



Izembek

National Wildlife Refuge

Land Exchange/Road Corridor

Final Environmental Impact Statement

Appendix H Cultural Resource Report





U.S. Fish and Wildlife Service Mission Statement

The Mission of the U.S. Fish & Wildlife Service is working with others to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people.



Refuge System Mission Statement

The Mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

—National Wildlife Refuge System Improvement Act of 1997

APPENDIX H

Cultural Resource Survey of Portions of the Izembek National Wildlife Refuge for the Proposed Cold Bay-King Cove Road Land Exchange

**Cultural Resource Survey of Portions of the Izembek
National Wildlife Refuge for the Proposed Cold
Bay-King Cove Road Land Exchange**



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Abstract

During August of 2012, personnel from the US Fish and Wildlife Service (USFWS) and the State Office of History and Archaeology (OHA) conducted a reconnaissance level cultural resource survey of portions of the Izembek National Wildlife Refuge (INWR) and Alaska Peninsula National Wildlife Refuge (APNWR). The survey was conducted in association with a proposed set of land exchanges between the State of Alaska, USFWS, and the King Cove Corporation for the proposed purpose of construction of a road between Cold Bay and King Cove. The proposed road corridor would connect the termini of existing road systems in King Cove and Cold Bay. The purpose of the investigation was to identify and characterize potentially significant historic properties within the area of potential effect (APE) of the project that might be impacted by the project. Previous investigations had identified numerous archaeological and historic sites in the project area, although findings of that research have not been fully reported. That research also indicated that resources associated with military activities were the most likely resource types to be identified in the project area. The decision was made to focus the field investigation on those WWII associated properties.

The purpose of the current investigation was to characterize the cultural resources of the project area, and a full evaluation for the NRHP is beyond the scope of this investigation. Our investigations and previous investigations indicate that features associated with the WWII build up are the primary resource types in the project area. Their location in the INWR has protected them and the landscape in which they are found from direct and indirect effects from subsequent alterations of the area. The function of the resources, that of support/defense of Fort Randall, determined not eligible to the NRHP in 2002, would require that either the district or landscape would have to be found eligible on their own. Although it is unlikely the military landscape identified would rise to the level of significance necessary to meet NRHP eligibility, a formal determination of eligibility should be undertaken.

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I. Introduction

During August of 2012, personnel from the US Fish and Wildlife Service (USFWS) and the State Office of History and Archaeology (OHA) conducted a reconnaissance level cultural resource survey of portions of the Izembek National Wildlife Refuge (INWR) and Alaska Peninsula National Wildlife Refuge (APNWR). The survey was conducted in association with a proposed set of land exchanges between the State of Alaska, USFWS, and the King Cove Corporation for the proposed purpose of construction of a road between Cold Bay and King Cove (Figures 1, 2). The proposed road corridor would connect the termini of existing road systems in King Cove and Cold Bay. Currently, the road out of King Cove terminates approximately 22 miles north of King Cove at the Northeast Hovercraft Terminal. The road out of Cold Bay terminates approximately 5 miles north of the community of Cold Bay at Blinn Lake, within the INWR. The proposed road corridor would be 19.4 to 21.6 miles long and 100 feet wide (USFWS 2012: 1-4). The purpose of the investigation was to identify and characterize potentially significant historic properties within the area of potential effect (APE) of the project that might be impacted by the project. Previous investigations had identified numerous archaeological and historic sites in the project area, although findings of that research have not been fully reported. That research also indicated that resources associated with military activities were the most likely resource types to be identified in the project area. The decision was made to focus the field investigation on those WWII associated properties.

The National Historic Preservation Act (NHPA) of 1966 (as amended in 1976, 1980, 1992, and 2001) is the main impetus for cultural resource surveys. Section 106 of NHPA, and its implementing regulations contained in 36 CFR §800, establishes a review process for all projects or undertakings involving federal funds, lands, or permits. The review process (generally called the Section 106 Process) requires that the lead federal agency takes into account the potential impact of the undertaking on cultural resources. The process requires that the federal agency consult with state and local groups (including Native American organizations as well as non native entities) prior to impact on significant cultural resources. Significant is defined as sites that have been listed or are determined eligible for listing in the National Register of Historic Places. Cultural resources within the area of potential effect (APE) associated with a specific project (typically the foot print of the undertaking) must be

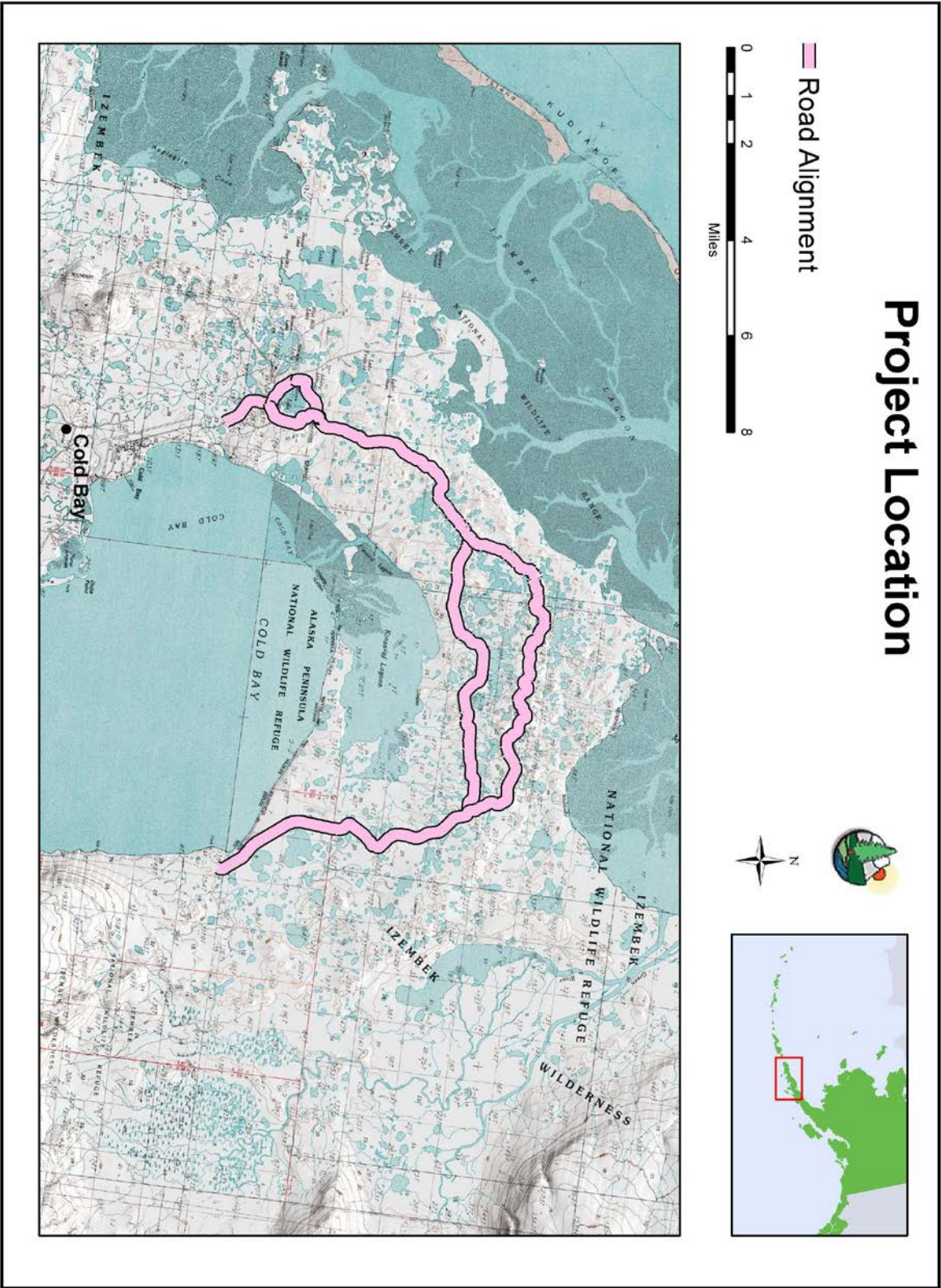


Figure 1. Location of project area and proposed road corridor alternatives.

identified and evaluated for eligibility prior to commencement of the undertaking. State policies governing historic preservation and archaeological sites are contained in the Alaska Historic Preservation Act of 1971 (Alaska Statute 41.35, as amended in 1974) and its implementing regulations (11 AAC 16).

II. Project Location and Description

The *Omnibus Public Land Management Act of 2009* (Public Law 111-11, Title VI, Subtitle E) provided Congressional authorization for a land exchange between the federal government, State of Alaska, and King Cove Corporation for the purpose of a road corridor between the communities of King Cove and Cold Bay if the Secretary of the Interior determines the land exchange and road corridor are in the public interest (USFWS 2012: 1-1). The purpose of the proposed land exchange is “to transfer to the State of Alaska all right, title, and interest to a road corridor that would allow the construction, operation, and maintenance of a single lane gravel road” (USFWS 2012: 1-5). The purpose of the proposed road corridor “is to construct a long term, safe, and reliable year round transportation system between the cities of King Cove and Cold Bay” (USFWS 2012: 1-5).

The proposed land exchange would involve several parcels of federal, state, and tribally-owned land. Approximately 206 acres of federal land constituting the proposed road corridor and safety turnouts within the current boundaries of the Izembek National Wildlife Refuge (INWR) would be transferred to the State of Alaska. Approximately 1,600 acres of federal land within the Alaska Maritime National Wildlife Refuge on Sitkinak Island would also be transferred to the State of Alaska. Approximately 43,093 acres of State-owned land adjacent to the Alaska Peninsula National Wildlife Refuge (APNWR) would be conveyed to the federal government and added to the APNWR. Approximately 13,300 acres of King Cove Corporation land around Kinzarof Lagoon and Mortensens Lagoon would be conveyed to the federal government and added to the INWR. Additionally, the King Cove Corporation would relinquish its Alaska Native Claims Settlement Act (ANCSA) claims to 5,430 acres within the Izembek Wilderness (located within the INWR).

III. Environmental Overview

The communities of Cold Bay and King Cove are located near the western terminus of the Alaska Peninsula. Cold Bay is situated on the western shore of Cold Bay (inlet). King Cove is located 18 miles southeast of Cold Bay on a sand spit north of Deer Island. The proposed road corridor would pass through Izembek National Wildlife Refuge (INWR) and the Izembek State Game Refuge (ISGR). Both refuges are located on the isthmus between Kinzarof Lagoon on the Pacific side and Izembek and Moffet Lagoons on the Bering Sea side of the Alaska Peninsula. The project area is found in the United States Geological Survey Cold Bay quadrangle (XCB).

The landscape in the project area falls within two distinct ecoregions, as defined by Gallant et al (2005). The western shore of Cold Bay (including the community of Cold Bay) and the isthmus north of Cold Bay (including INWR and ISGR) are within the Bristol Bay-Nushagak Lowlands. The eastern shore of Cold Bay (including the community of King Cove) is within the Alaska Peninsula Mountains.

The Bristol Bay-Nushagak ecoregion is characterized by rolling lowlands “dotted with morainal and thaw lakes” (Gallant et al 2005: 39). Moraine and outwash from Pleistocene epoch glaciations range from coarse near the mountains of adjacent ecoregions to fine sand along the coast, with mantles of silt and peat occurring in lowlands (Gallant et al 2005: 38-39). Lakes and ponds are ubiquitous on the Izembek isthmus. The western area of the isthmus is dominated by upland moist dwarf shrub, upland moist low scrub, and upland moist meadow vegetative communities (USFWS 2012: 3-42; Gallant et al 2005: 39). The eastern area of the isthmus is dominated by lowland wet sedge meadow and lowland wet low sedge/scrub (USFWS 2012: 3-42; Gallant et al 2005: 39). Notably, Izembek Lagoon has one of the largest eelgrass beds in the world (415,490 acres) and has been designated a Wetland of International Significance by the Ramsar Convention of Wetlands (Ramsar 2012: Web).

The Alaska Peninsula Mountains ecoregion is characterized by “rounded ridges, 300 m to 1,200 m high, surmounted at varying intervals by rugged volcanic peaks, 1,400 m to 2,600 m high” (Gallant et al 2005: 41). Heavy glaciations blanketed and shaped the region during the Pleistocene epoch; glaciers continue to endure on several volcanoes (Gallant et al 2005: 41). Dwarf scrub communities occur at higher elevations and low scrub communities occur at lower elevations with protection from the wind (Gallant et al 2005: 41).

The project area is located within the polar maritime climate zone (Lloyd 2010: A-3).

Average temperatures in Cold Bay range between 27 and 52 °F; average temperatures in King Cove range between 25 and 55 °F (USFWS 2012: 3-5, 3-6; King Cove Corporation 2012: Web). Cold Bay receives about 38 inches of rain and 62 inches of snow annually; King Cove receives 33 inches of rain and 52 inches of snow annually (USFWS 2012: 3-5; King Cove Corporation 2012: Web). Cloud cover, fog, and moderate to strong wind are the norm in both communities (USFWS 2012: 3-6; ADCCED-b: Web). Climate in both communities is strongly influenced by storms and weather patterns on the three water bodies surrounding them: the Bering Sea, the North Pacific Ocean, and Cold Bay (USFWS 2012: 3-7, 3-8). The mountainous terrain around King Cove may explain the slightly milder climate compared to Cold Bay (USFWS 2012: 3-5).

IV. Historic Context: Cold Bay

Military history in Cold Bay began with Executive Order 5214 designating it a Naval Reservation in 1929. The military did not immediately utilize the area. Cold Bay remained uninhabited except a handful of subsistence hunters and trappers until 1940 (Denfeld 1988: 5).

The Civilian Aeronautics Administration (CAA) approved plans to build an airfield at Cold Bay in 1940. The Cold Bay airfield was one of several CAA projects in Alaska at the time (Denfeld 1988: 5). This airfield was intended for both civilian use and as a support field for the new bases at Kodiak (Fort Greely) and Dutch Harbor (Fort Mears) (Cloe 1991: 56; Denfeld 1988: 6). Cold Bay was chosen because of its location between the two: “Cold Bay’s strategic location between Kodiak and Dutch Harbor made it an ideal site for a military field from which aircraft could cover the seaward approaches to both bases” (Cloe 1991: 57).

Airfield construction began at Cold Bay in September 1940. Morrison-Knudson Company (builder of the Hoover Dam) was contracted to build a 5,000 foot east-west runway. Construction was difficult and proceeded slowly:

Morrison-Knudsen quickly discovered how terrible the weather could be at Cold Bay. Storms the first fall and winter seriously delayed construction while sea conditions prevented the on-time arrival of supplies. Because of these weather delays, only 3,200 feet of runway had been laid by March 1941 and the pace of construction improved little during the remainder of 1941 (Denfeld 1988: 5-6).

The Japanese attack on Pearl Harbor in December 1941 generated fears that an attack on Alaskan soil was “imminent” (Denfeld 1988: 6). In response to these fears, construction plans at Cold Bay were expanded from a CAA airfield to a military garrison (Denfeld 1988: 6). Initially the new plans at Cold Bay included housing for 130 officers and 2,059 enlisted men, a storage facility, a ship dock, and three Kodiak T-hangars (Denfeld 1988: 6).

The 151st Engineer Combat Regiment and the 42nd Engineer Regiment arrived at Cold Bay in January 1942. Their first task was erecting Yakutat huts (16’ x 20’ huts made of prefabricated wooden panels) to house some of the personnel that would be arriving by the end of the month (Denfeld 1988: 7). Until an adequate amount of housing was constructed many enlisted men lived in tents (Denfeld 1988: 7). Additionally, the engineers constructed miles of roads and water pipes to connect facilities spreading over 7.5 miles (Denfeld 1988: 7). The original Yakutat huts were eventually replaced by Quonset huts (Denfeld 1988: 7).

The Cold Bay garrison was named Fort Randall when it was officially activated on January 29, 1942. It was named in honor of Brigadier General George Randall, who served as the first commander of the Army Department of Alaska in 1900. Prior to his command in Alaska, Randall fought in the Civil War, Spanish-American War, and several western Indian campaigns (NYT 1900).

Construction at Cold Bay was conducted in secret by the U.S. Army. Accordingly, the 151st Engineer Combat Regiment and the 42nd Engineer Regiment took over the airfield construction from Morrison-Knudsen in February 1942 (Denfeld 1988: 7). The army takeover of construction was “part of an overall effort to transfer the construction effort from civilians to the military following the outbreak of war” (Cloe 1991: 57). To conceal its base-building operation the Army addressed supplies and equipment to the fictitious Saxon and Company, under the ruse that the company was building a fish cannery at Cold Bay (Denfeld 1988: 6).

Plans were soon in place to further expand Fort Randall. The expansion included a 400 bed hospital, additional warehouses and cold storage, housing for 424 officers and 8,510 enlisted men, a Link Trainer building, expansion of the east-west runway by 2,500 feet, and a 5,000 foot north-south runway crossing the east-west runway already under construction (Denfeld 1988: 6; Cloe 1991: 57). An additional 5,000 foot runway was also constructed two miles to the southeast of the main runways (Denfeld 1988: 12). Coastal defenses included two 6-inch coastal defense guns on barbette mounts at Grant Point and four 155 mm guns on Panama mounts on Thin Point at Mortensen’s Lagoon (Denfeld 1988: 7).

In the spring of 1942 Japan was planning a series of attacks to gain the upper hand in the Pacific Ocean Theater. In the Aleutians, Japan planned to destroy the US airbase at Dutch Harbor and then invade and occupy the islands of Attu, Adak, and Kiska. A synchronized campaign aimed to destroy the fleet of US carriers stationed at Midway and to take over that strategic location. US intelligence knew the targets of these plans, but not the exact dates (Rennick 1988: 22-23).

The Aleutian Islands Campaign began on June 3, 1942. That day, Japan launched air strikes on Dutch Harbor from two carriers, the *Ryujo* and the *Junyo*. US Army planes were immediately dispatched from Fort Randall but the raid was over by the time they reached Dutch Harbor. US patrol planes spotted the *Ryujo* and *Junyo* the following morning. B-26 bombardment squadrons from Fort Randall and Fort Glenn were sent to target the carriers

(Denfeld 1988: 14). Poor visibility from fog prevented the Fort Glenn squadron from locating the carriers. The Fort Randall squadron had similarly poor luck, except for Captain George W. Thornborough, who got separated from the rest of his group. Thornborough located the *Ryujo* and attempted to sink the ship:

Under heavy fire, he made two torpedo runs on the *Ryujo* and one diving attack, aborting each time because of bad position. On the third run he released the torpedo, only to have the *Ryujo*'s bow drop into a wave trough. The torpedo slithered across its foredeck and splashed into the sea on the far side (Creed 1985: 127).

The torpedo failed to detonate. Thornborough returned to Fort Randall to rearm and refuel before heading back for another attempt. He radioed Fort Randall later that evening as he approached the airfield in bad weather. Thornborough never landed; his wrecked B-26 was discovered 90 miles northeast of Cold Bay on June 10, 1942 (Rennick 1995: 25; Denfeld 1988: 14). The Fort Randall airfield was later named Thornborough Army Airfield in his honor.

The Japanese resumed their attack on Dutch Harbor on June 4. American bombers and antiaircraft fire took down nine Japanese planes (Rennick 1995: 25). In the end, 35 Americans were killed and 28 wounded in the attack on Dutch Harbor (Rennick 1995: 25). Oil tanks, ammunition magazines, the dock, a warehouse, Quonsets, the U.S.S. *Northwestern*, and the native hospital at Unalaska (near the base) were destroyed in the attack (FWS 2011; Rennick 1995: 15).

To the south, the Battle of Midway also began on June 4, 1942. Japan planned to destroy the US Pacific Fleet stationed at Midway and to occupy the base there. US code breakers had intercepted Japanese radio transmissions about the planned invasion, allowing the US Navy to ambush the attackers. The US Navy won the battle, sinking four Japanese carriers and dealing a heavy blow to the Japanese naval force.

Despite their defeat at Midway, Japan successfully invaded and occupied the islands of Kiska and Attu. Twelve hundred Japanese soldiers landed at Kiska on June 6, 1942. They captured the only ten Americans stationed on the island and sent them to a prisoner of war camp in Japan. Another twelve hundred Japanese soldiers landed on Attu on June 7, 1942. Approximately 40 Aleut villagers from Attu were shipped to a prisoner of war camp in Japan. Plans to occupy Adak had been canceled.

In response to Japanese aggression in the Aleutians, Cold Bay was selected as the site for

a Naval Section Base in July 1942. Cold Bay was chosen because “of its excellent harbor and the belief that Navy seaplane facilities should be collocated with the Army airfields then under construction” (Denfeld 1988: 13). The Cold Bay section base was officially commissioned on August 1, 1942.

Construction of the section base began in September 1942. A detachment of the 8th Naval Construction Battalion (Seabees) completed the first phase of construction. A company of the 23rd Battalion Seabees took over remaining construction in May 1943 (Bureau of Yards and Docks 1947: 173). Section base facilities were located south of the main runway at Mortensen Point in an area called “Navy Town.” Facilities included:

Two 30’ x 70’ storehouses, five steel magazines, five concrete fuel tanks, a machine shop dispensary, administration building (50’ x 90’), torpedo storehouse, Quonset hut barracks and BOQs, mess hall and recreation facilities... [as well as] an underwater cable to detect vessels passing above (Denfeld 1988: 13).

The section base was up and running by the end of 1942 (Denfeld 1988: 13).

For a short time, the Cold Bay Naval Section Base played an important role in the patrol of the Aleutians and the Alaska Peninsula. Navy ships and aircraft stationed at the base “search[ed] out the many hiding places along the Alaska and Aleutian coastlines... fill[ing] in the gaps not covered by the major patrol bases at Kodiak, Sitka, and Dutch Harbor” (Denfeld 1988: 12). At its high point, 75 officers, 632 enlisted, and 244 Seabees were stationed there (Denfeld 1988: 13).

As the military focused its attention on the recapture of Attu and Kiska, Cold Bay began to lose its strategic importance. The Cold Bay Section Base was redesignated a Naval Auxiliary Air Facility (NAAF) on April 1, 1943 (Winter [undated]: Web). This title implied a lesser Navy presence at Cold Bay (Denfeld 1988: 13). The majority of Navy personnel were restationed on Umnak Island at Otter Point Naval Air Facility, 200 miles west of Cold Bay (Envirosphere 1987: 5-51). The military facilities on Cold Bay had “their last moment of glory” in early May 1943 when they served as a staging area for troops from the west coast on their way to recapture Attu and Kiska (Envirosphere 1987: 5-51, 5-52; Denfeld 1988: 17).

The US recaptured Attu and Kiska during the spring and summer of 1943. A force of 10,000 troops, six cruisers, three battleships, two submarines, and dozens of auxiliary vessels assembled for the recapture of Attu (Rennick 1995: 35). The first American troops landed at Attu

on May 11, 1943. Fighting lasted until May 29, when the last of the Japanese led a Banzai charge against the Americans. In the aftermath of their defeat at Attu, the Japanese secretly evacuated the island of Kiska on July 28th 1943 under a cover of heavy fog. Unaware of this, approximately 35,000 allied troops landed on Kiska on August 15, 1943 to find it abandoned.

After the recapture of Attu and Kiska, the remaining military operations at Cold Bay closed down. Only 12 Naval officers and 89 enlisted remained at Cold Bay NAAF by August 1943 (Denfeld 1988: 13). Army personnel from Fort Randall took over dock operations, aircraft fueling and radio communications duties at the NAAF as Navy personnel were drawn down (Denfeld 1988: 13). The Cold Bay NAAF was decommissioned on November 7, 1943. Fort Randall was placed in caretaker status with a reduced force of 38 officers and 505 enlisted men on January 1, 1944 (Denfeld 1988: 28).

Operation Hula Two was conducted at Cold Bay between March and September 1945. Hula Two entailed the transfer of 180 naval vessels to the Soviet Union as part of the lend-lease program (Denfeld 1988: 36; Russell 1995: 349). Transferred vessels included minesweepers, subchasers, repair barges, infantry landing crafts, and patrol frigates (Denfeld 1988: 28). Because the Russian military was inexperienced with the types of ships being transferred, Hula Two included a training program for the operation of each type of vessel. About 5,500 Coast Guard, 5,000 Navy, and a detachment of Marines supported Hula Two during its six month duration (Denfeld 1988: 36). A total of 12,400 Russians were trained at Fort Randall during the Hula Two program (Denfeld 1988: 36). Hula Two was “abruptly terminated” with only 149 of the planned 180 vessels transferred to the Soviets, likely due to the fundamental distrust between the US and the USSR (Denfeld 1994: 9).

Though the program was short-lived, Hula Two necessitated a new wave of construction and renovation at Cold Bay. Largely vacant during the previous year in caretaker status, much of the existing infrastructure was in poor condition. New construction included two fire stations, a 250 seat theatre, vehicle shop, and small boat dock (Denfeld 1988: 36). Additionally, 723 Fort Randall buildings were renovated and 75 moved to new locations (Denfeld 1988: 36). Hula Two was decommissioned on October 1, 1945. A limited force of approximately 1,000 Americans secured the buildings in preparation for base closure (Denfeld 1988: 36). The base was officially closed on December 1, 1945. A detachment of Marines stayed at Cold Bay to guard the base (Denfeld 1988: 36).

The US Air Force established a presence at Cold Bay in 1946. A twenty man detachment arrived in January of that year. The airfield was renamed Thornborough Air Base in January 1947 (Denfeld 1988: 36). The airfield became “a service stop for transient aircraft” with around 55 landings per month (Denfeld 1988: 36). More personnel were needed to service this many aircraft. At its high point, nine officers and 123 enlisted were assigned to Thornborough Air Base (Denfeld 1988: 36).

New construction planned in April 1949 to accommodate the Air Force presence at Cold Bay. Plans called for new housing and recreational facilities. The Tundra Inn Service Club and Library was completed in November 1949. Construction of new housing was cancelled after the Joint Chiefs of Staff decided to end the military presence in the Aleutians. Fort Randall was deactivated and abandoned in 1950 (Denfeld 1988: 37).

The Cold Bay airfield was used for commercial, in addition to military, purposes throughout the 1950s. Cold Bay became an important military and commercial refueling stop for flights to the Orient during this period. The US Air Force transferred control of the airfield to the CAA in the early 1950s. Reeve Aleutian Airways (RAA) leased the airfield in 1953. RAA offered the first civilian air passenger service from Anchorage to Cold Bay (Ogle 1995: 408-409).

The Flying Tiger Line leased and developed the lands adjacent to the Cold Bay airfield in 1960. The company, named after the famous WWII fighter unit, was both a cargo airline and a military charter contractor. The Flying Tiger Line used the Cold Bay airfield as a refueling stop on flights to the Orient under a military transportation contract until 1985 (USFWS 2008a: Web). Four years later the Flying Tiger Line was bought out by Federal Express.

The Cold Bay airstrip was transferred to the Federal Aviation Administration (FAA) and then to the State of Alaska Department of Transportation and Public Facilities (DOT&PF) in the 1960s (USFWS 2008a: Web). Today DOT&PF owns the airstrip. PenAir runs daily service to from Anchorage to Cold Bay.

The close proximity of Siberian airfields, combined with the advent of nuclear technology and aircraft capable of long-range flights, instilled fear of a Soviet attack on Alaskan soil throughout the Cold War. The US Air Force built a system of radar stations across northern Alaska and Canada during the 1950s to detect Soviet aircraft. The system, called the Distant Early Warning (DEW) Line, was operational by 1957.

The Air Force built the White Alice Communications System (WACS) to link the DEW Line to their Aircraft Control and Warning (AC&W) and Ballistic Missile Early Warning System (BMEWS). The WACS utilized new forward propagation tropospheric scatter technology in conjunction with older microwave technology at auxiliary stations to span long distances and overcome mountainous terrain (Reynold 1988: 5). Two extensions of the DEW Line system were announced in 1957. Project Stretchout was a WACS extension of the DEW Line into the Alaska Peninsula and the Aleutians. A simultaneous project extended the DEW Line across Greenland.

Cold Bay was selected as the hub of the WACS in the Alaska Peninsula and the Aleutians during the Cold War (Reynold 1988: 61). Auxiliary stations were located at Cape Sarichef, Driftwood Bay, Nikolski, Port Heiden, and Port Moller (Reynold 1988: 13). Construction of Cold Bay WACS station began in 1958. The Flying Tiger Line was contracted to transport material and equipment for construction of the WACS facility in Cold Bay. The Cold Bay WACS station was operational in 1959 but Project Stretchout was not completed until the mid-1960s (Reynold 1988: 13, 61). Located on a bluff near Grant Point, the Cold Bay complex included the main composite facility, above and below ground storage tanks, 4 billboard antennae, landfill, incinerator, residential trailers, and a Quonset hut (Rocque 2004: 20). The advent of satellite technology quickly rendered the WACS obsolete. The Cold Bay WACS site was decommissioned in 1979 (Reynold 1988: 61).

Lands and waters north of Cold Bay were designated federal and state refuges in 1960 and 1972, respectively. Public Land Order 2216 established the Izembek National Wildlife Range on December 6, 1960. Passage of the Alaska National Interest Lands Conservation Act (ANILCA) redesignated Izembek a National Wildlife Refuge (NWR) in 1980. The NWR is located north of the Cold Bay settlement on the isthmus between the Bering Sea and Cold Bay. The Alaska Legislature designated 480,396 acres of state-owned tidelands and waters surrounding the Izembek NWR as the Izembek State Game Refuge in 1972 (§ 1 Ch 140 SLA 1972).

These refuges are home to a variety of plants and animals but are most famous as “international crossroads” for migratory birds:

Each spring and fall, the entire world populations of emperor geese and Pacific black brant migrate through Izembek Refuge. Each fall, many thousands of waterfowl and shorebirds congregate on the lagoon, including black brant, Taverner’s Canada geese, Steller’s eiders,

northern pintails, mallards, rock sandpipers, and dunlin. In winter, several thousand brant and emperor geese along with thousands of Steller's eiders remain in the area (FWS 2008b: Web).

Additionally, Izembeck Lagoon in the state game refuge is home to one of the largest eelgrass beds in the world (Lloyd 2010: 1).

Exposed to decades of harsh weather, military infrastructure in the Alaska Peninsula and the Aleutians fell into ruin by the 1970s. The area around Cold Bay

...had become a massive heap of debris. Many of the Quonset huts had collapsed and the sheets of corrugated steel were scattered across the tundra by the strong winds. The debris... was creating an unsightly and unsafe situation. Additionally, abandoned rusting fuel containers had the potential for human and environmental damage (Denfeld 1988: 38).

Cleanup of military infrastructure was undertaken at Cold Bay in the 1980s. The Alaska District of the US Army Corps of Engineers oversaw debris removal at Fort Randall under the Defense Environmental Restoration program. A cultural resource survey was performed jointly by Army Corps of Engineers and the Alaska Office of History and Archaeology in 1984. The survey was done prior to the cleanup to identify structures and features to be spared from destruction. The cleanup involved demolishing 1,000 structures and crushing 3,000 fuel containers. All of the resulting debris was buried and the ground reseeded (Denfeld 1988: 48-49). Cleanup of the WACS site was performed under the Air Force Installation Restoration Program (IRP). The entire WACS complex, except the Quonset hut, was demolished and buried in the 1987 and 1988 cleanup (Rocque 2004: 20).

A Determination of Eligibility (DOE) by Michael Yarborough recommended the Cold Bay Airfield (XCB-147) ineligible for the National Register of Historic Places (NRHP) in 2002. Yarborough argued that the airfield could "conceivably" be considered eligible under Criterion A (events) and Criterion C (design and workmanship) as an example of a WWII/Cold War airfield. However, Yarborough recommended the site as ineligible because of alterations in the setting (runway extensions in the 1960s and 1970s) and the subsequent debris removal and cleanup efforts of the 1980s (Yarborough 2002: 6).

V. Historic Context: King Cove

Little is known about the history of King Cove. A man named Robert King settled on the cove in the 1880s. Pacific American Fisheries (PAF) built a large salmon cannery at King Cove in 1911. The cannery employed Asian, Scandinavian, and Aleut workers (Bradford 1915; King Cove Corporation 2012: Web). King Cove was incorporated as a first-class city in 1947. The PAF cannery was destroyed by a fire in 1976 but was rebuilt soon after. The cannery is currently operated by Peter Pan Seafoods and is one of the largest canneries in North America. The federally recognized Agdaagux Tribe is of King Cove is based in King Cove.

VI. Methods

Investigations prior to fieldwork included review of the Alaska Heritage Resource Survey (AHRS), regional historic and archaeological literature including prior research associated with WWII buildup in the area, and project documents. Survey methods included walking transects along the proposed corridor and adjacent area. The primary evidence of human use of the area was the WWII roads and features developed during the buildup operations of WWII, and as such were fairly easily located. The exception was a class of features identified as observation posts, consisting of remnants of fox holes strategically located across the project area. Features identified during the survey were marked with GPS points, measured and recorded using standard field techniques.

Two 1m x 1m test units were excavated within the camp site assigned the AHRS number XCB-214. Units were placed in two pit features (Feature 12, Feature 14) to determine potential age, function, and cultural affiliation. Each test was trowelled by hand and artifacts mapped on a notebook plan. Excavation units were extended as far as possible with hand tools, in both cases in excess of 60cm.

Artifacts recovered from Feature 12 include a curved clear glass shard, and several dozen coal fragments, many of which were heavily burned. The glass specimen is thin and likely derived from a broken lamp chimney. Artifacts were constrained to a thin cultural deposit between 5cm and 7cm below surface. The deposit is probably a briefly-occupied living floor associated with military activities in the area.

Testing within Feature 14 yielded two plastic bag fragments between 1cm and 3 cm below surface. Bags are possibly food containers (i.e. MRE-type pouches). No other artifacts, coal, or cultural deposits were encountered.

OHA staff collected GPS points in WGS 84 using handheld units. The points were downloaded to a shapefile using DNRGPS and exported to a file geodatabase in ArcMap 10. The points were projected in ArcMap10 onto a basemap projected in NAD 83 Alaska Albers. Data collected by USFWS was emailed to OHA in text format. The provided latitude and longitude data was given to us in decimal minutes (DDM). This data was entered in to an excel spreadsheet. The latitude and longitude data was converted to UTM's using the Convert Coordinate Notation tool in ArcMap 10. This data was then added to the existing map.

VII. Results of Investigation

Resources identified during the survey were the result of military activities during WWII (Figure 2). Five clusters of pit features (four interpreted as camps XCB-214 to XCB-217), one as an outpost, XCB-213), the road system, and a utility line (XCB-218) were identified in the project area. OHA indicated that the road network should not be given an AHRS number. Several individual pit features, identified as observation posts or other outlying features, were also identified strategically spread across the landscape. These have not been assigned AHRS numbers as of this time.

XCB-213 Outpost Site

The Outpost Site (Figures 2, 3) consists of three main features and at least one associated feature. Feature 1 is an L-shaped depression, partially filled with debris. It measures 8' X 10' X 3', and is 3' deep. It is framed by 6"X12" dimensional lumber, and is constructed with wire nails. The corrugated tin roof has collapsed. Feature 2 is 30' north of Feature 1. This is an 18'X18' square pit feature, 5' deep, with a small 3' wide, 2' long and 1' deep entrance tunnel on the north aspect. Feature 3 is a large depression (54'X20'X10' deep) with a flat pad, which has been cut into the hillside. Ground squirrel activity has exposed wooden flooring material. Feature 4 is a pit feature located on a hightop adjacent to the other features, and has been interpreted as a sentry foxhole position. Coal scatter is found in a nearby vehicle turnaround, and two pieces of bare copper wire were located on a hill to the west of the site.

XCB-214 Izembek WWII Camp 1

This campsite (Figures 2, 6) is located on the north side of Outpost Road, adjacent to a relict portion of a small pond. It consists of 16 pit features and associated surface debris. Feature 1 is 20'X12'X6' deep with 3' wide entrance facing south. Feature 2 is 18'X12'X7', with no apparent entrance. Feature 3 is 9'X11'X4' deep, with 2' wide entrance facing south. Feature 4 is 12'X11'X5' deep, with no apparent entrance. Feature 5 is 12'X5'X5' deep, ovoid in shape, and with no apparent entrance. Feature 6 is 11'X13.5'X5' deep with no apparent entrance. Feature 6 is 11'X13.5'X5' deep with no entrance. Feature 7 is 13'X8'X4' deep with a possible, indistinct entry. Feature 8 is 10'X9'X3' deep with no entry. Feature 9 is 11'X9'X3' deep, oblong to

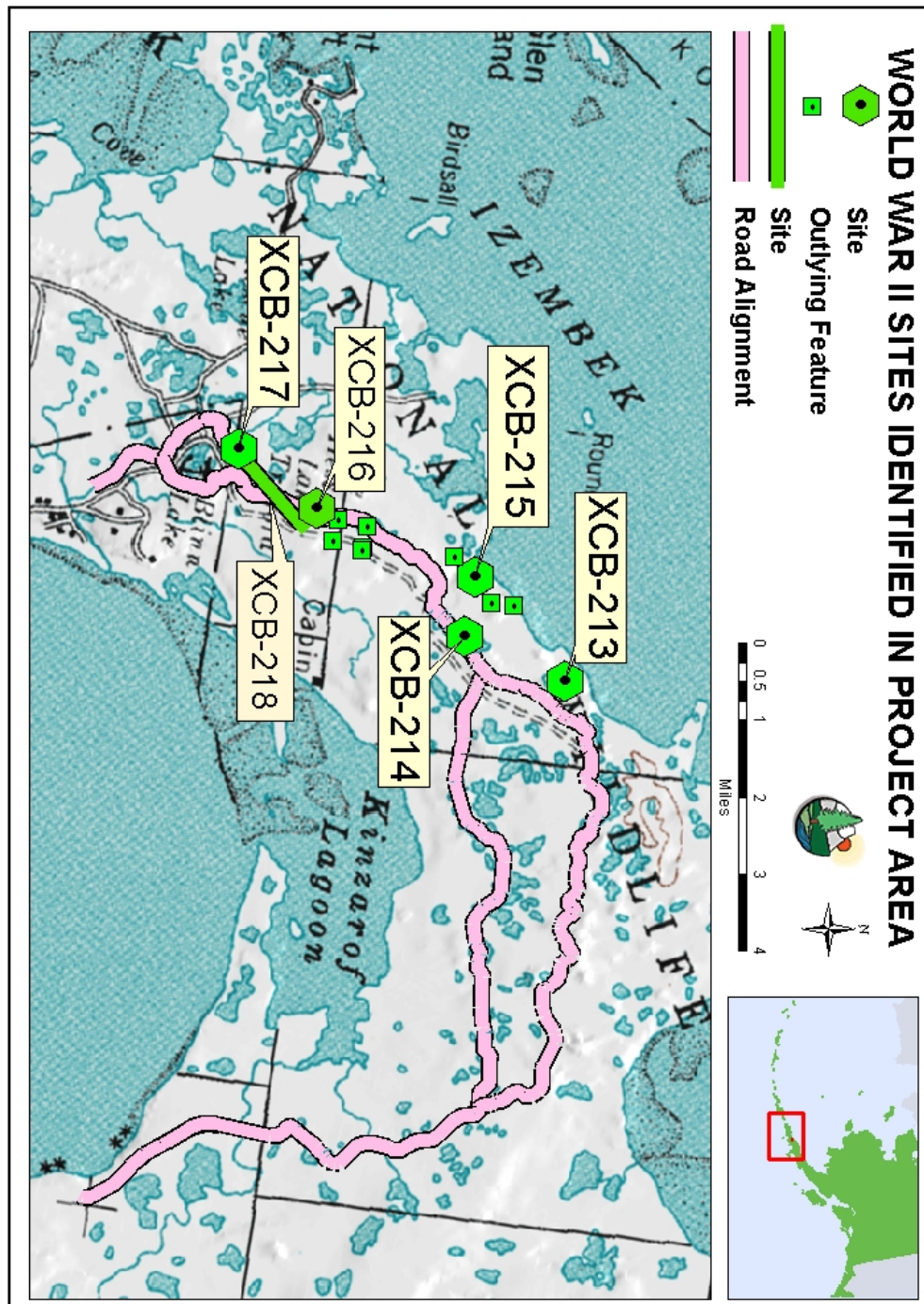


Figure 2. Map of project area with site locations.

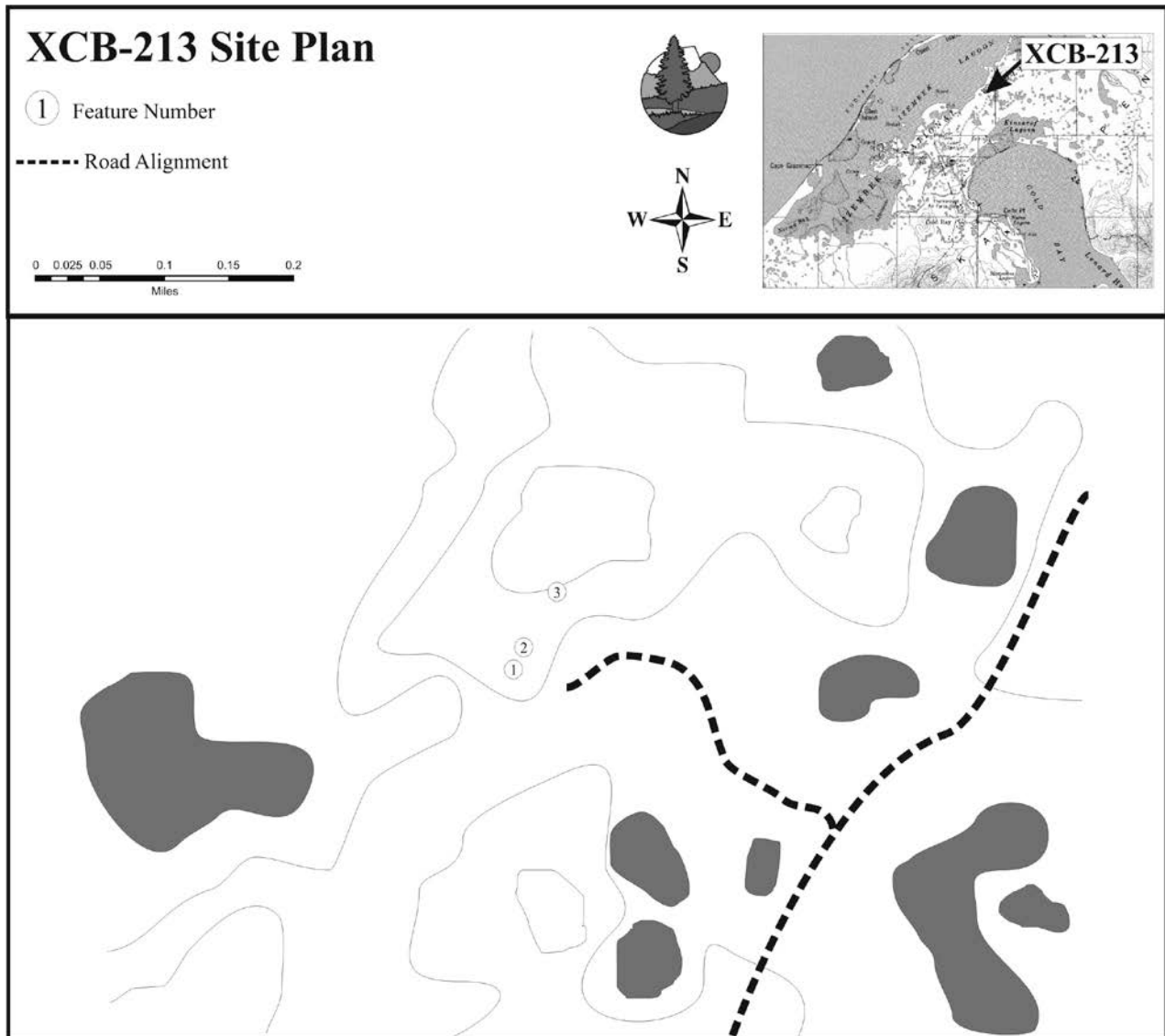


Figure 3. Features identified at the Outpost Site.

rectangular, and has no entry. Feature 10 is 7'x11'x4' deep with no entrance. Feature 11 is 7'X9'X2' deep with no entrance. Feature 12 is 14'X7'X2' deep with no entrance. Feature 13 is 10'X7'X1' deep with no entrance, but has a distinctly flat bottom. Feature 14 is 13'X13'X6' deep with no entrance. Feature 15 is 8'X13'X4' deep with no entrance but has a distinctly flat bottom. Feature 16 is 9'X7'X2.5' deep, and lies past the bluff edge, east of the rest of the features. Nearby artifacts include two notched wooden tent stakes and a braided wire segment.



Figure 4. Feature 1 at Outpost Site.



Figure 5. Feature 2 (foreground) and Feature 3 (background) at Outpost Site.

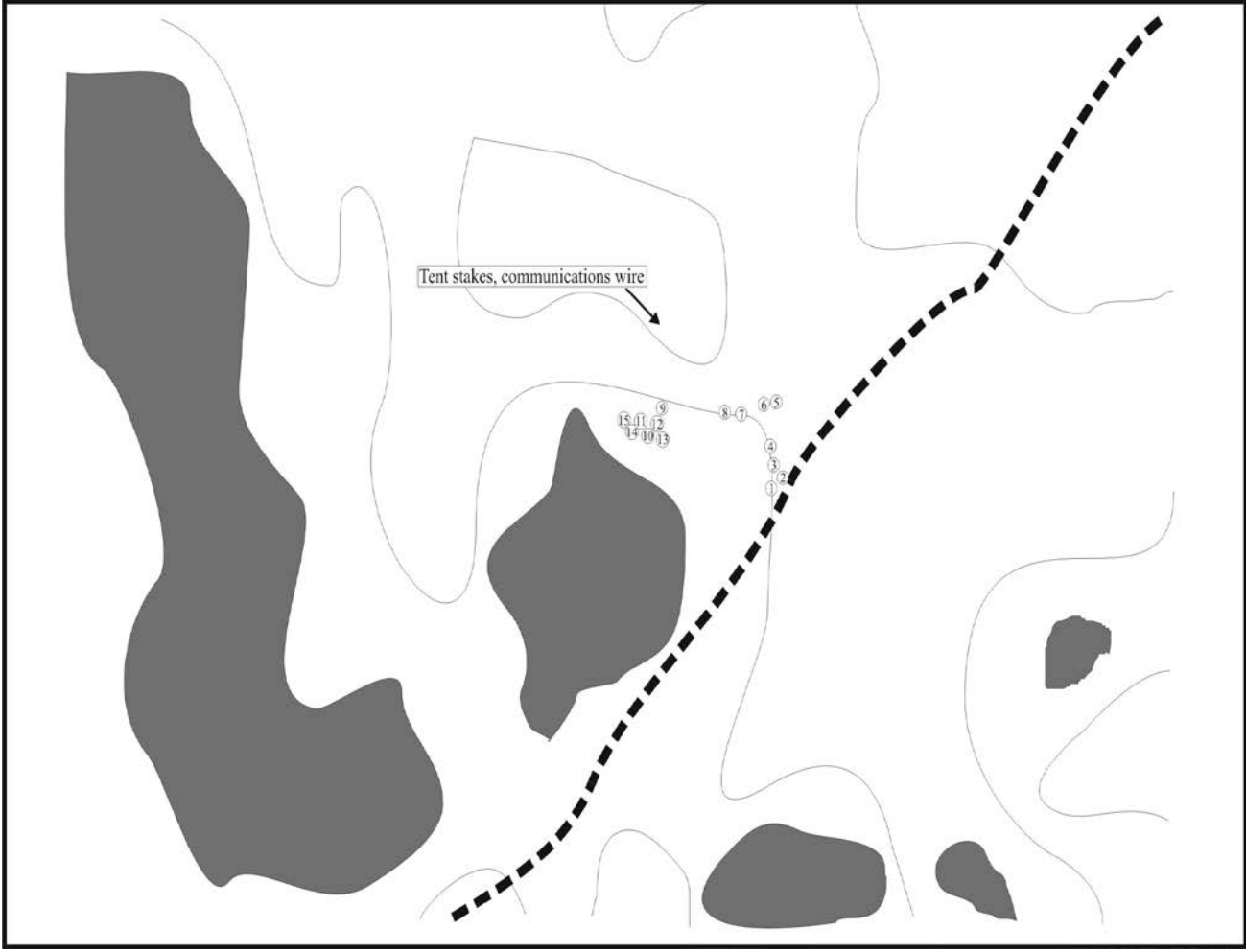
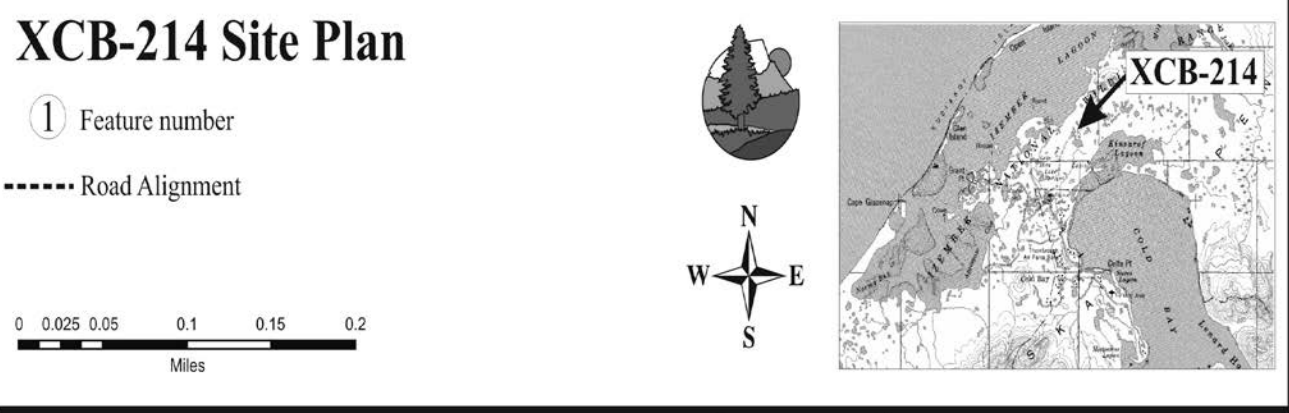


Figure 6. Features identified at Izembek WWII Camp I.



Figure 7. Typical features at Izembek WWII Camp 1.

XCB-215 Izembek WWII Camp 2

WWII Campsite 2 (Figures 2, 8) consists of five larger pit features, two apparent outhouse pits, and two smaller pit features interpreted as observation posts. Feature 1 is a distinct, deep depression with an entry tunnel. It is 35' X 31', oriented NE-SW 30 degrees east of north. The entry tunnel is 3' wide and 3' deep, and 4' in length. Feature 2 is a deep, 12' X 12' tent pit with entry tunnel. Feature 3 is an outhouse hole associated with Feature 2, measuring 6' X 6' X 3' deep. Feature 4 is a shallow but sharply defined pit measuring 18' X 18'. Feature 5 is a shallow bermed pit, measuring 12' X 18'.

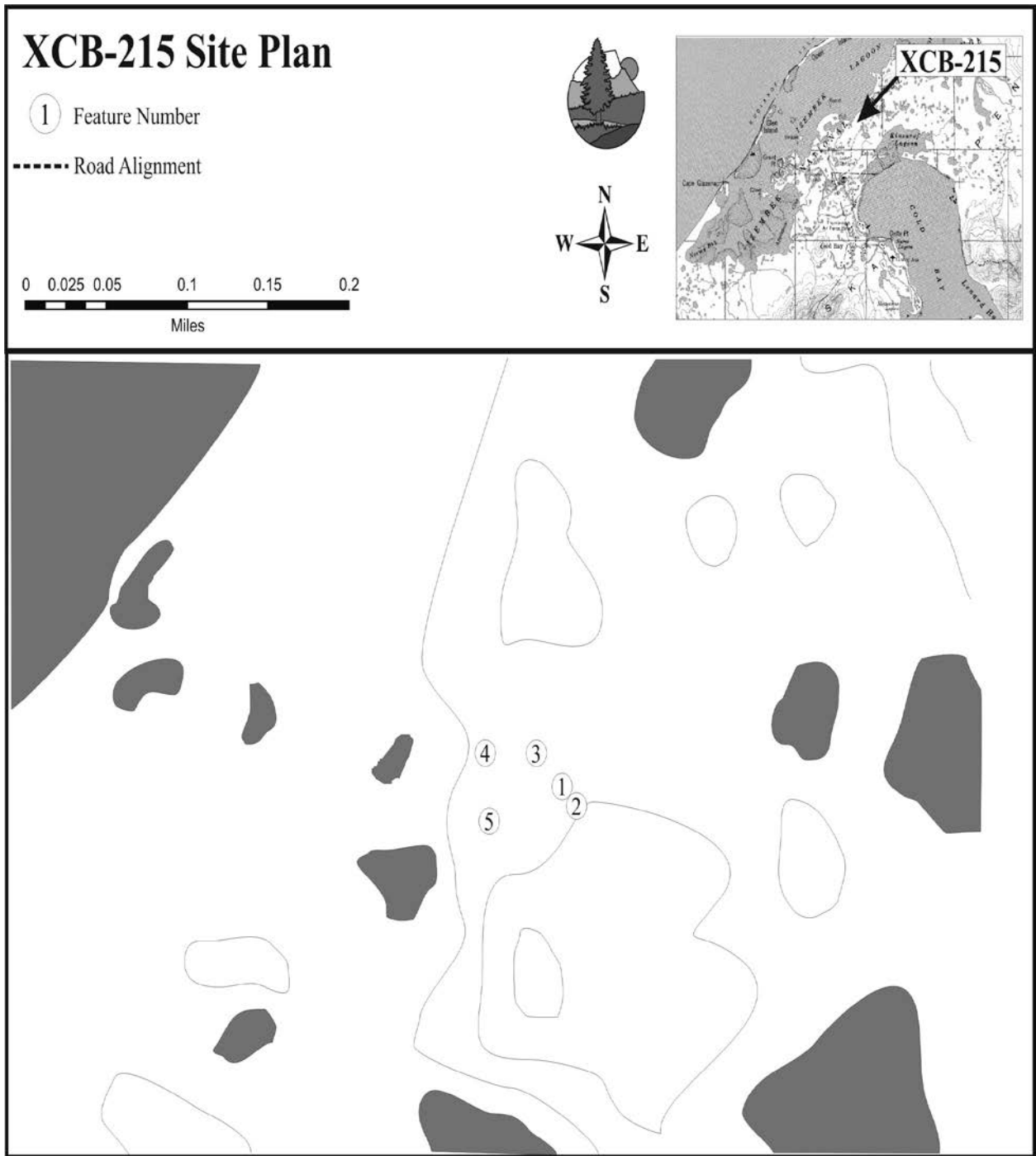


Figure 8. Features identified at Izembek WWII Camp 2.



Figure 9. Typical feature at Izembek WWII Camp 2.

XCB-216 Izembek WWII Camp 3

Camp 3 (Figures 2, 9) consists of seven pit features located on the north side of an unnamed pond. Feature 1 is a large pit feature with an outer dimension of 60'X32'X 6' deep, and an inner dimension of 40'X20', with an entrance tunnel facing lake measuring 12'X3'. Feature 2 measures 34'X20'X6' deep, with an inner dimension of 16'X16', with an entrance tunnel facing the lake. Feature 3 measures 7'X6'X3' deep. Feature 4 measures 7'X5'X3' deep. Feature 5 has an outside dimension of 22'X20'X5' and an inside measurement of 18'X15'. Feature 6 measures 15'X12'X2'. Feature 7 measures 20'X17'X5'.

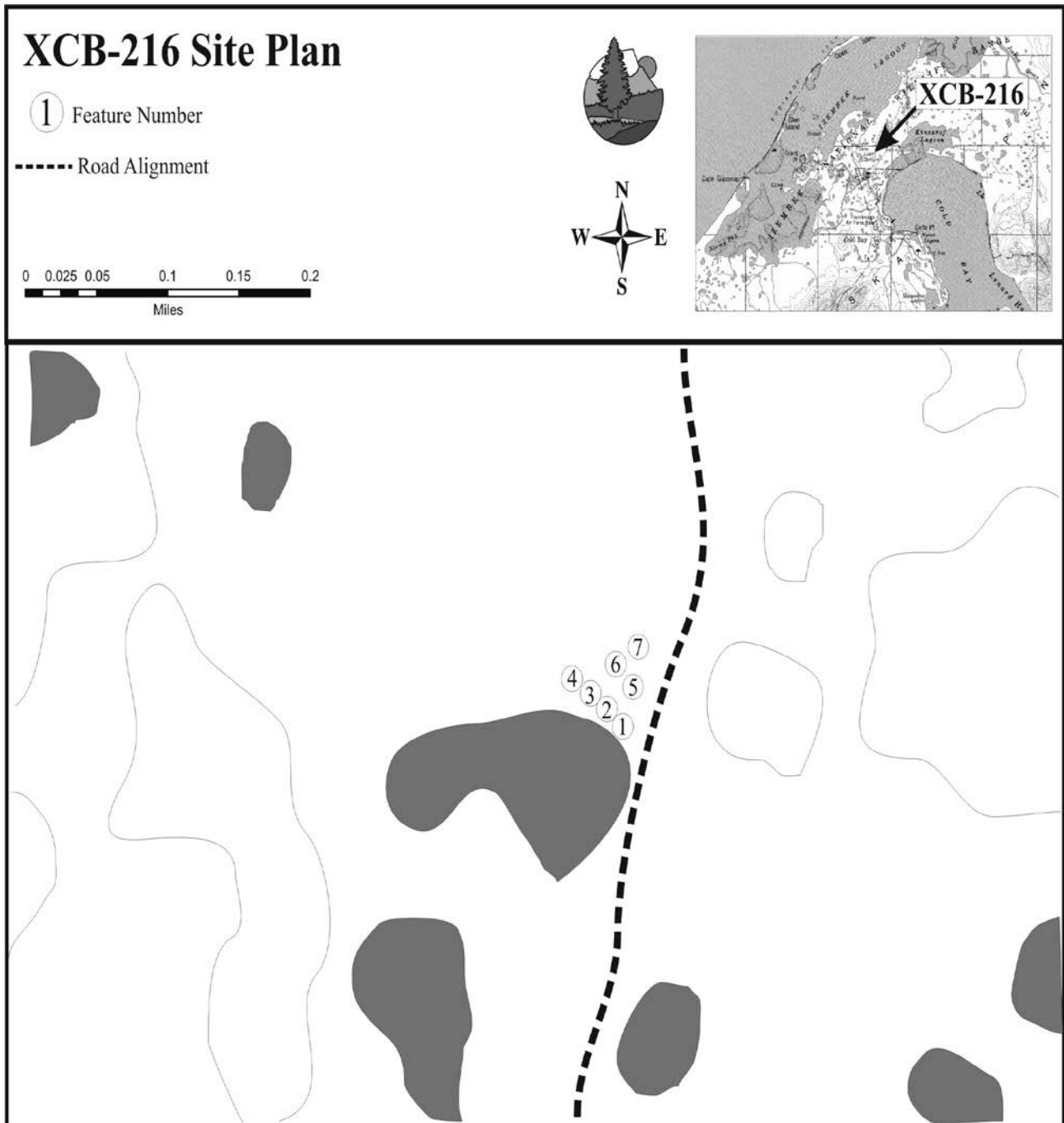


Figure 10. Features identified at Izembek WWII Camp 3.



Figure 11. Typical feature at Izembek WWII Camp 3.



Figure 12. Typical feature at Izembek WWII Camp 3.

XCB-217 Izembek WWII Camp 4

This site (Figures 2, 10) consists of four features northwest of Outpost Road. All four measure 20'X21', circular in form with a pronounced berm, and have been interpreted as tent berms.

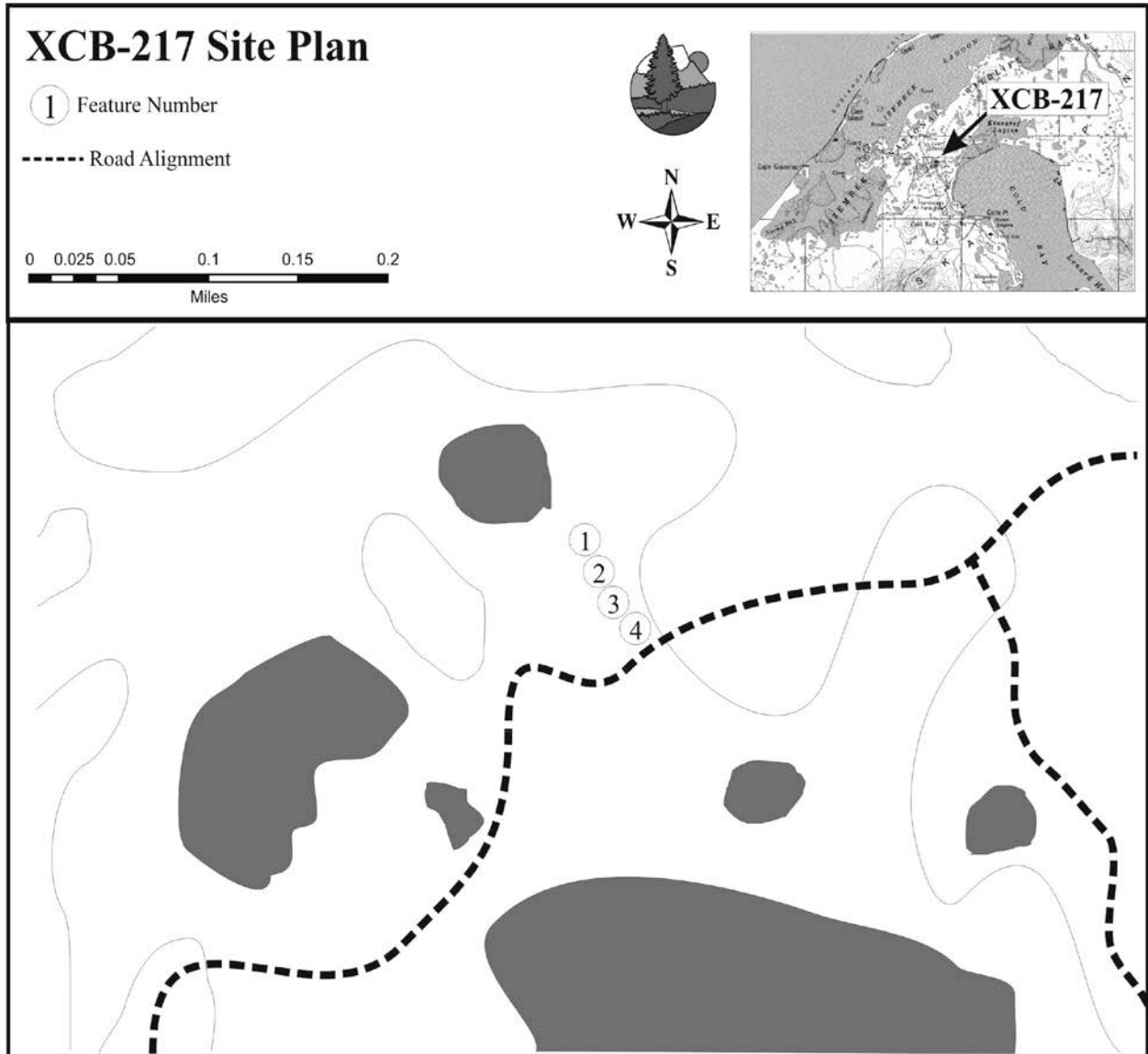


Figure 13. Features identified at Izembek WWII Camp 4.

XCB-218 Izembek WWII Utility Line

This is a linear feature slightly over one mile long (Figure 2) consisting of the remains 56 poles of a utility line extending from north of Blinn Lake to a point southeast of Outpost Road, overlooking Cold Bay and Kinzarof Lagoon. The final pole supported a housing unit for an electronic device of uncertain function, possibly a frequency monitor or other unspecified distance measuring equipment associated with the airfield.



Figure 14. End of Izembek WWII utility line.

VIII. Summary

Cultural resources identified during the August 2012 survey are all related to WWII build up of defense for Fort Randall. Two slightly different but complementary approaches could be applied to organize the resources. One would be to evaluate the resources as a potential historic archaeological district. The other would be to evaluate them as a potential historic military landscape. The strength of the latter approach is allows the inclusion of physical features of the natural environment, including view sheds.

Collectively, the camps, outpost, road system, outlying features, and the physical environment in which they are found make up a military landscape. A landscape is the collective physical features of a place and the spatial relationships among those features, including natural terrain, human alterations to the natural terrain, and the built environment. A military landscape is a landscape that has been uniquely shaped through human activity in support of single or multiple military missions of the United States Department of Defense or its antecedents.

A historic military landscape is a military landscape that is significantly associated with historically important persons or events, or is an important indicator of the broad patterns of history, or represents a significant example of design or construction. For the purposes of the National Register, a historic military landscape is a category of property potentially eligible for listing in the National Register of Historic Places as a historic site or district. To be eligible for nomination to the Register, a historic military landscape must have sufficient integrity to convey its significance.

The purpose of the current investigation was to characterize the cultural resources of the project area, and a full evaluation for the NRHP is beyond the scope of this investigation. Our investigations and previous investigations indicate that features associated with the WWII build up are the primary resource types in the project area. Their location in the INWR has protected them and the landscape in which they are found from direct and indirect effects from subsequent alterations of the area. The function of the resources, that of support/defense of Fort Randall, determined not eligible to the NRHP in 2002, would require that either the district or landscape would have to be found eligible on their own. Although it is unlikely the military landscape identified would rise to the level of significance necessary to meet NRHP eligibility, a formal determination of eligibility should be done.

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