

**A CULTURAL RESOURCES STUDY FOR THE
GIACOMINI WETLAND RESTORATION PROJECT,
POINT REYES NATIONAL SEASHORE,
MARIN COUNTY, CALIFORNIA**



**ANTHROPOLOGICAL STUDIES CENTER
Sonoma State University
Rohnert Park, California**

September 2002

**A CULTURAL RESOURCES STUDY FOR THE
GIACOMINI WETLAND RESTORATION PROJECT,
POINT REYES NATIONAL SEASHORE,
MARIN COUNTY, CALIFORNIA**

prepared for

Point Reyes National Seashore
National Park Service
Point Reyes Station, California
94607-4807

prepared by

Michael Newland, M.A., RPA
Staff Archaeologist

Anthropological Studies Center
Sonoma State University
1801 East Cotati Avenue, Building 29
Rohnert Park, CA 94928

phone: (707) 664-2381 fax: (707) 664-4155
www.sonoma.edu/projects/asc
e-mail: asc@sonoma.edu

7 June 2002

Project 17123 69/01

Submitted in partial fulfillment of Cooperative Agreement No. 1443-CA-8530-96-006, Project Statement No. 7, United States Department of the Interior, National Park Service, Point Reyes National Seashore, Point Reyes Station, California 94956. This project was completed under the supervision of Dr. Adrian Praetzellis (Registered Professional Archeologist), Director, Anthropological Studies Center.

CONFIDENTIAL

This report contains confidential cultural resources location information; report distribution should be restricted to those with a need to know. Cultural resources are nonrenewable, and their scientific, cultural, and aesthetic values can be significantly impaired by disturbance. To deter vandalism, artifact hunting, and other activities that can damage cultural resources, the locations of cultural resources should be kept confidential. The legal authority to restrict cultural resources information is in the National Historic Preservation Act of 1966, Section 304 and the Archaeological Resource Protection Act of 1979, Section 9(a).

The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies or interpretations, either expressed or implied, of the U.S. Government.

EXECUTIVE SUMMARY

At the request of the National Park Service, the Anthropological Studies Center conducted an archaeological survey of the Giacomini Wetland Restoration Project, near Point Reyes Station, Marin County, California (see Appendix A for maps). Two previously unrecorded cultural resources were identified: ASC 69-01-01, a historic-period railroad bed, and ASC 69-01-02, a historic period levee system and dam. Site records were prepared for both resources (see Appendix B). The dam feature of ASC-69-01-02 was removed by the National Park Service after the initial survey but prior to the completion of this report. No other archaeological resources were identified. No human remains were identified. All field notes and photographs taken for this project are on file with the Anthropological Studies Center. Recommendations and evaluations of the archaeological sites are provided.

TABLE OF CONTENTS

Executive Summary.....	iii
Introduction.....	1
Project Area Location and Description.....	2
Records and Literature Search.....	4
Cultural Setting.....	6
Prehistoric Context.....	6
Ethnographic Context.....	8
Historical Context.....	10
Landscape History of the Giacomini Ranch.....	11
Organization Contacts.....	15
Field Study.....	16
Findings.....	17
Study Results.....	17
Archaeological Sensitivity.....	18
National Register Evaluations.....	19
Recommendations.....	24
Potentially Buried Resources.....	24
Encountering Unrecorded Archaeological Resources.....	24
Encountering Human Remains.....	25
References Consulted.....	26
Appendix A: Project	
Maps.....	35
Map 1:.....	36
Map 2.....	37
Map 3.....	38
Map 4.....	39
Appendix B: Archaeological Site Records.....	40
Site Records for ASC-69-01.....	41
Site Records for ASC 69-02.....	45

INTRODUCTION

A cultural resources study of the Giacomini Wetland Restoration Project was conducted by Anthropological Studies Center (ASC) personnel at the request of Point Reyes National Seashore. The proposed project consists of the restoration of existing reclaimed cattle-grazing lands to pre-1860s wetland and tidal flats. The property studied for this project is owned by the National Park Service; the Giacomini Wetland Restoration Project has been designed and implemented through the Point Reyes National Seashore Headquarters in Point Reyes Station, with Lorraine Parsons as the Project Manager. The cultural resources study was conducted to address Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and NHPA implementing regulations (36 CFR Part 800), which require that prior to any federal undertaking, the lead agency shall take into account the effect of the undertaking on any historic properties. For the purposes of Section 106, a historic property is any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places (National Register).

The cultural resources study, which consisted of a literature and records search, field survey, resource recording, National Register evaluation, and report writing and production, was done by the following ASC personnel:

Principal Investigator: Adrian Praetzellis, Ph.D. (Anthropology), Registered Professional Archaeologist (RPA); Director, Anthropological Studies Center, Sonoma State University.

Staff Archaeologist: Michael Newland, M.A. (Cultural Resources Management [CRM]), RPA; 9 years of experience in California prehistoric and historical archaeology.

Archaeological Technicians: Karin Goetter, B.A. (Anthropology), Graduate Student (CRM), with 6 years of experience in California archaeology; Heidi Koenig, B.A. (Anthropology), Graduate Student (CRM), with 9 years of experience in California and Middle Eastern archaeology; and Christina MacDonald, B.A. (Anthropology), Graduate Student (CRM), with 4 years of experience in California archaeology.

Archaeological Interns: Naomi King, undergraduate student (undeclared); and Ariel Wallace-Spencer, undergraduate student (Anthropology).

Editor: Suzanne Stewart, M.A. (CRM), RPA; 24 years of experience in California prehistoric and historical archaeology and archaeological editing.

Project Area Location and Description

The Giacomini Wetlands Restoration Project is located in unsectioned land in Township 3 North, Range 9 West (Mount Diablo Base and Meridian), in the Rancho Nicasio (Black) land grant (Map 1). The restoration project area is comprised of a 564-acre portion of land immediately west of Point Reyes Station, Marin County, California; the Area of Potential Effects (APE) for the cultural resources study consists of the entire project area (Map 2).

The project area is situated on of the San Andreas Fault, at the head of Tomales Bay. Tomales Bay was formed about 10,000 years ago, when sea level began to rise at the end of the last ice age and flooded the rift valley of the San Andreas Fault zone (Philip Williams & Associates, Ltd., et al. 1993:6). The area is highly active geomorphically, with sea-level rise, tidal scouring and wave action, and constant deposition of upland sediments into the bay continually influencing the shape and drainage of the tidal flats, while the reclaimed grazing lands remain protected behind a levee system. While vertical tectonic movement of the San Andreas Fault does play a major role in the geomorphology of the area, its geomorphic influence on the tidal flats can be considered less significant than the effects of sediment deposition and tidal energy (Philip Williams & Associates, Ltd., et al. 1993:6).

The underlying geology consists of Late Pleistocene coarse-grained alluvial deposits along the southeastern edge of the project area (California Division of Mines and Geology 1966:432; Chapman and Bishop 1988; Helley et al. 1979). Several soil types exist within the project area. The westernmost edge, along with the area underlying the Sir Francis Drake Highway, consists of Inverness loam, a deep, well-drained loam that can extend to a depth of more than 60 inches (Kashiwagi 1985:35). Further east, and comprising the upper two-thirds of the project area, the soils consist of Novato clay, a very deep, very poorly drained clay typically associated with saltwater marshes, which extends to a depth of 60 inches or more (Kashiwagi 1985:44). The southern third of the project area consists of the Blucher-Cole complex, a combination of Blucher silt loam and Cole clay loam that is very deep and poorly drained. The Blucher-Cole complex is typically associated with basins and alluvial fans, and can extend to a depth of 60 inches or more (Kashiwagi 1985:15). The natural terrace on which the Giacomini Dairy is situated, along with easternmost edge of the project area, is comprised of the Saurin-Bonnydoon complex, a combination of Saurin clay loam and Bonnydoon gravelly loam; the soils are shallow to moderately deep and well to excessively drained. Depth to bedrock ranges from 10 to 40 inches (Kashiwagi 1985:51-52).

The natural vegetation of the survey area prior to reclamation was primarily coastal salt marsh, consisting of perennial grasses and shrubs typically no more than 3 feet high (Küchler 1977:32-33). Flooded areas may contain algae colonies; drier areas host glasswort, cordgrass, saltwort, saltgrass, California bulrush, and other grasses. The central flats of the project area are currently covered in coastal marsh and introduced grazing grasses, with blackberry, willow, poison oak, fennel, mustard, eucalyptus, and other grasses, shrubs, and trees along the edges and dikes saltmarsh in the northern portions.

The project area consists of reclaimed grazing lands, bisected by Lagunitas Creek (whose tributaries include Olema and Bear Valley creeks) and several small creeks, included Tomasini and Fish Hatchery creeks, and seeps. The edges of the project area are defined by the road or historic-period railroad bed, and historic-period dam and levees, none of which rise more than 10 feet above the grazing lands. The southeastern corner of the project area is a portion of the Giacomini dairy, an

active dairy with barns, settling and waste ponds, concrete roads and walkways, and corrals. The dairy is located 10 to 20 feet above the grazing lands on a natural terrace. The majority of the project area is comprised of and is immediately adjacent to Giacomini Ranch grazing lands and access roads. Three historic-period residences and a historic-period barn border the project area; the residences are located on the west side of the project area and the barn is located on the east. One residence, on the west side of the project area, is within the APE. Historic-period buildings were not recorded or evaluated for this study; NPS will conduct a historical architectural review of buildings within the APE at a later date.

STUDY METHODS

Records and Literature Search

Prior to field survey, research was conducted to determine whether cultural resources had been recorded within the project area and to assess the likelihood of unrecorded cultural resources. This review included a records search of lands within a 1-mile radius of the project area, conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System at Sonoma State University. Affiliated with the State Office of Historic Preservation, the NWIC is the official state repository containing records and reports of prehistoric and historical archaeology and the built environment for a 16-county area, including Marin County. Literature and maps on file at the ASC were also consulted.

Included in the review were the *California Inventory of Historical Resources* (California Department of Parks and Recreation 1976), and several publications of the California Office of Historic Preservation: *Five Views: An Ethnic Historic Site Survey for California* (1988), *California Historical Landmarks* (1990), *California Points of Historical Interest* (1992), and *Historic Properties Directory Listing by* (2001). The *Historic Properties Directory* includes pertinent listings for the National Register of Historic Places and the California Register of Historical Resources, and the most recent listings (23 July 2001) of the California Historical Landmarks and California Points of Historical Interest. The review found that no cultural resources within the current APE are listed in these inventories. The APE has not been previously studied.

Four cultural resource studies have been conducted near the eastern edge of the project area: Holman (1982) surveyed 10-acres on the east side of the railroad tracks, outside of and uphill from the current project, west of Mesa Road, with negative findings. Archaeological Consulting and Research Services, Inc. (1975, 1976) conducted two surveys of an area northeast of the current project area and recorded site P--21-000603 (described below). Chavez (1994) surveyed a 4.42-acre area on the west side of Mesa Road, immediately north of the area surveyed by Holman in 1982; no cultural resources were identified.

At least seven prehistoric archaeological sites have been found within a 1-mile radius of the APE. CA-MRN-205 and -206, shellmounds first recorded by Nelson (1909), were last recorded as “destroyed” by construction of Sir Francis Drake Highway (Edwards 1967a, 1967b). CA-MRN-217, another Nelson shellmound, was last recorded as “75%” destroyed by construction of Sir Francis Drake Highway and a residence located on top of the site (Edwards 1967c). CA-MRN-378, a lithic scatter, was first recorded by Moratto (1965) and has been proposed as the site of a visit by Cermeño; portions of the site may have been destroyed (Edwards 1967d). CA-MRN-457, a large lithic scatter, was recorded by Dreiss (1977). P-21-000604, a lithic scatter located under a housing project, was recorded by Smith (1991). P-21-000603, a chert quarry that may cover 3 to 4 acres, was recorded by Archaeological Consulting & Research Services, Inc. (1976).

Due to the former wetlands setting of the project area, the Project Statement required development of a survey plan that would identify those areas that would not require on-foot examination. In order to assess the archaeological sensitivity of the project area, a review was made of geological and soils maps and documents, archaeological maps and literature, historic-period maps and literature, and overviews of the regional archaeology. The project area’s soil regime, topography, and documented historical use were compared with the locations of known prehistoric and historical sites within the Point Reyes region. Based on the results of this research, the possibility of finding a prehistoric archaeological site was considered to be moderate. There are seven prehistoric sites within a 1-mile radius of the project area. Prehistoric sites within the region are found on gentle slopes and terraces near freshwater streams, and along the beaches of Tomales Bay. The project area contains gentle slopes near a freshwater stream,

Lagunitas Creek. While the majority of the project area would have naturally been regularly flooded marshland at the time of Euro-American exploration, the sea level was nearly 100 feet lower at the beginning of the Holocene. From this time, and possibly up to the Middle Holocene, the tidal flats and saltwater marsh may have been further out at the mouth of Tomales Bay, leaving the project area considerably drier, with the potential to support a Native American occupation or resource-processing site.

CULTURAL SETTING

Prehistoric Context

The first archaeological surveys of the Tomales Bay/Point Reyes area were conducted in the early 1900s by Nels Nelson of the University of California, Berkeley, as part of a greater effort to identify and record shellmounds along San Francisco Bay and portions of the Pacific coastline (Nelson 1909). These first surveys identified 425 prehistoric archaeological sites, several of which were located along the eastern shore of Tomales Bay. Jesse Peter, between 1911 and 1913, conducted surveys from the southern border of Sonoma County south into Marin County, while S.F. Bryant, in 1927, explored the west shore of Tomales Bay and the Drake's Estero areas (Moratto 1970:98). Much of the subsequent archaeological study of the Point Reyes area focused on the question of Sir Francis Drake's presence in the area. The first prehistoric archaeological excavations at Point Reyes were undertaken in 1940 by U.C. Berkeley, with R.F. Heizer in charge. The next year, R.F. Beardsley ran the investigations, with major work conducted at 4 sites, while 9 additional sites were also excavated. Beardsley (1954) framed a cultural sequence for the area, relating it to the greater San Francisco Bay/Sacramento Delta areas; the earliest recognized culture on coastal Marin at that time was the McClure complex, which corresponds to central California's Middle period, ca. 500 B.C. to A.D. 500.

The next major prehistoric archaeological research was conducted during the late 1960s by Adan Treganza and other San Francisco State College archaeologists as part of a National Park Service

contract in conjunction with the proposed National Seashore. Work included extensive excavations on Limantour Spit. Also resulting from this work was a settlement-pattern hypothesis for the area, in which Rob Edwards (1970) identified three site groups that he considered to be archaeological manifestations of distinct tribelets. Within the Tomales area, Alvarez and Bramlette (1988) surveyed several hundred acres of California Department of Parks and Recreation land, resulting in the recording of 13 previously identified and 4 new of prehistoric and historic-period archaeological sites. More recently, the Point Reyes peninsula has been the subject of two master's theses in Cultural Resources Management (Compas 1998; Polansky 1998). Aside from linear roadside surveys and small property studies along Tomales Bay, very little study has been conducted in the project area vicinity in the past decade.

The Point Reyes area can be included in the analytic framework for the interpretation of the North Coast and central California prehistory constructed by Fredrickson (1974), who divided human history in California into three broad periods: the Paleoindian period, the Archaic period, and the Emergent period. This scheme used sociopolitical complexity, trade networks, population, and the introduction and variations of artifact types to differentiate between cultural units. The scheme, with minor revisions (Fredrickson 1994), remains the dominant framework for prehistoric archaeological research in this region.

While the earliest known occupation of the Point Reyes area dates to the McClure phase, very early use of the nearby coast at Duncans Landing has been found to date to the Pleistocene–Holocene transition (Schwaderer 1992). This begins at the time of Fredrickson's Paleoindian period (10,000–6000 B.C.), which was characterized by small, highly mobile groups occupying broad geographic areas. During the Archaic period, consisting of the Lower Archaic period (6000–3000 B.C.), Middle Archaic period (3000–500 B.C.), and Upper Archaic period (500 B.C.–A.D. 1000), geographic mobility may have continued, although groups began to establish longer-term base camps in localities from which a more diverse range of resources could be exploited. The addition of milling tools, obsidian and chert concave-base points, and the occurrence of sites in a wider range of environments suggest that the economic base was more diverse. Middle Archaic deposits are proposed, but have not been identified, at the base of the McClure site. By the Upper Archaic (or McClure phase), mobility was being replaced by a more sedentary adaptation that involved the development of numerous small villages, and the

beginnings of a more complex society and economy began to emerge. The Emergent period is divided into two phases: Phase 1, called the Mendoza phase in coastal Marin, extended from about A.D. 1000 to ca. A.D. 1500. Phase 2, known as the Estero phase on the coast, was proposed to have commenced a few decades before the Coast Miwok contacts with Drake. and Cermeño. It continued up until the disruption of traditional lifeways, at around the beginning of the 19th century. The Emergent period was generally a time of increased population and cultural complexity, with an extensive exchange and ceremonial network.

Ethnographic Context

The project area is within the traditional territory of the Coast Miwok. The people collectively called the Coast Miwok by ethnographers were actually several distinct groups who spoke dialects of one of the California Penutian languages. These speakers of the Coast Miwok language occupied a territory centered in Marin and adjacent Sonoma counties (Kelly 1978:414). The primary sociopolitical unit was the tribelet, or village community, which was overseen by one or more chiefs. The closest village to the project area was Olema-loke, approximately 2 miles south of the current project area, which may have been a regional political center (Kroeber 1925:273). The total Coast Miwok population prior to missionization was relatively small, around 2,000 according to Kelly (1978:414). In general, the Coast Miwok were culturally similar to their Pomo neighbors to the north (Kroeber 1925:276).

The Coast Miwok engaged in hunting and plant-gathering strategies in a variety of environments. The Coast Miwok territory held both coastal and open valley environments. The latter contained a wide variety of resources, including grass seeds, bulbs and tubers, bear, deer, elk, antelope, several bird species, and rabbits and other small mammals. Marine foods were particularly important: surf and bay fish, bullhead, steelhead, and salmon were captured, and shellfish, including mussels and clams, were gathered from rocks and beaches (Kelly 1978:415-416).

The Coast Miwok built above-ground conical dwellings constructed of a grass-covered frame of two forked, interlocking poles of willow or driftwood, with a slightly excavated central hearth. Large villages had a sizeable sweathouse, dug 4 to 5 feet into the ground, with a large central post that supported a roof of poles, earth, brush, and grass. In large villages, additional ceremonial chambers, or dancehouses, were constructed by secret societies; they were smaller versions of the sweathouse, being perhaps 15 feet in diameter and excavated to a depth of 2 feet. Female secret-society chambers were even smaller (Kelly 1978:417).

The Coast Miwok recognized private ownership of goods and songs, and village ownership of rights to land and/or natural resources; they appear to have aggressively protected their village territories, requiring monetary payment in the form of clamshell beads for access rights, and sometimes even shooting trespassers. Clamshell disc beads were used as a form of currency and appear to have played a central role in the Coast Miwok economy. The beads were used to purchase obsidian and yellow paint from the Wappo, and obsidian and venison from the Pomo. Within families or among members of the same tribelet, beads could be used to purchase access to privately held hunting or fishing areas, admission to dances, medical attention, initiation into secret societies, even training and instruction in dancing, singing, curing, and crafts from one's own relatives (Kelly 1978:418). Magnesite cylinders, purchased probably from a Lake County Pomo group, served a similar function. While beads were regularly used as currency among the Coast Miwok, the group as a whole did not appear to trade vigorously with other groups and may instead have bartered for access rights to resources (Kelly 1978: 418).

After European contact, the Coast Miwok were significantly disrupted by missionization, disease, and displacement. With the establishment of the Mission San Francisco de Asis, or Mission Dolores, in 1776, local Native American groups were drawn into the mission system and dislocated from their traditional territory (Kelly 1978:414). A second wave of disruption came with the acquisition of California by the U.S. in 1846, and the subsequent lumbering, dairying, and agriculture that boomed to feed the mining industry and the following growth of California. The few surviving Coast Miwok found work in the lumber mills and fields of the region (Kelly 1979:414).

Historical Context

The Point Reyes region was one of the earliest areas described by European explorers in Alta California. The Point Reyes cape was probably discovered by Cabrillo in 1542; almost four decades later, in 1579, Francis Drake dropped anchor along the coast, possibly in what was to become known as Drake's Bay, just east of Point Reyes (Hoover et al. 1990:96-97, 172-173). Sixteen years after Drake's landing, the *San Augustin*, a Manila galleon piloted by Sebastián Rodríguez Cermeño, entered Drakes Bay. The ship, loaded with Oriental trade goods and heading for Acapulco, was wrecked by a violent storm three weeks after its arrival in November of 1595. Before returning to the sea in a surviving launch, the crew explored inland from the bay a distance of four leagues (about three and a half miles), making contact with several Coast Miwok villages and obtaining acorns from them (Hoover et al. 1990: 172-174; Moratto 1974:5).

The Vizcaíno expedition passed the point in 1603 and named it Punta de los Reyes after the day of *los reyes magos*, the "three holy kings" (Gudde 1998:315). The Vizcaíno expedition discovered Tomales Bay that same year, though they assumed that the narrow bay was a river (Gudde 1998:396). Tomales Bay may be named either for the Tamal Indians, a group of Coast Miwok who appear in the baptismal records of Mission Dolores in 1801, or for the Coast Miwok word *tomales*, or bay (Gudde 1998:396; Hoover et al. 1990:180).

Many of the traditional lifeways and land-use patterns that had served the Coast Miwok for centuries changed with the establishment of Spanish missions in the Bay Area. Native Americans were brought to the missions, both willingly and by force, to be converted to Christianity, to learn farming and other "civilized" skills, and to serve as laborers. Many of the native people at the missions died of diseases introduced by the foreign settlers and from malnutrition. By the mid-1800s, foreign settlement within the Marin County region had not only displaced the Coast Miwok from the villages and lands from which they had traditionally obtained their livelihood, but had also disrupted culturally and economically significant seasonal gathering strategies and trade (Gerike et al. 1996).

The project area is adjacent to the town of Point Reyes Station in the Punta de los Reyes

(Sobrante) land grant, near its southeastern border with the Tomales y Baulenes land grant and the Nicasio (Black) land grant. The nearby Rancho Punta de Los Reyes, an earlier grant separate from the Sobrante property, consisted of a 35,000-acre grant made in 1836 to James Richard Berry, an Irishman, who shortly thereafter sold a portion of the rancho to Joseph Snook, who in turn sold his portion to Antonio María Osio in 1843. Osio obtained the rest of the original grant and was granted the remaining 48,000 acres of land on Point Reyes, titled the Rancho Punta de los Reyes Sobrante—“surplus,” or “leftover land” (Hoover et al. 1990:181).

The first non-native buildings near the project area were probably four lime kilns built south of Olema by James Shorb and William Mercer, and the warehouse of the 1856 Taylor Paper Mill, one of the first such mills in the region (Hoover et al. 1990:180-181). The historic Point Reyes Lighthouse was constructed more than a decade later, in 1870. The first railroad was completed in 1882, spurring the growth of the small community (Patterson 1976:6). The town began as a train station stop called Olema Station; it changed its name to Point Reyes and was formally established in 1887 (Gudde 1998:315; Livingston 1995:15). When a post office on the headland was named Point Reyes in 1891 as well, the town changed its name to the current Point Reyes Station (Gudde 1998:315). The town has historically served as a shipping and service area for the North Pacific Coast Railroad line (abandoned in 1933), the Point Reyes Lighthouse, and several of the nearby dairy ranches (Patterson et al. 1976:4-7). Today the town is a tourist destination that also serves to support the recreation economy of the Point Reyes National Seashore.

Landscape History of the Giacomini Ranch

Early Surveys and Land Use

The first detailed mapping of Tomales Bay was conducted by the U.S. Coast Survey in the early 1860s; two maps were produced from this survey. The first map, printed in 1862, depicts topography, vegetation, and drainage patterns of the surrounding hills and the general shape of the mudflats and sloughs; the second, printed the following year, depicts less detail for the hills but includes relative depths of the bay and sloughs; neither map indicates any development, such as wharves, docks,

levees, roads, or buildings, within the project area (USCS 1862, 1863). These maps serve as baseline information on the natural shape and drainage patterns of the head of Tomales Bay and the Giacomini Ranch prior to the logging booms in the region and the reclamation of the marsh for dairy operations.

Lagunitas Creek, first known historically as Paper Mill Creek, connected the Taylor Paper Mill to Tomales Bay. Though shallow, the creek and tidal flats were navigable by 100-ton steamships and sailing vessels during high tide; they formed the first historic-period transportation route from the bay to the fledgling community (Philip Williams & Associates, Ltd., et al. 1993:7; USCS 1862, 1863). Lagunitas Creek had a natural levee that had formed on the northern side of the creek; away from the creek, the marsh and small watercourses surrounding it drained through an intricate and convoluted slough channel system in a mature stable marsh plain built on estuarine mud and peat deposits (Philip Williams & Associates, Ltd., et al. 1993:6). As upstream channels were relatively stable, with little undercutting or channeling, flood events may have been frequent, resulting in sediment deposition on the floodplain rather than further north into the tidal flats and Tomales Bay. Throughout the last 5,000 years, up to the 1860s, sea-level rise of about 0.5 feet per century appears to have counteracted the filling of the bay by sediments (Philip Williams & Associates, Ltd., et al. 1993:7-8).

Following the Gold Rush and the subsequent population boom in Marin County and San Francisco, large-scale logging, ranching, and farming began to have a dramatic effect on the hydrology of Lagunitas Creek and Tomales Bay. Increased sediment loads, a greater number of floods per year, and reduced normal water flow occurred, all caused by overgrazing and clear-cutting and the resulting loss of surrounding vegetation and topsoil erosion (Philip Williams & Associates, Ltd., et al. 1993:10). Between 1861 and 1957, sediment build-up in Tomales Bay occurred at a rate more than five times that of sea-level rise, resulting in the rapid northern expansion of the mudflats and marsh and a loss of about 20 percent of the bay's estuarine environment. The 1906 earthquake appears to have resulted in the filling of deeper channels through the bay by mudflow, but otherwise appears to have had a minor effect on the head of the bay (Philip Williams & Associates, Ltd., et al. 1993:10).

Interest in the use of the terrestrial portions of the project area probably began in the late 1860s. In September of 1850, the U.S. Congress passed the Swamp and Overflowed Lands Act, which enabled

the majority of states, including California, to construct levees and drains to reclaim unsold swampland, and placed these lands under state ownership (43 USC §982). Surveys for the Swamp and Overflowed Lands Act of 1850 appear to have been completed by July of 1866, when the Commissioner of the General Land Office and the Surveyor General of the United States began to verify the California surveys of the swamps and overflowed lands with those conducted by the federal government (43 USCS §987).

This apparently was a speedy process: within six months the State of California had not only acquired the head of Tomales Bay but had also turned around and sold a large portion of it to William Henderson (California Land Title of Marin 2000). Eighteen years later, in 1884, the state sold another large parcel to Galen Burdell (California Land Title of Marin 2000). These two parcels comprise the majority of the current project area. Henderson appears to have sold his parcel by 1874 to J. Black, presumably James Black, a major landholder in the region who had previously established himself in the area with his acquisition of a portion of the nearby Nicasio land grant in 1861 (Austin 1873; Hoover et al. 1990:179). The land is depicted as unmodified swampland on a map of the period (Austin 1873).

The North Pacific Coast Railroad

In 1889 Galen Burdell deeded a strip of land on the western side of his land to the North Pacific Coast Railroad Company. A narrow-gauge rail company incorporated in 1871, the company was established by landholders of large timber tracts along the Mendocino Coast in order to transport redwood to the Bay Area. The company's first president, Austin D. Moore, vigorously promoted the line throughout Marin County, succeeding in gaining backing from nearly all of the local communities, and the railroad received a county subsidy for a line from San Rafael to Tomales. After seeing the rugged landscape of the overall 115-mile route between Sausalito and Gualala, however, the company's Chief Engineer George Black resigned, stating that "natural obstacles will bar the extension of any railroad beyond the Gualala River for all time" (Dickinson 1958a). The company was forced to reroute the rail line and asked for additional subsidies, promising to keep the Tomales Bay line. Much public debate ensued, resulting in a complete freeze of subsidy funds. On the brink of folding, the company was rescued by Milton S. Latham, a wealthy former Congressman, short-term Governor (his term lasted only 5 days, until he succeeded in being appointed to the Senate), and Senator, who was deeply

involved with the banking and railroad industry at the time. With Latham's backing, the construction of the railroad pushed forward (State of California 2002; Dickinson 1958a).

By 1874 the railroad had reached the location of the project area, where carpenters and Chinese grading gangs worked on the line along Lagunitas Creek (Dickinson 1958b). By the next year, the line to Tomales was completed with much fanfare. As Burdell still owned the parcel at the time, the North Pacific Coast Railroad may have simply leased the land and purchased or acquired the deed only after a decade-and-a-half of operation. The line was eventually built as far north as Cazadero (Dorrance 1993: 4).

The North Pacific Coast Railroad was acquired by John Martin in 1902, who renamed it the North Shore Railroad (Dorrance 1993:4). The North Shore Railroad, in turn, was absorbed into the Southern Pacific Railroad in 1904, and finally became part of the huge Northwestern Pacific Railroad (NWP) conglomerate in 1907. The line to Point Reyes was switched from narrow to standard gauge in 1920, and in 1923, the company saw its peak year for passenger service (Dorrance 1993:5). With the advent of the automobile, however, rail transport went into a rapid decline, with the Point Reyes line abandoned in 1933, and the complete shutdown of all branch-line passenger service in 1935 (Dorrance 1993:5). Since that time, the rails and ties have been removed, and portions of the track have been converted to city streets and a levee in and around Point Reyes Station.

Giacomini Dairy

After several decades of sediment build-up, portions of the southern part of the project area were elevated sufficiently to allow the construction of the first dairy in 1917; it is possible that the first levees were constructed by 1936, as portions of the marsh are depicted as dammed on a map from this date (Messer 1936; Philip Williams & Associates, Ltd., et al. 1993:11). By 1942, the date of the first aerial photographs of the project area, grazing and sedimentation had significantly disrupted the tidal drainage of half of the project area.

Waldo Giacomini purchased the property in the mid-1940s and began reclaiming the tidal marsh in 1946 with a series of levees. Confined to the creek channel, sediments were conveyed directly to the mouth of Lagunitas Creek, rather than being dispersed throughout the drainage system during flood events (Philip Williams & Associates, Ltd., et al. 1993:11). With the completion of Lagunitas Dam in 1961 and the raising of Peters Dam (Kent Reservoir) in 1982, the majority of the sediment load and all but the largest of floods are captured before entering the creek channel within the project area (Philip Williams & Associates, Ltd., et al. 1993:11). Damage to the levee system by the 1986 floods resulted in the construction of new levees, 20 to 25 ft. further inland in some areas. Aside from deliberate earth-moving activities, inundation as a result of breached levees, unusual flood events, and tectonic action, the project area currently appears to be geomorphologically stable.

A summer dam, built annually at the northern end of Lagunitas Creek, along the northern edge of the APE, has been the subject of much controversy over the past two decades, as the dam may have had an effect on local fish habitat. Heated arguments both for and against the removal of the dam, which have been widely publicized throughout western Marin County, were tied to the modern regional issues of development, environmental restoration, and the continuing viability of dairy ranching in the county (e.g., see Berlin 1993; Moses 1995; Nelson 1987; Reutinger 1986, 1989; and West 1987). As part of the current project, NPS has removed the dam; the artificial levee system may be removed at a later date (Parsons pers. comm. 2002). As of this writing, the Giacomini Dairy continues to be in operation on the property, in accordance with an agreement between NPS and the Giacomini family.

ORGANIZATION CONTACTS

All survey work by ASC archaeologists was attended by Frank Ross of the Federated Indians of the Graton Rancheria (FIGR); NPS has consulted with the tribe regarding all phases of this project to date. Carola DeRooy, Collections Manager for NPS and member of the Jack Mason Museum in Inverness, was consulted several times through the course of the pre-field research and provided the ASC with several relevant historic maps and photos of the region from the museum's archives.

FIELD STUDY

Field Survey

The field survey was conducted on 20 and 21 March 2002 by ASC personnel Michael Newland, Heidi Koenig, Christina MacDonald, and ASC intern Ariel Wallace-Spencer. Joining the crew was Frank Ross of FIGR and Jessica Maxey, GPS Specialist, of NPS. Survey was conducted around the perimeter of the APE, on the terrace beneath the Giacomini Dairy, the southeastern corner of the APE, and along the levees and roads in the center of the APE. Map 4 depicts areas surveyed. As most of the project area has historically been marsh and tidal flats that regularly flooded, with heavy depositional episodes particularly along Lagunitas Creek, and as the majority of the project area was covered with thick brush, marsh grasses, and pastureland, it was mutually decided by NPS and the ASC to limit the survey to about 20 percent of the total APE, representing accessible areas with potential for ground visibility and sensitivity for cultural resources (Map 3).

All exposed ground surface within the surveyed areas was inspected for the presence of cultural resources. Along the levees, levee profiles were inspected for the presence of buried or disturbed cultural deposits. The channel of Lagunitas, Thomasini, and Fish Hatchery creek and the creeks and seeps were inspected for the possible presence of maritime cultural resources, such as landings, boats, or piers. Where exposed, the roadbed along the perimeter of the APE was inspected for the possible presence of cultural deposits buried under the Sir Francis Drake Highway. Where accessible on the eastern edge of the APE, the railroad bed and levee were inspected for resources related to the construction of the railroad and bridge and/or trestle remnants, as well as prehistoric cultural resources. The interior portion of the APE was inspected for the presence of abandoned late-historic-period farm or dairy equipment or hunting shacks or blinds, and for late historic-period agricultural features, such as ditches, watering ponds, wells, or relic levees.

FINDINGS

Study Results

Two cultural resources were identified on the field survey, a historic-period railroad bed and a late-historic-period levee system.

ASC-69/01-01 is a historic-period railroad bed that dates to the 1870s along the eastern edge of the APE. The railroad bed appears to be made of compacted dirt. No rails, wooden ties, spikes, or trestles were identified along this portion of the railroad line. South of the existing segment, the line has probably been incorporated into the streets of Point Reyes Station; north of the current project area, the segments the railroad bed were noted on at least three parcels owned by the California Department of Parks and Recreation (Alvarez and Bramlette 1988).

ASC-69/01-02 was the Giacomini Dam and early portions of the levee system dating to the 1940s. The dam and levee system bed has two associated features: the first appears to be the remnants of a walkway or bridge crossing over to the levee to the west; and the second is a larger, more recent bridge remnant further south that has a concrete foundation and appears to have been large enough to drive across. The dam was removed after the survey portion of the current study but prior to the writing of the final report. The levee system is still currently in place. It is unknown which portions, if any, of the current dam and levee system are remnants of the original levee system and which are more recent constructions in the same locations.

Archaeological Sensitivity

Prehistoric Sites

Jack Meyer, Staff Geoarchaeologist for the ASC, has reviewed geologic, soil, climatic, and geomorphological data for the Point Reyes Peninsula as part of an archaeological sensitivity study that the ASC is currently preparing for NPS under a Cooperative Agreement (1443-CA-8530-96-006). Included in his study is a review of the archaeological sensitivity of the alluvial deposits on the floor of Olema Valley, an area that includes the current APE. Meyer (2002) notes in his draft study that four alluvial deposit terraces—two dating to the Late Pleistocene, and one each to the Pleistocene–Holocene transition and the Holocene—have been identified on the valley floor. Meyer writes that “the age and extent of these deposits suggest that the potential for buried archaeological remains is greatest in the northern part of Olema Valley, where large deposits of Holocene-age alluvium . . . are present,” and that there is a “high potential” that these alluvial deposits contain buried archaeological remains (Meyer 2002:16-17).

Historic-period Sites

Much of the historic-period railroad bed was inaccessible due to thick vegetation. Portions of trestles or bridges that at one time connected the railroad bed and the levee might be obscured by vegetation. Though the increased sediment load during the historic period resulted in increased sediment deposition into the bay, the channel of Lagunitas Creek may have been scoured out more frequently than it was silted in, as the increased flooding resulting from logging appears to have pushed the sediments further north, rather than depositing them within the APE as had previously been the case (Philip Williams & Associates, Ltd., et al. 1993:11). In such an environment, one might expect the remains of shipwrecks or landings to have been repeatedly exposed and eroded rather than buried. In addition, with the construction of the railroad in the 1870s, the need for shipping along Lagunitas Creek had essentially ceased. It would seem unlikely that landings, boardwalks, or docks would have been built prior to the 1940s, when the levees were first constructed, as there would have been no land access to them, and, after the 1870s, no ships to unload or board.

It would also appear unlikely that relic levees or dams would occur in areas other than the locations of the current levees. One levee fragment of undetermined age appears in the Lagunitas Creek channel in roughly the center of the APE; it is thought that this levee fragment represents a portion of levee that was realigned after the 1982 flood (Champion 1987). No other levee remnants were found and—as the late historic-period and modern maps of the region all depict essentially the same levee system in place through the past 60 years, and as the Giacomini appear to be the first people to have reclaimed the land— it appears unlikely that any exist within the APE.

At least four historic-period houses and buildings are within and adjacent to the western side of the APE, along the Sir Francis Drake Highway. While the buildings are outside of the current scope of work and will be recorded by NPS in a future study, the areas around the buildings were surveyed for the presence of historic-period refuse. It is possible that buried refuse dumps, privies, or basements associated with these buildings, or with associated structures that have been removed, might be present within the APE.

NATIONAL REGISTER EVALUATIONS

The Project Statement calls for a preliminary evaluation of the National Register eligibility of any cultural resources identified in the APE. The criteria for determining whether a property is eligible for the NRHP are found in 36 CFR 60. They are reproduced below:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, building, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or

- B. That are associated with the lives of persons significant in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinctions; or
- D. That have yielded, or may be likely to yield, information important in prehistory or history.

For a property to qualify for the National Register, it must meet one of the National Register Criteria for Evaluation by:

- Being associated with an important context *and*
- Retaining historic integrity of those features necessary to convey its significance.

National Register evaluations must be made within an appropriate historic context. From the overviews presented above, it can be seen that the appropriate historic contexts for the two identified resources are railroad history on the northern California coast, and independent water management in mid-20th-century ranching.

Based on the geoarchaeological sensitivity study by Meyer (2002) and the results of the current study, the following National Register evaluations for ASC-69-01-01 and -02 are made:

Evaluation of ASC-69-01-01: The North Pacific Coast Railroad was an important economic force in the Point Reyes region; the rail line resulted in the development of Point Reyes Station and provided easy public and cargo transportation to Olema, Point Reyes Station, and Tomales, and played a critical role in the export of dairy goods and produce out of these towns and the surrounding communities. As such,

properties associated with the rail line could be evaluated under Criterion A (important events), as the construction of the railroad served to link coastal Marin with the San Francisco Bay area, economically and socially. In addition, the railroad company was associated with Galen Burdell, a person of local importance in Marin County, and by Milton S. Latham, the 1860 governor of California and subsequent senator, who was influential in the development of rail transportation in the region. Thus the railroad as a whole may be eligible to the National Register on a local or state level under both Criteria A and B. While the design and method of construction in other segments of the railroad may warrant consideration, there were no challenges to engineering the railroad bed within the project area; thus ASC-69-02-01 does not appear eligible to the National Register under Criterion C. The lack of rail line features, such as trestles, suggests that the resource has limited information potential and is therefore not eligible under Criterion D. While the railroad itself may be eligible, the integrity of that portion of the rail line within the project area, appears to have been severely compromised. No rails or ties from the rail line are left within the project area, and many sections are so overgrown as to be almost indistinguishable from the surrounding slope. The portion of the rail line within the APE could easily be mistaken for an abandoned road, or, in some areas, simply part of the levee system. South of the project area, the line has been incorporated into or covered by the streets of Point Reyes Station. Portions of the bed remain; the only other component of integrity that seems to be intact is that of location.

ASC-69—01-01 does not appear to have the ability to convey the significance of the rail line, nor does it appear feasible to restore the line to a point where such significance could be conveyed. In addition, any potential of this segment of the line to yield information important in history might be realized through other segments outside of the current APE and/or through additional historical research. It is our opinion, therefore, that ASC-69-01-01 is not eligible for the National Register.

Evaluation of ASC-69-01-02: The levee and dam system on the Giacomini Ranch, built in the 1940s, has remained generally in its location of construction, with the exception of a realignment of one section of the levee in the 1980s after a major flood event. The levees allowed Waldo Giacomini to reclaim the land and operate one of the larger, and better-known, dairies in the area. Very little of the original dam matrix, however, appears to be extant, as decades of floods and erosion have required constant maintenance of the levees. Dredge spoils and/or fill piles for levee repair were identified throughout the APE, and the dam itself was rebuilt on a yearly basis.

Recent comprehensive studies of the history of ranching in the Olema and Point Reyes areas identified several nearby historic ranches and dairies (Livingston 1994, 1995). Though the Giacomini Dairy was outside the scope of these studies, they provide a detailed history of the ranching and dairy history of the region and describe several ranches and dairies that contribute to the understanding of that history. Point Reyes National Seashore currently has many dams, reservoirs, levees, and other water-management earthworks that date to the time period of the Giacomini levee system, if not earlier, and have not been altered during modern times.

Giacomini's dam at the northern edge of the project area has been the subject of considerable public debate that began in the late 1980s. The Giacomini's needed a 5- to 10-year permit from the U.S. Army Corps of Engineers to build the dam each summer. Several environmental groups felt the dam prevented different fish and shrimp species from spawning and feeding in Tomales Bay and Lagunitas Creek, as the dam prevented the natural flow of fresh water into the bay (West 1987). Supporters believed that the dam, which had been built every summer for over 40 years, did little to harm the various species and protected the groundwater for Point Reyes Station during the summer months (Nelson 1987). Environmental studies were cited on both sides of the argument. The Corps and other local agencies weighed in on the topic, often wavering from year to year as to the effects of the dam.

The dam controversy can be seen as at least two larger debates that had become major issues during the 1980s and 90s: on the regional level, the decline of the dairy industry in the face of urban development associated with the economic boom of the San Francisco bay area, and on the national level, the increasing authority of government agencies over private lands as a result of environmental legislation passed in the 1960s and 70s. Several authors have pointed out the decline of the dairy industry in Marin County, notably Hart, whose *Farming on the Edge: Saving Family Farms in Marin County, California* (1991) was written during the height of the dam controversy and who devoted sections of his book on the Giacomini family and arguments over rural vs. urban land use in the county. Hart spends a chapter describing the delicate balance between the local dairies and rural land development on one hand, and urban land and water development and urban mandates for open space districts in rural areas of the county on the other. Many of the news articles regarding the dam controversy describe what was

considered the eminent demise of the well-respected Waldo Giacomini's dairy operation should the permit for dam construction be denied; the threats were seen largely as a result of environmentalists and bureaucrats from other, particularly urban, parts of the county (Nelson 1987 Champion 1987).

The Giacomini dam could be argued to be symbolic of these debates, and the purchase of the land by NPS an equally symbolic resolution. NPS's acquisition can be seen as 1) the Federal government's desire to step in and resolve land-use arguments; 2) the Federal government's desire to protect the environment through land stewardship as property owner rather than through permitting and law enforcement; and 3) the compromise, if not surrender, the private property owner often has to make in the face of increased governmental and environmental pressure over land use.

ASC-69-01-02 meets the age requirement for the National Register, and has integrity of setting and function. Any historic significance ASC-69-01-02 might have would be under Criterion A, for the dam's symbolic association with regional and national debates of rural vs. urban land use and federal vs. private land ownership and control. Though the dam itself is over 50 years old, the controversy over the dam, and therefore its true period of significance, has only taken place within the last 20 years. It would therefore appear that the period of significance would be too recent to be eligible for the National Register under Criterion A. Waldo Giacomini, and the Giacomini family in general, could be considered locally important people; however, their contributions to the community probably can be seen more through their dairy operations and as major property owners and employers, not as water resource managers or landscape engineers; as with its evaluation under Criterion A, the local importance of the Giacomini family is also probably too recent, though their family history in the area dates to the historic-period. The dam therefore does not appear to be eligible under Criterion B. As several other dams and levees exist throughout Point Reyes National Seashore, it does not appear to warrant eligibility under Criterion C. Finally, whatever information potential the dam and levee system might have has probably been realized through its recording and the current report, and would therefore appear to be ineligible under Criterion D. This evaluation of ASC-69-01-02 finds that this resource does not appear to be eligible for the National Register.

RECOMMENDATIONS

The evaluations presented above indicate that the two resources identified in the Giacomini Wetland Restoration Project Area are not eligible to the National Register, and no further study of these resources is recommended. As there is a possibility that other cultural resources are present in the project area, obscured by sediments or vegetation, two additional actions are recommended in order to complete the cultural resources study: a geological study and a monitoring program of vegetation removal.

Potentially Buried Resources

1. Geoarchaeological Study. A project-specific geoarchaeological study should be undertaken to determine the likelihood of buried archaeological resources within the APE. The initial study may indicate the need for exploratory trenches to identify potential deposits, while any identified deposits should be for their National Register eligibility.
2. Monitoring Program: if vegetation clearing is planned along the railroad bed and/or perimeter of the APE, such clearing shall be monitored by a qualified archaeologist for the purpose of identifying buried or currently concealed cultural resources. If cultural resources are identified, they should be evaluated for their potential eligibility to the National Register.

Encountering Unrecorded Archaeological Resources

Implementing the above recommendations for identifying buried resources will greatly reduce the possibility of encountering unexpected archaeological resources during project construction. It is possible, however, that archaeological sites are buried in areas that were not examined on these studies. If concentrations of prehistoric or historic-period materials are encountered during construction, it is recommended that all work in the immediate vicinity halt until a qualified archaeologist can evaluate the finds and make recommendations. Prehistoric materials might include obsidian and chert flaked-

stone tools (e.g., projectile points, knives, choppers) or toolmaking debris; culturally darkened soil (“midden”) containing heat-affected rock, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones). Historic-period materials might include; shipwreck, pier, or boardwalk fragments; remains of agricultural equipment; filled wells or privies; and other deposits of metal, glass, and/or ceramic refuse.

Encountering Human Remains

If human remains are encountered on federal property, work should halt in the area of the discovery and the National Park Service should be notified immediately. At the same time, an archaeologist should be contacted to evaluate the situation. If the remains are of Native American origin, or if funerary objects, sacred objects, or items of cultural patrimony are encountered, they will be dealt with under the Native American Graves Protection and Repatriation Act of 1990.

References Consulted

Alvarez, Susan H., and Allan Bramlette

- 1988 *Cultural resources Inventory, Tomales Bay State Park*. Anthropological Studies Center, Sonoma State University, Rohnert Park, California. Prepared for the California Department of Parks and Recreation.

Archaeological Consulting & Research Services, Inc.

- 1976a Primary record for P-21-000603. On file, Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- 1976b *Report of Archaeological Research for the Point Reyes Station Historic Resources Survey*. Archaeological Consulting and Research Services, Inc., Mill Valley, California. Prepared for the North Marin County Water District, Novato, California.

Austin, H.

- 1873 Marin County Map. On file, Jack Mason Museum, Inverness Library, Inverness, California.

Beardsley, Richard K.

- 1954 *Temporal and Areal Relationships in Central California Archaeology*. Reports of the University of California Archaeological Survey 24, 25. Berkeley.

Berlin, Linda

- 1993 North Marin Fish Research Would Delay Giacomini Dam. *Point Reyes Light* 11 March 1993: n.p. Point Reyes Station, California.

California Department of Parks and Recreation

- 1976 *California Inventory of Historic Resources*. State of California Department of Parks and Recreation, Sacramento.

California Division of Mines and Geology

- 1966 *Geology of Northern California*, edited by Edgar H. Bailey. Bulletin 190. California Division of Mines and Geology, San Francisco.

California Land Title of Marin (Cal Land)

- 2000 Title Report by California Land Title of Marin for a portion of Giacomini Property. On file, Point Reyes National Seashore, Point Reyes Station, California.

California Office of Historic Preservation

- 1988 *Five Views: An Ethnic Historic Site Survey for California*. State of California Department of Parks and Recreation, Sacramento.
- 1990 *California Historical Landmarks*. State of California Department of Parks and Recreation, Sacramento.
- 1992 *Points of Historical Interest*. State of California Department of Parks and Recreation, Sacramento.
- 2001 *Historic Properties Directory Listing by City* (through 23 July 2001). State Office of Historic Preservation, Sacramento.

Champion, Dale

- 1987 Big Battle Over Little Marin Dam. *San Francisco Chronicle* 27 April 1987. San Francisco.

Chapman, R.H., and C.C. Bishop

- 1988 *Bouguer Gravity Map of the Santa Rosa Quadrangle, California*, 1:250,000. California Division of Mines and Geology, Sacramento.

Chavez, David

- 1994 *Archaeological Resources Investigations for the Hynes Land Division, 136 Mesa Road, Point Reyes Station, California*. David Chavez & Associates, Mill Valley, California. Prepared for Richard Hynes and Frost, Meglio and Associates, San Rafael, California.

Compas, Lynn

- 1998 *Research Design, Case Study, and Proposed Management Plan: Post-Contact Coast Miwok Settlement Patterns and Resource Procurement Strategies in point Reyes National Seashore.* Master's thesis, Cultural Resources Management Program, Sonoma State University, Rohnert Park, California.

Dickinson, A. Bray

- 1958a Pig-Tailed Coolies Hacked at Hills. *Marin Independent Journal* 9 August 1958:M7. Novato, California.
- 1958b Both Ends Toward the Middle. *Marin Independent Journal* 23 August 1958:n.p. Novato, California.

Dorrance, Dave

- 1993 How NWP Grew, Flourished and Died. *The Headlight* IX(2):4-5. Santa Rosa, California.

Driess, Meredith

- 1977 Archaeological site record for CA-MRN-457. On file, Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Edwards, Robert

- 1967a Archaeological site record for CA-MRN-205. On file, Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- 1967b Archaeological site record for CA-MRN-206. On file, Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- 1967c Archaeological site record for CA-MRN-217. On file, Northwest Information Center of

the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

1967d Archaeological site record for CA-MRN-378. On file, Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

1970 A Settlement Pattern Hypothesis for the Coast Miwok based on an Archaeological survey of Point Reyes Seashore. In *Contributions to the Archaeology of Point Reyes National Seashore: A Compendium in Honor of Adan E. Treganza*, edited by Robert E. Schenk, pp. 105-114. Treganza Museum Papers, No.6, San Francisco, California.

Fredrickson, David A.

1974 Cultural Diversity in Early Central California: A View from the North Coast Ranges. *Journal of California Anthropology* 1(1):41-53.

1994 Archaeological Taxonomy in Central California Reconsidered. In *Toward a New Taxonomic Framework for Central California Archaeology: Essays by James A. Bennyhoff and David A. Fredrickson*, assembled and edited by Richard E. Hughes, pp. 91-103. Contributions of the University of California Archaeological Research Facility 52. Berkeley.

General Land Office

1860 Survey Plat of Rancho Nicasio. On file, Northwest Information Center, California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

1868 Survey Plat of Rancho Tomales y Baulinas. Microfilm on file, Northwest Information Center, California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Gerike, Christian, Seana L. S. Gause, Suzanne Stewart, and Katherine Johnson

1996 *Cultural Resources Study for Santa Rosa Subregional Long-Term Wastewater Project, Volume I.* Anthropological Studies Center, Rohnert Park, California. Prepared for Harland Bartholomew and Associates, Sacramento.

Gudde, Erwin G.

1998 *California Place Names: The Origin and Etymology of Current Geographical Names.* Fourth edition. University of California Press, Berkeley.

Hart, John

1991 *Farming on the Edge: Saving Family Farms in Marin County, California.* University of California Press Berkeley.

Helley, E.J., K.R. Lajoie, W.E. Spangle, and M.L. Blair

1979 *Flatland Deposits of the San Francisco Bay Region – Their Geology and Engineering Properties, and Their Importance to Comprehensive Planning.* Geological Survey Professional Paper 943. U.S. Geological Survey and Department of Housing and Urban Development, n.p.

Holman, Miley Paul

1982 Archaeological survey report for the proposed Los Reyes development area in Point Reyes Station, California. Letter report to Main County Planing Department, dated 14 February 1982. Holman & Associates, San Francisco, California. On file, Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Hoover, Mildred Brooke, Hero Eugene Rensch, Ethel Rensch, and William N. Abeloe

1990 *Historic Spots in California.* Fourth edition, revised by Douglas E. Kyle. Stanford University Press, Stanford, California.

Kashiwagi, James

1985 *Soil Survey of Marin County, California*. United States Department of Agriculture, Soil Conservation Service, in cooperation with the University of California Agricultural Experiment Station. N.p.

Kelly, Isabel

1978 Coast Miwok. In *California*, edited by Robert F. Heizer, pp. 274-288. Handbook of North American Indians, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Kroeber, Alfred L.

1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78, Smithsonian Institution, Washington, D.C. Reprinted 1976 by Dover, New York.

Küchler, A.W.

1977 *The Map of the Natural Vegetation of California*. University of Kansas, Lawrence.

Livingston, Dewey

1995 *A Good Life: Dairy Farming in the Olema Valley*. National Park Service, Oakland.

Messer, R.

1936 Map of Marin County. On file, Jack Mason Museum, Inverness Library, Inverness, California.

Meyer, Jack

2002 Geoenvironmental Setting. In Research Design for Indigenous Archaeology in Point Reyes National Seashore and the Golden Gate Recreation Area. Draft report submitted to the National Park Service, San Francisco. On file, Anthropological Studies Center, Sonoma State University, Rohnert Park, California.

Moratto, Michael J.

1970 A History of Archaeological Research at Point Reyes, California. In *Contributions to the Archaeology of Point Reyes National Seashore: A Compendium in Honor of Adan E. Treganza*, edited Robert E. Schenk, pp. 97-104. Treganza Museum Papers No. 6. San Francisco State College, San Francisco.

1974 *An Assessment of the Cultural Resources within Point Reyes Seashore*. California State University, San Francisco. Prepared for the National Park Service, Tucson, Arizona.

Moses, John R.

1995 Fight Looms over Lagunitas Creek. *Marin Independent Journal*, 28 July 1995:n.p. Novato, California.

Nelson, John

1987 Should Giacomini Dam Get Long-Term Permit: YES. *Marin Independent Journal* 14 June 1987: Sunday Forum. San Rafael, California.

Nelson, Nels

1909 Transcript of Archaeological Reconnaissance Notes. Document on file (S-18475), Northwest Information Center, California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Patterson, Bette

1976 Historical/Architectural Sketch of Point Reyes Station. In *Point Reyes Station Archaeological and Historic Resource Survey*. North Marin Water District, Novato, California.

Philip Williams & Associates, Ltd., Wetlands Research Associates, Strong Associates, and L.J. Butler

1993 *An Evaluation of the Feasibility of Wetland Restoration on the Giacomini Ranch, Marin County*. Philip Williams & Associates, Ltd., San Francisco. Prepared for the National Park Service, Oakland, California.

Polansky, Barbara

- 1998 *A Prehistoric Archaeological Settlement Pattern Model for the Point Reyes Peninsula*. Master's thesis, Sonoma State University, Rohnert Park, California.

Reutinger, Joan

- 1986 Rancher Squeezed over Dam. *Coastal Post* 27 January 1986:16. On file, Marin County Library, San Rafael, California.
- 1989 Waldo's Levee Approved Once More with Feeling. *Coastal Post* 6 March 1989:n.p. On file, Marin County Library, San Rafael, California.

Schwaderer, Rae

- 1992 Archaeological Test Excavation at the Duncans Point Cave, CA-SON-348/H. In *Essays on the Prehistory of Maritime California*, edited by Terry L. Jones, pp. 39-53. Center for Archaeological Research at Davis, Publication Number 10. University of California at Davis.

Smith (no first name)

- 1991 Primary record for P-21-000604. On file, Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

State of California

- 2002 "Governor's Gallery" on California Governor's website (6 June 2002)
< <http://www.governor.ca.gov/govsite/govsgallery>>.

United States Coastal Survey (USCS)

- 1862 *Map of a Part of Tomales Bay, Calif.* 1:10,000 scale. On file, Jack Mason Museum, Inverness Library, Inverness, California.
- 1863 *Map of a Part of Tomales Bay, Calif.* 1:10,000 scale. On file, Jack Mason Museum, Inverness Library, Inverness, California.

United States Geological Survey (USGS)

1918 *Point Reyes, Calif.* 1:62,000 scale. Revised 1938.

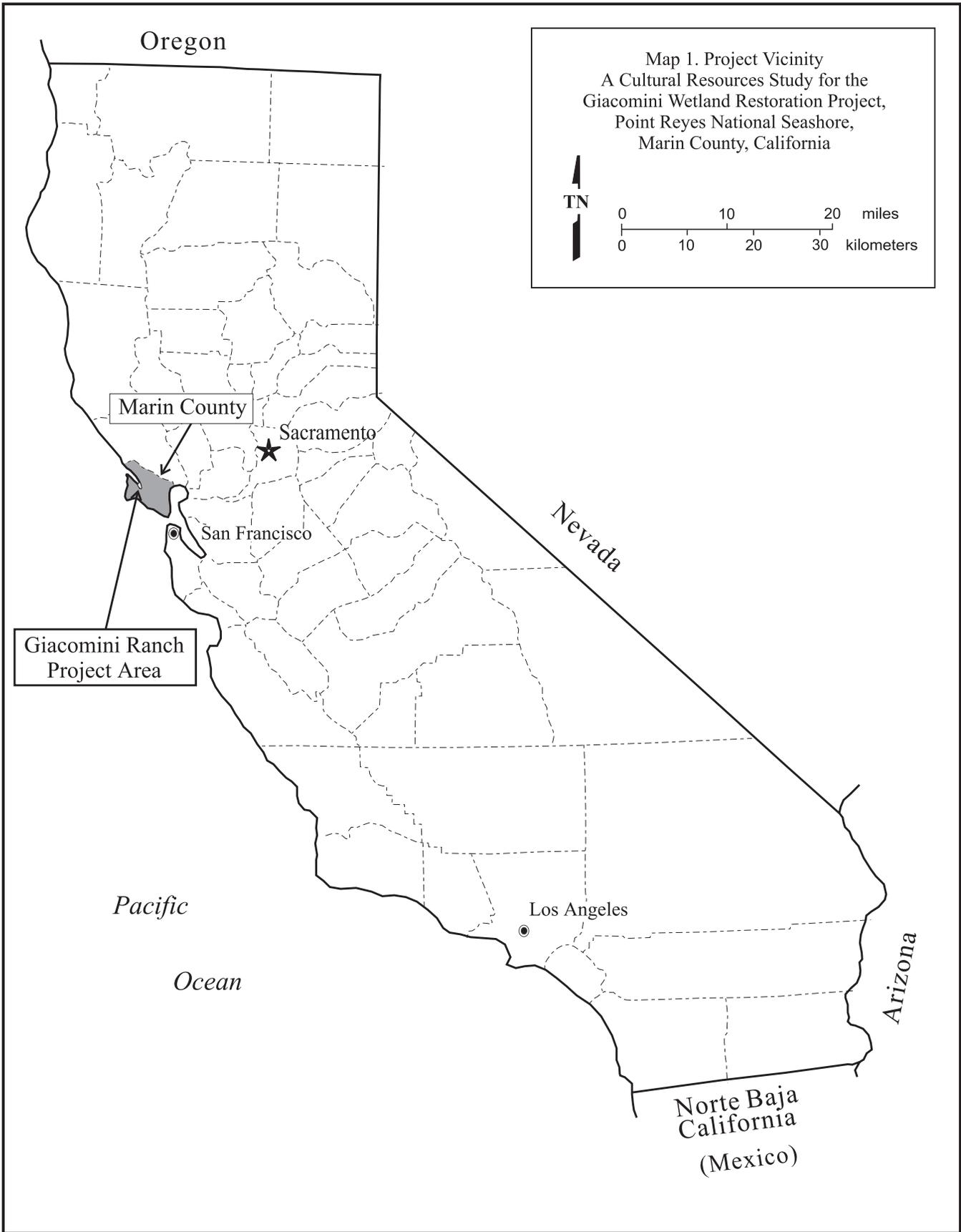
1954 *Inverness Calif.* 1:24,000 scale. Photorevised 1971, photoinspected 1976.

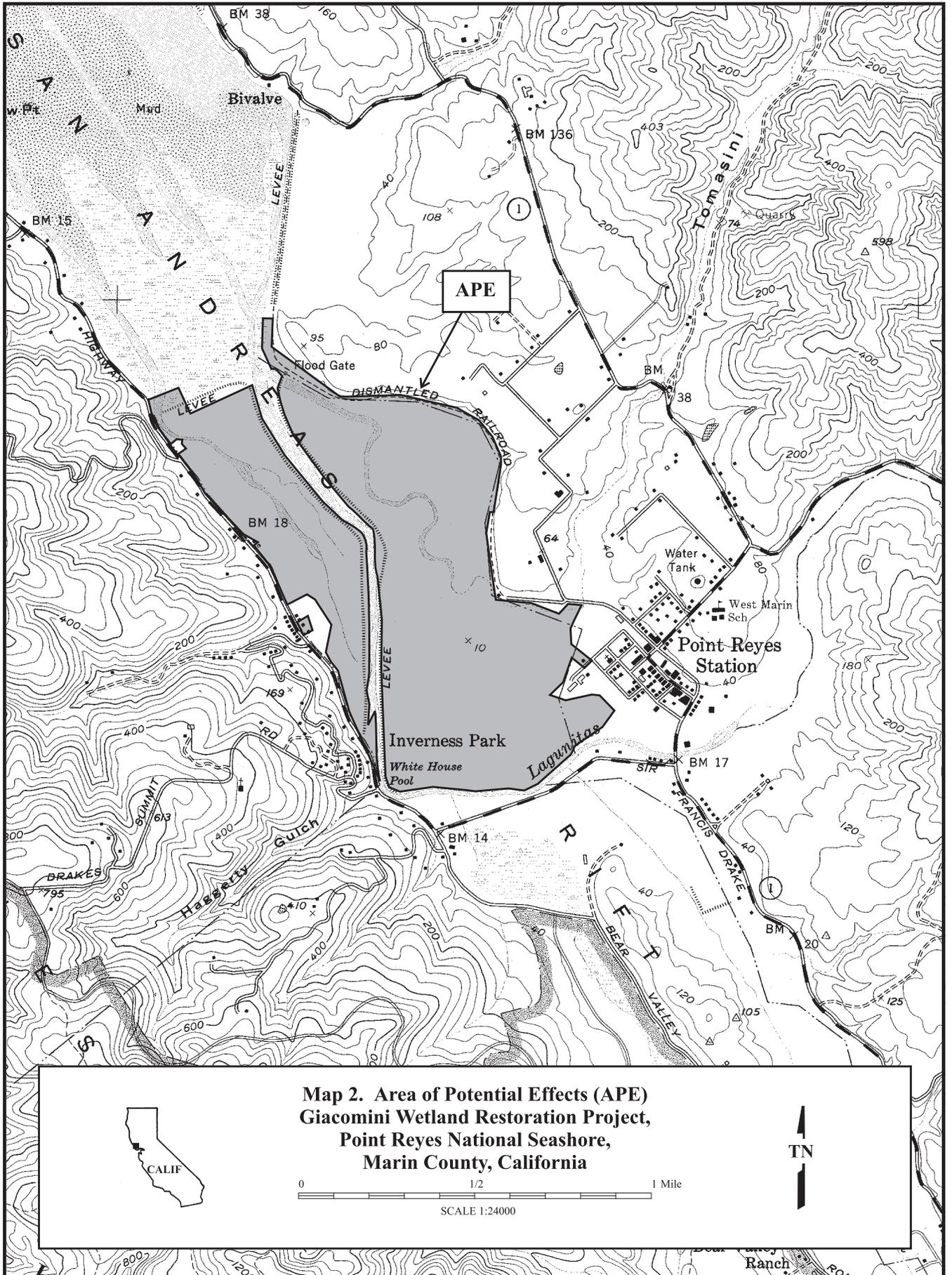
West, Anne

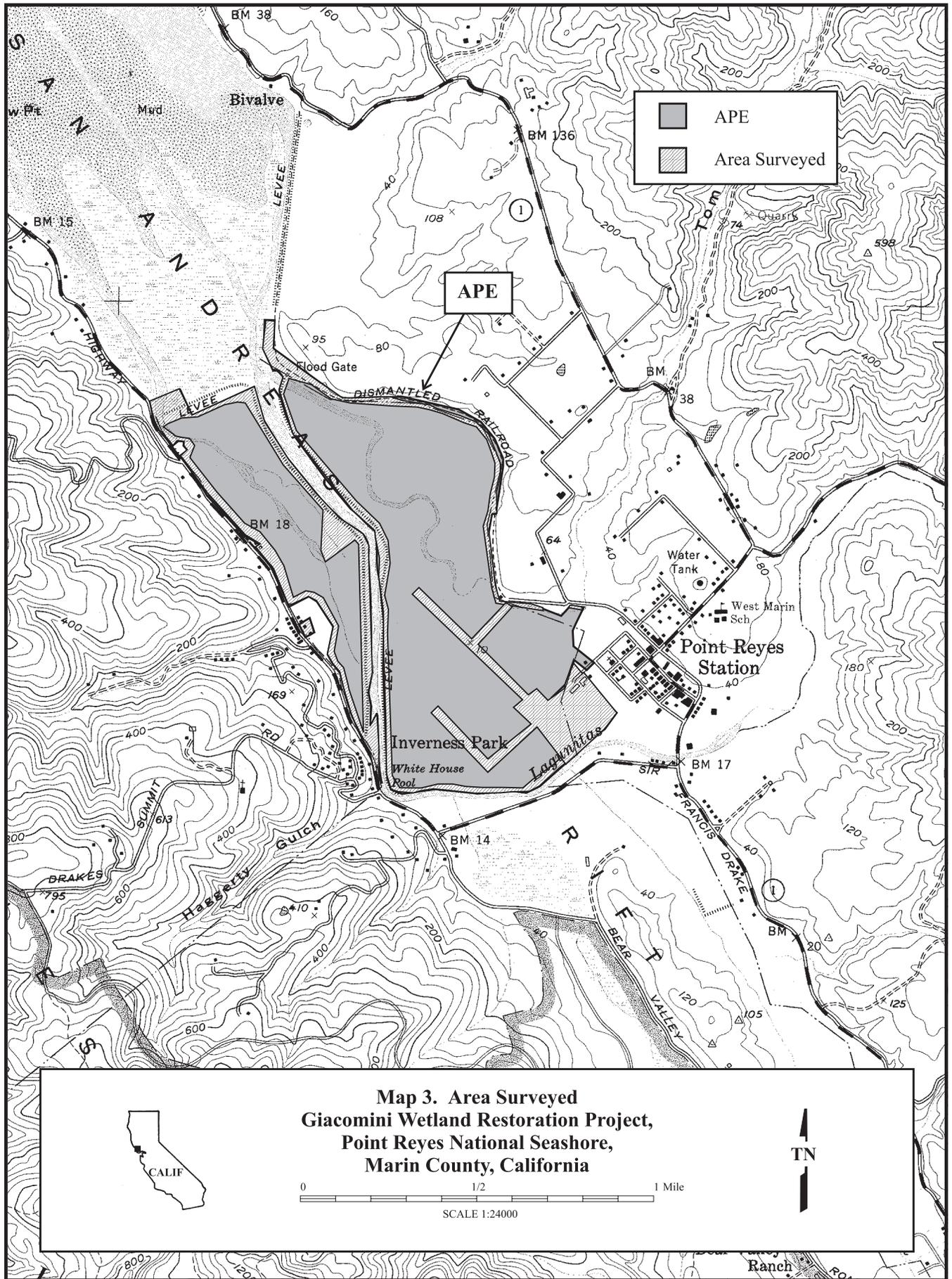
1987 Should Giacomini Dam Get Long-Term Permit: NO. *Marin Independent Journal* 14 June

1987: Sunday Forum. San Rafael, California.

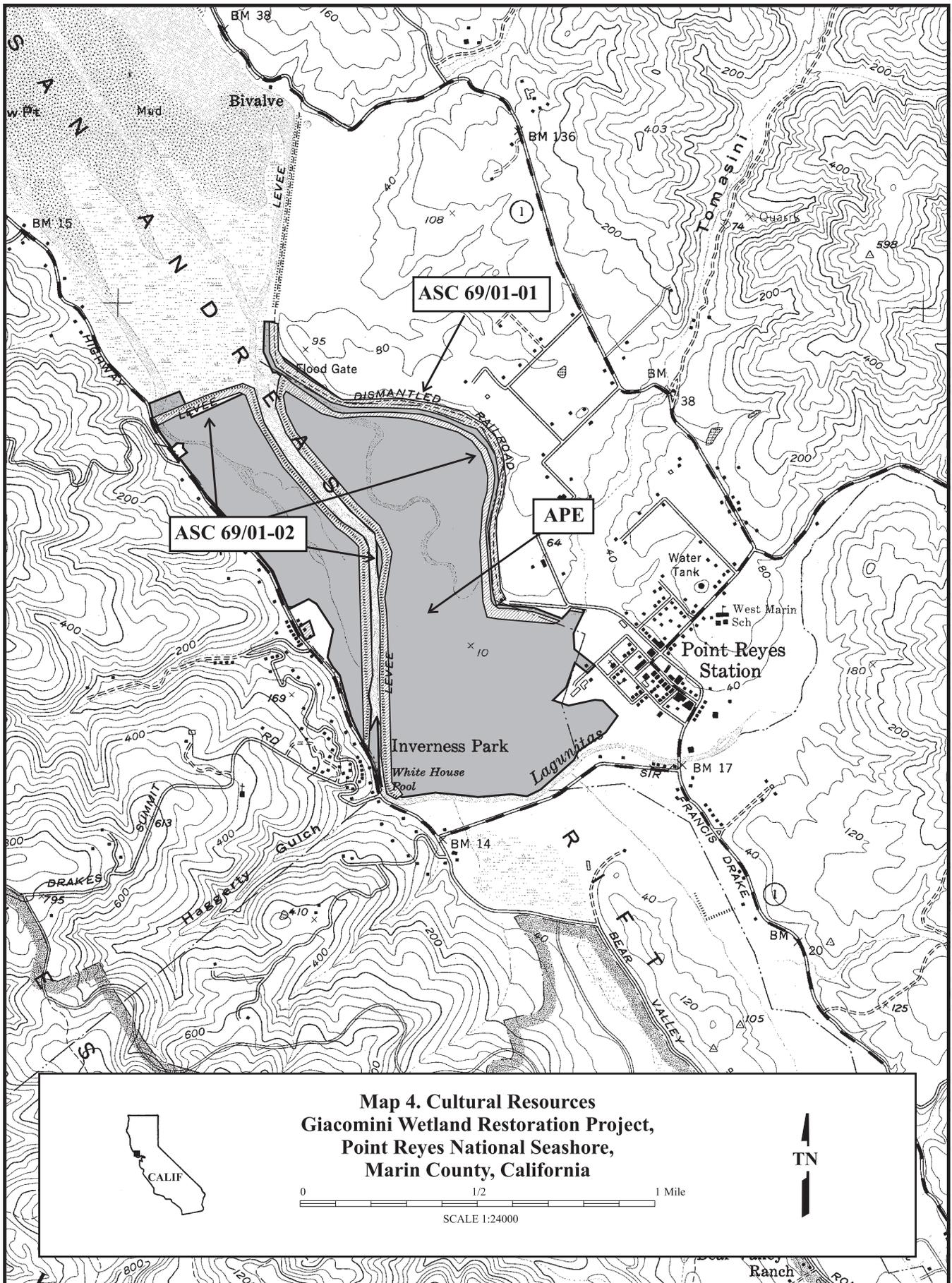
Appendix A Maps







Base Map: USGS 7.5' Inverness, Calif., 1954 (photoinspected 1976)



**Map 4. Cultural Resources
Giacomini Wetland Restoration Project,
Point Reyes National Seashore,
Marin County, California**

Base Map: USGS 7.5' Inverness, Calif., 1954 (photospected 1976)

Appendix B
DPR Forms

State of California — The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
 HRI #
 Trinomial
 NRHP Status Code

Other Listings
 Review Code

Reviewer

Date

Page 1 of 4

*Resource Name or #: ASC 69/01-01

P1. Other Identifier: North Pacific Coast Rail Line

*P2. Location: Not for Publication Unrestricted
 and

*a. County Marin

*b. USGS 7.5' Quad Inverness, Calif. Date 1954 (pr 1976) T 3N; R 9E; ¼ of ¼ of Sec; Mount Diablo B.M.

c. Address Rancho Nicasio (Black) land grant

City

Zip

d. UTM: Zone 10; beginning of feature section: 516375 mE/ 4213560 mN; end of feature section: 515325 mE/ 4214810 mN

e. Other Locational Data: Take A Street north out of the town of Point Reyes Station for approximately 0.4 mile until A Street dead-ends at the yard of a hunting lodge, on the west side of the road. Railroad bed begins on the other side of the lodge, approximate 40 m to the north.

***P3a. Description:**

This resource consists of a historic-period North Pacific Coast Railroad bed and two bridge remnants, the latter more likely to be associated with ASC-69/01-02 (see record). A narrow-gauge rail company incorporated in 1871, the North Pacific Coast Railroad Company was established by landholders of large timber tracts along the Mendocino Coast to transport redwood to the Bay Area. By 1874 the railroad had reached the location of this recorded section, where carpenters and Chinese grading gangs worked on the line along Lagunitas Creek (Dickinson 1958). By the next year, the line to the town of Tomales was completed with much fanfare.

The North Pacific Coast Railroad passed through several hands over the next five decades, and increased with popularity. The line to Point Reyes was switched from narrow to standard gauge in 1920, and in 1923, the company saw its peak year for passenger service (Dorrance 1993:5). With the advent of the automobile, however, rail transport went into a rapid decline, with the Point Reyes line abandoned in 1933, and complete shutdown of all branch-line passenger service in 1935 (Dorrance 1993:5). Since that time, the rails and timbers appear to have been removed and portions of the track have been converted to city streets and a levee.

*P3b. Resource Attributes: HP11. Engineering Structure; HP19. Bridge

*P4. Resources Present: Building Structure Object Site District

Element of District Other (Isolates, etc.)

P5b. Description of Photo:

Feature overview, looking south.

Roll 2, exp. 10.

*P6. Date Constructed/Age and

Sources: Historic

Prehistoric Both

*P7. Owner and Address:

Point Reyes National Seashore,
 National Park Service, Point Reyes
 Station, California.

*P8. Recorded by:

M. Newland
 Anthropological Studies Center
 Sonoma State University
 1801 East Cotati Ave., Bldg. 29
 Rohnert Park, CA 94928

*P9. Date Recorded:

21 March 2002

*P10. Survey Type: Intensive Surface
 Survey



*P11. Report Citation: Newland, Michael. 2002. *A Cultural Resources Survey of the Giacomini Wetland Restoration Project, Point Reyes National Seashore, Marin County, California*. Anthropological Studies Center, Sonoma State University, Rohnert Park, California. Prepared for the National Park Service, Oakland, California.

*Attachments: NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (list)

L1. Historic and/or Common Name: North Pacific Coast Railroad

L2a. Portion Described: Entire Resource Segment Point Observation **Designation:**

b. Location of point or segment:

This portion of the railroad bed is north of the town of Point Reyes Station and is situated along the eastern edge of the head of Tomales Bay, adjacent to the Giacomini Ranch.

L3. Description:

The railroad bed appears to be made of compacted earth. Major portions of the railroad bed within the study area were inaccessible due to dense vegetation. No rails, wooden ties, spikes, or trestles were identified along this section of the line. South of the existing segment, the line has probably been incorporated into the streets of Point Reyes Station; north of the current project area, it is presumed the line continues along a levee. No exposures of the bed were seen that would indicate that piled gravels or cobbles were part of the bed, though this is possible.

L4. Dimensions:

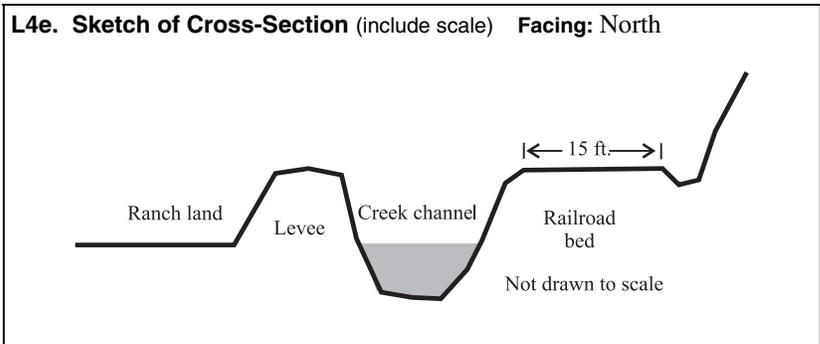
- a. **Top Width** 15 feet
- b. **Bottom Width** 20 to 30 feet
- c. **Height or Depth** 5 feet above mean sea level (see cross section)
- d. **Length of Segment** 6,800 ft.

L5. Associated Resources:

Two bridge remnants, which are more likely to be associated with the levee to the west (see record for ASC-69/01-02).

L6. Setting:

The railroad bed was built adjacent to what are now a channelized unnamed creek and ranch lands; prior to this, the railroad bed was above a saltwater marsh. The railroad bed is now heavily overgrown with blackberry, poison oak, and dense grasses and brush.



L7. Integrity Considerations: The railroad bed does not have any of the ties, rails, spikes, or other features that would distinguish it from another kind of earthen feature, such as the levee to the immediate west. South of the recorded segment, the line has been covered over or removed. The 15-ft. width of the bed is considerably wider than required for just the tracks, perhaps by design to facilitate repair or prevent erosion from the creek; instead, the bed may have been widened later for conversion to car use.

L8a. Photograph, Map or Drawing

L8b. Description of Photo, Map, or Drawing

see Primary Record and Location Map

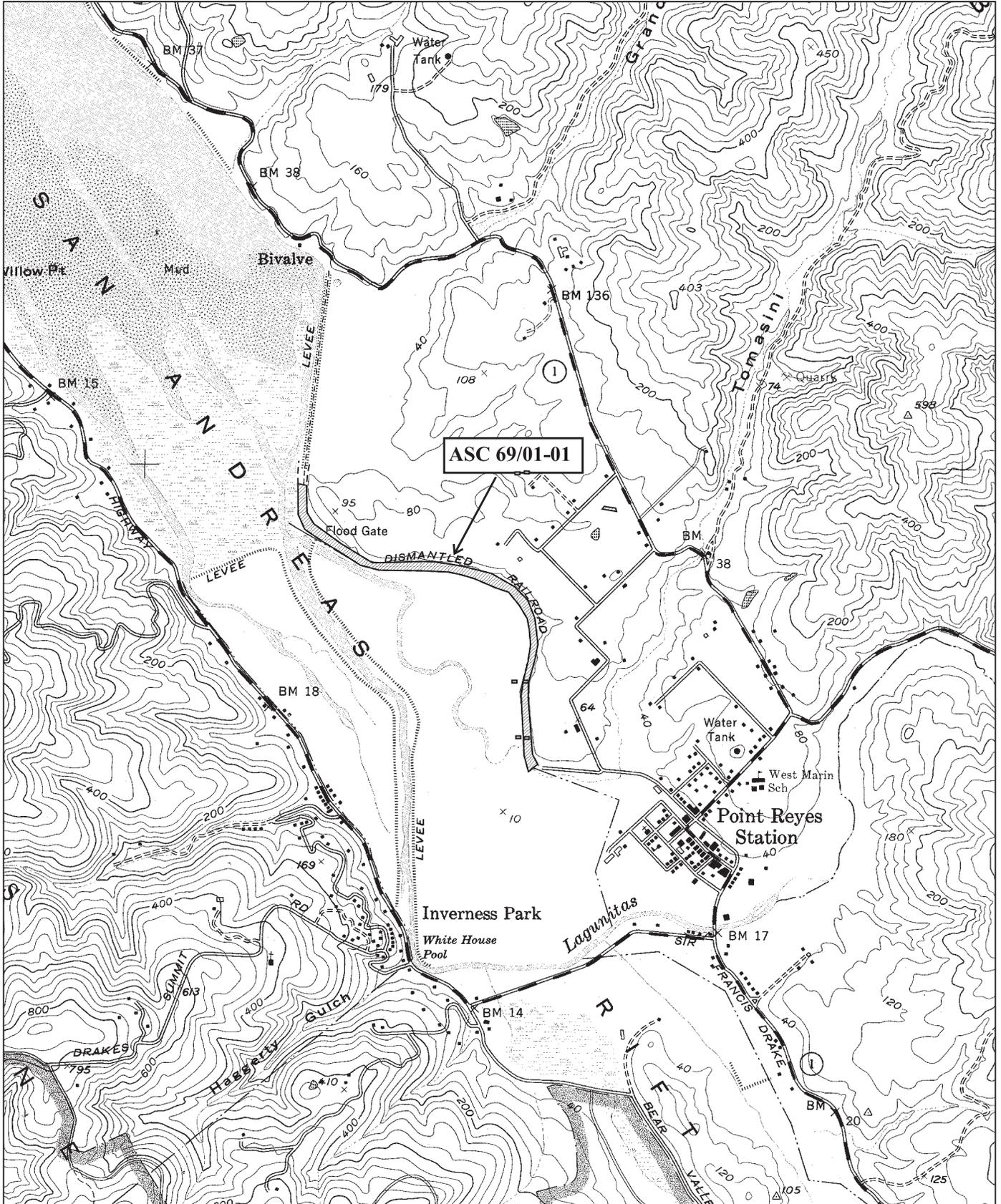
L9. Remarks:

Our report recommends that vegetation clearing along this resource be monitored by a qualified archaeologist to identify any remnants of associated railroad structural features.

L10. Form Prepared by:

M. Newland

L11. Date: 21 March 2002



CONTINUATION SHEET

References cited:

Dickinson, A. Bray

1958 Both Ends toward the Middle. *Marin Independent Journal* 23 August 1958:n.p. Novato, California.

Dorrance, Dave

1993 How NWP Grew, Flourished and Died. *The Headlight* IX(2):4-5. Santa Rosa, California.

State of California — The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
 HRI #
 Trinomial
 NRHP Status Code

Other Listings
 Review Code

Reviewer

Date

Page 1 of 4

*Resource Name or #: ASC 69/01-02

P1. Other Identifier: Giacomini Dam and Levee System

*P2. Location: Not for Publication Unrestricted
 and

*a. County Marin

*b. USGS 7.5' Quad Inverness, Calif. Date 1954 (pr 1976) T 3N; R 9E; ¼ of ¼ of Sec; Mount Diablo B.M.

c. Address Rancho Nicasio (Black) land grant City Point Reyes Station Zip

d. UTM: Zone 10; northwest corner: 514780 mE/ 4214355 mN; northeast corner: 515420 mE/ 4214545 mN
 southwest corner: 515900 mE/ 4212640 mN; southeast corner: 516685 mE/ 4213490 mN

e. Other Locational Data: The levee system is west of the town of Point Reyes Station, along both banks of Lagunitas Creek, north of White House Pool, and immediately adjacent to the abandoned North Pacific Coast Railroad bed along the eastern edge of the head of Tomales Bay.

***P3a. Description:**

This resource consists of a historic-period levee system built by Waldo Giacomini. Giacomini purchased the property in the mid-1940s and began reclaiming the tidal marsh in 1946 with a series of levees. Confined to the creek channel, sediments were conveyed directly to the mouth of Lagunitas Creek rather than being dispersed throughout the drainage system during flood events (Philip Williams & Associates, Ltd., et al. 1993:11). With the completion of Lagunitas Dam in 1961 and the raising of Peters Dam (Kent Reservoir) in 1982, the majority of the sediment load and all but the largest of flood events are captured before entering the creek channel within the APE (Philip Williams & Associates, Ltd., et al. 1993:11). Damage to the levee system by the 1986 floods resulted in the construction of new levees 20 to 25 ft. further inland in some areas. A portion of relic levee from this flood is still visible in the Lagunitas Creek bed. The Giacomini dam is a feature that is rebuilt yearly at the northern end of the levee. Two remnant bridge crossings once connected the levee to the abandoned railroad grade—while the bridges are no longer extant, portions of the abutments remain on both the levee and the railroad bed.

*P3b. Resource Attributes: HP21. Dam; HP19. Bridge

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)



P5b. Description of Photo: Levee and annual dam. View to the south. Roll 1, exp. 10₂

*P6. Date Constructed/Age and Sources: Historic Prehistoric Both

*P7. Owner and Address: Point Reyes National Seashore, National Park Service, Point Reyes Station, California.

*P8. Recorded by: M. Newland
 Anthropological Studies Center
 Sonoma State University
 1801 East Cotati Ave., Bldg. 29
 Rohnert Park, CA 94928

*P9. Date Recorded: 21 March 2002

*P10. Survey Type: Intensive Surface Survey

*P11. Report Citation: Newland, Michael. 2002. A Cultural Resources Survey of the Giacomini Wetland Restoration Project, Point Reyes National Seashore, Marin County, California. Anthropological Studies Center, Sonoma State University, Rohnert Park, California. Prepared for the National Park Service, Oakland, California.

*Attachments: NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (list)

L1. Historic and/or Common Name: Giacomini Levee

L2a. Portion Described: Entire Resource Segment Point Observation **Designation:**

b. Location of point or segment:

L3. Description:

The levee appears to be made entirely of dredged creek bed and flood sediments from the Giacomini property. In some places, the levee is reinforced with a concrete retaining wall, but most of it is freestanding, piled sandy soil. Naturally occurring bay and tidal-flat shell remnants can be seen eroding out of the levee on the creek side. A heavily eroded 1,500-ft.-long by 20-ft.-wide portion of a relic levee was noted along Lagunitas Creek.

L4. Dimensions:

a. Top Width 5 to 15 ft.

b. Bottom Width 25 to 30 ft.

c. Height or Depth 5 to 10 ft. above creekbed (see cross section)

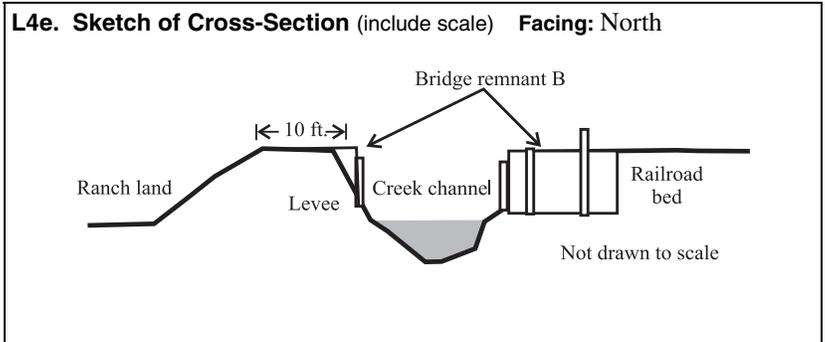
d. Length of Segment Three main segments: one to the west of Lagunitas Creek is 7,400 ft. long; one to the east of Lagunitas Creek is 6,900 ft. long; and one to the west of an unnamed creek along the east side of the ranch is 7,300 ft. long.

L5. Associated Resources: See continuation sheet.

L6. Setting:

The levees are almost entirely covered by low grasses, except for the easternmost segment, which has thick brush in some areas. The levees contain Lagunitas Creek and an unnamed creek, and are bordered on the land side by marshy grazing lands.

L7. Integrity Considerations: The levees are probably in their original location, save for one section along the center of the levee that was realigned after the floods of 1983. However, considerable repair may have been made to the levee system over the years and the "original" levee, as it was initially built, may have partially or completely eroded away; repairs would have been made using newly dredged or excavated fill. As a structural system, it continues to serve its original function in its original setting.



L8b. Description of Photo, Map, or Drawing

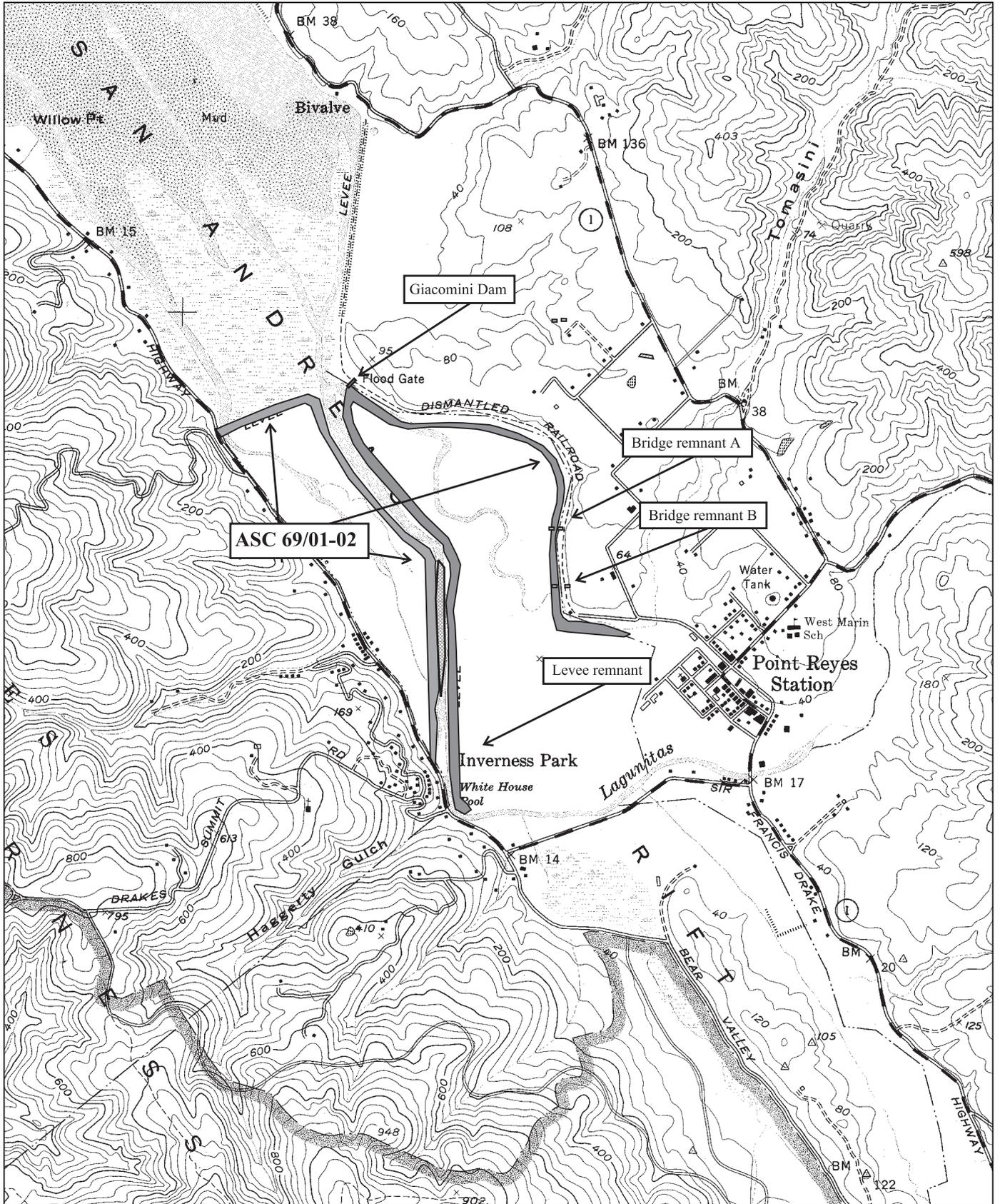
Bridge remnant B on railroad-bed side of unnamed creek. View to the southeast. Roll 1, exp. 15.

L9. Remarks:

L10. Form Prepared by:

M. Newland
 Anthropological Studies Center
 Sonoma State University

L11. Date: 21 March 2002



CONTINUATION SHEET

L5. Associated Resources (cont.)

Two bridge remnants that represent bridges that had connected the easternmost levee to the railroad bed.

Bridge Remnant A consists of two sets of pilings, one on each side of the unnamed channel. The pilings on the levee side extend 3 ft. above ground, and are 1 ft. 3 in. thick, with iron fastening rods and a broken 8 in. by 8 in. by 6 ft. crossbeam that once connected the two pilings. The opposite side appears similar, save for a 10+ ft.-tall, 6 in. by 8 in. post of unknown purpose that is immediately north of the set of pilings.

Bridge Remnant B consists of two poured-concrete foundations, one on each side of the unnamed channel. The foundations are roughly 9 ft. by 17 ft. by 6 ft. tall and are braced with 1 ft. 3 in. upright pilings. The west side of this remnant has the remains of a metal gate.

Reference cited:

Philip Williams & Associates Ltd., Wetlands Research Associates, Strong Associates, and L.J. Butler

1993 *An Evaluation of the Feasibility of Wetland Restoration on the Giacomini Ranch, Marin County*. Philip Williams & Associates, Ltd., San Francisco. Prepared for the National Park Service, Oakland, California.