of these 818 came from these two centers. Thus, this suggests that a significant number of Japanese Americans did stay in southern Arizona following the closure of the Poston Relocation Center.

Maricopa County, likely because of its strong Japanese roots, again served as the center of Japanese American population in the state in the years immediately following World War II. It is interesting, however, that Arizona, with the highest relocation center population (31,162 at its peak) of any of the seven states that had relocation centers, had so few evacuees in the state after World War II (U.S. War Relocation Authority, 1946). The 1950 census showed that Arizona's overall Japanese American population had declined by nearly 40% from its 1940 peak–i.e., 1,264 in 1940 to 780 in 1950 (U.S. Bureau of the Census, 1943; 1952a).

Figure 9.27. Resident population, including evacuees on short term and seasonal leave, Poston Relocation Center. Data from U.S. War Relocation Authority (1946, p. 18).



Land Dispersion. The WRA first returned 2,000 acres to the Office of Indian Affairs in May 1945. This was to be land for the Colonization Program–i.e., a program in which other southwestern Native Americans would move to the Colorado River Indian Reservation and colonize the area developed and occupied by the Japanese Americans. These other tribal members were promised farmland, ample irrigation water, and housing. Only Poston II was set aside for the colonization program. However, the Office of Interior (now the Department of the Interior) nearly sold the land and associated buildings on which Poston occupied before a misunderstanding was resolved. The Colorado River Indian Reservation was ultimately compensated for the use of the land as a war relocation center by the Office of Interior (Okimoto, 2001).

Infrastructure Dispersion. The original agreement between the Office of Indian Affairs and the WRA stipulated that all improvements made for the center were to stay with the Colorado River Indian Tribe following the removal of the Japanese Americans (Fujita-Rony, 2005). Barracks were initially given to Hopi colonists when they entered Poston II in September 1945. After October 1946, barracks were sold to anyone interested for $50-75 apiece (Okimoto, 2001; Fujita-Rony, 2005). Other center buildings were likely sold in the same fashion. Adobe bricks were taken from the schools and various other adobe structures to build houses in Parker (Harris, 1999). Demolition of many of the buildings was considered by the Office of Indian Affairs but it is not clear how many were actually destroyed (Fujita-Rony, 2005).

Remains of Poston. Burton et al. (2002) describe in detail the nature of Poston as of about 2000 where limited evidence remains of the three camps and the surrounding agricultural areas. Further, I visited the former relocation center in December 2002. Of the three camps, Poston I is the most intact with some buildings, roads, palm trees (Figure 9.28), concrete slabs of various buildings, and the sewage treatment plant remaining. Of particular interest are the remains of the adobe Poston I elementary school (Figure 9.29), and the machine shop. Following the departure of the Japanese Americans, the Colorado River Indian Tribes and the Parker School District used the Poston I elementary school, and the community used the Poston I auditorium. The Job Corps also used the facility as a training facility in the 1960s. As of 2001, one Poston I classroom was used as an alcohol recovery center (Okimoto, 2001).

Little more than the sewage treatment plants and the occasional concrete slabs remain at Poston II and III. Colorado River Indian Tribes and the Parker School District used the Poston II school from 1949 until 1980 when it was demolished to make room for a new school (Okimoto, 2001).

Farm fields and irrigation ditches also remain in the outlying areas (Burton et al., 2002). The remainder of the area has been cleared of debris, leveled, and farmed (Figure 9.30). At Parker, concrete slabs associated with the relocation center warehouses remain near the railroad (Burton et al., 2002).

Figure 9.28. Remains of palm-lined street in northeastern portion of Poston I, Poston Relocation Center. Author photograph, December 2002.

Figure 9.30. Remains of adobe Poston I elementary school, Poston Relocation Center. Author photograph, December 2002.

More than 50 former relocation center buildings have been identified throughout the Parker Valley (Estes and Estes, 1999; Okimoto, 2001; Burton et al., 2002). These buildings have seen duty as houses, schools, machine sheds, and chickenhouses. Many of the center's barracks may still be seen at farmsteads in the area (Figure 9.31).

The Poston Memorial Monument and Kiosk along Mohave Road in Poston I (Figure 9.32) serves as a memorial for the Poston Relocation Center. Both contain very informative interpretation signs for the former center as well as information on the Colorado River Indian Reservation. As of 2002, Colorado River Indian Tribes also intended to restore the Poston I elementary school and construct a heritage park consisting of barracks, the Kabuki theater, and a military police post (Burton et al., 2002). The Colorado River Indian Tribes' Library and Museum contains an excellent selection of books related to Japanese American relocation. The Parker Valley Historical Museum in Parker also contains a display on the Colorado River Indian Tribe and the World War II era. The Poston Restoration Project is working to preserve the physical remains as well as the stories and memories of the site.

The Colorado River Indian Reservation Today. In 1944, the tribal council agreed to open the southern one-half of the reservation to settlement by returning service men and women of any tribal affiliation (Fontana, 1963). Colorado River Tribal Council Ordinance Number 5 (dated 26 March 1945) divided the Colorado River Indian Reservation into a Northern Reserve and a

Southern Reserve. The Northern Reserve consisted of 25,000 irrigable acres dedicated to currently enrolled members of the Colorado River Indian Tribes. The Southern Reserve involved 75,000 irrigable acres that were set aside for "colonist" Indians from other parts of the Colorado River drainage (Fontana, 1963). Following the departure of the Japanese Americans from the Poston Relocation Center, Hopi and Navaho, as well as members of the Walapai, Supai, Cocopah, Quechan, Chemahuevi, and Mohave tribes were allowed to settle on the Colorado River Indian Reservation (Okimoto, 2001). Nearly 150 Hopi and Navaho families had done so by 1951 (Fontana, 1963). Tribal members voted to rescind Ordinance Number 5 in 1952 because of concerns that the newcomers would soon outnumber the Mohaves (Fontana, 1963). The Department of Interior ignored this action. By 1954, the Northern Reserve consisted of 138 Mohave-Chemehuevi families and Southern Reserve included 112 Navaho families, 31 Hopi families, three Havasupai families, three Fort Mohave families, and four Chemeheuvi families (Fujita-Rony, 2005). However, further colonization by outside tribe members was discontinued after the Mohave and Chemehuevis filed suit with the Indian Claims Commission in 1957 (Comeaux, 1981). Some of the outside tribal members who initially settled on the Colorado River Indian Reservation returned to their original reservations; however, a significant number of Hopi and Navaho remained (Okimoto, 2001). It was not until 1964 that Congress repealed Ordinance No. 5 and gave the Colorado River Indian Tribes (CRIT) the right of "beneficial ownership" of the reservation (Flores, 1994). Today, the member tribes of the CRIT reservation

Figure 9.30. Farmland of the Colorado River floodplain south of Parker on the former Poston Relocation Center. Note the very level nature of the floodplain and the lush nature of the alfalfa considering the time of year. Author photograph, December 2002.

Figure 9.31. Remains of former Poston double-roofed barracks, north of Poston I along Mohave Road, Poston Relocation Center. Author photograph, December 2002.

Figure 9.32. Poston Memorial Monument, Poston Relocation Center. Author photograph, December 2002.

are Mojave, Chemehuevi, Hopi, and Navaho. As of 1999, the population of the reservation was 3,645 (Arizona Department of Commerce, n.d.).

Farming has long been the economic mainstay of the area. Following the departure of the Japanese Americans, CRIT members embarked on a path to develop more farmland. Approximately 38,000 acres of farmland had been cleared of brush for farming by 1955 but efforts to farm some of these lands were thwarted by waterlogging and alkalinity/salinity problems. With the resolution of many of these problems, 34,000 acres were farmed by 1963, with much of this land in cotton. Also in 1963, the U.S. Supreme Court decreed that the Colorado River Indian Reservation was entitled to sufficient Colorado River water to irrigate 107,588 acres of farmland (City of Parker, n.d.). A tribal farm was initiated in 1973 that had grown to 11,000 acres by 1994 (Flores, 1994). As of 1999, 84,500 acres were currently being farmed on the Colorado River Indian Reservation (Arizona Department of Commerce, n.d.). Only a few Mohave, Chemehuevi, and Hopi farmers continue to farm the land. Most of the rest is farmed through long-term leases with non-Indian farmers. In addition to cotton, alfalfa, wheat, feed grains, lettuce, and melons are grown on the Colorado River Indian Reservation lands (Okimoto, 2001). It is ironic that the early successes of the Japanese American farmers in the Parker Valley were the catalysts for the dramatic increase in farmed land on the reservation that ultimately left so little remaining of the Poston Relocation Center.

The Colorado River Indian Reservation consists of 268,691 acres, 225,995 of which are located in Arizona (Arizona Department of Commerce, n.d.). The Colorado River Indian Tribes owns the title to the land in trust through the U.S. Government (Okimoto, 2001). Largely because of this land base, the tribe's economic fortunes are on the rise. In addition to agriculture, the tribe is involved in tourism, recreation, gaming, and light industry (Arizona Department of Commerce, n.d.). As of 1999, the CRIT population was 3,931 and unemployment had declined from 8.1% in 1990 to 5.0% (Arizona Department of Commerce, n.d.). CRIT employs over 300 persons thus providing the largest payroll in La Paz County (Flores, 1994). The area that was viewed as bleak and desolate by the Japanese Americans upon their arrival in 1942 has been transformed into a very desirable place for agriculture as well as recreation, tourism, light industry, and "snowbirds" escaping the long winters of the north. Parker, somewhat akin to Quartzite approximately 35 miles south, now depends on retirees rather than Japanese American evacuees for much of its economic sustenance (Parsons, 1992).

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References

Arizona Department of Commerce, n.d.: Colorado River Indian Reservation–Community Profile. http://www.azcommerce.com/doclib/COMMUNE/colorado%20river.pdf. Accessed 11 October 2006.

Bailey, P., 1971: *City in the Sun: The Japanese Concentration Camp at Poston, Arizona*. Los Angeles: Westernlore Press.

Bailey, R.G., 1995: Description of the Ecoregions of the United States (2nd edition). *USDA Forest Service Miscellaneous Publication 1391*. Government Printing Office: Washington, D.C..

Barnes, W.C., 1988: *Arizona Place Names*. Tucson: University of Arizona Press.

Bernstein, A.R., 1991: *American Indians and World War II: Toward a New Era in Indian Affairs*. Norman: University of Oklahoma Press.

Bowers, E.H., 1997: Internee: What A Child Saw. *In* Nakayama, T., editor, *Transforming Barbed Wire: The Incarceration of Japanese Americans in Arizona During World War II.* Phoenix: Arizona Humanities Council, pp. 10-12.

Burton, J.F., Farrell, M.M., Lord, F.B., and Lord, R.W., 2002: *Confinement and Ethnicity: An Overview of World War II Japanese American Relocation Sites*. Seattle: University of Washington Press.

Carr, W.J., 1991: A Contribution to the Structural History of the Vidal-Parker Region, California and Arizona. *U.S. Geological Survey Professional Paper* 1430.

Caruso, S.T., 1973: After Pearl Harbor: Arizona's Response to the Gila River Relocation Center. *Journal of Arizona History,* 14 (4): 335-346.

Cates, R.T., 1980: Comparative Administration and Management of Five War Relocation Authority Camps. PhD Dissertation, University of Pittsburgh.

Caylor, A., 2000: "A Promise Long Deferred": Federal Reclamation on the Colorado River Indian Reservation. *Pacific Historical Review,* 69 (2): 193-215.

City of Parker, n.d.: History of Parker. http:www.ci.parker.az.us/history/history.htm. Accessed 10 October 2006.

Comeaux, M.L., 1981: *Arizona: A Geography*. Boulder, Colorado: Westview Press.

Cravath, J., n.d.: The Colorado River Indian Reservation: A Brief Historical Summary. Education Department, Colorado River Indian Reservation. http://www.postonproject.org/generalHistory/crit.htm. Accessed 10 October 2006.

Daniels, R., 1971: *Concentration Camps USA: Japanese Americans and World War II.* New York: Holt, Rinehart and Winston, Inc.

Eaton, A.H., 1952: *Beauty Behind Barbed Wire: The Arts of the Japanese in our War Relocation Camps*. New York: Harper and Brothers Publishers.

Estes, M.T. and Estes, D.H., 1996: Hot Enough to Melt Iron: The San Diego Nikkei Experience 1942-1946. *Journal of San Diego History,* 42 (3): 126-173.

Estes, D.H. and Estes, M.T., 1999: Letters from Camp: Poston–The First Year. *Journal of the West,* 38 (2): 22-33.

Estes, D., n.d.: The Road to Poston: A Brief Historical Summary. Poston Restoration Project http://www.postonproject.org/generalHistory/campHistory.htm. Accessed 10 October 2006.

Fenneman, N.M., 1931: *Physiography of Western United States*. New York: McGraw-Hill Book Company, Inc.

Finnerty, M., 1991: *Del Webb: A Man. A Company*. Flagstaff, Arizona: Heritage Publishers, Inc.

Flores, A., 1994: Colorado River Indian Tribes. *In* Davis, M.B., editor, *Native America in the Twentieth Century: An Encyclopedia*. New York: Garland Publishing, Inc., pp. 124-127.

Fontana, B.L., 1963: The Hopi-Navaho Colony on the Lower Colorado River: A Problem in Ethnohistorical Interpretation. *Ethnohistory*, 10 (2): 162-182.

Fujita-Rony, T., 2005: Arizona and Japanese American History: The World War II Colorado River Relocation Center. *Journal of the Southwest,* 47 (2): 209-232.

Girdner, A. and Loftis, A., 1969: *The Great Betrayal: The Evacuation of the Japanese-Americans During World War II.* London: Collier-Macmillan Ltd..

Griffiths, J.F. and Driscoll, D.M., 1982: *Survey of Climatology*. Columbus, Ohio: Charles E. Merrill Publishing Company.

Hane, M., 1990: Wartime Internment. *Journal of American History,* 77 (2): 569-575.

Harris, A.L., 1923: Irrigation with ground water in Colorado River Indian Reservation. *In* Ross, C.P., The Lower Gila Region, Arizona: A Geographic, Geologic, and Hydrologic Reconnaissance with a Guide to Desert Watering Places. *U.S. Geological Survey Water-Supply Paper* 498, pp. 108-117.

Harris, C.E., 1999: *Dusty Exile: Looking Back at Japanese Relocation During World War II.* Honolulu: Mutual Publishing.

Iwata, M., 1992: Planted in Good Soil: The History of the Issei in United States Agriculture. (Volume 2). New York: Peter Lang.

Japanese American National Museum, n.d.: Poston. http://www.janm.org/projects/clasc/poston.htm. Accessed 1 March 2007.

Kadani, T., 1943: Farm Expansion Plans Proceed Despite Delays. *Poston Chronicle*, 18 April, pp. 1.

Kadani, T., 1943: Production of Oriental Seeds Undertaken by Agricultural Dept. *Poston Chronicle*, 9 May, pp. 4.

La Paz County, n.d.: Welcome. http://www.co.la-paz.az.us/. Accessed 2 March 2007.

Laylander, D., 2004: Geographies of Fact and Fantasy: Onate on the Lower Colorado River, 1604-1605. *Southern California Quarterly,* 86 (4): 309-324.

Leighton, A.H., 1945: *The Governing of Men: General Principles and Recommendations Based on Experience at a Japanese Relocation Camp*. Princeton, New Jersey: Princeton University Press.

Madden, M.T., 1969: A Physical History of the Japanese Relocation Camp Located at Rivers, Arizona. M.A. Thesis, Department of History, University of Arizona, Tucson.

Maeda, R.J., 1994: Isamu Noguchi: 5-7-A, Poston, Arizona. *Amerasia Journal,* 20 (2): 60-76.

Metzger, D.G., Loeltz, O.J. and Irelna, B., 1973: Geohydrology of the Parker-Blythe-Cibola Area, Arizona and California. *U.S. Geological Survey Professional Paper* 486-G.

Meyers, J.S., 1962: Evaporation from the 17 Western States. *U.S. Geological Survey Professional Paper* 272-D.

Myer, D.S., 1942: Policies Governing Agricultural Production and Utilization. *Poston Official Bulletin*, 11 July 1942, 3 pp.

Nelson, F.L., 1986: Soil Survey of the Colorado River Indian Reservation Arizona-California. Washington, D.C.: Government Printing Office.

Nishimoto, R.S., 1995: *Inside an American Concentration Camp: Japanese American Resistance at Poston*. Tucson: University of Arizona Press.

Okimoto, R.Y., 2001: Sharing a Desert Home: Life on the Colorado River Indian Reservation, Poston, Arizona, 1942-1945. *News from Native California* (Special Report), pp. 1-31.

Ota, M., 1984: Poston *In* Tateishi, J., editor, *And Justice For All: An Oral History of the Japanese American Detention Camps*. New York: Random House, pp. 108-112.

Parsons, J.J., 1992: Quartzite, Arizona: A "Woodstock for RV'ers". *Focus*, 42 (3): 1-3.

Paulson, R.W., Chase, E.B., Roberts, R.S., and Moody, D.W., 1991: Arizona: Floods and Droughts. National Water Summary 1988-89: Hydrologic Events and Floods and Droughts. *U.S. Geological Survey Water-Supply Paper* 2375, pp. 181-188.

Ross, C.P., 1923: The Lower Gila Region, Arizona: A Geographic, Geologic, and Hydrologic Reconnaissance with a Guide to Desert Watering Places. *U.S. Geological Survey Water-Supply Paper* 498.

Russell, A.B., 2003: Arizona Divided *In* Melton, B. and Smith, D., editors, *Arizona Goes to War: The Home Front and the Front Lines During World War II.* Tucson: University of Arizona Press, pp. 38-55.

Sellers, W.D. and Hill, R.H., 1974: *Arizona Climate 1931-1972* (Revised, Second Edition). Tucson: University of Arizona Press.

Sharp, W.C., 1945: Agriculture in Poston: 1942-1945. Colorado River Relocation Center, Poston, Arizona. Reel #32, Records of the War Relocation Authority, 1942-1946. Field Basic Documentation, National Archives, Washington, D.C.

Sitgreaves, L., 1853: *Report of an Expedition Down the Zuni and Colorado Rivers*. Washington, D.C.: Robert Armstrong, Public Printer.

Smith, P., 1995: *Democracy on Trial: The Japanese American Evacuation and Relocation in World War II.* New York: Simon and Schuster.

Spicer, E.H., 1969: *Impounded People: Japanese-Americans in the Relocation Centers*. Tucson: University of Arizona Press.

Staff, 1942: Block 6 Park Officially Opens. *Official Daily Press Bulletin*, 22 July, pp. 1.

Staff, 1942: Storm Raised Havoc Here Wednesday. *Official Daily Press Bulletin*, 24 July, pp. 1.

Staff, 1942: Poston's Canal System Near Completion. *Official Daily Press Bulletin*, 1 August, pp. 1.

Staff, 1942: Japanese Vegetable Seeds Wanted by Agri. Dept. *Official Daily Press Bulletin*, 2 August, pp. 1.

Staff, 1942: Swimming Water Contaminated. *Official Daily Press Bulletin*, 4 August, pp. 1.

Staff, 1942b: "Ag" is key to Poston's Future. *Official Daily Press Bulletin*, 5 August, pp. 1.

Staff, 1942: Scorpion Bites Again. *Official Daily Press Bulletin*, 7 August. pp. 2.

Staff, 1942: Dust Stops Games. *Official Daily Press Bulletin*, 19 August. pp. 1.

Staff, 1942: O-Bon Festival Ends Tonight–Wins Applause. *Official Daily Press Bulletin*, 25 August, pp. 1.

Staff, 1942a: Kite Contest Attracts Contestants and Crowd. *Official Daily Press Bulletin*, 26 August, pp. 2.

Staff, 1942: 350 Air Coolers Available for Hot Postonians. *Official Daily Press Bulletin*, 15 September, pp. 1.

Staff, 1942: 30 Unit 1 Residents Wanted Immediately for Important Parker Job. *Official Daily Press Bulletin*, 22 September, pp. 1.

Staff, 1942: Rivers Boasts Fourth Place. *Gila News-Courier*, 30 September. pp. 3.

Staff, 1942: Residents May Apply for Permit to Visit Relatives, Fiancee, in Other Centers. *Official Daily Press Bulletin*, 7 October, pp. 1.

Staff, 1942: Many Rattlesnakes Caught and Displayed at Blocks 211, 213 and 220. *Official Daily Press Bulletin*, 8 October, pp. 3.

Staff, 1942: Sunday Religious Services. *Official Daily Press Bulletin*, 10 October, pp. 4.

Staff, 1942: Nursery Dept. Makes Report. *Official Daily Press Bulletin*, 13 October, pp. 4.

Staff, 1942: New Leveling Plan Undertaken for Poston III Area. *Official Daily Press Bulletin*, 16 October, pp. 3, 9.

Staff, 1942a: Sumo has Grip-Hold on Poston Residents. *Official Daily Press Bulletin–Poston County Fair Issue*, October, Rec-1.

Staff, 1942b: Center's Government Formed. *Official Daily Press Bulletin–Poston County Fair Issue*, October, Legal-1.

Staff, 1942: Action Devised For Agriculture by Mathiesen. *Official Daily Press Bulletin*, 20 October, pp. 1.

Staff, 1942: Poisonous Reptile Caught. *Official Daily Press Bulletin*. 22 October, pp. 4.

Staff, 1942: "Ag" Dept. Begins Farm Project. *Official Daily Press Bulletin*, 3 November, pp. 5.

Staff, 1942: Poston 2, 3 to Get Irrigation Water Soon. *Official Daily Press Bulletin*, 4 November, pp. 1.

Staff, 1942: Growers Wire Lt. Gen. DeWitt for Continued Cotton-Picking in Parker Valley; Postonians Pick 42,000 lbs; Earn over $1,000. *Official Daily Press Bulletin*, 11 November, pp. 1.

Staff, 1942: Huge Crowd Attends Boxing Matches at Crawford Arena: Tsuyuki Draws With Musashi in Main Event. *Official Daily Press Bulletin*, 1 December, pp. 4.

Staff, 1942: Heaters are Here, But... *Official Daily Press Bulletin*, 17 December, pp. 6.

Staff, 1942: 800 Attend Grand Bonen Kai. *Poston Chronicle*, 29 December, pp. 4.

Staff, 1942: Poston 3 All-Stars Edge Parker Indians 31-29. *Poston Chronicle,* 30 December, pp. 7.

Staff, 1943: Charcoal Production For Commercial Use Begins at Unit I. *Poston Chronicle*, 8 January, pp. 2.

Staff, 1943: Students to Entertain at Parker. *Poston Chronicle*, 10 January, pp. 3.

Staff, 1943: Last Call for Enrollment in Night Classes. *Poston Chronicle*, 13 January, pp. 5.

Staff, 1943: Leveling Commenced in Unit III. *Poston Chronicle*, 30 January, pp. 4.

Staff, 1943: Ag. Course may be Started. *Poston Chronicle*, 20 February, pp. 3.

Staff, 1943: Military Area Changed. *Poston Chronicle*, 5 March, pp. 1.

Staff, 1943: Infantile Paralysis Outbreak Found in Poston III. *Poston Chronicle*, 13 March, pp. 10.

Staff, 1943: Road Surfacing Project Starts. *Poston Chronicle*, 16 March, pp. 1.

Staff, 1943a: Slaughter House for Project Nears Completion. *Poston Chronicle*, 23 March, pp. 1.

Staff, 1943b: Bakersfield Oilers Cop AA Championship Title! *Poston Chronicle*, 23 March, pp. 8.

Staff, 1943: Buddhists Present Colorful Program for Hana Matsuri. Poston Chronicle,. 6 April, pp. 1.

Staff, 1943: Production of Tofu Starts in Unit I. *Poston Chronicle*, 14 April, pp. 1.

Staff, 1943: Steps Taken to Hospitalize Tuberculosis Patients in Phoenix. *Poston Chronicle*, 17 April, pp. 5.

Staff, 1943: Better Parker Ties Sought. *Poston Chronicle*, 18 April, pp. 4.

Staff, 1943: Pickle Factory to be Built by Industry Dept. *Poston Chronicle,* 27 April, pp. 1.

Staff, 1943: Over 40 Miles of Canals Constructed by Evacuees. *Poston Chronicle*, 9 May, pp. 1.

Staff, 1943: Survey of Coolers Made. *Poston Chronicle*, 18 May, pp. 5.

Staff, 1943: Farm Figures Released by Ag Dept. *Poston Chronicle*, 23 May, pp. 1.

Staff, 1943: Resettlement in Arizona Cancelled. *Poston Chronicle*, 27 May, pp. 1.

Staff, 1943: Vegetable Production Figures Indicates Increase Needed. *Poston Chronicle,* 13 June, pp. 1.

Staff, 1943: Mosquito Increase Seen Here. *Poston Chronicle*, 18 June, pp.1.

Staff, 1943: Agriculture Dept. Uses Discarded Newspapers. *Poston Chronicle*, 26 June, pp. 1.

Staff, 1943: No Evacuees in State After War. *Poston Chronicle*, 6 July, pp. 1.

Staff, 1943: Oiling of City Streets Underway. *Poston Chronicle*, 25 July, pp. 1.

Staff. 1943. Poston Supplied Local Pork. *Poston Chronicle*, 10 August, pp. 1.

Staff, 1943: 1500 Acres to be Under Cultivation October 1. *Poston Chronicle*, 14 August, pp. 1.

Staff. 1943. Storm Damages Unit III School Structures. *Poston Chronicle*, 18 August, pp. 1.

Staff, 1943: Newell Supplies Poston With Vegetables. *Poston Chronicle*, 21 August, pp. 3.

Staff. 1943. Champion Fishing Contest. Poston Chronicle,. 8 September, pp. 4.

Staff, 1943: Mochi-Gome For New Years Purchased. *Poston Chronicle*, 1 October, pp. 1.

Staff. 1943. Harvesters Leave for Tule Lake. Poston Chronicle,. 31 October, pp. 1-2.

Staff. 1943. Average Temperature Report for the Year. Poston Chronicle,. 7 December, pp. 3.

Staff, 1944: Coyote Traps Laid at Poultry Farm. *Poston Chronicle*, 18 May, pp. 4.

Staff, 1944: Parker Valley High School Accredited by State. *Poston Chronicle*, 25 May, pp. 4.

Staff, 1944: Date Palms Transplanted. *Poston Chronicle*, 30 May, pp. 4.

Staff, 1944: Poston and Parker Scouts Loads 30 Tons of Wastepaper. *Poston Chronicle*, 6 June, pp. 1-2.

Staff, 1944: Poston Center Yankees End Series Even. *Gila News-Courier*, 11 July, pp. 6.

Staff, 1944: Butcher Shop Planned. *Poston Chronicle*, 17 August, pp. 2.

Staff, 1944: Amache-Poston Baseball Tourney End: Amache Wins 3, Loses 3. *Poston Chronicle,* 7 September 1944, pp. 5.

Staff, 1944: Beware of Traps at Poultry Farm. *Poston Chronicle*, 9 December, pp. 4.

Staff, 1944: Mass Exclusion Terminated. *Poston Chronicle*, 19 December, pp. 1-2.

Staff, 1945: Parker Businessmen Issue Invitation to Residents of Poston. *Poston Chronicle,* 24 February, pp. 1.

Staff, 1945: Plans for Winding Up Agriculture Here Told. *Poston Chronicle*, 30 May, pp. 1.

Staff, 1945: Indians Brought Here to Relieve Help Shortage. *Poston Chronicle*, 26 September, pp. 1.

Staff, 1992: Indian Felt a Tie to Internees. Los Angeles Times,. 17 February.

Stewart, K.M., 1966a: The Mohave Indians in Hispanic Times. *Kiva*, 32 (1): 25-38.

Stewart, K.M., 1966b: The Mohave Indians and the Fur Trappers. *Plateau*, 39 (2): 73-79.

Stewart, K.M., 1966c: Mohave Indian Agriculture. *Masterkey for Indian Lore and History,* 40 (1): 4-15.

Stewart, K.M., 1968: A Brief History of the Chemehuevi Indians. *Kiva,* 34 (1): 9-27.

Stewart, K.M., 1969: A Brief History of the Mohave Indians Since 1850. *Kiva,* 34 (4): 219-236.

Stewart, K.M., 1983: Mohave. *In* Ortiz, A., ed., *Handbook of North American Indians*, Volume 10: *Southwest*. Washington, D.C.: Smithsonian, pp. 55-70.

Tsuchiyama, K., 1990: Winter Life in Poston. *In* (Tajiri, V., editor, *Through Innocent Eyes: Writings and Art from the Japanese American Internment by Poston I Schoolchildren*. Los Angeles: Keiro Services Press and the Generations Fund, p. 56-57.

U.S. Army–Western Defense Command, 1943: Final Report: Japanese Evacuation from the West Coast 1942. Washington, D.C.: Government Printing Office.

U.S. Bureau of Reclamation, n.d.: History of Early Major Diversions on the Lower Colorado River. U.S. Bureau of Reclamation. http://www.usbr.gov/lc/region/g4000/hisdiv.txt. Accessed 10 October 2006.

U.S. Bureau of the Census, 1913: *Thirteenth Census of the United States Taken in the Year 1910, Volume II, Population 1910: Alabama-Montana.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1922: *Fourteenth Census of the United States Taken in the Year 1920, Volume III: Population 1920: Composition and Characteristics of the Population by States,* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1932: *Fifteenth Census of the United States, 1930, Population, Reports by States Showing the Composition and Characteristics of the Population for Counties, Cities, and Townships or Other Minor Civil Divisions, Volume III, Part 1: Alabama-Missouri.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1943: *Sixteenth Census of the United States: 1940, Volume II, Characteristics of the Population: Part 1: Alabama-District of Columbia.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1952a: *A Report of the Seventeenth Decennial Census of the United States Census of Population: 1950, Volume II: Characteristics of the Population, Part 3: Arizona*. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1952b: *A Report of the Seventeenth Decennial Census of the United States Census of Population: 1950, Volume II: Characteristics of the Population, Part 5: California.* Washington, D.C.: Government Printing Office.

U.S. Census Office, 1895: *Report on the Population of the United States at the Eleventh Census: 1890, Part I.* Washington, D.C.: Government Printing Office.

U.S. Census Office, 1901: *Twelfth Census of the United States, Taken in the Year 1900. Census Reports Part I: Population.* Washington, D.C.: Government Printing Office.

U.S. Department of Agriculture, 1954: Diagnosis and Improvement of Saline and Alkaline Soils. *Agriculture Handbook* No. 60.

U.S. Geological Survey, n.d.: USGS Annual Surface Water Statistics for the Nation–09427520. Colorado River Below Parker Dam, Arizona. http://nwis.waterdata.usgs.gov/nwis/annual. Accessed 02 March 2007.

U.S. Natural Resources Conservation Service, n.d.: Ecological and Interpretive Groups, Exhibit 622-2, Land Capability Classification, *In National Soil Survey Handbook.* http://soils.usda.gov/technical/handbook/contents/part622p2.html#cap_cls. Accessed 5 February 2007.

U.S. War Relocation Authority, 1946: *The Evacuated People: A Quantitative Description*. Washington, D.C.: Government Printing Office.

Waldman, C., 2000: *Atlas of the North American Indian*. New York: Facts on File, Inc.

Walker, H.P. and Bufkin, D., 1979: *Historical Atlas of Arizona*. Norman: University of Oklahoma Press.

Walz, E., 1997: The Issei Community in Maricopa County: Development and Persistence in the Valley of the Sun, 1900-1940. *Journal of Arizona History,* 38 (1): 1-22.

Western Regional Climate Center, n.d.: Parker 6 NE, Arizona (026250). http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?az6250. Accessed 2 March 2007.

Works Progress Administration, 1940: *Arizona: A State Guide* (American Guide Series). New York: Hastings House.

CHAPTER 10

GILA RIVER

Introduction

The Gila River Relocation Center, was located at about 33º05' N latitude and 111º52'W longitude, and at approximately 1,350 feet elevation in Pinal County of south central Arizona (Figure 10.1). Gila River consisted of two camps–Canal Camp (Camp #1) and Butte Camp (Camp #2)–about three miles apart in the broad Gila River Valley. The sites are within nine miles of Sacaton, and 16 miles of Casa Grande. Phoenix is approximately 30 miles to the north while Tucson lies about 100 miles to the southeast. The relocation center's official post office designation was "Rivers" after Jim Rivers, the first Pima Indian killed in World War I (Burton et al., 2002). U.S. Interstate 10 runs diagonally across the former center's lands from northwest to southeast.

The following pages address: 1) the physical and human setting in which Gila River was located; 2) why south central Arizona was selected for a relocation center; 3) the structural layout of Gila River; 4) the origins of Gila River's evacuees; 5) how Gila River's evacuees interacted with the physical and human environments of south central Arizona; 6) relocation patterns of Gila River's evacuees; 7) the fate of Gila River after closing; and 8) the impact of Gila River on south central Arizona some 60 years after closing.

Physical Setting

Physiography, Geology and Landforms. The Gila River Relocation Center occupied the Sonoran Desert section of the Basin and Range physiographic province (Fenneman, 1931) (Figure 10.2). The Basin and Range consists of north-trending mountain ranges separated by low relief basins. It stretches from southern Oregon and Idaho into northern Mexico, and from eastern California to western Utah (Fenneman, 1931). The center lay on the north flanks of the Sacaton Mountains surrounded by basin floor and twelve small mountain ranges, all within 35 miles of the former center. Starting with the ranges to the northeast and moving clockwise, these include the Santan Mountains, Picacho Mountains, Casa Grande Mountains, Sawtooth Mountains, Silver Reef Mountains, Tat Momoli Mountains, Valva Hills, Table Top Mountains, Palo Verde Mountains, Sevenmile Mountains, Sierra Estrella, and South Mountains (Figure 10.3). The highest of these, the Sierra Estrella Mountains, extend to about 4,500 feet elevation. The lands of the relocation center ranged from isolated, steep hills of the Sacaton Mountains to plains dipping gently north to the Gila River floodplain. Tuan (1959, p. 39) aptly described the Sacaton Mountains as having "been reduced to a loose cluster of peaks, ridges, and knolls, riddled with passes and cols". Total relief over the entire former center's lands is only about 310 feet, ranging from 1,518 feet on the summit of Sacaton Butte to 1,210 feet along the Casa Blanca Canal in the north (Figure 10.4).

Figure 10.1. Pinal County, Arizona and adjacent counties. Adapted from Official Arizona Road Map (1975).

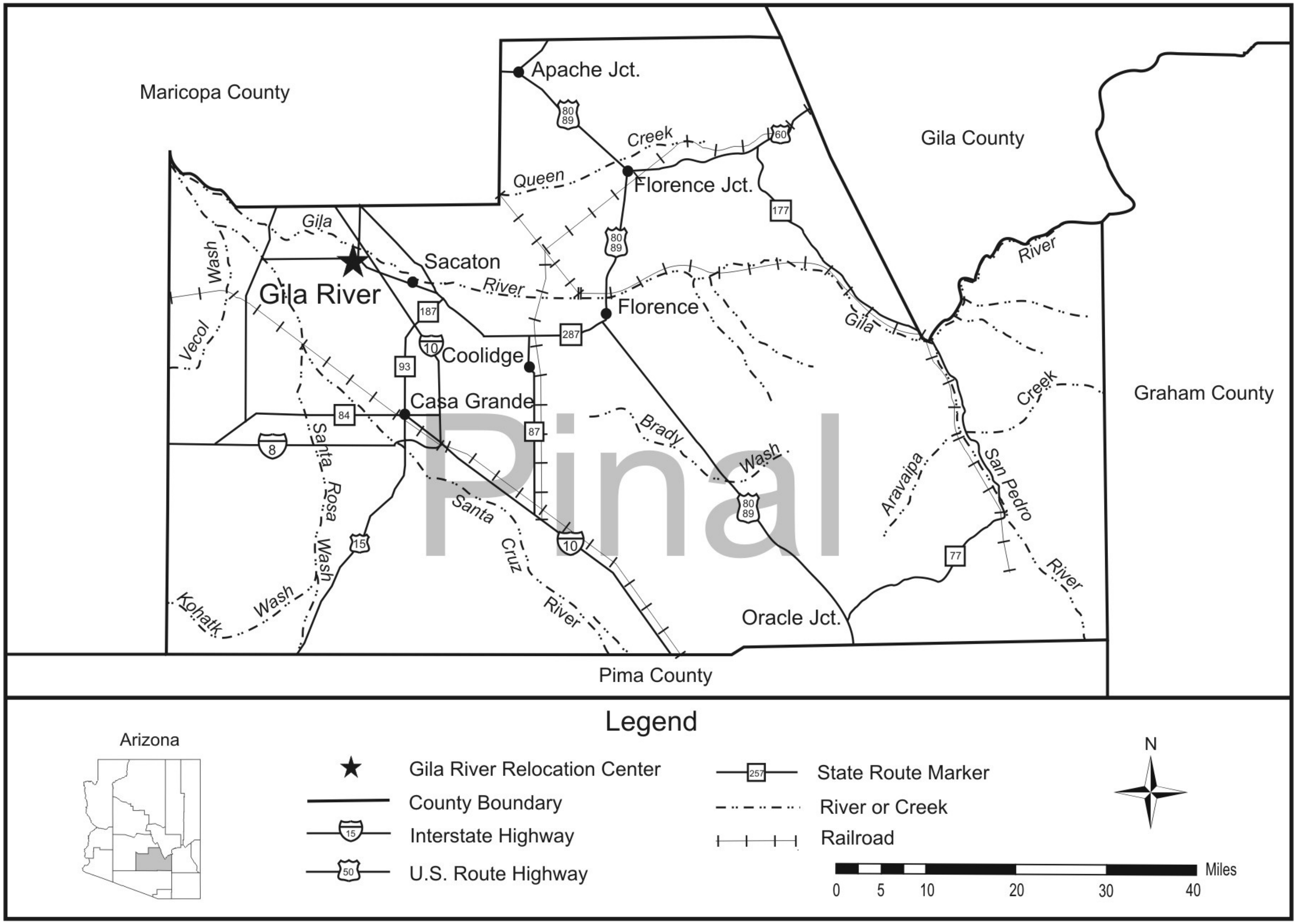


Figure 10.2. Gila River and the Sonoran Desert within the Basin and Range physiographic province. Map adapted from Fenneman (1931, Plate 1).

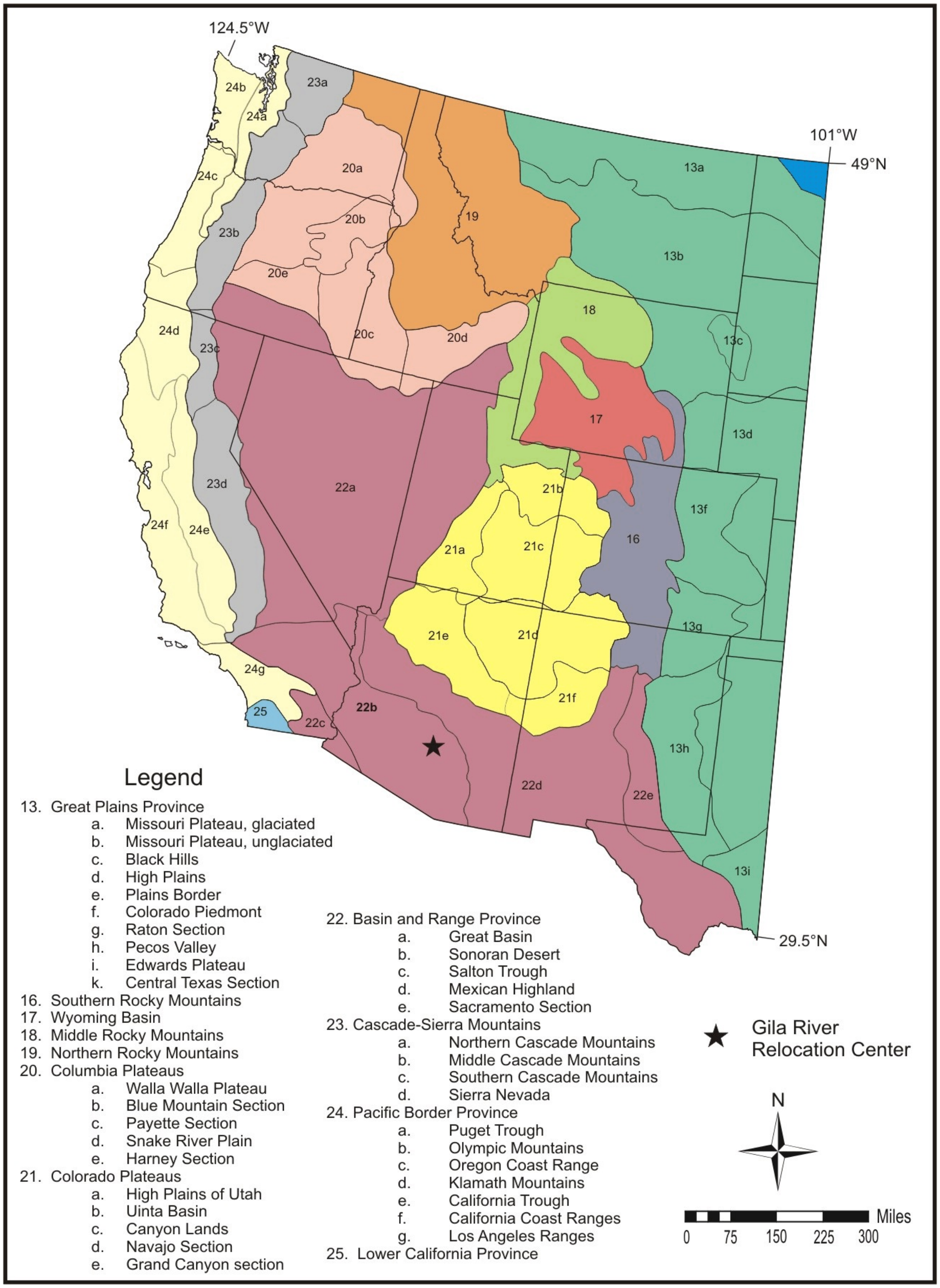
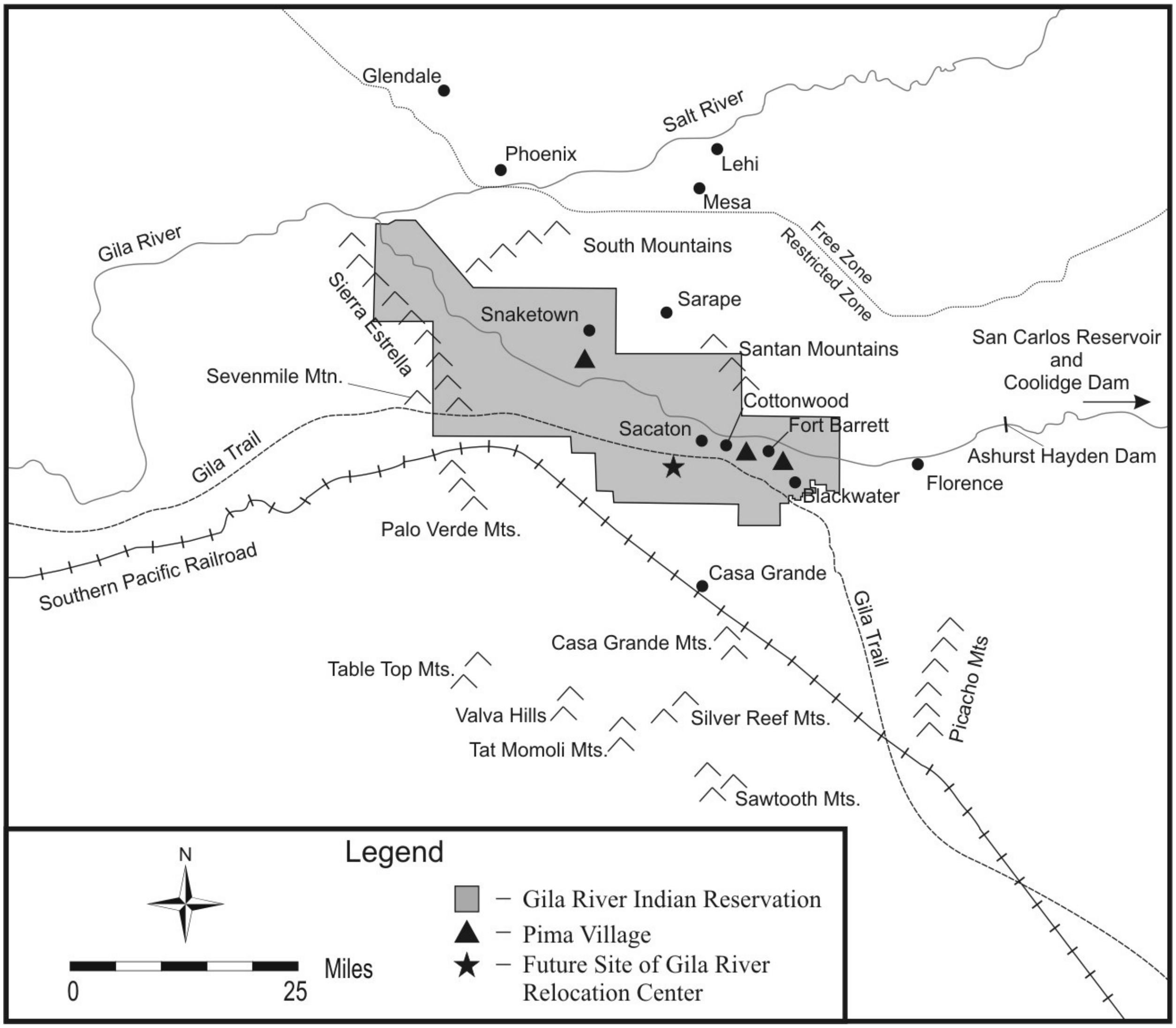


Figure 10.3. Cumulative historical map for the Middle Gila River Basin area including the Gila River Relocation Center.



The general geology of the area consists of exposed bedrock in the Sacaton Mountains while the surrounding terrain is mantled with recent deposits (Figure 10.5). The mountains are composed of *Precambrian* (more than 550 million years old) granite and schist intruded by *Mesozoic* (about 250 to 65 million years ago) diorite and *Tertiary* (about 65 to 2 million years ago) basalt. In more recent times, weathering, mass wasting, and stream erosion denuded the mountains and hills leading to the formation of planar, erosional surfaces known as *pediments* (Howard, 1942; Tuan, 1959). Sacaton Butte (at Butte Camp) and the unnamed hill northwest of Canal Camp are *inselbergs*–i.e., erosional remnants of once more extensive hills and mountains in the area (Howard, 1942). The degree of mountain dissection and lowering suggests that denudation has

Figure 10.4. Topographic map of Gila River Relocation Center and vicinity. Adapted from U.S. Geological Survey Mesa, Arizona 1:100,000-scale topographic map.

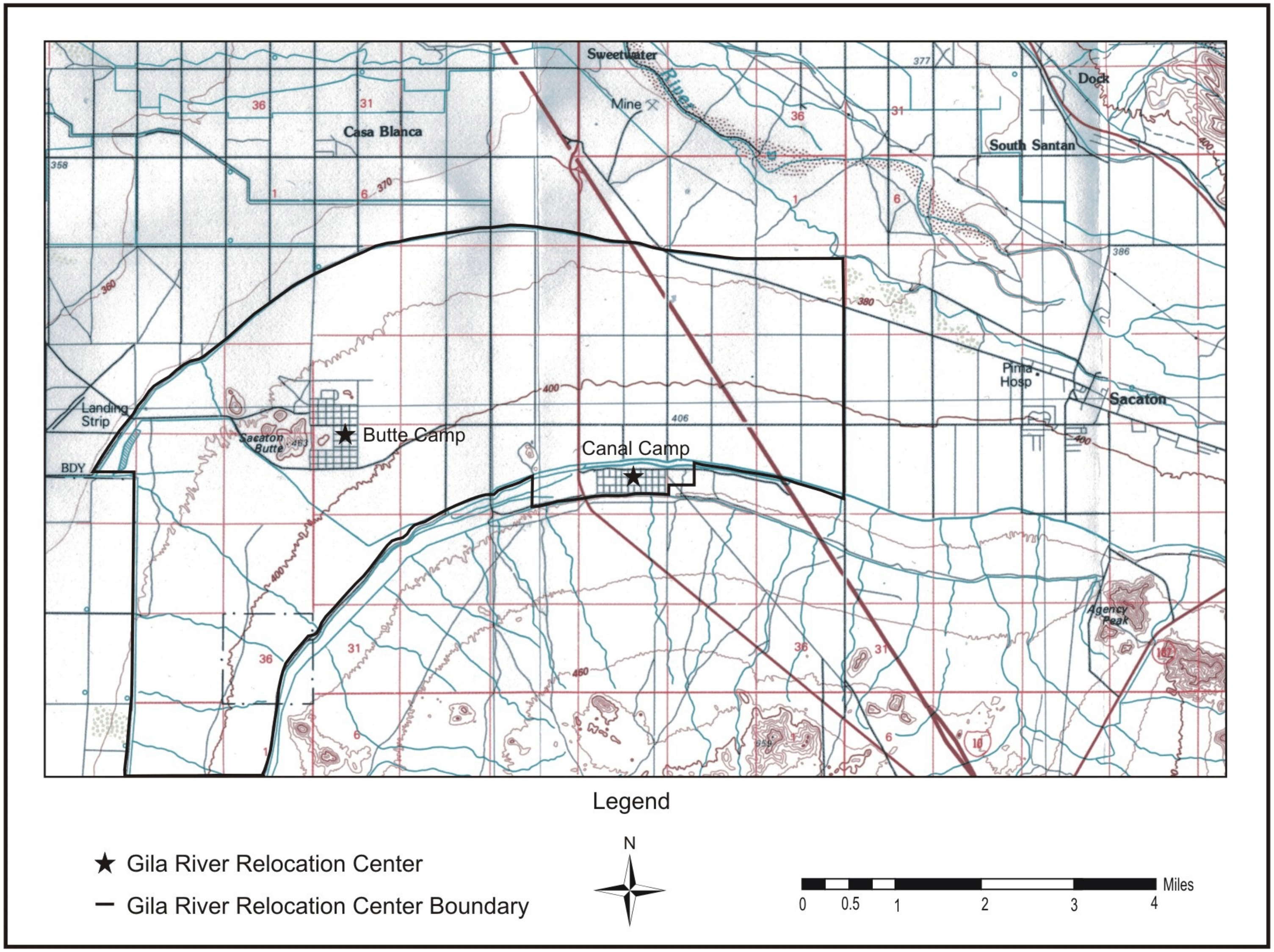
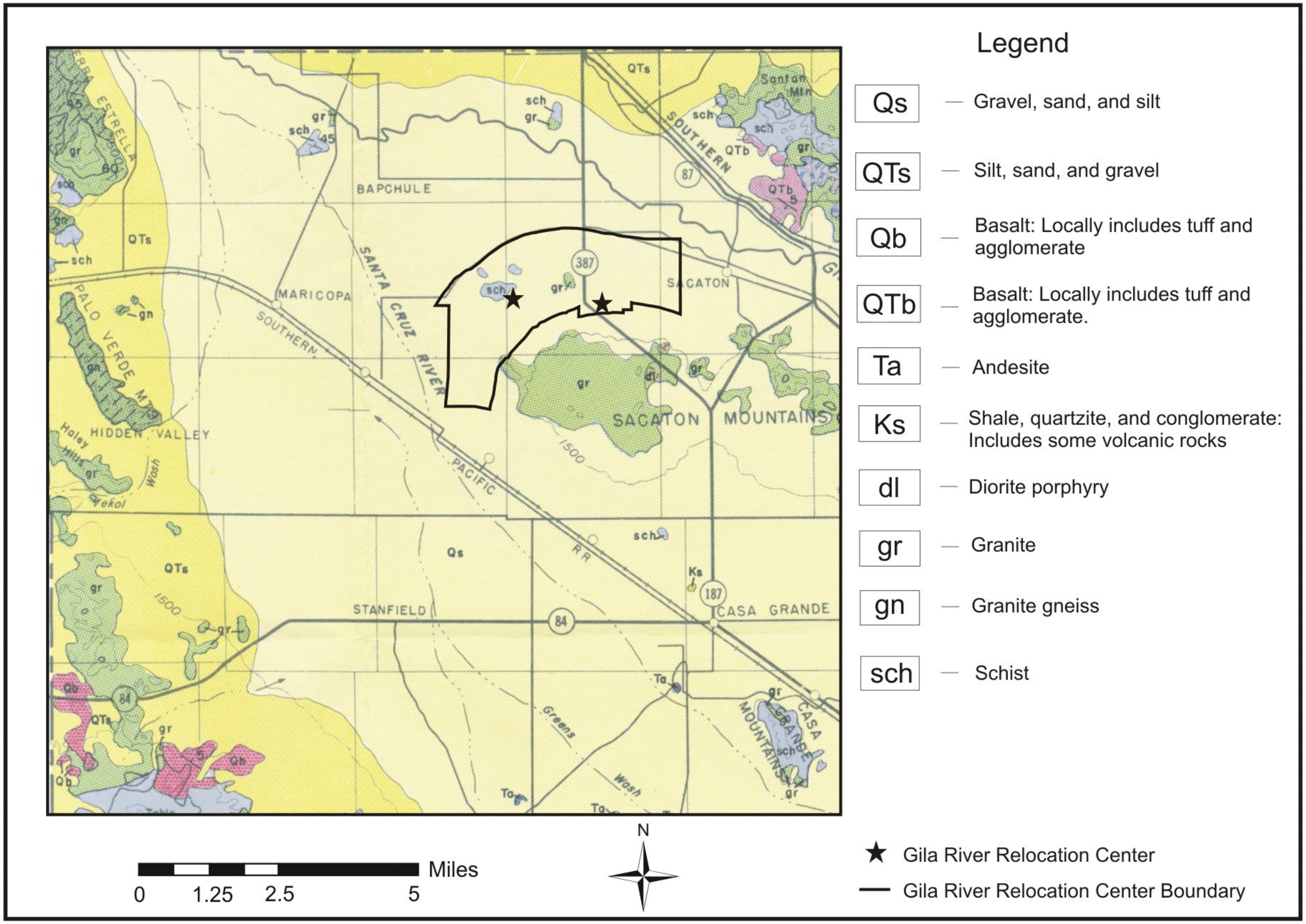


Figure 10.5. Geology of Gila River Relocation Center and vicinity. Adapted from Wilson and Moore (1959).



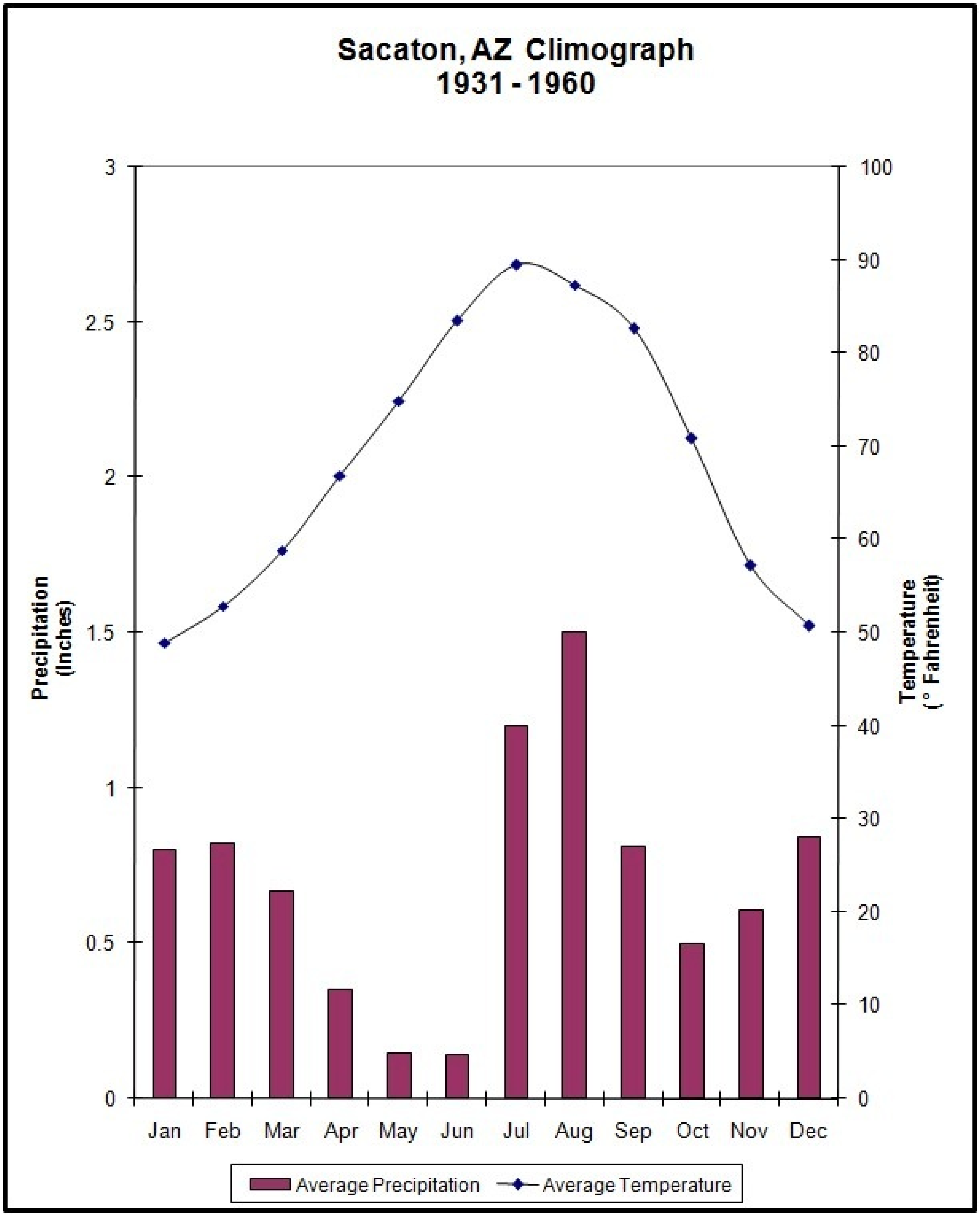
occurred for a very long time here (Tuan, 1959). Intermittent and ephemeral streams deposited a veneer of *alluvium* atop the pediment surface thus creating *alluvial fans* that were subsequently dissected by streams to leave *fan terraces* (i.e., fan remnants) (Wilson, 1969; Johnson et al., 1998). The construction of the South Side Canal, and a berm upslope of that canal, apparently terminated all intermittent and ephemeral streams flowing north off the Sacaton Mountains. Contemporary, irrigated agriculture has erased the old channels on the farmlands north of the canal. Recent winds have also shaped the landforms of the site through *deflation* of surfaces creating desert pavement and through deposition of *loess* on other surfaces (Johnson et al., 1998). The northeastern portion of the former relocation center lands occupies the margins of the recent Gila River floodplain. The margin of the floodplain is marked by stream terraces that truncate the alluvial fans spreading from the Sacaton Mountains (Johnson et al. 1998; Waters and Ravesloot, 2000). Floodplain landform changes correspond to the characteristics of flooding in the area–i.e., floodplain widening occurs during large floods while floodplain narrowing is a product of few large floods. Floods of longer duration appear to have greater impacts on the area's floodplains than do brief events (Huckleberry, 1995).

Weather and Climate. The area is characterized by hot, dry summers and mild, dry winters. The climate is classified under the Koppen system as a dry midlatitude hot desert (BWh) (Griffiths and Driscoll, 1982).

The low, middle latitude setting ensures high to moderate sun angles year around thus temperatures are generally hot to warm. The continental location means clear skies for much of the year so sunlight is used primarily for heating rather than *latent heat* conversions (i.e., evaporation). The generally low elevation of the site also enhances its warmth. The 1931-1960 average January temperature at Sacaton was about 49ºF while the average July temperature was 89ºF (Figure 10.6). The mean annual temperature during the same period was about 69ºF (Western Regional Climate Center, n.d.a). The high temperatures of most mid-June through August days exceed 100ºF. However, summer nighttime temperatures will often dip to 60 ºF or even 50 ºF (Sellers and Hill, 1974). The *growing season* (i.e., last 32ºF killing freeze of spring to the first 32ºF killing freeze of fall) at Sacaton in five out of ten years is 247 days extending from 14 March to 16 November (Western Regional Climate Center, n.d.a).

Annual precipitation was approximately 8 inches/year in Sacaton during the period 1931-1960 (Figure 10.6). Average monthly precipitation exceeded 1 inch in only July and August during this period. Nearly 50% of annual precipitation fell during July, August, and September (Western Regional Climate Center, n.d.a). The general aridity of the site is the result of the subtropical high pressure zone and the inland location (Paulson et al., 1991). Precipitation occurs in the summer when moist, marine air from the Pacific (including the Gulf of California only about 150 miles distant) and the Atlantic (i.e., Gulf of Mexico) moves inland as a result of intense land surface heating and resulting convective uplift. Some of the moist air moving inland may also be the remnants of tropical storms (Sellers and Hill, 1974; Western Regional Climate Center, n.d.b). Thunderstorms are a common result of this *monsoon* flow and uplift. An average of 23 thunderstorms occur in the area each year with most of these occurring in the summer

Figure 10.6 Climograph showing 1931-1960 mean temperature and precipitation for Sacaton, Arizona. Data from Western Regional Climate Center (n.d.a).



(Johnson et al., 1998). Winter precipitation typically comes from fronts and cyclones originating over the Pacific Ocean and driven inland by the jet stream (Paulson et al., 1991). Measurable snowfall has only occurred twice in the past >90 years at Sacaton–12 March 1922 and 21 January 1937 (Sellers and Hill, 1974). Two significant droughts occurred during the 1931-1960 period–1932-1936 and 1942-1964. The latter was the most significant drought to strike the area in the previous 350 years (Paulson et al., 1991). With annual lake evaporation at approximately 70 inches/year during the 1946-1955 period (Meyers, 1962), crops require ample irrigation, and salts may build up in soils as a result of these evaporated waters.

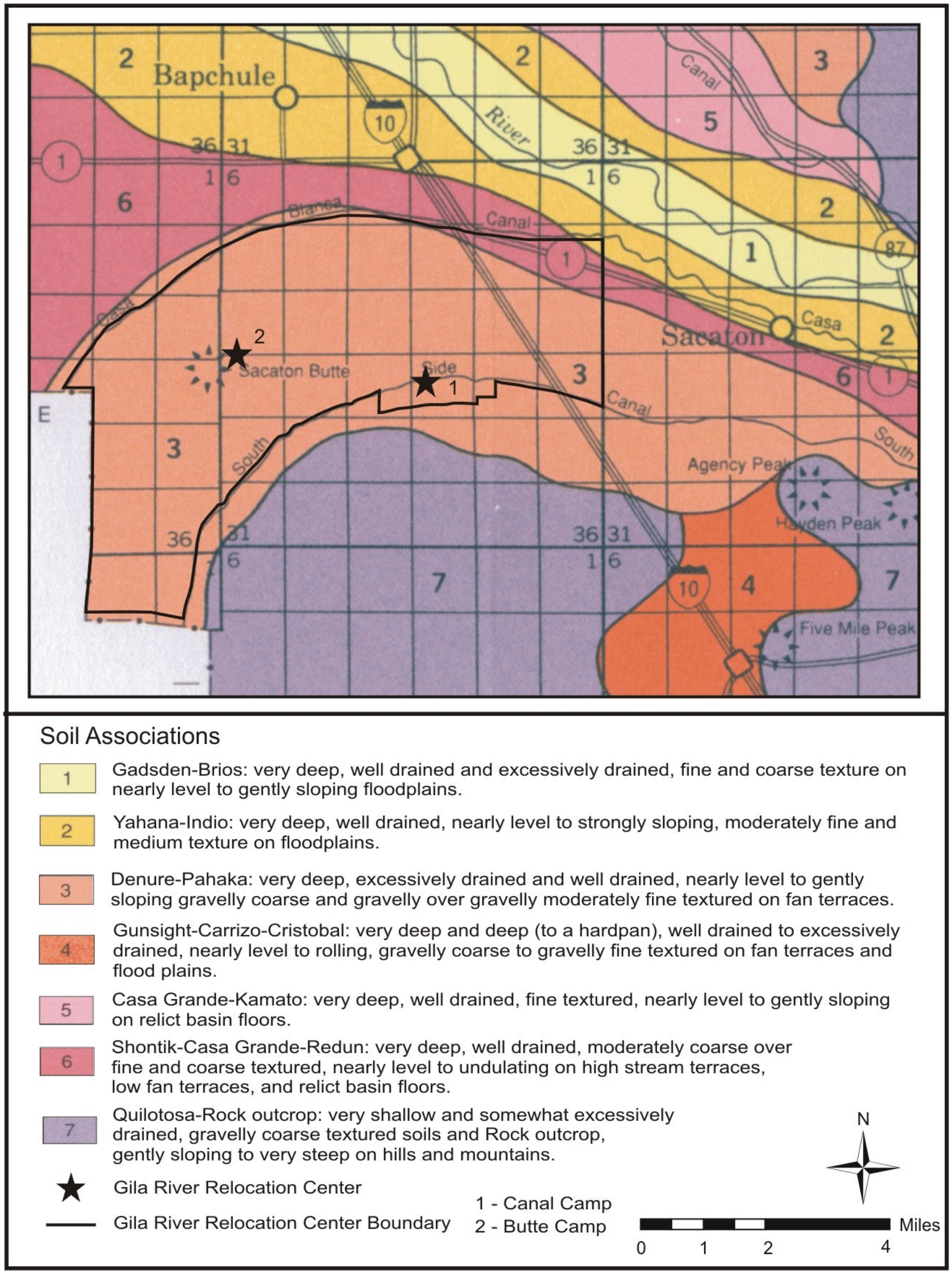
Prevailing winds in the area are out of the east. The highest average wind speeds occur in the spring but only average 7 miles per hour (Johnson et al., 1998).

Soils. The soils of the former Gila River Relocation Center are a function of the five soil forming factors–i.e., parent material, topography, climate, biota, and time. Parent materials are primarily alluvium associated with floodplains, stream terraces, and fan terraces, and bedrock, *residuum* (i.e., weathered bedrock), and *colluvium* (i.e., gravity-moved sediments) from hills and mountains. Alluvial soils range from medium to coarse textures and are generally deep (>60 inches). The soils of the hills and mountains have similar textures but tend to be very shallow (<20 inches). Most of the study area's soils are well to excessively drained. The area's arid climate concentrates salts via evaporation so all soils are alkaline, and some are saline and/or *sodic* (i.e., sodium-rich). The native desert scrub vegetation of the area means that little organic matter accumulates atop or within the soils. The geologically active nature of the hills and mountains as well as the alluvial surfaces results in little time for soil development.

Aridisols (i.e., Denure, Gunsight, Momoli, Pahaka, Redun, Rillito, , Shontik, and Vaiva series) dominate the stable fan terraces and stream terraces of this arid environment while immature *entisols* (i.e., Carrizo, Indio, Quiltosa, and Vint series) are the soils of the more geologically active (thus recent) floodplains, hills, and mountains (Figure 10.7) (Johnson et al., 1998). At the time of relocation, most of these soils were considered fertile and if irrigated, capable of supporting a variety of crops including long staple cotton, alfalfa, various vegetables, and melons (U.S. Army–Western Defense Command, 1943). The irrigable soils range from Land Capability Classification (LCC) I to IVs. LCC I soils (i.e., Pahaka) have few limitations while LCC IIs soils (i.e., Indio, Redun, and Shontik) have moderate limitations because of being drought-prone or stony. LCC IIIs (i.e., Denure, Momoli, and Vint) and IVs (i.e., Carrizo) soils have severe to very severe limitations associated with their droughty or stony conditions. Non-irrigable soils are classified as LCC VIIs (i.e., Gunsight, Quiltosa, Rillito, and Vaiva) with very severe limitations related to their shallow, stony or droughty nature that make them literally unsuitable for cultivation (Johnson et al., 1998; U.S. Natural Resources Conservation Service, n.d.).

Water. Gila River Relocation Center was situated in the Gila River Watershed, a drainage of approximately 57,900 mi^2 (Huckleberry, 1999). The Gila River originates in the mountains of southwestern New Mexico and flows west across Arizona to join the Colorado near Yuma. Annual discharge once reflected the watershed's precipitation and snowmelt patterns. Median

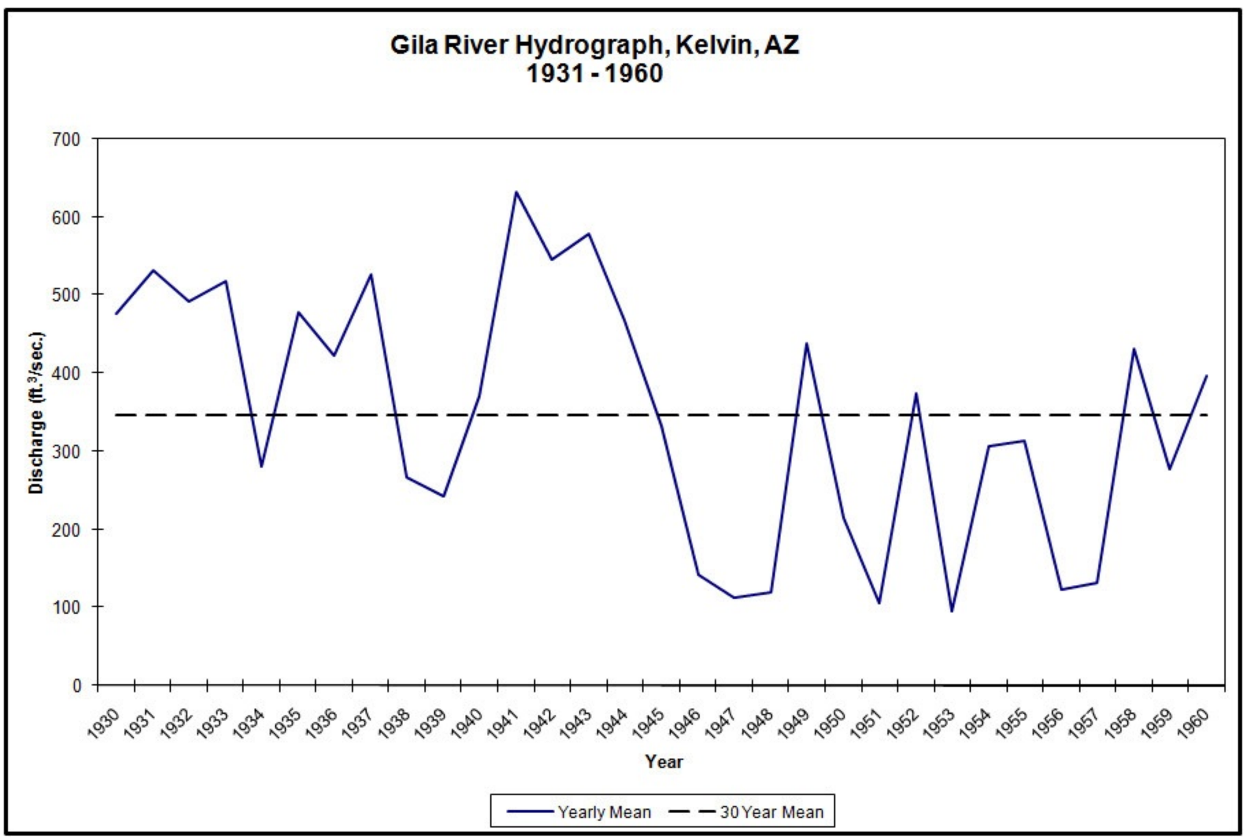
Figure 10.7. Soils of the Gila River Relocation Center and vicinity. Data from Johnson et al. (1998).



annual flow at the Buttes, upstream of the Gila River Indian Reservation and 12 miles east of Florence (Figure 10.3) was 525 ft^3/second totaling 380,000 acre feet/year prior to 1870. The pre-1870 Gila River experienced perennial flow through the floodplain just north of the subsequent Gila River Relocation Center lands (Thomsen and Eychaner, 1991). However, the influx of non-Native American settlers to the area and subsequent water diversions beginning in the 1870s, and the later completion of Coolidge Dam and its reservoir San Carlos Lake in 1929, resulted in intermittent or ephemeral flow of the Gila River downstream of the dam (Johnson et al., 1998).

Disharge on the Gila River at Kelvin (Figure 10.3) over the 1931-1960 period averaged 346 cfs (Figure 10.8) with the highest discharge (632 ft^3/second) in 1941 and the lowest (95 ft^3/second) in 1953 (U.S. Geological Survey, n.d.). While we often think of low discharge as being characteristic of arid rivers, flooding has been a common occurrence on the Middle Gila River over time. Flooding here is a product of winter/spring frontal systems originating in the Pacific, summer events associated with convective uplift, or late summer/early fall eastern Pacific tropical storms (Huckleberry, 1994). Large floods occurred on the Middle Gila in historical

Figure 10.8. Mean annual discharge for the Gila River at Kelvin, Arizona, 1931-1960. Data from U.S. Geological Survey (n.d.).



times in 1833, 1868, 1874, 1884, 1890, 1891, 1897, 1905, 1906, 1911, 1912, 1914-1915, 1916, 1926, 1927, 1941, and 1965, 1978-1979, 1983, and 1993 in post relocation center time (Huckleberry, 1994; 1999). Gila River water at Kelvin averaged a *specific conductance* of 1,460 micromhos and the *sodium-absorption ratio* of 19 thus had a high salinity hazard and a high sodium hazard (U.S. Department of Agriculture, 1954; U.S. Geological Survey, 1955). High salinity is not an issue for agriculture in the area unless soils have restricted drainage thus causing a buildup of salts (Kister and Hardt, 1966).

Prior to 1870, groundwater lay 15 feet below the surface at Sacaton, primarily as a result of the perennial flow of the Gila River (Thomsen and Eychaner, 1991). Groundwater in the vicinity of Sacaton, like Gila River water, had a high salinity content (Kister and Hardt, 1966).

Biota. The Gila River Relocation Center lay in the American Semi-Desert and Desert Ecoregion (Bailey, 1995) (Figure 10.9). Vegetation patterns in the area are a function of climate and associated soil moisture, soil chemistry, and human land uses. Creosote bush *(Larrea tridentata)* is the dominant shrub of the upland surfaces, often occurring in nearly homogenous stands (Bailey, 1995). Saquaro cactus (*Carnegiea gigantea*), palo verde (*Cercidium* spp.), and bursage (*Ambrosia* spp.) also grow on the non-cultivated portions of the former center. Gila River floodplain phreatophytes include cottonwood (*Populus* spp.), willow (*Salix* spp.), seepwillow (*Baccharis glutinosa)*, and mesquite (*Prosopis pubescens*). Tamarisk or saltcedar (*Tamarisk gallica*) invaded the floodplain areas in the early 20th century (Thomsen and Eychaner, 1991).

Large native mammals are rare in this area but may include kit foxes (*Vulpes macrotis)* and coyotes (*Canis latrans*). Western spotted skunks *(Spilogale gracilis)*, Merriam kangaroo mice (*Dipodomys merriami*), pocket mice (*Chaetodipus penicillatus)*, and antelope ground squirrel *(Ammospermophilus leucurus*) are present here. A variety of snakes, lizards, and bird life also inhabit the area (Bailey, 1995).

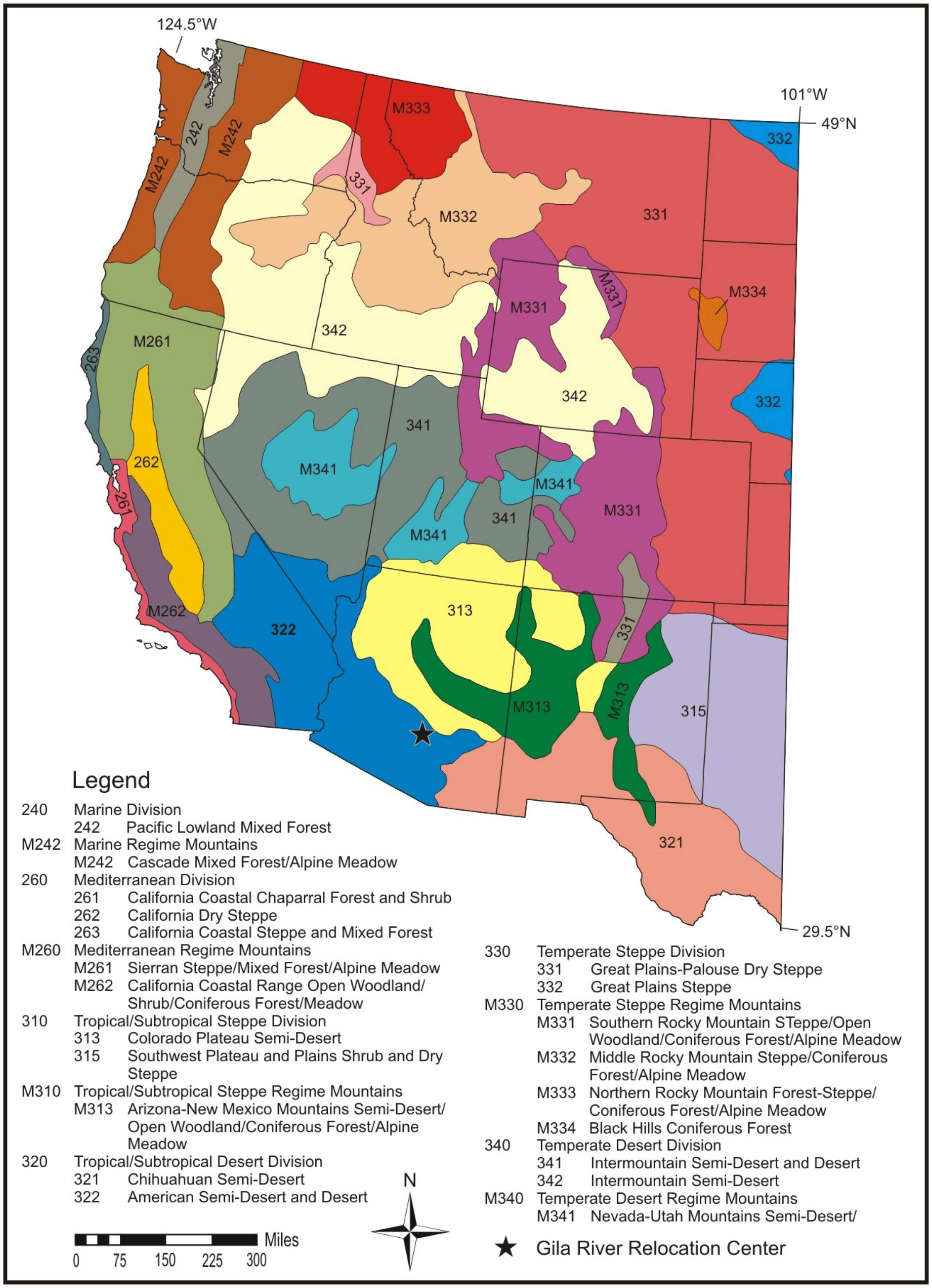
Human Setting

Race and Ethnicity. The Middle Gila River Valley area has been inhabited by a variety of racial and ethnic groups over time. These include Native Americans, Spaniards, Mexicans, various Anglos, Hindus, Chinese, and Japanese.

Southern Arizona, including the Middle Gila River Valley, lies in the Southwest Culture Area (Waldman, 2000). This area has been characterized by Native American occupation since at least 11,000 years before present (yr BP). In late prehistoric times, these inhabitants were the Hohokam and in historic times, the Pimas, and Maricopas (Berry and Marmaduke, 1982; Ezell, 1983; Harwell and Kelly, 1983).

The Spaniards arrived in Arizona by 1540 (Walker and Bufkin, 1979). However, it was not until the 1690s that Father Eusebio Francisco Kino, a Jesuit missionary, made it to the Pima and Maricopa villages on the Middle Gila River in the vicinity of present-day Sacaton (Smith et al.,

Figure 10.9. Ecoregion map showing Gila River's location within the American Semi-Desert and Desert ecoregion province. Adapted from Bailey (1995, Foldout Map).



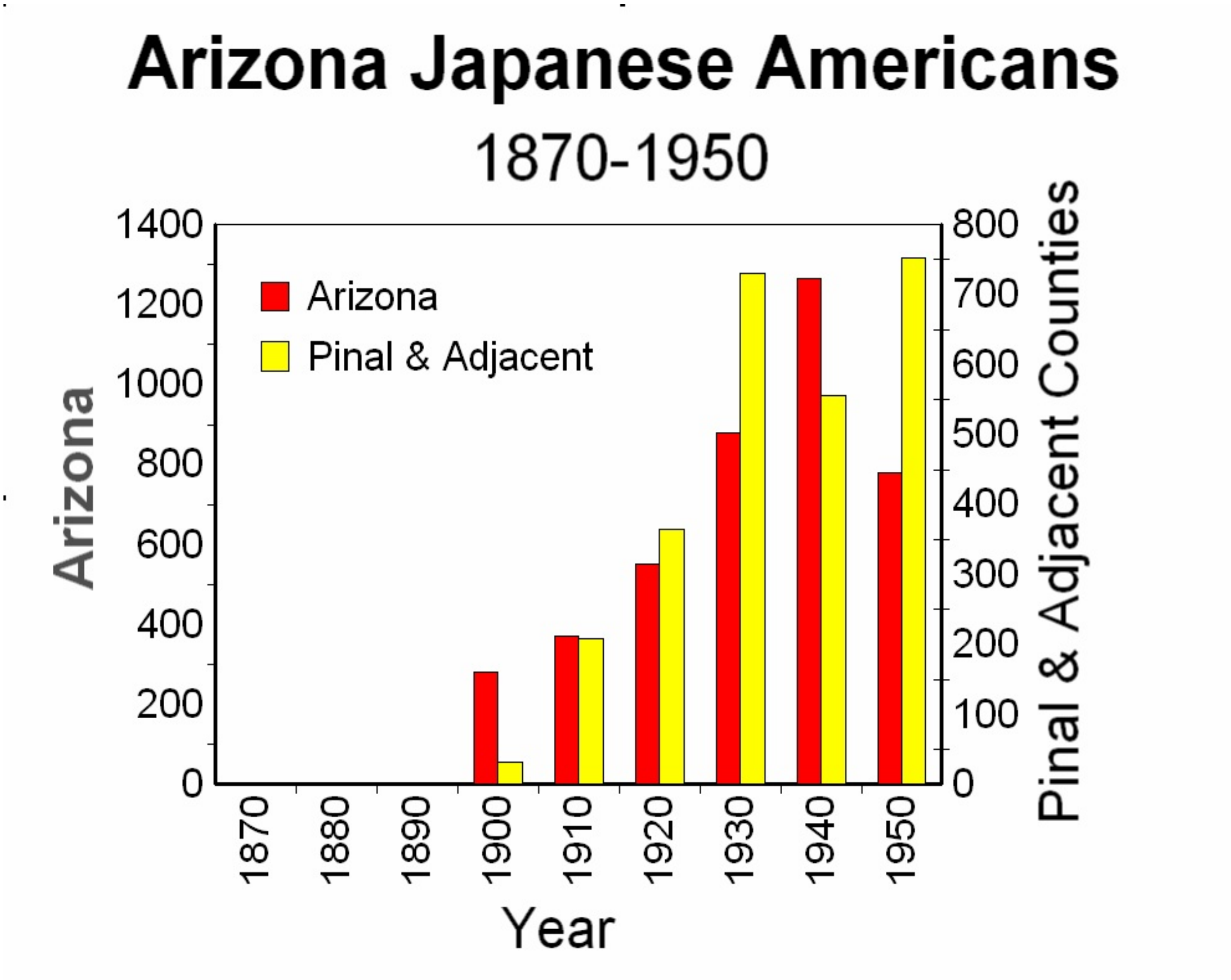
1966). Aside from Kino's several visits, the Pimas and Maricopas apparently had little contact with the Spaniards. Even after the Mexican government gained control of the Gila River Basin during Mexican Independence in 1821, there was little Mexican influence on the area.

Approximately 300 years after the Spaniards took control of the region and at about the time of Mexican Independence, the race and ethnicity of the region began to change. American fur trappers began to pass through the Middle Gila River Valley in the 1820s. In the 1840s, the U.S. Army of the West, led by General Stephen W. Kearny, traveled through the Middle Gila River Valley en route to California to fight the Mexicans. The army's passage through the area and subsequent mapping by Kearny's topographical engineer, William H. Emory, opened the way for Anglo gold seekers and emigrants to pass through the Middle Gila River Valley from points east. Soon after the Mexican War, Mormons proposed a State of Deseret that would have included all of Arizona north of the Gila River but this proposal was rejected by Congress. Some Mormons ended up settling in the upper Gila River Valley near Safford as well as in Mesa and Lehi in the Salt River Valley near Phoenix (Walker and Bufkin, 1979; David DeJong, written communication, 10 April 2007).

As time went on, south central Arizona was increasingly an ethnic melting pot. Railroad construction brought the first Chinese to the area (Berry and Marmaduke, 1982). Russian laborers worked in the region's sugar beet fields, and by the 1930s, Hindu farmers were raising crops in the area. Mexican Nationals and Mexican Americans were also an important part of Southern Arizona's cultural geography in the early part of the 20th century (Walz, 1997).

The first person of Japanese descent to enter southern Arizona was likely Hachiro Onuki, an *Issei* (i.e., first generation Japanese American born in Japan) who quickly realized the financial advantages of providing water to Tombstone, Arizona silver miners in the 1870s. The profits from Onuki's venture enabled him, along with EuroAmerican investors, to start the Phoenix Illuminating Gas and Electric Company in 1886, and subsequently Garden City Farms in 1900 (Iwata, 1992; Walz, 1997). Onuki thus played a key role in Arizona's mining industry, the development of Phoenix, and the agricultural beginnings in the Salt River Valley. Many of the Japanese Americans who followed Onuki in the late 19th and early 20th century were cooks, domestic servants, and farm laborers. Subsequently, many of the Japanese American men who moved to the state for employment opportunities were able to save money, go into business for themselves, start families, and generally put down roots in south central Arizona. The Japanese American population in Arizona thus climbed over time (Figure 10.10). Most of Arizona's Japanese Americans prior to World War II were located in three Maricopa County communities–the Mesa-Lehi area east of Phoenix, the lands around the base of South Mountain south of Phoenix, and the Glendale area, west of Phoenix (Walz, 1997) (Figure 10.3). The total Japanese American population of Pinal County and the four adjacent Arizona counties–Maricopa, Gila, Graham, and Pima (Figure 10.1)–generally mirrored the overall Arizona pattern through the 1930 census with 2 in 1880 to 731 in 1930. Unlike the continued rise at the state level, however, the Japanese American population of this five county region dropped by nearly 200 to 555 in 1940. It is not clear why this 1930-1940 decline occurred.

Figure 10.10. Persons of Japanese descent in Arizona, 1870-1950. Data from U.S. Census Office (1895, p. 442; 1901, p. 571) and U.S. Bureau of the Census (1913, p. 80; 1922, p. 19; 1932, p. 157; 1943, p. 376; 1952, p. 3-48).



When examined alone, Pinal County, subsequent home of the Gila River Relocation Center, had few Japanese Americans through time with 2 first showing up in the 1900 census, 9 in 1910 and in 1920, 7 in 1930, and 0 in 1940 (U.S. Census Office, 1895; 1901; U.S. Bureau of the Census, 1913; 1922; 1932; 1943).

The economic successes of the Japanese Americans and the growth of their population in south central Arizona led to xenophobia and a desire to remove them from the area. The first step toward this removal was the enactment of the Arizona Alien Land Law of 1913 that forbade those racial groups ineligible for U.S. citizenship from purchasing land in Arizona. However, it did allow such groups to lease lands. The more far-reaching Arizona Alien Land Law of 1921 was enacted to close the lease loophole and drive Japanese Americans out of the state. However, some Japanese Americans found ways to circumvent these laws thus allowing them to keep farming (Sato, 1973; Walz, 1997).

By 1930, in addition to a growing Japanese American population statewide, others migrated through the area as part of an annual cycle of farm labor that took them from California to Arizona and Texas before returning to California late in the year (Figure 10.10) (U.S. Bureau of the Census, 1932). Of the 700 Japanese living in the Salt River Valley in 1930, 350 were U.S. citizens (August, 1979). The agricultural successes of the Japanese American farmers and the onset of the Great Depression fanned the flames of tension that had existed between EuroAmerican and Japanese American farmers since before the 1913 Alien Land Law was enacted (Walz, 1997). By 1934, Arizona's Japanese Americans were openly harassed in the newspapers and on the streets (Sato, 1973). A banner on one of 150 automobiles in an August 1934, anti-Asian parade in Glendale proclaimed:

WE DON'T NEED ASIATICS
JAP MOVING DAY AUGUST 25th, WE MEAN IT
MOVE OUT BY SATURDAY NOON AUGUST 25TH,
OR BE MOVED

August (1979, p. 116) and Walz (1997, p. 110-11)

Extreme harassment of the Japanese Americans–i.e., bombings, farm field floodings, and shootings–followed in the late summer of 1934 (Sato, 1973; August, 1979). Arizona House Bill 78 was introduced in February 1935 as a way to further squeeze the Japanese American farmers by preventing their participation in any types of agricultural activities (Sato, 1973). Churches opposed the bill as did the Mitsu-Mitsubishi Company of Tokyo, a major buyer of raw cotton grown in the southwestern U.S. The bill was further hampered by previous U.S. Supreme Court decisions regarding an individual's right to work. The U.S. Government, under pressure from the Japanese Government, pushed Arizona legislators to withdraw the bill. Finally, it died in the Arizona House of Representatives in March 1935 (August, 1979). While the failure of Arizona House Bill 78 was a victory for Arizona Japanese Americans, it did not signal the end of animosity between them and EuroAmerican farmers in the southern part of the state.

Thus, on the eve of the Pearl Harbor bombing, most Arizona Japanese Americans were Issei farmers concentrated in Maricopa County's portion of the Salt River Valley, especially in and around Phoenix, Glendale, and Mesa (Iwata, 1992). Attitudes toward these community members were anything but positive (Sato, 1973; August, 1979). Their position of influence in local, regional, and national agriculture, combined with their strong inter-community ties, would be necessary to weather the storm of hatred unleashed on 7 December 1941 (Walz, 1997).

Economic Geography. Hunting and gathering, agriculture, and transportation have long been the prominent economic patterns of the Middle Gila River region of south central Arizona. To some degree, these patterns have all depended on the presence and availability of water in this system.

Early Native American economic strategies in the area were primarily hunting and gathering. Paleo-Indians persisted from at least 11,000 yr BP until about 8,000 yr BP and were characterized by a hunting and gathering economy that was especially focused on the large mammals of the late Pleistocene. The subsequent Archaic peoples were hunter-gatherers who lived in the area from approximately 8,000 yr BP until about 1,700 yr BP (Berry and Marmaduke, 1982).

Since the end of the Archaic Period, the economic geography of the area has been dominated by agriculture. The move toward agriculture came about during the Hohokam period approximately 1,700 yr BP to about 500 yr BP (Berry and Marmaduke, 1982). Weather and climate patterns likely impacted floodplains thus shaped patterns of floodplain agriculture within this period (Waters and Ravesloot, 2001). The Pima apparently continued this agricultural tradition, albeit with dispersed *rancherias* (i.e., small native villages) and small irrigation systems (Huckleberry, 1995). At the time of Jesuit missionary Kino's contact with the Pimas and Maricopas in the Middle Gila River in the 1690s, these groups were practicing a form of shifting, floodplain agriculture. In this system, they would farm one area until the lands lost productivity, then move on to other parts of the floodplain (DeMallie, 1977). Associated with this agriculture were three prominent Pima villages near present-day Blackwater, Cottonwood, and Snaketown (Berry and Marmaduke, 1982) (Figure 7.3). Despite the political changes that occurred in the 19th century–i.e., transfer of control of these lands from the Spanish to the Mexican government in 1821, the loss of these lands to the U.S. Government following the Mexican War of 1846, and the subsequent Gadsden Purchase of 1854–the economies of the Pima and Maricopas were little affected (Walker and Bufkin, 1979). In 1858, the Pima and Maricopa villages along the Middle Gila were described as consisting of pueblos, with fields of corn, wheat, pumpkins, beans, peas, and melons, all irrigated by canals stretching from the Gila River (DeMallie, 1977). Others also described cotton growing in the fields. The common agricultural surpluses were vigorously traded with American military personnel, gold seekers, and immigrants. As late as 1867, the Pimas and Maricopas were selling corn, beans, wheat, peas, melons, pumpkins, tobacco, and cotton as well as horses and cattle (Ezell, 1994). The establishment of the Gila River Indian Reservation for the Pimas and Maricopas in 1859 prevented a future influx of white settlers to the area. It was the first Indian reservation in Arizona, and is unique in that it is the only Arizona reservation placed on the traditional lands of the majority of its peoples (Walker and Bufkin, 1979; Berry and Marmaduke, 1982). The reservation was subsequently enlarged in 1869, 1876, 1879, 1882, 1883, 1911, 1913, and 1915 to 372,000 acres (Walker and Bufkin, 1979; David DeJong, written communication, 10 April 2007).

Following the Civil War, EuroAmericans settling in the upper Gila River Basin began to develop their own systems of irrigated agriculture. These systems involved diverting and using the waters of the Gila River for their crops thus disrupting flows that the Pima and Maricopa had depended on for centuries (Berry and Marmaduke, 1982). By the late 1880s, EuroAmerican farmers had pre-empted most of the waters used by the Pima agriculturalists on the Gila River Indian Reservation (Walker and Bufkin, 1979). The taking of these waters resulted in the Pimas receiving ever-declining amounts of the Gila River's flow–e.g., 100% of the flow in 1866 to 29.5% in 1918 (DeJong, 2004a). In post-1866 drought years, little if any water reached the Pimas and Maricopas on the Gila River Indian Reservation downstream. Indeed, no irrigation water reached the Pimas and Maricopas as early as 1871 and crops failed. This era became known as the "Forty Years of Famine" and was a time characterized by severe health, economic, and cultural instability for a society that had long depended on water (Ezell, 1994). Conditions were particularly harsh between 1892 and 1904 when drought caused summer crop failure 11 times and winter crops failure at least five times (DeJong, 2004a). The Pimas and Maricopas adjusted by forming new communities off the reservation in the more water-rich Salt River Valley, pursuing off-reservation employment, changing agricultural practices (e.g., irrigated acreage adjustments, dry land cropping, and growing different crops), and selling mesquite firewood cut from the forests along the Gila River (Ezell, 1994; DeJong, 2004a). Those remaining on the Gila River Indian Reservation had to obtain Government assistance in order to survive beginning in 1880 (DeJong, 2004a). Episodic famine continued in the years following the end of the drought in 1905. Two events brought hope that more water might again flow to the Gila River Indian Reservation–the 1908 Winters v. U.S. case that affirmed that Indian tribes had "reserved rights" to water that was not subject to the prior appropriation doctrine that ruled western U.S. water and the 1916 authorization of the Florence-Casa Grande irrigation project. Despite these events, the Gilas only received an average of 35% of all water passing through the Ashurst-Hayden Dam (Figure 10.3) in the 1930s and 1940s (DeJong, 2004b).

Early twentieth century agriculture in south central Arizona was strongly influenced by Japanese immigrants. The Canaigre Company of Tempe employed 100 Japanese in 1897 to gather canaigre roots along the Agua Fria River near Phoenix but this venture soon failed (Sato, 1973). Hachiro Onuki, the co-founder of the Phoenix Illuminating Gas and Electric Company, started Garden City Farms in 1900 (Walz, 1997). In 1905, a group of 120 Japanese laborers were brought to work in the Salt River Valley's sugar beet fields but the climate, water laws, and tax laws were not right for sugar beets and this venture too failed (Iwata, 1992; Walz, 1997). In 1906, an Issei named Goto started a chicken farm near Tempe. Onuki's and Goto's successes sparked other Issei farmers to begin growing vegetables in the Tempe and Phoenix areas and soon a vegetable exchange was in operation (Iwata, 1992). The number of Japanese American-operated farms in Arizona nearly doubled between 1920 and 1930, and the land farmed by Japanese Americans increased from 3,537 to 16,237 acres (Sato, 1973). Representing only 3% of the total farm operators in the Salt River Valley, Japanese Americans were farming 6% of the lands there (Iwata, 1992). They were the first to ship Salt River Valley lettuce, strawberries, and cantaloupe out of state (August, 1979). Further, Japanese Americans were innovative in terms of how they grew their crops (Walz, 1997). Because of a lack of English language skills by the Issei farmers, they formed the Japanese Association and hired a secretary to deal directly with the produce companies (Walz, 2000).

In addition to agriculture, transportation has long been a key form of economic activity in the Middle Gila River Valley. The valleys were certainly routes of travel and trade for Native Americans and the missionaries that followed them. American trappers also used the Gila River Valley and its tributaries as a transportation corridor (Walker and Bufkin, 1979). By the 1840s, the route following the Gila River was known as the Gila Trail. Kearny's Army of the West, California gold seekers, various emigrants, and subsequent stage and wagon companies traveled through the area often stopping to trade for crop surpluses with the Pima and Maricopa villages on the Middle Gila River. An estimated 60,000 gold seekers heading for California passed through the Middle Gila River Valley between 1849-1851 (DeMallie, 1977). The Leach Wagon Road opened to commercial wagon and stage traffic in 1857 following the Gila River to the vicinity of the Pima villages (Berry and Marmaduke, 1982). The Butterfield Overland Stage made regular stops at the Pima and Maricopa villages along the Middle Gila River to purchase corn and other grains (DeMallie, 1977). The Civil War ceased stage and wagon traffic between Arizona and California on the Gila Trail but tiny Fort Barrett was constructed during this time in the vicinity of the Pima villages (Walker and Bufkin, 1979). No other towns or villages were present in the Middle Gila River Valley until after the Civil War. While railroad surveys were made through the area occupied by the Pima villages prior to the Civil War, it was not until 1880 that the Southern Pacific completed construction west of the Sacaton Mountains (Berry and Marmaduke, 1982). Japanese American laborers were employed by the railroads in the area beginning in the 1880s (August, 1979). Further railroad lines were developed in the Middle Gila River Valley between 1891-1920 (Walker and Bufkin, 1979). As of 1940, Arizona highways 87 and 187 cut across the eastern one-half of the Gila River Indian Reservation and through Sacaton (Works Progress Administration, 1940).

On the eve of the evacuation of Japanese Americans to Gila River, Sacaton had a population of 300 and served as the headquarters of the Gila River Indian Reservation (Works Progress Administration, 1940). Following the bombing of Pearl Harbor, Arizona was split into two military exclusion zones–the zone south and west of U.S. highway 60 was a restricted area while the area north and east was a free zone. Those Japanese Americans living in the restricted zone were gathered and sent to a relocation center while those living outside the zone were allowed to remain in their homes (Walz, 2001).

Why this Location?

Arizona was likely chosen as a state in which to locate a relocation center because it lay well inland from the West Coast. At least five Arizona sites were considered for relocation centers–Beardsley near Phoenix, Cortaro Farms near Tucson, Fort Mohave on the Colorado River, the Gila River Indian Reservation, and a site near Parker on the Colorado River. The former three were rejected because they would be either too expensive to build or too close to key military installations (Madden, 1969; Burton et al., 2002). Ultimately, Gila River and the Parker site were chosen as Arizona's relocation centers. The proposed Gila River Relocation Center site lay entirely on Gila River Indian Reservation lands (Figure 10.3) and was chosen over the objections of the Gila River Indian Tribal Council on 18 March 1942 (Burton et al., 2002). It was not until October 1942 that the Tribal Council signed off on the center, only after the War Relocation Authority (WRA) agreed to develop nearly 9,000 acres (see below) (U.S. National Park Service, n.d.; David DeJong, written communication, 10 April 2007). This agreement reflected U.S. Commissioner of Indian Affairs John Collier's beliefs that Japanese American labor could be used to improve Indian lands as could the infrastructure created to house the evacuees. Further, Collier thought that the Indian Service could successfully work with another minority group, the Japanese Americans (Bernstein, 1991).

The Gila River site was advantageous because of open space, availability of Gila River irrigation water, potential for agriculture, and access to highways and railroads. The space became even more of an issue after a planned Cambridge, Nebraska relocation center plan was scrapped, and the intended number of Gila River evacuees was increased from 10,000 to 14,000 (Madden, 1969). While a railroad line came through the Gila River Valley and Arizona highway 89 passed through the eastern edge of the center, the center was sufficiently isolated as to not pose a threat to the surrounding small communities.

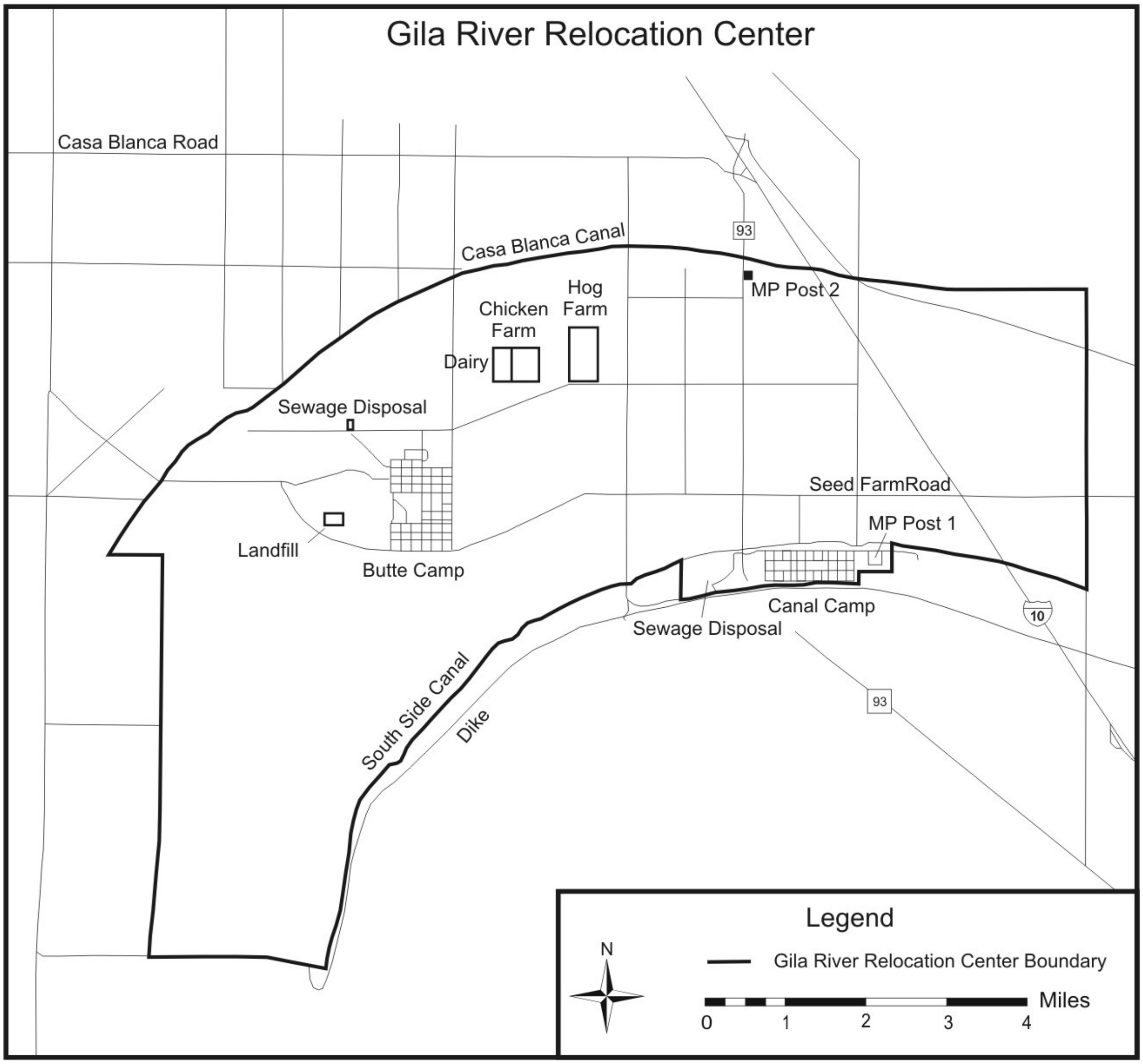
Ultimately, about 17,125 acres of the Gila River Indian Reservation were leased from the Bureau of Indian Affairs for a five-year period (Indian Claims Commission, 1971b). Of the total acreage leased by the WRA, nearly 7,000 acres had been leveled, irrigated, and planted with alfalfa in 1935 (Burton et al., 2002). Prior to consideration for a relocation center, those acres were slated to be planted with long-staple cotton in 1943. Another 8,850 acres were considered to be suitable for cultivation while the remaining nearly 1,300 acres were uncultivatable (Indian Claims Commission, 1971b). Water to irrigate these lands came from the South Side Canal, which originated from the San Carlos Reservoir behind Coolidge Dam on the upper Gila River (Figure 10.3) (Burton et al., 2002). The WRA agreed to pay $20 acre/year for the cultivated lands and $3.60/acre/year to the San Carlos Irrigation Project for four acre-feet of water annually for the cultivated lands. In addition, the U.S. Government agreed to pay $1 acre/year for the non-cultivatable lands. Further, the Government agreed to develop and farm the 8,850 acres of cultivatable, but not yet cultivated, lands. No rent was to be paid on these lands because of the improvements that the Government was required to make. Finally, the contract called for the Government to construct 7.25 miles of U.S. highway 93 through the reservation lands (Indian Claims Commission, 1971b).

Building Gila River

The Gila River Relocation Center was expected to take 90 days to complete. A crew of 125 men began construction on 1 May 1942 but the workforce swelled to 1,250 by mid-June. Many of these workers were former area farm hands who were lured to the site by high wages (Weik, 1992). The first group of Japanese American evacuees arriving in July further helped set up the center. While evacuees were arriving from mid-July until mid-October, the center was not finished until 1 December 1942 (Burton et al., 2002).

The Gila River Relocation Center consisted of two camps–Canal Camp (Camp #1) and Butte Camp (Camp #2) (Figure 10.11), each of which was laid out in a rectangular fashion and separated by about three miles of Sonoran Desert. It is unclear why the WRA built two smaller rather than one larger camp at Gila River as two camps led to much duplication of services and difficulties in moving from one to the other (Spencer, 2002). Indeed, the center's newspaper, the *Gila News-Courier,* treated them as two separate camps with their own identities.

Figure 10.11. Overall map of the Gila River Relocation Center. Adapted from Burton et al. (2002, p. 60).



Canal Camp (Figure 10.12 and 10.13) was a 210-acre parcel stretching east -west and lying between the South Side Canal and a large earthen berm designed to prevent ephemeral, flash flood streams from reaching the canal (Burton et al., 2002). Canal Camp was the first of the two camps to open for evacuees (Spencer, 2002). The main portion of the camp had 27 blocks separated by a numbered north-south street system and a lettered east-west street system. A military police compound lay just east of the main portion of the camp. Canal Camp had 404 buildings, approximately 10% of which were used for administrative purposes including offices,

Figure 10.12. Detailed map of Canal Camp, Gila River Relocation Center. Adapted from Burton et al. (2002, p. 63).

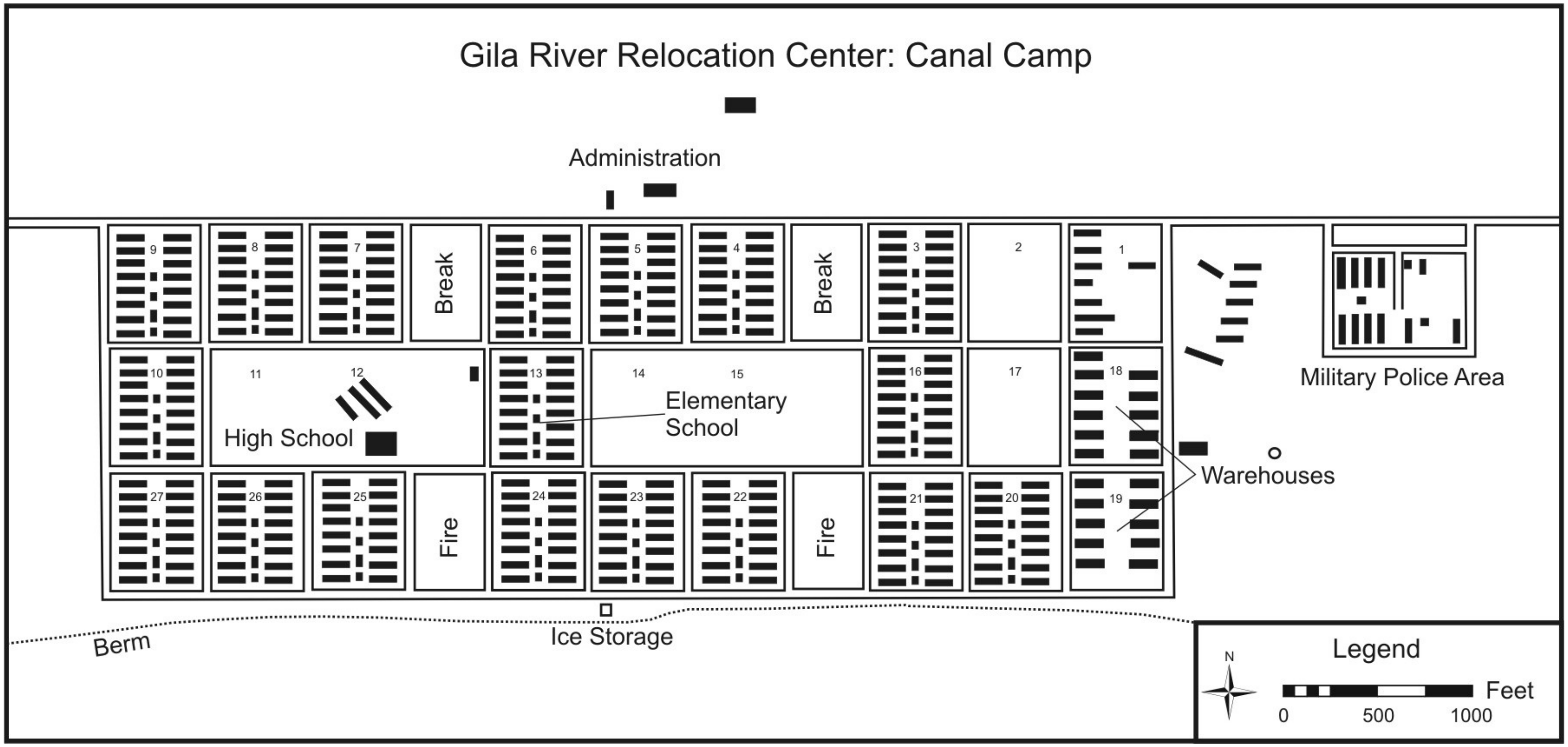


Figure 10.13. Oblique view of Canal Camp, Gila River Relocation Center. View southwest. Note berm on south (left) side of camp constructed to protect South Side Canal. Unknown photographer, June 1944. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 5, Section A, WRA # G-616, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 2: Gila River Relocation Center, Rivers, Arizona.

military police compound, hospital, warehouses, staff housing, post office, various repair shops, and food packing/preservation plants. The Canal Camp elementary and high schools were located in the middle of the evacuee residential area and included an outdoor stage, auditorium/gymnasium, science laboratory, home economics building, and vocational arts building. School and community athletic fields were located in various vacant blocks and firebreaks (Burton et al., 2002).

Butte Camp occupied 790 acres at the base of Sacaton Butte (Figure 10.15 and 10.16). It had 821 buildings including administrative offices, post office, vehicle repair shops, warehouses, police station, court, staff canteen, staff housing, gas station, various repair shops, motor pool, camouflage net factory, hospital, and fire station. Unlike Canal Camp, the elementary school and high school were separated by a block. However, the Butte Camp schools also included an outdoor amphitheater, auditorium/gymnasium, science laboratory, home economics building, and vocational arts building. School and community athletic fields were located in various vacant

Figure 10.14. Detailed map of the Butte Camp portion of the Gila River Relocation Center. Adapted from Burton et al. (2002, p. 66).

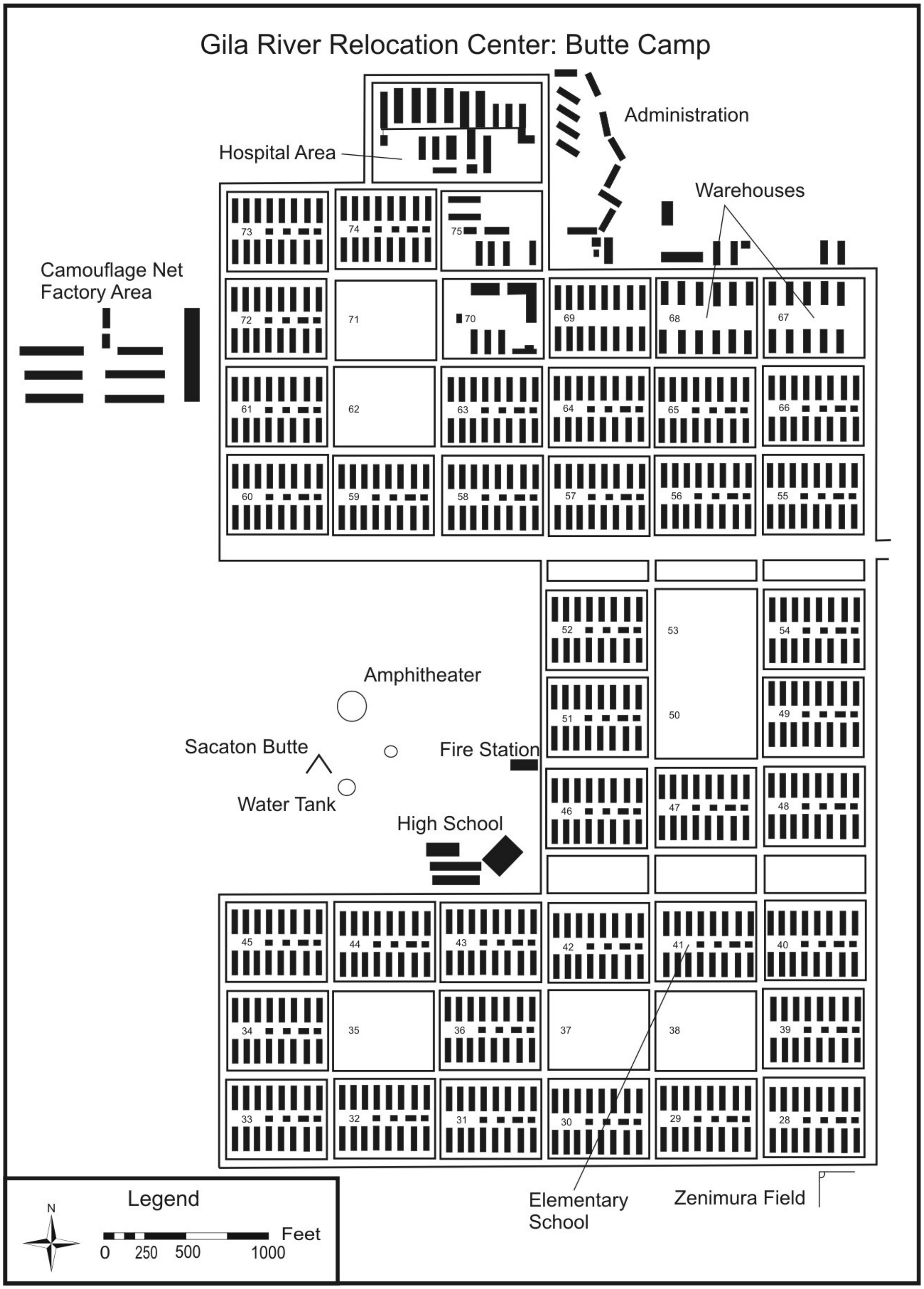
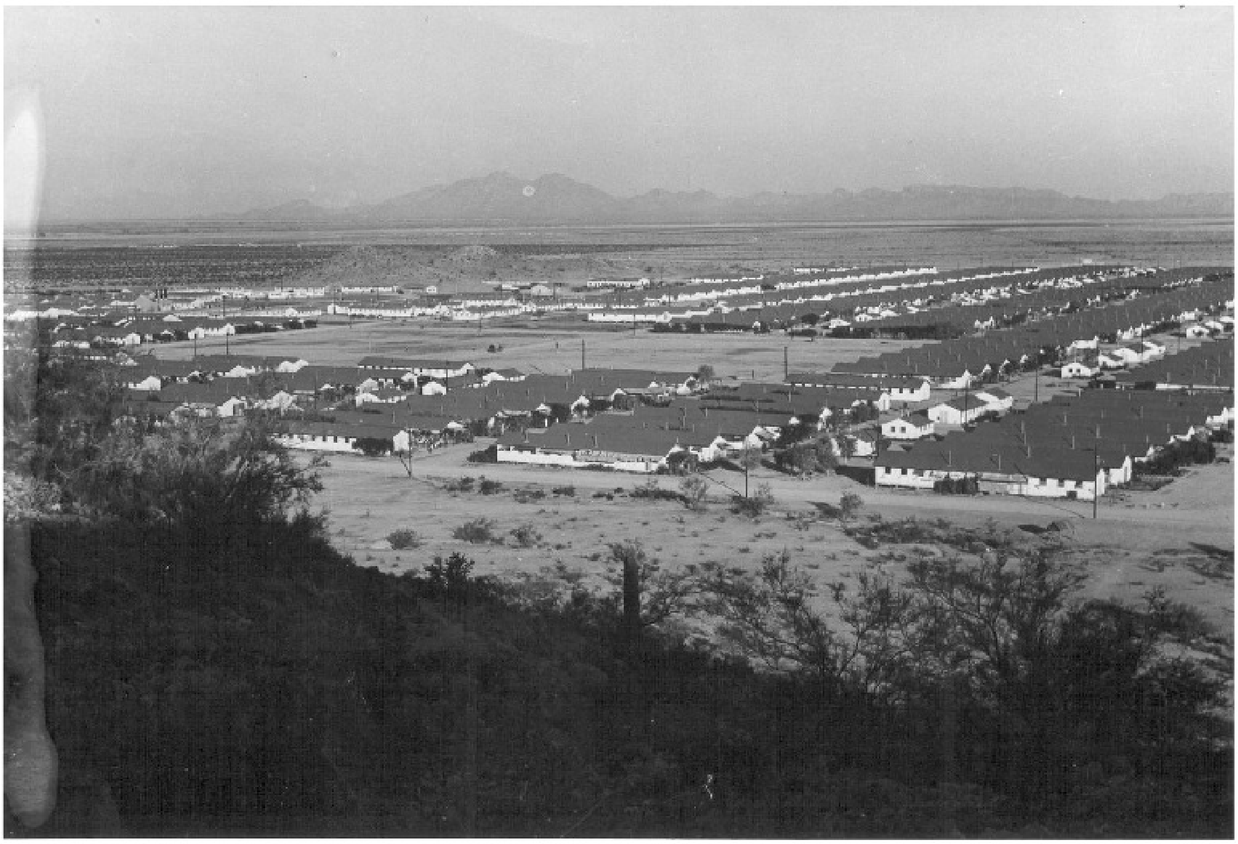


Figure 10.15. Oblique view of Butte Camp from Sacaton Butte, Gila River Relocation Center. View northeast with Santan Mountains in the background. Note white barracks. Unknown photographer, December 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 5, Section A, WRA # G-444, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 2: Gila River Relocation Center, Rivers, Arizona.



blocks and firebreaks (Burton et al., 2002). Zenimura Field, the finest baseball diamond of any of the WRA relocation centers, was also located in Butte Camp (Nisei Baseball Research Project, n.d.).

Each residential block in Canal and Butte camps had 14 barracks, one mess hall, two rectangular latrine-shower buildings, one laundry building, one ironing building, one community services (i.e., recreation) building, and a 1,000 gallon fuel oil tank (Figures 10.12 and 10.14). The ironing rooms were very rapidly converted to be storage rooms for mess hall vegetables. Each 20 feet by 100 feet barracks consisted of four single-room apartments ranging in size from 20 feet by 24 feet to 20 feet by 28 feet (Madden, 1969; Burton et al., 2002). Evacuee barracks were constructed differently than at other centers, presumably because of the extreme summer heat in south central Arizona. All were sheathed with white, reflective “beaverboard”, a lightweight, semi-rigid board composed of compressed wood pulp. Each also had a double roof covered with red shingles to act as insulation against the summer heat (Figure 10.16) (Burton et al., 2002). Barracks were elevated 18-24 inches off the ground on wooden posts sitting on concrete footings. The interior of the barracks were not finished thus the wall studs and ceiling rafters were exposed (Madden, 1969). Evaporative (i.e., "swamp") coolers, while present in many of the buildings of the center, were not installed in barracks unless evacuees purchased them with personal funds (Brown, 2001; Burton et al., 2002). Cool winter nights required that the various center housing and other occupied buildings had to be heated. Natural gas was used to heat the mess halls and hospital while barracks were heated with more abundant fuel oil (Burton et al., 2002). Each of the two residential areas of the center were originally surrounded by a three-strand, barbed wire fence. One guard tower was initially constructed to watch over the center; however it was removed soon after because of a lack of military personnel to staff it. The perimeter fence was also removed by April 1943. Signs were instead posted at the center's boundaries (Madden, 1969).

Figure 10.16. Double-roofed and white painted barracks used as an exhibit room during Thanksgiving Day 1942 Harvest Festival, Gila River Relocation Center. Double roof and white paint helped keep barracks cool. Francis Stewart photograph, November 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 5, Section A, WRA # D-706, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 2: Gila River Relocation Center, Rivers, Arizona.

Domestic water for the center came from a deep well located just north of the South Side Canal at Canal Camp and a deep well located near the higher of the two easternmost knolls of the Butte Camp. A 250,000 gallon storage tank near the Canal Camp wells and a 300,000 gallon storage tank near the Butte Camp well provided water storage for the camps. Irrigation water was provided by two canals from San Carlos Reservoir behind Coolidge Dam. Electricity for the center came from Coolidge Dam on the Gila River (Madden, 1969; Burton et al., 2002).

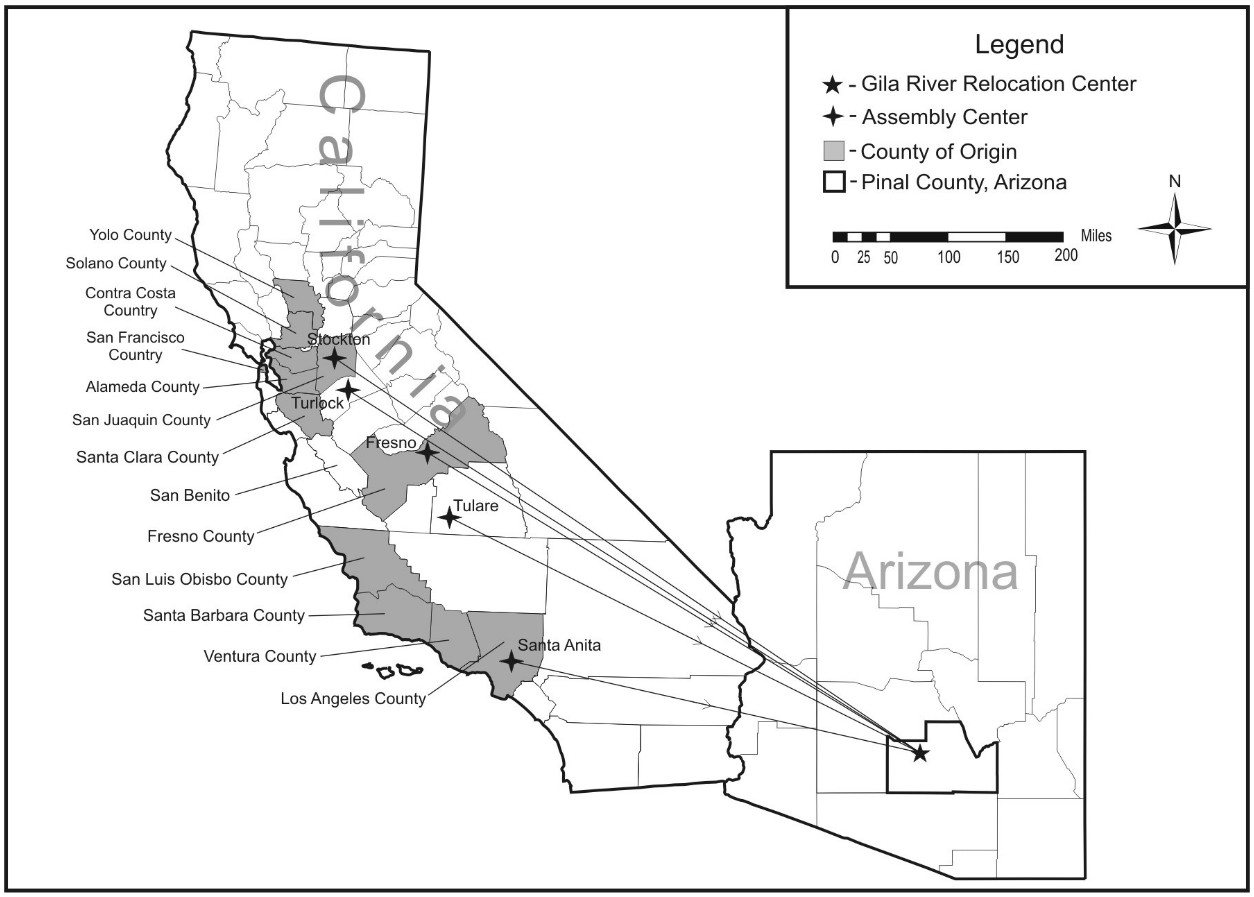
Materials and people coming to the center typically arrived by train at Casa Grande then were trucked the approximately 17 miles from there to the center. Because of excess produce subsequently raised at Gila River, a loading and warehouse facility was built at Serape eleven miles north of the center in 1943 to facilitate shipping to other centers (Figure 10.3) (U.S. War Relocation Authority, 1945; Burton et al., 2002).

Origins of the Evacuees

Evacuees came from California via the Tulare (4,942), Turlock (3,573), Santa Anita (1,289), Stockton (220), Fresno (174) assembly centers. Five other assembly centers each contributed fewer than 100 evacuees (U.S. Army–Western Defense Command, 1943) (Figure 10.17). Specifically, the evacuees came from Los Angeles (4,952), Fresno (1,972), Santa Barbara (1,797), San Joaquin (815), Solano (695), Contra Costa (588), Ventura (583), Alameda (333), Santa Clara (210), San Luis Obispo (192), San Francisco (191), and Yolo (123) counties. Nineteen other California counties each contributed less than 100 evacuees (U.S. War Relocation Authority, 1946). Another nearly 3,000 came directly to Gila River from their southern San Joaquin Valley homes (Japanese American National Museum, n.d; Burton et al., 2002). Washington, Oregon, and “other states” outside the evacuation zone contributed 52 evacuees. Interestingly, Arizona only contributed 5 evacuees to Gila River with the bulk of its evacuees being sent to Poston on the Colorado River (U.S. War Relocation Authority, 1946). The urban/rural populations of the center was generally equal (Japanese American National Museum, n.d.). Canal Camp evacuees were mostly rural from the San Joaquin Valley and the Sacramento River Delta via the Turlock Assembly Center while Butte Camp was composed of mostly urban evacuees from the Tulare and Santa Anita Assembly Centers (Hansen, 1985; Burton et al., 2002). Overall, the Gila River Relocation Center evacuee population could be characterized as being of a lower economic status (Madden, 1969). As of 1 January 1943, approximately 65% of the evacuees were American citizens (U.S. War Relocation Authority, 1946).

The first trainload of evacuees arrived at Casa Grande and was bused to Gila River on 20 July 1942 after a grueling three-day, two-night ride on the Southern Pacific from Turlock in northern California (U.S. Army–Western Defense Command, 1943; Weik, 1992; Spencer, 2002). The last evacuees to arrive were from Santa Anita in southern California on 27 October 1942 (U.S. Army–Western Defense Command, 1943). With a maximum population of 13,348 reached in late December 1942, Gila River was Arizona’s 4th largest city behind Poston, Tucson, and Phoenix (Staff, 30 September 1942; U.S. War Relocation Authority, 1946).

Figure 10.17. The Western United States origins of Japanese-Americans evacuated to the Gila River Relocation Center in July, August, September, and October 1942. Data from U.S. Army–Western Defense Command, (1943, p. 381, 383) and U.S. War Relocation Authority (1946, p. 61-66).



The situation that the evacuees first entered at Gila River was anything but pleasant. Upon finding that 6,700 evacuees had been squeezed into facilities suitable for harboring 3,000 and that they lacked adequate food, medical, and sanitation facilities in an environment that was "hotter than the hinges of hell" community analyst Robert Spencer noted that "the situation is simply ghastly" (Hansen, 1999, p. 48).

Interaction of Evacuees with South Central Arizona's Environments

Physical Environment. Water often occurs in extremes in deserts–typically there is far too little water available; occasionally, too much water is present. The hot, arid climate demanded that much water be consumed by people, plants, and livestock. At first, all water used within each of the two camps came from the domestic wells. Subsequently, irrigation ditches were constructed from the South Side Canal into the main parts of Canal and Butte camps in Summer 1943 to irrigate gardens and lawns, and fill ornamental ponds (Staff, 22 July 1943; 3 August 1943; Smith, 1995; Burton et al., 2002). Canal Camp used 500,000 to 1,200,000 gallons of water per day while Butte Camp used 600,000 to 1,500,000 gallons each day (Madden, 1969). Domestic water shortages begin to occur by September 1942 before the administration asked residents to curtail their use of domestic water for irrigation (Staff, 19 September 1942). These shortages occurred throughout the life of the center. In addition to concerns over meeting the needs of evacuees, the administration was concerned about the effects of a water shortage on a fire in the wooden buildings of the camps, especially if faced with high temperatures and afternoon winds (Madden, 1969).

Too much water can also be an issue. Flooding did not occur on the portion of the Gila River that lies adjacent to the former relocation center during the time the relocation center was open (Brazel and Evans, 1984). However, a September 1943 storm dumped 3.3 inches of precipitation over four days including 2.3 inches in one day on the relocation center. The resulting runoff destroyed center irrigation ditches and landscaping, and part of nearby U.S. highway 93 (Staff, 28 September 1943).

Heat was another very noticeable aspect of the center. The positive aspects of the heat were that activities could occur outside throughout much of the year. However, summer temperatures could reached 125°F. In such weather, metal door knobs would get so hot they couldn't be handled without a handkerchief-covered hand (Girdner and Loftis, 1969). In addition to the evaporative coolers of some buildings, evacuees escaped the heat of summer in cellars excavated beneath their barracks (Burton et al., 2002). The common ponds of the camps' barracks gardens, combined with the shade of landscaping plants, also likely provided a measure of relief from the heat. Luckily for the evacuees, mean monthly temperatures for the April-September periods in 1942-1945 were slightly cooler than the 1931-1960 average (Western Regional Climate Center, n.d.a).

Although the area is located in a hot desert, winters could be cool to even cold. The first barracks stoves were not installed until nearly one month after the first frost in fall 1942 (Staff, 25 November 1942; Staff, 22 December 1942). Compounding the late installation of stoves and the uninsulated nature of the barracks was the fact that average January and December temperatures were slightly lower during 1942-1945 than those of 1931-1960 (Western Regional Climate Center, n.d.a).

Winds and dust were another issue faced by evacuees. Winds exploited the large cracks left in barracks floors as the green lumber cured in this very dry environment, leaving dust everywhere. Because of this, the floors of the barracks were subsequently covered with a linoleum-like product (Staff, 26 January 1943; Madden, 1969). Evacuee lawns and other plantings, besides providing beauty, also served to reduce dust. Severe wind and dust storms halted outside activities on several occasions often preceding thunder and lightning, and sometimes rain (Staff, 9 January 1943; 7 August 1943; 19 October 1943).

Evacuees interacted with wildlife. Rattlesnakes, gila monsters, tarantulas, doves, desert tortoises, ground squirrels, mice, and scorpions were encountered and sometimes kept as pets by evacuees (Staff, 12 September 1942; 7 October 1942; Girdner and Loftis, 1969).

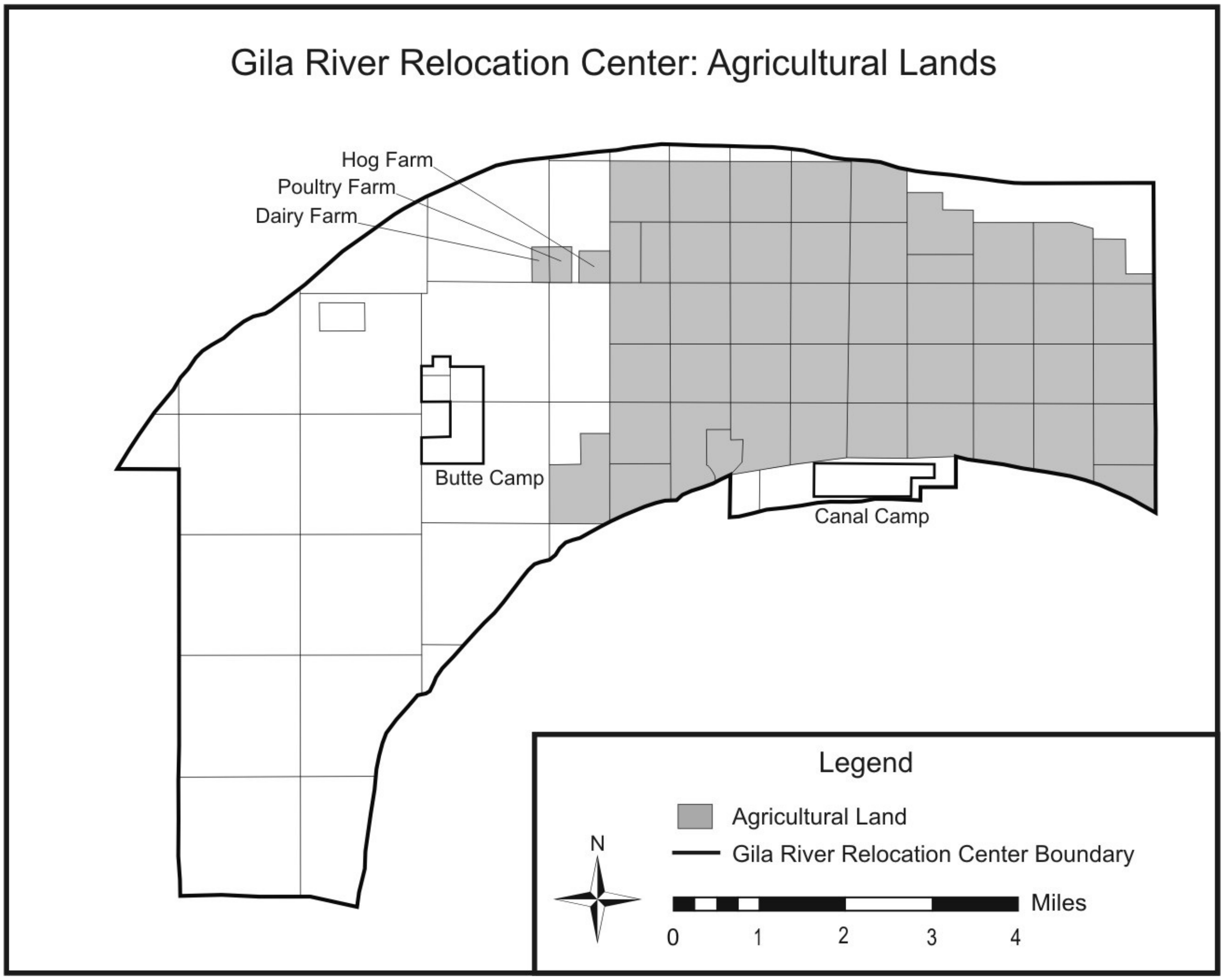
While the above suggests that the Sonoran Desert of the Gila River Relocation Center was a foreign, stark, and harsh place, some found it beautiful. This was especially true near sunrise or sunset. At Butte Camp, a group of Issei men would go to the top of the one of the hills in the evening and would sing "long songs" (*naga-uta*), their lilting voices carrying to the camp below (Girdner and Loftis, 1969).

Agriculture. The primary goal of the agricultural program was to feed the residents of the center. Second, excess agricultural produce was to be preserved at the center or transferred to the other centers. After food crop production, next in declining importance were animal feed crops, seed crops, and war crops (U.S. War Relocation Authority, 1944). It was hoped that evacuees who worked in agriculture prior to coming to Gila River would embrace the center's agricultural program. Finally, those evacuees working in the agricultural program gained experience that could aid them in relocating from the camp, and in their lives after relocation (U.S. War Relocation Authority, 1945). Because of these positive aspects of agriculture, a large proportion of the center's lands were initially dedicated to agricultural enterprises.

Of the approximately 17,125 acres of the Gila River Relocation Center, about 7,000 acres had been cultivated and irrigated as alfalfa pasture prior to its establishment (Burton et al., 2002). Because of seven years of cropping with nitrogen-fixing alfalfa, soils were in excellent condition to support the WRA agricultural operations (U.S. War Relocation Authority, 1945). Therefore, the agricultural program focused on these 7,000 acres from fall 1942 through mid-1945 (Figure 10.18). Only 40 acres of the cultivatable 8,850 acres near Butte Camp were developed for dairy pasture. The WRA decided not to expand the agricultural program into these lands because such development may have endangered other nearby water users' water availability (Indian Claims Commission, 1971b). It is also likely that the Japanese American labor force was not sufficient by 1944 to farm these lands.

The total cultivated acreage was split into 8 unit farms, each of which were managed by a separate crew of evacuees. Soon after evacuees began arriving at Gila River, some of the alfalfa

Figure 10.18. Agricultural lands of the Gila River Relocation Center. Adapted from Burton et al. (2002, p. 69).



pasture was plowed under to make room for various truck crops. Because the lands were otherwise ready for farming, only farm equipment and labor had to be obtained before the program could begin in earnest; thus, the farm operation got off to a quick start. The remainder continued as alfalfa pasture for leasees. Planting occurred in fall 1942, and each spring and fall thereafter (U.S. War Relocation Authority, 1945). Radishes, the first truck crop raised at the center, reached the mess hall tables by 26 September 1942, little over two months after the first evacuees arrived (Staff, 26 September 1942). Ultimately, 48 varieties of produce were grown at Gila River over the parts of four years the farm was in operation (Table 10.1). One 320 acre unit alone grew 22 varieties of vegetables (Staff, 2 February 1943)! The long growing season ensured not only variety but also fresh vegetables nearly year-round. It also resulted in high annual productivity per acre on the farmlands (Table 10.2; Figure 10.19). The greatest amount

Table 10.1. Crops and livestock raised at the Gila River Relocation Center, 1942-1945. Data from U.S. War Relocation Authority (1945).

Produce	**Produce** (continued)	**Feed Crops**	**Livestock**
beans (mung)	onions (dry)	alfalfa	cattle (beef)
beans (string)	onions (green)	barley	cattle (dairy)
beans (tepery)	parsley	field corn	chickens
beets	peanuts	Sudan grass	hogs
broccoli	peas		
cabbage	Persian melons	**Seed Crops**	**Seed Crops** (cont)
cantaloupe	peppers (chili)	azuki	melons
carrots	peppers (bell)	beans (lima)	nappa
casaba	potato (Irish)	beans (soy)	onions
cauliflower	potato (sweet)	beans (tepery)	peas
celery	pumpkin (Japanese)	beets (table)	radishes
corn (sweet)	radishes (red)	broccoli	sesame
cucumber	radishes (white)	cabbage	shingiku
cucumber (Armen.)	shingiku	cantaloupe	spinach
daikon	shiru uri	carrots	squash
eggplants	spinach	cauliflower	sunflower
endive	squash (banana)	celery	tomato
garlic	squash (hubbard)	corn	turnip
gobo	squash (Ital. summer)	cucumber	
habucha (tea)	strawberries	cucumber (Armen.)	**War Crops**
honeydew melons	Swish chard	daikon	castor beans
lettuce	tomato	garlic	cotton
mustard green	turnips	goma	flax
nappa	watermelon	lettuce	

of produce was grown in 1944 (nearly 15,000,000 pounds) on less acreage (1,436 acres) than the 1943 growing season (1,692 acres) (Table 10.2). The large producers in terms of tonnage were cabbage, carrots, watermelons, nappa, daikon, beets, dry onions, and lettuce (Figure 10.19). To further extend the growing season, celery, tomatoes, eggplants, peppers, and sweet potatoes were started in hot beds before transferring to the nearby fields. Unlike many of the other centers, Gila River did not have a root cellar in which to store produce, presumably because produce could be grown nearly year round. However, produce was dried at a camp dehydrator (e.g., herb tea and daikon) or canned (e.g., tomatoes and sweet potatoes) (U.S. War Relocation Authority, 1945). Produce not consumed at the center was packed at a center facility and shipped to other centers from the Serape railroad siding (Figure 10.3).

Four different feed crops were grown and harvested (Table 10.2) or pastured for camp livestock. At least 30 different seed crops were also raised here (Table 10.1) for use in the center as well as transfer to other centers. War crops including flax, cotton, and castor beans were raised on 150 acres to assist in the war effort (U.S. War Relocation Authority, 1945) (Table 10.1). The castor bean experiment was soon abandoned when farmers outside the center complained about competition (Girdner and Loftis, 1969). Also unique to the center were the flowers grown for all types of camp events (U.S. War Relocation Authority, 1945). While no mention of manuring is made in the literature, livestock manure was likely used as a soil amendment in the various farm fields. Soils were rejuvenated through crop rotation–e.g., those lands that remained in alfalfa during the initial years of the camp's agricultural program were shifted to truck crops in fall 1944 or spring 1945. At the completion of the crop program by July 1945, all truck crop lands were re-seeded to alfalfa (U.S. War Relocation Authority, 1945).

Until the center started its own livestock operation, the roughly 6,500 remaining acres of cultivated lands were rented to local farmers (Burton et al., 2002). Chickens, hogs, beef cattle, and dairy cows were added in 1943. Because of the heat, chickens were raised in double-roofed houses (like the barracks in the center) that provided the necessary cooling ventilation for poultry to survive the heat of south central Arizona (Goerke-Shrode, 2001). The hot, dry climate worked well for hogs, especially when a mobile, well ventilated shade shelter was constructed. The beef operation migrated toward Brahma-cross steers as they were able to gain weight in the summer heat. Hogs and steers were killed and butchered at a slaughterhouse in Phoenix, then returned to the camp for consumption (U.S. War Relocation Authority, 1945). The livestock program was very successful in helping feed the center despite having few evacuees who had prior experience in this enterprise (Madden, 1969). By the end of 1943, the livestock program was supplying at least 60 hogs and 60 beef as well as tens of chickens, hundreds of dozens of eggs, and hundreds of gallons of milk to the center's mess halls each week (Figure 10.20) (Madden, 1969). Maximum livestock production was reached in 1945 when nearly 5,700 chickens, approximately 2,200 hogs, and over 1,800 beef were delivered to center mess halls (Table 10.3). In addition, over 112,500 dozens of eggs and 79,000 gallons of milk were produced in 1945 (U.S. War Relocation Authority, 1945).

Table 10.2. Produce, feed crop, seed crop, and war crop yields, Gila River Relocation Center, 1942-1945. Data from War Relocation Authority (1945b).

	1942	1943	1944	1945	*Total*
Produce					
Total Acres Harvested	404	1,692	1,436	902	*4,434*
Total Production (lbs)	1,757,777	9,945,295	14,863,900	6,169,565	*32,736,537*
Eaten at Center (lbs)	1,019,596	6,732,327	9,300,370	4,802,421	*21,854,714*
Shipped to Centers (lbs)	738,181	3,122,383	5,563,530	1,367,144	*10,791,238*
Total Market Value ($)	?	$209,047	?	?	*>$209,047*
Feed Crops					
Total Acres Harvested	0	1,259	1,320	520	*3,099*
Total Production (lbs)	0	3,117,000	2,115,250	1,009,300	*6,241,550*
Fed at Center (lbs)	0	3,117,000	2,115,250	1,009,300	*6,241,550*
Shipped to Centers (lbs)	0	0	0	0	*0*
Market Value ($)	0	?	?	?	*?*
Seed Crops					
Total Acres Harvested	0	55	81	?	*>136*
Total Production (lbs)	0	14,209	?	13,699	*>27,908*
Used at Center (lbs)	0	14,209	?	?	*>14,209*
Shipped to Centers (lbs)	0	0	0	?	*?*
Total Market Value ($)	0	?	?	?	*?*
War Crops					
Total Acres Harvested	0	106	106	0	*212*
Total Production (lbs)	0	39,500	34,842	0	*74,342*
Total Market Value ($)	0	?	?	0	*?*

Figure 10.19. Evacuee-grown *daikon* (i.e., a mild flavored, giant white radish), Gila River Relocation Center. Francis Stewart photograph, November 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 4, Section A, WRA # D-617, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 2: Gila River Relocation Center, Rivers, Arizona.

Gila River was the primary food producer of the eight western Japanese American relocation centers. The percentage of Gila River's produce shipped to the other centers ranged from 29% in 1945 to 72% in 1942 (Table 10.2). Stated differently, approximately 20% of all food consumed at the ten relocation centers was raised at Gila River (Staff, 28 August 1943; Burton et al., 2002).

The farming operation was also the chief employer of the center employing approximately 1,000 men and women in the 1943-1944 farm season (Burton et al., 2002). Evacuee employment on the center farm, like all other work is the center, was voluntary. Evacuee pay ranged from \$12/month for new workers or apprentices to \$16/month for ordinary workers not in the lowest

Figure 10.20. Evacuees milking cows on Gila River Relocation Center dairy farm. Francis Stewart photograph, April 1943. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 4, Section A, WRA # B-477, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 2: Gila River Relocation Center, Rivers, Arizona.

category to $19/month for supervisors, professionals, or those involved in extremely hard labor (Madden, 1969).

Despite its many successes, problems hampered the Gila River agricultural operation. Numerous articles in the *Gila News-Courier* indicate that a lack of farm labor was a frequent issue, probably as a result of low pay for hard work. The muddy nature of late summer/early fall irrigation water

Table 10.3. Livestock yields, Gila River Relocation Center, 1942-1945. Data from U.S. War Relocation Authority (1945).

	1942	**1943**	**1944**	**1945**	***Total***
Beef Cattle					
Total Animals Butchered	0	536	1,285	1,835	*3,656*
Total Dressed Weight (lbs)	0	232,624	542,270	590,870	*1,365,764*
Market Value ($)	0	$41,896	$94,897	$106,357	*$243,150*
Total Animals Transferred	0	0	650	1,290	*1,940*
Live Weight (lbs)	0	0	283,400	609,654	*893,054*
Market Value ($)	0	0	$50,729	$109,738	*$160,467*
Chickens					
Total Chickens Butchered	0	26	3,083	5,669	*8,778*
Meat Total Weight (lbs)	0	78	10,791	19,842	*30,711*
Market Value ($)	0	$21	$3,129	$5,754	*$8,904*
Eggs (dozen)	0	3,821	59,775	112,563	*176,159*
Market Value ($)	0	$1,720	$23,312	$50,631	*$75,663*
Dairy Cattle					
Total Gallons Produced	0	22,703	57,406	79,173	*159,282*
Market Value ($)	0	$6,357	$19,518	$31,669	*$57,544*
Hogs					
Total Hogs Butchered	0	477	1,583	2,204	*4,264*
Total Dressed Weight (lbs)	0	90,630	322,932	429,780	*843,342*
Market Value ($)	0	$19,479	$62,972	$85,956	*$168,407*

following summer rains was detrimental to new plantings as well as livestock watering. Gophers were a constant problem because of their tunneling impacts on irrigation ditches. Further, trespassing Native American livestock frequently damaged crops as did a grasshopper invasion in fall 1944 and spring 1945 (U.S. War Relocation Authority, 1945). Finally, the intense summer heat affected poultry as well as crop growth (Madden, 1969).

Business and Industry. Businesses within the center were operated by an evacuee-run Community Cooperative. This Cooperative included general, department, dry goods, shoe and clothing stores as well as fish market, barber shops, beauty parlors, optical shops, laundries, dry cleaners, shoe repair shops, and electrical repair shops (see various issues of the *Gila News-Courier*). Arizona legislators, responding to constituent's fears of economic competition and their desires to discourage evacuees from settling in Arizona, enacted a law that prohibited business transactions with any persons "whose movements were restricted by law." This law was subsequently struck down by the Maricopa County Superior Court. The court's decision was subsequently upheld by the Arizona State Supreme Court. The Arizona Corporation Commission, after issuing an operating license to the Rivers Cooperative, reversed its decision. This reversal was presumably a political decision based on public fears and racism. It took two months, a public hearing, and federal authorities to quiet Arizonans fear before the Cooperative again got its operating license (Caruso, 1973).

Industry at Gila River included a camouflage net factory, a model ship building shop, furniture repair and manufacture shops, tofu plant, and bean sprout facility. The camouflage net factory was operated on a Government contract by Southern California Glass Company and employed 500 evacuees during its five months of operation (Burton et al., 2002). In those five months, approximately 80 million ft^2 of camouflage netting was produced for the war effort (Madden, 1969). Production was high largely because evacuee workers were paid a higher base wage than wages paid to the evacuees by the WRA plus they received bonuses for high production (Tamir et al, 1993). Another shop built model ships to be used as training aids for the U.S. Navy. The model ship shop operated from March 1943 to January 1944, ultimately creating over 600 scale model ships (Madden, 1969). After the ship factory was closed in May 1944, it was converted into a furniture repair and manufacture facility. New furniture built at the facility was primarily used in the center schools (Tamir et al, 1993). Tofu was manufactured and bean sprouts were grown by center crews in sufficient quantities to meet all of the needs of the center (Staff, 30 November 1943; 15 January 1944; Tamir et al., 1993).

Landscaping and Gardening. Evacuees planted lawns, trees, and gardens for beauty, shade, and cooling in the harsh environment. Further, they constructed numerous concrete-lined garden ponds. One Butte Camp garden included a pond filled with carp, catfish, and *medaka* (i.e., Japanese killifish) surrounded by rocks and cactus. The entire area was illuminated by two Japanese rock lanterns (Staff, 11 November 1942). Small irrigation canals were constructed from the South Side Canal into the main parts of Canal and Butte camps in summer 1943 to irrigate these gardens and lawns, and fill the ponds (Staff, 22 July 1943; Staff, 3 August 1943; Smith, 1995; Burton et al., 2002). Other gardens took advantage of the native vegetation of the area. One such garden was composed of various cacti transplanted from around the center combined with a traditional Japanese lantern and a trellis. Others built ornate entry ways into their barracks apartments, often linked to barracks gardens (Eaton, 1952). Picnic areas were constructed throughout the camps. By 1944, the center boasted 25 acres of lawn, 4,949 ft^2 of flowers, 6,884 shade trees, and 3,800 ornamental shrubs. Some seeds were provided by the WRA while others came from evacuees and various individuals. Nurseries in the agricultural program likely provided some of the plants for these gardens. Many trees and shrubs also came from Casa Grande, Mesa and Phoenix while cottonwoods were taken from the Gila River floodplain (Madden, 1969). It was probable that the landscaping, combined with the white painted barracks with red roofs, attracted First Lady Eleanor Roosevelt to visit Gila River in Spring 1943 (Girdner and Loftis, 1969).

Education. The schools in each camp of the Gila River Relocation Center were housed in standard barracks buildings within blocks. The schools were initially plagued by poor facilities, inadequate equipment and supplies, and large classes. Classrooms were small and lacked ceilings. This was remedied by the 1943-1944 school year. The science laboratories, home economics, and shop buildings were added at each camp's schools by the winter of 1943-44. Auditoriums/gymnasiums were added at each camp by fall 1944. Classrooms were also initially furniture-less and even lacked heaters for part of the first winter. Textbooks were absent or in very short supply as were items like typewriters. As a result, typing was taught using cardboard keyboards. As at other centers, recruiting and retention of teachers was a constant issue, especially with pay higher at outside schools. Compounding the teacher shortage was the fact that the Arizona Governor threatened teachers that he would refuse them teaching certificates if they chose to teach at the Gila River schools (Lynn Galvin, written communication, 9 May 2007). Perhaps the biggest issue facing educators at Gila River was the low morale associated with the initial poor facilities (Madden, 1969).

School administrators and teachers helped resolve these inadequacies by holding students to high academic standards. Likewise, student evacuee parents took great pride and pinned their hopes on their student children. The Gila River Relocation Center school program followed the curricula of other Arizona schools. High School enrollment averaged 1,573 students while elementary school enrollment averaged 1,329 students during the three years the schools operated (Madden, 1969). Of the nearly 900 high school seniors who graduated there, 22% (approximately 200) continued their educations after high school (Caruso, 1973).

The center's education program benefitted from teachers from nearby schools who visited the center's schools. Public libraries and private individuals donated books and other learning materials. Faculty from Arizona State Teachers College in Tempe were loaned to the center to teach college classes and to supervise evacuee student teachers. Unfortunately, the University of Arizona, led by President Alfred Atkinson, was not giving of its resources. Atkinson stated that "We are at war and these people are our enemies. It is fine to be idealistic and helpful during times of peace, but these people stabbed us in the back" (Caruso, 1973).

In addition to K-12 education opportunities, an adult education program also existed at Canal and Butte camps. Various issues of the *Gila News-Courier* show that this popular program included classes ranging from Americanization to costume design to mathematics to science.

Recreation. A variety of community-sponsored programs provided recreation opportunities for Gila River evacuees. Some of these were more culturally Japanese in nature (see *Culture and Arts* section below) while others were more American in their leaning. These included Boy

Scouts, Girl Scouts, YMCA, and YWCA. Scout troops traveled outside the center for outings (Staff, 3 October 1944).

The pages of the Gila News-Courier reveal that a variety of sports were played at the school and community levels at Gila River. Among these were basketball, baseball, football, golf, softball, tennis, volleyball, and weightlifting. At one time, 22 community baseball teams existed in the center, and each had its own baseball field (Madden, 1969). These teams played each other as well as other relocation center teams, and local teams (see various sports pages of *Gila News-Courier*; Staff, 13 April 1943; 11 July 1944). Japanese American baseball legend Kenichi Zenimura acted as player-coach on various teams at Gila River including the Gila All-Stars and led the clandestine construction of 6,000 seat Zenimura Field (Figure 10.14). Zenimura even recruited school children to clear the playing field of rocks so players would have a smooth playing surface. According to Zenimura's son, Howard, who was a teenager at the time, building the park gave evacuees a sense of community and kept evacuee youth out of trouble (Young, 2005; Lynn Galvin, written communication, 9 May 2007).

Other activities included movies, dances, amateur shows, model airplane contests, garden competitions, pet shows, fashion shows, baby shows, and festivals. Movies, talent and fashion shows were held at amphitheaters at Butte and Canal camps (Madden, 1969). The Butte Camp amphitheater was especially unique in that it utilized the natural topography of Sacaton Butte on the west side of the camp (Figure 10.14). No mention is made of center swimming pools; however, youth swam in the irrigation canals of the camp (Girdner and Loftis, 1969).

The Canal and Butte camps schools each had a library that occupied an entire barracks. Community libraries were also housed in recreation halls. As of 1945, the combined holdings of the Gila River libraries were over 5,600 books and an extensive magazine collection (Madden, 1969).

Culture and Art. The culture of Gila River, as at other relocation centers, was purposefully American. This was seen in the language, dress, housing, meals, recreation, and business interactions. However, Japanese cultural influences were inevitable and seen throughout the center. Issei often conversed in Japanese. Buddhism had a strong following in the camp and included traditional ceremonies including the *Obon* (i.e., festival to honor the dead) (Staff, 17 July 1943). *Sumo* wrestling (Figure 10.21) and *judo* were practiced. Various groups within the center encouraged Japanese dance and the reading of Japanese literature (Madden, 1969).

In addition to the art involved in barracks gardens and landscaping, Gila River evacuees hunted *Kobu* for their artistic qualities. Kobu are the gnarled natural wood growths of the tree roots, trunks, or even branches of that are revealed after bark and dead wood has been removed and the wood is rubbed to a high sheen. Kobu were held and admired as well as used more practically as paper weights and doorstops (Eaton, 1952).

Faith and Spirituality. Various Saturday editions of the *Gila News-Courier* show at least five churches present within the confines of the Gila River Relocation Center. These included non-denominational Christian, Seventh Day Adventist, and Buddhist churches in each of the two camps. Christian services were given in English and Japanese versions. Over time, the members of the Christian churches in the center declined, partially as the result of one prominent Christian minister who spoke in favor of young men volunteering for the U.S. armed forces. He, and by association, other Christians were considered "dogs" thus friends of the administration (Okihiro, 1984). Another reason for the decline of Christians over time is that they tended to relocate to the outside more than the Buddhists (Smith, 1995). More than 50% of the evacuees were Buddhists (Madden, 1969) (Figure 10.22). When asked what contribution Buddhism makes to America, the typical answer by Gila River Buddhists was democracy. "The Lord Buddha believed all men to be...spiritual equals. He attempted to break down the caste system of India...Buddhism disregards race" (Okihiro, 1984). The only affront to religious freedom in the center was that the practice of the *Shinto* faith was forbidden (Spencer, 2002).

Figure 10.21. Sumo wrestling at Gila River Relocation Center. Francis Stewart photograph, November 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 5, Section A, WRA # D-671, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 2: Gila River Relocation Center, Rivers, Arizona.

Health. Gila River Relocation Center had two health care facilities–a hospital in Butte Camp and a clinic at Canal Camp–providing a total of 274 beds (Figures 10.12 and 10.14). These facilities provided general medicine, surgery, obstetrics, pharmacy, and dentistry services (Madden, 1969).

Special tuberculosis wards were established for those tuberculosis-positive evacuees who were placed at Gila River because of the dry heat (Weglyn, 1996). Unfortunately, the facilities were not complete until late September 1942, and during the life of the camp, were chronically understaffed. Health issues at the center included "Valley Fever" in early 1943 (Cates, 1980).

Figure 10.22. Buddhist Church at Butte Camp, Gila River Relocation Center. Francis Stewart photograph, November 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 4, Section A, WRA # D-648, War Relocation Authority Photographs of Japanese-American Evacuation and Resettlement, Series 2: Gila River Relocation Center, Rivers, Arizona.

An outbreak of food poisoning also hit the center hard in September 1943, hospitalizing 35 evacuees and sickening many others (Staff, 7 September 1943).

Government. Community government in the center was modeled after small community governments outside the center–i.e., Canal and Butte camps each had their own Community Councils elected by the evacuee members of the camps. In addition, each block had a Block Manager who dealt with day to day issues (Cates, 1980).

Community government was beset with problems from the start. The presence of Block Managers gave the impression that sufficient government existed. Further, regulations against Issei serving on the Community Council and coercive tactics of the administration initially sparked little interest among evacuees in their community government (Cates, 1980). However, permanent Community Councils were elected in fall 1943 to enact and enforce the laws of the camp. All laws and enforcement of the laws had to be approved by the Project Director and had to be in line with WRA policy. Among the various commissions established by the council was the Judicial Commission that acted as judge and jury in terms of law breakers. As in other centers, the community council was caught in the middle between the general populace of the evacuees and the administration. When the council was successful, the general populace suspected them of bending to the will of the administration. At the same time, the Council, as literal prisoners of the camp, had very different world views and goals than did the administration. EuroAmerican staff members also saw the Community Council as an impediment to what they were trying to accomplish (Madden, 1969).

Community. Overall, Gila River was considered a generally quiet camp in terms of internal unrest. However, a true sense of community was not easily attained. A variety of factors led this lack of community and associated community problems in the center.

Problems at Gila River began with facilities that were insufficient in number and degree of completion to adequately serve all of the incoming evacuees (Madden, 1969). Festering problems came with the evacuees from the assembly centers including differences between the urban-rural populations, the Issei, *Nissei* (i.e., second generation Japanese Americans born in the U.S.), and *Kibei* (i.e., second generation Japanese Americans born in the U.S. but educated in Japan) groups, and Buddhists versus Christians (Hansen, 1985). The natural leaders of the Japanese communities prior to the bombing of Pearl Harbor were the Issei. The Issei, as non-citizens, were not allowed to vote in relocation center matters. This left a leadership void as the Nisei and Kibei were often too young to have sufficient experience to effectively lead (Spencer, 2002). The Butte Camp hospital was another source of internal fighting because of inequities in pay and prestige between evacuee and civilian personnel (Madden, 1969). Further, the far greater pay at the camouflage net factory compared to the pay for other camp jobs also led to conflict within the center (Hansen, 1985). The dynamic nature of the center's population as family members seasonally left or permanently relocated further countered attempts at community-building.

The “loyalty questionnaire” (Appendix C) and draft registration caused unrest and further eroded a sense of community (Spencer, 2002). Twenty-eight evacuees who were identified by the administration as ringleaders in encouraging other evacuees to vote “no-no” on questions 27 and 28 of the loyalty questionnaire were quickly arrested and removed from the camp (Cates, 1980). Apparently, the arrests had little effect on the evacuees responses to the questionnaire–i.e., 1,582 Gila River evacuees answered “no-no”. This number tied Manzanar with the highest “no-no” votes of any of the relocation centers (Smith, 1995). Widespread unrest within the center declined after the “no-no” respondents to the loyalty questionnaire were removed from the center to either Tule Lake or repatriated to Japan.

The physical separation of Canal Camp from Butte Camp prevented any sort of cumulative sense of community. The presence of military personnel between Butte and Canal camps, combined with the 3.5 mile distance between camps, also prevented interactions (Spencer, 2002).

Interaction with Surrounding Areas

The Outside World. Much suggests that Arizona wanted little to do with the Japanese Americans at Gila River. As early as March 1942, Arizona Governor Sidney Osborn protested that Arizona should not be used as a “dumping ground” for “enemy aliens” (Caruso, 1973).

While the state’s agricultural community saw Gila River’s Japanese Americans as a panacea for their wartime labor woes, many of the cotton farmers were angered when the construction of the relocation center enhanced the farm labor shortage. It further angered local farmers when only a small percentage of Japanese Americans chose to work in the area’s cotton fields because they had to be accompanied by the military, were paid low wages, and were inexperienced in cotton picking (Caruso, 1973). Gila River evacuees on seasonal leaves encountered animosity in south central Arizona towns (Cates, 1980).

Arizona Senator McFarland publicly tried to work out an agreement to prevent Gila River’s and Poston’s evacuees from relocating to Arizona (Staff, 19 June 1943). Further, Arizona did not set up an office to assist evacuees in locating jobs in Arizona (Madden, 1969).

Despite these early reactions to the Japanese Americans by public officials, positive interactions apparently occurred between evacuees and those living on the outside. Local Pimas and Maricopas from the Gila River Indian Reservation assisted a group of evacuees led by Kenichiro Zenimura in building Zenimura Field (Figure 7.14). Pimas and Maricopas played baseball with the Japanese Americans, and also watched games at the ballpark (Nisei Baseball Research Project, n.d.; Young, 2005). Pimas worked in the construction of the center, at the camouflage net factory, and in various positions for the WRA within the center (Tamir et al, 1993). Evacuees also encountered members of the Gila River Indian Reservation when having maintenance performed on center vehicles at the Indian Agency in Sacaton, (Madden, 1969). Other accounts suggest that relations between the local Native Americans and the Japanese Americans were at times strained (David DeJong, written communication, 10 April 2007).

Arizona State Teachers College (now Arizona State University) in Tempe provided teacher trainers for under-qualified evacuees teaching in the center's schools (Madden, 1969). The pages of the *Gila News-Courier* reveal that Gila River sports teams played several teams on the outside including those from Casa Grande, Coolidge, Glendale, Mesa, Phoenix, and Tucson.

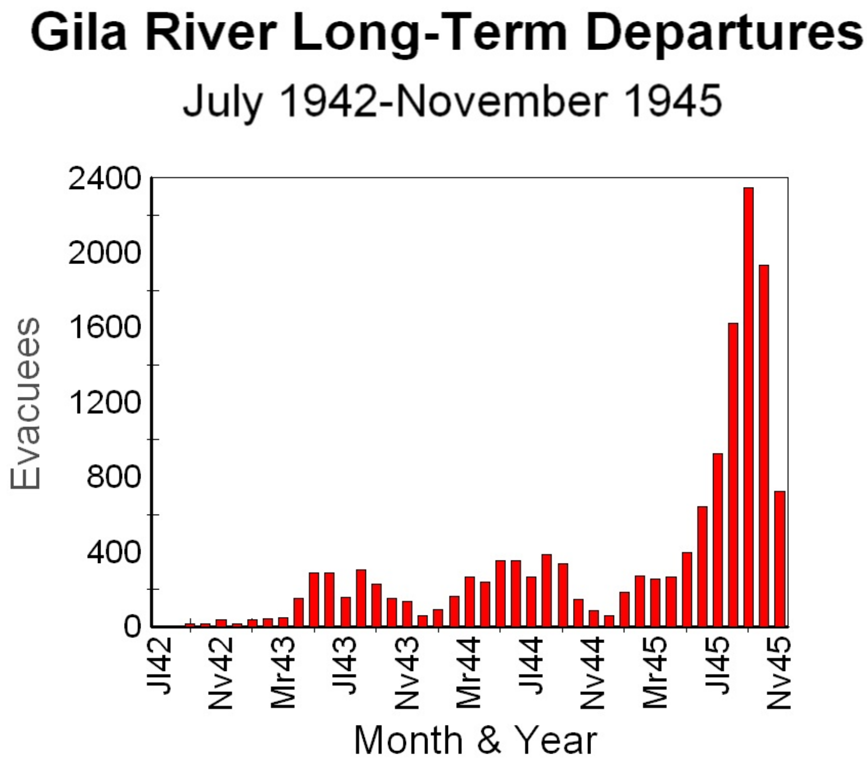
In addition to the local, very short-term departures from the center mentioned above, evacuees could leave the center on short-term, seasonal, and indefinite leaves. Short-term leaves ranged from several days to a few weeks and were typically for personal business or medical issues. Seasonal leaves were granted to evacuees for seasonal agricultural employment. The purpose of indefinite leaves was to permanently depart the centers for relocation to the "outside world," join the armed forces, be interned in a Department of Justice Internment Camp, be committed to an institution, or be repatriated to Japan (U.S. War Relocation Authority, 1946).

Long-term departure or "relocation" was encouraged from the start. Gila River had a relocation commission composed of evacuees and staff members who encouraged and otherwise assisted evacuees in relocating to the outside world (Smith, 1995). Various editions of the *Gila News-Courier* carried letters from evacuees who had successfully relocated to various areas, typically east of Gila River. The newspaper also listed those relocating and their destinations, and it frequently carried articles about farms and businesses that wanted evacuees. Teachers at the center were recruited from all over the nation thus putting evacuees in contact with people from a wide variety of places (Madden, 1969). Presumably, this was done to enhance the relocation process. Ninety-two evacuees relocated during 1942 (Figure 10.23). The first to relocate from the center were college students who began to depart by mid-September 1942 (Staff, 16 September 1942). Approximately 150 students from Gila River were ultimately accepted at colleges around the country. Outside churches often helped students make this jump from the center. In fact, 24 of the 150 students accepted by colleges were associated with the Episcopalian congregation at the center (Smith, 1995). In 1943, 1,897 departed while 2,739 more departed in 1944, and 9,569 departed in 1945 (Figure 10.23). Interestingly, relocations peaked in the warm season months in 1943 (May-September) and 1944 (March-September) suggesting that the oppressive heat of the center may have played a role in pushing evacuees out of the center. The pages of the *Gila News-Courier* show that Gila River evacuees relocated to 35 states and the territory of Hawaii (Figure 10.24). Preferred destinations were upper Midwestern cities including Chicago, Minneapolis-St. Paul, Detroit, and Cleveland.

Gila River ranked fourth out of the ten relocation centers in terms of numbers of military volunteers. A total of 487 Gila River evacuees volunteered or were drafted into the military. The center had no Selective Service violations. Seventy-seven of the Gilans were casualties of war including 16 killed, 60 wounded, and one missing in action (U.S. War Relocation Authority, 1946).

Other Relocation Centers. Gila River interacted with other relocation centers primarily in the transfer of evacuees from one center to another, by trading agricultural crops, and through competition between center baseball teams.

Figure 10.23. Indefinite leaves (i.e., relocations), Gila River Relocation Center, July 1942-November 1945. Data from U.S. War Relocation Authority (1946, p. 33).



A total of 2,005 Gila River evacuees were transferred to Tule Lake in October 1943 and May 1944 because they or members of their families answered "no" to questions 27 and 28 on the loyalty questionnaire (Appendix C). Seventy-one of the Gila River evacuees who answered "no" to the loyalty questionnaire were repatriated to Japan in September 1943. Sixteen evacuees were also sent to the Leupp, Arizona Isolation Center. Gila River received only four Tuleans in November 1943 and another 2,412 evacuees as transfers from other centers. Among these were 2,076 evacuees from the Jerome Relocation Center when it closed in June 1944 (Staff, 15 June 1944; U.S. War Relocation Authority, 1946).

It was determined early on that Gila River was to supply a significant portion of the food consumed in the other relocation centers. The center sent out its first shipment of turnips, beets, and squash to Poston in early November 1942 (Staff, 7 November 1942). By January 1943, Gila River had sent train carloads of vegetables to all of the relocation centers (Staff, 12 December 1942; Staff, 14 January 1943). Approximately 300 train carloads of produce were shipped to the other centers over the life of the Gila River center (U.S. War Relocation Authority, 1945b). In addition to various produce shipped, the center also sent tomato and pepper plants from the Gila nursery and livestock from the livestock operation to other centers (Staff, 6 May 1943; U.S. War

Figure 10.24. Geography of Gila River indefinite leaves (i.e., relocations), July 1942-November 1945. Data from relocation sections of various issues of *Gila News-Courier*.

Relocation Authority, 1945). Despite its highly successful agricultural program, Gila River was unable to supply all of its produce needs. As a result, the center received surplus lettuce, nappa, and turnips from Tule Lake as early as October 1942 (Staff, 10 October 1942).

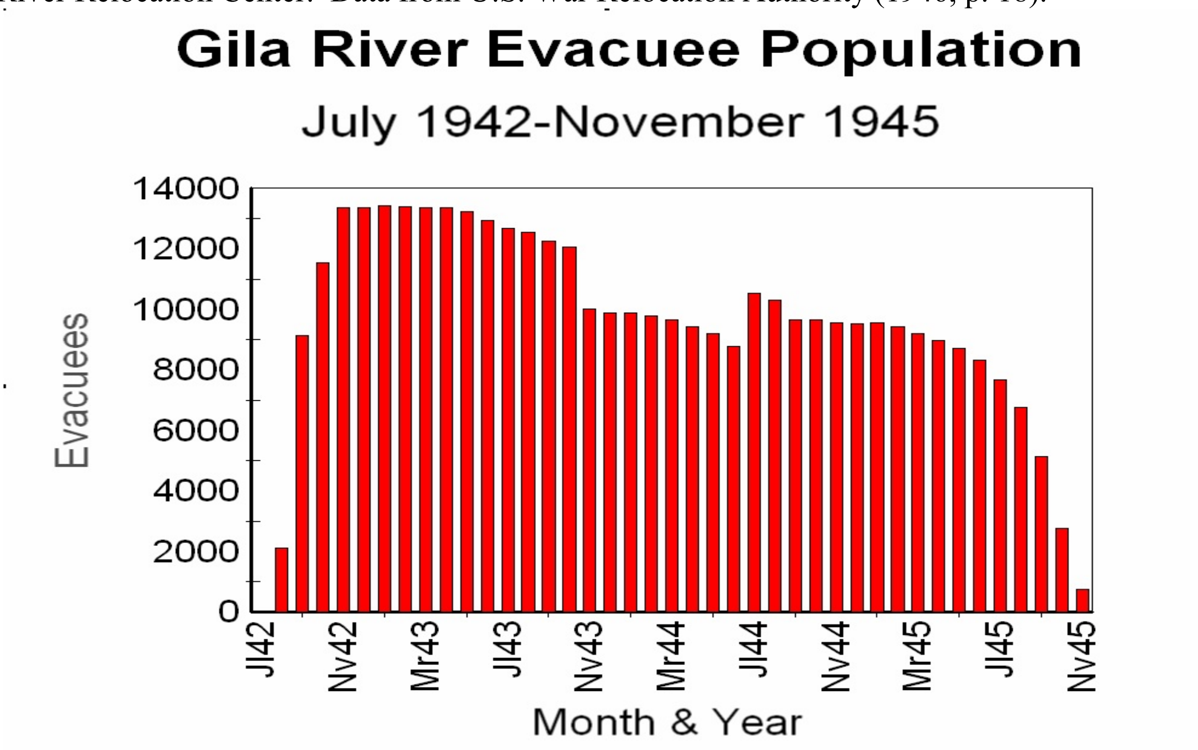
Gila River also interacted with other relocation centers through baseball. Center baseball teams entertained squads from Poston in July 1944 and Amache in August 1944. A Gila River team also traveled to Heart Mountain in September of the same year (Staff, 11 July 1944; Staff, 30 August; Staff, 9 September 1944).

Closing Gila River and Another Relocation

Public Proclamation #21 on 17 December 1944 ended the West Coast Exclusion Order that had been in effect since 1942. Gila River's first California-bound Japanese Americans departed soon after (Staff, 23 December 1944).

In December 1944, the Gila River Relocation Center administration announced that it would close the center by 15 November 1945 (Madden, 1969). As of 1 January 1945, 9,550 evacuees remained in the center (Figure 10.25). On 1 June, the center's population was still 8,319. The pace of relocations increased after that. By VJ (i.e., Victory over Japan) day on 14 August, 1944, the center had approximately 7,000 residents. Canal Camp was closed on 28 September 1945 while Butte Camp closed on 10 November 1945 (Burton et al., 2002).

Figure 10.25. Resident population, including evacuees on short term and seasonal leave, Gila River Relocation Center. Data from U.S. War Relocation Authority (1946, p. 18).



Impacts of Gila River on Today's Southern Arizona Landscape

Evacuee Dispersion. The 1950 census only showed two Japanese Americans in Pinal County as compared to 0 in 1940 suggesting that few evacuees remained in the immediate area of the relocation center after its closure. However, the Japanese population of the adjacent four counties increased by 197 (36%) over the 1940 total. Most of this increase and the overall Japanese American population of 752 was centered in Maricopa County (U.S. Bureau of the Census, 1943; 1952); no other adjacent county had more than 19 Japanese Americans at that time. These data suggest that a significant number of Japanese Americans did stay in south central Arizona following the closure of Gila River Relocation Center, and that Maricopa County, likely because of its strong Japanese roots, again served as the center of Japanese American population in the state in the years immediately following World War II. Over 800 Japanese American evacuees relocated to Arizona in their first move out of the relocation centers (U.S. War Relocation Authority, 1946). Because of the location of Gila River and Poston in Arizona, presumably most of these 818 came from these two centers. The 1950 census showed that Arizona's Japanese American population had declined by nearly 40% from its 1940 peak–i.e., 1,264 in 1940 to 780 in 1950 indicating that some of those initially relocating in Arizona later moved on prior to the 1950 census, with many likely heading back to the West Coast (U.S. Bureau of Census, 1943; 1952).

Land Dispersion. Following closure of the center in November 1945, the land reverted back to the Gila River Indian Reservation. All leases for the approximately 17,125 acres of Gila River Indian Reservation lands were formally terminated in 1947 (Indian Claims Commission, 1971b).

Infrastructure Dispersion. By December 1945, the center's buildings were allocated and moved to various educational institutions around Arizona. Of particular note, the City of Mesa purchased the Butte High School Auditorium. Barracks, as well as various other property, were auctioned in August 1946. Sealed bids were taken until March 1947 on remaining buildings and utilities (Burton et al., 2002). Additionally, center buildings were sold to local Pimas and Maricopas for $1 each (Comeaux, 1981). Indian war veterans obtained some of the barracks as well (Tamir et al., 1993). One barracks ended up in Phoenix where it temporarily served as the Arizona Buddhist Temple after the original temple was destroyed by fire (Anonymous, n.d.). Once the buildings were gone, the U.S. Bureau of Land Management refused to further restore the site to its original condition because such restoration was not specified in the contract between the U.S. Government and the Gila River Indian Reservation (Indian Claims Commission, 1971b).

Remains of Gila River. Burton et al. (2002) describe in detail the nature of the Gila River Relocation Center as of about 2000 where much evidence remains of the main portions of Canal and Butte camps. Further, I visited the former relocation center in December 2002. Canal Camp is the most preserved with road network, concrete slabs of various buildings, concrete pier blocks from evacuee barracks (Figure 10.28), landscaping, irrigation ditches, and the sewage treatment plant intact. Much also remains at Butte Camp but erosion has obliterated some of the roads and preparation for agriculture at one time resulted in the bulldozing of some of the concrete pads

Figure 10.26. Barracks concrete pier blocks amidst creosote bushes of Butte Camp, Gila River Relocation Center. Sacaton Butte in background. Author photograph, December 2002.

into large rubble piles (Figure 10.27). Some concrete pads at both camps have been torn up, presumably in search of cast iron (Scott Russell, written communication, 19 April 2007).

Of particular interest are depressions and landscaping within the barracks areas, and remains of irrigation infrastructure in each of the camps. Depressions within the perimeters of barrack pier blocks indicate the former presence of cellars beneath the barracks (Figure 10.28). The cellars were excavated as places for adults and children to lounge during the heat of the days (Lynn Galvin, written communication, 9 May 2007). The evidence of landscaping is literally everywhere in the residential portions of each of the camps. Numerous rock and/or concrete pools remain from evacuee landscaping efforts (Figure 10.29). Rocks in a variety of sizes, shapes, and sizes often surround entire barracks and along with concrete, may serve as barracks entryways (Figure 10.30). Much of the rock appears to be granite from the surrounding hills and mountains. Tamarisk trees planted by the evacuees still survive in the camps. They are most evident at Canal Camp where they still grow in rows. Unlined irrigation canals, complete with diversion boxes and boards, are still evident along many of the streets in Canal Camp hinting at the importance of water to the center landscaping efforts. The abundance of irrigation canals at Canal Camp as compared to those seen at Butte Camp suggest either that less irrigation water

Figure 10.27. Bulldozed concrete slabs, Butte Camp, Gila River Relocation Center. Author photograph, December 2002.

Figure 10.28. Depression within the perimeter of a former barracks indicating the presence of a cellar, Butte Camp, Gila River Relocation Center. Author photograph, December 2002.

Figure 10.29. Remains of concrete-lined, evacuee-constructed garden pond at Canal Camp, Gila River Relocation Center. Note the link of the pond to the camp irrigation system. Also, note the post-camp growth of creosote bush. Yellow 5 inch by 8 inch field notebook for scale. Author photograph, December 2002.

Figure 10.30. View of remains of native stone entryway into evacuee barracks, Canal Camp, Gila River Relocation Center. Yellow 5 inch by 8 inch field notebook for scale. Author photograph, December 2002.

was available at Butte Camp or subsequent erosion has been more effective in obliterating the Butte Camp canals. It seems most likely that the latter is true.

Despite the ample evidence of each of the camps at Gila River, there is much to be said here for the tenacity of nature in an arid setting. Both sites are again covered with native vegetation and both show much evidence of post-center erosion (Figures 10.31). Further, *desert pavement* and *microbiotic soil crusts* have formed at the each of the camps. The desert pavement was likely forming as the soil surfaces were initially disturbed by construction in May 1942. The microbiotic crusts have formed, even in such high use areas such as former baseball fields since the center was closed in 1945 and disturbances essentially ended (Figure 10.32).

Unlike the other western relocation centers, only a few Gila River Relocation Center buildings are present on the lands surrounding the former relocation center (Figure 10.33). It is not clear why this is so as one would expect that the generally impoverished population there would have had ample uses for them. Further, it seems likely that few of the former relocation center buildings have survived the suburban sprawl that has spread south from the Phoenix metropolitan area to the boundary of the Gila River Indian Reservation.

Figure 10.31. A *nickpoint* formed by headward recession of an ephemeral channel during previous storm runoff at Butte Camp, Gila River Relocation Center. Yellow 5 inch by 8 inch field notebook for scale. Author photograph, December 2002.

Figure 10.32. Microbiotic crust as evidenced by dark areas of soil surface and creosote bush on former baseball field, Canal Camp, Gila River Relocation Center. View from near pitcher's mound toward backstop. Yellow 5 inch by 8 inch field notebook for scale. Author photograph, December 2002.

Figure 10.33. Part of a Gila River Relocation Center barracks used as a home on the Gila River Indian Reservation. Author photograph, December 2002.

Few interpretive opportunities currently exist for the Gila River Relocation Center. This is unfortunate because of the abundant remains at each of the two camps of the relocation center. The Gila River Indian Reservation Cultural Center includes an interior exhibit and an exterior display pertaining to the relocation center. Access to the site is currently restricted to those who have obtained a permit. Memorial markers are present at each of the camps describing and showing the camps. The Gila River Relocation Center is not listed on the National Register of Historic Places because the tribe views such a designation as a threat to their sovereignty. This is understandable given the fact that the Gila River Indian Reservation peoples did not want the relocation center on their lands in the first place.

Arizona's Gila River Indian Community Today. In 1971, the Gila River Indian Community (GRIC) brought suits against the U.S. Government to recover fair compensation for the U.S. Government's use of the GRIC lands from 1942-1945 (Indian Claims Commission, 1971a). The Indian Claims Commission agreed that the U.S. Government should compensate the GRIC for not developing the 8,850 acres of land and for not restoring the lands occupied by Canal and Butte Camps (Indian Claims Commission, 1971c; 1971d). Over $1.5 million in damages were subsequently awarded to the Gila River Indian Community (Indian Claims Commission, 1976).

The approximately 17,125 acres that were the Gila River Relocation Center are now part of, or adjacent to, Gila River Farms on Gila River Indian Community lands. Gila River Farms began in 1968 and is a wholly owned subsidiary of the Gila River Indian Reservation. The farms encompass approximately 15,000 acres that grow cotton, alfalfa, wheat, barley, oranges, grapefruit, tangelos, lemons, tangerines, melons, and olives (Figure 7.34). Fish are also raised on the farm (Gila River Indian Community, n.d.a; Robert Stone, 20 December 2002, oral communication). Gila River Farm lands were terraced into 40 acre parcels in 1985 to enable flood irrigation (Robert Stone, 20 December 2002, oral communication). Because of this dramatic change in topography and surface features, it is likely that little remains of the relocation center farming operation in those areas now farmed.

The Gila River Indian Community covers 372,000 acres (about 581 mi^2) (Arizona Department of Commerce, n.d.). While still struggling with the economic and social fallout of the decline in water resources, hence the decline in agriculture, that began in the 1870s, the Gila River Indian Community's fortunes are again on the rise. Agriculture as well as industrial and business parks, golf courses, resorts, and gaming are all playing a role in this economic resurgence (Arizona Department of Commerce, n.d.). The Gila River Water Settlement Act of 2004 more than triples the amount of water available to the community (Gila River Indian Community, n.d.b) paving the way for irrigated agriculture to again be a primary economic activity of the Pimas and Maricopas. As of 1999 the Gila River Indian Community population was 15,084, a tremendous increase over the 1990 population of 9,540, and unemployment had declined from 23% to 20% (Arizona Department of Commerce, n.d.).

As of 2005, the estimated population of Pinal County was 229,549, a 27.9% increase since 2000. The population density of the county is 33.5 persons/mi^2, close to the statewide average of 45.2

Figure 10.34. Flood-irrigated orange grove at Gila River Farms, Gila River Indian Community. Author photograph, December 2002.

persons/mile^2. Approximately 59% of the county residents are Caucasians. Latinos, at nearly 30% of the population, have a significant impact on the race and ethnicity in the county. Native Americans make-up another nearly 7.5% of the population. Asians, including Japanese Americans, make up less than 1% of the population (U.S. Census Bureau, n.d.).

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References

Anonymous. n.d. Temple FAQ. http://www.azbuddhisttemple.org/churchfaq.htm. Accessed 27 September 2006.

Arizona Department of Commerce, n.d.: Gila River Indian Community Community Profile. www.commerce.state.az.us/pdf/commasst/comm/gilarivr.pdf. Accessed 29 September 2006.

August, J., 1979: The Anti-Japanese Crusade in Arizona's Salt River Valley, 1934-1935. *Arizona and the West,* 21 (2): 113-136.

Bailey, R.G., 1995: Description of the Ecoregions of the United States (2nd edition). *USDA Forest Service Miscellaneous Publication* 1391. Washington, D.C.: Government Printing Office.

Bernstein, A.R., *American Indians and World War II: Toward a New Era in Indian Affairs*. Norman: University of Oklahoma Press.

Berry, C.F. and Marmaduke, W.S., 1982*: The Middle Gila River Basin: An Archaeological and Historical Overview*. U.S. Bureau of Reclamation, sponsoring agency. Northland Research, Inc., Flagstaff.

Brazel, A.J. and Evans, K.E., 1984: Major Storms and Floods in Arizona 1862-1983. *Climatological Publications--Precipitation Series* #6, Laboratory of Climatology, Arizona State University, Tempe.

Brown, G.F., 2001: Return to Gila River. *In* Harth, E., editor) *Last Witnesses: Reflections on the Wartime Internment of Japanese Americans*. New York: Palgrave. pp. 115-125.

Burton, J.F., Farrell, M.M., Lord, F.B., and Lord, R.W., 2002: *Confinement and Ethnicity: An Overview of World War II Japanese American Relocation Sites*. Seattle: University of Washington Press.

Caruso, S.T., 1973: After Pearl Harbor: Arizona's Response to the Gila River Relocation Center. *Journal of Arizona History,* 14 (4): 335-346.

Cates, R.T., 1980: Comparative Administration and Management of Five War Relocation Authority Camps: America's Incarceration of Persons of Japanese Descent During World War II. PhD Dissertation, University of Pittsburgh.

Comeaux, M.L. 1981. *Arizona: A Geography*. Westview Press, Boulder, Colorado.

DeJong, D.H., 2004a: Forced to Abandon Their Farms: Water Deprivation and Starvation Among the Gila River Pima, 1892-1904. *American Indian Culture and Research Journal,* 28 (3): 29-56.

DeJong, D.H., 2004b: An Equal Chance? The Pima Indians and the 1916 Florence-Casa Grande Irrigation Project. *Journal of Arizona History,* 45 (1): 63-102.

DeMallie, R.J., 1977: Historical Background of the Gila River Indian Reservation. Washington, D.C.: Institute for the Development of Indian Law.

Eaton, A.H., 1952: *Beauty Behind Barbed Wire: The Arts of the Japanese in Our War Relocation Camps*. New York: Harper and Brothers Publishers.

Ezell, P.H., 1983: History of the Pima. *In* Ortiz, A., ed., *Handbook of North American Indians*, Volume 10: *Southwest*. Washington, D.C.: Smithsonian, pp. 149-160.

Ezell, P.H., 1994: Plants without Water: The Pima-Maricopa Experience. *Journal of the Southwest,* 36 (4): 311-392.

Fenneman, N.M., 1931: *Physiography of Western United States*. New York: McGraw-Hill Book Company, Inc.

Gila River Indian Community, n.d.a: Gila River Farms. Pamphlet. 2 pp.

Gila River Indian Community. n.d.b: History of the Gila River Water Settlement Act of 2004. http://www.gilariver.com/settlement.htm. Accessed 29 September 2006.

Girdner, A. and Loftis, A., 1969: *The Great Betrayal: The Evacuation of the Japanese-Americans During World War II.* London: Collier-Macmillan Ltd.

Goerke-Shrode, S., 2001: Basics, Few Comforts for Internees: Japanese-Americans Grew Food in the Heat. http://63.192.157.117/history/history101401.html. Accessed 27 September 2006.

Griffiths, J.F. and Driscoll, D.M., 1982: *Survey of Climatology*. Columbus, Ohio: Charles E. Merrill Publishing Company.

Hansen, A.A., 1985: Cultural Politics in the Gila River Relocation Center, 1942-1943. *Arizona and the West,* 27 (4): 327-362.

Hansen, A.A., 1999: The Evacuation and Resettlement Study at the Gila River Relocation Center, 1942-1944. *Journal of the West,* 38 (2): 45-55.

Harwell, H.O. and Kelly, M.C.S., 1983: Maricopa. *In* Ortiz, A., ed., *Handbook of North American Indians*, Volume 10: *Southwest*. Washington, D.C.: Smithsonian, pp. 71-85.

Howard, A.D., 1942: Pediment Passes and the Pediment Problem. *Journal of Geomorphology,* 5: 3-31; 95-136.

Huckleberry, G., 1994: Contrasting Channel Response to Floods on the Middle Gila River, Arizona. *Geology,* 22: 1083-1086.

Huckleberry, G.A., 1995:Archaeological Implications of Late-Holocene Channel Changes on the Middle Gila River, Arizona. *Geoarchaeology,*10 (3): 159-182.

Huckleberry, G., 1999: Stratigraphic Identification of Destructive Floods in Relict Canals: A Case Study From the Middle Gila River, Arizona. *Kiva,* 65 (1): 7-33.

Indian Claims Commission. 1971a. Docket Number 236-A, 236-B, Opinion of the Commission. Volume 25. Pp. 250-259. http://digital.library.okstate.edu/icc/v25/v25toc.html. Accessed 4 October 2006.

Indian Claims Commission. 1971b. Docket Number 236-A, 236-B, Findings of Fact. Volume 25. Pp. 260-277. http://digital.library.okstate.edu/icc/v25/v25toc.html. Accessed 4 October 2006.

Indian Claims Commission. 1971c. Docket 236-A, First Interlocutory Order. Volume 25. Pp. 278. http://digital.library.okstate.edu/icc/v25/v25toc.html. Accessed 4 October 2006.

Indian Claims Commission. 1971d. Docket 236-B, First Interlocutory Order. Volume 25. Pp. 279-280. http://digital.library.okstate.edu/icc/v25/v25toc.html. Accessed 4 October 2006.

Indian Claims Commission, 1976: Docket 236-A and 236-B: Final Award. Volume 39, pp. 87, http://digital.library.okstate.edu/icc/v25/v25toc.html. Accessed 4 October 2006.

Iwata, M., 1992: *Planted in Good Soil: The History of the Issei in United States Agriculture* (Volume 2). New York: Peter Lang.

Japanese American National Museum, 1998: Gila River. http://www.janm.org/projects/clasc/gila.htm. Accessed 15 February 2007.

Johnson, W.W. Jr., Camp, P.D. and Preston, J.D., 1998: Soil Survey of Gila River Indian Reservation, Arizona: Parts of Maricopa and Pinal Counties. Natural Resources Conservation Service–U.S. Department of Agriculture, in cooperation with the U.S. Department of the Interior–Bureau of Indian Affairs, Arizona Agricultural Experiment Station, and the Gila River Tribe.

Kister, L.R. and Hardt, W.F., 1966: Salinity of the Ground Water in Western Pinal County Arizona. *U.S. Geological Survey Water-Supply Paper* 1819-E.

Madden, M.T., 1969: A Physical History of the Japanese Relocation Camp Located at Rivers, Arizona. M.A. Thesis, Department of History, University of Arizona, Tucson.

Meyers, J.S., 1962: Evaporation from the 17 Western States. *U.S. Geological Survey Professional Paper* 272-D.

Nisei Baseball Research Project, n.d.: Zenimura Field: 1942-1945. http://www.niseibaseball.com/html%20articles/Baseball%20Behind%20%20Barbed%20Wire/Zenimura%20Field.html. Accessed 4 October 2006.

Okihiro, G.Y., 1984: Religion and Resistance in America's Concentration Camps. *Phylon,* 45 (3): 220-233.

Paulson, R.W., Chase, E.B., Roberts, R.S., and Moody, D.W., 1991: Arizona: Floods and Droughts. *In* National Water Summary 1988-89: Hydrologic Events and Floods and Droughts. *U.S. Geological Survey Water-Supply Paper* 2375, pp. 181-188.

Sato, S., 1973: Before Pearl Harbor: Early Japanese Settlers in Arizona. *The Journal of Arizona History,* 14 (4): 317-334.

Sellers, W.D. and Hill, R.H.,1974: *Arizona Climate 1931-1972* (revised, second edition). Tucson: University of Arizona Press.

Smith, P., 1995: *Democracy on Trial: The Japanese American Evacuation and Relocation in World War II.* New York: Simon and Schuster.

Smith, F.J., Kessell, J.L. and Fox, F.J., 1966: *Father Kino in Arizona*. Phoenix: Arizona Historical Foundation.

Spencer, R.F., 1992: The Relocation Center at Rivers, Arizona. *Casa Grande Valley Histories* Casa Grande, Arizona: Casa Grande Valley Historical Society, pp. 7-20.

Staff, 1942: Gila Zoo. *Gila News-Courier*, 12 September, pp. 5.

Staff, 1942: Three Students Leave Center for School. *Gila News-Courier*, 16 September, pp. 3.

Staff, 1942: Shorter Hours for Irrigation. *Gila News-Courier*, 19 September, pp. 7.

Staff, 1942: Home-Grown Radishes Bedeck Mess Tables. *Gila News-Courier*, 26 September, pp. 1.

Staff, 1942: Rivers Boasts Fourth Place. *Gila News-Courier*, 30 September. pp. 3.

Staff, 1942: Gila Zoo. *Gila News-Courier,* 7 October, pp. 4.

Staff, 1942: Tule Farms Ship Produce Here. *Gila News-Courier*, 10 October, pp. 1.

Staff, 1942: First Vegetable Carload Shipped Out Yesterday. *Gila News-Courier,* 7 November, pp. 4.

Staff, 1942: Ingenuity Marks Miniature Landscape Creation. *Gila News-Courier*, 11 November, pp. 5.

Staff, 1942: "Jack Frost" Nips Greens. *Gila News-Courier*, 25 November, pp. 7.

Staff, 1942: Vegetable Exports Continue. *Gila News-Courier*, 12 December, pp. 4.

Staff, 1942: Stove Installation Commences Today. *Gila News-Courier*, 22 December, pp. 1.

Staff, 1943: Windstorm Hampers Camouflage Work. *Gila News-Courier*, 9 January. pp. 1.

Staff, 1943: River's Exports More Produce. *Gila News-Courier*, 14 January, pp. 3.

Staff, 1943: Butte Flooring to Commence. *Gila News-Courier*, 26 January, pp. 3.

Staff, 1943: Ex-Daikon King Min Omata Plants Variety of Vegetables. *Gila News-Courier*, 2 February, pp. 1.

Staff, 1943: Casa Grande Splits Twin Bill. *Gila News-Courier*, 13 April, pp. 8.

Staff, 1943: Vegetables: 75 Carloads Leave Gila. *Gila News-Courier*, 6 May, pp. 5.

Staff, 1943: Produce for Army Urges McFarland. *Gila News-Courier*, 19 June, pp. 1.

Staff, 1943: Colorful Bon Odori Festival. *Gila News-Courier*, 17 July, pp. 3.

Staff, 1943: Ditch Digging Nears Finish. *Gila News-Courier*, 22 July, pp. 3.

Staff, 1943: Thirsty Lawns, Flower Beds Receive Water. *Gila News-Courier*, 3 August, pp. 3.

Staff, 1943: Dust, Heat, Lightning, and Rain. *Gila News-Courier*, 7 August, pp. 2.

Staff, 1943: Rivers to Grow One-Fifth of WRA Food in 1943-44. *Gila News-Courier*, 28 August, pp. 1.

Staff, 1943: Stomach Trouble Hits Rivers Over Weekend. *Gila News-Courier*, 7 September, pp. 1, 5.

Staff, 1943: Floodwaters Sweep Gila. *Gila News-Courier*, 28 September, pp. 1, 4.

Staff, 1943: Storm History Repeats Itself. *Gila News-Courier*, 19 October, pp. 4.

Staff, 1943: Tofu Factory Progressing. *Gila News-Courier*, 30 November, pp. 1.

Staff, 1944: Tofu Factory Shifts to High. *Gila News Courier*, 15 January, pp. 1.

Staff, 1944: Jerome: 500 Transferees Arrive Tonight. *Gila News-Courier*, 15 June, pp. 1.

Staff, 1944: Poston Center Yankees End Series Even. *Gila News-Courier*, 11 July, pp. 6.

Staff, 1944: All-Stars Swept Clean at Gila. *Granada Pioneer*, 30 August, p. 6.

Staff, 1944: Players Description of the Heart Mountain Series. *Gila News-Courier*, 9 September, pp. 6.

Staff, 1944: Boy Scouts Enjoy Camping. *Gila News-Courier*, 3 October, pp. 3.

Staff, 1944: Family Returns to California. *Gila News-Courier*, 23 December, pp. 1

Tamir, O., Russell, S.C., Jensen, K.J. and Lerner, S., 1993: Return to Butte Camp: A Japanese-American World War II Relocation Center. Report prepared for U.S. Bureau of Reclamation, Arizona Projects Office, Contract # 1425-2--CS-32-01820 by Archaeological Consulting Services, Ltd., Cultural Resources Report #82.

Thomsen, B.W. and Eychaner, J.H., 1991: Predevelopment hydrology of the Gila River Indian Reservation, South-Central Arizona. *U.S. Geological Survey Water-Resources Investigations Report* 89-4174.

Tuan, Y-F., 1959: *Pediments of Southeastern Arizona*. Berkeley: University of California Press.

U.S. Army–Western Defense Command, 1943: *Final Report: Japanese Evacuation from the West Coast 1942*. Washington, D.C.: U.S. Government Printing Office.

U.S. Bureau of the Census, 1913: *Thirteenth Census of the United States Taken in the Year 1910, Volume II, Population 1910: Alabama-Montana.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1922: *Fourteenth Census of the United States Taken in the Year 1920, Volume III: Population 1920: Composition and Characteristics of the Population by States,* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1932: *Fifteenth Census of the United States, 1930, Population, Reports by States Showing the Composition and Characteristics of the Population for Counties, Cities, and Townships or Other Minor Civil Divisions, Volume III, Part 1: Alabama-Missouri.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1943: *Sixteenth Census of the United States: 1940, Volume II, Characteristics of the Population: Part 1: Alabama-District of Columbia.* Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census, 1952: *A Report of the Seventeenth Decennial Census of the United States Census of Population: 1950, Volume II: Characteristics of the Population, Part 3: Arizona*. Washington, D.C.: Government Printing Office.

U.S. Census Bureau, n.d.: Pinal County, Arizona. http://quickfacts.census.gov/qfd/states/04/04021.html. Accessed 17 May 2007.

U.S. Census Office, 1895: *Report on the Population of the United States at the Eleventh Census: 1890, Part I*. Washington, D.C.: Government Printing Office.

U.S. Census Office, 1901: *Twelfth Census of the United States, Taken in the Year 1900. Census Reports Part I: Population.* Washington, D.C.: Government Printing Office.

U.S. Department of Agriculture, 1954: Diagnosis and Improvement of Saline and Alkaline Soils. *Agriculture Handbook* #60.

U.S. Geological Survey, 1955: Quality of Surface Waters of the United States, 1951. *Water-Supply Paper* 1200.

U.S. Geological Survey, n.d.: USGS Annual Surface Water Statistics for the Nation–09474000. Gila River at Kelvin, Arizona. http://nwis.waterdata.usgs.gov/nwis/annual. Accessed 16 February 2007.

U.S. National Park Service, n.d.: Gila News-Courier, Rivers Arizona. http://www.nps.gov/archive/manz/ccgilariver.htm. Accessed 27 September 2006.

U.S. Natural Resources Conservation Service, n.d.: Ecological and Interpretive Groups, Exhibit 622-2, Land Capability Classification, *In National Soil Survey Handbook*. http://soils.usda.gov/technical/handbook/contents/part622p2.html#cap_cls. Accessed 5 February 2007.

U.S. War Relocation Authority, 1944: *Agriculture Handbook*. Washington, D.C.: Government Printing Office.

U.S. War Relocation Authority, 1945: Final Project Report, Operations Division, Agriculture Section, Gila River Project. Reel #43, Records of the War Relocation Authority, 1942-1946. Field Basic Documentation Located, National Archives, Washington, D.C..

U.S. War Relocation Authority, 1946: *The Evacuated People: A Quantitative Description*. Washington, D.C.: Government Printing Office.

Waldman, C., 2000: *Atlas of the North American Indian*. New York: Facts on File, Inc.

Walker, H.P. and Bufkin, D., 1979: *Historical Atlas of Arizona*. Norman: University of Oklahoma Press.

Walz, E., 1997: The Issei Community in Maricopa County: Development and Persistence in the Valley of the Sun, 1900-1940. *The Journal of Arizona History,* 38 (1): 1-22.

Walz, E., 2000: From Kumamoto to Idaho: The Influence of Japanese Immigrants on the Agricultural Development of the Interior West. *Agricultural History,* 74 (2): 404-418.

Walz, E. 2001. Japanese Settlement in the Intermountain West, 1882-1946. *In* Mike Mackey, ed., *Guilt by Association: Essays on Japanese Settlement, Internment, and Relocation in the Rocky Mountain West*. Powell, Wyoming: Western History Publications, pp. 1-24.

Waters, M.R. and Ravesloot, J.C., 2000: Late Quaternary Geology of the Gila River, Gila River Indian Reservation, Arizona. *Quaternary Research,* 54: 49-57.

Waters, M.R. and Ravesloot, J.C., 2001: Landscape Change and the Cultural Evolution of the Hohokam Along the Middle Gila River and Other River Valleys in South-Central Arizona. *American Antiquity,* 66 (2): 285-299.

Weglyn, M.N., 1996: *Years of Infamy: The Untold Story of America's Concentration Camps*. Seattle: University of Washington Press.

Weik, S., 1992: Introduction. *Casa Grande Valley Histories*. Casa Grande, Arizona: Casa Grande Valley Historical Society, pp. 1-6.

Western Regional Climate Centera, n.d.a: Sacaton, Arizona (027370). http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?az7370. Accessed 12 February 2007.

Western Regional Climate Center, n.d.b: Climate of Arizona. http://www.wrcc.dri.edu/narratives/ARIZONA.htm. Accessed 12 February 2007.

Wilson, E.D., 1969: Mineral Deposits of the Gila River Indian Reservation, Arizona. *Arizona Bureau of Mines Bulletin* 179.

Works Progress Administration, 1940: *Arizona: A State Guide* (American Guide Series). New York: Hastings House.

Young, T., 2005: From Internment to Hope: Arizona Honors Japanese Baseball Player Held at Gila River. *Arizona Republic*. 10 November. http://www.niseibaseball.com/news_azgov.htm. Accessed 27 September 2006.

CHAPTER 11

CONCLUSIONS

Thus far, this study has focused on the geography of each Japanese American relocation center located in the Western United States. However, much can be learned about the overall geography of Japanese American relocation through comparison and contrast of the various sites. In this concluding chapter, the emphasis is on the similarities and differences between the centers. As you will see, many parallels exist between the various western relocation centers. At the same time, the sites differ in significant ways.

Location

The eight western relocation centers ranged over 12^{o} of latitude. The northernmost of the centers–Heart Mountain–was located at nearly 45^{o}N latitude while the southermost–Gila River–resided at approximately 33^{o}N latitude. All sites are in the mid-latitudes.

All western centers were located west of the 100th meridian with Tule Lake the westernmost at 121^{o}W and Amache the furthest east at 102^{o} W longitude. All could be considered continental (as opposed to marine) in location with Tule Lake and Manzanar lying approximately 150 and 200 miles inland, respectively, and on the inland side of prominent mountain ranges. Heart Mountain, at 750 miles inland, and Amache, at about 1,100 miles inland, were the most continental sites.

Because of the elevated nature of much of the inland, western U.S., most of the sites were located at moderate elevations. The highest–Heart Mountain–was located at about 4,700 feet above sea level (asl). All except Gila River and Poston were situated above 3,500 feet asl. Poston was the lowest site at 300 feet asl.

Physical Setting

Physiography, Geology & Landforms. Most of the sites were located in the Basin and Range Physiographic Province (Table 11.1). The bedrock geology varied from sedimentary rocks at Amache to intrusive igneous rocks and metamorphics at Manzanar to volcanics at Tule Lake. However, the location of the centers on low relief plains, valleys or basins means that all were situated to some degree on recent sedimentary fill, typically deposited by streams (e.g., Poston), lake wave action (e.g., Tule Lake), or wind (e.g., Minidoka).

The landforms of the centers ranged from pediments and river terraces at Heart Mountain to volcanic plains at Minidoka to alluvial fans at Manzanar. Three of the centers (Tule Lake, Topaz, and Manzanar) were located in late Pleistocene lake basins. Minidoka's topography was

Table 11.1. Physical geography of the eight western Japanese American relocation centers.

	Amache	Heart Mtn.	Minidoka	Tule Lake	Topaz	Manzanar	Poston	Gila River
Physiographic Province	Great Plains	Middle Rockies	Columbia Plateaus	Basin-n-Range	Basin-n-Range	Basin-n-Range	Basin-n-Range	Basin-n-Range
Bedrock	Sedimentary	Sedimentary	Extrusive Igneous	Extrusive Igneous	Extrusive Igneous	Intrusive Igneous, Metamorphic	Extrusive Ig. Metamorphic Sedimentary	Intrusive & Extrusive Ig. Metamorphic
Dominant Landform	Interfluve/ Floodplain	Pediment, Terraces	Volcanic Plain	Lake Basin, Tuff Cone	Alluvial Fan	Alluvial Fan	Floodplain	Pediment, Alluvial Fan
MAT	54°F	48°F	48°F	47°F	50°F	59°F	72°F	69°F
Annual Temp Range	50°F	50°F	50°F	35°F	48°F	41°F	41°F	41°F
Growing Season	162 days	133 days	123 days	80 days	117 days	210 days	297 days	247 days
MAP	14.2 inches	5.7 inches	9.8 inches	10.3 inches	6.4 inches	4.6 inches	4.3 inches	8.4 inches
Koppen	BSk	BSk	BSk	Csb	BWk	BWk	BWh	BWh
Dominant Soils	Aridisols, Entisols	Aridisols, Entisols	Aridisols	Entisols, Inceptisols, Mollisols	Aridisols, Entisols	Entisols, Inceptisols, Mollisols	Entisols	Aridisols, Entisols
Discharge	173 cfs	919 cfs	1,828 cfs	?	179 cfs	?	13,969 cfs	346 cfs
Spec. Conduct.	2,230 mmho	437 mmho	500 mmho	?	2,790 mmho	?	977 mmho	1,460 mmho
SAR	12	?	4	?	40	?	12	19
Dominant Biota	Steppe	Shrub Steppe	Shrub Steppe	Steppe-Mixed Forest	Shrub Steppe	Shrub Steppe	Desert	Desert

partially shaped by a mega-flood released from late Pleistocene Lake Bonneville, the largest of the late Pleistocene lakes.

Weather and Climate. The weather and climate of the sites have four distinct commonalities–large temperature ranges, aridity, windiness, and high evaporation. Seven of the eight sites were classified as deserts based on the Koppen climate classification system. Tule Lake is classified as a Mediterranean climate.

Because of the inland, moderate elevation locations, and associated clear, dry, and thin air, each site experiences large daily and annual temperature ranges (Table 11.1). However, the large range in latitude and elevation leads to much variability in terms of mean annual temperatures ranging from 46ºF at Heart Mountain to 72ºF at Poston. As a result of a range in latitude, elevations, continentality, and local topography, growing seasons range from 80 days at Tule Lake to 297 days at Poston.

Also because of the inland, as well as, leeward locations, each is arid. Precipitation ranges from 4.3 inches/year at Poston to 14.2 inches/year at Amache. The most inland sites–Amache and Heart Mountain–have distinct summer precipitation maxima because of convective uplift associated with continental heating. Conversely, the more continental margin and northerly sites–Minidoka, Tule Lake, and Manzanar–have winter precipitation maxima associated with the passage of mid-latitude cyclones. Those sites that are more intermediate in continentality and located further souths–Topaz, Poston, and Gila River–experience winter and summer precipitation maxima associated with convective uplift (summer) and passage of mid-latitude cyclones (winter).

Because of the lack of vegetation and relief in the immediate areas of the centers combined with the position of each in mid-latitude storm tracks, and the development of local pressure gradients related to differential heating, each site is windy. Associated with the wind as well as arid conditions, annual evaporation far out paces precipitation ranging from 38 inches at Minidoka to 84 inches at Poston.

Soils. The soils of each of the sites were shaped by the five soil forming factors–parent material, climate, topography, biota, and time. The parent material for most of the soils was alluvium associated with low gradient floodplain and deltaic deposits, alluvium and colluvium of alluvial fans, eolian dune sand or loess, volcanic sediments, and residuum associated with weathered bedrock. Because of the youthful nature of most of the geologic deposits, soils are commonly immature entisols and inceptisols (Table 11.1). Aridisols reflect the generally arid or semi-arid conditions of each of the eight sites. The sparse native vegetation of the sites has added little organic matter to these soils over time. Nearly all soils are alkaline because of the dry climate. Poor drainage in some situations also combines with aridity to cause saline soils. Most of the center soils had moderate to very severe limitations for irrigated agriculture because of alkaline and sometimes saline characteristics, combined with poor drainage, stoniness, or erosion issues.

Water. Despite the generally arid conditions, each site is characterized by its proximity to an exotic river originating in often distant, humid mountains. Annual average discharge in these rivers ranged from 173 cfs on the Arkansas River (Amache) to 13,969 cfs on the Colorado River at Poston (Table 11.1). The former relocation centers lie in the great watersheds of the U.S. including the Mississippi (Heart Mountain and Amache), Colorado (Poston and Gila River), and the Columbia (Minidoka). Three of the settings (Manzanar, Topaz, and Tule Lake) lie in the hydrologic Great Basin where water that enters departs only via evaporation.

Only Manzanar is located near perennial streams of local origin. All other sites are characterized by ephemeral streams resulting from thunderstorms or rapid snowmelt. Surface water at most of the relocation center reflects the aridity of the region with moderate to high levels of salinity and sodium hence elevated specific conductance and sodium adsorption ratios. Because of the river valley or tectonic basin settings of most of the sites, groundwater is located at generally shallow depths. Groundwater, like surface water, is typically alkaline and saline. The better quality groundwater is typically found at greater depths.

Biota. The vegetation of the sites are classified as steppe (Amache), shrub steppe (e.g., Heart Mountain), mixed forest-steppe (Tule Lake) or desert (e.g., Poston) (Table 11.1). Vegetation communities in each of the settings reflect the generally arid conditions as well as the limited riparian conditions of the settings, soil chemistry, and human land uses. Uplands are characterized by xerophytic shrubs, grasses, and cacti. Halophytic shrubs and grasses are present in more saline, moist settings at each of the sites. Despite the overall aridity of the areas, hydrophytes and phreatophytes may be found in moist and wet settings along rivers. Gallery forests traditionally dominated by cottonwood and willow are present at Amache, Heart Mountain, Poston, and Gila River. More recently, tamarisk has become a key invasive species in these settings.

Wildlife at each of the settings includes mammals (large and small), birds, and reptiles. Of particular note, Amache, Heart Mountain, and Minidoka were all frequented by bison until the mid- to late 19^{th} century. Adjacent to Tule Lake, the Tule Lake National Wildlife Refuge was established because of the abundant waterfowl of the area..

Human Setting

Race, Ethnicity and Religion. A variety of racial and ethnic groups influenced the areas subsequently occupied by each of the western relocation centers. Additionally, religious groups played a role in cultural geography patterns at several of the centers.

Each of the areas was frequented by Native Americans. In some cases, Native Americans lived for a significant portion of the year in the vicinity of the subsequent relocation center (e.g., Gila River, Manzanar, Poston, and Tule Lake). Early Native American agriculture made this possible at Manzanar, Poston, and Gila River. At the remainder of the sites, Native Americans primarily passed through the area in search of food and other resources. Akin to what happened throughout Western North America, Native Americans initially co-existed with EuroAmericans; however, this changed over time. Battles occurred between Native Americans and EuroAmericans near the subsequent locations of Amache, Tule Lake, Topaz, Manzanar, and Poston. The most famous of these conflicts was the Modoc War in the Tule Lake Basin. Because of these conflicts, the U.S. military had a presence in nearly all of these settings. Two of the relocation center sites were ultimately located on Indian reservations–i.e., Poston and Gila River.

Spaniards, either as explorers or as clergy, were the first EuroAmerican visitors to the more southern of the sites including Gila River, Poston, and Amache, as well as Topaz. Conversely, American, French, and British fur trappers explored and trapped the rivers and tributaries of each of the centers. Chinese immigrants in the vicinity of the future sites of Gila River, Manzanar, and Minidoka were employed as railroad laborers, miners, and cooks. Mexicans populated the areas near Amache, Heart Mountain, Minidoka, and Gila River serving as laborers in the sugar beet industry or at mines near Manzanar. Russian Germans settled the areas near Amache and Heart Mountain working in sugar beet agriculture prior to the establishment of the relocation centers. Czechoslovakian immigrants settled near Minidoka and Tule Lake where they homesteaded while Greeks and Basques settled Idaho's Snake River Plain. The Church of Jesus Christ of Latter Day Saints (i.e., Mormons) played a key role in the settlement and economic patterns at Heart Mountain, Topaz, and Gila River through their collective influences on irrigated agriculture.

In general, the counties in which the relocation centers were subsequently established were not places frequented by Japanese Americans prior to evacuation and construction of the centers. Persons of Japanese descent were present in the vicinity of each of the future relocation centers prior to their establishment but in much lower numbers than the other racial and ethnic groups mentioned above. For example, Park County, Wyoming, with 41 in 1940, had the highest number of Japanese Americans of any of the counties that was subsequently selected for a western relocation center. Conversely, Pinal County, Arizona, subsequent home of Gila River, had no Japanese Americans in 1940. When considering the relocation center county as well as all adjoining counties, Manzanar was situated in the area with the greatest Japanese American population (7,493) while Tule Lake and Amache each had less than 100 in 1940.

Economic Geography. A variety of economic activities have occurred on and adjacent to the lands on which the eight western Japanese American relocation centers were located in 1942 including hunting and gathering, agriculture, mining, and transportation. Each of these activities have somehow been related to water, either as precipitation or as runoff in the area's streams and rivers.

Native Americans used a combination of hunting, fishing, and gathering in each of the areas. Bison were hunted with horses on the plains adjacent to Amache and Heart Mountain. The close proximity to mountains in the Basin and Range settings of Tule Lake, Topaz, and Manzanar meant that hunters and gatherers could exploit basin floor to alpine resources in different seasons. These patterns were epitomized by the Modocs of the Tule Lake Basin who began harvesting fish, waterfowl eggs, and roots in the lowlands in spring before moving to higher elevations for roots, small game, big game, and berries as the summer and fall progressed. Winter found them back on the shores of Tule Lake where they fished and hunted as well as lived off their preserved foods.

Despite aridity, variable growing seasons, and generally poor soils, agriculture was the dominant economic activity in historical times in all of the areas subsequently selected for relocation centers. Many of the areas were grazed by cattle early in the EuroAmerican settlement. Transhumance occurred in the vicinity of Minidoka and Manzanar in a similar pattern to that of Native American hunter gatherers who followed resources upslope as the year progressed. All of the relocation center sites were too dry for successful non-irrigated agriculture in most years. Even southeastern Colorado, with approximately 14 inches of average annual rainfall over the 1931-1960 period, experienced prolonged drought that did not bode well for dryland agriculture. The combination of dryland agriculture attempts and dry years led to this area being part of the severely eroded area known as the Dust Bowl.

Native Americans paved the way for successful irrigated agriculture well prior to the arrival of EuroAmericans at Manzanar, Poston, and Gila River. Because irrigation often requires cooperation in labor and funding, Mormons were instrumental in the development of EuroAmerican irrigation in the vicinity of Heart Mountain, Topaz, and Gila River beginning in the mid-19th century. However, it was not until the passage of the Carey Act in 1894 and the Reclamation Act in 1902 that irrigated agriculture really took off in these areas. Sugar beets, alfalfa, and various small grains were common to Amache, Heart Mountain, Minidoka, Tule Lake, and Topaz. Fruit was grown at Amache, Heart Mountain, Minidoka, and especially, Manzanar. Melons were common in the three more southerly sites. U.S. Bureau of Reclamation project lands in northwestern Wyoming (Shoshone), south central Idaho (Minidoka), and north central California (Tule Lake) were prime agricultural lands ripe for development as of 1942. The subsequent establishment of relocation centers on these lands greatly aided in their development and settlement following World War II. Early irrigators encountered a variety of problems in these areas including waterlogging and salinization of the soils. This was especially true in the vicinity of Heart Mountain, Minidoka, Tule Lake, Topaz, and Poston. Waterlogging, and subsequent salinization was so bad near Topaz that these conditions, combined with drought, insect infestation, and overall economic conditions, led to the abandonment of lands there prior to World War II.

Over time, each of the western relocation center areas was in a prominent transportation corridor for travelers on foot, wagon, stage, railroad or automobile. This was especially true because none of these areas were particularly attractive destinations. Two of the sites were located on major immigrant trails. Approximately 50,000 immigrants traveled the Oregon Trail between 1836 and 1861 just south of the future Minidoka Relocation Center. Tule Lake was located near the Southern Emigrant (or “Applegate”) Trail that paralleled the Oregon Trail from Fort Hall to the Willamette Valley. Additionally, it was located on the California-Oregon Trail that extended from western Oregon to central California. The area adjacent to Amache received railroad service earlier than any other center–1873–while railroad service did not reach the Tule Lake Basin until the late 1920s. Tourism sparked development of transportation systems in two of the areas. Visitors traveled through Wyoming's Bighorn Basin by railroad or automobile to Yellowstone National Park. Tule Lake Basin visitors came via automobile to see Lava Beds National Monument as well as waterfowl at the Tule Lake National Wildlife Refuge. Further, the Manzanar site was adjacent to the Alabama Hills, a prime movie-making spot since before 1920. An important, although not always paved, highway passed near each of the sites as of 1942.

All of the centers were located within 15 miles of a small town. These ranged from 330 residents at Sacaton, Arizona to nearly 2,000 at Powell, Wyoming and Jerome, Idaho. Most, however, lay distant from cities. Other than Gila River's location within 30 miles of Phoenix, all were more than 125 miles from a major city. While generally distant from large cities, the fate of at least one of the settings was determined by a large city. The City of Los Angeles began buying land and water in the Owens River Valley in the first decade of the 20th century. By 1933, it owned 95% of all Owens Valley farmland, and 85% of all property thus controlling land use and human populations in the valley.

Why There?

The U.S. War Relocation Authority, with the help of various U.S. Government agencies, selected the sites because each: 1) lay inland from the West Coast; 2) had ample available land; 3) had relatively level land conducive to construction; 4) had agricultural potential; 5) was distant from key military sites; 6) had adequate water supplies for irrigation and domestic uses; and 7) was near roads and railroads necessary to provide access to evacuees and supplies. Four of the eight sites lay outside the Military Exclusion Zone including Amache, Heart Mountain, Minidoka, and Topaz.

Most of the sites were on public lands. Heart Mountain, Minidoka, and Tule Lake were situated on U.S. Bureau of Reclamation lands. Manzanar was located on City of Los Angeles lands while Poston and Gila River lay on Indian Reservation lands. Only Amache and Topaz were located on private lands that required purchase by the U.S. Government. All sites were chosen over the objections of area residents. Gila River and Poston were chosen against the wishes of their respective Tribal Councils. Only Colorado Governor Ralph Carr welcomed evacuees. Some governors were ambivalent to the prospects of evacuees coming to their states while Idaho Governor Chase Clark and Wyoming Governor Nels Smith were outright opposed to Japanese American evacuation to their respective states. While the siting of the centers was generally opposed by residents in each of the chosen settings, the blow was softened by the view that Japanese American evacuees were potential farm laborers, and would aid in the development of the three U.S. Bureau of Reclamation areas and the Indian Reservation lands.

Building the Centers

Construction of each of the centers began in spring or summer 1942, and was generally sufficiently complete to house Japanese American evacuees within two to three months. This meant that the infrastructure for complete towns of about 7,300 at Amache to nearly 19,000 at Tule Lake, were constructed during this time period. This included roads, water, sewer, electricity, housing, mess halls, administration, offices, schools, and warehouses. The construction of the centers, and associated payrolls and purchase of supplies and services, was a welcome boost to the local economies, especially given that some of the areas were still feeling the effects of the economic Depression that began in the late 1920s.

Most centers were laid out in a grid pattern aligned with True North. However, topography at Minidoka, an existing highway at Manzanar, and a railroad at Tule Lake caused the WRA to deviate from this pattern. Each of the centers had generally similar patterns of construction with a main area that included evacuee housing, mess halls, hospitals, schools, and community cooperative businesses. These were typically separated by a fence from administration, warehouse, staff housing, military police, and motor pool facilities. This main area was often surrounded by a fence punctuated by guard towers. Only at Minidoka and Gila River was the area unfenced. The main areas of each of the centers was surrounded by, or adjacent to, agricultural operations. Gila River and Poston differed from the rest of the centers in that they consisted of multiple camps–Canal Camp and Butte Camp at Gila River, and Poston I, II, and III at Poston. The construction of three relocation centers–Amache, Heart Mountain, and Topaz–included reuse of old Civilian Conservation Corps (CCC) buildings.

Evacuee housing blocks occupied the majority of the main portions of each of the centers. Typically, 12-14 barracks were present in each residential block with each block designed to serve 250-300 evacuees. Heart Mountain was an exception with 24 barracks per block. Construction of the evacuee barracks followed a modified U.S. Army "Theater of Operations" design that provided maximum housing for minimal investment. All were one-story, gable-roofed structures. However, designs of barracks varied slightly because of different U.S. Army Corps of Engineers offices overseeing construction of the various centers. The norm was a 120 feet long by 20 feet wide structure elevated 1-2 feet above ground on concrete piers and wooden posts. Typically, the barracks were supported by widely spaced 2 inch by 4 inch "studs" sheathed with horizontally laid 1 inch by 6 inch shiplap siding. Tarpaper held down by wood battens provided the outermost coating on most of the barracks walls and roofs. Because of the tar paper coatings, most of the centers were dreary affairs, adding little color to an already gray-brown landscape. Amache was an exception to this in its concrete foundations, brick floors, and beige or blue exterior asbestos shingle or fiber-board siding. Gila River barracks were sheathed in white siding to help reflect sunlight thus keep the buildings cooler. Gila River and Poston barracks had double roofs to help deal with the extreme heat at these sites.

Evacuee barracks at each of the centers were typically divided into four to six "apartments" that each housed four to eight individuals. Each apartment had a single light bulb and power outlet, army cots and mattresses, and a coal stove. A mess hall, latrine/shower facility, and recreation building was also typically present in each residential block.

Domestic water for most of the relocation centers came from deep wells at the sites. While groundwater quality was good overall, Topaz' water was nearly undrinkable because of its salinity. Manzanar gathered its drinking water from streams flowing from the Sierra Nevada Range. Irrigation water came from the rivers and streams of the area. Each of the centers had one or more sewage treatment plants that provided treatment before the water was again released into the area's rivers and streams.

Origins of Evacuees

Evacuation and subsequent incarceration of Japanese Americans beginning in 1942 concerned only those Japanese Americans living in the portions of the West Coast Exclusion Zone in California, southern Arizona, and western Washington and Oregon. Most evacuees were held in regional assembly centers before being shipped to the larger relocation centers.

Most (approximately 93,000) of the evacuees came from California and initially ended up in each of the western centers. The nearly 13,000 Washington and 4,000 Oregon evacuees primarily went to Minidoka, Tule Lake, and Heart Mountain. Most of Arizona's evacuees were sent to Poston.

Approximately, 60-65% of the evacuees in each of the centers were U.S. citizens. Urban/rural breakdowns differed from center to center. Most evacuees were urban at Heart Mountain, Minidoka, Topaz, and Manzanar while Amache, and Poston were mostly rural. Tule Lake's and Gila River's urban and rural populations were nearly equal.

Those evacuated to relocation centers included Japanese American orphans who were living in the restricted zone at the time of mandatory evacuation. This included even those orphans who were one-half Japanese living in Caucasian homes or those who were as little as 1/32nd Japanese. Japanese American orphans came primarily from three orphanages–Shonien (also known as the Japanese Children's Home of Southern California) in the Los Angeles area, the Catholic Maryknoll Home in the Los Angeles area, and the Salvation Army Japanese Children's Home in San Francisco. Some of the orphans who came to live at the Manzanar Children's Village were orphaned by FBI arrests of their widowed fathers.

For the most part, the WRA did not keep county populations intact within the centers. However, Japanese American neighborhoods from prior to the bombing of Pearl Harbor were moved nearly intact to Minidoka with Seattle evacuees occupying one part of the center and Portland evacuees occupying another part.

Interactions with the Environment

Physical Environment. The first experience most evacuees had with the relocation centers was at an aesthetic level. Descriptors such as “bleak”, “black”, “desolate”, “barren”, “stark”, and “lonely” were commonly used.

The continental interior sites of the relocation centers did not bode well for the West Coast evacuees. Winter temperatures dropped to -28ºF at Heart Mountain while summer temperatures soared over 120ºF at Gila River and Poston. The average high temperature for June, July, August, and September 1943 exceeded 100ºF with July at 111ºF at Poston. Temperatures could vary as much as 50ºF in a day and over 100ºF during a year at Topaz.

The extreme temperatures of the areas combined with the initially uninsulated nature of the barracks to make difficult living conditions. Evacuees adjusted to the cold of the centers by huddling around coal stoves in their initially uninsulated barracks. They were issued World War I, army surplus clothing to help fend off the cold when outside. It is still difficult to imagine the hardships endured, especially by the very young and very old when they had to make a 150 feet walk to the latrine in the midst of frigid weather. On the plus side, cold weather permitted ice skating and sledding at Amache, Heart Mountain, Minidoka, and Tule Lake.

Evacuees dealt with high temperatures by pouring water on the floors of the barracks, planting trees for shade, filling garden ponds, and excavating cellars beneath the barracks. Temperatures were so high for such long periods at Poston and Gila River that many evacuees purchased evaporative coolers for their apartments. Swimming was a popular way to cool off in many of the centers as well.

Winds were frequent at the centers. Winds, combined with the common dry conditions and disturbed surfaces associated with the construction of the centers, led to frequent blowing dust. Because of the “green” lumber used in the barracks and the poor, overall construction of the barracks, it was nearly impossible to keep dust out of the structures. This was a real issue for people accustomed to keeping very tidy homes. Evacuees attempted to hold down the dust by planting grass, and flooding, roughening, or covering bare soil with gravel. High winds damaged buildings at most of the centers at one time or another. The double-roofed barracks at Poston were especially susceptible to wind damage.

Despite infrequent precipitation at each of the centers, rain, hail, and snow each caused problems. Hail associated with thunderstorms damaged crops at Heart Mountain. Thunderstorm rains caused flooding at Poston and Gila River. Adobe bricks at Poston were particularly prone to damage by excess moisture. Muddy conditions were common in the basin settings of Minidoka and Tule Lake as snow melted in the cool season.

Agriculture. Each relocation center had an agricultural program as agricultural potential was a primary consideration in the siting of each of the centers. Additionally, 45% of employed

Japanese Americans living in California, Oregon, and Washington were involved in agriculture in 1940 (U.S. Army–Western Defense Command, 1943). However, only Amache, Topaz, Manzanar, and Gila River lands had been farmed before. Evacuees first had to create irrigation canals and ditches, and clear and level the lands prior to farming. Mostly operating in 1943 and 1944, each program included produce for human consumption, feed crops, and livestock. Each center raised at least 20 different vegetables, many of which were traditional Japanese foods, and often, several different fruits (Table 11.2). Crops were consumed fresh in the camp dining halls or preserved in root cellars, pickled, canned, or dried. Livestock included chickens, turkeys, hogs, beef cattle, and dairy cattle, and were typically butchered and consumed on site. Seasonal surpluses were shipped to other camps or in a few cases, sold on the open market. Center agriculture was generally hampered by poor soils, short growing seasons, initially undeveloped lands, and farm equipment and labor shortages. However, evacuee farmers proved that diverse agricultural programs could be successful in the harsh center settings primarily because of labor-intensive farming methods and the large markets provided by each of the center populations. Further, evacuee labor used to prepare the virgin lands made it possible for subsequent Caucasian settlers to successfully farm after the war, especially on the U.S. Bureau of Reclamation project lands at Heart Mountain, Minidoka, and Tule Lake.

Business and Industry. Each of the centers had a consumers cooperative that operated a variety of businesses. These included general stores, shoe and clothing stores, optical shops, laundries, dry cleaners, beauty and barber shops, shoe repair shops, and electrical repair shops. Each of these businesses were typically situated in the main portions of the centers.

Each center had one or more forms of industry that supported operations within the center, assisted other centers, or helped with the war effort (Table 11.3). All centers had pickling and canning operations to address excess produce, and all except Amache had tofu production facilities. Amache and Heart Mountain created silk screen posters for the U.S. Navy, and Gila River had a model ship factory for the U.S. Navy. Manzanar, Poston, and Gila River created camouflage nets for the U.S. military. All centers had a newspaper that was published at least weekly, and in some cases, daily.

Landscaping and Gardening. Landscaping and gardening was evident in each of the eight western centers, despite or perhaps, because of the arid environments there. Barracks and mess hall gardens (often including garden ponds), parks, and victory gardens were common in the centers. Manzanar may have had the most gardens, parks, and landscaping because of the abundance of landscape professionals incarcerated there. Landscaping and gardens added beauty to the harsh environments, prevented dust, provided shade, aided the war effort, and occupied evacuees with meaningful and enjoyable activities. Gardening, and the act of growing things, allowed evacuees to have some control over their surroundings. The aesthetically pleasing gardens offered evacuees respite from harsh environments. Center victory gardens were also signs of their patriotism and provided evacuees with the foods that they had traditionally eaten. The very Japanese nature of the more ornamental gardens also allowed evacuees to express their ethnic identity. Gardening and landscaping could also be viewed as an act of defiance by

Table 11.2. Crops and livestock raised at the eight western Japanese American relocation centers, 1942-1945.

Produce	**Produce** (continued)	**Feed Crops**	**Livestock**
beans (mung)	mustard green	alfalfa	cattle (beef)
beans (string)	nappa	barley	cattle (dairy)
beans (tapery)	onions (dry)	field corn	chickens
beets	onions (green)	Sudan grass	hogs
broccoli	parsley		
cabbage	peanuts	**Seed Crops**	**Seed Crops** (cont)
cantaloupe	peas	azuki	melons
carrots	peppers (chili)	beans (lima)	nappa
casaba	peppers (bell)	beans (soy)	onions
cauliflower	potato (Irish)	beans (tapery)	peas
celery	potato (sweet)	beets (table)	radishes
chard (Swiss)	pumpkin (Japanese)	broccoli	sesame
corn (sweet)	radishes (red)	cabbage	shingiku
cucumber	radishes (white)	cantaloupe	spinach
cucumber (Armen.)	shingiku	carrots	squash
daikon	shiru uri	cauliflower	sunflower
eggplants	spinach	celery	tomato
endive	squash (banana)	corn	turnip
garlic	squash (hubbard)	cucumber	
gobo	squash (Ital. summer)	cucumber (Armen)	**War Crops**
lettuce	strawberries	daikon	castor beans
melons (honey dew)	tea	garlic	cotton
melons (Persian)	tomato	goma	flax
melons (water)	turnips	lettuce	

Table 11.3. Industry at the western Japanese American relocation centers, 1942-1945.

	Amache	Heart Mtn	Minidoka	Tule Lake	Topaz	Manzanar	Poston	Gila River
Adobe Brick					X		X	
Bakery		X		X				
Bean Sprouts					X			X
Camouflage Net						X	X	X
Charcoal							X	
Chow Mein							X	
Furniture				X	X	X		X
Garment			X			X		
Ice Cream					X			
Mattress						X		
Model Ship								X
Pickling & Canning	X	X	X	X	X	X	X	X
Roof Jack					X			
Sawmill		X						
Shoyu						X		
Silk Screen	X	X						
Tofu		X	X	X	X	X	X	X

evacuees who constructed these private gardens on WRA lands, stole WRA materials for the gardens, and walked outside of center to obtain raw materials from the surrounding landscape.

Plants for landscaping and gardening were obtained from nearby environments, area residents, various government entities, or from seed catalogs. Other raw materials such as stone and wood were obtained from nearby environments. Irrigation in most of the centers was limited to the domestic water supply. Only Minidoka, Tule Lake, Poston, and Gila River had readily available irrigation water for gardening and landscaping.

Education. Each of the centers had a K-12 education program as well as an adult education program. Elementary schools and high schools were initially located in converted barracks. Amache, Heart Mountain, Tule Lake, Poston, and Gila River subsequently constructed high schools. Poston's schools were built of adobe bricks because of a desire to use the buildings after the center closure as schools for Native American children on the Colorado River Indian Reservation. In addition to initially inadequate and cramped educational facilities, a number of other issues plagued education in the centers including: 1) disparity in pay between Caucasian teachers and evacuee teachers; 2) friction between Caucasian teachers and evacuee teachers and teaching assistants because of racial prejudice; 3) high student to teacher ratios; 4) inadequate equipment, and supplies; 5) limited selection of courses, especially in science and foreign language; and 6) a high teacher and teaching assistant turnover rate because of the above-mentioned problems. Japanese language schools sprung up at Tule Lake in the turmoil following the "Loyalty Questionnaire". By late 1944, these schools enrolled more students than did the public schools at Tule Lake.

In addition to K-12 students, the general populace of the center used school facilities for adult education courses. Adult also used library facilities, and in all but Minidoka, gymnasiums/auditoriums. Adult education courses helped prepare evacuees for the work world outside the center with courses like typing, welding, and farm mechanics. However, personal growth courses in such topics as flower arranging, piano, and art were also offered.

Recreation. Recreation offered evacuees an escape from boredom and the reality of their evacuation and incarceration. Recreation opportunities were available for young to old evacuees. Evacuees participated in a variety of recreation including dances, movies, concerts, talent shows, variety shows, sports contests, board games, fishing, and reading. Sports were very popular typically including at least a page in each center newspaper issue. Sports included football, basketball, baseball, track and field, softball, boxing, weightlifting, volleyball, golf, and badminton. Facilities were constructed by the evacuees. The epitome of these was Zenimura Field, a 6,000 seat baseball field at Gila River. Evacuees could explore outside areas in search of raw materials for gardens, or just to hike, especially in those centers located outside the Military Exclusion Zone.

Culture and Art. The culture of the eight western Japanese American relocation centers was purposely American. This was seen in language, dress, housing, meals, and business interactions. The Caucasian administrators of each of the centers discouraged Japanese cultural activities. Despite this, Japanese cultural influences could be seen in celebrations, sports, gaming, art, and music. Traditional Buddhist celebrations such as Bon Odori and Hana Matsuri were celebrated as was Boys Day. Mochi was made to celebrate the new year. The traditional sports of judo, sumo, and kendo were practiced at the centers as were board games such as go, shogi, and karuta. Traditional arts such as bon-kei, calligraphy, wood working, flower arrangement, silk screening, and haiku were common as were traditional Japanese music and theater. Japanese customs prevailed at Tule Lake more than at any other center because segregation concentrated evacuees more oriented toward Japan.

Faith and Spitituality. A modified form of religious freedom was practiced in the western relocation centers. While the Shinto faith was banned, Buddhists, Catholics, Seventh Day Adventists, Mormons, and various Protestant churches formed in the centers. The variety of faiths practiced at the centers can be readily seen in the weekend editions of the center newspapers. Services were typically held in converted recreation halls in the residential blocks of the centers, and were sometimes led by church leaders who had moved with their congregations to the centers. Most services were in English but to better serve the Issei, some services were in Japanese.

Buddhism was likely the dominant faith in most of the centers because of a resurgence of interest following the harsh blow of evacuation, and because those most likely to relocate were more pro-American in their stances. In fact, the Buddhist Church of America headquarters relocated to Topaz for the duration of the evacuation to better serve the evacuees. Catholics and Seventh Day Adventists typically had their own congregations in the centers. However, the various Protestant faiths typically banded together to form non-denominational churches.

Health. Health was a major concern in each of the centers, especially given the crowded living conditions, stress of evacuation and relocation, foreign climates, and different diets. Each center had a modern hospital composed of multiple wings and capable of housing 100-250 patients at any one time. Facilities included general medicine, surgery, obstetrics, X-ray, children's wards, isolation wards, pharmacies, and dental and optometry clinics. Hospitals were typically headed by a Caucasian doctor and sometimes, a Caucasian nurse. Japanese American doctors and nurses worked beneath these. It was this arrangement, combined with pay–a maximum of $19/month for evacuee doctors and nurses as compared to competitive salaries for Caucasians–that caused much conflict in the hospitals and health care programs of the centers. Problems also arose because of slow and shoddy construction of health care facilities, inadequate equipment and supplies, and an overall shortage of qualified staff.

Medical personnel at the centers faced a variety of ailments ranging from dehydration to heatstroke to silicosis associated with persistent dust to various intestinal disorders associated with sanitation, stress, diet, and domestic water quality. More serious maladies included tuberculosis (e.g., seven deaths at Topaz) and infantile paralysis (e.g., four deaths and seven debilitations at Amache). Further epidemics were often prevented with aggressive vaccination, block nurse, public education, sanitation, and mosquito control programs.

Government. The WRA expected the evacuees to establish a form of self-government in each of the centers. This government was to be guided by a Charter, centered on the residential blocks, and typically had Community Councils and Block Managers. The Community Council was an elected body that typically dealt with over-arching policies and laws within the center while the Block Managers were either elected or appointed and dealt with day-to-day issues. In reality, Community Council and Block Manager members only served in advisory capacities to the Project Directors who had the final say on all matters related to the centers. Because of the farce of self-governance, many evacuees were apathetic regarding center government leaving elected seats unfilled. Other problems arose in center governance because of internal problems related to registration and the loyalty questionnaire. Further, Issei and Kibei were often initially prevented from serving in center government. This changed over time as the number of capable Nisei dwindled with relocation and with the recognition that the respected Issei were the natural leaders of the communities.

Community. Community is a concept that requires time, common values, and level-headedness to achieve. These characteristics were not always present in each of the centers, especially in the months immediately following evacuation. The location of the centers played a role in the sense of community and the level of unrest. Those centers closer to the West Coast hotbeds of anti-Japanese sentiment generally had more unrest than those inland. The centers of unrest were epitomized by Manzanar, Poston, and Tule Lake. The severe injustice of evacuation to a bleak, harsh, and foreign environment was a key reason why many evacuees never developed a sense of community. The rushed opening of the centers prior to their completion was also a negative because of the especially harsh initial living conditions. The mixing of evacuees from a variety of different locations (i.e., urban vs. rural), ethnic (i.e., Issei vs. Nisei vs. Kibei), and socioeconomic backgrounds (e.g., successful businessmen vs. farm laborers) detracted from community. Minidoka did a good job with this issue by moving Seattle and Portland neighborhoods nearly intact into separate parts of the center. Once in the centers, jealousies arose because the early arriving evacuees took the best housing and best jobs. Misplaced administration priorities (e.g., spending money on building a perimeter fence rather than purchasing winter clothing for evacuees) heightened problems within. Other jealousies arose with pay inequities (especially related to the Government contracted camouflage net factories). The absence of a perimeter fence and the ability to leave the center for hikes, fossil hunting, or shopping in a nearby town helped conditions within. The diminished stature of Issei and the subsequent breakdown of family structure associated with communal mess hall dining led to further community problems including juvenile delinquency. Seasonal and indefinite leaves increased the fluidity of the center populations thus preventing community. Draft registration and the loyalty questionnaire triggered large-scale unrest. Segregation resulting from the loyalty questionnaire further upset the balances achieved in the centers through transfer of evacuees to and from Tule Lake. While only Tule Lake, Manzanar, and Poston exhibited outright violence toward the respective center administrations, other centers had strikes, work stoppages, protests, and engaged in other forms of civil disobedience including smuggling, possession of contraband, and practice of Japanese customs in response to issues raised above.

Interaction with Surrounding Areas

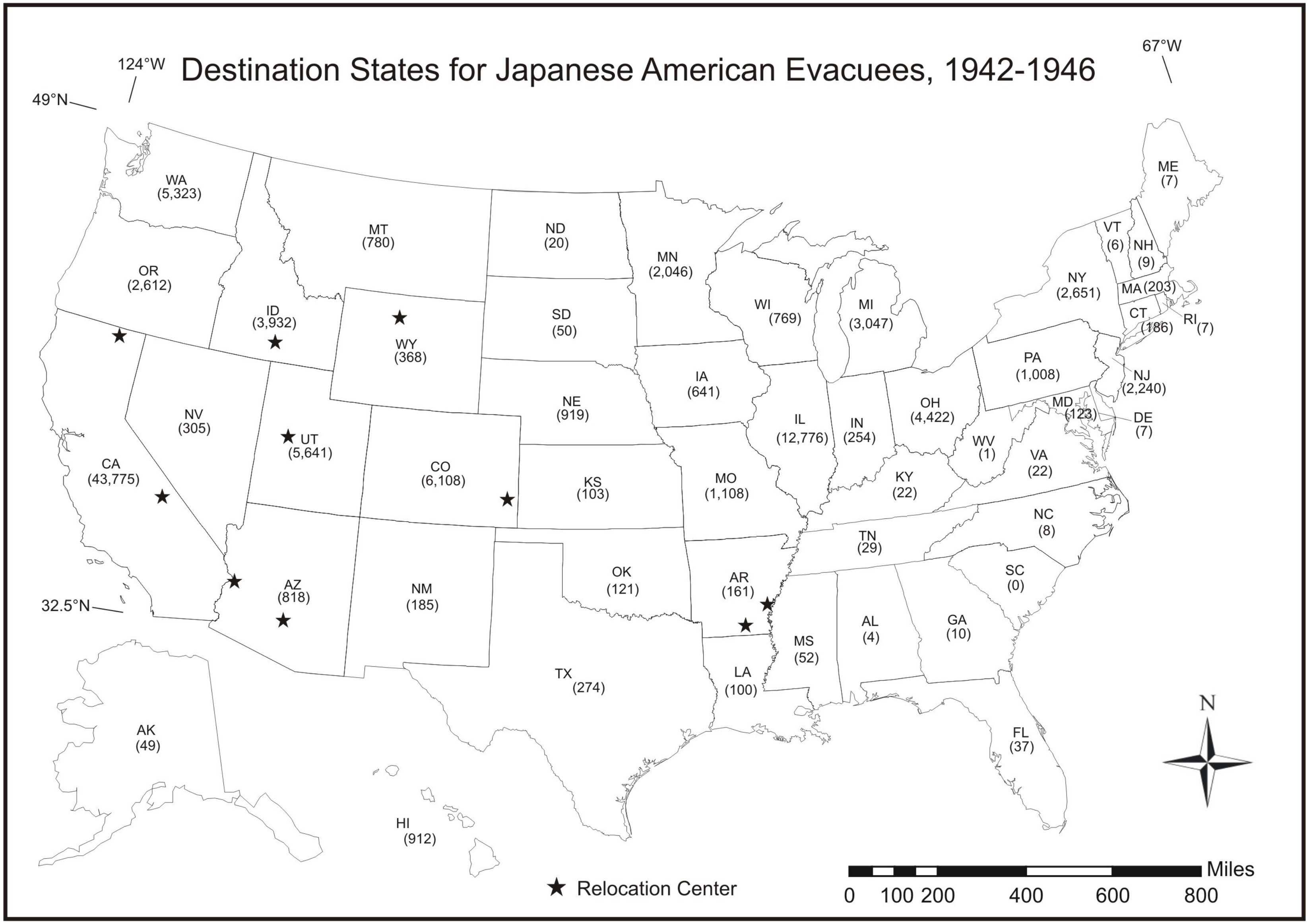
The Outside World. Evacuees interacted with the outside world by leaving the confines of the centers, or interacting with the general public when its members entered the centers. The degree of interaction evacuees had with the outside depended largely on the locations of each center in relation to the Military Exclusion Zone. Residents of the four centers–Amache, Heart Mountain, Minidoka, and Topaz–lying outside the Military Exclusion Zone shopped, attended events, and recreated outside the confines of the centers. For example, it was common in each of these centers for evacuee sports teams or bands to play in surrounding communities. Such was not the case at Gila River or Poston early on, or for most of the time at Tule Lake and Manzanar.

Evacuees in all of the centers could leave on short-term, seasonal, and indefinite leaves. Short-term leaves ranged from several days to a few weeks and were typically for personal business or medical issues. Seasonal leaves were granted to evacuees for seasonal agricultural employment. Indefinite leaves were designed for evacuees who were to permanently depart the centers for relocation to the "outside world," join the armed forces, be interned in a Department of Justice Internment Center, be committed to an institution, or be repatriated to Japan (U.S. War Relocation Authority, 1946).

Seasonal leaves were essential to the farmers of the West. For example, Japanese Americans (evacuees as well as "free" Japanese Americans living in the non-evacuated areas) harvested approximately 20% of the Intermountain West's sugar beets in 1942-1944 (Fiset, 1999). Among the outside groups with which the Japanese American evacuees interacted were German and Italian Prisoners of War, and Native Americans on the Colorado River and Gila River Indian reservations.

Japanese Americans relocated to 47 of the 48 states, the District of Columbia, and the territories of Alaska and Hawaii (Figure 11.1). The result was the initial dispersion of Japanese Americans to points east, away from California. While nearly 44,000 evacuees returned to California as of 1946, over 52,000 relocated to non-West Coast states. Illinois (12,776) was the second leading destination of relocatees followed by Colorado (6,108), Utah (5,641), Washington (5,323), and Ohio (4,422) (U.S. War Relocation Authority, 1946). Arizona, California, Oregon, and Washington each lost significant percentages of their Japanese American populations. The key city destinations were Chicago (11,309), Los Angeles (10,129), Denver (3,124), Cleveland (3,089), San Francisco (2,845), Sacramento (2,769), Seattle (2,760), New York (2.036), and Salt Lake City (2,002). Relocation settings were driven by the availability of jobs, perception of safety, and the presence of other Japanese Americans. Relocations were aided by private individuals, churches, and universities. They often followed a seasonal pattern peaking in late Spring and Summer, while dropping to lows in winter months.

Figure 11.1. Cumulative destinations of Japanese American evacuees, 1942-1946. Data from U.S. War Relocation Authority (1946).



The relocation centers also sent 3,600 individuals to the armed forces. Many were members of the famous 442^{nd} Regimental Combat Team that won acclaim for its fierce fighting in the European Theater of Operations.

Other Relocation Centers. Interactions with other relocation centers were limited to the transfers of evacuees and goods, and to athletic contests. Seven western relocation centers transferred 12,173 "disloyal" evacuees to Tule Lake following the administration of the loyalty questionnaire. In return, Tule Lake sent over 6,500 "loyal" evacuees to various centers (U.S. War Relocation Authority, 1946). Other evacuees were transferred from the Jerome, Arkansas relocation center to other centers when it closed in June 1944. Poston and Heart Mountain evacuees also went to Tule Lake to help harvest Tule Lake crops during the center-wide strike in October 1943.

Various goods were shipped from center to center. Gila River, the leading agricultural center, had shipped agricultural products to all of the other centers by January 1943. Some of the centers received surplus farm equipment when the Jerome center closed in June 1944. Tule Lake also sent furniture from its furniture shop to Topaz.

Four of the relocation centers interacted through sports. Gila River traveled to Heart Mountain, Poston went to Gila River, and Amache made it to Poston and Gila River for baseball games. It is surprising that neither Topaz nor Minidoka, both of which lay outside the Military Exclusion Zone, played each other or relatively nearby Heart Mountain.

Closing the Centers and Another Relocation

Public Proclamation #21 on 17 December 1944 ended the West Coast Exclusion Order that had been in effect since 1942. As of 2 January 1945, evacuees could begin moving back to the West Coast. All relocation centers were to be closed by the end of 1945.

Relocations from the centers were slow during the first half of 1945 because of the cost of relocation, fears of safety, and apprehension about housing and jobs. The pace of relocation increased following 1 June, and especially after VJ Day in mid-August. By early fall 1945, the centers were primarily populated by the very young and the very old. The centers closed in October 1945 (Amache, Minidoka, and Topaz), November 1945 (Heart Mountain, Manzanar, Poston, and Gila River), and March 1946 (Tule Lake).

Impacts of Centers on Today's Environments

Evacuee Dispersion. Few Japanese Americans lived in the counties that subsequently housed the evacuees prior to 1942. This pattern changed very little after the closure of the centers. However, the Japanese American populations of four of the relocation center counties actually increased following their closure–Prowers County, Colorado (Amache), Jerome County, Idaho (Minidoka), Modoc County, California (Tule Lake), and Pinal County, Arizona (Gila River).

The Japanese American populations of the counties including and adjacent to three of the four centers–Minidoka, Tule Lake, and Gila River–also increased from 1940 to 1950.

Land Dispersion. Relocation center lands were sold or returned to their previous owners following the closure of the centers. Among the direct buyers at Amache and Topaz were private parties and cities (e.g., City of Granada, Colorado). The Bureau of Reclamation took back its lands at Heart Mountain, Minidoka, and Tule Lake to later allot them to homesteaders beginning in 1946. Manzanar lands were returned to the City of Los Angeles. The City of Los Angeles then leased some of the land to the U.S. Government for a war veterans housing project and to the City of Independence Veterans of Foreign Wars. Poston and Gila River lands were returned to Colorado River Indian Tribes (CRIT) and Gila River Indian Reservation ownership, respectively. Some of the lands returned to CRIT were soon colonized by various southwestern U.S. Indian tribes.

Infrastructure Dispersion. Each of the centers had more than 500 buildings on site. More than 1000 buildings were constructed at Tule Lake. Most of these buildings were removed from each of the sites between 1945 and 1947. Buildings were sold to Government agencies, businesses, educational institutions, non-profit organizations, and various private entities. These structures left the relocation centers en masse, cut into halves or thirds, or as stacks of boards. In addition, barracks were essentially given to homesteaders on the three U.S. Bureau of Reclamation projects and at the Colorado Indian Reservation. They were also given to war veterans and various tribal members at the Gila River Indian Reservation. One can readily see these buildings in the areas surrounding the former relocation centers today where they serve as houses, barns, machine sheds, fairgrounds buildings, and various club houses. Surviving barracks are least common around Amache where the lack of floor joists in these structures prevented their intact removal. Numerous motels in the vicinities of the centers were also constructed from relocation center barracks. Buildings traveled at least as far as 200 miles from the relocation center lands. Only at Tule Lake and Manzanar did significant buildings remain on site. Of particular note, over 40 buildings remained in the military police area at Tule Lake. At Manzanar, 25 staff houses remained for at least five years after the closure of the center where they were used as a war veterans housing project. Additionally, the Manzanar auditorium remained on site where it was used as a Veterans of Foreign Wars post and later, as a California Department of Transportation maintenance building.

In addition to the buildings, various other items were dispersed from the centers. Literally millions of bricks that were the floors of the Amache barracks are found throughout southeastern Colorado where they were used to construct new buildings. Adobe bricks from Poston were incorporated into building projects in nearby Parker, Arizona. Landscaping plants can be found at houses in the areas surrounding many of the centers. Equipment and supplies remaining in the centers was also dispersed to area individuals and government agencies.

Remains of the Centers. As of 2002-2003, much variability exists in what remains at the former relocation center sites. The arid to semi-arid nature of each of the sites bodes well for preservation. However, agricultural potential appears to be the primary factor in the degree of preservation at the sites. The sites with the best preserved main areas–Amache, Topaz, Manzanar, and Gila River–all had poor quality farmland beneath those areas. The same is true of the small portions of moderately well-preserved sites at Heart Mountain, Minidoka, and Tule Lake. Because of the siting of the entire Poston relocation center on potentially farmed lands, essentially little of the former center remains.

Buildings are present on former relocation center lands at Heart Mountain, Minidoka, Tule Lake, Manzanar, and Poston. This is especially true at Tule Lake where over 40 buildings remain in the former military police, administration, warehouse, and industrial sections of the center. The adobe elementary school and auditorium remains at Poston. A tall, distinctive brick hospital boiler chimney, along with several other buildings, persists at Heart Mountain, and a basalt guard house is present at Minidoka. The remains of the centers include roads, walkways, power poles, fire hydrants, manholes, perimeter fences, sewage treatment plant settling tanks, concrete slabs, concrete foundations, and concrete piers. Root cellars and swimming hole depressions remain at Heart Mountain and Minidoka. Barracks cellar depressions are present at Gila River. Baseball backstops remain at Topaz and Gila River. Evidence of former barracks and mess hall landscaping in the forms of rock gardens and garden ponds persist at Amache, Manzanar, and Gila River. Relocation center-era trees are common at Amache, Topaz, and Poston.

Less typically remains in the former agricultural areas surrounding the main portions of the centers because of subsequent farming. However, one can often see the irrigation infrastructure including canals, ditches, and drops remaining from the relocation centers.

The Former Relocation Center Areas Today. Each of the eight western areas that had relocation centers remain rural and agricultural today. Each depends on irrigation water that increasingly faces competing demands in the arid West. This situation is epitomized by the Klamath Basin and the former lands of the Tule Lake Relocation Center where water is in a tug-of-war between agriculture and endangered species. The generally rising human populations in the West are also putting increasing demands on the already scarce water. The population of all but three of the counties–Modoc County, California (Tule Lake), Millard County, Utah (Topaz), and Inyo County, California (Manzanar) that formerly held relocation centers increased from 1990 to 2000.

The majority of the former relocation center lands are used for irrigated agriculture. A variety of crops are grown on these lands including alfalfa, alfalfa seed, barley, beans, canola, cantaloupes, corn, cotton, grapefruit, lemons, lettuce, olives, onions, oranges, potatoes, sugar beets, tangerines, tangelos, watermelons, and wheat. Additionally, the lands of the former relocation centers are used for municipal water supplies, landfills, migrant labor camps, a rodeo arena, and as historical interpretation sites.

Historical interpretation interest in the sites has increased dramatically over time with the widespread recognition that Japanese American relocation was a terrible event in our nation's history. All western relocation center sites except Poston and Gila River are on the National Register of Historic Places. As of April 2007, those six were all also designated as National Historic Landmarks (U.S. Department of the Interior, 2007). A portion of Minidoka is preserved as a National Monument, and Manzanar is now a National Historic Site. Because of a bill introduced in the U.S. House of Representatives in January 2007, it seems likely that Minidoka will soon become a National Historic Site (U.S. House of Representatives, 2007).

References

Fiset, L. 1999: Thinning, Topping, and Loading: Japanese Americans and Beet Sugar in World War II. *Pacific Northwest Quarterly*, 90 (3): 123-139.

U.S. Army–Western Defense Command, 1943: Final Report: Japanese Evacuation from the West Coast 1942. Washington, D.C.: Government Printing Office.

U.S. Department of the Interior, 2007: Interior Secretary Kempthorne Designates 12 National Historic Landmarks in 10 States. U.S. Department of the Interior News, 4 April. http://www.doi.gov/news/07_News_Releases/070404.html. Accessed 3 August 2007.

U.S. House of Representatives, 2007: HR 161. 4 January. http://thomas.loc.gov/cgi-bin/query/C?c110:./temp/~c110XmeyIy. Accessed 3 August 2007.

U.S. War Relocation Authority, 1946: The Evacuated People: A Quantitative Description. Washington, D.C.: Government Printing Office.

APPENDIX A

METHODS AND MATERIALS

Geographers may attempt to answer geographical questions using a variety of methods and materials. I attempted to answer the geographical research questions posed above through analysis of three traditional sources of material–maps and imagery, field observations, and library/museum/internet document research. Once the above steps were completed, I commenced writing each of the chapters. At least four "experts" reviewed and critiqued each draft chapter. After receiving reviews, I revised each chapter and worked with our Geography Technician to construct a website on which the book now resides. Considering all facets of the research, I spent approximately six weeks of full-time effort on each of the eight centers. One undergraduate student, four Resource Management graduate students, and our Geography Technician provided invaluable assistance during various stages of this project. Because I could only work full-time on the project during parts of summers, Christmas Breaks, and a sabbatical year, the project took over four years to complete. I discuss the details of each of the research steps below.

Map and Image Interpretation

The first step was to obtain and study maps of each of the areas. With each center, I typically began with a broad view that provided the spatial context for the research. As the research and writing proceeded, the view became more refined. A state highway map helped to put the site in a broad context. Once I understood generally where the relocation center was within the state, and its relationship to various better known state and county features, the regional relationships seen on U.S. Geological Survey (USGS) 1:250,000- and 1:100,000-scale maps for each of the areas were examined. These maps were excellent for helping me understand the regional topography, hydrography, land uses, and human population distribution. Finally, USGS 1:24,000-scale topographic maps provided the local detail necessary to look at the actual site of each center. The 1:24,000 or 1:20,000 orthophoto quadrangles available in the Natural Resource Conservation Service (NRCS) soil surveys for all of the centers, except Heart Mountain, were also very useful in analyzing each center. All maps and images were used primarily for interpretation purposes rather than any detailed mapping because of the scope of the project. However, I did use topographic maps to make basic measurements of elevation and relief over the various center areas.

Field Observations

After receiving grant funding for the project from the Washington Civil Liberties Education Program in Summer 2002, I visited Manzanar, Poston, and Gila River in December 2002, and Amache in April 2003. CWU Resource Management graduate student Paul Blanton and Geography undergraduate Zak Steigmeyer accompanied me to Minidoka, Heart Mountain, Topaz, and Tule Lake in June 2003.

Field time is typically limited in geographical research, and this project was no different. I typically had only parts of three days to spend at each site. I first tried to get an overview of the center by driving or walking its boundaries and examining the various site maps in the field. I would also try to put the center in the context of its surroundings–i.e., topography, climate, hydrography, soils, biota, land use, and racial/ethnic makeup of the surroundings. Once acquainted with area and able to match my map view with the ground reality of each site, I proceeded to focus on various topics of interest including remains of agriculture, landscaping, buildings, etc. At all stages of field research, I wrote field notes, made field sketches, and took photographs. At each site, I also tried to talk with one or more knowledgeable individuals about the center and the surrounding area. Ideally, these were people who had been interned in the center or had lived in the area while the center was open. In one case, I visited with a former evacuee in her home in Salt Lake City. If meetings with former internees or long-time residents were not possible, I tried to visit with others knowledgeable about the area including teachers and museum personnel. Interestingly, it is often the local teachers who are most knowledgeable and most passionate about the relocation center sites. In some cases, I telephoned and emailed knowledgeable people after the field visits to clarify key points.

Library, Museum and Internet Document Research

Library, museum, and internet documents form the third leg of the research. My library research focused on the traditional "big three" of library sources–books/monographs, journal articles, and government documents. Most of my library research was accomplished in the Brooks Library at Central Washington University. Included among the Brooks Library holdings are the newspapers for each of the camps, a truly wonderful resource. Those items that were not held by the Brooks Library were ordered through the SUMMIT consortium of Pacific Northwest university and college libraries, and through interlibrary loan. Of particular note, I was able to borrow the War Relocation Authority microfilms from the University of Washington library system until the Brooks Library obtained its own copies of this valuable resource. At each step of the way, Brooks Library staff were very helpful in assisting with the research.

I scoured the document collections of museums in the vicinity of each center in an effort to locate obscure but useful references such as newspaper clippings and local reports. Local museum curators were most patient and helpful with my requests, and in one case, opened a museum on a Sunday morning for my students and I.

I used the internet (and especially GOOGLE) to search for and locate hard-to-find topics. While I remain skeptical of the quality of many undocumented internet sources, the internet was invaluable in searching for and ultimately locating key information that filled holes in my research.

In all facets of the library, museum, and internet research, I strove to use primary sources wherever possible as a way to minimize errors. These included the center newspapers, War Relocation Authority reports, journal articles, and government reports. I made a reasonable effort to track down primary sources through the Brooks Library, SUMMIT, Interlibrary loan, and the internet. However, my time and budget did not allow me to obtain every primary source (e.g., official letters and many War Relocation Authority reports). To do so would have required an expensive trip to the National Archives in Washington, D.C., and far more time devoted to each site. In those cases, I cited the source in which I read the original material to try to minimize the amount of citations in the text assuming that the reader can track down the original source through my citation.

Mapping and Graphing

Geographical research often involves the presentation of data in graphical and map form. This research is no different. Most data collected from a variety of sources was mapped using ARC-GIS or Corel DRAW software, and graphed using EXCEL or QUATTRO software. Two of my graduate students and our Geography Technician did most of this work.

APPENDIX B

JAPANESE AMERICAN TIMELINE

The following timeline was adapted from U.S. War Relocation Authority (1946), Densho (n.d.) and the Japanese American National Museum (n.d.).

26 March 1790 - The U.S. Congress, in the Naturalization Act of March 26, 1790, states that "any alien, being a free white person who shall have resided within the limits and under the jurisdiction of the United States for a term of two years, may be admitted to become a citizen thereof."

1873 - The phrase "persons of African nativity or descent" is added to the language of the act of 1790 thus allowing African Americans the right of citizenship but continuing to deny citizenship to Japanese and other Asian immigrants until 1952.

6 May 1882 - The U.S. Congress passes the Chinese Exclusion Act, ending Chinese immigration for the next 60 years.

8 February 1885 - The first 944 official Japanese immigrants arrive in Hawaii where they will be contract laborers on sugarcane plantations.

2 September 1885 - Anti-Chinese rioters set fire to Chinatown in Rock Springs, Wyoming, killing 28 Chinese miners and wounding 15, as a result of a swelling anti-Chinese reaction over cheap labor and strikebreakers. All 16 white suspects are acquitted.

1891 - Japanese immigrants arrive on the mainland U.S. for work primarily as agricultural laborers.

27 June 1894 - A U.S. district court rules that Japanese immigrants are not eligible to become citizens because each is not "a free white person" as the Naturalization Act of 1790 requires.

7 May 1900 - The first large-scale anti-Japanese protest in California is held, organized by various labor groups.

23 February 1905 - The *San Francisco Chronicle* front page headline reads "The Japanese Invasion: The Problem of the Hour." This headline helps launch a string of editorials against Japanese Americans thereby helping escalate racism towards the Japanese in the Bay Area.

14 May 1905 - The Asiatic Exclusion League is formed in San Francisco. In attendance are labor leaders and European immigrants, marking the first organized effort of the anti-Japanese movement.

11 October 1906 - The San Francisco Board of Education passes a resolution to segregate children of Chinese, Japanese, and Korean ancestry from the majority population.

1908 - Japan and the U.S. agree via the "Gentlemen's Agreement" to halt the migration of Japanese laborers to the United States. Japanese women are allowed to immigrate if they are wives of U.S. residents.

1913 - California passes the Alien Land Law, forbidding "all aliens ineligible for citizenship" from owning land.

November 1920 - A new, more stringent 1920 Alien Land Law passes in California, intending to close loopholes found in the 1913 Alien Land Law.

1920 - Japanese American farmers produce $67 million dollars worth of crops, more than ten percent of California's total crop value. At this time, 111,000 Japanese Americans live in the U.S. with over 25% of these born in the U.S. thus U.S. citizens.

19 July 1921 - White vigilantes deport 58 Japanese laborers from Turlock, California, driving them out by truck at gunpoint. Other incidents occur across California and in Oregon and Arizona.

13 November 1922 - The United States Supreme Court rules on the *Ozawa* case, reaffirming the ban on Japanese immigrants from becoming naturalized U.S. citizens. This ban would last until 1952.

1924 - Congress passes the Immigration Act of 1924 effectively ending all Japanese immigration to the U.S.

November 1941 - A U.S. Intelligence report known as the "Munson Report" concludes that the great majority of Japanese Americans are loyal to the U.S. and do not pose a threat to national security in the event of war with Japan.

7 December 1941 - Japan bombs the Pearl Harbor military base in Hawaii. Over 3,500 servicemen are wounded or killed. Martial law is declared in Hawaii.

7 December 1941 - The FBI begins arresting Japanese immigrants identified as community leaders: priests, Japanese language teachers, newspaper publishers, and heads of organizations. Within 48 hours, 1,291 are arrested. Most of these men would be incarcerated for the duration of the war, separated from their families.

8 December 1941 - A declaration of war against Japan is brought by the President and passed by the U.S. Congress.

December - January 1941 - The FBI searches thousands of Japanese American homes on the West Coast for contraband. Short wave radios, cameras, heirloom swords, and explosives used for clearing stumps in agriculture are among the items confiscated.

11 December 1941 - The Western Defense Command is established with Lt. Gen. John L. DeWitt as the commander.

15 December 1941 - After a brief visit to Hawaii but without any evidence of sabotage, Secretary of the Navy Frank Knox announces to the press, "I think the most effective Fifth Column work of the entire war was done in Hawaii..."

19 February 1942 - President Roosevelt signs Executive Order 9066 authorizing military authorities to exclude civilians from any area without trial or hearing. The order did not specify Japanese Americans--but they were the only group to be imprisoned as a result of it.

25 February 1942 - The U.S. Navy orders all Japanese Americans living on Terminal Island in the Port of Los Angeles--some 500 families--to leave within 48 hours. As the first group to be removed en masse, they incur especially heavy losses.

March 1942 - General DeWitt, commander of the Western Defense Command issues Public Proclamation #1 and begins the process of removing all persons of Japanese ancestry--U.S. citizens and aliens alike--living in the western halves of Washington State, California, Oregon, and parts of Arizona. A curfew goes into effect in these areas--all those of Japanese ancestry must remain at home from 8 pm to 6 am.

March 1942 - The Wartime Civil Control Administration opens 16 "Assembly Centers" to detain approximately 92,000 men, women, and children until the permanent incarceration camps are completed.

5 March 1942 - The State of California "releases" 34 Japanese American civil servants from their jobs.

18 March 1942 - The President signs Executive Order 9102 establishing the War Relocation Authority with Milton Eisenhower as director.

21 March 1942 - The first evacuees began to arrive at Manzanar Assembly Center.

24 March 1942 - The first Civilian Exclusion Order is issued by the Army for Bainbridge Island near Seattle, Washington. Forty-five families are given one week to prepare to depart.

27 March 1942 - The Army issues Public Proclamation #4 prohibiting voluntary evacuation. All Japanese Americans living in the western halves of Washington State, California and Oregon may not change residences without military approval.

28 March 1942 - Minoru Yasui walks into a Portland police station to surrender himself for arrest in order to test the curfew regulations in court.

May 1942 - The incarcerees begin transfer to permanent WRA incarceration facilities or "camps." They total ten: Manzanar, Poston, Gila River, Topaz, Granada, Heart Mountain, Minidoka, Tule Lake, Jerome, and Rohwer.

16 May 1942 - University of Washington student Gordon Hirabayashi turns himself in to the authorities with a four-page statement explaining why he would not submit to the imprisonment on Constitutional grounds.

16 May 1942 - Hikoji Takeuchi, a Nisei, is shot by a guard at Manzanar. The guard claims that he shouted at Takeuchi and that Takeuchi began to run away from him. Takeuchi claims he was collecting scrap lumber and didn't hear the guard shout. His wounds indicated that he was shot in the front. Though seriously injured, he eventually recovered.

June 1942 - The movie "Little Tokyo, U.S.A." is released by Twentieth Century Fox. In it, the Japanese American community is portrayed as a "vast army of volunteer spies" and "blind worshipers of their Emperor", as described in the film's voice-over prologue.

3-6 June 1942 - The Allies victory at the Battle of Midway is significant, thus turning the advantage in the war to the United States.

12 July 1942 - Mitsuye Endo's attorney files a writ of habeas corpus on her behalf. The case wouldn't be decided upon until December 1944, but its ruling would signal the end of the incarceration camps.

4 August 1942 - A routine search for contraband at the Santa Anita "Assembly Center" turns into a riot. Eager military personnel had become overzealous and abusive which, along with the failure of several attempts to reach the camp's internal security chief, triggers mass unrest, crowd formation, and the harassing of the searchers. Military police with tanks and machine guns quickly end the incident. The overzealous military personnel are later replaced.

20 October 1942 - President Roosevelt calls the relocation centers "concentration camps" at a press conference. The WRA consistently denied that the term "concentration camps" accurately described the camps.

14 November 1942 - An attack on a man widely perceived as an informer results in the arrest of two popular inmates at Poston. The incident soon mushrooms into a mass strike.

5 December 1942 - Fred Tayama is attacked and seriously injured by a group of inmates at Manzanar. The arrest of the popular Harry Ueno for the crime triggers a mass uprising that leads to the deaths of two evacuees and injuries to nine more at the hands of the guards. Martial law is declared. Sixteen instigators of the uprising are removed from the center as are 65 evacuees targeted by the instigators.

January 1943 - The War Department announces the formation of a segregated unit of Japanese American soldiers, and calls for volunteers in Hawaii (where Japanese Americans were not incarcerated) and from among the men incarcerated in the camps.

1 February 1943 - The 442nd Regimental Combat Team is activated.

March 1943 - 10,000 Japanese American men volunteer for the armed services from Hawaii. 1,200 volunteer out of the relocation centers.

11 April 1943 - James Wakasa, a 63 year old chef, is shot to death by a sentry at Topaz Relocation Center while allegedly trying to escape through the perimeter fence. It is later determined that Wakasa had been inside the fence and facing the sentry when shot. The sentry would stand a general court martial and be found “not guilty.”

13 April 1943 - According to General John L. DeWitt, head, Western Defense Command “A Jap’s a Jap. There is no way to determine their loyalty...This coast is too vulnerable. No Jap should come back to this coast except on a permit from my office.”

21 June 1943 - The U.S. Supreme Court upholds the constitutionality of the curfew and exclusion orders in *Hirabayashi v. U.S.* and *Yasui v. U.S.*

13 September 1943 - From the results of the "loyalty questionnaire," "loyal" evacuees from Tule Lake begin to depart to other centers and "disloyal" evacuees from other centers begin to arrive at Tule Lake.

4 November 1943 - The Tule Lake uprising caps a month of strife. Tension had been high since the administration fired 43 coal workers involved in a labor dispute on October 7.

January 1944 - The War Department imposes the draft on Japanese American men, including those incarcerated in the centers. The vast majority comply, a few hundred resist and are brought up on federal charges. Most of the resisters are imprisoned in a federal penitentiary.

10 May 1944 - 63 Heart Mountain draft resisters are indicted by a federal grand jury. On June 26th the 63 are found guilty and sentenced to jail terms in federal penitentiaries. The 63 were pardoned on December 24, 1947 by President Truman.

24 May 1944 - Shoichi James Okamoto is shot to death at Tule Lake by a guard after stopping a construction truck at the main gate for permission to pass. The guard would be acquitted after being fined a dollar for “unauthorized use of government property”– a bullet.

18 December 1944 - The U.S. Supreme Court decides that Fred Korematsu was indeed guilty of remaining in a military area contrary to the exclusion order. This case challenged the constitutionality of the entire exclusion process.

2 January 1945 - The War Department announces that the exclusion orders are rescinded after the Supreme Court rules in the Endo case that "loyal" citizens could not be lawfully detained.

8 January 1945 - The packing shed of the Doi family is burned and dynamited, and shots are fired into their home. The family had been the first to return to California from the Amache Relocation Center, and the first to return to Placer County three days earlier. Although several men are arrested and confess to the acts, all would be acquitted. Some thirty similar incidents would greet other Japanese Americans returning to the West Coast between January and June 1945.

7 May 1945 - Germany surrenders, ending the war in Europe.

6 August 1945 - The U.S. drops the atomic bomb on Hiroshima. Three days later, a second bomb is dropped on Nagasaki. Japan surrenders on August 14th.

August 1945 - Approximately 44,000 evacuees remain in the relocation centers. Many have nowhere to go having lost their homes and jobs. Many are afraid of anti-Japanese hostility and refuse to leave.

20 March 1946 - Tule Lake "Segregation Center" closes. This is the last War Relocation Authority facility to close.

15 July 1946 - "You not only fought the enemy but you fought prejudice... and you won." These were the words of President Truman on the White House lawn as he received the 442nd Regimental Combat Team.

30 June 1947 - U.S. District Court Judge Louis E. Goodman orders that the petitioners in Wayne Collins’ suit of 13 December 1945 be released. Native-born American citizens could not be converted to enemy aliens and could not be imprisoned or sent to Japan on the basis of renunciation.

2 July 1948 - President Truman signs the Japanese American Evacuation Claims Act. Approximately $38 million was paid from this act, only a small fraction of the estimated loss in income and property.

June 1952 - The Senate and House override President Truman's veto and vote the Walter-McCarren Act into law. This bill grants Japan a token immigration quota and allows Japanese immigrants to become naturalized U.S. citizens.

1980 - The Commission on Wartime Relocation and Internment of Civilians is established calling for a congressional committee to investigate the detention program and the constitutionality of Executive Order 9066.

1981 - The Commission on Wartime Relocation and Internment of Civilians holds hearings in 10 locations. They hear testimony from over 750 witnesses.

1983 - The Commission on Wartime Relocation and Internment of Civilians issues its report, *Personal Justice Denied*, on February 24th and its *Recommendations*, on June 16th. The *Recommendations* call for a presidential apology and a $20,000 payment to each of the approximately 60,000 surviving persons excluded from their places of residence pursuant to Executive Order 9066.

1983 - 1988 - The wartime convictions of Gordon Hirabayashi, Minoru Yasui, and Fred Korematsu (the three men who protested the curfew and/or incarceration orders) are vacated ("nullified") on the basis of newly discovered evidence that the U.S. military lied to the Supreme Court in the original proceedings.

10 August 1988 - President Ronald Reagan signs HR 442 into law. It acknowledges that the incarceration of more than 110,000 individuals of Japanese descent was unjust, and offers an apology and reparation payments of $20,000 to each person incarcerated.

9 October 1990 - In a Washington D.C. ceremony, the first nine redress payments are made.

References

Densho, n.d.: Timeline. http://www.densho.org/causes/default.asp. Accessed 21 June 2007.

Japanese American National Museum, n.d.: Chronology of World War II Incarceration. http://www.janm.org/nrc/internch.php. Accessed 16 January 2006.

U.S. War Relocation Authority, 1946: The Evacuated People: A Quantitative Description. Washington, D.C.: Government Printing Office.

Appendix C

Loyalty Questionnaire

WRA-126 Rev.

Budget Bureau No. 13-RO22-43
Approval 1 Expires 7/31/43

WAR RELOCATION AUTHORITY
APPLICATION FOR LEAVE CLEARANCE

Relocation Center____________________
Family No.__________________________
Center Address______________________

1.______________________ ______________________ ______________________
(Surname) (English given name) (Japanese given name)
(a) Alias____
2. Names and ages of dependents you propose to take with you
____
3. Date of Birth________________________ Place of birth__________________________
4. Citizenship____
5. Last two addresses at which you lived 3 months or more (exclude residence at relocation center and assembly center):
_________________________ From_______________ to _________________________
_________________________ From_______________ to _________________________
6. Sex____________________ Height______________ Weight______________________
7. Are you a registered voter?_______________ Year first registered__________________
Where?______________________________ Party_____________________________
8. Marital status_____________________ Citizenship of spouse_______________________
Race of spouse_________________
9. ____
(Father's name) (Town or City) (State or Country) (Occupation)
10. ____
(Mother's name) (Town or City) (State or Country) (Occupation)

In items 11 and 12, you need not list relatives other than your parents, your children, your brothers and sisters. For each person, give name, relationship to you, citizenship, complete address, and occupation.

11. Relatives in the United States (if in military service, indicate whether a selectee or volunteer):

(a)____

(Name) (Relationship to you) (Citizenship)

____

(Complete address) (Occupation) (Volunteer or selectee)

(b)____

(Name) (Relationship to you) (Citizenship)

____

(Complete address) (Occupation) (Volunteer or selectee)

(c)____

(Name) (Relationship to you) (Citizenship)

____

(Complete address) (Occupation) (Volunteer or selectee)

(If additional space is necessary, attach sheets)

12. Relatives in Japan (see instruction above item 11):

____

(Name) (Relationship to you) (Citizenship)

____

(Complete address) (Occupation)

____

(Name) (Relationship to you) (Citizenship)

____

(Complete address) (Occupation)

13. Education

Name	Place	Years of attendance
____________ (Kindergarten)	____________	From______to______
____________ (Grade School)	____________	From______to______
____________ (Japanese language school)	____________	From______to______
____________ (High School)	____________	From______to______
____________ (Junior college, college, or university)	____________	From______to______
____________ (Type of military training, such as R.O.T.C. or Gunji Kyoren)	____________	From______to______
____________ (Other schooling)	____________	From______to______ (Years of attendance)

14. Foreign travel (give dates, where, how, for whom, with whom, and reasons therefore):

____

____

____

____

15. Employment (give employers' names and kind of business, addresses, and dates from 1935 to date):

____

____

____

____

16. Religion________________________ Membership in religious groups_____________

17. Membership in organizations (clubs, societies, associations, etc.)
Give name, kind of organization, and dates of membership

____

____

18. Knowledge of foreign languages (put check mark in proper squares):

(a) Japanese_______________ (b) Other_______________(specify)

	Good	Fair	Poor		Good	Fair	Poor
Reading				Reading			
Writing				Writing			
Speaking				Speaking			

19. Sports and hobbies____

____

____

20. List five references, other than relatives or former employers preferably persons resident in areas where you formerly resided, giving address, occupation, and number of years known:

____

(Name) (Complete Address) (Occupation) (Years known)

____

____

____

____

____

____

21. Have you ever been before an Alien Enemy Hearing Board?____________ ___________
(Yes) (No)

If so, give date and disposition of case:

(a) Have you ever been arrested or similarly detained? ____________ ___________
(Yes) (No)

If so, state offense, date, court and disposition of case:

(b) Have you ever been subjected to any disciplinary action since your evacuation?

_____________ ___________
(Yes) (No)

If so, state the circumstances and disposition of your case.

22. Give details of any foreign investments:
    (a) Accounts in foreign banks. Amount $______________________
    Bank__________________ Date account opened______________________
    (b) Investments in foreign companies. Amount $______________________
    Company______________ Date acquired______________________
    Contents____
23. List contributions you have made to any society, organization, or club:

Organization	Place	Amount	Date

24. List magazines and newspapers to which you have subscribed or have customarily read:

____

____

____

25. To the best of your knowledge, was your birth ever registered with any Japanese governmental agency for the purpose of establishing a claim to Japanese citizenship?

____

(a) If so registered, have you applied for cancellation of such registration?

____
(Yes or No)

When______________________________ Where?______________________

26. Have you ever applied for repatriation to Japan?______________________
27. If the opportunity presents itself and you are found qualified, would you be willing to volunteer for the Army Nurse Corps or the WAAC?

____

28. Will you swear unqualified allegiance to the United States of America and forswear any form of allegiance or obedience to the Japanese emperor, or any other foreign government, power, or organization?______________________
29. Have you ever worked for or volunteered your services to the Japanese or Spanish government?

_____ _____ If so, indicate which and give dates:
(Yes) (No)

30. Have you ever registered any of your children with a Japanese or Spanish Consul?
_____ _____ If so, indicate which and give dates:
(Yes) (No)

Names	Dates	Names	Dates
____________	____________	____________	____________
____________	____________	____________	____________
____________	____________	____________	____________
____________	____________	____________	____________

31. Have you ever sent any of your children to Japan? _____ _____
(Yes) (No)

Names	Dates	Names	Dates
____________	____________	____________	____________
____________	____________	____________	____________
____________	____________	____________	____________
____________	____________	____________	____________

32. State any type of leave previously applied for, and indicate whether leave clearance has previously been applied for, giving date and place of application.
33. If employment is desired, but no definite offer has been received, list the kinds of employment desired in order of preference:
First choice____
Second choice____
Third choice____
a) Will you take employment in any part of the United States?

_____ _____
(Yes) (No)
b) Give location preference______________________________
____

______________________ ______________________
(Date) (Signature)

____
(Seal of Selective Service System) Form Approved
Budget Bureau No. 26-R645-43

(Local Board Date Stamp With Code)

References

Chin, F., 2002: *Born in the USA: A Story of Japanese America, 1889-1947.* Lanham, Maryland: Rowman and Littlefield Publishers, Inc.

Smithsonian National Museum of American History, n.d.: A More Perfect Union. http://americanhistory.si.edu/perfectunion/non-flash/loyalty_questionnaire.html. Accessed 1 June 2007.

Street Law and the Supreme Court Historical Society, n.d.: Korematsu v. United States. Landmark Cases Supreme Court. http://www.landmarkcases.org/korematsu/questionnaire_loyalty.html. Accessed 1 June 2007.

APPENDIX D

QUESTIONS/ACTIVITIES FOR TEACHERS AND STUDENTS

The questions below are intended for teachers as they educate K-12 Geography students using the Japanese American relocation centers as their focal point. These questions are based on the six essential elements of geography and the 18 geography standards as identified by the Geography Education Standards Project (1994).

Essential Elements and Standards of Geography

The essential elements standards of geography below are taken verbatim from the Geography Education Standards Project (1994):

Essential Element 1–The World In Spatial Terms

Standard 1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.

Standard 2. How to use mental maps to organize information about people, places, and environments in a spatial context.

Standard 3. How to analyze the spatial organization of people, places, and environments on Earth's surface.

Essential Element 2–Places and Regions

Standard 4. The physical and human characteristics of places.

Standard 5. That people create regions to interpret Earth's complexity.

Standard 6. How culture and experience influence people's perceptions of places and regions.

Essential Element 3–Physical Systems

Standard 7. The physical processes that shape the patterns of Earth's surface.

Standard 8. The characteristics and spatial distribution of ecosystems on Earth's surface.

Essential Element 4–Human Systems

Standard 9. The characteristics, distributions, and migrations of humans populations on Earth's surface.

Standard 10. The characteristics, distribution, and complexity of Earth's cultural mosaics.

Standard 11. The patterns and networks of economic interdependence on Earth's surface.

Standard 12. The processes, patterns, and functions of human settlement.

Standard 13. How the forces of cooperation and conflict among people influence the division and control of Earth's surface.

Essential Element 5–Environment and Society

Standard 14. How human actions modify the physical environment.

Standard 15. How physical systems affect human systems.

Standard 16. The changes that occur in the meaning, use, distribution, and importance of resources.

Essential Element 6–The Uses of Geography

Standard 17. How to apply geography to interpret the past.

Standard 18. How to apply geography to interpret the present and plan for the future.

Questions for K-12 Teachers

The following questions are intended for teachers to use when teaching students or to use as role model questions for students. The key Geography Standard (GS) addressed by each question is noted in parentheses at the end of the question.

Chapter 2: Background to Japanese American Relocation
When was the primary Japanese immigration to the U.S., and why did it occur? **(GS 9, 12)**

Generally, where did the Japanese settle when they immigrated to the U.S.? Why did they settle where they did? (**GS 9, 12**)

In what economic activities were the Japanese generally involved in the U.S. prior to the bombing of Pearl Harbor? (**GS 11**)

What were the roots of anti-Japanese sentiment in the U.S. just prior to the bombing of Pearl Harbor in 1941? (**GS 6**)

What events led to the evacuation of the Japanese Americans from the U.S. West Coast? (**GS 9**)

What were the ethical and legal ramifications of the West Coast evacuation of the Japanese Americans? (**GS 13**).

Why were Japanese Americans evacuated from all of California but only parts of Washington, Oregon, and Arizona? Why were Japanese removed from Alaska and some selectively removed from Hawaii? Why weren't other states evacuated? (**GS 9**)

Examine the map of relocation centers. Is the distribution of these centers logical? Why or why not? (**GS 3**)

Chapters 3-10

What is the location of each of the centers in relative (i.e., relation to other towns and other prominent features) and in precise (i.e., latitude, longitude, and elevation) terms? (**GS 1**)

How would you describe the geology, landforms, and landscapes of each of the centers? How are these linked to the other components of physical geography? (**GS 3. 4, 7**)

What are the characteristics of the weather and climate of each of the centers, and why are they that way? (**GS 2, 4, 7**)

What are the soils of each of the centers, what are their general characteristics, and how did they form? (**GS 3, 4, 7**)

What are the characteristics of surface and groundwater at each of the centers, and why are they this way? (**GS 2, 4, 7**)

How would you describe the flora and fauna of each of the centers, and what is their relationship to the overall physical and human geography of the area? (**GS 3, 4, 8**)

Can you identify any relationship between the evacuees and the Native Americans who had traditionally occupied each of the center lands? (**GS 9, 10, 13**)

What were the characteristics of race and ethnicity of each of the areas from the beginning of historic time until 1942? (**GS 2, 4, 10**)

How have the racial and ethnic groups of each of the areas changed over time? (**GS 2, 9, 10, 12**)

What were the primary components of each of the areas' economic geography, and why were they the way they were in the early to middle 20th century? (**GS 2, 4, 11**)

How would you characterize the land use of each of the areas as of early 1942? Why was it this way? (**GS 2, 11**)

Why has agriculture been such a major economic activity and land use in each of the relocation center areas over time? (**GS 2, 11**)

Why was each site chosen for a relocation center? (**GS 1, 3**)

Describe the layout of each of the centers. How did this layout reflect the existing geography of each of the areas? If a center consisted of several camps, why do you think the U.S. Army and the War Relocation Authority decided on such a layout? (**GS 1, 3**)

What was the state, county, and assembly center origin of the evacuees of each of the centers? (**GS 1, 3, 9**)

How different was the physical and human environment of the center from the setting from which the evacuees came? (**GS 3, 4**)

How did the evacuees at this center interact with the physical and human environs of each of the settings? (**GS 14, 15**)

Agriculture was vital to the operation of each of the western centers. What were the characteristics of each center's agricultural program? How did the evacuee agriculturalists adjust to the physical and human realities of each center's setting? (**GS 3, 11**)

What was the source of each of the centers' domestic and irrigation water? What were the characteristics of each of these waters? (**GS 3, 7, 8**)

What were the characteristics of the government at each of the centers? (**GS 12**)

What businesses and industries operated in each center? How was business and industry related to the physical and human environment of each center? (**GS 2, 11**)

What were the characteristics of gardening and landscaping in each of the environments? How was gardening and landscaping related to the physical and human environments of the centers? (**GS 10, 14**)

What educational opportunities were available for K-12, higher education, and adult students in each of the centers? What were the physical and human conditions under which evacuees were educated? (**GS 12**)

What were the characteristics of Japanese culture and art in each of the centers? How was art related to the surrounding environment? (**GS 10**)

How did evacuees of each of the centers recreate? How was recreation related to the physical and human environment of the center? (**GS 3, 12**)

What forms of religion were practiced in each of the centers? How was religion related to the environment within and outside of the center? (**GS 10, 12**)

What were the characteristics of each of the center's health care systems? How was health related to the physical and human environment of the center? (**GS 12**)

What was the nature of "community" in each of the centers? What issues tended to disrupt this sense of community? (**GS 10, 12**, **13**)

How did the evacuees interact with the surrounding areas' human population? What were the results of these interactions? (**GS 2, 6, 9, 10**)

How did the evacuees interact with the evacuees of other centers? (**GS 3, 12, 13**)

To where did the evacuees relocate and why? Why didn't evacuees relocate to particular regions? (**GS 1, 9**)

What impacts does each of the former centers have on today's setting? (**GS 2, 14, 17**)

Who now owns and/or manages the former center lands, and how are they managed? (**GS 2, 16, 18**)

What happened to the numerous buildings of the centers after they closed? How have they affected the architecture of the surroundings today? (**GS 2, 12, 16**)

What remained at each of the centers as of 2002-2003? (**GS 2, 18**)

What characterizes the physical and human geography of the former center settings today? (**GS 2, 4**)

What resources are available for interpretation and study in the vicinity of each of the former centers? (**GS 2, 16, 18**)

How and why has the management status of the former relocation center lands changed over time? **(GS 16**)

Chapter 11*: *Conclusions

Compare the locations of each of the sites. Which is closest to e.g., Chicago? Cleveland? Minneapolis? (**GS 3**)

Which of the sites had the gentlest topography? Why? (**GS 2, 7, 8**)

What is the relationship of each center's site to ice age lakes or floods? (**GS 3, 7, 8**)

Why do you think that the eight western relocation centers were all located in arid to semi-arid places? (**GS 3, 7, 8**)

Which of the sites had the hottest climate? Driest climate? Why? (**GS 2, 7, 8**)

What is the difference between the Sonoran Desert, Mohave Desert, Great Basin Desert, and the semi-arid Great Plains in terms of climate and vegetation? (**GS 3, 7, 8**)

Which site had the worst soils in terms of agriculture? (**GS 2, 7, 8, 15**)

Which site is located in the Colorado River drainage basin? Columbia River basin? Mississippi basin? Which are located in the Great Basin? What is the hydrologic significance of the Great Basin? (**GS 2, 4, 7, 8**)

Compare and contrast the relationships between the treatment of evacuees and that of Native Americans on the same lands over time. (**GS 9, 10**)

How did the agricultural programs of the various centers compare in terms of acreages involved, crop and livestock diversity, and overall productivity? (**GS 3, 10, 11**)

Why were certain forms of recreation more prevalent in some centers and not others? (**GS 3, 14, 15**)

Why were some centers considered peaceful while others were characterized by conflict? (**GS 13**)

Which local populations were the most hostile to the evacuees? Which were the most welcoming? Why did the receptions of the evacuees differ so? (**GS 3, 6, 9, 10, 13**)

How and why did a complex web of interactions occur between the relocation centers? (**GS 2, 9, 10, 12**)

Following the closure of the relocation centers, have the Bureau of Reclamation, Indian reservation, or private lands been most productive in terms of agriculture? Why? (**GS 2, 10, 11**)

Why have some of the centers received more attention than others in terms of National Historic Monument recognition? (**GS 3, 16**)

Given the situation in the U.S. since the 11 September 2001 attack on the World Trade Center by radical Muslim Al Kaida members, is it possible that the U.S. could again thwart the human rights of a large group of people? (**GS 2, 9, 10**)

References

Geography Education Standards Project, 1994: *Geography for Life: National Geography Standards 1994*. Washington, D.C.: National Geographic Research and Exploration.