National Park Service
Cultural Landscapes Inventory
2002



Santa Rosa Island Ranching District

Channel Islands National Park

Cultural Landscape Inventory Level II:
Santa Rosa Island Ranching District
Channel Islands National Park

Channel Islands National Park concurs with the Management Category and Condition Assessment assigned through completion of this Level II Cultural Landscape Inventory for Santa Rosa Island Ranching District as listed below:

MANAGEMENT CATEGORY A: **Must be preserved and maintained**

CONDITION ASSESSMENT: **Fair**

Tim Setnicka 4/18/02

Superintendent, Channel Islands National Park Date

Please return this form to:
Shaun Provencher
Coordinator, Cultural Landscape Inventory
National Park Service
Pacific Great Basin Support Office
1111 Jackson Street, Suite 700
Oakland, CA 94607

SANTA ROSA ISLAND RANCHING HISTORIC DISTRICT (Proposed)
CHANNEL ISLANDS NATIONAL PARK

California SHPO Eligibility Determination: RESUBMITTAL

Section 110 Actions Requested:

1) SHPO concurrence with determination of eligibility of the proposed Santa Rosa Island Ranching Historic District for listing on the National Register,
2) SHPO concurrence with the structures to be entered on the List of Classified Structures (LCS). (See chart below)

____X____ **I concur,** _____ **Additional information is needed to concur,** _____ **I do not concur** with the proposed Santa Rosa Island Ranching Historic District's eligibility for listing on the National Register of Historic Places.

_____X____ **I concur,** _____ **Additional information is needed to concur,** _____ **I do not concur** that the **Setting** as described in the Cultural Landscape Inventory (CLI), contributes to the proposed Santa Rosa Island Ranching Historic District (see the following landscape characteristics: natural systems and features, spatial organization, topography, vegetation, cluster arrangement, and views and vistas).

Based on the information provided in the CLI, the following previously unevaluated structures have been identified as **contributing** to the proposed Santa Rosa Island Ranching Historic District:

LCS number	Structure Name	Date	Concur	Do not Concur
059649	Nidever Cave	late 1800s	x	
059648	Vail & Vickers Corral Outhouse	1880-1920	x	
059637	Vail & Vickers Ranch Branding Shed	1905-1910	x	
102083	Vail & Vickers Ranch Carrington Point Water System	1945	x	
059667	Vail & Vickers Ranch China Camp Cabin	1930s, 1950s	x	
102081	Clapp Springs	1955	x	
059645	Ranch Corrals	1855-1955	x	
059641	Generator Barn	1870s	x	
059642	Horse Barn	mid 1870s	x	
059640	Ranch House	1873	x	
059644	Ranch House Fence	1900	x	
059639	Old School House	late 1800s	x	
059647	Ranch Outhouse	1873-1900	x	
059646	Pasture Fences	1873-1955	x	
059638	Scale House	1910	x	
102076	Smith Highway	1920-1950	x	
102077	Soledad Road	1932	x	

329149	Stone Walkway at Upper House	1870-1903	x	
330033	Santa Rosa Island Paved Roads	1950-1952	x	
329147	Santa Rosa Island Maintained Graded Dirt Roads	1872-1954	x	
329148	Santa Rosa Island Abandoned Graded Dirt Roads	1932-1954	x	
329169	Small Outhouse	Circa 1950s	x	
303161	Rope House	Circa 1950s	x	
329173	Cattle Dipping Vat	1930s	x	
330057	Main Ranch Fences and Gates	1900-1955	x	
330059	Feed Troughs and Mangers	Pre-1955	x	
330061	Water Canyon Pipeline	1870s	x	
330063	Main Ranch Reservoir	1870s	x	
330065	Main Ranch Wells and Troughs	1870s	x	
330067	Santa Rosa Island Earthen Dams	Pre-1948 to 1954	x	
330069	Army Camp Water System Ruin	1943-1955	x	
102071	South Point Lighthouse	1937	x	
332662	Matanza Tanks	1870s	x	

Based on the information provided in the CLI, the following previously unevaluated structures have been identified as **not contributing** to the Santa Rosa Island Ranching Historic District:

LCS number	Structure Name	Concur	Do not Concur
N/A	Johnsons Lee Airstrip	x	
N/A	Johnsons Lee Utility Corridor	x	
N/A	NPS Developed Areas – Buildings, structures, roads, campgrounds, utilities, signage	x	
N/A	Concrete Barrier/Enclosure, Johnsons Lee	x	
N/A	Elk Slaughter Shed	x	
N/A	Outhouse, China Camp	x	
N/A	Outhouse, East Point	x	
N/A	Radio Building	x	
N/A	Radio Shed	x	
N/A	Russ Vail House	x	
N/A	Vehicle Maintenance Shop, Johnsons Lee	x	
N/A	Air Force Ruins, Johnsons Lee	x	
N/A	NPS Enclosures; East Point, Housing Area, In Corrals, Maintenance Area, Wells	x	
N/A	Runoff diversion Ditch, Johnsons Lee	x	
N/A	Vail & Vickers Ranch Arlington Roundup (1960s)	x	
N/A	Vail & Vickers Ranch Bechers Bay Pier	x	

	(1987)		
N/A	Vail & Vickers Ranch China Camp Roundup (mid 1960s)	x	
N/A	Wreck Roundup (mid 1960s)	x	
N/A	Green Canyon Corral (1960s)	x	
N/A	Lepe Corral (mid 1960s)	x	
N/A	Black Mountain Corral (late 1960s)	x	
N/A	Old Ranch Corral (mid 1960s)	x	
N/A	Las Cruces Corral (1920s-rebuilt 1960s)	x	
N/A	Water Canyon Corral (mid 1960s)	x	
N/A	Bunk House (1970)	x	
N/A	Chicken Shed (post 1969)	x	
N/A	Metal Barn (1980)	x	
N/A	Pig Pen (pre 1970s)	x	
N/A	World War II Storage Building (1943)	x	
N/A	World War II Operations Building (1943)	x	
N/A	Foreman's House (1965)	x	
N/A	Pasture Fences (1955- present)	x	
N/A	Ranch Corrals (1955- present)	x	
N/A	Feed Troughs and Mangers (1955-present)	x	
N/A	Army Camp Water System (1955-1963)	x	
N/A	Wreck Line Shack (1985)	x	

Reasons/comments why 'Additional Information Is Needed To Concur' or 'Do Not Concur' findings were made:

wayne donald 24 AUG 2004

California State Historic Preservation Officer Date

Please return forms to the attention of:
Kimball Koch
Cultural Landscape Program Lead-Oakland
National Park Service
Pacific West Regional Office-Oakland
1111 Jackson St. Suite 700
Oakland, CA, 94607
(510) 817-1398
kimball_koch@nps.gov

Date: April 2004
Memo to File
Re: Non-Substantive Changes to CLI

The original version of the CLI document has been modified in order to update the inventory for consensus determination review by the SHPO and/or the Keeper, including updating information from the LCS, such as *LCS Structure Name*, *IDLCS Number*, and *Structure Number*, in April 2004. These changes were not submitted to the park for review since they were not considered substantive changes. The original versions of the modified pages are located in the CLI files for the purpose of tracking changes.

Table of Contents

Part 1

Executive Summary 1
Park Information 3
Property Level and CLI Number 3
Inventory Summary 4
Landscape Description 5
CLI Hierarchy Description 7
Location Map 8
Boundary Description 9
Regional Context 9
Site Plan 11
Chronology 13
Statement of Significance 18

Physical History **Part 2a**

1542 to1844: European Contact 1
1844to 1870: Thompson and Jones 1
1870 to 1901: More Brothers 2

Part 2b

1901 to 1986: Vail & Vickers 1
1987 to Present: NPS/Vail & Vickers 8

Analysis and Evaluation **Part 3a**

Summary 1
Natural Systems and Features 1
Spatial Organization 5
Land Use 7
Cultural Traditions 10
Topography 13
Vegetation 17

Part 3b

Circulation 1
Buildings and Structures 24
Cluster Arrangement 37
Small Scale Features 41
Constructed Water Features 53
Archeological Sites 59
Views and Vistas 65

Management Information **Part 4**

Descriptive and Geographic Information 1
National Register Information 1
General Management Information 5
Condition Assessment and Impacts 5
Agreements, Legal Interest, and Access 9
Treatment 12
Documentation Assessment and Checklist 14

Appendix

Bibliography 15
Supplemental Information 24
Site Maps .....

Executive Summary

General Introduction to the CLI

The Cultural Landscapes Inventory (CLI) is a comprehensive inventory of all historically significant landscapes within the National Park System. This evaluated inventory identifies and documents each landscape's location, physical development, significance, National Register of Historic Places eligibility, condition, as well as other valuable information for park management. Inventoried landscapes are listed on, or eligible for, the National Register of Historic Places, or otherwise treated as cultural resources. To automate the inventory, the Cultural Landscapes Automated Inventory Management System (CLAIMS) database was created in 1996. CLAIMS provides an analytical tool for querying information associated with the CLI.

The CLI, like the List of Classified Structures (LCS), assists the National Park Service (NPS) in its efforts to fulfill the identification and management requirements associated with Section 110(a) of the National Historic Preservation Act, NPS Management Policies (2001), and Director's Order #28: Cultural Resource Management (1998). Since launching the CLI nationwide, the NPS, in response to the Government Performance and Results Act (GPRA), is required to report on an annual performance plan that is tied to 6-year strategic plan. The NPS strategic plan has two goals related to cultural landscapes: condition (1a7) and progress on the CLI (1b2b). Because the CLI is the baseline of cultural landscapes in the National Park System, it serves as the vehicle for tracking these goals.

For these reasons, the Park Cultural Landscapes Program considers the completion of the CLI to be a servicewide priority. The information in the CLI is useful at all levels of the park service. At the national and regional levels it is used to inform planning efforts and budget decisions. At the park level, the CLI assists managers to plan, program, and prioritize funds. It is a record of cultural landscape treatment and management decisions and the physical narrative may be used to enhance interpretation programs.

Implementation of the CLI is coordinated on the Region/Support Office level. Each Region/Support Office creates a priority list for CLI work based on park planning needs, proposed development projects, lack of landscape documentation (which adversely affects the preservation or management of the resource), baseline information needs and Region/Support office priorities. This list is updated annually to respond to changing needs and priorities. Completed CLI records are uploaded at the end of the fiscal year to the National Center for Cultural Resources, Park Cultural Landscapes Program in Washington, DC. Only data officially entered into the National Center's CLI database is considered "certified data" for GPRA reporting.

The CLI is completed in a multi-level process with each level corresponding to a specific degree of effort and detail. From Level 0: Park Reconnaissance Survey through Level II: Landscape Analysis and Evaluation, additional information is collected, prior information is refined, and decisions are made regarding if and how to proceed. The relationship between Level 0, I, and II is direct and the CLI for a landscape or component landscape inventory unit is not considered finished until Level II is complete.

A number of steps are involved in completing a Level II inventory record. The process begins when the CLI team meets with park management and staff to clarify the purpose of the CLI and is followed by historical research, documentation, and fieldwork. Information is derived from two efforts: secondary sources that are usually available in the park's or regions' files, libraries, and archives and on-site landscape investigation(s). This information is entered into CLI database as text or graphics. A park report is generated from the database and becomes the vehicle for consultation with the park and the

SHPO/TPO.

Level III: Feature Inventory and Assessment is a distinct inventory level in the CLI and is optional. This level provides an opportunity to inventory and evaluate important landscape features identified at Level II as contributing to the significance of a landscape or component landscape, not listed on the LCS. This level allows for an individual landscape feature to be assessed and the costs associated with treatment recorded.

The ultimate goal of the Park Cultural Landscapes Program is a complete inventory of landscapes, component landscapes, and where appropriate, associated landscape features in the National Park System. The end result, when combined with the LCS, will be an inventory of all physical aspects of any given property.

Relationship between the CLI and a CLR

While there are some similarities, the CLI Level II is not the same as a Cultural Landscape Report (CLR). Using secondary sources, the CLI Level II provides information to establish historic significance by determining whether there are sufficient extant features to convey the property's historic appearance and function. The CLI includes the preliminary identification and analysis to define contributing features, but does not provide the more definitive detail contained within a CLR, which involves more in-depth research, using primary rather than secondary source material.

The CLR is a treatment document and presents recommendations on how to preserve, restore, or rehabilitate the significant landscape and its contributing features based on historical documentation, analysis of existing conditions, and the Secretary of the Interior's standards and guidelines as they apply to the treatment of historic landscapes. The CLI, on the other hand, records impacts to the landscape and condition (good, fair, poor) in consultation with park management. Stabilization costs associated with mitigating impacts may be recorded in the CLI and therefore the CLI may advise on simple and appropriate stabilization measures associated with these costs if that information is not provided elsewhere.

When the park decides to manage and treat an identified cultural landscape, a CLR may be necessary to work through the treatment options and set priorities. A historical landscape architect can assist the park in deciding the appropriate scope of work and an approach for accomplishing the CLR. When minor actions are necessary, a CLI Level II park report may provide sufficient documentation to support the Section 106 compliance process.

Channel Islands National Park and the CLI

This Level II inventory has been produced by the Pacific Great Basin Support Office in Oakland by Shaun Provencher and contractor Dewey Livingston.

The Cultural Landscape Inventory supplements previous inventory work completed as part of Historic Resource Study documentation contracted to Dewey Livingston. Livingston photographed and mapped many of the features on three visits to the island: November 1998, June 1999, and January 2001. The CLI builds on this work. The CLI team also identified and mapped features and characteristics not previously documented, and mapped the island features using GPS. Dewey Livingston acted as resource guide, informant and photographer, and compiled the textural data and photos; Shaun Provencher did the mapping and provided CLI expertise; historian Lex Palmer volunteered as a GPS tech for part of the field work. Some of the existing conditions photographs are part of the 1998-1999 collections at Channel

Islands National Park and are not in the 2001 CLI record.

A National Register nomination is in progress as part of the HRS contract. The information in this inventory has been used as documentation of the contributing historic landscape features in the nomination. This inventory is specific to features relating to the Anglo-European period on Santa Rosa Island, and does not include prehistoric resources.

Park Information

Park Name: Channel Islands National Park
Administrative Unit: Channel Islands National Park
Park Organization Code: 8120
Park Alpha Code: CHIS

Property Level And CLI Number

Property Level: Landscape
Name: Santa Rosa Island Ranching District
CLI Identification Number: 725083
Parent Landscape CLI ID Number: 725083

Inventory Summary

Inventory Level: Level II

Completion Status:

Level 0

Date Data Collected - Level 0: 7/12/1998
Level 0 Recorder: Bright Eastman
Date Level 0 Entered: 7/12/1998
Level 0 Data Entry Recorder: Bright Eastman
Level 0 Site Visit: No

Level I

Date Level I Data Collected: 8/15/2001
Level I Data Collection Dewey Livingston and Shaun Provencher
Date Level I Entered: 8/15/2001
Level I Data Entry Recorder: Dewey Livingston and Shaun Provencher
Level I Site Visit: Yes

Level II

Date Level II Data Collected: 8/15/2001
Level II Data Collection Dewey Livingston and Shaun Provencher
Date Level II Entered: 4/5/2002
Level II Data Entry Recorder: Dewey Livingston and Shaun Provencher
Level II Site Visit: Yes
Date of Concurrence 4/18/2002

Landscape Description

PHYSICAL DESCRIPTION
Santa Rosa Island is located about 50 miles from Channel Islands National Park headquarters in Ventura and almost 30 miles across the Santa Barbara Channel from the closest mainland point at Goleta, west of Santa Barbara. At 53,364 acres it is the second largest of the east/west-trending northern Channel Islands and sits between San Miguel Island on the west and Santa Cruz Island on the east. Some writers have defined the shape of the island as a parallelogram. Santa Rosa Island is distinguished by seven points of land ranging in character from a broad, sandy spit (Skunk Point) to a blunt and steep protruding promontory (South Point). The highest elevation is 1,589 feet. Divided by a long ridge of high peaks, the island consists of rolling hills cut by sometimes-deep canyons and creek drainages. The southern side of the island tends to be more rugged than the north. The island is mostly covered by grasses, with large patches of chaparral and occasional groves of trees, including the rare Torrey pines on the eastern coast and the island oak found in the upper elevations. The grassland landscape reflects the historic agricultural/grazing uses of the island.

SIGNIFICANCE
A draft National Register of Historic Places nomination for the Santa Rosa Island Ranching District is in progress. Research has indicated that the district will likely be found eligible on a local level of significance. The period of significance extends from 1873 to 1955. The district is considered to be significant for its association with events in California's agricultural history (Criteria A), its vernacular architecture and landscape characteristics (Criterion C).

LANDSCAPE CONDITION
Most extant features date from the 1870s through the 1990s. These include buildings, roads, fence lines and corrals, and domestic and native vegetation. Owing to physical isolation and entrenched traditions in coastal stock raising, relatively few changes occurred in the organization and function of the ranching operation and landscape during the last 130 years; change is seen in the appearance of a handful of newer structures, a realigned road or fence line, or vegetation. Although few constructed attributes remain of the pioneering period on the island (1844-1860), characteristics originating during that period include natural systems and features, land use, topography, vegetation, views and vistas and archeological sites. The potential for archeological study of this early period is strong. Most prevalent on the island are the remaining features of the More Family (1860-1901) and Vail and Vickers (1901-1998) eras associated with sheep and cattle ranching. These include those listed above as well as buildings and structures, cluster arrangement, spatial organization, circulation, small scale features and cultural traditions.

The vernacular landscape at the Santa Rosa Island Ranching District on Santa Rosa Island retains integrity and is in fair condition. The seven qualities of historic integrity (location, design, setting, materials, workmanship, feeling and associations) relating to the ranching operation remain intact. In a sense, the ranchers and cowboys suddenly packed their bags in 1998 and got on the boat, leaving the entire historic district as it had been for a century or more. Three conditions causing the greatest impact on the cultural landscape integrity are the three-year absence of long-time land uses resulting in the growth of invasive vegetation around the ranch complex, structural neglect, and the addition of National Park Service facilities in the Bechers Bay region including three building complexes and a campground.

LANDSCAPE CHARACTERISTIC FEATURES
As a rural vernacular landscape, the Santa Rosa Island Ranching District retains integrity in all landscape characteristics except land use; in that category, three years of inactivity is visible in the vegetation growth in former grazing and cultivated areas, and neglect in the form of decreased maintenance on most

built features. The district retains integrity in its natural systems and features, spatial organization, cluster arrangement, topography, vegetation, circulation, buildings and structures, constructed water features, cultural traditions, views and vistas, archeology and small scale features.

Cultural Landscapes Inventory Hierarchy Description

The Santa Rosa Island Ranching District is a rural vernacular landscape that includes the entire land mass of Santa Rosa Island. The 53,000-acre island is a parent landscape with no component landscapes.

The boundary established in this inventory is justified by the ownership history of Santa Rosa Island; all legal documents pertaining to the ownership of the island and its operations have been thoroughly researched. The island has never been physically subdivided beyond occasional temporary lease agreements with the federal government for military purposes. While there are numerous locations in which development occurred, all those that retain integrity are linked historically with the ranch system.

Location Map



Channel Islands National Park

Boundary Description

The boundary of the Santa Rosa Island Ranching District encompasses Santa Rosa Island to the shoreline. The original boundary determined by the 1844 land grant included all land to the ocean shore. Real property transactions since that time have followed these boundaries. The reported acreage figures for Santa Rosa Island have varied depending on the computing technology of the times; during the nineteenth century the island was considered to be more than 60,000 acres in size, but in the early 1930s the figures were corrected. These figures have fluctuated between 52,000 to 54,000 acres since then. The most recent NPS figure available is 53,364 acres.

Regional Context

Cultural Context

Island Chumash occupied Santa Rosa Island until the 1820s, carrying on a rich cultural tradition involving food harvest, crafts and trade with mainland tribes. Santa Rosa Island has long been of interest to archeologists and paleontologists who have made excavations on the island since the 1870s. Spanish explorers, notably Juan Rodriguez Cabrillo and Sebastian Vizcaino, recorded attributes of the island during the sixteenth and seventeenth centuries but left the native occupants relatively unmolested. The rise of the Spanish mission system has been credited with emptying the island early in the nineteenth century. Not until 1844 did two Anglo-Americans, related by marriage to the families recently awarded the island as a Mexican land grant, settle on the island and stock it with domestic animals. This marked the beginning of Anglo-American occupation that has lasted to this day.

Livestock ranching is considered to be the oldest industry in California. The missions, pueblos and presidios of early Alta California kept herds of cattle and flocks of sheep. A demand for hides and tallow in the eastern United States and Europe in the first half of the nineteenth century brought income to Mexican land grantees and settlers of various backgrounds. The focus of the cattle industry changed with the Gold Rush and statehood, eliciting a need for beef and dairy products, while a continuing need for wool only increased with the Civil War. The cattle industry bloomed especially in Southern California on the Mexican-era ranchos. A drought in 1863-64 devastated the state's livestock industry and contributed to the breakup of the ranchos while fostering, with the aid of rancher-influenced land laws, huge corporate cattle- and feed-raising, slaughter and marketing operations. The sheep industry faltered and largely failed by the turn of the century. However, the cattle industry continued to grow and has contributed in a major extent to the state's agricultural economy for more than 150 years.

Political Context

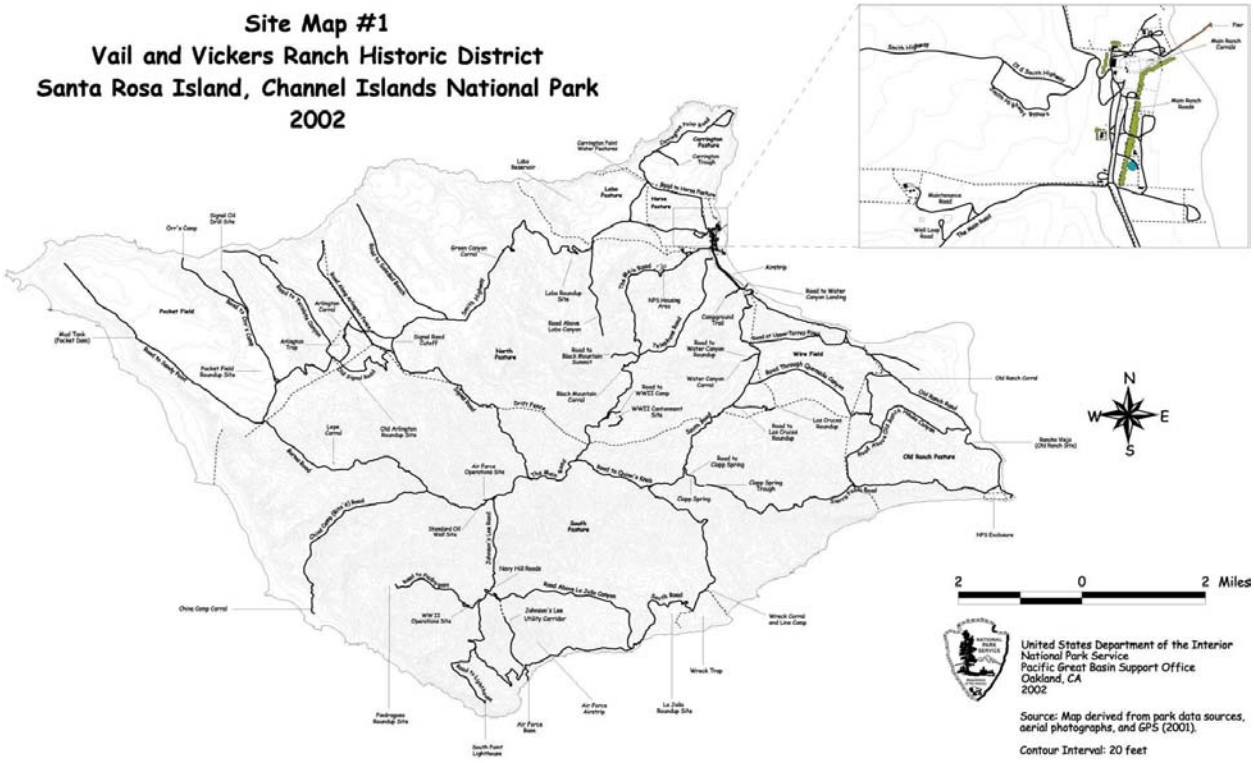
The Santa Rosa Island Ranching District is located entirely within Santa Barbara County, California and has not been part of a township survey. The district lies within Channel Islands National Park. The park was established in 1980 and the subject property purchased by the federal government in December 1986. It is administered by the Department of the Interior, National Park Service, Channel Islands National Park. Vail and Vickers' ranching operation continued under permit until 1998, while their commercial hunting operation may continue until 2011. Vail and Vickers Company of Santa Barbara administers private activities on the island.

Physiographic Context

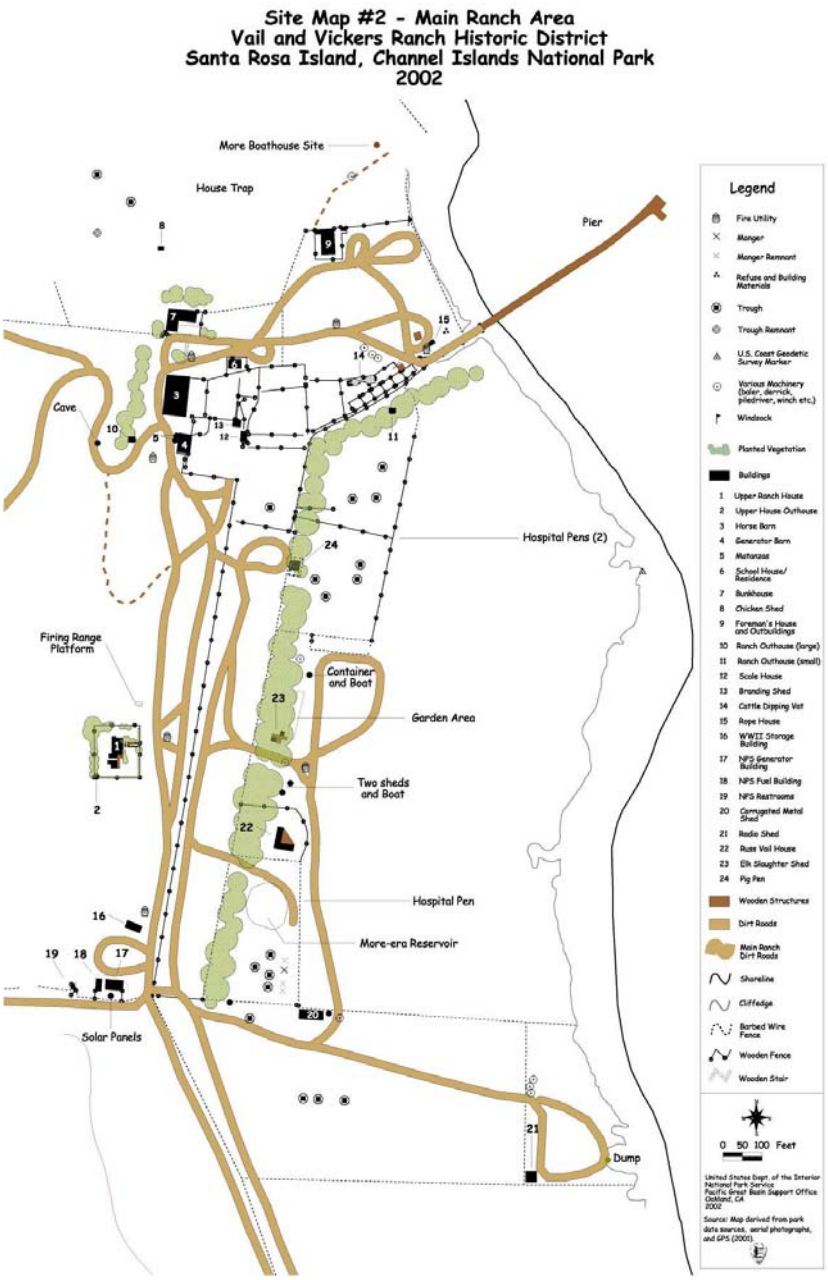
Santa Rosa Island is the second largest of the four northern Channel Islands, all of which lie in an east-west line parallel to the mainland near Santa Barbara, California. It is located 26.5 miles from the closest mainland point, roughly thirty-five miles from the aforementioned city and fifty miles from Ventura, headquarters for Channel Island National Park. On clear days the mainland is visible as a distant mountain range, as are two of the neighboring islands. Access to the island is by boat and plane only. Santa Rosa Island measures approximately 53,500 acres or eighty-four square miles and elevations range from sea level to 1,589 feet. Surrounded by the sea, the island is dominated by a ridge of bare mountains with dozens of drainages leading in all directions to the ocean and channel. The north side of the island, facing the mainland, consists largely of gentle plateaus cut by steep canyons, while the south side has a more dramatic drop from mountain peaks to ocean. Sandy beaches are found around the island, and marine terraces characterize the east and west sides. Most of the land area is covered in native and imported grasses, with large patches of chaparral in the Black Mountain vicinity and a forest of rare Torrey Pines above Bechers Bay. Island oak and coast live oak grow in pockets, and various varieties of coastal scrub such as lupine, sage and coyote brush are found all over the island. There are numerous perennial streams.

Site Plan

Site Map #1, Channel Island National Park, Vail and Vickers Ranch, Santa Rosa Island, California. See Supplemental Information for full size maps.



Site Map #2, Channel Island National Park, Vail and Vickers Ranch, Santa Rosa Island, California. See Supplemental Information for full size maps.



Chronology

Year	Event	Description
1844 - 1855 AD	Built	Alpheus Thompson builds a house and corral at Old Ranch and his employees take up residence. Other corrals and houses are built at other locations, including Bechers Bay in 1855.
1844 AD	Ranched/Grazed	Thompson begins to graze cattle, sheep and horses on Santa Rosa Island.
1844 - 1872 AD	Established	Numerous livestock, horseback and wagon routes are developed across the island, as documented on 1873 U.S.Coast Survey map.
1860 - 1872 AD	Built	Fence lines, precursors to later fencing systems, are constructed on the east and west ends of Santa Rosa Island.
1868 - 1872 AD	Ranched/Grazed	The More family and/or employees settle on Santa Rosa Island, establishing a large sheep ranch. They abandon the old ranch site near East Point.
1873 AD	Built	The Mores construct a ranch complex at Bechers Bay, including a two-story house, barns, corrals pier and water system. This development was the origin of the extant ranch complex.
1873 - 1900 AD	Planted	Monterey cypress trees are planted at the ranch house and other locations at Bechers Bay. A one-half-mile-long windbreak of eucalyptus trees is planted east of the ranch house and barns to shelter crop fields from wind.
1873 - 1893 AD	Built	Additional fence lines are constructed to enclose a total of five or six large pastures; the drift fence was probably established during this period.
1876 AD	Built	"Matanza" (reducing) vats are installed in a barn probably built for the purpose during a drought. Thousands of sheep are slaughtered and rendered for fat.

1902 - 1998 AD	Ranched/Grazed	Vail and Vickers remove all sheep and stock the island with beef cattle, thereby establishing one of the largest coastal California cattle ranches.
1902 - 1998 AD	Farmed/Harvested	Ranch employees till fields adjacent to Bechers Bay and plant barley, potatoes, oat hay and alfalfa.
1902 - 1940 AD	Built	Vail and Vickers adapt the More-era fence systems to accommodate cattle ranching. All of the nineteenth century fence lines are retained and a number of new lines are built.
1902 - 1929 AD	Built	Vail and Vickers build roundup corrals at China Camp, Arlington Canyon, Quemada Canyon (Las Cruces), and Wreck, and construct the Scale House and Branding Shed.
1920 - 1950 AD	Built	The Smith Highway is built in sections, often following older livestock routes, between Bechers Bay and the west end of the island.
1925 AD	Built	The U.S. Coast Guard constructs a pyramidal lighthouse tower at South Point, establishing the first aid to navigation on the island. The structure is replaced in 1937, and abandoned in the 1980s.
1928 - 1932 AD	Established	Private airplanes commence landing on Santa Rosa Island and a grass airstrip is adopted in the fields south of the ranch complex. The airstrip is documented as early as 1933.
1932 AD	Built	The first substantial truck road on Santa Rosa island is constructed by Standard Oil Company from Bechers Bay to Vail Peak. The road slightly bypasses historic routes that followed the spines of the ridges.
1935 - 1940 AD	Built	Ranchers build a line camp at China Camp for overnight housing during roundups and herd checks.
1943 AD	Built	The U.S. Army builds a radar base on Santa Rosa Island, comprised of complexes at three locations--at a radar site at Navy Hill, a cantonment in the hills above Water Canyon, and a supply depot at Bechers Bay.

1945 AD	Developed	A water system that had been developed in Windmill Canyon is extended to Lobo and Carrington Pastures.
1947 - 1950 AD	Built	Anthropologist Phil C. Orr of the Santa Barbara Museum of Natural History builds a research field camp on the northwest shore of the island, which he and associates use for twenty-one years.
1948 AD	Rehabilitated	During a drought that requires the removal of most cattle, ranch employees work on renewing fences, replacing the last of the redwood fences with posts and barbed wire.
1948 - 1954 AD	Built	Roads are built or improved to Clapp Spring, China Camp and the South Point Lighthouse (the latter to replace a trail from Johnsons Lee).
1948 - 1949 AD	Built	Signal Oil Company builds two roads on the island, one from Soledad Mountain to Arlington Canyon and beyond, and South Road from Bechers Bay to Johnsons Lee.
1950 AD	Built	A detached cabin with bathroom is added to the upper ranch house, at first for use as an office but soon adapted as a residence for Al Vail.
1950 AD	Built	The U.S. Air Force constructs an aircraft tracking defense base on the island which consists of dozens of buildings at two locations, utilities, a three-mile-long road and an airstrip and landing pier.
1950 - 1960 AD	Built	Three earthen dams are built on the island for water catchment, one in the Pocket Field near Sandy Point and two in a tributary to Canada Lobo in Lobo Pasture.
1950 - 1960 AD	Built	Sam and Margaret Vail Wise add a second cabin at China Camp.
1952 AD	Built	The U.S. Navy builds a missile tracking communications station on Navy Hill, halfway between Johnsons Lee and Vail Peak. Construction of the station requires leveling four hilltops.

1953 AD	Built	A concrete water trough is built by Al Vail at Clapp Spring.
1955 - 1965 AD	Removed	Extensive cactus growth across Santa Rosa Island is killed, reportedly by a cactus-eating fly migrating from Santa Crus Island.
1959 AD	Altered	The shipping corrals at the main ranch are reconfigured to accommodate loading on "Vaquero II." Six pens are built, each holding the number of steers corresponding to the capacity of the boat pens.
1960 - 1970 AD	Moved	The old outhouse behind the upper house is moved a short distance to the southwest corner of the upper house yard.
1965 AD	Built	The foreman's house is built on the site of the old cow barn and pen.
1965 - 1970 AD	Rehabilitated	Corrals at China Camp, Arlington, The Wreck, and Las Cruces are rebuilt using materials salvaged from the Air Force base.
1965 - 1980 AD	Moved	The Rope House is moved from an unknown location and at an unknown date between 1965 and 1980 to its current location at the pier.
1969 AD	Destroyed	The More-era bunkhouse is destroyed by fire.
1970 AD	Built	A new bunkhouse is built on the site of the old bunkhouse. The new building is one story and simple in design, echoing the building it replaced.
1970 - 1975 AD	Destroyed	The old red house located at the bend in the eucalyptus windbreak is burned by ranch employees.
1980 - 1982 AD	Built	A metal storage building is erected on the site of an old wooden barn, near the south end of the eucalyptus windbreak.
1985 AD	Built	Bill Wallace builds line shacks at Arlington and Wreck (to replace a trailer and an older shack) using materials salvaged from the Air Force base.

1987 AD	Reconstructed	The Bechers Bay pier is rebuilt by NPS crews.
1987 AD	Graded	The airstrip is graded by the NPS, eliminating a rise near the north end of the strip.
1987 - 1992 AD	Rehabilitated	The water system in Windmill Canyon is rehabilitated. The construction included removal of the old windmill, installation of pumps and a pumphouse, and new pipelines to the ranch complex.
1987 - 1992 AD	Removed	All buildings (with one exception) and structures associated with the U.S. Air Force and U.S. Navy are removed from Santa Rosa Island, leaving empty graded areas in four locations on the island.
1988 AD	Built	Russ Vail builds a house east of the eucalyptus windbreak.
1989 - 1990 AD	Built	NPS builds a generator building, fuel shed, restroom and campground at Bechers Bay, and parks a complex of trailers at the site for visiting staff and researchers.
1998 AD	Removed	All cattle and most horses are removed from Santa Rosa Island, in effect shutting down ranching operations.
1999 AD	Built	NPS constructs a housing complex on a hill south of Windmill Canyon. The complex includes three duplexes and two garages, with room for expansion.

Statement Of Significance

Summary
The Santa Rosa Island Ranching District is significant on a local level under Criteria A and C as an intact nineteenth and twentieth century California sheep and cattle ranch. Further significance under Criteria B may be determined at a future date pending further research to develop a broader context for significant ranching figures in Santa Barbara County. Its period of significance is 1873-1955, starting with the construction of the main house at Bechers Bay and ending with the close of the National Register fifty-year rule. The vernacular landscape at the Vail & Vickers Ranch on Santa Rosa Island retains historic integrity and is in fair condition. The seven qualities of historic integrity (location, design, setting, materials, workmanship, feeling and association) relating to the ranching operation remain intact. As a rural vernacular landscape, the Vail & Vickers Ranch retains integrity in all landscape characteristics except land use; in that category, three years of inactivity is visible in the vegetation growth in former grazing and cultivated areas, and neglect in the form of halted maintenance on most built features. The ranch retains integrity in its natural systems and features, spatial organization, cluster arrangement, topography, vegetation, circulation, buildings and structures, constructed water features, cultural traditions, views and vistas, archeology and small scale features.

Vail & Vickers and its predecessor, the More family, created and operated one of the largest and most productive livestock ranches in the state, contributing to the growth of agriculture and the continued economic development of Southern California and the West (Criterion A). Island owner A. W. More, as well as members of his immediate family, was a prominent landowner and early agriculturalist and businessman in Santa Barbara County; Walter L. Vail and J. V. Vickers and their heirs owned a handful of large ranches in California and Arizona, being among the important men in the livestock industry during the late nineteenth and early twentieth centuries. The three owner families constructed buildings, structures, and a complex system of ranch roads, watering features, and roundups that now stand as good examples of rural vernacular architecture, showing how the ranchers adapted to the unique island environment to develop a large stocker cattle ranch within the context of shrinking ranches along the California coast and the general conversion to feedlot ranching throughout the United States (Criterion C).

The property's significance in agriculture in the southern coastal area of California can be seen in the extant historic features that can be located across the island. A complex of buildings at Bechers Bay acted as the headquarters and includes houses, barns, sheds, utility buildings, corrals, water systems, a long pier and historic vegetation. On the outer parts of the island are two "line camps" and a vast network of corrals, fencing and roads, all of which played important parts in operating the ranch. Water systems, including wells, springs, pipelines, tanks, troughs and reservoirs are found at numerous locations on the island. Many of these resources were developed in the nineteenth century, while other buildings and structures originated during periods of change, upgrading and modern improvement during the twentieth century. The reuse of available materials during the latter part of the period of significance embodies the unique situation of operating an island ranch.

These features, which possess cohesion of purpose and historical integrity, represent the important livestock industry of California, which had its start with the Spanish missions of the late 1870s and blossomed during the Gold Rush and early statehood. The ranches contributed to the local and state economy through depressions, wars and during the unprecedented growth of post-war America. Until the end of ranching on the island in 1998, the ranch was operated under the traditional system of vaqueros (Spanish: cowboys) on horseback tending cattle, which would be shipped to and from the mainland using a unique system of wooden cattle boats and barges.

Supporting Paragraphs: Cattle Ranching in California and Santa Barbara County

California holds an important place in American history for many reasons, not the least of which is its leading role in the country's westward expansion and its contributions through agricultural production. The first industry in California, predating even the American period, was stock raising for purposes of providing food and clothing. This industry grew to become one of the hallmarks of California's growth during the nineteenth and twentieth centuries, and helped it maintain its position as the country's leading agricultural producer since the 1950s. On Santa Rosa Island, owners and their employees developed a large stock ranch that evolved and contributed to these industries, especially on a local level as the largest and most productive stocker cattle ranch in Santa Barbara County, yet did so against the odds of operating from an isolated, weather-beaten island some thirty miles offshore of the southern California mainland.

In making the second-largest land grant in Santa Barbara County (neighboring Santa Cruz Island was the largest), the Mexican governor granted Santa Rosa Island to the Carrillo brothers, two men prominent in the development of Alta California. These men immediately passed the property to the daughters of one of them, who in turn allowed their American husbands to develop a ranch. Alpheus Thompson and John C. Jones had also made a place for themselves in the history of Mexican California as traders and businessmen. In 1844 Thompson and Jones stocked the island with cattle, sheep and horses and began to develop facilities including houses and corrals. All commerce with the mainland was by boat. By 1868 the island has passed into the ownership of the More family, who were prominent in Santa Barbara-area commerce. The Mores constructed a well-defined complex of ranch buildings, including houses, barns and corrals, and stocked the island entirely with sheep in numbers that ranged up to 80,000 at one time, becoming one of the largest sheep ranches in the state. Although successful in these endeavors, after the death of A. P. More in 1893 the family's interest began to dwindle and in 1901 the island was sold to a pair of Los Angeles cattlemen, Walter L. Vail and J. V. Vickers.

Messrs. Vail and Vickers both had been pioneers in the Arizona cattle industry, having been neighbors on their vast holdings in and around Tombstone. The two had, separately, established themselves in the California cattle and land business in the late nineteenth century, buying large ranches in southern part of the state. Their activities mimicked, but on a smaller scale, the business of Miller & Lux, a partnership of German immigrants that grew to dominate the cattle and irrigation industry in the West. Miller & Lux owned and/or controlled millions of acres of land between the 1860s and 1930s but eventually failed after neglecting economic threats from outside packing houses and corporate ranch operators. Smaller, but still relatively huge ranches such as General Beale's sprawling 200,000-acre Tejon Ranch, the 100,000-plus acre Irvine Ranch, the million-acre Rock Springs Land & Cattle Company in the Mojave Desert (mostly operating on public lands) and the varied operations of Vail and Vickers, continued to prosper through much of the twentieth century.

On Santa Rosa Island Walter Vail and J. V. Vickers incorporated their partnership as Vail & Vickers, Inc., and commenced stocking the island with beef cattle while removing the sheep. Eventually the island supported between 6,000 and 8,000 head of cattle on its 52,000 acres, all shipped to the island as calves and shipped off ready for fattening and market. Vail & Vickers expanded the Mores' network of roads, fence lines and water systems, and developed a number of roundup grounds and line camps on the island. Although incorporated, the Vail family managed the ranching operation through three generations, following island traditions laid down as early as the Thompson era. The isolation of the island ranch supported the preservation of its traditions and features, and kept twentieth-century subdivisions and non-ranching development at bay.

The Vail & Vickers Ranch was a major part of Santa Barbara County's cattle industry, raising between 15 and 20% of the county's beef cattle at various times between 1940 and 1980. Most large local beef cattle ranches, such as the 34,000-acre San Fernando Rey Ranch and the 28,000-acre Bixby Ranch, operated as cow-calf farms with small numbers of stockers adding up to a maximum of three to four thousand head. Even among those, Vail & Vickers remained the largest with five to eight thousand head on the range at any one time. Santa Barbara County, while never a leader in California's beef industry, nevertheless held a position among the top ten or twelve cattle producers throughout the twentieth century and usually led production in coastal Southern California. California became the nation's largest agricultural producer by 1948, with cattle the major commodity of the state's production. California cattle production followed only Texas and a few other Western states in economic importance nationwide. Vail & Vickers proved to be among the last of the large ranches in operation in the state, as most of the prominent cattle ranches such as the Irvine Ranch and the Hollister Ranch fell to subdivisions. At the time of its closure in 1998, the Vail & Vickers Ranch was the largest undivided land grant rancho in Santa Barbara County. Its greatest significance in relation to the cattle industry, however, lies in the period during the 1940s and 1950s as California's feeder cattle industry boomed. While historic resources such as buildings and circulation routes remain from the More era, the ranch gains much of significance in the evolution into a prominent and successful cattle ranch during the twentieth century.

Livestock ranching in northern Santa Barbara County took a downturn in the 1920s through the 1940s with the development of row crop farming, a result of improved transportation opportunities, organized marketing and irrigation. Military acquisitions of coastal ranches around Point Conception to the northwest also contributed to the demise of many family ranches, mostly dairies; beef cattle ranching continued in the Santa Ynez Valley, along the coast between Vandenburg Air Force Base and Goleta, and on Santa Rosa and Santa Cruz islands. The industry revived during and after World War II. While the number of cattle and prices for cattle sold steadily rose in Santa Barbara County during the 1940s and 1950s, the acreage devoted to stock raising dipped from 610,000 acres to 426,000 acres between 1955 and 1958, and continued to decline through the 1960s and 1970s.

Per capita consumption of beef in California more than doubled between 1940 and 1970, and the number of cattle on state farms reflected this rise, although national growth of cattle numbers did not match that of California's. Prices for beef off the farm rose almost 400% during the same period, with the most dramatic growth between 1940 and 1959. The industry took a dramatic downturn during the 1970s, which opened a period of instability that lasted two decades.

A science- and economy-driven revolution in production took place in the 1950s as cattle fattening in feedlots became popular with surpluses of grain and dwindling quality grazing land. Cattle feeding started in the 1930s but exploded after World War II, focused especially in the Midwest. In the twenty years following the war, the number of cattle on feed jumped by over 600%. Vail & Vickers followed this trend, switching in the 1950s from a cow-calf ranch (where cows produce calves for sale) to a stocker operation, in which steers are imported solely for preparation for feedlot finishing.

All of the historic California ranches mentioned above operated in a similar fashion that changed little since its beginnings as an industry, but few remained into the 1990s with integrity such as that found on Santa Rosa Island. Phases of economic expansion in California, especially during post-war booms, caused the breakup of most of the large old ranches, as family-run operations gave way to subdivisions and corporate ownership. For example, the decades following World War II saw explosive growth in the state that led to the decline of cattle ranching as a family enterprise, as real estate-oriented land and cattle companies purchased many of the remaining large acreages, to be operated under temporary leases to

ranchers while awaiting development. During this period, ranch buildings deteriorated or were torn down. The typical layout of house, barns, supporting structures, fenced fields, rangeland, water distribution systems, cattle control structures was often fragmented with the coming of new uses to the property. The Vail & Vickers Ranch saw changes that only reflected the evolution of cattle ranching in a working landscape. While retaining most of the nineteenth century structures dating from the More period, Vail & Vickers constructed a few buildings specific to the needs of a cattle ranch, and replaced a major building lost to fire. They made use of available materials on the island, building structures with lumber, doors, windows, siding and guardrail scavenged from abandoned island military developments.

The U. S. government recognized the strategic importance of Santa Rosa Island and its neighbors in the Santa Barbara Channel. The U. S. Army and U. S. Air Force established early warning and tracking radar bases there during World War II and the Cold War, respectively. Ranching operations continued with little disturbance during these periods, and Vail & Vickers reaped a bounty in building materials when the armed forces abandoned the facilities.

The government also recognized the potential of the island and its neighbors as natural areas worthy of preservation. The National Park Service established Channel Islands National Monument in 1938, which was expanded to include Santa Rosa Island into a new Channel Islands National Park in 1980. Vail & Vickers sold Santa Rosa Island in 1986 to the United States government, and operated their historic ranch until 1998. Vail & Vickers' commercial hunting business continues to operate on the island seasonally.

From its inception, Channel Island National Park has recognized the historical importance of the ranch, noting its intact cultural features and the continuing traditions that had retained the ranch's historic feeling and associations. Studies have found that few alterations have occurred to the historic landscape and that the features more than adequately convey its significant associations to the period of significance, 1873-1955 under Criteria A and C. This period encompasses the significant ranching period on Santa Rosa Island from the time of the More family's development of permanent ranching infrastructure to the heyday of Santa Barbara County beef cattle ranching fifty years ago.

Physical History

1542-1844: European Contact

Santa Rosa Island's prehistoric occupants, called Island Chumash as a subculture to the more populous Chumash of the mainland, communicated with their mainland counterparts through the use of a unique plank canoe. At least three villages existed on the island at the time of Cabrillo's voyage in 1542; by 1810 they numbered seven. Island Chumash traded with occupants of other islands and the mainland. They had limited contact with explorers, most notably Sebastian Rodriguez Cermeño who in 1595 traded some items and described the island as "bare and sterile." The rise of the missions and presidios of Alta California forced the evacuation of Santa Rosa and its neighboring islands by the 1820s.

For a period of about 20 years, only passing mariners and otter hunters visited the island. Parties led by British and Russian entrepreneurs scoured the California coast for the precious sea otter that produced a fine fur much desired in China and Europe. American hunters such as George Nidever joined in the competitive trade, resulting in an 1835 skirmish that became legendary in Santa Rosa Island lore. Nidever, in the company of two other men, used a cave at Bechers Bay as a hunting outpost, only to retreat there during an attack by competing northwest Indians who worked for an English firm. Nidever and his companions fired on the intruders and beat them back. The otter trade declined during the 1840s, largely due to decimation of the otter population.

1844 to 1870: Thompson and Jones

In 1843 the Mexican governor granted Santa Rosa Island to Carlos Antonio Carrillo and his brother, Jose Antonio Carrillo, both prominent residents of Santa Barbara. Within a month, Carlos and Jose sold the island to Carlos' two daughters, Francisca and Manuela. The daughters' American husbands, Alpheus Thompson and John C. Jones, took an interest in the island. The two were experienced in the otter trade and other entrepreneurial endeavors on the Pacific coast and looked to Santa Rosa Island as an opportunity to establish a cattle ranch, thereby exploiting the lucrative hide and tallow trade.

Jones purchased livestock in 1844 and Thompson set to work building, with help from employees, a house and corral near East Point at a location that would become known as Rancho Viejo (Old Ranch), as well as another corral at an unknown location, perhaps either Bechers Bay or Arlington Canyon. Thompson's employees took up residence on the island and supervised the grazing cattle, sheep and horses. During the following decade, numerous routes were developed across the island as livestock, horseback and wagon routes, and a house was built near the west side of the island. In 1855, the owners constructed a house and corral—the first known developments at Bechers Bay—thereby establishing the future headquarters site. The latter location proved to be more reliable for shipping conditions and provided more level land for ranching and agricultural activities.

In 1859, T. Wallace More purchased part of Jones' interest in Santa Rosa Island at auction. That year, spurred by litigation between the partners over control of the island, a pier was constructed at Bechers Bay (it was soon demolished by a storm) and most of the cattle and sheep on the island were removed because of drought and litigation. Between 1865 and 1870, A. P. More and H. H. More, brothers of T. W., obtained full ownership of the island from Thompson's family and their brother.

1870 to 1901: More Brothers

Probably influenced by the disastrous drought that decimated California's cattle industry during 1863-1864, the Mores commenced development of a huge sheep ranch on the island, eventually owning between 40,000 and 80,000 head. They erected miles of redwood fences and planted crops (see photo, History #1). The Mores abandoned the old Thompson ranch near East Point, instead developing their headquarters at the location of Thompson's second building at Bechers Bay. The ranch complex included a two-story house, barns and a substantial pier (see photo, History #2). An iron pipeline brought water two miles from Water Canyon to the ranch house. The Mores imported fine breeds of sheep and employed trained goats to herd them. During a drought in 1876-78, the Mores were forced to slaughter tens of thousands of sheep, but profited from the situation by installing boilers and embarking on a matanza, meaning the sheep were slaughtered and their carcasses boiled down for fat.

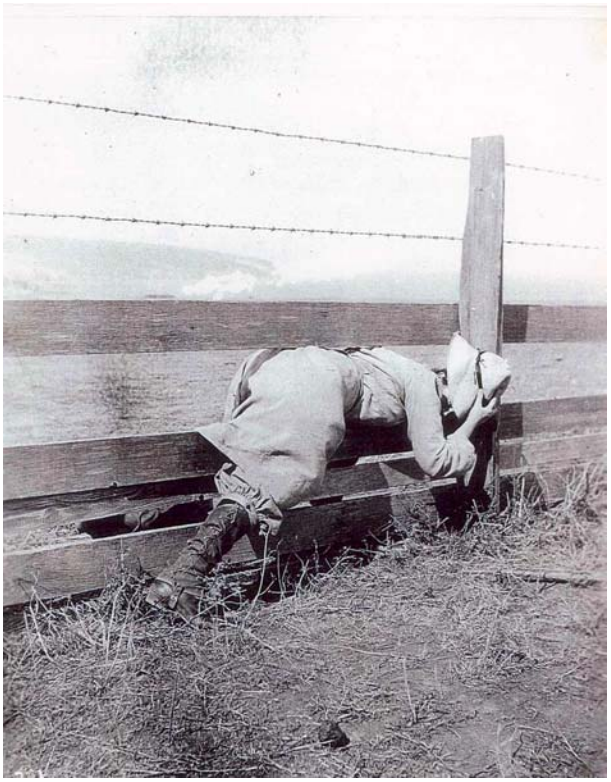
The United States Coast Survey mapped Santa Rosa Island during the period of the Mores' initial development. One of the surveyors, William Greenwell, had previously visited the island, erecting seventeen survey signals that would aid mapping of the island and its neighbors. During 1872 and 1873, Stehman Forney of the Coast Survey lived on the island and eventually produced a detailed topographical map that depicted vegetation, roads and trails, corrals, fence lines and buildings.

H. H. More invited journalist J. Ross Browne to visit Santa Rosa Island in 1874. Browne described the valleys "filled with an almost impenetrable growth of aflileria, wild oats, bur-clover, native grasses, weeds, and various nutritional herbs, suitable for pasturage . . .. No part of the island is unavailable for grazing purposes with the exception of a few narrow belts of sand-drifts near the beach." Browne recorded 60,000 sheep and noted the fields of barley, the roads "for wagons and carriages" that crossed the island, and spoke of the advantages to sheep raising, an attribute that the Mores were exploiting to their benefit. The fine grasses, mild climate and lack of predators and disease produced mutton and wool of high quality. The isolation of island ranching had financial benefits: "Less fencing is required than on the main; the sheep can range at will and feed day and night, without care or the expense of supervision." Browne described the improvements on the island as he found them that year:

"Every convenience exists for gathering up the stock, shearing, steeping, and shipping. Large and commodious storehouses, barns and boarding houses for the employés are situated near the place of shipment (see photo, History #3). A wharf, constructed at a cost of $15,000, extends well out into the harbor, where vessels of large capacity can receive and deliver freight. The products of the island, whether wool, sheep, or grain, can be shipped direct to San Francisco, Santa Barbara, or any part of the world."

A. P. More acquired full interest in the island in 1881 and continued to increase the number of sheep on the island, to the detriment of the range conditions. A contemporary writer claimed that 80,000 sheep grazed on the island in 1888. A number of visitors recorded impressions of the ranch during the 1880s and 1890s that offer information on landscape features of the time (see photo, History #4). One book described a "village" with the ranch house standing near a "grove of cypress trees distorted and beaten down" by wind. "Here are great storing barns and shearing rooms, stables, pens, sheds . . . all not far from a little stream . . .." Other writers proposed grand agricultural schemes for the island and noted the scenery, one calling Santa Rosa Island "a garden out at sea."

The death of A. P. More in 1893 led to litigation and the eventual sale of Santa Rosa Island. Caretakers managed the sheep and the ranch was at one time described as run down. The ten heirs of More sold the island ranch in 1901 and 1902 to Vail & Vickers, a newly formed cattle ranching partnership based in Los Angeles.



History#1. Fencing during the More era was built of redwood posts and boards with strands of barbed wire. The fence was designed for sheep but served for the later cattle ranch until replaced. (Cal. State Archives, Neg. #27,045, 1905)



History #2. The Mores constructed a two-story ranch house and planted Monterey cypress trees in the yard. (Cal. State Archives Neg. #27,044, 1903)



History #3. The original ranch house at Bechers Bay may have survived as the manager's house in the bunkhouse complex; it burned in 1969. (Channel Islands National Park, E.K. Smith Collection, photographer unknown, circa 1935)



History #4. The Mores planted Monterey cypress windbreaks at the main ranch. A young row of trees is visible in this 1901 photo looking toward the bunkhouse. (Cal. State Archives, Neg. #27,042)

1901 to 1986: Vail & Vickers

Walter L. Vail and John V. Vickers met in Arizona where both operated large cattle ranches. Their friendship and keen business sense led to the acquisition of Santa Rosa Island and its development into a prominent and unique coastal California cattle ranch. Vail had arrived in California from the east in 1875 and soon purchased an Arizona ranch that he built up into one of the largest cattle ranches in Arizona, the Empire Ranch. Vickers owned a ranch adjacent to the Empire. Both men moved to Los Angeles in the 1890s and expanded their interests, separately for the time, in the southern California area. On Santa Rosa Island, Vickers acted as a silent partner. Walter Vail and his sons managed the island ranch, a situation that continued for almost a century.

According to a Vail family member, at the time Vail & Vickers took control of Santa Rosa Island it was "divided into five or six large pastures with sheep-tight, board and wire fences which must have cost a lot of money." Being in the cattle business, Vail & Vickers proceeded to rid the island of sheep, a process that took many years. The firm purchased a new boat, repaired buildings and fences, and built additional fences and corrals. For the most part, Vail & Vickers ran a "stocker" ranch, one where young Hereford steers were shipped to the island, grown to full size and fattened, then shipped to the mainland and sold (see photo, History #5). For certain periods the managers attempted a traditional cow-calf operation, in which mother cows give birth to calves, which become the commodity. Vail & Vickers shipped their steers to Wilmington, near Los Angeles.

Vail & Vickers made use of the older pasture divisions of the island and enhanced them for cattle use. Each pasture, field or trap had a specific use. The ranch managers avoided overgrazing by moving cattle from area to area and by regulating numbers according to amount of feed and water available. All pastures, roundups and perennial streams were identified by name. Island place names largely carried over from the nineteenth century.

Vail & Vickers stocked the island on a double season strategy, giving cattle two full feed seasons (the best feed season was winter/spring) for growth. Depending on the season and forage quality, between 3,000 and 7,000 head of cattle grazed on the island's hills at any one time. Dry years would require removal of cattle (in 1948 virtually the entire herd was shipped from the parched island) (see photo, History #6). Before the 1960s, cowboys (traditionally referred to as vaquero, the Spanish term for cowboy) gathered cattle to roundup grounds across the island mostly without benefit of corrals. These sites provided centralized locations with enough reasonably level ground to herd 500 to 1,000 cattle into a bunch where they could then be separated and kept by a crew of cowboys. Only three sets of roundup corrals existed before 1929, at Arlington, Las Cruces and China Camp.

Line camps were developed at three locations on the island for housing cowboys during roundups and inventory. China Camp reportedly got its name from years of activity by Chinese abalone fishermen who used the somewhat protected site on the southwest coast of the island for processing and shipping dried abalone meat and shells. The plateau, squeezed between the beach, canyon and the steep hills, made a natural roundup ground for cattle, and probably for sheep previously. The Vails built a wire corral at China Camp before 1929 and a line cabin in the late 1930s. The Wreck roundup and trap, built in the late 1940s, also had a cowboy line shack. By the 1970s a trailer had been placed at the Arlington roundup for use as a line camp.

Working cattle required a good herd of horses. Vail & Vickers kept dozens of horses and gave them a one-square-mile pasture to live in. The horse barn, built in the 1870s and used for horses and sheep shearing until the turn of the century, was equipped with stalls, mangers and tack rooms to care for the

indispensable horses. Grain fields planted on the level terraces near the ranch complex provided feed for the ranch horses (see photo, History #7).

Vail & Vickers kept up the More-era ranch buildings and constructed a few of their own. The upper ranch house remained much as it had been until some remodeling work in the 1960s and 1970s. The lower ranch house (possibly the old 1855 Thompson house) and the bunkhouse served as a residence for the ranch superintendent and a number of permanent cowboys. A schoolhouse, reportedly left over from the More era, provided a place for the education of ranch children during the 1920s. The barns remained in traditional use, with the exception of generators being placed in the blacksmith shop to provide electricity beginning in the 1930s. Vail & Vickers built a scale house and branding shed specifically for the cattle operation, and reconfigured the corrals near the barns (see photo, History #8).

Few developed roads existed on the island at the time of Vail & Vickers' purchase; numerous routes covered the island but these were likely horse and livestock trails rather than graded roadways. Vail & Vickers did not develop many roads until the late 1940s. The Smith Highway, named in honor of longtime ranch superintendent C. W. Smith, evolved out of a cattle trail as Smith and his cowboys blasted portions of roadways into the steep canyons on the north side of the island during the 1920s and 1930s. Standard Oil constructed the first substantial road in 1932 to reach their exploratory well near the summit of Vail Peak. Other oil companies constructed roads in the late 1940s, as did the military during the 1950s. Most of the extant roads on the island were not built by Vail & Vickers but inherited by them from non-ranching lessees who had developed the roadways for their own purposes. Cattle trails, on the other hand, were developed through the process of herding cattle from the range to the shipping pens at Bechers Bay, and so had their origins in the activities of the rancher.

Vail & Vickers hired a crew of permanent cowboys to run the ranch under a foreman (see photo, History #9). The employees lived in the bunkhouse or, if they had a family, in a small house nearby (see photo, History #10). When not tending cattle, the cowboys fixed fences, maintained buildings, broke horses and crafted tack items. Most cowboys were Mexican; ranch owners and foremen spoke Spanish much of the time out of necessity. Members of the Vail family managed the ranch operations from Los Angeles (later Santa Barbara) but regularly visited the island. After Walter Vail's death in 1906, his son N. R. managed the ranch and was succeeded in 1943 by Edward, another of Walter's sons. "Uncle" Ed Vail passed the lariat to his nephew Al Vail in 1962; Al, the third generation to manage the ranch, oversaw operations until the ranch shut down in 1998.

A series of cattle boats, owned by Vail & Vickers, serviced the island ranch. The "Vaquero," moored in Wilmington, made the long trip regularly to bring supplies to the island. Shipping required numerous trips to and from the island. A chute mounted on the end of the pier allowed cattle to be dropped to the deck of the boat. Loading and unloading required skill, sharp timing and strength (see photo, History #11). When "Vaquero" was confiscated by the government for the war effort after Pearl Harbor, Vail & Vickers hired barges to ship their cattle, landing young steers on the beach after a short swim from the barge. In 1959, Vail & Vickers commissioned "Vaquero II," a wooden-hulled boat specifically designed for cattle with a wide beam and the hold divided into pens. Ranch workers reconfigured the shipping pens at the ranch to coincide with the pen arrangement on the "Vaquero II."

The first flight to Santa Rosa Island by a private plane occurred around 1930. Flyers landed on a grassy field south of the ranch complex. This site gradually evolved into a dirt landing strip, used by ranch owners and visitors, oil companies and various branches of the armed forces. Other locations had been used on the island but none attained permanent status. The National Park Service made improvements to the extant landing strip in the 1980s.

Santa Rosa Island developed into a fine hunting ground. Owners imported elk and deer to the island, possibly as early as the 1880s and definitely by the 1910s. Wild pigs also inhabited the island. Vail & Vickers invited friends to hunt, while the range-damaging pigs provided a full-time target for visitors and cowboys alike. Vail & Vickers eventually leased out hunting rights to a commercial outfit.

Other uses of Santa Rosa Island helped shape its features. The discovery of oil in the Santa Barbara area during the 1920s led to a string of exploration efforts on the island. Standard Oil Company developed a well in the high elevations of the island in 1932 but had no success. Signal Oil and its partners drilled in a number of locations and constructed the Signal Road and the South Road, both important routes on the island in later days. Oil development moved to the waters of the Channel where numerous successful wells were located.

The United States armed forces did not express any interest in Santa Rosa Island until America's entry into World War II intensified the need for Pacific coastal defenses. In 1943, the Army Corps of Engineers negotiated a lease with Vail & Vickers and constructed an early warning radar facility at a location later called Navy Hill. Engineers installed a Signal Corps Radar (SCR) system with operations taking place in a buried concrete building nearby. A cantonment was built about three miles away in a secluded dry lakebed near the head of Water Canyon. The facility included 16 wood frame buildings including barracks, mess hall and latrines, as well as a water system, communications and access road (see photo, History #12). The Military Police reportedly trained at this facility as an adjunct use. The Army also built a small number of buildings at Bechers Bay near the ranch house, and made use of the pier. The station closed by the end of the war and the buildings and materials were left for use by Vail & Vickers. Various oil companies used the cantonment area as a base camp, and eventually ranch workers used most of the buildings and materials for projects around the island.

As a consequence of the Cold War, in 1950, the U. S. Air Force leased 336 acres on the south side of the island to house the 669th Aircraft Control and Warning Squadron. Air Force engineers constructed an advanced technical outpost on the top of Vail Peak consisting of radar antennas and operating buildings. The residential area housing more than 200 personnel was located at Johnson's Lee and connected by a paved highway. The Johnsons Lee development included a concrete pier, five large dormitories, recreation hall, motor pool, dining halls, dispensary, maintenance shops and administration buildings. A concrete and steel pier was located at the terminus of the highway; a short-lived airfield was built east of the facility but closed after a fatal crash. In 1952 the Navy joined the Air Force by constructing a series of missile-tracking transmitting and receiving facilities on Navy Hill, half way between the Air Force cantonment and radar base. Advancing technology led the Air Force base to close in 1963; again the buildings and materials were left for the use of Vail & Vickers, whose employees set to work dismantling utility systems and highway guardrails for construction of new corrals. Windows, doors and building materials were put to use in new buildings at the ranch.

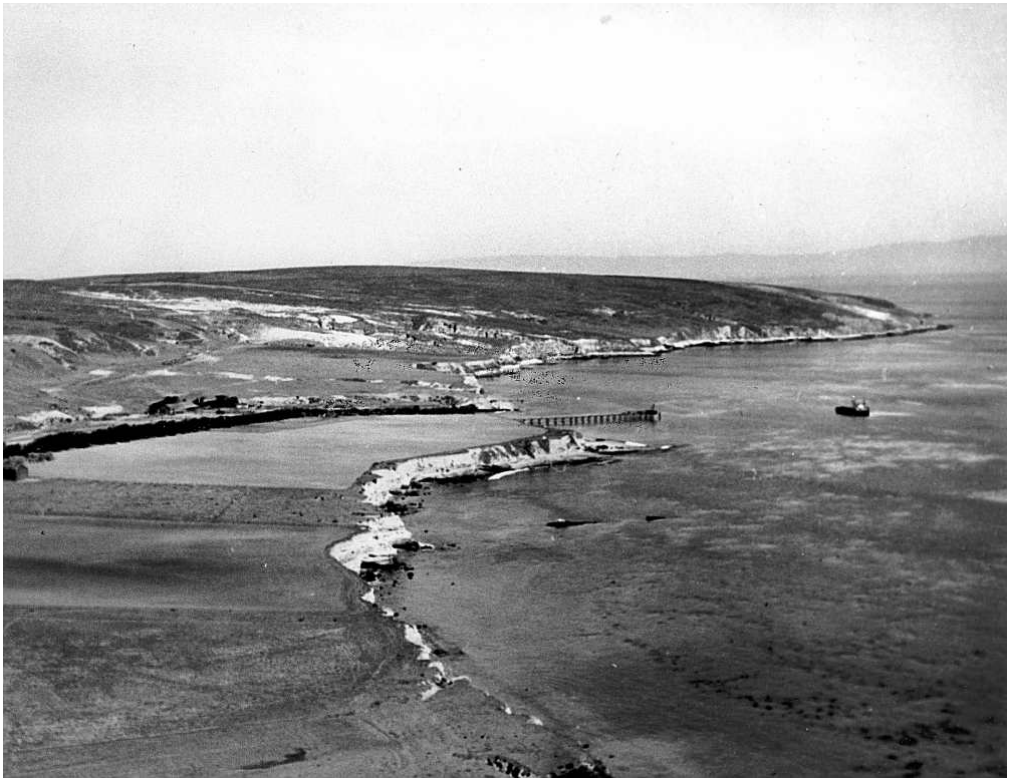
President Franklin D. Roosevelt established Channel Island National Monument in 1938. At that time, the monument included Anacapa and Santa Barbara Islands. During the 1960s and 1970s, the National Park Service made agreements with the U.S. Navy to manage San Miguel Island. In 1980 the monument's status was changed to Channel Islands National Park and the boundaries expanded to include Santa Rosa, Santa Cruz and San Miguel Islands. In late 1986, the federal government purchased Santa Rosa Island from Vail & Vickers for almost thirty million dollars. Vail & Vickers negotiated a twenty-five-year reservation of use and occupancy on less than eight acres at Bechers Bay, and a special use permit for continued cattle operations and commercial hunting activities.



History #5. Cattle graze in the higher elevation hills on Santa Rosa Island in the 1930s. (CHIS, E.K. Smith Collection)



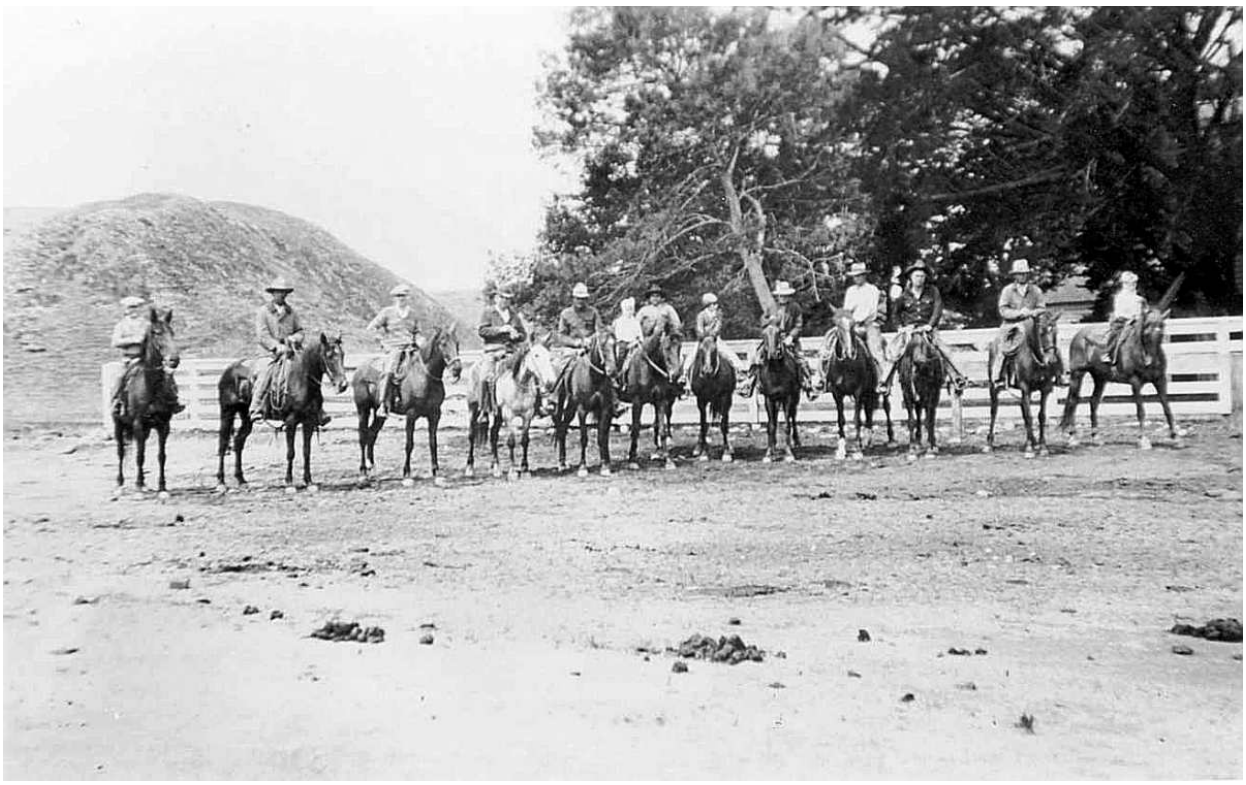
History #6. Cattle are herded across Water Canyon during the 1948 drought. (Santa Barbara Museum of Natural History, 1438P, John Malmin [Los Angeles Times], 1948)



History #7. Tilled fields, windbreaks and the location of the main ranch, 1948. (Santa Barbara Museum of Natural History, 1436P, John Malmin [Los Angeles Times], 1948)



History #8. The windbreaks, barns, corrals and pier as they appeared in the 1930s. (CHIS, E.K. Smith Collection)



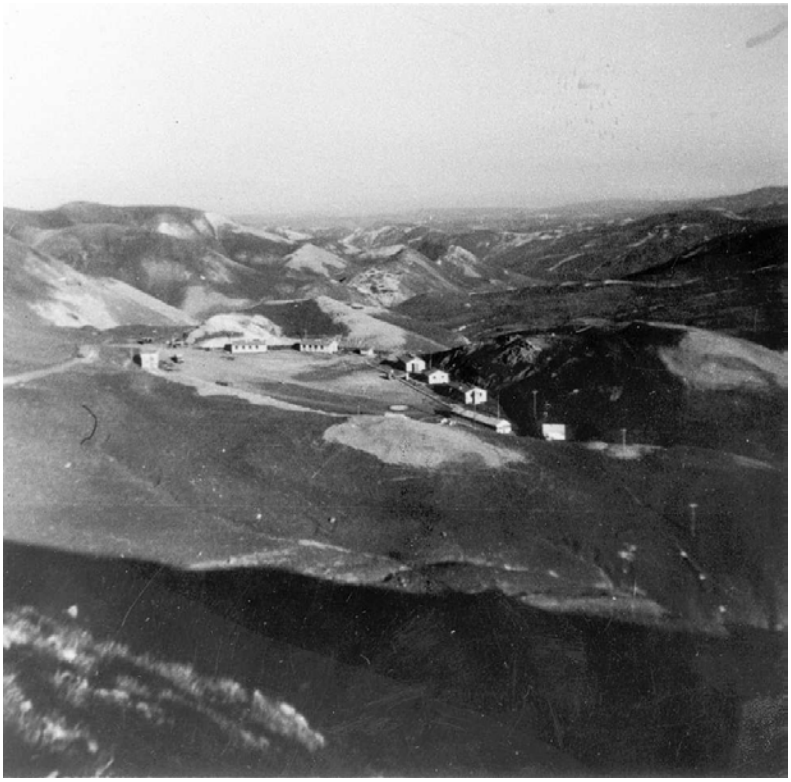
History #9. Cowboys and Vail family members line up in front of the upper house before a roundup in the 1930s. (CHIS, E.K. Smith Collection)



History #10. The bunkhouse complex burned to the ground in 1969. Most of the trees seen in this photograph do not survive. (CHIS, E.K. Smith Collection, 1969)



History #11. Cowboys handle cattle on the Vail and Vickers' cattle boat, the "Vaquero." (CHIS, E.K. Smith Collection, circa 1935).



History #12. The World War II Army cantonment site in upper Water Canyon was used by an oil company and the U.S. Air Force after abandonment. (Santa Barbara Museum of Natural History, 1351P, photographer unknown, circa 1950)

1987 to present: NPS/Vail & Vickers

Vail and Vickers continued operations at the ranch but under observation of the National Park Service. The superintendent placed NPS facilities in the abandoned Air Force base at Johnsons Lee. At Bechers Bay, NPS crews reconstructed the pier and water systems, built a generator building and fuel shed, established a campground and opened the island to limited public use. Eventually the NPS moved its operations to the main ranch area and constructed a maintenance facility and new housing complex on a hill above Bechers Bay.

Increase in natural resources staff at the park in the early 1990s resulted in scrutiny of the environmental impacts of the long-time cattle ranching operation. Citing water quality problems and threats to endangered plants, park staff recommended increased controls over ranching operations. A lawsuit filed by a private foundation forced the NPS to adopt a management plan focusing on protection of threatened species and water quality. The preferred alternative called for herd reductions; Vail and Vickers negotiated an agreement to remove all cattle by 1998. The hunting operations, established in the 1970s, could continue under permit through 2011.

Analysis And Evaluation

Summary

As a rural vernacular landscape, the Santa Rosa Island Ranching District retains integrity in the following landscape characteristics: natural systems and features, spatial organization, topography, vegetation, circulation, buildings and structures, cluster arrangement, views and vistas, small scale features and constructed water features. The closing of the ranching operations in 1998 has compromised the integrity of land use, although the historical practice of hunting game continues. The removal of cowboys at that date affected the integrity of cultural traditions; although the Vail family and former employees regularly visit and work on the island, that characteristic cannot be considered to retain integrity.

While hunting operations and rights of occupancy continue through the presence of Vail and Vickers staff and family members, the removal of cattle has changed the land use and has diminished the feeling of a working ranch. Having been only three years (at the time of this report) since the end of ranching operations, landscape features continue to convey the physical character of this vast island ranch. The isolated location out at sea is the most immediate of impressions and has not, and will not, change. The location of the main ranch complex at Bechers Bay, and the scattered line camps and corrals, has not been altered and conveys the work of the Vail and Vickers cowboys and the distances that had to be traveled during day-to-day operations of the cattle ranch. Materials, design and workmanship remain evident across the island, retaining their original vernacular qualities as represented by construction, woodwork, metalwork and spatial design. The need for retention and salvage of building materials, a necessary aspect of isolated living, is vividly represented in the construction of corrals, fences and buildings on the island. The association of the ranch with its former occupants is apparent, realized through many of the physical attributes and extant equipment and personal property at the ranch.

Landscape Characteristics And Features

Natural Systems And Features

Geology and Soils
Geological composition has guided the land uses on Santa Rosa Island. Forage quality and extent is directly derived from soil types, and erodibility of soils affects the amount of grazing and acts as an indicator of overgrazing. Geology and soils determine the makeup of shrubs and forests, limiting the use of certain areas by island occupants.

Santa Rosa Island is part of an east-west-trending island chain considered to be an extension of the Santa Monica Mountains. The island is divided by the Santa Rosa fault. On the northern side of the fault, the geology is composed of well-developed terrace deposits of mid-Tertiary clastics and volcanoclastics. The geology of the southern portion of the island is more complex, resulting from fracturing and complex faulting of Tertiary sandstones and shales, and mid-Tertiary clastics and volcanoclastics with volcanic intrusions. The differences between the north and south parts of the island, delineated by the Santa Rosa fault, are shown in the terraces and mesas of the north side compared to the more dramatic and steep south side.

Current knowledge of island soils is limited. Soils generally range from fine sandy loams to clay loam, and are easily erodible. The clay content of the clay loams is high enough that the soils exhibit shrink-swell characteristics. While the soils of the island are generally thought to be naturally erodible, grazing pressures (most intense between 1875-1920) and off-road vehicle use on the island have resulted in increased erosion, especially visible on the northwestern and southwestern parts of Santa Rosa Island

(see photo, Natural Systems and Features #1).

Water Resources
A livestock ranch cannot operate without adequate water resources. Santa Rosa Island is blessed with numerous natural water sources across the island, all of which aided and guided the development of the island as a stock ranch. With the 1,574-foot Soledad Peak at its hub, a highly dissected, radial drainage network has evolved on the island. There are sixteen second order intermittent and perennial drainages on the island, including Windmill Canyon (also called Ranch House Canyon), Cherry Canyon, Water Canyon, Quemada Canyon, San Augustin Canyon, Wreck Canyon, Jolla Vieja Canyon, Trancion Canyon, Acapulco Canyon, Whetstone Canyon, Bee Canyon, Canada Garanon, Arlington Canyon, Soledad Canyon, Green (Verde) Canyon and Canada Lobo. Availability of water has helped the island ranchers, who needed only limited artificial water development to support herds of sheep and cattle.

Native Plant Communities
Three general formations of vegetation are found on Santa Rosa Island: grasslands (which are dominant), shrublands and woodlands, each with representative upland and riparian expressions. Approximately 16% of California's plant species are found on the island, a number of which are unique. There are currently no plant species listed as Endangered by the U.S. Fish and Wildlife Service on Santa Rosa Island, although ten were proposed for listing as of 1997.

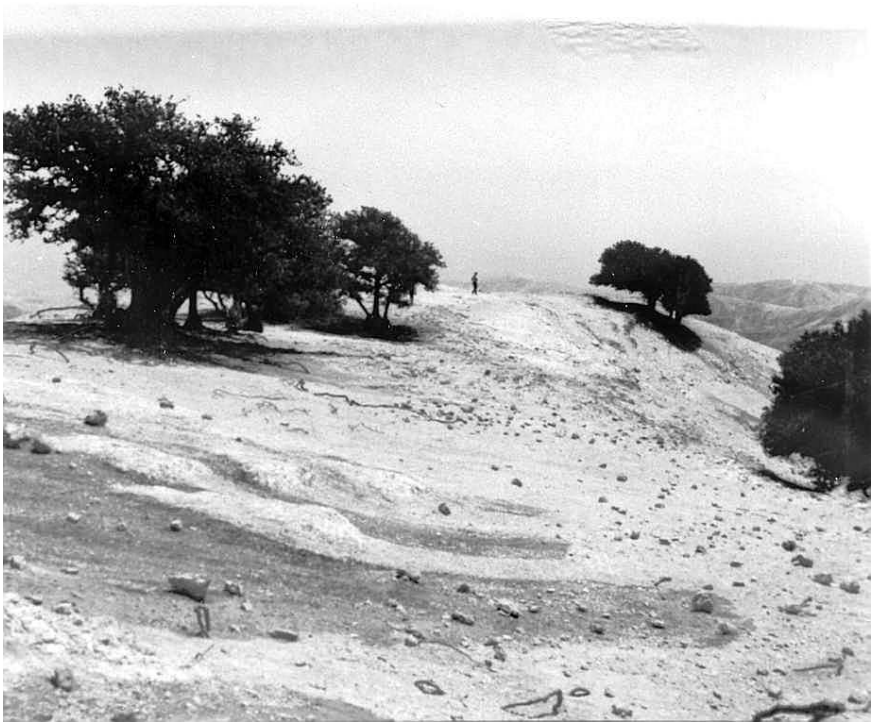
As a landscape long grazed by domestic livestock, portions of the native plant community on Santa Rosa Island have been impacted by exotic grasses and other plants. Grassland and shrubland habitats appear to be the most affected by invasive species. Native grasses include needlegrass (Nasella) and saltgrass (Distichlis spicata), while alien annuals include wild oats (Avena sp.), wild barley (Hordeum) and chess (Bromus sp.). Shrub communities are composed mostly of coastal sage scrub and chaparral communities including: California sagebrush (Artemesia californica), coyote brush (Baccharis pilularis) and chamise (Adenostoma fasciculatum var. fasciculatum). Other shrubs such as manzanita (Arctostaphylos sp.), lupine (Lupinus sp.), goldenbush (Isocoma var. sedoides) and locoweed (Astragalus sp.) are also found.

Native tree habitats remain somewhat intact. Of the eight species of native trees, the island oak (Quercus tomentella) and ironwood (Lyonothamnus floribundus ssp. asplenifolius) are found only on the Channel Islands and the Torrey pine (Pinus torreyana ssp. insularis) is found in only two locations in the world, the other being near San Diego (see photos, Natural Systems and Features #2 and #3). Other natives include the coast live oak (Quercus agrifolia), willow (Salix lasiolepis) and cottonwood (Populus trichocarpa). Three alien species are confined to the Bechers Bay ranch headquarters: eucalyptus (Eucalyptus globulus), Monterey cypress (Cupressus macrocarpa) and tamarisk (Tamarix aphylla). These latter species do not appear to be naturalizing.

Natural systems and features within Santa Rosa Island Ranching District retain integrity. Apparently little has changed on the island since grazing regimens were established by the 1860s.



Natural Systems and Features #1. The Green Canyon drainage shows extensive stream bank erosion, view to southwest, 1998. (CHIS, CHIS-HRS-10-15)



Natural Systems and Features #2. Rare island oaks are found only in the upper reaches of Santa Rosa Island. (CHIS, ACC 217, CHIS 3030, Neg #166-3, Mortimer, 1965)



Natural Systems and Features #3. The Torrey pine forest is seen on the distant ridge, with typical terrace features and drainage in the foreground with a road crossing. View to southeast, 2001. (PGSO, CHIS-N-0002-06A)

Spatial Organization

The Vail and Vickers Ranch is located on a large offshore island, and its operations made use of the entire island. The island is composed of mountain peaks surrounded by canyons and gulches that drain into and cut through level lands and then disappear into the sea on all sides. Ranchers found grazing opportunities on most parts of the island and developed it accordingly. The first non-Indian settlers of the island created a ranching operation dependent on the layout of the island itself, and the succeeding ranchers followed this pattern until the grazing business ended in 1998. Of primary importance to the settler was the location of the anchorage and landing; this would determine the site of the ranch house and barns, etc. The original landing site, at Rancho Viejo or Old Ranch, was relocated beginning in 1855 to a superior location at Bechers Bay, still on the east side but in a better location for construction of a pier and for landing and anchoring boats. The adjacent flat land area is a characteristic ideal for development of buildings, corrals and crop fields. The move, completed in the early 1870s, set the pattern of spatial organization in use to this day: eastern terraces as the location of the centralized activities including residences, processing areas, shipping point, workshops, and crops; elevated hills and mountains as grazing range; mesas and level fields in drainages for gathering livestock. At the site of China Camp's corral and cabin on the south side of the island, the ranchers also made use of spatial features on Santa Rosa Island for practical purposes. This location is a coastal terrace flanked by the ocean on one side and steep hills on the other, making for a fine remote site to gather cattle (see photo, Spatial Organization #1).

A circulation layout of roads and cattle trails, emanating from the pier, tangibly connects the various use areas throughout the island. The fencing for the most part relied on the geographical limitations of the island and the needs of the owners, but functioned as a space-dividing entity. Availability of water created a spatial relationship between pasture and watering spot, in effect keeping livestock within the vicinity of water and so controlling their location and movement on the island.

The ranch complex at Bechers Bay was laid out in a form funneling to and from the pier. The resources (fences, corrals, roads, buildings) become more tightly bound the closer they are to the pier, reflecting the functionality in gathering cattle from across the 54,000-acre island to their destination, a 3-foot wide cattle chute into a boat. The spatial organization of the ranch complex puts shipping and processing operations closest to the pier, then human- and horse-related facilities farther, and water resources even farther. The long eucalyptus windbreak divides the cattle- and human-oriented area from tilled fields for feed crops. The entire complex sits on the edge of a sheer cliff, approximately 40 feet high (see photo, Spatial Organization #2).

The spatial organization of the Santa Rosa Island Ranching District is perhaps most pronounced in the layout of pastures as delineated by fences. Each pasture, called either a field, pasture or trap, had a particular function to the ranch operation: larger pastures used for general open range; smaller fields used when more observation was necessary; and traps where livestock would be gathered in preparation to roundup. These pastures created a pattern across the island that had been carefully formulated for the most efficient use of the landscape, and tie into the characteristics of circulation and land use as well.

Spatial organization on Santa Rosa Island retains integrity, and is a contributing element of the Santa Rosa Island Ranching District.



Spatial Organization #1. China Camp, corrals, line camp. (CHIS, Vail-Vickers National Register Nomination print No. 7, Krakow, 1992)



Spatial Organization #2. Bechers Bay and ranch headquarters is seen in the center of this photo, with divided pastures in the foreground. View to the south, 2001. (PGSO-CHIS-N-0002-33A)

Land Use

Following centuries of Chumash occupation of Santa Rosa Island, European settlers used the majority of island acreage for grazing since 1844. Sheep, cattle and horses grazed under the control of ranch managers. During the entire twentieth century and probably earlier, the owners pursued crop raising on about 100 acres at Bechers Bay. During the nineteenth century, Chinese fishermen exploited the abundance of abalone found on the island's shore, leaving an archeological record yet to be fully investigated. Ranch occupants and visitors made a tradition of hunting on the island, largely wild pigs, elk and deer, all introduced. The US military found uses for the island beginning in World War II, when the island's strategic position fronting the Pacific Ocean was exploited for radar surveillance and communications. The relatively primitive installation of 1943 was replaced during the 1950s with modern radar communications used for tracking and monitoring missiles and aircraft originating on mainland military bases. Oil exploration on the island proved long-lived but fruitless, as large oil reserves were subsequently found in the nearby Santa Barbara Channel. Archeologists and paleontologists have held a long interest in Santa Rosa Island, where important discoveries of early man and prehistoric animals have been made in extensive excavations on the north and south sides of the island. Today, the major land use is tourism, four-wheel-drive travel and scientific natural resources restoration and monitoring, a far cry from the historic uses. Limited hunting is allowed during the fall, being the last of historic land uses.

Beginning with a small herd of cattle, the livestock numbers and type fluctuated for the first few decades until sheep became the dominant animal on the island, 1860-1902. Sheep grazing has long been blamed for the rapid loss of native grasses and plants on the island and the resulting surface erosion still seen today. Nineteenth century reports claimed up to 80,000 head of sheep on the island at one time. Beginning in 1901-02, Vail and Vickers replaced the sheep with beef cattle, which remained on the island until 1998.

The major island fence, called the drift fence, divided the island practically in half running west to east. The fence system evolved from the pre-1870 layout of fences, which cut off the three major points on the island (Sandy [West] Point, East Point and Carrington Point). The ranchers used the various pastures for specific uses, as detailed earlier (see photo, Land Use #1).

Raising and caring for horses was another important land use on Santa Rosa Island. Virtually all of the cattle work was done on horseback. The horses stayed in a designated field called the Horse Pasture until needed for roundups. They fed on island grasses and crops grown at the main ranch. Ranch employees tended large fields of alfalfa and oat hay at Bechers Bay, mostly for horse feed (see photo, Land Use #2). These activities involved plowing, planting and harvesting, while maintaining fences to keep livestock out of the fields. A handful of horses remain on the island, the last of over 100 that were needed for the cattle operation.

Hunting is a long tradition on Santa Rosa Island. Owners imported elk and deer for hunting purposes up to 100 years ago, while the introduction of wild pigs may have occurred in the 1840s. Until the 1970s, hunting was a casual pursuit of the owners, employees and their guests (not to mention poachers who arrived by boat). Ranch guests were commonly issued a rifle when setting out and encouraged to shoot the bothersome pigs. Famous visitors, including California governor and later chief justice of the Supreme Court Earl Warren and movie star Bing Crosby hunted on the island a number of times. With burgeoning populations of elk and deer, Vail and Vickers instigated a commercial hunting operation in the 1970s, operated by Wayne Long. This use continues on the island under a special use permit.

The United States government has made use of the island in various efforts, mostly military. The U. S.

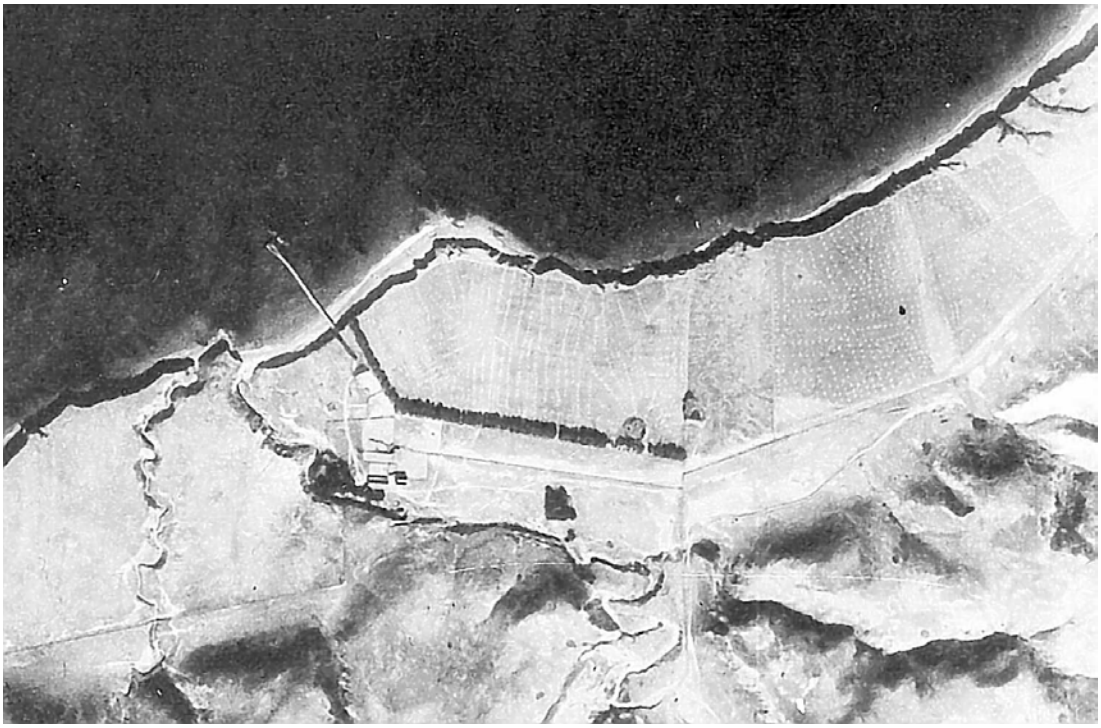
Coast Survey used the island for triangulation studies in the 1850s and 1860s, and thoroughly mapped the island in 1872-1873. That agency's successors, the U. S. Coast and Geodetic Survey and U. S. Geological Survey, later published maps of the island in support of maritime commerce, national defense and geological exploration. The U. S. Lighthouse Service and its successor, the Coast Guard, erected an aid to navigation on the island's South Point in the 1930s, which operated for fifty years. The country's armed forces commenced activities on the island during World War II when war broke out in the Pacific. Santa Rosa Island and its neighbors proved to be strategic locations for coastal defenses and monitoring operations. The U. S. Army Signal Corps constructed an emergency radar installation on the southwest slopes of the island in 1943, and the Military Police also used the island's isolation to its advantage in training its ranks in secret. While the radar base was short-lived, the military continued use of the island in the post-war and Cold War eras. The U. S. Air Force constructed a substantial manned radar monitoring facility that tracked all incoming aircraft approaching the southern California coast. They were soon joined by the U. S. Navy, which erected communications tracking facilities for missile testing activities. Between 1950 and 1963 hundreds of men were stationed on the island and provided with full services including housing, food and recreation. The National Park Service purchased the island in 1986 and began to slowly develop the Bechers Bay and Johnsons Lee areas as locations for limited recreation. Park Service staff made use of the abandoned buildings at Johnsons Lee as a headquarters but in the early 1990s moved operations to the main ranch area, leaving only one building at Johnsons Lee for administrative uses. The most intensive use of the island by NPS is currently natural and cultural resources study.

Santa Rosa Island has attracted both professional and amateur students of archeology and paleontology since the 1870s. Abundant prehistoric sites drew trained archeologists and plunderers alike, leaving many sites virtually destroyed by 1900. A more controlled and scientific approach developed in the twentieth century as well-respected archeologists made excavations under permit from the owners. The discovery of dwarf mammoth remains drew paleontologists to Santa Rosa Island, and experts from both disciplines have worked side-by-side on excavations. During the 1950s Phil Orr of the Santa Barbara Museum of Natural History established a semi-permanent camp on the north side of the island from which he delved into the island's far distant past. Historic shipwrecks have been studied in a number of locations. Currently, numerous scientists of several disciplines conduct projects in many locations on the island. Of major interest is evidence of early man on Santa Rosa Island and a possible link between humans and the long-extinct dwarf mammoth.

Historic land use on Santa Rosa Island does not retain integrity, with the exception of hunting and archeological/paleontological excavation. The absence of ranching land uses will eventually affect the integrity of the pastoral quality of the island's historic vegetation. Land use is not a contributing element of the Santa Rosa Island Ranching District.



Land Use #1. House Trap, foregound, remains a grassy plain for the time being and is delineated by brushy terrain outside of the fence. Bechers Bay is in the background, view to the east, 2001. (PGSO-CHIS-N-0002-34A)



Land Use #2. Hay fields at Bechers Bay headquarters can be seen in this 1940 aerial photograph. Note the protective windbreak along the coastline. (CHIS, BTM 1940-319-112)

Cultural Traditions

Santa Rosa Island, connected only by boats (and later by small airplanes) to the Santa Barbara coast throughout its history, developed a unique cultural tradition based on mainland influences throughout the last 150 years. This tradition echoes the prehistoric cultures that evolved into unique subcultures, used boats as a means of communication with the mainlanders and traded commodities produced on the island for those needed there.

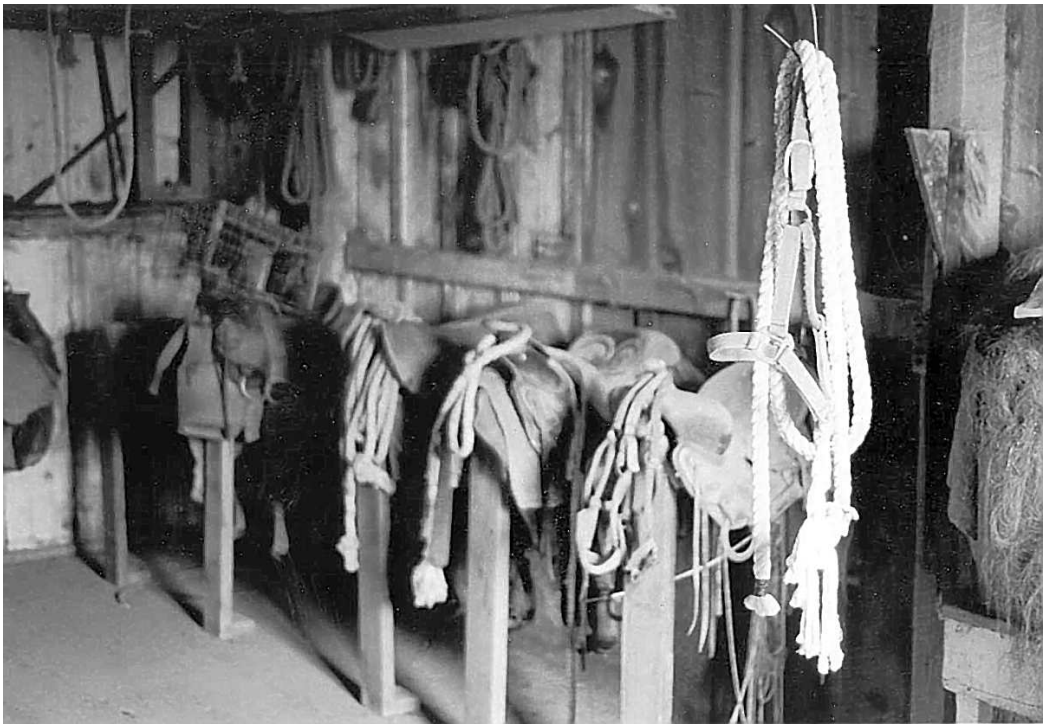
The first non-native settlers of the island brought a Mexican California culture with them. The pioneer island employees were Mexicans and Kanakas (Hawaiian Islanders who had been in the area as part of the otter trade, and did not stay on the island long), overseen by American owners. As cattlemen and sheep herders, they followed the traditions of the mainland in use of horses, construction of buildings and fences, etc., but adapted them to the island life. Reliance on boats, and hence reliance on reasonable weather and conditions at sea, and the lack of communication with the mainland established a form of self-reliance that continued to the end of ranching in 1998.

The More family, owners between the late 1860s and 1902, continued the Mexican-California systems in use on the island, relying on Santa Barbarenos and Indians for roundups and as general employees. The Spanish-based culture is seen in the place names on the island such as Soledad, Verde, Rancho Viejo and Lobo. Vail and Vickers continued the tradition, whether by design or not, in retaining traditional place names and practices and in continuing to hire Mexican cowboys throughout most of their ownership. These men and their families brought and continued traditions of crafts (leather work, saddlemaking etc.), home life (food and personal traditions) and work. The ranch managers, for the most part, spoke Spanish.

The cowboys were skilled in not only cattle work and horsemanship but in maritime life. Most residents of the island were familiar with boats, and also fished and collected abalone in their spare time. Island skills were passed on from old cowboy to young cowboy. Ranch owners provided a school for the children of ranch employees in the nineteenth century and during the 1920s-30s, and later, during the 1980s, resident children were home-schooled. The isolation of the island ranch created a distinct Santa Rosa Island culture that has yet to be studied in depth (see photos, Cultural Traditions #1 and #2).

Hunting is a longtime tradition on Santa Rosa Island. Game animals were introduced early in the twentieth century and wild pigs provided targets for ranch workers and visitors alike. Hunting continues on the island through a special use permit to Vail and Vickers (see photo, Cultural Traditions #3).

Because ranching has been removed as the major historical activity on Santa Rosa Island, cultural traditions do not retain integrity and do not contribute to the Santa Rosa Island Ranching District.



Cultural Traditions #2. The tack room in the Vail and Vickers horse barn is no longer in use (CHIS, CHIS-HRS-20-4, 1999)



Cultural Traditions #1. Cowboys employed by Vail & Vickers used traditional methods of rounding up and treating cattle. These two cowboys exhibit a lariat and common dress. (CHIS, E.K. Smith Collection, circa 1943)



Cultural Traditions #3. Justino Cuevas and E.K. Smith display deer that they have killed after an island hunting expedition, circa 1960. (CHIS, E.K. Smith Collection)

Topography

As has been discussed above, Santa Rosa as an island created a unique location for a cattle ranching operation of large proportions. The fact of its remote island location effectively preserved a way of life, a situation less attainable on the mainland due to influences of development and commerce. This isolation kept the ranchers relatively free of worry over diseases, invasive plants, rustling and escape. The topography of the island formed a natural boundary fence.

The variety of landforms includes slopes, plains, cliffs, natural erosion and altered topography. Most of the island is hilly to steep: the steepest slopes are found on the main ridge comprising Soledad Mountain and its neighboring peaks; steep canyons drain to the south from this ridge (Bee Canyon to San Agustin Canyon); moderate slopes are found on the north and east sides of the island, although often incised by steep canyons and topped by plateaus. Black Mountain and its environs, the Old Ranch/Quemada Canyon area and the Arlington Canyon vicinity are of moderate topography. Broad low hills, forming grassy plains up to a mile in width, are found on the northeast quarter of the island between Canada Verde and Sandy Point, and in the Lobo and Carrington Pastures (see photo, Topography #1). Marine terraces, almost perfectly level, are found on the west, north and east sides of Santa Rosa Island; these include terraces between China Camp and near Sandy Point, on the north edge of Pocket Field, and the extensive farmed terraces of Bechers Bay. Steep bluffs and sheer cliffs characterize the shoreline, where sandy beaches be found in locations around the island.

Erosion has altered the topography of Santa Rosa Island to some extent. Bare, rippled hillsides are evident on the northwest and south sides of the island, apparently caused by a combination of overgrazing by sheep and the incessant winds. Disruption of riparian vegetation and trampling of stream banks for more than 150 years caused many of the streambeds to erode, cutting in some places huge trenches that require grading to maintain road crossings. Landslides of varying dimensions are found in the upper elevations.

Road grading and military construction has altered the topography in a number of locations on the island. Cuts and fills for road beds are found on the Main Road, the Burma Road near its highest elevation, canyon crossings on the Smith Highway, portions of China Camp (Rita's) Road, the Johnson's Lee Road, the South Road and Clapp Springs Road. Many of the undeveloped roadways required some grading at stream crossings, mostly in the form of cuts to gain access through a low cliff. The Army Corps of Engineers altered the topography at the highest peak, four locations at Navy Hill and at Johnsons Lee in the early 1950s, while the Army has made minor cuts and fills at its World War II sites. At Johnsons Lee, leveled terraces that once supported large buildings remain, as does the little-used airstrip above Officers Beach. The airstrip at Bechers Bay was graded in the late 1980s, eliminating a low hill near the center of the runway. Grading has altered the locations of the recent NPS housing and maintenance areas.

The varying elevations and slopes of Santa Rosa Island provided different qualities of forage that required the ranchers to control feeding through fencing and cattle movement. For instance, the rich lowland grasses of Carrington Pasture were reserved for animals awaiting shipping, while the general range during the year was attained in higher and steeper elevations, where feed was adequate but not lush. The dramatically varying elevations on the island provided for shelter for the animals during bad weather, and for views used by cowboys in finding and rounding up cattle and sheep. The steep canyons required a skilled horseman and horse and sure-footed livestock, while the terraces and valley bottoms provided rest, shelter and good feed (see photo, Topography #2).

Ranch owners used the topography in their long-term design of island resources. The level terraces at

Bechers Bay provided a natural development site for an extensive main ranch complex that fronted on a suitable landing site for boats, barges and ships. Water was available and relief could be found from the incessant winds (see photo, Topography #3).

The line camps were located in appropriate locations, always level but varying in surroundings: China Camp on a low, wide terrace above the ocean; Wreck on a relatively level shoulder at a suitable collecting point for south side cattle; and Arlington, squeezed into a sheltered canyon in good proximity to all the northwest range. The three line camps, with the main ranch added, effectively divided the island into quarters for collecting cattle for shipment off the island, using the topography of the central mountain range as a natural divider.

Development of transportation routes across the island was dictated by topography. The practicality of travel on ridgelines that required no development was determined early in the island's settlement. A feasible route between the Old Ranch and Bechers Bay was dictated by topography as the narrow terraces provided fine travel opportunities only challenged by steep stream crossings. Only when heavy equipment was brought to the island in 1932 did more intensive road construction and grading commence; road builders took to grading side hills in order to bypass steep and unsafe ridgeline routes.

Water developments on the island relied on gravity until pumps were installed in 1945 to deliver water to upper elevations above Bechers Bay. Some topography was changed with the installation of reservoirs at Lobo Pasture, Pocket Field, Tranquillon Canyon and the Old Ranch.

The topography of Santa Rosa Island retains integrity as an essential characteristic of the longtime ranching use of the island. Aside from the erosion noted above, the topography is unchanged from prehistoric times and is a contributing feature of the Santa Rosa Island Ranching District.



Topography #1. Low plains at Sandy Point typify the topography of the northwest side of the island. Road to Sandy Point is in the foreground, view to the northwest (PGSO, CHIS-N-5-17, Livingston, 2001)



Topography #2. The Sierra Pablo region typifies the upper elevation hills of Santa Rosa Island. Sierra Pablo Road can be seen in the middle foreground slope. View to east. (PGSO, CHIS-N-6-13, Livingston, 2001)



Topography #3. Bechers Bay is the site of the Vail & Vickers ranch headquarters. Note the level terraces, cliffs and surrounding hills. (CHIS, ACC 217 CHIS 2761 Neg. #4162, 1965)

Vegetation

Santa Rosa Island is characterized by its broad expanses of open grassland, thick and rich at lower elevations and sparse on the mountaintops. Brushy areas are interspersed with the grasslands in canyons and bottomlands, while native trees are usually found in disparate groves on the east and north sides of the island. Trees planted by island occupants are only found at the ranch complex on Bechers Bay (with the exception of a single Torrey pine (Pinus torreyana ssp. insularis) surviving at a formerly developed site at Johnsons Lee) and were established as windbreaks and decorative plantings. Vegetation in former agricultural fields has given way to grass and shrubs. Landscaping around buildings is minimal.

In 1873, almost forty years after the island was settled and ranched, the U. S. Coast Survey produced a detailed topographic map of Santa Rosa Island, based on a two-year field survey by Stehman Forney. The map defined most of the land surface as being grasses. Thick pockets of prickly pear cactus (Opuntia) and groves of woodland were depicted, the latter corresponding generally with today's conditions. However, during the 1950s and 1960s, the cactus was mostly eliminated either through the inadvertent migration of insects whose life-cycle was detrimental to the cactus, or through the deliberate introduction of these organisms by Stanton or his ranch manager. Otherwise, the island's general vegetation patterns of open grasslands interspersed with brushy areas in canyons and bottomlands, and native trees dispersed in disparate groves on the east and north sides of the island appear to be remarkably intact when compared with the 1873 conditions.

Some elements of historic vegetation are lost. The fields at Bechers Bay likely retain remnants of the crops once proliferating there, although closer scrutiny is needed. A small, enclosed orchard or crop existed on a level area in Green Canyon southwest of the current roundup corral, as documented on the 1873 US Coast Survey map of Santa Rosa Island. No trace of the field could be found in 1999 or 2001; it is now a level, grassy pasture sandwiched between the Smith Highway and Green Canyon creek.

Research continues on the natural conditions of the island in relation to habitat restoration, but historical accounts of botanical conditions through history are rare. Accounts of domestic plantings at the main ranch are few and although the exact date of planting is unknown, these elements should be considered contributing until further research can be completed.

VEGETATION AT MAIN RANCH COMPLEX, BECHERS BAY

Eucalyptus Windbreak
Planted in a dense row trending north-south with a dogleg heading northeast at an approximately fifty-degree angle, the windbreak of blue gum (Eucalyptus globulus) encloses a level marine terrace directly south of the pier. It defines circulation patterns between the pier, corrals and routes south from the ranch complex. The windbreak consists of about 225-250 mature trees in a line almost half a mile long. All are bent to an extreme angle by the prevailing westerly wind, which makes them appear to be growing horizontally. There are occasional short breaks in the row, especially on the south end; about 5% of the trees are dead. The windbreak is approximately 100 years old, possibly older. It protected the agricultural fields to its east from the heavy winds blowing down from the hills. Eucalyptus windbreaks are a common element on nineteenth century coastal California ranches and farms; settlers imported the trees beginning in the 1850s. The Bechers Bay eucalyptus windbreak is in good condition (see photo, Vegetation #1).

Monterey Cypress Tree Windbreaks
The Monterey cypress (Cupressus macrocarpa), native to the Monterey peninsula on the north-central California coast, is a staple element on historic coastal ranches as windbreaks and decorative trees. The

ranch complex at Bechers Bay includes three units of cypress windbreaks at the ranch house, the barn and the bunkhouse.

Early in its history, the ranch house was practically surrounded by the trees; photographs taken in 1903 show already-mature trees at the front of the house and young trees in a line along the north yard fence. Early maps depict the trees as planted in lines along the enclosure fence, although it is unlikely that the front (east) fence featured an entire row. Two trees had been planted directly in front of the house, one on each side of the entry porch. These remain, are very old (estimated to have been planted around 1870 when the house was built) and appear to be reaching the end of their lifespan, especially the south tree. Cypress trees of varying age remain around the edge of the yard, including seven mature trees that reflect the original line.

A row of Monterey cypress lines a portion of the road between the ranch house and bunkhouse, paralleling the horse barn to its west and acting as a boundary to the sudden drop-off to the creek below (see photo, Vegetation #2). Depicted in 1903 photographs as a young, straight row, many have died and/or have been removed; and the remaining three trees are now old. These trees are approximately 105 years old.

The barn row of Monterey cypress trees continues on the west side of the bunkhouse, then turns east to surround the house on the north. Two more trees stand south of the bunkhouse. All are mature trees, remnants of the original dense lines planted before 1900. Some trees may have been damaged or destroyed in the bunkhouse fire of 1969. The remaining trees are generally healthy but old and nearing the end of their lifespan. In general, the Monterey cypress plantings are in poor condition.

Younger, healthy Monterey cypress is also found along the edge of Windmill/Ranch House creek, west and north of the ranch house. These appear to be volunteer offspring of existing historic trees at the ranch house and barn.

Upper Ranch House Yard
Enclosed in a perimeter fence, the ranch house yard is landscaped simply with lawn and border plantings. The dates of the plantings are not known, except for the cypress trees. Scrutiny of early photographs suggests that most of the extant plants were installed less than fifty years ago. Trees include invasive athel trees (Tamarix aphylla), California pepper (Schinus molle) and Monterey cypress on the west elevation: neither the pepper nor tamarisks appear to be flourishing in this location. A total of fifteen healthy jade plants (Crassula argentea) are located on the east, south and north elevations of the yards, mostly in four clusters on the northeast corner of the yard (see photo, Vegetation #3). Geraniums (Pelargonium hortorum) and an unidentified shrub grow on the east fence near the gate. The entire yard is covered in mowed Bermuda grass (Cynodon dactylon).

Bunkhouse Yard
Aside from the Monterey cypress described above, the bunkhouse yard includes three mature, wind-beaten eucalyptus on the east elevation and a more recently planted tamarisk grove at the northeast corner of the yard. Jade plants, geraniums in planter boxes and ice plant (Carpobrotus chilensis) are found in the yard. All of these plantings except for the older trees date from after 1969. The Bermuda grass lawn on the south (front) yard is mowed and maintained.

Schoolhouse Yard
The schoolhouse yard, enclosed by a board fence, is comprised of a mowed Bermuda grass lawn with iris, geranium and roses (Rosa sp.) of undetermined age planted in the south and east portions of the yard.

Ranch Foreman's House Yard
This house yard is enclosed with a board fence and has a Bermuda grass lawn, Jade plants, bulbs and iris (Iris sp.), all planted since 1965.

Russ Vail House Yard
This relatively new house has a board perimeter fence enclosing a simple layout of mowed Bermuda grass with Jade plants and native shrubs, all planted since 1988. The eucalyptus windbreak forms the back (west) side of the yard.

Hay Fields
The mile-long level marine terrace fronting Bechers Bay invited tillage by the island ranchers and may have been a factor in relocating the ranch complex from Rancho Viejo in 1870. During the Vail and Vickers era, these large fields were annually plowed and planted with first barley, then alfalfa and oat hay. Vegetables and potatoes also were planted inside (east of) the eucalyptus windbreak, but for short periods. Within the last 50 years three cattle enclosures have been constructed and a house built on the western edge of the eucalyptus (central) fields. The fields are bounded by the ocean cliffs to the east and the eucalyptus windbreak and airstrip fence to the west. The fields stretch more than a mile from the Carrington Pasture fence on the north to Water Canyon on the south. The fields have been abandoned for about five years and are covered in high grasses and encroaching coyote brush (see photo, Vegetation #4). The airstrip occupies the south-central part of the former agricultural fields. Fence enclosures remain intact in the same configurations since at least the 1930s.

OUTER ISLAND HISTORIC VEGETATION

China Camp
Vegetation within the yard fence at the China Camp cabin include range grasses and a mature firethorn (Pyracantha sp.) located on the south elevation of the later cabin. The bush may have been planted during the 1950s, and is healthy (see photo, Vegetation #5).

Open Range Land
The bulk of the island acreage is grassland used between 1844 and 1998 as grazing pasture. It was originally grazed by cattle but by the 1870s had been almost entirely given over to intensive sheep grazing. This period (circa 1870-1902) has been credited with the near-destruction of the native plant cover of the island and resulting soil erosion. Between 1902 and 1998 the pasture was grazed by cattle in numbers between 2,500 and 6,000 depending on the season and quantity of grass. Ranch operators divided the island into pastures and holding fields, ranging from the South Pasture, which encloses about one-third of the island acreage, to the one-square-mile Horse Pasture and even smaller Arlington, Wreck and House Traps. According to park documents, some areas of sheep-caused nineteenth century erosion had revegetated to some degree under a lighter cattle-grazing regimen.

During 154 years of grazing activity, the grassland landscape consisted of cropped (grazed) grasses of varying species and density with sparse pockets of shrubs, largely coyote brush, manzanita, lupine and sage. Elevation and slope affect the nature of the grasslands. For example, forage in the lower-elevation table lands of the Lobo Pasture has traditionally been rich and thick while the grasses on the mountaintops and slopes are short and sparse. Areas of historic-era erosion on slopes have eliminated dozens of acres of grassland, especially on the northwest and southwest portions of the island. Cactus remains on the island but not in the quantities found into the 1950s.

The recent release from grazing has resulted in taller grasses with no cropping control, and increase in shrub densities, especially coyote brush. Visually, the change is more noticeable in the gradual

disappearance of the vivid green hills typical of the late winter and springtime, this disappearance due to the remaining dead and dry grasses from the previous season obscuring the new green growth. The pastoral scenes of cattle grazing on bright green grassy hills have been eliminated. In addition, the appearance of low-growing spring wildflowers is reportedly diminishing because of increased competition from uncontrolled non-native grasses and weeds, and native shrubs.

Air Force Site, Johnsons Lee
Most domestic plantings at Johnsons Lee appear to have been destroyed by the building removal process. A lone Torrey pine, evidently planted by enlisted men, and patches of ice plant are found near the pier site.

NPS Housing Area
The recently developed housing complex, located in the hills above Bechers Bay on The Main Road, has not been formally landscaped. Native plants and imported grasses tend to predominate in the areas not disturbed by construction. A windbreak of native Bishop pine (Pinus muricata) has been planted west of the complex.

Historic vegetation on Santa Rosa Island retains integrity although certain units are in poor condition. The major change in historic vegetation appears to be release to succession in the rangeland and old age amongst the eucalyptus and cypress windbreaks. Yard planting beds at the main ranch are considered contributing until further research can be completed. Vegetation is a contributing element of the Santa Rosa Island Ranching District.



Vegetation #1. The eucalyptus windbreak has been beaten almost flat by the westerly winds. View to the south. (PGSO, CHIS-N-3-32, Livingston 2001)



Vegetation #2. The former neat row of Monterey cypress trees between the barn and bunkhouse is now reduced to 110-year-old survivors. View to northeast. (CHIS-HRS-22-13, Livingston, 1999).



Vegetation #3. The jade plant and a thornberry shrub are located in the upper house yard. View to east. (PGSO, CHIS-N-4-5, Palmer, 2001)



Vegetation #4. Shrubs, including coyote brush (baccharis) are encroaching on this former pasture known as House Trap. View to south. (PGSO, CHIS-N-3-00, Livingston, 2001)



Vegetation #5. A mature juniper shrub is a decorative feature next to the 1950s cabin at China Camp. View to north. (PGSO, CHIS-N-5-24, Livingston, 2001)

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
Eucalyptus tree windbreak	Contributing			
Hay fields	Contributing			
Juniper berry bush at China Camp	Contributing			
Monterey cypress tree windbreak at bunkhouse	Contributing			
Monterey cypress tree windbreak at horse barn	Contributing			
Monterey cypress tree windbreak at upper house	Contributing			
Open rangeland	Contributing			
Two Monterey cypress trees at upper house porch	Contributing			
Yard plantings at bunkhouse	Contributing			
Yard plantings at ranch foreman's house	Contributing			
Yard plantings at schoolhouse	Contributing			
Yard plantings at upper house	Contributing			
Ice plant at Johnsons Lee	Non-Contributing			
Torrey pine tree at Johnsons Lee	Non-Contributing			
Windbreaks at campground	Non-Contributing			
Yard and windbreak plantings at NPS housing area	Non-Contributing			
Yard plantings at Russ Vail house	Non-Contributing			

Circulation

A number of elements define the historic circulation patterns on Santa Rosa Island. First, the movement of people in the pursuit of their tasks on the island required establishment of horse trails, then wagon roads and finally truck roads. As a result, an extensive system of dirt roads crosses the island. Paths used by early residents can still be found, while many of the current routes have been in use for more than 130 years. Second, the movement of livestock, both natural and forced, is reflected in extant cow trails and the broad swaths of cattle routes leading towards roundup grounds and shipping areas. Narrow cow trails are found in many forms, and herd routes remain visible, especially feeding into the flats at Bechers Bay.

From the ranch headquarters at Bechers Bay, all traffic went in and out by sea and land. The pier acted as the focal point of all commerce on the island. From the pier, roads and fences emanate out and across the island in all possible directions. Roads encircle the island, cross it and reach out in spurs to various locations on the outer shores. These roads typically follow the paths of least resistance, as often reflected in the absence of manual construction, yet must occasionally cross deep and precipitous canyons with man-made cuts and fills. Overall, the evolving road system created access to all needed areas of the island. Horses reached anywhere the roads didn't go.

Water availability also determined circulation patterns. Other than the wells at Windmill Canyon near the main ranch and the long-defunct Water Canyon dam and pipeline, the availability of water for cattle depended on the perennial streams scattered across the island like the legs of a spider. Livestock traveled to water sources on a regular basis, creating circulation networks connecting rangeland and watering spots.

ROADS AND TRAILS
Roadways have evolved on Santa Rosa Island from Chumash trails to horse trails to graded dirt roads; in a few locations, paved roads were built to federal standards, both during the period of significance and after. The routes on the island follow a historic pattern that, in turn, follows the geographical necessities of travel around the large island. Much of the acreage is steep and inaccessible while much of the land is fairly level requiring little or no work to create and maintain a track. Many of the roads on the island are either slightly improved versions of 19th century trails or bulldozer roads built by ranch workers or oil companies. Some of these roads feature segments of cut-and-fill although the majority of the roadways follow appropriate and practical routes that did not require much earth moving. The military road constructed in 1950 is the anomaly, with its wide, paved lanes, engineered curves and tangents, cuts and fills, and extensive drainage works. The variety of the transportation routes on the island reveals much of its history.

The following road types can be found on Santa Rosa Island: 1) paved roads, either asphalt or concrete; 2) graded dirt roads, maintained; 3) formerly graded dirt roads, abandoned; 4) ungraded but well-established tracks in the grasslands; 5) combination graded dirt/grass tracks and roads; 6) grassland tracks, abandoned, including routes depicted on 1873 survey map; 7) foot trails; and 8) cattle trails. A ninth category would be temporary tracks in the grasslands. These are plentiful, many originating with the commercial hunting and NPS operations, and too numerous and undefined to inventory. Also, many of the 1873 routes were not inventoried due to time constraints, and a number of abandoned roadways noted on historic aerial photographs were not inventoried for the same reason.

Of interest is the occasional truck circle, a feature developed with the increased use of trucks on the island after the 1950s. These "turnarounds" are simply a place for the vehicle to turn around without having to change gears. At least five are found in the main ranch road system, three of which are in front of the foreman's house. The circle was used to solve the problem of negotiating through a double gate at

the Carrington/Lobo Pasture gates. The result is a small, tight loop worn into the ground adjacent to the gates.

Road construction and maintenance duties fell to the employees of Vail & Vickers, with the exception of the military roads while the facilities were active. Today, National Park Service maintenance personnel grade the roads on a regular schedule with a Caterpillar tractor. The roadways are bladed but no imported gravel or fill is used, however the existence of a handful of borrow pits indicate that fill was taken during construction of some roads such as The Main Road. Trails are minimally maintained.

ROADS, PAVED

Johnsons Lee Road
The U. S. Air Force constructed a road in 1950 that fit more the motoring style of the mainland than an isolated island cattle ranch. It was a five-mile roadway built to federal standards, paved to fourteen feet wide with a stripe delineating two lanes of traffic, with metal guard rails where necessary and an engineered drainage plan requiring dozens of culverts. The extant paved road begins at the pier site of the former Air Force Station at Johnsons Lee. Following a relatively easy grade, it makes a circuitous route through the canyon west of the remaining building, crossing the drainage on a large fill section with culvert, then ascends the South Point ridge in a northerly direction until reaching the summit, junction of the Main Road and Burma roads.

The upper half of the new road was built on the route of an older ranch road that followed the ridge spine leading to Piedragosa roundup and beyond. This road was in use as early as 1872, as shown on Forney's map; the 1943 U. S. G. S. topographic map depicts the older road as following the exact route of the later road down to Navy Hill, then veers west to Piedragosa roundup site (adjacent to the survey monument "Grouse 2"), then southwest where it descended to the coast. The 1943 map shows the road ending about 1/2 mile from the shore although aerial photos indicate that it continued.

Most of the pavement remains today, although the asphalt is deteriorating, the drainage failing and the guardrails have been removed and used for corrals around the island. The road surface is in poor condition due to deterioration of the asphalt surface, which is breaking off at the edges, cracking on the surface and potholing. Because the Air Force base has been removed and retains no integrity, the road does not possess significance as a military road; however, it had long been used for the ranching operation and should be maintained as a key route to Johnsons Lee.

Navy Hill Roads
The U. S. Navy constructed these two short roads in 1952, providing access to missile-tracking communications facilities. The roadways are approximately sixteen to twenty feet wide. The east section leaves Johnsons Lee Road and ascends to the graded hilltops, splitting into two dead-end spurs where technical facilities had been located. The west section leaves Johnsons Lee Road at the Piedragosa junction, a short distance down from the east Navy road, and ascends to two graded knolls, also splitting into two dead end spurs where facilities had once stood; the road to Piedragosa roundup site continues westerly. The asphalt pavement on the roads is breaking up but the roads are generally in fair condition.

NPS Housing Access
NPS constructed a roadway from The Main Road into the new housing complex in 1999. The short driveway is paved with concrete and splits, directing traffic to the two garages in the complex. The driveway is in good condition.

NPS Maintenance Access

NPS constructed a roadway off a dirt road in Windmill Canyon to access the newly built maintenance and water storage area. The paved portion is short, terminating at a wide swath of concrete at the shop garage, and is in good condition.

GRADED DIRT ROADS, MAINTAINED

Roads at the Main Ranch
The main ranch complex is crossed by a maze of dirt roads leading from the pier to the residences. The roadway base is native soil, although a few small patches of macadam remain from the 1932 Standard Oil developments; they traverse level land so cuts and fills are nonexistent except at the bunkhouse and the entrance to the pier. The routes tend to the west side of the corrals and only penetrate them in two places, one entering near the generator barn and one crossing to the field east of the windbreak. A number of circle turnarounds and shortcuts add to the complexity of the road grid. In general, the roadways are about twelve feet wide and in fair condition.

The Main Road
The first thirty years of Vail & Vickers management of Santa Rosa Island saw few improvements in the road and trail system on the island. Existing 19th century routes apparently served the cattle ranch well, as they had been sensibly laid out following ridgelines and land contours. In 1932, however, Standard Oil Company made agreements with Vail & Vickers to drill for oil near the highest point on the island, a distance of about six miles from the ranch and pier. As this operation would require trucking materials to and from the site and landing, engineers set to work laying out a truck road. Beginning at the bottom of Windmill Canyon, the route ascended the north flank of Black Mountain and followed cattle trails on the ridge lines past Pecho Peaks and Soledad Mountain to the drilling site, located a stone's throw from the unnamed 1589-foot summit called Vail Peak on a recently published map. Crews used a steam shovel and blasted through rocky areas with dynamite, their labors resulting in a well-engineered ten-to-twelve-foot roadway, paved with macadam or asphalt. Ranch manager N. R. Vail reportedly helped design the new road. While the oil drilling project met no success, the Standard Oil road became one of the most important routes on the island, being used not only by the ranch operation but also under official agreements with the U. S. Army, Navy and Air Force during and after World War II. The road acted as a good-quality, all-weather access to China Camp and Johnsons Lee. It remained in good condition, with few changes, throughout the Vail & Vickers ranching era. Ranch old-timers also refer to it as the Oil Road or Standard Oil Road.

The Main Road leaves the ranch complex at the WWII storehouse and NPS generator building, heading west then west/southwest then south up the canyon and ridge towards the summit of Black Mountain. The road skirts the summit on cuts and fills, passes the Black Mountain roundup corrals and then follows the main island ridgeline in a southwesterly direction, passing the summit of Soledad Mountain and terminating at the junction of the Burma Road, which continues west, and the paved Air Force road that descends in a southerly direction to Johnsons Lee. The Main Road is a well-laid out, cut-and-fill dirt road and is kept maintained by annual grading; its width varies between eight and twelve feet. At one time the road was paved and pieces of asphalt as well as abandoned communications cable continue to surface during grading. The road is in fair condition (see photo, Circulation #1).

Old Ranch Road
The road from the Bechers Bay ranch facilities to Rancho Viejo and East Point dates from before 1872, although it has been graded with modern equipment over the last decades. U. S. Coast Surveyor William Greenwell noted a trail or road in 1860; his successor Stehman Forney in 1873 drew a map showing a road between the old and new ranches. Today this road, maintained by the National Park Service, is a dirt road that alternates between easy driving on flat benches above the shoreline and sudden, sometimes

precarious drops into the many canyons that cross the road. No bridges cross the small creeks and a 4-wheel drive vehicle is recommended. The road has been realigned in a few places, such as the crossing at Water Canyon and at the old ranch site.

Old Ranch Road heads southeast from the ranch complex along the terraces fronting Bechers Bay, crossing a number of drainages (see photo, Natural Systems and Features #3). At the Southeast Anchorage the road goes inland, cutting off Skunk Point, passing the Old Ranch roundup corrals and rejoining the coast near the old ranch site. Part of the road is washed away at the old ranch by coastal erosion. The roadway continues along the coastal bluffs to terminate at East Point. Mostly, the road is a graded track about ten feet wide with little cut and fill and it is located mostly on level terraces. Past the old ranch site the road tends to be a double track with little evident grading. Old Ranch Road is in fair condition.

South Road
Signal Oil built most of the South Road around 1948-1949 to access drilling sites on the south side of the island. This major island road followed a ranch road built shortly before by Diego Cuevas that connected the main ranch and Water Canyon roundup, taking a sometimes-steep ascent up the southeast side of Water Canyon to the divide, then down to The Wreck and on to Johnsons Lee. This road became another of the important access routes to the south side of the island.

The road, averaging eight to ten feet wide, begins about one mile southeast of the ranch house, leaving the Old Ranch road to make a steep and deeply-cut ascent of the ridge southeast of Water Canyon. Heading generally south, the road passes the Water Canyon roundup corrals (reached by a steep, four-wheel-drive-only track) then mounts the high ridge near Clapp Spring. The road descends southerly towards the ocean, passing The Wreck roundup and trap and, after crossing Wreck and Jolla Vieja Canyons, reaches the coast line where it follows some elevation above the water westerly to the remains of the Air Force base, terminating at the old pavement. This road is kept in fair condition although its isolation and drainage/soil conditions appear to pose a challenge to maintenance personnel.

China Camp Road, also called Rita's Road
In the 1930s, longtime ranch foreman C. W. Smith, with the help of a heavy equipment operator named Barney, built a narrow and dramatic road to China Camp where a sheep trail had been before. Rita's road begins on the ridgeline summit between Acapulco and Whetstone Canyons, off the Burma Road. It immediately follows the narrow spine of the ridge as it descends, sometimes steeply and often dramatically, to the west and south. The road cuts into the hillside as it makes its final steep descent to China Camp, where it ends at the cabin. This lower road cut was reportedly constructed as a bypass in the early 1950s, and another bypass was made at a higher elevation at an unknown date. The road is maintained by the park service with an annual grading and is in fair condition.

Signal Road
Signal Oil Company and two partners in 1948-1949 built a number of roads on the island. This one, leading from Soledad Mountain north into Arlington Canyon, accessed one of the drilling sites in that vicinity. It has been called the Signal Road since then, although it has been used as a ranch road since Signal Oil left in 1949. The well-built dirt road, about ten to twelve feet in width, leaves The Main Road immediately east of Soledad Peak, and heads north and then northwest down a ridge. A later spur, the one currently used, reaches the Smith Highway a short distance east of Arlington Canyon; this junction is indistinct as it occurs in a flat, grassy area. The original road continued westerly into Arlington Canyon then up to the old Arlington roundup site at Smith Highway, then crossed to the northwest to the Signal drilling sites above Cañada Tecolotito; this lower section of the Signal road has been long abandoned and is impassable by vehicles. The road is significant largely for its use by the ranch operation, rather than

for its association with the oil exploration. Much of the roadway is cut-and-fill and is in fair condition, although the abandoned portion is in poor condition.

Road to South Point Light
Coast Guard personnel first accessed the South Point Light from the water, having built a trail from a landing. A ten-foot-wide road was graded to the light prior to 1954 through the rocky terrain of the south side. The road leaves the Johnsons Lee Road to ascend a knoll, then descends to the lighthouse for a total length of about one and a half miles. The road has occasionally been bladed and is in fair condition at this time.

Road to Clapp Spring
Diego Cuevas built this short, ten-foot wide section of roadway high in the Sierra Pablo around 1950. It leaves South Road with cuts and fills through a rocky area and down to the Clapp Spring trough. The road continues as a graded road for a short distance beyond but portions are abandoned; Sierra Pablo Road continues on to East Point (see "Ungraded but Well Established Tracks"). It is in fair condition.

Road to Black Mountain Summit
This short and narrow roadway, following landforms and thereby avoiding the need for cuts and fills, follows a route depicted on the 1873 survey map. It leads from the Main Road near the Telephone Road junction to the summit of Black Mountain. The track continues as an informal route used by hunters. It is in poor condition.

Road to Horse Pasture
Apparently built in the 1940s or early 1950s, this ten-foot wide roadway leaves the ranch complex off Smith Highway near Nidever Cave. It skirts the west side of House Trap heading north, then takes a left through a gate into Horse Pasture where it ascends a hill following the north fence of the latter pasture. It has few cut or fill areas, tending to follow the topography, and is in fair condition.

Road to Water Canyon Beach Landing
Diego Cuevas built this short road in the late 1940s or early 1950s to improve access to Water Canyon Beach where barges loaded and unloaded livestock and vehicles. The twelve-foot roadway is deeply incised into a bluff near the south end of the airstrip. It terminates at the sandy beach. It is in fair condition.

NPS Maintenance Access
The roadway leading to the NPS maintenance shops and water storage tanks apparently originated as a ranch access road into upper Windmill Canyon. It leaves The Main Road near the wells; the newer roadway splits off to the north at the NPS nursery. The original roadway continues into Windmill Canyon to the fox pens. The road is about eight feet wide and is in fair condition.

FORMERLY GRADED DIRT ROADS, ABANDONED

Telephone Road
When the Air Force provided telephone service to the ranch around 1950, they reconstructed an old road known as the Hunting Road that led from Black Mountain to the ranch area; this came to be called the Telephone Road. The original route appeared on the 1873 map of the island and the 1929 aerial photographs. The eight-foot roadway leaves the old ranch road just south of the ranch and ascends the ridge towards Black Mountain in a southwesterly direction. The road meets The Main Road near the Black Mountain roundup corrals. It has been placed off limits to travel by the park service for the last few years and is now unmaintained, and in poor condition.

Road Above Lobo Canyon
Reportedly built by an oil company and known to have been in existence in 1954, this ten-foot-wide graded roadway leaves the Smith Highway at the Lobo Pasture gate above Lobo Canyon and ascends 1.6 miles in a southerly direction to the upper slopes of Black Mountain. The road terminates at a cleared area below the summit. The road has not been maintained and is in poor condition.

Road to WWII Camp
The U. S. Army Corps of Engineers constructed this short access road in 1943. It leaves The Main Road near Pecho Peak and descends to the dry lakebed on which the army camp was built. The road continues into steep portions of upper Water Canyon as access to the camp's water system. The road is deteriorated, eroded in some areas to the point of impassability, and is in poor condition.

Road Above La Jolla Canyon
Diego Cuevas built this narrow road around 1948; it has not been used for a number of years. The road leaves Johnsons Lee Road at Navy Hill and follows the ridge top paralleling Jolla Vieja Canyon to the north. The roadway drops down steeply to Officers Beach and the South Road. It is in poor condition.

Johnsons Lee Utility Corridor
The U. S. Air Force built this road as access along the utility corridor connecting the cantonment at Johnsons Lee with the operations center on the mountaintop. It has been abandoned since the mid-1960s. The road ascends from the motor pool building at Johnsons Lee to Navy Hill, where the utility corridor then followed the main road to the operations center. Erosion is evident at the lower portion of the corridor, and overall the road is in poor condition.

Road into Tranquillon Canyon
A narrow, bulldozed roadway is visible from Navy Hill descending into Tranquillon Canyon. The road was not documented due to time constraints. The roadway was built in 1932 by Standard Oil Company to provide access to a dam deep in the canyon, has been abandoned for many years, and is in poor condition.

Road on North Side of Skunk Point
A roadway leaves Old Ranch Road at the northern end of Skunk Point and leads into the sand dunes. It is an older ranch road but was not documented due to NPS closure. It appears to be in fair condition.

Old Road to Boathouse
This long-abandoned road led from the ranch buildings to the More's boathouse at Bechers Bay. The trace of the road is evident, but the roadway disappears at its upper elevation into the yard of the 1965 foreman's house. The road is in poor condition but is historically significant.

UNGRADED BUT WELL-ESTABLISHED TRACKS IN THE GRASSLANDS

Carrington Point Road
A roadway extends from the Smith Highway in the eastern Lobo Pasture north and northeast to the very tip of Carrington Point, the northernmost point on the island. The road accessed water systems in the Lobo and Carrington Pastures and the scenic area at the end of the road. Not really a graded road, it is more a vehicle track though open grassland, small gullies and sand dunes. It is relatively level in grade until the steep loop descent to the point itself in which the track heads straight down a steep hillside, loops east on a flat terrace and then ascends an adjacent steep hillside to rejoin the original road. About halfway between the Smith Highway and the point is a spur road track leading about a half mile east to the Carrington water trough. The road is typical of the less-developed routes on the island and will

disappear into the vegetation if not maintained by use. It is in fair condition.

Sierra Pablo Road
This route from Rancho Viejo into the mountains of the island may be the oldest on the island. This would have been the most direct route to the island pastures while the original ranch was operating in the 1850s and 1860s. Stehman Forney mapped the road or trail in 1872 and placed a number of survey monuments along it. The road remained in use by Vail & Vickers and is still used for the hunting operation. The road is undeveloped but follows the spine of the ridges as wheel tracks to Clapp Spring. The route leaves Old Ranch Road near East Point and ascends the hills called Sierra Pablo heading due west. The road goes up and down numerous steep knolls before reaching Clapp Spring where, for about a quarter mile, it is a graded, maintained road known as the road to Clapp Spring. It reaches the Water Canyon Road and follows that graded road for over half a mile, then continues more than a mile west/northwest (the Water Canyon road makes a sharp turn to the southeast to descend to the Wreck) to meet the Main Road at the summit. This latter portion of the road has been closed to vehicle traffic by the park service. The Sierra Pablo Road is particularly significant for its association with the older and newer ranching operations, having been in use for some 150 years. It is in poor condition (see photo, Topography #2).

Road to Orr's Camp
Phil Orr constructed this track to his scientific camp on the northwest coast of the island in the early 1950s. For a distance it parallels a road graded by Signal Oil in 1948. The road leaves the Smith Highway in a large plain at a seasonal pond. It leads north/northwest, then northwest at a fork to descend to the marine terrace between Cañada Garañon and Fox Gulch. The route is kept open by occasional trips by park staff and hunters, but is in poor condition (see photo, Circulation #2).

Road to Soledad Beach
Departing from Smith Highway about halfway between Green Canyon and Arlington Canyon, this long-used track passes Twin Peaks and traverses the wide meadows of the North Pasture. The track ends at a hill overlooking the east end of Soledad Beach at the mouth of Cañada de Soledad on the north shore of the island. It is in fair condition.

Road Along Arlington Fence
This track no doubt developed in the construction and maintenance of the 19th century fence line from Arlington Canyon to Soledad Beach. The track through the grassland begins at the intersection of the fence and the Smith Highway, due east of Arlington roundup, and crosses through a gate halfway towards the ocean bluff, where the tracks disappear. It is in fair condition.

Road to Tecolote Canyon
The first section of this route was used for maintenance of the west Arlington Trap fence, but veers northwest to traverse the grassy mesas of Pocket Field. The road descends to the coastal terrace where it abruptly ends at an eroded gulch; the road once continued west along the coastline to Orr's Camp. A spur at the toe of the final slope breaks off to the east where it ends near Arlington Canyon's exit to the sea. It is in fair condition.

Road to Piedragosa
This old route was depicted on Forney's 1873 map leading to the Grouse survey signal, later the site of Piedragosa Roundup. The route was also one of the few roadways depicted on the 1943 USGS quadrangle. The road is found by leaving Johnsons Lee Road at Navy Hill, heading west; the first ¼ mile was slightly bypassed, widened and paved as part of the Navy communications facility improvements and is considered to be part of the Navy Hill roads as detailed above. After passing the former site of the

westernmost radio building, the old route begins, becoming a grassy track with occasional steep grades. The track ends at Piedragosa roundup site, although may continue down to the southwest as marked on the USGS map. The track is neglected but in fair condition. This original track to Piedragosa possesses both integrity and significance as a long-time transportation route on the island.

Road to Las Cruces Roundup
The road to one of the oldest corrals on the island partly follows a pre-1873 route in Quemada Canyon on the east side of the island. The route leaves the South Road a short distance north of the Drift fence and descends into Quemada Canyon, and crosses the creek three times before reaching the corral. The road continues down the canyon for an unknown distance. Portions of the road, at the creek crossings, have been recently graded. The road is in fair condition.

Road at Upper Torrey Pines
This route through the Wire Field is popular with park visitors viewing the Torrey pine forest from the upper heights. It was depicted on Forney's 1873 map. The road leaves South Road near the summit above Bechers Bay heading east along the top of the ridge. While passing the upper reaches of the Torrey pines, and affording fine views of the main ranch and the bay, the road begins a descent to Skunk Point where it meets Old Ranch Road by two spurs of a split. The road is in fair condition.

Road Above Old Ranch House Canyon
This old route loops around the north side of Old Ranch House Canyon from near the site of Rancho Viejo to the Sierra Pablo Road. The mostly-undeveloped roadway ascends a ridge and passes through rocky terrain until rising in elevation through scenic pastures; the southwestern portion of the road follows the Old Ranch Pasture fence. The road is in fair condition; the east end is poorly defined.

Road through Quemada Canyon
Another old route in the Rancho Viejo area begins on Old Ranch Road northwest of Old Ranch roundup. It follows the creek of Quemada Canyon to a point near the termination of the drift fence, then goes through a gate and ascends a grassy ridge in Wire Field. Shortly after passing through a gate into the North Pasture, the road meets South Road near Water Canyon roundup. The road is in fair condition.

Cutoff between Quemada and Old Ranch House Canyons
A short and steep roadway leads from a central point on the road above Old Ranch House Canyon down to Quemada Canyon where it joins the road there. It is unmaintained and in fair condition.

COMBINATION GRADED DIRT/GRASS TRACKS AND ROADS

Smith Highway
One of the most used and important roads on the island is what is called the Smith Highway which crosses the northern side of the island from Bechers Bay to the west end. The Smith Highway evolved from a sheep trail to an important graded dirt road. Leading from the ranch complex to the Arlington roundup and beyond on the west end, the road is named after C. W. Smith, longtime ranch foreman and dynamite expert. Smith reportedly built much of the road in the 1920s and 1930s, blasting through rocky sections in Lobo Canyon and pulling the roadway in and out of deep ravines with precipitous entries and exits. Apparently the road was improved little by little, as a number of bypasses and traces of older routes are found along the ten-mile length of the road. The Smith Highway followed much of a route dating from the mid-1800s which appeared on Stehman Forney's 1872-1873 topographic map of the island, and was used for sheep and cattle drives across the island for about 150 years until the ranch ended operations in 1998.

The Smith Highway leaves the ranch complex at Bechers Bay from a point adjacent to the barns. Originally the road exited the complex from a location farther south towards the ranch house, where it descended into the creek and followed the creek bed for a short distance. This older route remains but is impassable. After crossing Ranch House Creek, the road ascends the ridge west of the ranch, passing over Nidever Cave. As it ascends the road had been moved to a number of parallel locations as erosion destroyed the routes, leaving an unsightly area of erosion. In 2001 the road was rerouted to the south and the eroded areas rehabilitated. The road reaches an elevation of 450 feet and levels off, passing Carrington Point Road on the right and continuing west/southwest to Lobo Canyon. The road makes a precipitous descent, requiring blasting and rockwork, into the canyon where it crosses and parallels the creek before making another spectacular ascent out of the steep canyon. After making additional dramatic crossings of Cow Canyon and Cañada Verde, where it passes the Green Valley roundup within the expansive valley, the road heads southwest and then west to cross Soledad Canyon. The alignment descends steeply into Arlington Canyon, where a roundup is located, then cuts up the steep cliffs to the mesa lands. After another steep crossing at Tecolote Canyon, the road passes westerly through the wide, flat lands of the west end. Where the Smith Highway officially ends is unclear. It passes the hard-to-find junction of the minor road to Orr's Camp at the old Pocket Field roundup and the junction of the older, abandoned route to Sandy Point. Here is the logical conclusion of the Smith Highway and the beginning of the Burma Road, which ascends the ridge to the south where it arrives at a gate and junction with the track leading to Sandy Point.

The Smith Highway is kept in fair condition although some sections are poor. There are few, if any, culverts and road maintenance consists largely of seasonal blading. Portions of the road are tracks through grassy meadows while much of the road is graded, cut-and-fill roadway through the canyons, varying in width from eight to ten feet. The road is accessible by four-wheel-drive vehicles.

Burma Road
The Burma Road, developed in stages between 1932 and 1950, begins near the junction of The Main Road and the Johnsons Lee road, near the summit of Vail Peak. It follows the ridge top, or contours around the side near the top, in a west/northwesterly direction. The road is spectacular, rounding corners on sheer hillsides and surmounting steep hilltops as if a roller coaster. It descends towards Sandy Point, passing the Lepe roundup corrals, and terminates at the end of the Smith Highway near the old Pocket Field roundup. The upper portion features some dramatic cuts into the steep mountainside. The road, averaging eight feet in width, is in fair condition.

Road to Sandy Point
This long, sometimes rough road is composed of two routes, the northerly of which has been abandoned. The current eight-foot-wide alignment leaves the Burma Road at the drift fence crossing, heading west then northwest in a long tangent to Sandy Point. A portion that crossed Mud Tank has been rerouted to avoid continued erosion. The road ends at the top of a bluff affording a spectacular view of Sandy Point, San Miguel Island and the Santa Barbara Channel. The road is in fair condition (see photo, Topography #1).

GRASSLAND TRACKS, ABANDONED, INCLUDING ROUTES DEPICTED ON 1873 SURVEY MAP

Road to Carrington Trough
This short (approximately ½ mile) road leads from Carrington Point Road across a sandy plain to a water trough in the Carrington Pasture. It passes through relatively level lands dotted with lupine. Erosion has forced the closure of the route, which is in poor condition.

Road to Water Canyon Roundup
A steep and rocky roadway leads from South Road down to Water Canyon roundup. It is rarely used and in poor condition.

Ridge Road to Quinn's Knob
This road can be considered the western extension of the Sierra Pablo Road, but is separated by stretches of the developed road to Clapp Spring and South Road. It is one of the documented nineteenth century routes on the island. The road leads up the spine of the ridge west of Clapp Spring, over a pointed knoll called Quinn's Knob, to the Main Road east of Soledad Peak. The road is in very poor condition because of erosion; there is barely any vegetation and the route is hazardous even in four-wheel-drive vehicles.

1873 Routes
In addition to those mentioned above, numerous routes marked on the 1873 survey map could be walked or driven. The routes are too numerous to have surveyed in their entirety, but are well documented on the map. Many are invisible, having been horse and sheep routes long abandoned.

FOOT TRAILS
At least three established foot trails remain in use on Santa Rosa Island. The Lobo Canyon Trail, used by ranch visitors for possibly more than a century, is now featured in park tours. It is a narrow foot trail with few major construction features. The Carrington Point arch trail is an undeveloped foot trail leading from the end of the Carrington Point road to the famous arch rock or "The Bridge" west of the point. The trail to the NPS campground has been maintained by the park service but apparently originated as a section of the original route between Rancho Viejo and Bechers Bay as depicted on the 1873 survey map. Remains of the pioneer trail are difficult to detect. These trails are in fair condition.

STONE PATH AT UPPER HOUSE
A stone walkway leads from the front gate to the front door of the upper house. The stone path appears in 1903 photographs of the yard and is believed to date from construction of the house in the early 1870s. The walkway has been long buried and its full extent is not known; it is in fair condition (see photo, Circulation #3).

CATTLE AND HORSE TRAILS
These trails, developed over time by livestock, range from narrow trails contouring around hillsides and descending into ravines to wide swaths of disturbed land where groups of cattle were traditionally driven. The former type of cow trail is found all across the island at every elevation and are too complex and numerous to inventory. Good examples of the latter type include three cattle drive routes into the Bechers Bay flats: one descends from the Carrington Point trough into the House Trap (see photo, Circulation #4); another descends from the hills in Lobo Pasture into Windmill Canyon near the water developments there; and another follows the western Wire Field fence as it descends to Water Canyon Beach. Cattle were driven down the Smith Highway from the Arlington area, up and down The Main Road from China Camp, and down the South Road from the Wreck. A defined creek crossing in Quemada Canyon adjacent to the end of the drift fence includes a gate intended only for livestock passage.

BECHERS BAY PIER
The ranch pier at Bechers Bay is one of the most complex and significant structures on the island. The More family constructed the pier in 1872 or 1873 (oral tradition has it that it was built by Santa Barbara pier builder John P. Stearns) and it may have been entirely rebuilt in 1913. The pier underwent major repairs in 1945 undertaken by a contractor for the Army Corps of Engineers. Ranch crews repaired the decking in 1983 with lumber salvaged from the Air Force pier at Johnsons Lee. As of 1984 the pier was

described as approximately 572 feet long, with the width varying from 20 feet 3 inches to 37 feet at the end. The random-length decking gave the surface a ragged-at-the-edges appearance. Electricity to the end of the pier provided floodlights for work in the dark. A stiff leg crane was used for hauling large and heavy items (including trucks) out of the boat. An A-frame structure anchored the important cattle chute that measured 2 feet 6 inches by 23 feet 3 inches (see photo, Circulation #5).

Shortly after purchasing the island, the National Park Service reconstructed the pier in 1987 using steel pilings and pressure treated decking. The decking ends were cut in line and wood railings installed. Metal ladders on the north and south sides of the end of the pier accommodate visitors arriving by boat, all of who must step from the boat deck onto the ladder and climb to the deck. Cattle shipments ceased in 1998 leaving the cattle chute unused. In 1999 park crews removed the stiff leg crane and cattle chute, leaving the A-frame. The pier is in fair condition.

PASTURES, ROUNDUPS AND CORRALS

Roundup Process
Newly purchased calves and yearlings arrived on the island by boat or barge and fed on the range grasses for about 18 months until being shipped to the mainland for fattening and slaughter. The ranch managers used a traditional pattern of grazing and gathering which remained unchanged until the ranch was closed. Incoming young cattle were treated and released to holding pastures near the main ranch where they could be observed. Within weeks they would be driven to larger pastures and monitored. Ranch managers kept a check on range conditions and moved the cattle about accordingly. At roundup time, the cattle were gathered and moved in a methodical pattern (adopted according to the topography of the area) to roundup grounds and corrals, where they would be evaluated and separated.

Santa Rosa Island was divided into eleven pastures, fields and traps, each named and with a specific function: the large North Pasture and South Pasture, for general range grazing; Pocket Field, Old Ranch Pasture and Carrington Pasture, for holding separated or isolated animals, such as calves or heifers (during the cow-calf era); Wire Field and Lobo Pasture, for holding animals recently off the boat; Horse Pasture, for the ranch work horses; and Arlington, Wreck and House Traps, for holding livestock during roundups (see photo, Land Use #1).
.
A corral is an enclosure constructed of posts and boards and laid out with chutes, pens and gates that aid in the sorting of cattle. Until the 1960s, only four roundup corrals existed on the outer parts of the island; much of the roundup activity took place at level locations suitable for gathering and containing a group of cattle. Without corrals, roundups took up to three months across the island. Cowboys would be sent out into the canyons to find and herd cattle towards the roundup grounds, all converging at different times depending on the roughness of the terrain, distance and the difficulty of gathering strays. Once collected, the foreman or manager cut the herd, separating cattle to be shipped from those who would stay; a group of seven or eight horsemen kept the herd of cattle to be shipped in a tight bunch which grew as more cattle were separated and added. The roundup also gave the ranchers a chance to have a look at each steer before it was turned back into the pasture. The free cattle roamed or were driven off, back to their range. Often it would be dark by the time the cutting was complete, so the cowboys took shifts holding the group overnight. In the morning, the cattle would be moved across the island following existing trails or roads, to corrals at the ranch on Bechers Bay. Each roundup session took about three days to complete, while pulling in all the cattle from the island could take up to three months.

The use of corrals made roundups easier and faster, and cut the number of cowboys needed. Horses, taken to the roundups the night before, would be rested when the roundup began. In the late 1940s corrals were rebuilt at Arlington and The Wreck (near old La Jolla roundup). Ranch workers began

constructing roundup corrals in other areas of the island in the mid-1960s when materials became available from the abandoned Air Force Station at Johnson's Lee. During that time, cowboys built corrals at Lepe, China Camp, Green Canyon, Black Mountain, Water Canyon and the Old Ranch. The builders used guardrail, creosote poles and heavy timbers, all salvaged from the Air Force road and utility systems. With a specially laid out corral, cattle could be herded into enclosures and chutes where separating is made easier through a system of gates and pens.

At Arlington and the Wreck, cowboys spent a few days herding cattle into the trap from the Pocket Field, and North and South Pastures. Then, smaller bunches would be moved into the first corral through a gate; these would be forced into the alley, where they could be evaluated by the foreman or manager. At the end of the alley two cowboys handled two gates, respectively, each leading into another corral: one for cattle to be shipped, one for those who stay on the island to finish their season. On the shouted decision of the foreman, one or the other of the gates at the end of the alley would be opened and the steer would enter the corral, either to be moved to the main ranch and shipped, or to be released back to island pasture after exiting the trap. The cattle destined for shipping spent the night in the corral, and in the morning were moved to smaller pastures close to the ranch at Bechers Bay. From the Arlington roundup, the Smith Highway acted as the trail to Lobo Pasture; from the Wreck the Water Canyon road led the way to Wire Field. The other corrals at China Camp, Las Cruces, Green Canyon, Lepe, Water Canyon and Old Ranch worked the same way, but without a trap; it took the skill of the island cowboys to move the herd into the corral from the open range. One corral, located near the summit of Black Mountain, was used for holding newly arrived calves and hence was smaller in size.

Overall, the layout of pastures, traps, fences, watering spots, roundups and roads reflect the rancher's patterns of moving cattle for grazing, working and shipping. For instance, cattle gathered off the North Pasture at shipping time would be herded by cowboys from high elevations to low, where the roundups were located at Arlington and Green Canyon. They were then moved in groups to the east into the Lobo holding pasture. The day before shipping time, the herd would be moved to the corrals at Bechers Bay, using the same route down the hill into pens. This activity shows an overall pattern of collecting dispersed animals into contained areas, then moving them along traditional routes developed around the necessities of topography, into the final pens where they are prepared for shipping off the island. The pattern is reversed for arriving animals.

ROUNDUPS AND CORRALS

Roundup corrals are to the rancher as computers are to the writer. They can get along without them but they save time and energy and add to the efficiency of the operation. The circulation of livestock on the island depended on the location of roundup grounds and the various construction designs of the corrals. On Santa Rosa Island, two kinds of corral enclosures were used and still exist: the corrals at the ranch complex, which were used for a number of functions including holding, treatment and shipping; and the roundup corrals scattered around the island, where cattle would be herded from the surrounding rangelands into the corral (with the help of a wing fence), separated as necessary and moved to the ranch complex at Bechers Bay for shipment.

The nine remaining roundup corrals are relatively recent in origin, all but four dating from the 1960s; the latter are older corrals renovated around the time the others were built. The roundup corrals are similar in construction and identical in purpose. The cattle are herded to the corral and into a chute that leads into the corral structure; gates at the end of the chute, operated by cowboys, direct the animal to the appropriate pen, i.e. animals to be shipped, animals to be treated, animals to be released back to pasture. The corrals had to be sturdy as the strength of the recalcitrant cattle could break through a weak fence. The corrals were constructed of posts, usually retired utility poles or 8-inch by 8-inch railroad ties, two-

by-twelve lumber, and, as an additional structural element, metal road guard rails salvaged from the Air Force roadway on the south side of the island. Salvaged chain link fencing was used in many of the corrals as an alternative to horizontal boards. Because of their sturdy construction, most of the corrals are in good condition despite having been abandoned for a number of years. Vegetation is encroaching in the corrals, especially in the disturbed areas within the enclosures.

A few corrals existed on the island during its time as a sheep ranch, but none of those survive. Also, a number of roundup grounds from the Vail & Vickers operation have been documented, although no structures ever existed in those locations. They include, Piedragosa, La Jolla, Sierra Pablo, Lobo, old Arlington and Pocket Field roundups. These sites have a history but may in time disappear beneath scrub vegetation as the grasslands disappear.

Main Ranch Corrals
The extensive corrals at the ranch complex at Bechers Bay performed an important function in the sorting and caring for cattle. They saw most use around the time of shipping, as newly arriving calves could be sorted and penned, and outgoing steers lodged temporarily while being weighed and evaluated. Horses occupied the horse corral adjacent to the horse barn at roundup time.

In most cases, the corrals are constructed of horizontal boards on sturdy posts, sometimes painted white. Their layout is complex, with particular corrals used for various activities such as weighing stock, doctoring, observation, watering and selection. The long pen paralleling the eucalyptus windbreak was used for holding cattle newly brought in for processing. The next pen north is a watering pen, with a large trough centrally located. To the west of the water pen is a multi-use corral adjacent to the generator barn and rarely used for livestock except for passing through. The pens east of the horse barn were the most active at shipping time, with larger pens for holding cattle awaiting processing feeding into smaller pens that funnel the animals into either the scales, squeeze chute, dip vat or shipping pens. A row of six smaller pens connected by a narrow lane is aligned with the land end of the pier (see photo, Circulation #6). These were used to separate cattle by number and weight for loading onto corresponding pens on the Vaquero II. On the opposite side of the windbreak is a series of two hospital pens with water and feed, and at the south side of the windbreak, east side, another hospital pen, also with water and feed. These pens were developed after 1965.

Green Canyon Corral
The Green Canyon roundup corral, built in the mid-1960s, is located in the bottom of Cañada Verde about two miles upstream from the channel (see photo, Natural Systems and Features #1). The Smith Highway passes the corral, which is located between the road and the creek. It is L-shaped and measures approximately 174 feet by 151 feet, and has a wing fence. It has three pens and an alley, and is constructed of posts, boards, guardrail and chain link fencing. It is in good condition but vegetation is choking parts of the corral.

Arlington Corral
The Arlington roundup is located in Arlington Canyon on the Smith Highway (see photo, Circulation #7). It is one of the oldest corrals on the island but was rebuilt forty years ago. Parts of the corral appear to predate the rebuilding effort of the 1960s. It measures approximately 145 feet by 173 feet and has four pens, an alley and a chute. It is constructed of posts, boards, guardrail and chain link fencing. The barbed wire fence enclosing the Arlington trap runs east and west off the north side of the corral. It is in good condition but vegetation is choking parts of the corral. Erosion of the creek bed threatens the west side of the corrals. The line shack once located here was removed by the park service in 1998.

Lepe Corral

The Lepe roundup corral, built in the mid-1960s, is located a short distance off the Burma Road on the west end of the island, near the headwaters of Bee Canyon. Lepe refers to an orphaned calf. The L-shaped corral measures approximately 138 feet by 123 feet and has three pens, an alley and a chute, as well as the typical wing fence. It is constructed of posts, boards, guardrail and chain link fencing. Lepe roundup is in poor condition, with deterioration, leaning posts and parts of the fencing falling down.

China Camp Corral
Another of the older roundups known to have been rebuilt in the mid-1960s, China Camp is located on the south shore, west of South Point and reached by China Camp (Rita's) Road (see photo, Spatial Organization #1). It measures approximately 167 feet by 70 feet and is composed of two large pens and two small ones, with a chute between the former. A chain link wing fence extends north from the northeast corner. It is constructed of posts, boards, guardrail and chain link fencing. The China Camp roundup corrals are in fair condition despite their exposed location on the south shore.

Wreck Corral
The Wreck roundup corral is large and perhaps the most complicated of the corrals. It is also one of the original four corrals on the island, although rebuilt in the mid-1960s. It is located on the south side of the island adjacent to the South road between San Agustin and Wreck Canyons. A line shack sits practically in the middle of the corral. The corral measures approximately 154 feet long by 111 to 136 feet wide. It is divided into four pens, a breezeway, a chute and an enclosure for the line shack. A chain-link-and-post wing fence of the northeast corner is about 75 feet long. As the corral is located at a northeastern corner of the Wreck trap, barbed wire fence lines lead off from two corners. It is constructed of posts, boards and guardrail, and is in fair condition.

Black Mountain Corral
The Black Mountain roundup corral, built in the late 1960s, is located near and immediately south of the summit of that peak on a sharp bend in the Main Road. The corral measures approximately 48 feet by 62 feet with a 37-foot wing fence for directing cattle into the corral. The Black Mountain corral is a single enclosure with no interior divisions, the only one of its kind; it was used for calves only. It is built of creosoted pole posts, chain-link fencing, two-inch by twelve-inch horizontal boards, with the corners braced with metal rods. It is in fair condition.

Old Ranch Corral
The Old Ranch roundup, built in the mid-1960s, is located on the Old Ranch road near Skunk Point. It is large and L-shaped, measuring approximately 132 feet by 132 feet, and has three pens, a wide entrance "hall", and a chute, as well as a 48-foot wing fence. It is constructed of heavy posts, boards, chain link fencing, wire and guardrail salvaged from Johnsons Lee; headlight reflectors remain on some of the posts. It is in fair condition.

Las Cruces Corral
This is one of the older corrals, originally dating to the 1920s or earlier and rebuilt in the 1960s. It is located in Quemada Canyon on the drift fence, at the junction of the drift fence and the southwest corner of Wire Field. A road, alternately dirt or grass, leads to the corral from the South Road. The corral measures about 84 feet by 96 feet with a 24-foot wing and is built of utility poles, boards, guardrail and chain link fencing. It is roughly square with a lane on the east side. The drift fence connects to the northwest and northeast corners of the corral, and the western Wire Field fence crosses the creek north of the corral. It is in fair condition.

Water Canyon Corral
The Water Canyon roundup corral, built in the mid-1960s, is located in Water Canyon about 1.5 miles

from Bechers Bay. It is reached by the Water Canyon/South road; a short but steep track leads down to the corral from the road. It is a simple rectangular structure measuring approximately 80 feet by 116 feet with two large pens and one small one, as well as the typical wing fence measuring 46 feet. There is no chute in this corral. It is constructed of posts, boards, chain link fencing and guard rail, and is in fair condition.

Piedragosa Roundup
No corral exists here, but Vail & Vickers used this level knoll for rounding up cattle in the southwest side of the island. The roundup ground is located about 2.5 miles northwest of South Point and 1.5 miles northeast of China Camp and is reached by an unimproved road from Navy Hill.

Sierra Pablo Roundup
The exact location of Sierra Pablo roundup is unknown. There was never a corral here. It is located in the vicinity of the junction of the drift fence and the Old Ranch Pasture fence, reportedly southwest from that point. The hills in the area show some knolls and ridges that would accommodate a roundup.

Lobo Roundup
This site, located south of the point where the Smith Highway crosses Lobo Canyon, acted as the eastern roundup point for North Pasture cattle to be placed in the Lobo Pasture and then sent for shipping. It is merely a level grassy area on a low ridge with no corral.

La Jolla Roundup
Until the Wreck Roundup corrals and trap were built, this acted as the roundup point for cattle on the southeast side of the island. It is a grassy, fairly level area adjacent to the South Road, about one mile west from the Wreck.

Pocket Field Roundup
This former roundup ground, used for gathering cattle off the Pocket Field, has not been used for decades. It is located at the foot of a slope, near the junction of the Smith Highway and Phil Orr's road, and is merely a grassy, undefined area.

Old Arlington Roundup
Conflicting information about the Arlington roundup leads to some confusion about this site. The current site with corrals is known to have existed as far back as 1929; the subject old Arlington roundup may have been used as a highland alternative for some years mid-century, possibly in connection with the new Signal Road built past the site in 1948. It is a grassy area located about one-half mile south of the Arlington corral and near the Smith Highway and the junction of the drift fence and the west Arlington Trap fence.

AIRSTRIPS
The era of flying small planes to Santa Rosa Island began around 1930. By 1933 an airstrip had been designated on the grain field south of the ranch headquarters. This airstrip was slowly improved as use became more common, but not until 1988 was the strip graded into a good level surface, eliminating a low hump near the center. Other airstrips were used on the island. The Air Force constructed a strip with graders in a short canyon at Johnsons Lee but discontinued its use after a fatal crash. Phil Orr landed on the north side, Sam Wise made landings at China Camp, and the Army Corps of Engineers designated a number of airstrip sites in 1950. Only the Bechers Bay strip has been used consistently. It is well maintained.

Circulation on Santa Rosa Island retains integrity and is a contributing feature of the Vail & Vickers

Ranch Historic District.



Circulation #1. Portions of the Main Road are constructed with cut and fill on the steep slopes of the mount. View to the southwest, near Pecho Peak, 2001. (PGSO-CHIS-N-0003-20)



Circulation #2. A typical grassy road on Santa Rosa Island. This road leads to Signal Road on the north side of the island. View to southeast, 2001. (PGSO-CHIS-N-0005-01)



Circulation #3. The stone walkway at the upper house leads from the front gate to the porch. View to the west, 2001. (PGSO-CHIS-N-0004-28)



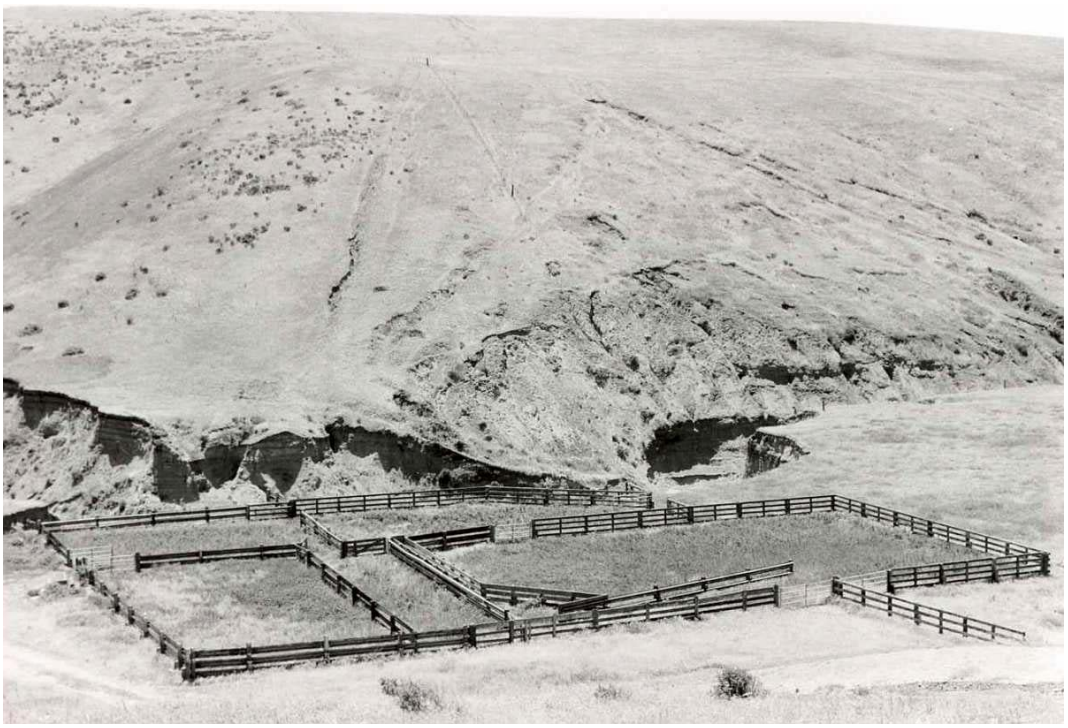
Circulation #4. This former cattle trail on the north side of House Trap was the major route from Carrington Pasture to holding pastures prior to shipping. View to the north, 2001. (PGSO-CHIS-N-0002-35A)



Circulation #5. The Bechers Bay pier is constructed on steel pilings, with a few bents of wood pilings in the foreground. View to the east, 2001. (PGSO-CHIA-N-0006-30)



Circulation #6. Corrals and pens at the main ranch had specific functions. The shipping pens are in the foreground. View to the west, 2001. (CHIS-HRS-22-00)



Circulation #7. Arlington roundup is one of the largest on the island. Note the wing fence at bottom right that diverted cattle into the gate. View to the west, 2001. (CHIS-HRS-19-27)

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
Bechers Bay airstrip	Contributing	N/A		
Burma Road	Contributing	N/A		
Campground trail	Contributing	N/A		
Carrington Point Road	Contributing	N/A		
Carrington Point trail	Contributing	N/A		
Cattle and Horse trails	Contributing	N/A		
China Camp (Rita's) Road	Contributing	Santa Rosa Island Maintained Graded Dirt Roads	329147	
Cutoff between Quemada and Old Ranch House Canyons	Contributing	N/A		
Johnsons Lee Road	Contributing	Santa Rosa Island Paved Roads	330033	
La Jolla roundup	Contributing	N/A		
Lobo Canyon trail	Contributing	N/A		
Lobo roundup	Contributing	N/A		
Main ranch corrals	Contributing	Ranch Corrals	059645	SRI3
Navy Hill roads	Contributing	Santa Rosa Island Paved Roads	330033	
Old Arlington roundup	Contributing	N/A		
Old Ranch Road	Contributing	Santa Rosa Island Maintained Graded Dirt Roads	329147	
Old Road to boathouse	Contributing	Santa Rosa Island Abandoned Graded Dirt Roads	329148	
Pastures, fields and traps (11)	Contributing	N/A		

Piedragosa roundup	Contributing	N/A	
Pocket Field roundup	Contributing	N/A	
Ridge road to Quinn's Knob	Contributing	N/A	
Road above La Jolla Canyon	Contributing	Santa Rosa Island Abandoned Graded Dirt Roads	329148
Road above Lobo Canyon	Contributing	Santa Rosa Island Abandoned Graded Dirt Roads	329148
Road above Old Ranch House Canyon	Contributing	N/A	
Road along Arlington fence	Contributing	N/A	
Road at Upper Torrey Pines	Contributing	N/A	
Road to Black Mountain summit	Contributing	Santa Rosa Island Maintained Graded Dirt Roads	329147
Road to Carrington trough	Contributing	N/A	
Road to Clapp Spring	Contributing	Santa Rosa Island Maintained Graded Dirt Roads	329147
Road to Horse Pasture	Contributing	Santa Rosa Island Maintained Graded Dirt Roads	329147
Road to Las Cruces roundup	Contributing	N/A	
Road to Orr's Camp	Contributing	N/A	
Road to Piedragosa	Contributing	N/A	
Road to Sandy Point	Contributing	N/A	
Road to Skunk Point	Contributing	Santa Rosa Island Abandoned Graded Dirt Roads	329148

Road to Soledad Beach	Contributing	N/A		
Road to South Point Light	Contributing	Santa Rosa Island Maintained Graded Dirt Roads	329147	
Road to Tecolote Canyon	Contributing	N/A		
Road to Tranquillon Canyon	Contributing	Santa Rosa Island Abandoned Graded Dirt Roads	329148	
Road to Water Canyon landing	Contributing	Santa Rosa Island Maintained Graded Dirt Roads	329147	
Road to Water Canyon roundup	Contributing	N/A		
Road to WWII Camp	Contributing	Santa Rosa Island Abandoned Graded Dirt Roads	329148	
Roads at main ranch	Contributing	N/A		
Sierra Pablo Road	Contributing	N/A		
Sierra Pablo roundup	Contributing	N/A		
Signal Road	Contributing	Santa Rosa Island Maintained Graded Dirt Roads	329147	
Smith Highway	Contributing	Smith Highway	102076	SRI
South Point lighthouse trail	Contributing	N/A		
South Road	Contributing	Santa Rosa Island Maintained Graded Dirt Roads	329147	
Stone walkway at upper house	Contributing	Stone Walkway At Upper House	329149	
Telephone Road	Contributing	Santa Rosa Island Abandoned Graded Dirt Roads	329148	

The Main Road	Contributing	Soledad Road	102077	SRI
Arlington corral	Non-Contributing	Arlington Roundup	102078	SRI
Bechers Bay Pier	Non-Contributing	Bechers Bay Pier	059643	SRI1
Black Mountain corral	Non-Contributing	Black Mountain Corral	330046	
China Camp corral	Non-Contributing	China Camp Roundup	102079	SRI
Green Canyon corral	Non-Contributing	Green Canyon Corral	330055	
Johnsons Lee airstrip	Non-Contributing			
Johnsons Lee utility corridor	Non-Contributing			
Las Cruces corral	Non-Contributing	Las Cruces Corral	330051	
Lepe corral	Non-Contributing	Lepe Corral	330037	
NPS housing access	Non-Contributing			
NPS maintenance access	Non-Contributing			
Old Ranch corral	Non-Contributing	Old Ranch Corral	330049	
Pre-1873 routes	Non-Contributing	N/A		
Water Canyon corral	Non-Contributing	Water Canyon Corral	330053	
Wreck corral	Non-Contributing	Wreck Roundup	102080	SRI

Buildings And Structures

Numerous buildings and structures have been erected on Santa Rosa Island since 1844, most of which contributed to the ranching efforts. Those that didn't, specifically the military bases, came to be important to the ranchers for their shelter and salvage value: a surprising amount of construction occurred on the island as a result of the deconstruction of military facilities. Buildings on the island include those at the ranch complex at Bechers Bay, such as houses, barns and sheds, and a few scattered line shacks and one former military building elsewhere on the island. Structures range from the large pier at Bechers Bay and its associated pile driver, to dams and water systems on various areas on the island. This inventory begins with buildings at the main ranch complex.

BUILDINGS

Upper House (main ranch house)
The upper house is actually composed of two buildings: the two-story main house/kitchen and a small cabin connected by a short section of wall. The buildings form an ell shape, with a board walkway/patio between. The sense of using additions to expand the size and utility of the building is obvious: the original house has been extended to the north in a linear fashion. The front door (apparently rarely used as an entrance) faces Bechers Bay (east). The rear of the building overlooks Ranch House Canyon, an incised perennial drainage backed by the hills of northern Santa Rosa Island. The house is painted white with green trim, and is in fair condition (see photo, Buildings and Structures #1).

Members of the Vail family call the Vail and Vickers ranch house the upper house. It is located on a level site about one-quarter of a mile south of the complex of barns and employee houses. The family of A. W. More, who purchased the island in stages between 1859 and 1869, probably constructed the house in 1873. The Mores planted Monterey cypress trees surrounding the yard, and planted at least two of the trees directly in front of the house. A writer in 1883 described the "ranch house, behind a group of high-shouldered Monterey cypress, squeezed out of shape by the wind . . .. Here the owner of the island lives while at home in his island kingdom." When Vail and Vickers purchased a share of the island in 1901, Walter Vail's brother Edward described the house as "a two-story cottage furnished comfortably that made us think of cousin Kate's house in Plainfield [New Jersey]." The picturesque two-story ranch house at Bechers Bay became the headquarters for the Vail and Vickers families, with generations of both families lodging there during visits and work periods. Vail and Vickers holds a reservation of use and occupancy on the house for a period of 25 years; it expires in December 2011.

Upper House Outhouse
An abandoned outhouse sits in the southwest corner of the yard behind the upper house. It was built and painted to match the house with lapped siding and dark trim. It is in poor condition. Island native E. K. Smith stated that the outhouse was moved in the 1950s from the back fence of the house to the current corner location. No record has been found to establish a date for construction of the outhouse, although it appears to be at least 100 years old and may be contemporary with the house, circa 1873.

Horse Barn
The barn is the largest structure in the ranch complex. It is a four-level building with a long main gable flanked by shed roofs of equal length in a traditional California barn design (rectangular footprint, simple roof line, vertical board siding, no adornment). It has a corrugated metal roof, rough-sawn random-width redwood board and batten siding painted red, and a foundation variously of stone and concrete. The openings, consisting of twin large open doorways on either (north and south) end and some closed-up windows, are trimmed with boards painted white. The east side of the barn, location of the stables, is an open wall facing a horse corral. The barn can be divided for description purposes into three long rooms.

The east portion is a long shed containing a colt shed, horse stalls with feed bins and an area with saddle racks where horses were prepared for ranch use. On the northern side of this area are two tack and storage rooms with a stairway up to the loft. The central portion of the barn is two stories with wood plank floors and large door openings at either end; the lower was used for feed storage, a carpenter shop and an area for storing fence materials, both with work benches. The larger area of the upper story of the central barn was used for storing additional feed; the use of this area as seasonal lodging is likely. Historical graffiti is found on the west wall of the loft near the north end. This level of the barn also has an enclosed tack room and two rooms without east walls that are open to the lower level of the barn on its open end. The west portion is another shed off the main structure, with an old rough wood floor laid diagonally and otherwise one large room open at both ends with large doorways. A mechanic's pit is located near the north end of this room. The barn is in fair condition.

The horse barn dates from the More sheep era. It was probably built in the mid-1870s, and contains graffiti dating from the 1890s. It is presumed that the Mores used the barn for horse stables, tack rooms, wagon and feed storage, and lodging for visiting sheep shearers during the season. It may have been used for shearing as well, and storage of wool. Vail and Vickers used the barn for stabling horses, tack rooms, feed storage, vehicle storage and mechanic's shop (a pit had been dug under the west room floor). A photograph of the barn taken in the 1910s shows it painted white, while a darker color (presumably red) had been applied by the late 1930s. The Vails installed a corrugated metal roof in the 1950s. The barn has apparently seen few alterations; little documentation exists to provide a clear picture of any modifications (see photo, Buildings and Structures #2).

Generator Barn and Matanza Tanks
The building contains six rooms: a maintenance/repair shop once housing a blacksmithy (equipment remains), with doors exiting to the east and north; a former generator room with a doorway facing the ocean; a workshop equipped with a saw and grinder, also with a door facing the ocean; a butcher room with a loading dock out its door which faces west; and two walk-in freezers with heavy doors. Outside the west side of the building stand two massive iron boilers on circular stone foundations with flattened fronts. The boilers are constructed of four rolled plates of iron riveted together with a convex top with hatch and a small doorway at the bottom. In these tanks hundreds of sheep carcasses at a time would be rendered into fat in the infamous matanzas at the ranch during drought years. A cattle chute on a ramp leading to the door located on the south side of the building allows a steer to be walked up the chute to be killed for slaughter, tumbling conveniently into the room through the door. The loading dock on the west side accommodated trucks picking up meat and other supplies. The building is in fair condition (see photo, Buildings and Structures #2).

The generator barn was probably constructed in the early 1870s and housed the original blacksmith shop and other workshops and utility areas. It was originally twice the size with two side-by-side gable-roofed sheds, the western one sheltering the More's massive matanza boilers. Some time after 1948 ranch crew removed the western structure, leaving the boilers exposed to the elements. The remaining building section has been used by Vail and Vickers as a blacksmith shop, generator house, slaughterhouse and cold storage. Three cold rooms in the barn have not changed in the memory of ranch veterans; one held a freezer for making ice.

Schoolhouse/Residence
The former schoolhouse is a small one-story, gable-roofed building with a bedroom and kitchen that have been adapted from the original school structure, a small living room, and a bathroom. A sturdy vertical-board fence with a gate surrounds the house, all painted white, and forms a small yard. The schoolhouse is in fair condition (see photo, Buildings and Structures #3).

The schoolhouse may have been the one used by the Mores in the late 1800s, but E. K. Smith claims that his father built it out of a generator shed around 1923. It is likely that the More-era schoolhouse had been adapted as a generator shed, then remodeled back into a school by Smith. From the early 1920s until about 1932 eight to ten ranch children took their lessons in the little building from a teacher hired from the city. After the school use was discontinued, it was used for guest quarters and to house ranch workers. A room was added as a shed addition in the 1950s to make a more comfortable home. Cowboys occupied the schoolhouse until 1999.

Ranch Outhouse (large)
A long-abandoned ranch outhouse is located on the side of the gully overlooking Ranch House Canyon across the road to the north from the barns. It is overgrown with native vegetation (coyote brush and poison oak) and very dilapidated. It was built with vertical board siding and provided two toilet holes. It was once painted white. The outhouse is leaning towards the creek, is overgrown with bushes and in very poor condition. In light of the fact that outhouse pits have been traditional sites for dumping household materials, this outhouse site has archeological potential.

Ranch Outhouse (small)
Another, smaller outhouse is found in the eucalyptus windbreak near the dipping vat. The one-seater outhouse is well constructed, has shiplap siding once painted red and has been long neglected. It is in poor condition (see photo, Buildings and Structures #4). This outhouse served vaqueros and residents of the small red house that once stood at the bend in the windbreak. The outhouse pit also has archeological potential.

Scale House
The scale house has a gable roof (altered from an earlier, more steeply pitched gable) with corrugated metal roofing, and neat board-and-batten wood siding painted red. It is almost entirely open at the two ends where cattle entered and exited the scale, and has a concrete floor and foundation. A chute guided cattle from the north end into the scale, and they exited into a small corral on the south end. This small but very important building features a Howell livestock scale original to the building, used for precise weighing of incoming and outgoing cattle. A state inspector annually checked the accuracy and certified the scale. The scale house was an important part of ranch business, as outgoing steers could be weighed and evaluated, a process which determined the amount of income Vail and Vickers would acquire from a sale after roundup. Weights also determined the pattern of loading cattle on the cattle boats and barges. The scale house is in good condition (see photo, Buildings and Structures #5).

Branding Shed
Near the scale house is the branding shed (or chute shed), a utilitarian shelter housing the ranch squeeze chute and equipment used for processing incoming cattle and others as needed. It is a wood frame structure with two open walls and a large opening on the north wall allowing entry of livestock from a chute; the west wall and upper parts of the north and south elevations are vertical planks nailed to a post-and-beam structure; it is painted red and is in fair condition (see photo, Buildings and Structures #6). The squeeze chute held cattle while they were vaccinated, dehorned and castrated. It was reportedly constructed around 1905-1910 but could have been constructed later; ranch workers removed a gable roof after 1948 and replaced it with a shed roof. The steel squeeze chute was installed in the 1960s to replace a wooden one.

Rope House
The rope house is constructed of vertical boards covered by tarpaper and has a corrugated metal shed roof. It has not appeared to be used for a number of years and is deteriorated, in poor condition. Vail and Vickers employees moved this small utility shed to this convenient location above the entrance cut to the

pier, to hold equipment used in boat and shipping activities.

World War II Storage Building
Located on the southern part of the ranch complex near the NPS generator building, this simple, rectangular building has a gable roof and rests on concrete piers. It is in fair condition. It was remodeled between 1984 and 1987 with salvaged concrete-asbestos siding that covered the wood siding and some of the original window openings. The U. S. Army built a small complex of buildings, including two storage sheds and a barracks, south of the ranch house in 1943 as the transit base for the radar station situated on other parts of the island. The buildings became property of Vail and Vickers after the war, and all but one were removed. The Vails used the building for storage.

Foreman's House
The foreman's house is a one-story rectangular building. In back of the house are a utility building, constructed around 1977, and a gun and saddle workshop that was moved to the site from Johnsons Lee in 1976. A cinder block septic tank is located in the rear of the house yard. The house appears to be in good condition. Ranch hands built this new house for the foreman in 1965 on a flat area north of the road from the pier to the bunkhouse and barns. The builders ran into "nothing but rock" as they dug out the area for the foundation. Diego Cuevas claimed that the ground needed to be drained with pumps. The building was constructed out of various materials, most salvaged, including windows left over from a construction job in Santa Barbara, and doors, walls, some cabinetry and other items from the Air Force base at Johnsons Lee. Cowboys did the construction work, interspersing it with their other ranch responsibilities; it took about 8 months to complete.

Bunkhouse
This modern bunkhouse is in an L-shape with an open porch running the length of the inside of the L. The house contains a kitchen with an eating area, pantries, a freezer room, bathrooms, a lounge, bunkrooms and a private bedroom. It is in good condition. The building sits on the site of the original ranch house complex including two-story residence, attached cook shack and separate bunkhouse, the earliest thought to have been built in 1855. The ranch house complex burned to the ground on the night of November 3, 1969. After surveying the damage, Al Vail and Bill Wallace sketched out a replacement bunkhouse on a napkin while returning to Santa Barbara on the Vaquero II. Wallace and his cowboys built the new bunkhouse in 1970, using for much of it salvaged Air Force materials including doors, plumbing, toilets, basins, and lumber. Clearing the rubble after the bunkhouse fire, an old flagstone foundation measuring about 12 feet square was revealed; speculation arose whether the foundation was from the original house on the site built by Alpheus Thompson.

Chicken Shed
Behind the bunkhouse and at the edge of the cliff overlooking Ranch House Canyon sits an abandoned chicken shed built after 1969 from salvaged materials. It has a corrugated metal shed roof, vertical board siding and chicken wire covering the open east side. It is collapsing under the weight of an overhanging tree and is in poor condition.

Pig Pen
Located in the eucalyptus windbreak and attached to the corral fence, this simple yet sturdy pen is made of boards, has not been used for many years and is in poor condition.

Game Slaughter Shed
This double plywood-and-board structure is located north of the Russ Vail house. It was constructed for the commercial hunting operation in the 1990s and is in fair condition.

Russ Vail House
This "kit" home is an attractive yet simple wood structure with knotty pine interior and a deck that faces the ocean. It is in good condition. After the park service purchased the island, Russ Vail in 1988 built a prefabricated home on the Vail's reserved area on the east side of the eucalyptus windbreak. It was meant to be temporary so was constructed on a foundation of pressure treated wood.

Metal Barn
Near the south end of the eucalyptus windbreak, in the vicinity of a former barn, stands a prefabricated metal shed built around 1980, with corrugated metal walls and roof on a dirt floor. It has held tractors, a harvester and various ranching equipment. It is in fair condition (see photo, Small Scale Features #3).

China Camp Line Shack and Cabin
The board and batten China Camp line shack is actually two buildings joined by a board fence. The older is the westerly one, with two bedrooms, a kitchen/dining area and a lean-to storage room. The easterly cabin, built by Vail family members in the 1950s with salvaged lumber from the World War II camp, is one room with exposed rafters. The cabins are in fair condition; they were repaired in 2000. Vail and Vickers first built a line shack at China Camp in the 1930s to supply overnight lodging for cowboys working the remote south side of the island. The building site is near the corrals but at a slightly lower elevation and somewhat hidden from the wind (see photo, Small Scale Features #7).

Wreck Line Shack
The gable-roofed, three-room building with salvaged concrete-asbestos siding is located in a spot surrounded on three sides by the roundup corrals; a fence on the south side provides a full yard-type enclosure around the cabin. It has not been used in a number of years but is in fair condition. As the Wreck roundup was developed on the southeast side as an important cattle-gathering site the need arose for an overnight shelter for cowboys during roundup time. The original building was moved there from a the World War II camp in the hills above but entirely rebuilt around 1985 by Bill Wallace using some of the older materials but largely newer ones from Johnsons Lee.

(Nidever) Cave in Ranch House Canyon
The natural feature most recently called Nidever Cave may prove to be the site of George Nidever's headquarters and shelter from attack during an otter hunting expedition of 1835. A sheepherder named Santiago Quinteros occupied the large sandstone cave for many years in the late 1800s. Santiago or a predecessor enclosed the entrance with a wooden wall and doorway to create a comfortable dwelling (see photo, Buildings and Structures #8). During the Vail and Vickers era the cave was used by temporary ranch crews and for explosives storage. Because of erosion caused by road building activities above, resulting in at least one hole in the roof of the cave, the cave is filling in with earth and threatened with collapse. A portion of Santiago's wooden entrance wall remains. The cave possesses potential for both historical and prehistoric archeology but is in need of emergency stabilization.

South Point Lighthouse
This small, boxy two-room building has a flat roof and grooved wood siding. An inoperative battery-powered light fixture is affixed to the roof. The interior walls have a great deal of historical graffiti dating to the late 1930s. The building is in poor condition and threatened by weather and deterioration. The South Point Light was a small solar/battery-powered flashing aid to navigation. It was built in 1937 to replace an earlier, pyramidal light structure stationed lower in elevation. The older half of the house was pre-cut and assembled at the Coast Guard depot on Yerba Buena Island in San Francisco Bay, then disassembled and reassembled on this site. The 1937 structure was almost doubled in size shortly after it was constructed. The Coast Guard abandoned the light some time before 1987 and it has been sitting unmaintained for at least that time (see photo, Buildings and Structures #7).

World War II Operations Building
The U.S. Army constructed this buried concrete Operations Building in 1943 as part of the WWII Radar Station in use from August 1943 to about August 1945. The four-room building has thick concrete walls, evidence of electrical and operational systems and vents on the roof. It is in fair condition.

Vehicle Maintenance Shop and Concrete Enclosure
This tall, 2,193 square foot utility building has a gable roof, grooved siding and four large rolling doors facing the ocean. It is in good condition. The Vehicle Maintenance Shop at Johnsons Lee was constructed for the U. S. Air Force's Santa Rosa Island Air Force Station in 1950. It was used until deactivation in 1963, then saw little maintenance until the National Park Service rehabilitated it in 1987 or 1988 for use as a headquarters for park operations on the island. Since about 1990 it has been used as a storage building and outpost for park researchers. It was determined ineligible for the National Register of Historic Places in the 1990s. Next to the building is a concrete three-sided enclosure, and behind it is a lengthy ditch, apparently to divert erosion from the building site. The removal of most other signs of the Santa Rosa Island Air Force Station in the 1990s depleted any remaining integrity of the site.

NPS Buildings
Since the late 1980s the National Park Service has constructed a number of buildings for island rangers and maintenance workers. South of the upper ranch house stands a generator building, fuel storage and restrooms. A vehicle-washing area uses the space once housing staff trailers. Near the old ranch dump on the terrace facing Bechers Bay is a small radio building maintained by another government agency. A new complex of maintenance buildings, water tanks and resources support structures has been built on a bench above Windmill Canyon. A level area below this site contains a fenced plant nursery, a tiny shed housing a clinic for treating foxes called the "foxpital", and storage items. In 1998-1999 the park service constructed the first phase of a residential compound for rangers, researchers and maintenance personnel on a hill above the ranch complex. As of this writing three duplexes and two garages have been built. NPS-era outhouses are found at China Camp and in a discreet canyon near East Point and two outhouses at the campground. The NPS structures, with the exception of the remote outhouses, are in good condition.

STRUCTURES

Dip Vat
To prevent hoof and mouth disease and heel fly, Vail and Vickers constructed a dip vat, probably in the late 1930s. The reinforced concrete tank is sunken into the ground, the upper edge being only slightly above grade, with a sloping entrance ramp that forced the animals to jump into the full vat and a more gradual exit ramp. A concrete drip pad allowed the chemicals to remain contained and eventually drain back into the vat. Chutes and gates controlled the movement of the cattle through the process. The dip vat is in fair condition, although the wooden elements, having been unused for decades, are in poor condition (see photo, Buildings and Structures #8).



Buildings and Structures #1. The upper ranch house at Bechers Bay. The kitchen and cabin (left) were added in 1950. View to the northwest, 1999. (CHIS-HRS-21-34)



Buildings and Structures #2. The two More-era barns are board and batten walls painted red. The matanza tanks are located between the barns. Horse barn is on the left, looking north, 1998. (CHIS-HRS-08-02)



Buildings and Structures #3. The old school house was enlarged and used as a residence in later years. (CHIS-HRS-08-27)



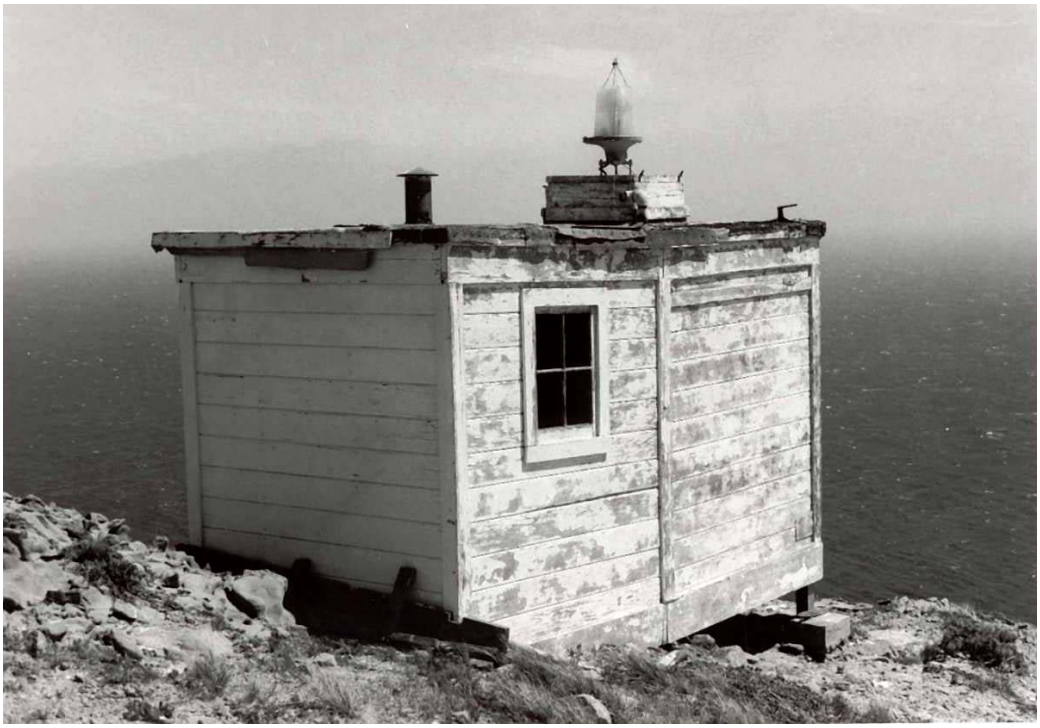
Buildings and Structures #4. The small outhouse located in the eucalyptus windbreak served families living in a house nearby and cowboys during shipping time. (CHIS-HRS-35-04,1999)



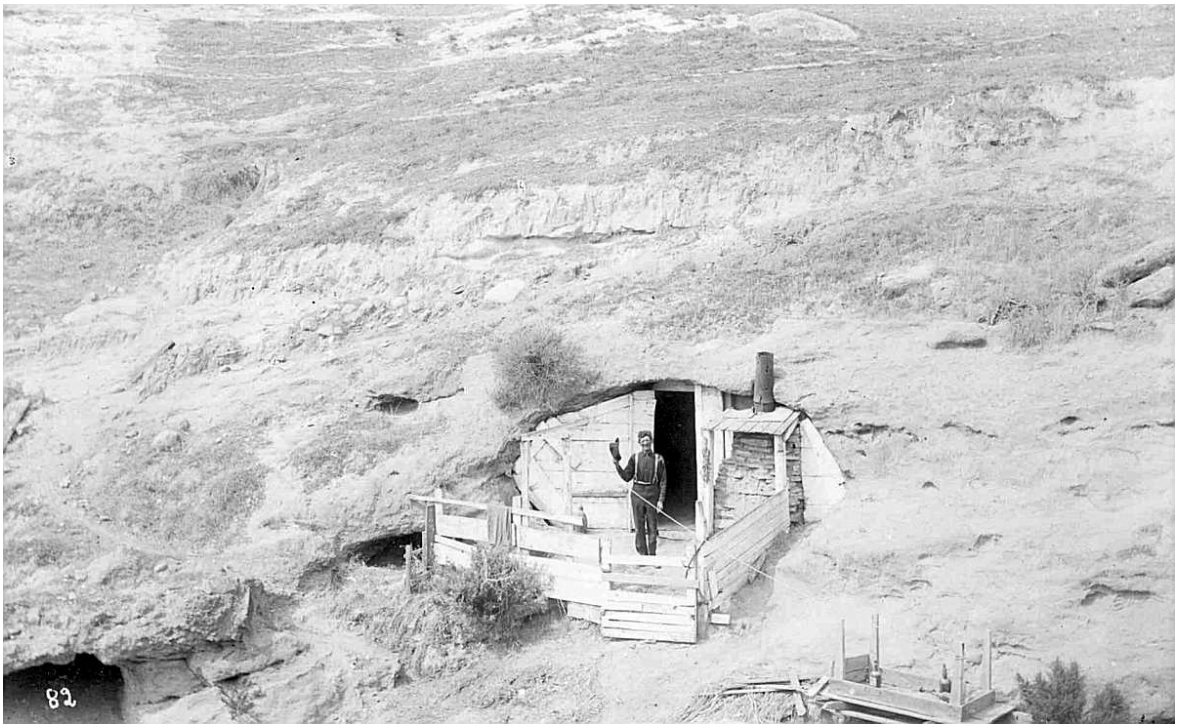
Buildings and Structures #5. The scale house was modified after 1948. (CHIS-HRS-09-33,1999)



Buildings and Structures #6. The branding shed played an essential role in ranch operation. It was modified after 1948. (CHIS-HRS-08-32, 2001)



Buildings and Structures #7. The South Point Light was constructed in 1937 and has been abandoned for more than a decade. View to the south, 1999. (CHIS-HRS-17-33)



Buildings and Structures #8. This historic photograph shows Santiago Quinteros at the entrance to his cave dwelling in Ranch House Canyon in 1903. The Smith Highway now cuts into the slope behind and above the cave. (Cal. State Archives, Negative #27,039)

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
Branding Shed	Contributing	Branding Shed	059637	513
Cattle dipping vat	Contributing	Cattle Dipping Vat	329173	
China Camp line shack	Contributing	China Camp Cabin	059667	SRI19
Foreman's House	Contributing	Foreman's House	303163	
Generator Barn	Contributing	Generator Barn	059641	527A
Horse Barn	Contributing	Horse Barn	059642	525
Main Ranch House (upper house)	Contributing	Main Ranch House	059640	527
Matanza tanks	Contributing	Matanza Tanks	332662	
Nidever Cave in Ranch House Canyon	Contributing	Nidever Cave	059649	SR17

Ranch outhouse (large)	Contributing	Vail And Vickers Corral Outhouse	059648	SRI6
Ranch outhouse (small)	Contributing	Small Outhouse	329169	
Rope House	Contributing	Rope House	303162	
Scale House	Contributing	Scale House	059638	512
Schoolhouse/residence	Contributing	Old School House	059639	526
South Point Lighthouse	Contributing	South Point Lighthouse	102074	SRI
Upper House outhouse	Contributing	Outhouse	059647	SRI5
Bunkhouse	Non-Contributing	Bunk House	329151	
Chicken Shed	Non-Contributing	Chicken Shed	329162	
Concrete barrier/enclosure, Johnson's Lee	Non-Contributing			
Elk slaughter shed	Non-Contributing			
Metal Barn	Non-Contributing	Metal Barn	329165	
NPS campground structures	Non-Contributing			
NPS duplexes	Non-Contributing			
NPS fuel building	Non-Contributing			
NPS generator building	Non-Contributing			
NPS restrooms	Non-Contributing			
NPS utility structures	Non-Contributing			
Outhouse, China Camp	Non-Contributing			
Outhouse, East Point	Non-Contributing			
Pig Pen	Non-Contributing	Pig Pen	329167	
Radio building	Non-Contributing			

Radio shed	Non-Contributing			
Russ Vail house	Non-Contributing			
Vehicle maintenance shop, Johnson's Lee	Non-Contributing			
World War II operations building	Non-Contributing	World War Ii Operations Building	329171	
World War II storage building	Non-Contributing	World War Ii Storage Building	303162	
Wreck Line shack	Non-Contributing	Wreck Roundup	102080	SRI

Cluster Arrangement

Cluster Arrangement
Santa Rosa Island is a large land mass, causing the island ranchers to create a "headquarters" at the shipping point and a number of "line camps" for working cattle, all of which are considered to be clusters related to the ranching history. The National Park Service has created non-contributing clusters with the development of housing and maintenance areas.

MAIN RANCH
The major cluster on Santa Rosa Island is the ranch complex at Bechers Bay. This complex is organized in relation to the pier, as all island supplies came and went on the pier by ship, barge or boat. Viewed from the air, the corrals, fences, windbreaks, roads and buildings line up almost south to north and then make a turn to the northeast, thereby literally funneling onto the pier. The pattern is dominated by the long eucalyptus windbreak, which is in turn patterned according to the circulation needs of the pier-to-ranch transit and its role in sheltering the adjacent field from westerly winds. The cluster arrangement was created in accordance with day-to-day operational needs of the ranch, but most prominently the processing and shipping of cattle: exiting from the pier, first comes shipping pens (direct connection to pier function), then the foreman's house (oversight of shipping and all other ranching operations), containment corrals and processing sheds (preparation for shipping), horse corrals (support for collecting and moving cattle), bunkhouses and barns (housing and support facilities for workers and horses), more corrals (initial collecting points), and finally, the owner's house (total overview). Beyond lies the vast island pastures and range. In reverse, note the gradual tightening of fence lines, roads and buildings until squeezed onto the pier for exit. The cluster was laid out in distinct but cohesive groups in order to organize operations of the ranch: residence, horse activities, cattle processing, feed crops. The bunkhouse is adjacent to the horse area because horse work is the primary activity in cattle operations; the horse area is then adjacent to the cattle area because of the convenience and similarity of the facilities (wooden corrals, feed and water troughs, gates); the crop fields are located in the areas not needed for cattle work, yet close to the equipment and storage buildings; the owner's residence is a distance off for reasons stated below.

The ranch complex is spread out, indicating the size of the overall ranch, and located on an appropriately spacious and level site. The corrals are larger when further from the pier, and then gradually shrink in size as cattle would be sorted into smaller groups for shipping. Distinct elements of the ranch complex cluster can be differentiated. The horse barn cluster brings together the resources needed for keeping a large herd of working horses. The larger barn contains feed, stalls with mangers, tack rooms, sleeping areas for transient cowboys and room for associated equipment and supplies. Bright lights were mounted on the east side of the barn because roundup and shipping activities commenced in the darkness of early morning. Next to the horse barn stands the smaller generator shed, in which the blacksmith shop is located where horseshoes, bits and buckles were made and repaired. Adjacent to these buildings are corrals specifically for horses. A windbreak of Monterey cypress trees protects (or once protected) the horse barn complex from the westerly winds (see photo, Cluster Arrangement #1).

Another sub-cluster is the shipping pens area, where cattle coming and going were sorted, processed and split into small groups for loading onto the cattle boats and barges. Two small buildings, farthest from the pier in this sub-cluster, housed scales and a squeeze chute, with adjacent corrals feeding animals into and out of the buildings. To the west a deep concrete dip vat was used to treat cattle for pests and diseases, for a time an important part of the processing/shipping routine. South of the dip vat stands the six small pens, each of which held the appropriate number of animals corresponding with the pens on the "Vaquero II", in order to facilitate efficient loading during shipping.

Still another sub-cluster is the ranch house compound, enclosed by a fence and composed of the two-story upper house with additions, an unused outhouse, a stone walkway, and landscaping including mature trees, decorative shrubs and an informal lawn. Apparently, the ranch house was purposely constructed a distance away from the ranch activities at the barn, corrals and bunkhouse. Its white perimeter fence separates the house and yard from the labor-oriented areas of the ranch complex, providing a space for rest and relaxation somewhat removed from the bustle of shearing, slaughtering, branding and shipping, not to mention the smell.

LINE CAMPS
The vastness of Santa Rosa Island required the establishment of line camps, or cattle gathering areas with animal facilities and minimal housing for cowboys. The camps are located in areas where cattle can be funneled from the surrounding mountainous range, and all are located within a day's walk from the main ranch. Three line camps existed but one, at Arlington roundup, no longer contains a line shack. It is now composed of a corral, road and trap fence. The roundups at China Camp and the Wreck are both composed of a corral and a cabin or cabins.

China Camp Line Camp
At China Camp, an exterior wall connects two cabins, and a modern outhouse stands nearby. The corral is large and away from the cabin by about 200 yards. A road descends the hills above to the site. The location is well selected, on a low marine terrace facing southwest. The cluster arrangement is loose and dependent on topography and weather patterns, as the cabins are located on a lower terrace somewhat protected from the prevailing westerly winds.

Wreck Line Camp
The cluster at the Wreck is generally more compact but includes a trap, or fences enclosure of about 100 acres. A yard fence surrounds the cabin at the Wreck and these features are enveloped by the corral. No outhouse or watering features were observed. The Wreck Trap fence emanates from two corners of the corral, creating a C-shaped enclosure with the ocean as its fourth side, on the south.

NPS CLUSTERS
Since 1986 the National Park Service has constructed four clusters of buildings and structures, all for administrative and utilitarian purposes.

Generator Complex
The generator building, fuel shed, and visitor restroom complex, located south of the ranch complex and adjacent to the World War II storage building, was designed for compatibility with the older ranch buildings.

Campground
The campground at the foot of Water Canyon is tucked away from common view and so is not particularly intrusive except when viewed from the entrance trail; it is comprised of a number of wooden wind shelters, picnic tables and an outhouse.

Shop/Nursery Complex
The shop and water storage tank area, located in Windmill Canyon above the wells, consists of a large garage, a small shed and two massive water tanks painted a pastel color. The driveway and vehicle area here is paved with concrete. The adjacent plant nursery, "foxpital" and storage area are less intrusive. Up the canyon from this complex is a temporary fox pen complex.

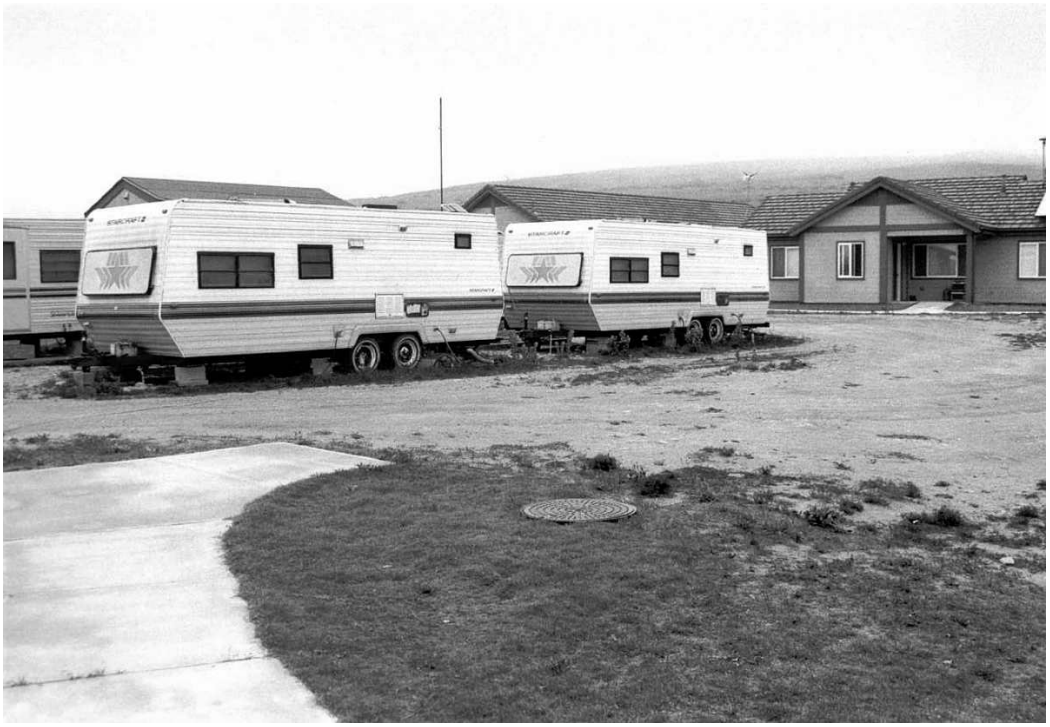
Housing Complex

The NPS housing area is another cluster, comprised of duplexes, garages and trailers, also with a concrete driveway and parking area. These NPS building complexes are necessary for operations on the island and their design is pleasant, however they are by mere existence intrusive to the historic scene (see photo, Cluster Arrangement #2).

The cluster arrangement on Santa Rosa Island, with the exception of the NPS improvements and former U.S. Air Force base, retain integrity and is a contributing element of the Santa Rosa Island Ranching District.



Cluster Arrangement #1. The barns and corrals make a distinct cluster within the main ranch cluster, and face the pier and ocean. View to the east, 2001. (CHIS-HRS-09-04)



Cluster Arrangement #2. NPS housing site with duplexes, garages and trailers is a visually intrusive modern cluster. View to the southwest, 2001. (PGSO-CHIS-N-006-14)

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
China Camp line camp	Contributing			
Main Ranch	Contributing			
Wreck line camp	Contributing			
NPS campground	Non-Contributing			
NPS generator complex	Non-Contributing			
NPS housing complex	Non-Contributing			
NPS shop/nursery complex	Non-Contributing			

Small Scale Features

Numerous small scale features are found on Santa Rosa Island, such as fences, posts, feed troughs, discarded equipment and debris, trash dumps, fire hydrants, informational signs, data collection posts, guy wire anchors, benchmarks, signs and ruins. Fence types include: barbed wire on wood posts; barbed wire on mixed wood and steel posts; barbed wire on steel posts; barbed wire with chain link sections on varied posts; horizontal boards on wood posts (corral fences, included in Circulation); and horizontal boards on wood posts with board caps (traditional yard enclosures). Deterioration is found both in posts (older posts rotting at ground level) and in breaks and rust failure of barbed wire.

The 1873 USCS map depicted at least four major fence lines that remain mostly unchanged today except for materials. Nineteenth-century fence lines reportedly consisted of redwood posts with redwood planks nailed horizontally. Later, barbed wire was added to at least some of these fences. Vail and Vickers maintained the older fences until the need arose to replace them. In 1948 and after, all of the remains of the original fences were replaced with full-dimension 2x4s, split 4x4 wood posts and barbed wire. After 1965, Vail and Vickers made use of materials salvaged from the Air Force base, and installed sections of chain link and some posts formerly used as utility poles. More recently, manufactured steel and wood peeler posts have been used. All of the ranch fences except one (the secondary fence line in House Trap) followed lines at least fifty years old with very few variations. The NPS has installed steel fencing exclosures on East Point, in Windmill Canyon (using portions of historic fence line), surrounding the wells in Windmill Canyon and at the NPS housing area.

SMALL SCALE FEATURES: FENCES

Drift Fence
Nineteenth-century ranchers reportedly built the drift fence to keep sheep from “drifting” from one side of the island to the other. It has been maintained as a cattle fence for the entire twentieth century, during which time it was entirely rebuilt. The drift fence separates the huge South Pasture from the North Pasture, and the Pocket and Wire Fields. The drift fence runs roughly west-to-east across the entire length of the island, a distance of about twelve miles, from the coast near Bee Rock to Old Ranch Pasture on the east end. The western part of the drift fence was depicted on Forney’s 1873 map of the island, with a variation at its western extremity. Now, this west end of the fence is broken, the ranchers having used the natural attributes of a steep gulch as a natural barrier. It is constructed of wood (full-dimension 2x4s, split 4x4s, some telephone poles) and metal posts, barbed wire and occasional boards and H-braces. The varying posts reflect the ongoing maintenance required on a fence like this, with old, split redwood posts, railroad ties, and used lumber; newer materials include peeled posts and metal fence posts. Some parts of the fence are entirely wood posts, indicating an older stretch; these include the fence in Quemada Canyon and in the Bee Canyon area. Four or five strands of barbed wire are attached to the posts with staples, or tied with wire on the metal posts. The drift fence is in good to poor condition, depending upon location. Lack of recent maintenance is having a toll and the fence will continue to deteriorate and eventually collapse.

The following fencing systems are defined by the pastures and fields, which they enclose; because the pastures share fence lines with neighboring pastures, certain fence lines are randomly designated as belonging to only one of the pastures that it abuts.

Old Ranch Pasture Fence
A two-mile barbed wire fence running north to south encloses the Old Ranch Pasture, effectively cutting off East Point and Skunk Point. The fence line crosses the Sierra Pablo range and Quemada Canyon, ending in Bechers Bay at Southeast Anchorage. The fence is constructed of wood and mostly steel posts

with four to five strands of barbed wire. The fence line follows virtually the same route as one recorded by Forney in his 1873 USCS map of the island, with the exception of a Vail and Vickers alteration at the fence line's north end. At that location the former fence, which ran in a continuous tangent north to Southeast Anchorage, was diverted to the east to form a bend around a ridge descending from the west, and returns to the original line near where it crosses the Old Ranch Road. A handful of posts mark the route of the original fence. The Old Ranch Pasture fence, now abandoned and unmaintained, is in fair condition.

Wire Field Fence
The Wire Field is enclosed by the Old Ranch fence (described above) on the east, the drift fence (described above) on the south and a one-mile stretch of fence on the west dividing Wire Field from North Pasture. The pasture's name is derived from the fact that this was the first use of barbed wire on the island, built before 1929. The fence section described here runs from Las Cruces Roundup in Quemada Canyon north to the bottom of the South Road at Bechers Bay. At the steep and rocky descent to the bay, the fence line has been altered slightly; old posts from the former route are visible. At another location in the central part of the fence line, the fence has been diverted slightly to the east, avoiding a steep drop into Water Canyon above the Water Canyon Roundup; here, also, a few old fence posts remain marking the former route. The Wire Field fence is similar to the other range fences on the island, with wood and steel posts and four to five strands of barbed wire, and appears to be in fair condition.

Lobo Pasture Fence
The Lobo Pasture fence runs roughly up Lobo Canyon and over a ridge to Windmill Canyon, in which it runs until reaching the ranch complex at Bechers Bay, enclosing the southern side of Lobo Pasture. It is about four miles long, in fair condition, and is typical of the other range fences in construction type with wood posts interspersed with steel posts as repair.

Carrington Pasture Fence
This fence is about two miles long and effectively cuts off Carrington Point. It runs roughly west-to-east, with the eastern two-thirds acting as the north fence of the Horse Pasture and the west one-third as the northeast corner of Lobo Pasture. It is typical of the other range fences in construction type, with mostly wood posts, and appears to be in fair condition.

Horse Pasture Fence
The Horse Pasture is an almost-square enclosure northwest of the ranch complex. It is enclosed by a typical island fence of wood and steel posts, the north side shared with the Carrington Pasture fence, east with the House Trap, and south and west with Lobo Pasture fence. The west tangent was once burned, leaving wood stubs. It appears to be in fair condition.

Arlington/Pocket Fence
As one of the oldest fence lines on the island, this fence runs from the Arlington corner of the drift fence to Soledad Beach, a distance of about one mile. It appeared on Forney's 1873 map in the identical location. It is now a typical island fence of mostly wood posts and is in poor condition with a great deal of wire deterioration and falling posts.

Arlington Trap Fence
The trap is a fenced enclosure on the northwest side of the island where certain numbers of cattle can be "trapped" preliminary to separating in the corral. It is fenced in typical fashion with mostly wood posts, sharing its northeast line with the Arlington fence and its southeast line with the drift fence. It is in fair condition.

Wreck Trap Fence
The Wreck trap encloses a section of Ford Point on the south side of the island. It is a typical island fence of barbed wire, deteriorating in some places, and wood posts and is in poor condition (see photo, Small Scale Features #1).

House Trap Fences
The House Trap encloses a level field on the terrace directly north of the ranch complex. Cattle would be brought here before shipping, and the Vails used the trap for other purposes as well. It is a typical island fence of wood and steel posts, and appears to be in fair condition. A newer fence, installed in the 1970s, runs north-to-south near the center of House Trap.

Bechers Bay Field Fences
These relatively level fields southeast of the ranch complex, where the Vails planted barley, alfalfa and hay for feed, are enclosed by typical island barbed wire fences with both wood and steel posts that remain in fair condition.

Gates
Approximately thirty gates have been used on fence lines and even more in corrals across the island. All meetings of roads and fences required a gate, and in some locations a gate was necessary as a cattle path between pastures. The older gates are built of boards, bolted or nailed and hung on steel hinges or pins. Many of these gates remain, although most are in poor condition or discarded. The majority of the gates on the island today are welded galvanized steel on pins or hinges. An occasional wire gate is found; these are comprised of strands of barbed wire stayed with light posts, stretched across the gateway and attached to the gatepost with loops of heavy wire. Smaller gates are found in the yard enclosures and corrals. Condition of the gates on the ranch range from good to poor.

Upper House Yard Fence
Enclosing the landscaped yard of the main house, this fence has been in place, with repairs, since at least 1900 and probably earlier. Photographs taken in 1903 clearly show the fence with few differences. The fence is built of sturdy wood posts, connected by a row of five horizontal boards and capped by a board at an angle for decoration and to allow water runoff. A wood gate opens to the ranch road fronting the house, and another gate is found on the south tangent near the outhouse. On the north side of the house yard the fence has been replaced with a tall, solid board fence. The entire perimeter fence is painted white and in good condition.

Schoolhouse Yard Fence
Enclosing a smaller yard is a fence practically identical to the upper house fence. It is also painted white and has gates at the front and back (see photo, Buildings and Structures #3).

Bunkhouse Yard Fence
The bunkhouse fence is practically identical to the upper house fence. It is also painted white and has gates at the front and back.

Foreman’s House Yard Fence
The 1965 foreman’s house is enclosed by a fence similar to the other yard fences. A portion of the fence is steel posts with barbed wire, while the back fence is solid boards painted white.

NPS Exclosures
Since 1987 the park service has installed exclosure fences in at least five areas. A steel post and barbed wire fence surrounds the shop and nursery area in Windmill Canyon. Two chain link fences enclose the

wells and pump house in the floor of Windmill Canyon. A steel post and barbed wire fence surrounds the NPS housing area. A board fence has been built within the large, long corral opposite the upper ranch house for unknown reasons. On East Point, an exclosure fence has been constructed to keep elk and deer out of a natural area.

OTHER SMALL SCALE FEATURES

Feed Troughs and Mangers
Many troughs and mangers remain in the ranch pens at Bechers Bay. Scattered throughout pens and corrals are approximately fourteen steel feed troughs and wooden mangers, all portable and now unused. Wooden mangers remain in the hospital pens that once provided protected feeding for calves and animals placed in isolation (see photo, Small Scale Features #2). While the island cattle largely relied on natural sources for forage, supplementary feed was required in certain situations. Condensed, fortified feed, often in the form of cottonseed or molasses cakes, was distributed to the animals in and near the Bechers Bay headquarters in long, steel troughs (see photo, Small Scale Features #3).

Small Scale Features at Main Ranch
North of the upper house the ranch residents have set up an impromptu firing range comprised of chairs and a table on a platform, the shooting aimed across Ranch House Canyon into a hillside. Wooden retaining walls are found opposite the horse barn on the outer side of the road. Behind the bunkhouse is a damaged brick smoker, used by ranch residents for curing meat. At least two remnant concrete water trough aprons, once surrounding redwood troughs, are found, one at the NPS nursery site and the other in the House Trap. The ranch dump, located in a cliff gully southeast of the ranch complex, has been used for decades if not more than a century. A large lumber pile is located on land near the pier awaiting use in pier repairs and other projects, both ranch and NPS-related. Discarded farm equipment, including plows, tillers, a windmill tower, tractors, wagons, graders and trucks, is scattered about the complex in discrete collections (see photo, Small Scale Features #4). Ownership of these items of curatorial interest has not been determined. Some of the items are owned by the Santa Cruz Island Foundation (1010 Anacapa St., Santa Barbara, CA 93105).

Additional More-era features include debris found at the boathouse site north of the pier. An excavated ledge, site of the boathouse itself, boards and metal pieces and a roadway remain.

Pile Driver
A wooden pile driver remains in the yard near the pier. Little is known of its construction or origin, but it is known that the pile driver was used for ongoing essential repair of the pier. It apparently has not been used for many years, and is in fair condition (see photo, Small Scale Features #5).

Outer Island Small Scale Features
Lone fence posts mark the former location of fence lines in at least 3 locations on the island: at the northern descent of the west Wire Field fence; on the same fence adjacent to Water Canyon roundup; and at the north end of the Old Ranch fence. Other wooden posts can be found scattered around the island, most of which cannot be positively identified. A wooden barrier closes off a small gully near Skunk Point, evidently to keep livestock from falling through, and another barrier is all that remains from a former gate at the Water Canyon Beach access road (see photo, Small Scale Features #6). Steel pipes are commonly found driven into the ground, especially at mountaintops as locators. USCGS benchmarks, placed during the twentieth century, are found in many locations noted on corresponding USGS maps, and a concrete post cadastral dated 1950 can be located off the Johnsons Lee Road.

The site of the Standard Oil Company well, developed in 1932, is located just off the Main Road below

Vail Peak. Scattered parts, brick and concrete foundations and debris mark its location. The site is eroding rapidly, with materials and artifacts disappearing down a canyon. Signal Oil explored for oil on the island in 1948-49 with no success, but left well casings, a winch, debris and excavations on a ridge overlooking Cañada Tecolotito.

At the South Point Light, guy wire anchors imbedded in concrete are the only remains of a windmill that powered the light during one phase of its operation (otherwise the light was powered by acetylene, batteries and solar collectors).

An older wooden hitching post is located at the China Camp cabin (see photo, Small Scale Features #7).

At least two borrow pits, one on the southern slope of Black Mountain and the other outside the west fence of House Trap, were used to gather materials for road building in those vicinities. Other borrow pits may exist.

Noncontributing Small Scale Features
Three wind socks on poles mark the location of the airfield. A large wooden letter "R" is found in the grass on the east side of the airstrip as an indicator for planes flying overhead. A large sign at the edge of the airstrip provides information to visitors arriving by plane.

Since 1987 the NPS has added numerous small scale features, all noncontributing, including propane tanks, signs, solar panels, numerous board windbreaks with picnic tables, and at least seven fire hydrants in the ranch complex.

The U. S. Navy maintains an Extended Area Test System (EATS) station at the summit of Black Mountain. It is comprised of a small data collection and communication unit surrounded by a chain link fence.

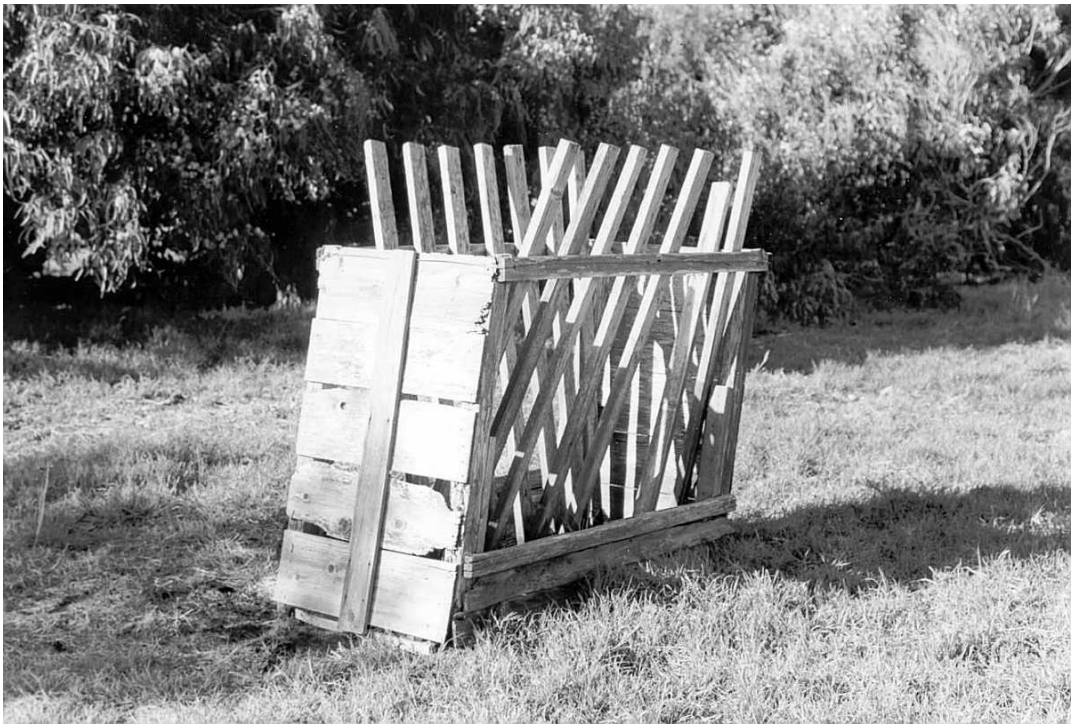
The NPS has placed signs in various access points on the island for the benefit of arriving boaters. Two signs are located at Johnsons Lee as well as two informational bulletin boards. Signs are also located at Water Canyon Beach, the Bechers Bay pier and at the entrance to the campground. Small directional signs have been affixed to corral fences leading hikers to the campground.

USAF Sites
The U. S. Air Force constructed a Cold War early warning radar base in 1950 at Johnsons Lee and Vail Peak. The extensive complex of dozens of buildings, infrastructure and roads was mostly removed by NPS during the 1990s although debris is found in most locations. Remaining features include ruins of the concrete pier, a unique base logo formed out of painted rocks arranged on a slope overlooking the pier site, a concrete slab building foundation, cut off poles, guy anchors, culverts, and debris. Farther east, above Officers Beach, is a discarded metal bulldozer blade. The Air Force base was found to be of no historic significance prior to removal of the building complexes in the 1990s.

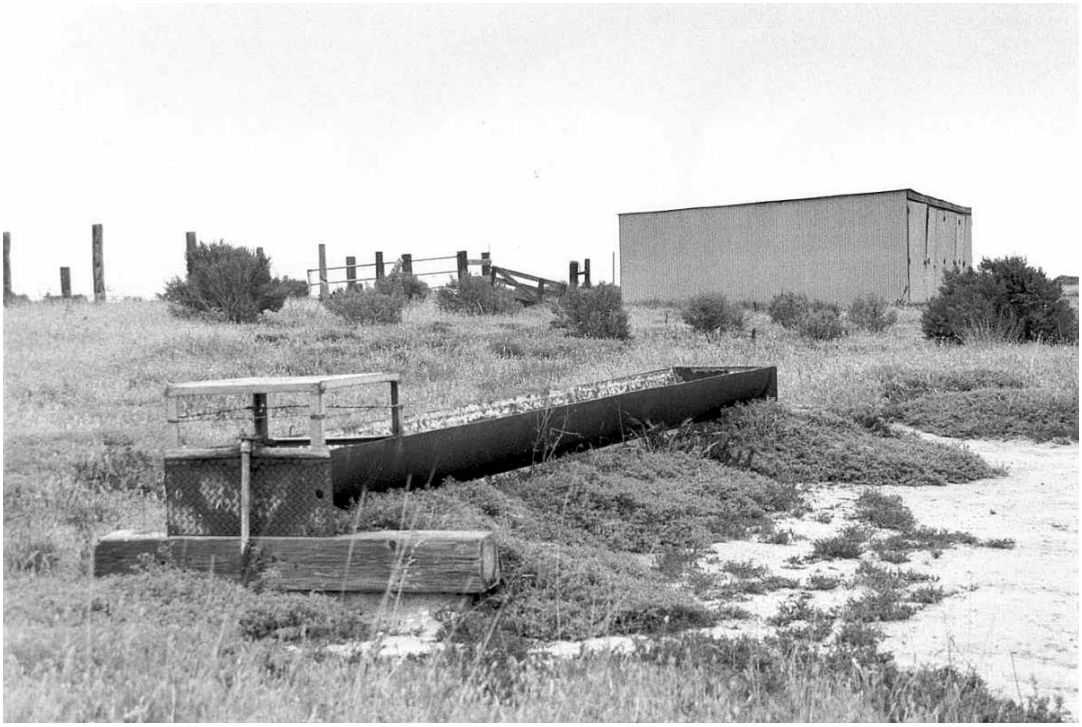
Small scale features on Santa Rosa Island retain integrity and are a contributing element of the Santa Rosa Island Ranching District. Many of these features are noncontributing and some intrude on the historic landscape but are necessary for administrative reasons.



Small Scale Features #1. A typical fence corner was built with wood posts, barbed wire and an H-brace for strength. This one is located in the western corner of the Wreck Trap. View to west. (PGSO, CHIS-N-7-7, Livingston, 2001)



Small Scale Features #2. A wooden manger, built on the island, allowed calves to feed in controlled amounts. (CHIS, HRS-35-02, Livingston, 1998)



Small Scale Features #3. This steel water trough is located near the south end of the eucalyptus windbreak (the metal barn is behind it) and features a raised metal valve guard on the near end. View to north. (PGSO, CHIS-N-6-17, Livingston, 2001)



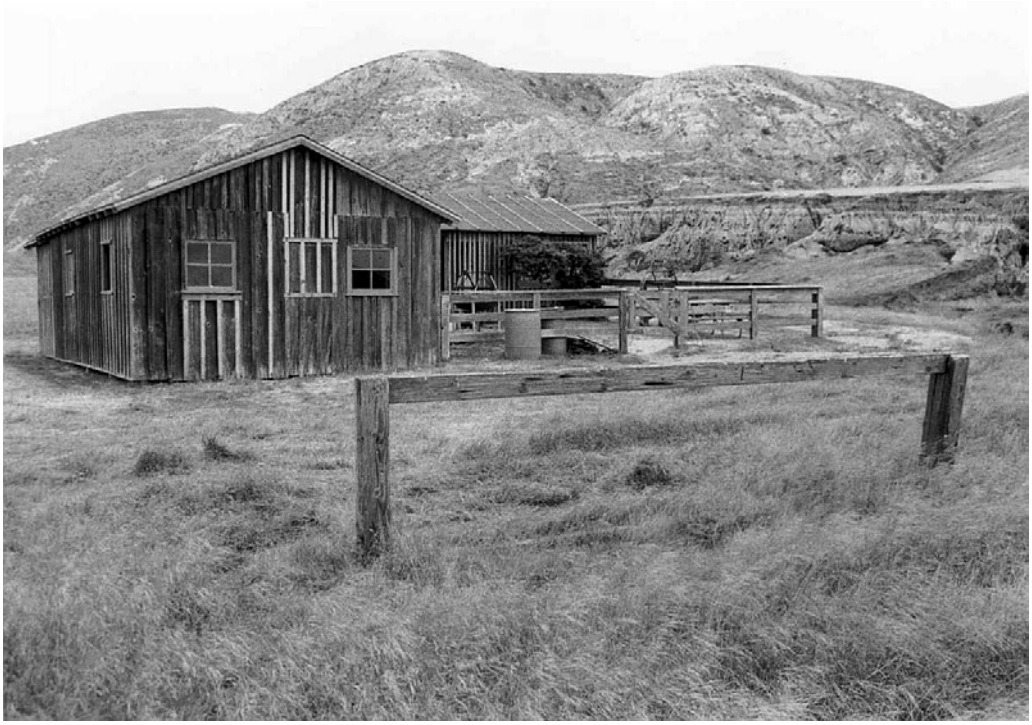
Small Scale Features #4. A discarded windmill lies in a junkyard near the dump at the main ranch. View to east. (PGSO, CHIS-N-3-31, Livingston, 2001)



Small Scale Features #5. The pile driver was an essential piece of equipment on the ranch, as winter storms often damaged the pier. View to the west. (CHIS-HRS-22-03, Livingston, 2001)



Small Scale Features #6. This wooden barrier, located near Skunk Point on the Old Ranch Road, kept cattle from falling through a small gully. View to southeast. (PGSO, CHIS-N-3-7A, Livingston, 2001)



Small Scale Features #7. The hitching post at China Camp illustrates the horse-oriented ranching operation on Santa Rosa Island. (PGSO, CHIS-N-5-19, Livingston, 2001)

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
1950 cadastral	Contributing	N/A		
Boathouse site debris	Contributing	N/A		
Borrow pit, Black Mountain	Contributing	N/A		
Borrow pit, House Trap	Contributing	N/A		
Brick smoker	Contributing	N/A		
Bunkhouse yard fence	Contributing	Main Ranch Fences And Gates	330057	
China Camp hitching post	Contributing	N/A		
Concrete trough apron, House Trap	Contributing	N/A		
Concrete trough apron, Windmill Canyon	Contributing	N/A		
Farm equipment	Contributing	N/A		
Feed troughs	Contributing	Feed Troughs And Mangers	330059	
Fence posts	Contributing	N/A		
Foreman's house yard fence	Contributing	Main Ranch Fences And Gates	330057	
Gates	Contributing	N/A		
Guy anchors, South Point Light	Contributing	N/A		
Lumber pile	Contributing	N/A		
Mangers	Contributing	Feed Troughs And Mangers	330059	
Pasture fences: drift fence and ten fence sections	Contributing	Pasture Fences	059646	SRI4
Pile driver	Contributing	N/A		

Ranch dump	Contributing	N/A		
Retaining walls	Contributing	N/A		
Schoolhouse yard fence	Contributing	Main Ranch Fences And Gates	330057	
Signal Oil well sites	Contributing	N/A		
Standard Oil well site	Contributing	N/A		
Upper house yard fence	Contributing	House Fence	059644	SRI2
USCGS benchmarks	Contributing	N/A		
Wood and steel posts	Contributing	N/A		
Wood cattle barriers	Contributing	N/A		
Wooden letter, airfield	Contributing	N/A		
Air Force ruins, Johnsons Lee	Non-Contributing			
EATS station	Non-Contributing			
Fire hydrants	Non-Contributing			
Firing range platform	Non-Contributing			
Metal blade, Johnsons Lee	Non-Contributing			
NPS enclosure, East Point	Non-Contributing			
NPS enclosure, housing area	Non-Contributing			
NPS enclosure, in corrals	Non-Contributing			
NPS enclosure, maintenance area	Non-Contributing			
NPS enclosure, wells	Non-Contributing			
NPS signs	Non-Contributing			
Picnic tables at campground	Non-Contributing			

Propane tanks	Non-Contributing
Solar panels	Non-Contributing
Wind socks	Non-Contributing

Constructed Water Features

Water collection and distribution was an essential component of successful cattle ranching. While the island cattle largely relied on natural sources for drinking water, certain areas required water development when natural sources were too distant. Vail and Vickers and their predecessors constructed a number of water systems in response to this need.

WATER TROUGHS, TANKS, DITCHES AND PIPELINES

Water Canyon Pipeline, Main Ranch Reservoir
The More family developed a water system in the early 1870s to supply the new ranch complex. A dam in Water Canyon, apparently no longer extant, impounded water that was delivered in riveted iron pipe for a distance of two miles. A circular, rock-lined reservoir at the ranch complex may have been fed by this line as well. Remnants of the original pipeline remain in Water Canyon, and the old reservoir is a landmark near the Russ Vail house, east of the south end of the eucalyptus windbreak (see photo, Constructed Water Features #1 and #2). It is about eighty-five feet in diameter, about five feet deep, and lined with dry-laid stones. Part of the reservoir wall has been destroyed, and vegetation, including a eucalyptus tree, is encroaching.

Main Ranch Wells and Troughs
Vail and Vickers developed most of its cattle watering systems in the vicinity of the main ranch and Carrington Point. On the south side of the island, one small system was developed at Clapp Spring. While the island was well watered by natural sources (perennial streams), these sites needed development because of concentrations of cattle and lack of natural sources. The ranchers located wells and a windmill in Windmill Canyon that provided water by gravity to the ranch complex from a nearby redwood storage tank. Four large cement troughs (formerly redwood) received this water: one near the storage tank, another downstream on the fence line, another in the water corral near the eucalyptus windbreak, and another in the House Trap north of the bunkhouse. In the 1970s, pipelines were extended to the three hospital pens on the east side of the eucalyptus windbreak. Additional troughs, of more recent vintage and found only in the hospital pens east of the windbreak, are steel tanks eight feet in diameter, resting on wood plank platforms.

Lobo and Carrington Pasture Pipeline, Troughs and Tank
The ranchers installed pumps and a pipeline to transport the water to a storage tank and trough in the Lobo Pasture, and another pipeline to a trough in Carrington Pasture.

The large concrete troughs at the ranch complex, Carrington Point (built in 1945) and Clapp Spring (1953, see below) are similar in design. They measure eighteen feet in diameter and are constructed of reinforced concrete poured into forms, either circular or octagonal, with a six-foot concrete apron. The ranch troughs are fed by pipelines, originally of galvanized steel but partly replaced by PVC. The only remaining historic storage tank is located in Lobo Pasture. It is a ten-foot-high concrete tank twenty feet in diameter, poured into forms built over a shorter, older iron tank; the metal has deteriorated but the concrete appears sound. A wooden ladder provides access to the top of the tank (see photo, Constructed Water Features #3).

Clapp Spring
The Clapp Spring trough is fed by Clapp Spring, a natural feature collected into an intake that is housed in a small wooden spring house with a deteriorated metal roof. Water feeds by gravity into PVC pipe, with formerly used steel pipe remaining on the site. At one location the pipeline is suspended by a cable as the pipe traverses a steep cliff. The trough is a six-sided, concrete basin with a deteriorating concrete

apron. The water system is maintained and in fair condition (see photo, Constructed Water Features #4).

Earthen Dams
Vail and Vickers supplemented water supply on the range with earthen dams at various locations, creating stock ponds. In Lobo Pasture ranch workers constructed two dams in Cañada Lobo between 1948 and 1954. The upper dam was constructed of sandy materials and soon failed. The other, larger dam was constructed downstream and retains water to this day. The raw materials were cut from the adjacent bank creating a 100-foot long dam about thirty feet high, with a spillway cut into rocky ground. Nearby in Carrington Pasture, adjacent with the Lobo gate, Diego Cuevas built a small, sixty-foot dam to catch runoff in a shallow pool. In the 1950s ranch workers constructed a short-lived earthen dam near Sierra Pablo roundup at the end of the drift fence, but this feature was not located during the July 2001 inventory, nor was another, reportedly located adjacent to Black Rock in the southern part of Bechers Bay. The oldest stock pond on the island (built before 1948) is reportedly the one called Mud Tank in Pocket Field. The dam measures about ninety feet across and thirty feet high; the excavation for materials is adjacent. A railroad tie spillway helps drain overflow while minimizing erosion. The pond was once fenced, although no fence posts remain, and continues to retain water (see photo, Constructed Water Features #5).

Standard Oil Company Water System
Standard Oil Company constructed a dam to supply water to their drilling operation in 1932. The dam was located deep in Tranquillon Canyon, approximately two miles southwest of the drilling site, and reached by a bulldozed road. A pump transported water up to the high-elevation drill site. The system was short-lived and the dam site is too remote for inventory.

WWII Water System
The Army Corps of Engineers constructed a water system to supply the World War II coastal defenses camp at the head of Water Canyon. The system impounded water behind a concrete catchment dam that was fed by gravity to a large wooden tank. A gasoline pump transported the water up a steep hill to a location well above the camp site, providing adequate pressure by gravity. The large tank's contents traveled by steel pipeline down and across a gully on concrete pylons to the camp site. The dam, and concrete pylons remain; portions of the pipeline and various debris from the tanks also remain on the site.

Main Ranch Diversion Ditch
Persons unknown excavated a long ditch at the foot of the slope bounding the grain fields at Bechers Bay, adjacent to the current airstrip. The ditch is approximately a quarter mile long and was designed to divert runoff from the fields. It remains in fair condition, broken at one point by the now-abandoned Telephone Road.

Johnsons Lee Diversion Ditch
Another diversion ditch is found behind the remaining 1950 motor pool building at Johnsons Lee. The ditch was apparently intended to divert water and erosion emanating from the utility line corridor away from the building complex.

NPS Water System
Water is piped from the sources in Windmill Canyon to the NPS housing, campground and the main ranch residences. The wells were improved in the 1980s and are fenced. The pipelines are buried and unavailable for description.

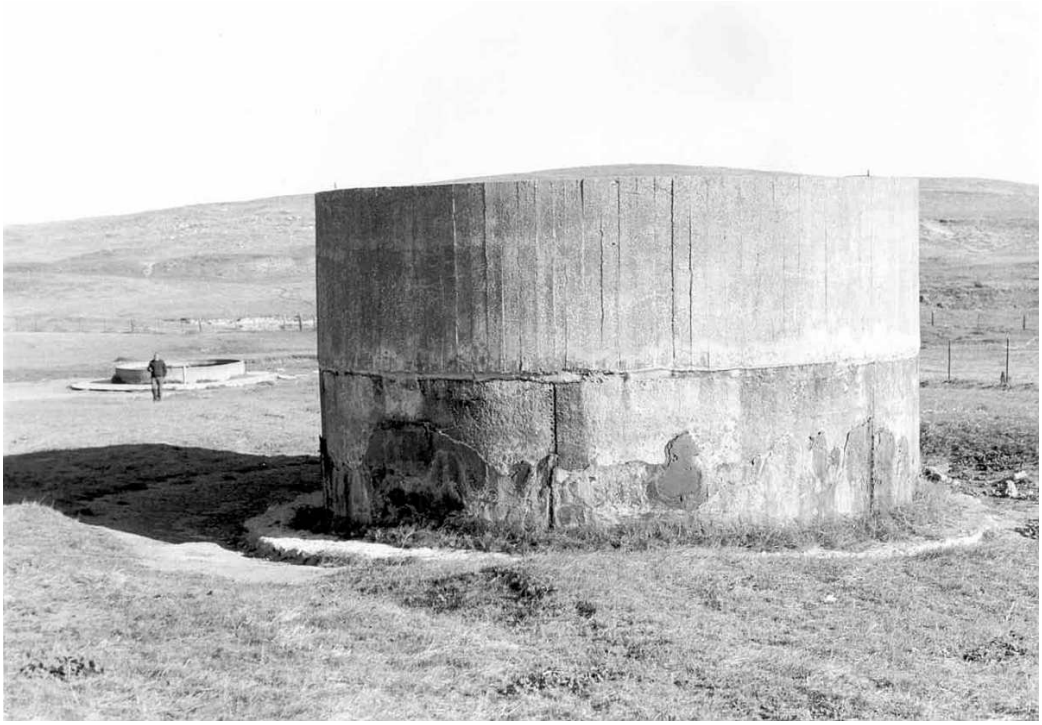
Constructed water features on Santa Rosa Island retain integrity and are a contributing element of the Santa Rosa Island Ranching District.



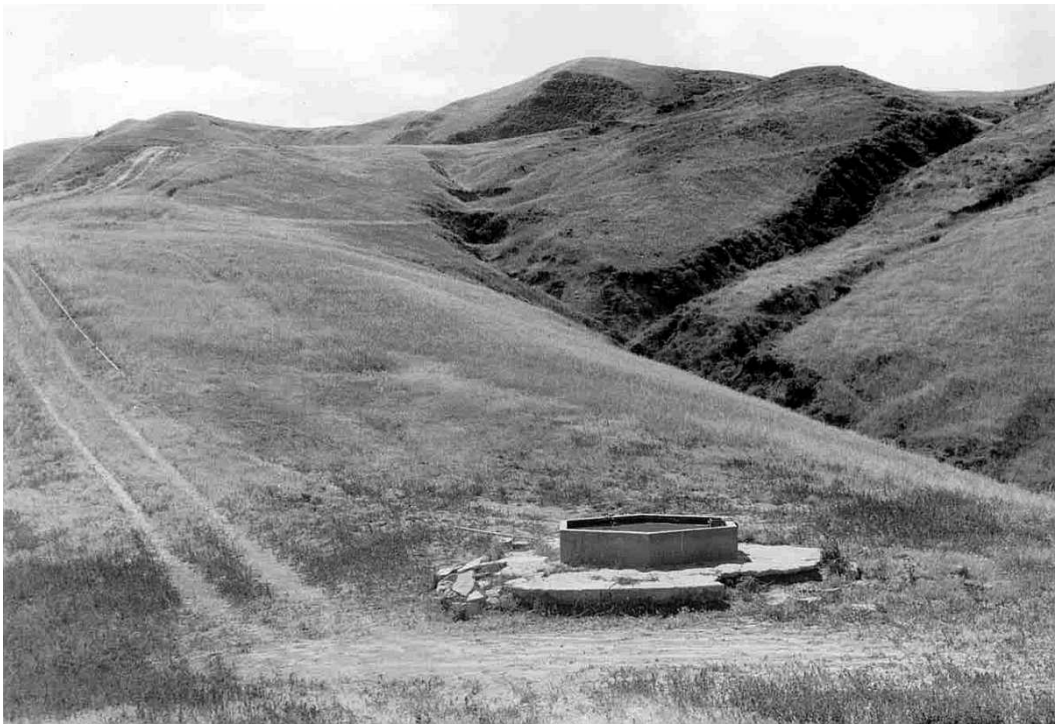
Constructed Water Feature #1. Much of the riveted iron pipe laid by the Mores in the early 1870s remains in Water Canyon near the campground. (PGSO, CHIS-N-2-4A, Livingston, 2001)



Constructed Water Feature #2. The More-era reservoir, located near the south end of the eucalyptus windbreak, is a circular earth berm lined with rocks. View to south. (CHIS, HRS-36-34, Livingston, 2001)



Constructed Water Feature #3. This concrete water tank, formed into an older water tank, is located in Lobo Pasture. A concrete trough is in the distance. (CHIS, HRS-09-07, Livingston, 1998)



Constructed Water Feature #4. The concrete trough fed by Clapp Spring was built by Al Vail in 1953, and is so inscribed. View to west. (CHIS, HRS-18-34, Livingston, 1999)



Constructed Water Feature #5. Mud Tank is an earth berm dam and reservoir built in the 1940s, located on Sandy Point. View to northwest. (PGSO, CHIS, N-5-15, Livingston, 2001)

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
Army camp water system ruin (dam, site features)	Contributing	Army Camp Water System Ruin	330069	
Carrington dam and reservoir	Contributing	Santa Rosa Island Earthen Dams	330067	
Carrington Point features (piepline, 2 concrete troughs, 1 concrete/iron tank)	Contributing	Carrington Point Water System	102083	SRI
Clapp Spring (spring, spring house, pipeline, trough)	Contributing	Clapp Springs	102081	SRI
Lobo dam and reservoir	Contributing	Santa Rosa Island Earthen Dams	330067	
Main ranch cattle watering system pipelines	Contributing	Main Ranch Wells And Troughs	330065	

Main ranch concrete trough in House Trap	Contributing	Main Ranch Wells And Troughs	330065
Main ranch concrete trough in Windmill Canyon	Contributing	Main Ranch Wells And Troughs	330065
Main ranch concrete trough in Windmill Canyon (NPS resources area)	Contributing	Main Ranch Wells And Troughs	330065
Main ranch concrte trough in water pen	Contributing	Main Ranch Wells And Troughs	330065
Main ranch diversion ditch	Contributing		
Main ranch steel troughs, hospital pens	Contributing	Main Ranch Wells And Troughs	330065
Main ranch stone-lined earth berm reservoir	Contributing	Main Ranch Reservoir	330063
Mud Tank (pocket dam) and reservoir	Contributing	Santa Rosa Island Earthen Dams	330067
Sierra Pablo dam	Contributing	Santa Rosa Island Earthen Dams	330067
Standard Oil Company dam, Tranquillon Canyon	Contributing	Santa Rosa Island Earthen Dams	330067
Water Canyon pipeline	Contributing	Water Canyon Pipeline	330061
NPS campground water system	Non-Contributing		
NPS water tanks and pipelines	Non-Contributing		
NPS wells	Non-Contributing		
Runoff diversion ditch, Johnson's Lee	Non-Contributing		

Archeological Sites

Archeological Sites
Numerous prehistoric archeological sites have been located and the potential exists for others that reflect the culture of the Chumash people that for centuries occupied Santa Rosa Island. As early as 1872, word reached Washington D.C. of the archeological potential of the Channel Islands and Santa Rosa Island in particular, and since that time archeologists, both amateur and professional, have mapped, excavated and studied sites on the island. This inventory is focused on historic period of island history and does not inventory prehistoric sites; however, it should be noted that prehistoric sites are an important component of the landscape on Santa Rosa Island.

Historical archeology is a potential field of study on Santa Rosa Island. A number of sites exist that pertain to the ranching history (1844-1988), military history (1943-1946), the abalone fishery (1850-1913) and maritime history (1854-1962).

Potential Historical Archeology: Ranch-Related
Ranching sites include Rancho Viejo, the original Thompson and Jones ranch location near East Point (see photo, Archeological Sites #1); the Cañada Soledad house and corral site recorded on Stehman Forney's 1873 map of the island, possibly the developments on the west side of the island noted by Thompson as constructed before 1853; and other sites in the main ranch complex (including investigations into the original ranch house foundations reportedly under the 1970 bunkhouse, outhouse pits and dumps), China Camp (described previously) and the Lobo picnic ground. Where the Smith Highway crosses Lobo Canyon is a glade in which generations of Vail and Vickers family, guests and employees have gathered for picnics and parties. The site is a flat, grassy area with large oak trees overhanging the picnic ground. Remnants of rock retaining walls and rock rows delineating spaces have been noted there. A modern picnic table sits at the location today, and the site is rarely used.

MILITARY SITES

WWII Coastal Defenses Station
At least three sites, dating from World War II coastal defenses development, offer potential knowledge through archeology: the radar operations site on Navy Hill, the cantonment site at the top of Water Canyon, and the supply site at Bechers Bay (see photo, Archeological Sites #2). Other sites are reportedly scattered around the island, consisting of temporary gun emplacements, camp sites and foxholes.

During the spring and summer of 1943 the U. S. Army constructed an emergency early warning radar base on Santa Rosa Island. The new technology of radar would prove to be pivotal in the allies' success in that war, and the island site provided a strategic location for detection of incoming enemy aircraft. The station consisted of a technical site overlooking the ocean near South Point and a cantonment or camp site where the men lived and ate located about a mile south of Black Mountain at the head of Water Canyon. Sixteen wood frame buildings were constructed including seven barracks, a mess hall, a bath house, a motor repair building, a generator building and various sheds and a pit latrine. The camp was active during the war but abandoned by the end of 1945. The Army turned the camp over to Vail and Vickers who used the buildings for a while then disassembled them for materials and moved small ones to other locations on the island. An inspection of the site revealed at least six foundation structures being either concrete slabs or sets of concrete piers in place, most located along the eastern edge of the basin. They are: a concrete slab measuring 10 feet by 19 feet with a 2-inch pipe exiting to the southeast; concrete piers remaining in place which formed the foundation of a building measuring 20 feet by 40 feet; a three-room shower/lavatory building foundation measuring 20 feet by 24 feet and composed of a

concrete slab with raised wall bases anchoring bolts for the former wood frame walls, concrete entrance landings, and numerous cut-off pipes and plugged drains; another 20 feet by 40 feet set of concrete piers; and a large T-shaped concrete slab measuring 44 feet by abut 55 feet. Near this is a foundation of a fireplace. Two other concrete slabs remain, the larger measuring 10 feet by 20 feet. Various drainage constructions such as concrete drains and exposed standpipes are found in the area. An abandoned truck body rests near the foot of the access road, reportedly an Army surplus vehicle left here after the ranch workers used it. The flag staff base, a concrete slab in the shape of a star, measures 10 feet in diameter. The builders of the camp inscribed the date and their detachments in the slab: 26 AUG 1943 / 770 / MP BATTALION / CO C / THIRD PLATOON LAFW / 658 SIGNAL / AW CO / DET 6
A narrow road leads from the basin out the only drainage exit down into Water Canyon. It passes a dump site where various debris is seen. Near the bottom of the road is a small concrete dam, ruins of a storage tank and pipeline, and a level area where a pump had been located. The pipe remnants lead to a high elevation overlooking the cantonment, location of a large water tank. Evidence of the pipeline to the camp is seen in a number of concrete pylons that supported the pipeline as it crossed a gully.

The operations site for the facility described above is located at an elevation of about 1,466 feet, about two miles directly north from South Point near the western of the two knolls known as Navy Hill. The operations site is divided by the Piedragosa/western Navy Hill road, with what appears to be a radio operations and defense area on the north side and the radar operations building and radar tower foundation on the south side. The north site shows a collapsed wooden structure on a curious semi-circular foundation ringed with metal as if it had been a water tank base; however the ruins are those of a small building. Plans showed a radio station located in this vicinity but the exact nature and purpose of the ruined structure is unknown at this time. Evidence of telephone wire and insulators may support the theory that this was a radio building. A circular concrete pad and adjacent small concrete box appears to have been the location of a mobile anti-aircraft gun. The pad has no obvious hardware or bolts and is partially buried by eroding earth. The interior space of the concrete box, possibly used for storage of ammunition, measures 5 feet by 2.5 feet by 2 feet high and is lined with one-inch planks. Nearby are stubs of two wood utility poles and various galvanized metal guy anchors. Across the roadway, on the outer side of a leveled area containing a buried, four-room concrete building, stands the concrete foundation of the former radar unit, consisting of four solid buttressed posts on a system of eight interconnected foundation pads with chamfered edges each four feet square. The centers of the tops of the posts are eight feet apart forming a square; the top of each is beveled to 13 inches square and contains two bolts imbedded in the concrete. The overall dimension of this structure is about 24 feet square.

The operations and cantonment sites were supported from a small complex on the south side of the main ranch at Bechers Bay, consisting of storage buildings and a barracks and pit latrine. One storage building remains. The Army used the main ranch area for landing planes (in the field sheltered by the eucalyptus windbreak) and docking support ships. As historic archeology sites, all three locations may yield important information about the coastal defenses operations.

USAF Radar Station
Operations Site and Cantonment Site
The U.S. Air Force constructed an extensive Cold War Early Warning Radar military complex at Johnsons Lee and Vail Peak in 1950. It has mostly been removed, with the exception of one building, a concrete wall structure, a concrete slab, pier remains, a tree, and a road system. Although the sites have been disturbed, some archeology potential exists. Graded level areas remain, but the sites retain no integrity, and do not contribute to the district.

U. S. Navy Operations Sites
Halfway between the peak and Johnsons Lee, the Navy constructed a discontiguous complex of

communications buildings and equipment. These structures have been removed, although the disturbed areas on which they rested remain. The sites retain no integrity, and do not contribute to the district.

BUILDING RUINS

Orr's Camp
Orr's Camp on the northwest coast of the island is now a ruin. The original structures were constructed of boards and plywood placed in an erosion gully on a cliff overlooking the channel. The excavation is eroding and much of the structure has collapsed or fallen over the cliff. It is in poor condition. Phil Orr of the Santa Barbara Museum of Natural History and his associates worked for 21 years out of this site, 1947-1968. First camping at the site in 1947, beginning in 1948 Orr and Richard S. Finley constructed this quirky and ingenious combination dwelling, mess hall and laboratory out of salvaged materials and plywood. They located the structure in an eroding gully at the edge of a cliff overlooking the Channel between Soledad Beach and Sandy Point on the northwest side of the island. After working out some drainage problems while excavating a roughly 15 foot by 20 foot area they built a wooden building of odd angles to fit in the gulch with the roof level with the grassy ground behind, thus eliminating problems from the wind. The structure was furnished with bunks, tables, shelves, appliances and carpeting. A generator provided lights and a solar-heated shower. Orr built a separate tiny cabin about 20 feet away in its own erosional depression that afforded a picturesque view of the water and island shore. Orr received help from the Vails and their men and used a jeep to travel around the island looking for archeological sites and mammoth bones. Orr ended his annual expeditions in 1968 and the structure has been abandoned since that time (see photo, Archeological Sites #3).

West End Shack
A few references exist to a "west end shack" somewhere on the west end of the island. Remains of a shack exist near the top of the cliff about two miles southeast from Sandy Point; the ruins are a pile of old boards strewn about and retain no integrity. Their origin is unknown; this could be the structure used as a cattle shelter, or is related to oil exploration on the island. Examination of the site could yield information that could identify the structure's uses.

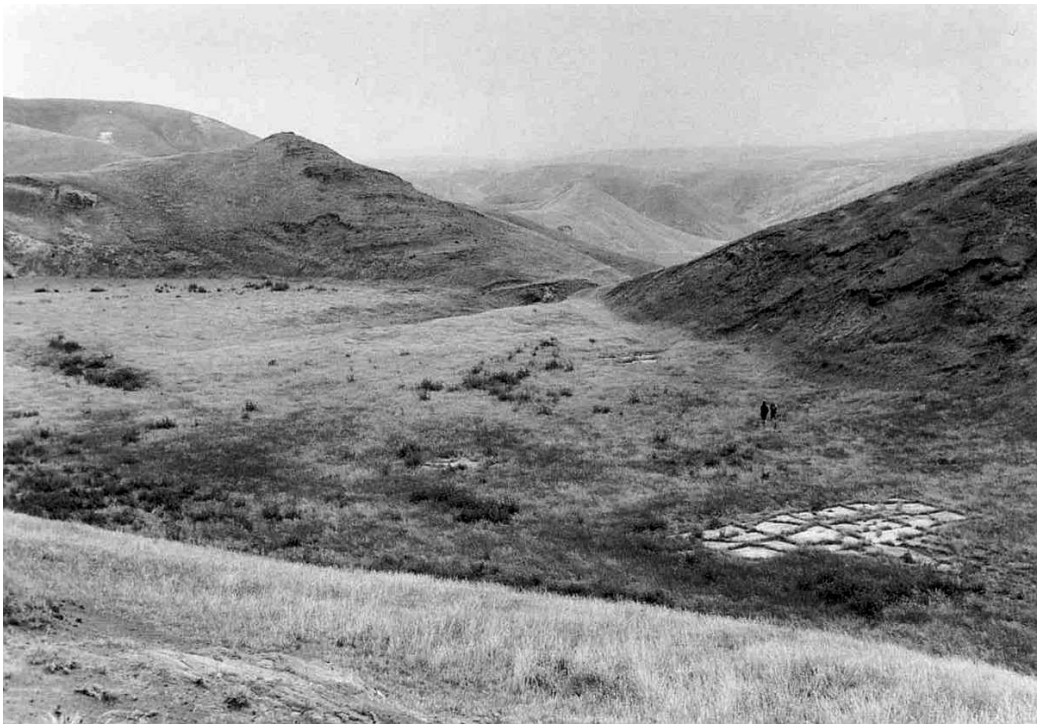
OTHER POTENTIAL ARCHEOLOGY SITES

Abalone Camps and Shipwrecks
Much work can be done at shoreline sites in investigating the Chinese abalone industry, known to have been active on the island during the latter half of the nineteenth century and up to 1913. Investigations into shipwrecks located on the island have been ongoing.

Historic archeological sites on Santa Rosa Island retain integrity and are a contributing feature of the Santa Rosa Island Ranching District.



Archeological Sites #1. The site of Rancho Viejo, the original ranching settlement on Santa Rosa Island, commenced in 1844 and is now covered with coyote brush. View to east. (CHIS-HRS-17-14, Livingston, 1999)



Archeological Sites #2. The site of the WWII radar base cantonment features numerous concrete foundations, pipe, a dump and scattered debris. View to southeast. (CHIS-HRS-16-18, Livingston, 1999)



Archeological Sites #3. The ruins of Orr's Camp resemble a dump and are rapidly disappearing over the cliff at left. View to east. (PGSO, CHIS-N-5-11, Livingston, 2001)

Characteristic Feature	Type Of Contribution	LCS Structure Name	IDLCS Number	Structure Number
Abalone camps	Contributing			
Canada Soledad house and corral site	Contributing			
China Camp--possible dump sites	Contributing			
Lobo picnic ground	Contributing			
Main ranch complex	Contributing			
Outhouse pits, main ranch	Contributing			
Ranch dump	Contributing			
Rancho Viejo (original ranch site)	Contributing			
Ruins of Orr's Camp	Contributing			

Shipwrecks	Contributing
West end shack ruins	Contributing
World War II cantonment site	Contributing
World War II operations site	Contributing
World War II storage area at Bechers Bay	Contributing
U.S. Navy operations site	Non-Contributing
USAF cantonment site	Non-Contributing
USAF operations site	Non-Contributing

Views And Vistas

Santa Rosa Island provides a natural viewshed as the landscape descends from the mountain peaks to the surrounding shore. The ocean and channel are always visible and points can be attained where much of the island landscape can be observed from one spot. Ranch workers and residents relied on views and line-of-sight to do much of their work on the island. The open grassland and topography of the island afforded wide vistas from most locations, which in cattle ranching is a desirable attribute in locating and gathering cattle. At roundup time, cowboys were sent to predetermined sites in the upper elevations and then worked downhill to gather the cattle in the drainage area. The ranch foreman or manager had previously ridden the ridges looking for cattle in planning the roundup, which the cowboys then collected. Open vistas were required for the work to proceed smoothly, and heavy fogs could thwart a roundup. Only in the Torrey pine forest or the densest brushy areas would views be potentially obstructed. After the initial roundup, cowboys would be sent to the hilltops again to sight stray cattle that had escaped or been missed. The view to the ocean and channel was also significant, as the arrival of the cattle and/or supply boat would be marked only by visual observation until the advent of marine radios. The main ranch house was situated so as to afford a view of the channel, although the view has been obscured for a century by the eucalyptus windbreak. The foreman's house was situated near the pier to afford a view of the approaching cattle or supply boats. Also, observation of the weather was a daily part of a cattleman's life, especially during drought periods or worrisome storms, or in noting sea conditions at shipping time or when a boat was due.

The ranch occupants also enjoyed the endless scenic views on the ranch. Visitors were typically taken on horseback into the mountains for the breathtaking views found there, or to scenic Carrington Point and Lobo Canyon. From many locations on the island, both Santa Cruz and San Miguel Islands are visible, as well as the mainland Santa Barbara coast.

The U.S. Army constructed a radar site on what was later called Navy Hill with line-of-site the determining factor. The radar tower was sited on a spur below a prominent knoll overlooking South Point and the Pacific Ocean, where both the technology and the human eye could spot incoming planes. Foxholes were reportedly dug at strategic view sites around the island, although none of these have been located. Both the U. S. Air Force and Navy sited their radar facilities at the high points of the island in the 1950s, although the use was primarily technological rather than by human observation.

In at least five areas on the island the historic scene has been altered by recent NPS development. A new housing complex has been constructed on The Main Road above Windmill Canyon, consisting of a concrete driveway, two large garages and three duplexes, all surrounded by a perimeter metal and wire fence. An NPS complex in Windmill Canyon, on and adjacent to the historic site of the older wells and windmill, consists of large water storage tanks, a large shop/garage, a smaller building, a plant nursery, numerous temporary structures, and new well sites with pump houses and perimeter fences. Up the canyon is a complex of chain link cages for captive island foxes; this is not visible from most vantages. At the south end of the main ranch complex, adjacent to the World War II storage building, NPS has constructed a generator building and a fuel storage building and a public restroom. This complex was designed for visual compatibility with the older, nearby ranch structures, while the bulk of the other buildings were not. At the tip of East Point NPS researchers have erected a temporary exclosure fence. These newer developments are not compatible with the historic views on the island but are necessary administrative developments for park management of the island.

The views and vistas of Santa Rosa Island retain integrity and are a contributing element of the Santa Rosa Island Ranching District. Individual sites for viewing cattle during roundups are too numerous and ethereal to adequately inventory, and so no specific features have been identified here save for the

residence locations at Bechers Bay and the WWII radar operations site at Navy Hill.

Management Information

Descriptive And Geographic Information

Historic Name(s): More Ranch
Vail and Vickers Ranch, Santa Rosa Island
Vail and Vickers Ranch
Thompson Ranch
Santa Rosa Island

Current Name(s): Vail and Vickers Ranch, Santa Rosa Island
Vail and Vickers Ranch

Management Unit:

Tract Numbers:

State and County: Santa Barbara County, CA

Size (acres): 53,364.00

Boundary UTM

Boundary UTM(s):

Source	Type	Datum	Zone	Easting	Northing
USGS Map 1:100,000	Point	NAD 27	10	225620	3759466
USGS Map 1:100,000	Point	NAD 27	10	211740	3754599
USGS Map 1:100,000	Point	NAD 27	10	199860	3766820
USGS Map 1:100,000	Point	NAD 27	10	219130	3770132

GIS File Name:

GIS File Description:

National Register Information

National Register Documentation: No Documentation

Explanatory Narrative:
The inventory area has not been nominated to the national register. NPS historian Jere L. Krakow prepared a draft nomination that included only the Bechers Bay ranch complex and China Camp in October 1993; the nomination form was reportedly returned by the SHPO without a determination. An up-to-date nomination is programmed as the final phase of a historic resource study contract, which is in progress.

National Register Eligibility: Eligible -- SHPO Consensus Determination

Explanatory Narrative:
The California SHPO concurred with the findings of this CLI, particularly: that the proposed

district is eligible for listing on the National Register, that the setting contributes to the significance, and that the list of contributing/non-contributing features is correct.

Date of Eligibility Determination: 8/24/2004

National Register Classification: District

Significance Level: Local

Contributing/Individual: Individual

Significance Criteria: C -- Inventory Unit embodies distinctive characteristics of type/period/method of construction; or represents work of master; or possesses high artistic values; or represents significant/distinguishable entity whose components lack individual distinction

A -- Inventory Unit is associated with events that have made a significant contribution to the broad patterns of our history

Period Of Significance

Time Period: 1873 - 1955 AD

Historic Context Theme:	Developing the American Economy
Historic Context Subtheme:	The Cattle Frontier
Historic Context Facet:	Ranches

Area Of Significance:

Category:	Agriculture
Priority:	1
Category:	Archeology
Sub-category:	Historic-Aboriginal
Priority:	2
Category:	Maritime History
Priority:	3

National Historic Landmark Information

National Historic Landmark Status: No

World Heritage Site Information

World Heritage Site Status: No

Cultural Landscape Type and Use

Cultural Landscape Type: Historic Vernacular Landscape

Current and Historic Use/Function:

Use/Function Category:	Agriculture/Subsistence
Use/Function:	Livestock
Detailed Use/Function:	Livestock
Type Of Use/Function:	Historic
Use/Function Category:	Agriculture/Subsistence
Use/Function:	Storage (Granary/Silo)
Detailed Use/Function:	Storage (Granary/Silo)
Type Of Use/Function:	Historic
Use/Function Category:	Agriculture/Subsistence
Use/Function:	Agricultural Outbuilding
Detailed Use/Function:	Agricultural Outbuilding
Type Of Use/Function:	Historic
Use/Function Category:	Domestic (Residential)
Use/Function:	Single Family Dwelling
Detailed Use/Function:	Single Family House
Type Of Use/Function:	Historic
Use/Function Category:	Domestic (Residential)
Use/Function:	Multiple Dwelling
Detailed Use/Function:	Dormitory (Bunkhouse)
Type Of Use/Function:	Historic
Use/Function Category:	Transportation
Use/Function:	Pedestrian-Related
Detailed Use/Function:	Hiking Trail
Type Of Use/Function:	Current
Use/Function Category:	Transportation
Use/Function:	Water-Related
Detailed Use/Function:	Landing (Wharf, Dock)
Type Of Use/Function:	Both Current And Historic
Use/Function Category:	Vacant (Not In Use)
Use/Function:	Abandoned/Unmaintained
Detailed Use/Function:	Abandoned/Unmaintained
Type Of Use/Function:	Current

Use/Function Category:	Vacant (Not In Use)
Use/Function:	Ruin
Detailed Use/Function:	Ruin
Type Of Use/Function:	Historic

Ethnographic Information

Ethnographic Survey Conducted: No Survey Conducted

Adjacent Lands Information

Do Adjacent Lands Contribute? No

Adjacent Lands Description:

General Management Information

Management Category: Should Be Preserved And Maintained

Management Category Date: 4/18/2002

Explanatory Narrative:

The Inventory Unit Meets National Register Criteria.
The Santa Rosa Island Ranching District has been determined by park and regional staff to meet National Register criteria.

Criterion: The Inventory Unit Is Compatible With The Park's Legislated Significance.
Santa Rosa Island was included in the Channel Islands National Park legislation, Public Law 96-199, which established the park on March 5, 1980. The Santa Rosa Island Ranching District is compatible with the park's legislated significance as stated: "In order to protect the nationally significant natural, scenic, wildlife, marine, ecological, archaeological, cultural and scientific values of the Channel Islands . . .."

Criterion: The Inventory Unit Has A Continuing Or Potential Purpose That Is Appropriate To Its Traditional Use Or Function.
While the Channel Islands National Park General Management Plan (GMP) states that "restoration and preservation of natural biotic associations will be emphasized," the document notes the significance of its "irreplaceable cultural resources" and records as cultural resources "a long and continuing tradition of cattle and sheep ranching." It continues to state that "The foremost management goal . . . is the protection of natural and cultural resources." "All significant natural and cultural resources will be given the highest level of protection, regardless of the [management] zone in which they are located." The GMP states that areas identified for historic landscape preservation will fall into a "preservation/adaptive use subzone." At the time the GMP was produced (1980-1985) Santa Rosa Island remained private, and so final planning had not been completed. The Resource Management Plan for Santa Rosa Island completed in 1997 only reiterated portions of the earlier GMP.

Condition Assessment And Impacts

The criteria for determining the condition of landscapes is consistent with the Resource Management Plan Guideline definitions (1994) and is decided with the concurrence of park management. Cultural landscape conditions are defined as follows:

Good: indicates the landscape shows no clear evidence of major negative disturbance and deterioration by natural and/or human forces. The landscape's cultural and natural values are as well preserved as can be expected under the given environmental conditions. No immediate corrective action is required to maintain its current condition.

Fair: indicates the landscape shows clear evidence of minor disturbances and deterioration by natural and/or human forces, and some degree of corrective action is needed within 3-5 years to prevent further harm to its cultural and/or natural values. If left to continue without the appropriate corrective action, the cumulative effect of the deterioration of many of the character-defining elements will cause the landscape to degrade to a poor condition.

Poor: indicates the landscape shows clear evidence of major disturbance and rapid deterioration by natural and/or human forces. Immediate corrective action is required to protect and preserve the remaining historical and natural values.

Undetermined: Not enough information available to make an evaluation.

Condition Assessment: Fair

Assessment Date: 04/18/2002

Date Recorded: 03/12/2002

Park Management Concurrence: Yes **Concurrence Date:** 4/18/2002

Level Of Impact Severity: Moderate

Stabilization Measures:

Impact:

Type of Impact: Consumptive Use

Internal/External: Internal

Description:

Virtually all roads on Santa Rosa Island contribute to the integrity of the cultural landscape. Increased use of roads over the last decade by park staff, Vail and Vickers staff and clients, and visiting researchers has created a bigger maintenance burden and threat to continuing use of the roads. NPS natural resources staff leans towards closing many roads for purposes of habitat protection and decreased erosion. Closure of roads will result in loss of integrity, as grassy roads will fade into vegetation and once-maintained roads will face erosion damage, structural failure and increased vegetative cover. Managed (limited) use of the island's roads, such as converting secondary and tertiary roads into trails, may create less need for such closures.

Type of Impact: Consumptive Use

Internal/External: Internal

Description:

Buildings at the main ranch complex are experiencing a moderate level of wear and tear with continued use by commercial hunters, employees and guests of Vail & Vickers. These uses are generally not destructive and have a positive effect on building preservation as opposed to abandonment.

Type of Impact: Deferred Maintenance

Internal/External: Internal

Description:

NPS maintenance staff on the island work on both public structures and those remaining under permit or ROP to Vail & Vickers, although the burden of maintenance on the permitted structures lies on private staff. Generally, most buildings are maintained at a fair level, but those no longer in use, such as the scale house, branding shed and WWII storage building are beginning to suffer from lack of maintenance. The corrals at the main ranch are deteriorating at a rapid pace and need immediate attention. Fence lines and corrals across the island are not scheduled for maintenance and are noted under Neglect, below. These features will require stabilization before they are lost.

Type of Impact: Erosion

Internal/External: Internal

Description:

Both natural and man-made forces cause erosion on Santa Rosa Island. Numerous features inventoried in this report face impacts from erosion: the corral at Arlington Roundup is losing one side to unavoidable erosion from adjacent Arlington Canyon; water runoff and vehicle use is eroding the non-historic asphalt surface of the Johnson's Lee Road as base materials wash out from under the surface, especially at the edges; erosion has rendered the road to Scott's Camp and the lower portion of the original Signal Road unusable; the ridge road between The Main Road and South Road has been closed due to dangerous conditions caused by surface erosion, as has the Jolla Vieja Road built by Diego Cuevas in 1948; an eastern section of Smith Highway has been rerouted in order to repair erosion caused by poorly-routed roadways; stock dams at Pocket Field and Lobo Pasture are damaged by erosion; wind and soil erosion impacts historic rangeland, although most erosion incidents, most notable on the west and south sides, are historic in origin as a result of intense sheep grazing; and many fence lines are losing structural integrity as their ends disappear into eroding cliffs or gullies, or in instances where soil is eroding around the posts such as the north end of the western Wire Field fence. If these processes are not halted, some features will be lost.

Type of Impact: Exposure To Elements

Internal/External: External

Description:

Santa Rosa Island experiences intense winds through much of the year. Heavy winds place a burden on wood frame structures, causing loss of surface protectants, stress to structural elements and damage to shingles, siding, windows and doors. Wind accelerates the structural deterioration of corrals and fences. Rain and salt air also impact all types of structures and features. As erosion increases on roads during intense rain

events, mildew and rot affect buildings and water penetration quickens the deterioration of fence posts. Only increased and regular maintenance can protect features from damage and destruction by these natural elements.

Type of Impact: Neglect

Internal/External: Internal

Description:

With the closing of ranch operations in 1998, most maintenance and repairs stopped away from the main ranch complex. The only exceptions are the major roads, the Johnsons Lee auto maintenance shop and the China Camp line shack, which received rehabilitation treatment in 2000.

Virtually all fence lines have gone without needed maintenance for more than three years, for obvious reasons. Fences are experiencing failure of both barbed wire and posts; when the wire breaks, tension on the entire fence changes and usually results in failure of the entire fence system. Corrals are also deteriorating unchecked. Some remain in good condition but others, such as Lepe and Arlington, are beginning to fall apart. Like a fence line, a corral relies on universal soundness to retain its overall structural integrity. On many corrals, boards are falling off, posts are leaning and wire is failing.

A number of structures and features at the main ranch complex are neglected. Some of these, such as the three old outhouses, had been abandoned long before the NPS bought the property and the ranch operations ceased. As mentioned above, the corrals and fences in the complex require attention in the form of basic stabilization in order to remain standing. Basic repairs and stabilization will be needed across the island if the determination is upheld to preserve cultural landscape features.

Type of Impact: Operations On Site

Internal/External: Internal

Description:

Construction of NPS housing and maintenance areas has impacted the historic scene in portions of the Bechers Bay area. The placement of the housing area succeeds in being invisible from Bechers Bay but is highly visible from the slopes of Black Mountain and from portions of the Smith Highway. The maintenance area is visible only from a portion of The Main Road. The generator, fuel storage and restroom buildings near the ranch house are intrusive both visually and audibly, but were designed to be visually compatible with existing ranch architecture. As the housing and maintenance areas are essential to operations on the island and have been designed to be unobtrusive, no mitigation is possible.

In upper Windmill Canyon, a temporary fox enclosure complex has been built. Its appearance is intrusive but temporary, and not visible from many points on the island.

At East Point, park staff has erected a fence enclosing many acres of former rangeland. The fence is intrusive both in materials and location. The enclosure is temporary and will be removed no later than 2011; its scientific purpose appears to justify its intrusive presence. It should be thoroughly removed when no longer needed.

Numerous locations around the island are marked with stakes and plastic flagging for

transects used in scientific study. As these intrusions are minor and temporary, no mitigation is needed.

Type of Impact: Planting Practices

Internal/External: Internal

Description:

Plantings of Bishop pines at the NPS housing site perform a needed function (windbreak), the grove will prove to be a further visual intrusion on the historic rangeland.

Native shrubs and trees are being planted in various locations on the island, including Old Ranch, as part of habitat restoration programs. This accelerates the release to succession and affects the appearance of the historic rangeland; during the historic period, ranch managers took action to avoid the spread of shrubs so as to stabilize the productivity of the forage. Reintroduction of Island Oaks and Torrey Pines in their respective areas do not appear to impact the cultural landscape, as these are occurring within the natural habitat of the species.

Type of Impact: Release To Succession

Internal/External: Internal

Description:

Loss of weed and shrub control and lack of regular grass cropping resulting from the removal of all cattle on the island in 1998 is affecting the integrity of the grazed rangeland. Regulated herds of elk, deer and a small number of horses remain but are slated for eventual removal. These remaining animals do not appear to be significant forces in keeping the grasses cropped and larger plants at bay. A very visible characteristic in historical grazed lands is the relatively short grass that provides a bright green cover during and after the rainy season and a show of wildflowers in the spring. As the island's native vegetation returns, the visual character of the grazed rangeland will disappear.

Type of Impact: Structural Deterioration

Internal/External: Internal

Description:

Fences and corrals on the Santa Rosa Island Ranching Districtare deteriorating since abandonment, and this activity will accelerate as time passes. As stated earlier, structural integrity of fences and corrals depends upon the overall stability of the system, and so as parts of a corral or strands of a fence line deteriorate and fail, the entire system will rapidly fall apart. Structural deterioration is found in certain buildings although, in general, the buildings are maintained well. Long-abandoned structures such as Orr's Camp and the corral outhouse are now ruins, but others, like the rope house near the pier and the outhouse in the eucalyptus windbreak, can be retained if stabilized fairly soon.

Type of Impact: Vegetation/Invasive Plants

Internal/External: Internal

Description:

As noted in Release to Succession above, vegetation growth poses the greatest impact on the cultural landscape of the island. However, the vegetation in the ranch complex is, for the most part, being maintained at a basic level. Plantings in the residential yards,

although lacking extensive historical record, appear to be stable. Monterey cypress tree rows are failing because of age, and could be replanted based on adequate historical record. Shrubs are invading the corral areas at the ranch complex and therefore impacting historical integrity. Native grasses could be planted and maintained in the corrals, formerly tilled fields and open areas in and around the Bechers Bay ranch complex as an alternative to shrub proliferation. Horses could be stabled there, providing not only plant control and the historic scene but also as environmentally sound patrol transport for island rangers and researchers.

Agreements, Legal Interest, and Access

Management Agreement: Special Use Permit

Expiration Date: 5/2/2002

Explanatory Narrative:

Vail & Vickers continues to operate a commercial hunting enterprise under a five-year, renewable special use permit. The permit will not be renewed after December 29, 2011.

NPS Legal Interest: Fee Simple Reservation

Explanatory Narrative:

Vail & Vickers negotiated a 25-year Reservation of Use and Occupancy (ROP) for 7.9 acres of land at Bechers Bay when the property was purchased by NPS.

Fee Simple Reservation Expiration Date: 12/29/2011

Public Access: Other Restrictions

Treatment

Approved Treatment: Preservation

Approved Treatment Document: General Management Plan

Document Date: August 21, 1997

Explanatory Narrative:

The CHIS superintendent approved the LCS in 1997, which included many landscape features such as buildings, pasture fences, corrals and the pier. In 2001, the LCS was updated to include key roads, roundups and water systems, and the update was approved.

The GMP, dated 8/1/85, called for Preservation of cultural resources in its conceptual plan. No specified treatment for the cultural landscape has been approved as of this date.

Approved Treatment Completed: No

Approved Treatment Cost

LCS Structure Approved Treatment Cost: $0

Landscape Approved Treatment Cost: $0

Cost Date:

Level of Estimate:

Cost Estimator:

Explanatory Description: The LCS has not identified ultimate approved treatment costs for the buildings and structures and no landscape treatment costs have been identified in a park document.

Stabilization Costs

LCS Structure Stabilization Cost: $300,000

Landscape Stabilization Costs: $40,000

Cost Date: July 1, 1997

Level Of Estimate: C - Similar Facilities

Cost Estimator: Support Office

Explanatory Description: No cost estimates are included in the LCS except for the ranch house. Structures in need of treatment include the

Branding Shed, Scale House, Old School House, Generator Barn, Horse Barn, Pier, House Fence, Corrals, Pasture Fences, Outhouse, Corral Outhouse, Nidever Cave, South Point Lighthouse, Smith Highway The Main Road, Arlington Roundup, China Camp Roundup, Wreck Roundup, Clapp Springs, and the Carrington Point Water System.

The landscape stabilization cost reflects two PMIS statements (#87856 and 79239) currently in that database that deal with erosion and vegetation restoration.

Documentation Assessment and Checklist

Documentation Assessment: Fair

Documentation:

Document: General Management Plan
Year Of Document: 1985
Adequate Documentation: No
Explanatory Narrative:
The GMP is out of date and is currently being updated.

Document: Historic Resource Study
Year Of Document: 2000
Amplifying Details: written by Dewey Livingston
Adequate Documentation: Yes
Explanatory Narrative:
Although in draft form, this document provides a thorough history of Santa Rosa Island and its neighbors, with particular attention paid to the Vail & Vickers Ranch and its predecessors, providing much information on the landscape and land uses. The HRS is scheduled to be completed in 2002.

Document: Resource Management Plan
Year Of Document: 1997
Adequate Documentation: No
Explanatory Narrative:
The report focuses on water quality and conservation of rare species and their habitats. This report led to the closure of ranching operations on Santa Rosa Island.

Document: Statement for Management
Year Of Document: 1991
Adequate Documentation: No
Explanatory Narrative:
Identifies “the Bechers Bay Ranch” as a particular resource of historic interest based on LCS data. Makes no recommendations about preservation.

Document: Other
Year Of Document: 1984
Amplifying Details: “Preliminary Historic Resource Study Santa Rosa Island” written by Bruce Craig
Adequate Documentation: No
Explanatory Narrative:
This short study contains an inventory and evaluation, being the first such document produced by NPS on Santa Rosa Island. It is out of date and preliminary in scope.

Appendix

Bibliography

Citations:

Citation Author:	Kerry Blankenship Allen
Citation Title:	Isla de los Vaqueros: The Ranching History of Santa Rosa Island
Year of Publication:	1995
Source Name:	Library Of Congress/Dewey Decimal
Citation Type:	Both Graphic And Narrative
Citation Location:	CHIS

Citation Author:	Kerry Blankenship Allen
Citation Title:	Island of the Cowboys
Year of Publication:	1996
Source Name:	Library Of Congress/Dewey Decimal
Citation Type:	Both Graphic And Narrative
Citation Location:	CHIS

Citation Author:	Marla Daily
Citation Title:	California's Channel Islands: 1001 Questions Answered
Year of Publication:	1997
Source Name:	Library Of Congress/Dewey Decimal
Citation Type:	Narrative
Citation Location:	CHIS

Citation Author:	Thomas W. Dibblee, Jr.; John W. Woolley, Helmut Ehrenspeck
Citation Title:	Geologic Map of Santa Rosa Island
Year of Publication:	1998
Source Name:	Library Of Congress/Dewey Decimal
Citation Type:	Both Graphic And Narrative
Citation Location:	CHIS

Citation Author:	Gretel Erlich
Citation Title:	Cowboy Island
Year of Publication:	2000
Source Name:	Library Of Congress/Dewey Decimal
Citation Type:	Both Graphic And Narrative
Citation Location:	CHIS

Citation Author:	Philip Mills Jones
Citation Title:	Archaeological Investigations on Santa Rosa Island in 1901
Year of Publication:	1956
Source Name:	Library Of Congress/Dewey Decimal
Citation Type:	Both Graphic And Narrative
Citation Location:	California State Library

Citation Author:	D.S. Livingston
Citation Title:	Draft Historic Resource Study, Channel Islands National Park
Year of Publication:	2000
Source Name:	CHIS
Citation Type:	Narrative
Citation Location:	CHIS

Citation Author:	National Park Service, Channel Islands National Park
Citation Title:	Draft Development Concept Plan and Environmental Impact Statement, Santa Rosa Island
Year of Publication:	1994
Source Name:	CHIS
Citation Type:	Both Graphic And Narrative
Citation Location:	CHIS

Citation Author:	National Park Service, Channel Islands National Park
Citation Title:	General Management Plan
Year of Publication:	1985
Source Name:	CHIS
Citation Type:	Narrative
Citation Location:	CHIS

Citation Author:	National Park Service, Channel Islands National Park
Citation Title:	Resources Management Plan for Improvement of Water Quality and Rare Species and Their Habitats on Santa Rosa Island
Year of Publication:	1997
Source Name:	CHIS
Citation Type:	Narrative
Citation Location:	CHIS

Citation Author:	Bruce Craig
Citation Title:	Preliminary Historic Resource Study Santa Rosa Island
Year of Publication:	1984
Source Name:	CHIS
Citation Type:	Narrative
Citation Location:	CHIS

Citation Title:	National Register of Historic Places Registration Form
Year of Publication:	1993
Source Name:	CHIS
Citation Type:	Both Graphic And Narrative
Citation Location:	CHIS

Citation Title:	Interview with Diego Cuevas
Source Name:	CHIS
Citation Type:	Narrative
Citation Location:	CHIS

Citation Title:	Interview with Russ Vail
Source Name:	CHIS
Citation Type:	Narrative
Citation Location:	CHIS

Citation Title:	Interview with E.K. Smith
Source Name:	CHIS
Citation Type:	Narrative
Citation Location:	CHIS

Citation Title:	Interview with Bill Wallace
Source Name:	CHIS
Citation Type:	Narrative
Citation Location:	CHIS

Citation Title:	Interview with Al Vail
Source Name:	CHIS
Citation Type:	Narrative
Citation Location:	CHIS

Citation Author:	Igler, David
Citation Title:	Industrail Cowboys:Miller an Lux and the Transformation of the Far West, 1850-1920
Year of Publication:	2001
Publisher:	Unversity of California Press
Source Name:	Library Of Congress/Dewey Decimal
Citation Number:	HD9433.U52 M554 2001
Citation Type:	Both Graphic And Narrative

Citation Author:	Jelinek, Lawrence J.
Citation Title:	Harvest Empire : A History of California Agriculture
Year of Publication:	1982
Publisher:	Boyd and Frasier
Source Name:	Library Of Congress/Dewey Decimal
Citation Number:	S451.C2 J44
Citation Type:	Both Graphic And Narrative

Citation Author:	Kinght, Richard L. ed.
Citation Title:	Ranching West of the 100th Meridian: Culture, Ecology, and Economics
Year of Publication:	2002
Publisher:	Island Press
Source Name:	Library Of Congress/Dewey Decimal
Citation Number:	SF196.U5 R36 2002
Citation Type:	Both Graphic And Narrative

Citation Author:	Rolle, Andrew F.
Citation Title:	California: A History
Year of Publication:	1969
Publisher:	Thomas Y. Crowell Company
Source Name:	Library Of Congress/Dewey Decimal
Citation Number:	F861 .R78 1978
Citation Type:	Both Graphic And Narrative

Citation Author:	Starrs, Paul F.
Citation Title:	Let the Cowboy Ride : Cattle Ranching in the American West
Year of Publication:	1998
Publisher:	Johns Hopkins University Press
Source Name:	Library Of Congress/Dewey Decimal
Citation Number:	SF196.U5 S77 1998
Citation Type:	Both Graphic And Narrative

Citation Author:	Scheuring, Ann Foley ed.
Citation Title:	A Guidebook to California Agriculture
Year of Publication:	1983
Publisher:	U.C. Berkeley Press
Source Name:	UC Davis
Citation Type:	Both Graphic And Narrative

Citation Title:	Agricultural Crop Reports, Santa Barbara County (1945-1959)
Source Name:	UC Davis
Citation Type:	Narrative
Citation Location:	Agicultural Economics Library

Citation Author:	Division of Agricultural Sciences
Citation Title:	An Analysis of the California Beef Industry
Year of Publication:	1982
Publisher:	University of California
Source Name:	UC Davis
Citation Type:	Both Graphic And Narrative
Citation Location:	special publication #3281

Citation Author:	Scott, George A.
Citation Title:	California Livestock Statistics
Year of Publication:	1937
Publisher:	USDA Bureau of Agricultural Economics/California Department of Agriculture
Source Name:	UC Davis
Citation Type:	Graphic

Citation Author:	California Crop and Livestock Reporting Service
Citation Title:	California Livestock-Annucal Report 1972
Year of Publication:	1972
Source Name:	UC Davis

Citation Title:	County Agricultural Statistics, July 1965
Year of Publication:	1965
Source Name:	UC Davis
Citation Location:	Agricultural Economics Library

Citation Author:	Rye, Bjoor
Citation Title:	Ranchos: Santa Barbara Land Grant Ranchos
Year of Publication:	1996
Publisher:	The Easton Gallery
Source Name:	UC Davis

Citation Title:	Economic Briefs for Agricultural Extension Service
Year of Publication:	1974
Publisher:	University of Californi
Source Name:	UC Davis

Citation Author:	Palmer, Lex
Citation Title:	Central Coast Continuum - From Ranchos to Rockets. A Historic Overview for an Inventory and Evaluation of Historic Sites, Buildings, and Structures, Vandenburg Air Force Base, California
Year of Publication:	1999
Publisher:	BTG, Inc.
Source Name:	author
Citation Type:	Both Graphic And Narrative

Citation Author:	USGPO
Citation Title:	U.S. Bureau of the Census, Census of Agriculture, 1950 Vol. I (Part 33) and II
Year of Publication:	1952
Publisher:	USGPO
Source Name:	UC Davis
Citation Type:	Both Graphic And Narrative

Citation Author:	USGPO
Citation Title:	U.S. Bureau of the Census, Census of Agriculture, 1964 Vol. I (Part 48)
Year of Publication:	1964
Publisher:	USGPO
Source Name:	UC Davis
Citation Type:	Both Graphic And Narrative

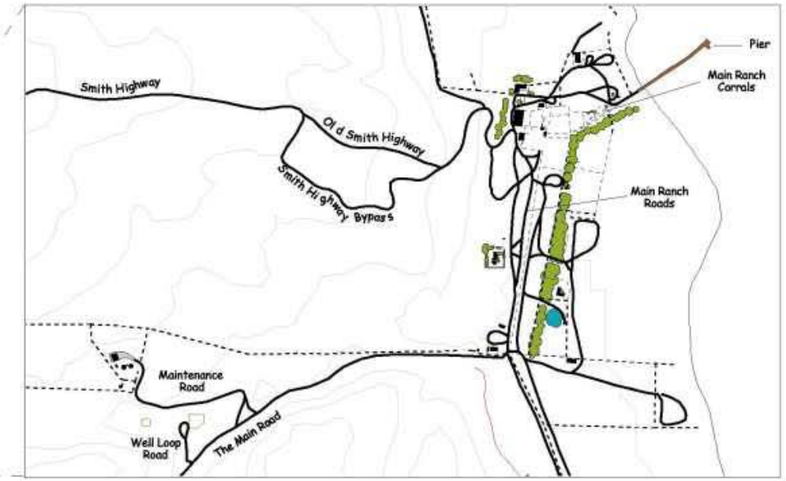
Citation Author:	USGPO
Citation Title:	U.S. Bureau of the Census , Fifteenth Census of the United States, 1930, Agriculture- California- Statistics by Counties
Year of Publication:	1931
Publisher:	USGPO
Source Name:	UC Davis
Citation Type:	Narrative

Supplemental Information

Title: Telephone Interview with Andy Mills, California Rangeland Trust

Description: With Dewey Livingston, August 4, 2004

Site Map #1
Vail and Vickers Ranch Historic District
Santa Rosa Island, Channel Islands National Park
2002



Carrington Point Water Features
Carrington Point Road
Carrington Pasture
Carrington Trough
Lobo Reservoir
Lobo Pasture
Road to Horse Pasture
Horse Pasture
Signal Oil Drill Site
Orr's Camp
Green Canyon Corral
Road to Soledad Beach
Road Along Arlington Fence
Smith Highway
Lobo Roundup Site
The Main Road
Airstrip
Road to Water Canyon Landing
NPS Housing Area
Campground Trail
Road Above Lobo Canyon
Telephone Road
Road at Upper Torrey Pines
Road to Water Canyon Roundup
Wire Field
Road Through Quemada Canyon
Old Ranch Corral
Old Ranch Road
Road Above Old Ranch House Canyon
Rancho Viejo (Old Ranch Site)
Old Ranch Pasture
Pocket Field
Road to Orr's Camp
Road to Tecolote Canyon
Arlington Corral
Mud Tank (Pocket Dam)
Road to Sandy Point
Arlington Trap
Signal Road Cutoff
North Pasture
Road to Black Mountain Summit
Pocket Field Roundup Site
Old Signal Road
Signal Road
Drift Fence
Black Mountain Corral
Road to WWII Camp
Water Canyon Corral
WWII Cantonment Site
South Road
Las Cruces Roundup
Road to Las Cruces Roundup
Lepe Corral
Old Arlington Roundup Site
Burma Road
Air Force Operations Site
The Main Road
Road to Quinn's Knob
Road to Clapp Spring
Clapp Spring Trough
Clapp Spring
Sierra Pabla Road
China Camp (Rita's) Road
Standard Oil Well Site
Johnson's Lee Road
South Pasture
NPS Exclosure
Navy Hill Roads
Road to Piedragosa
Road Above La Jolla Canyon
South Road
China Camp Corral
WW II Operations Site
Johnson's Lee Utility Corridor
Wreck Corral and Line Camp
Road to Lighthouse
Wreck Trap
Air Force Airstrip
La Jolla Roundup Site
Piedragosa Roundup Site
Air Force Base
South Point Lighthouse

N
W E
S

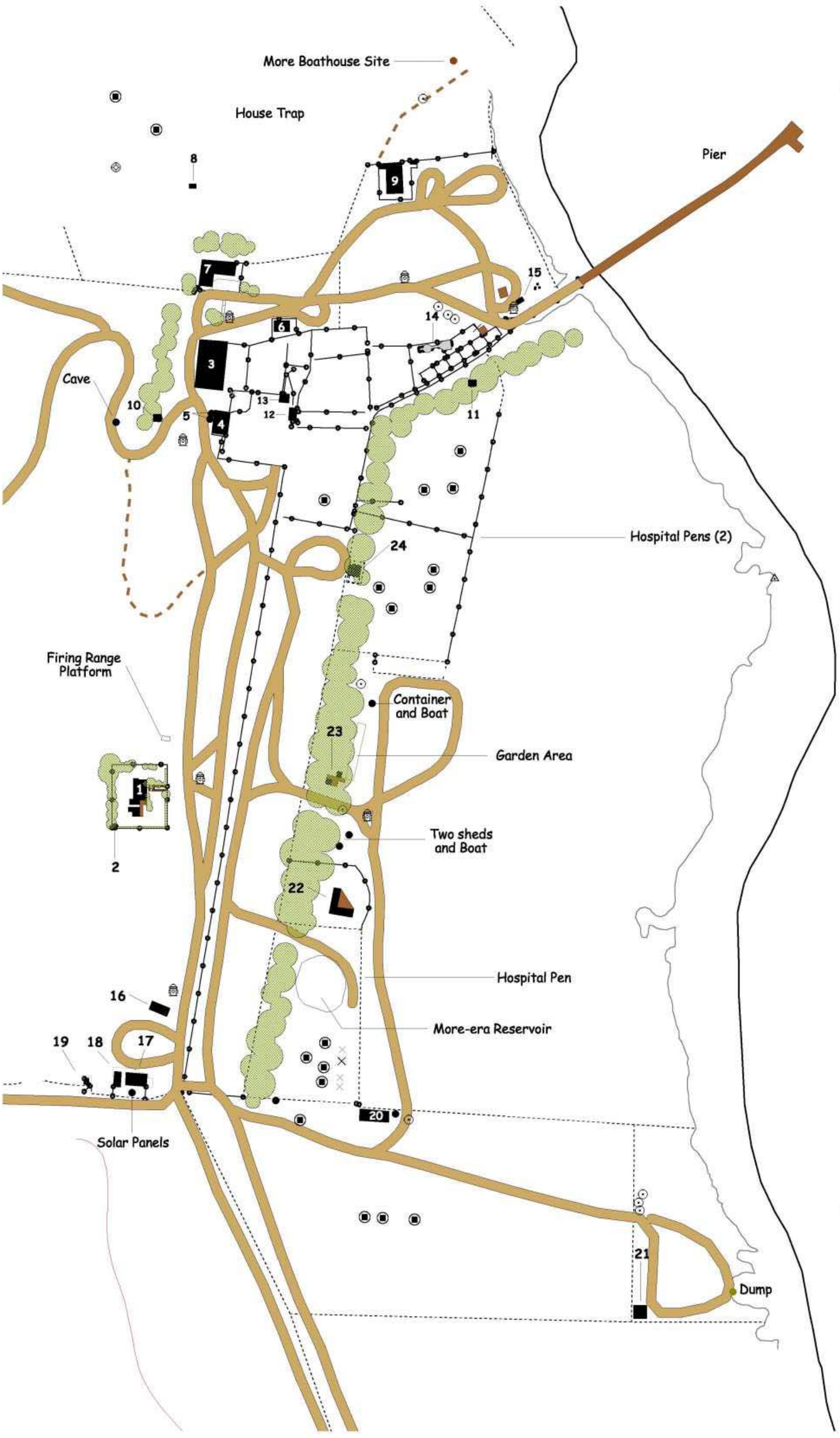
2 0 2 Miles

United States Department of the Interior
National Park Service
Pacific Great Basin Support Office
Oakland, CA
2002

Source: Map derived from park data sources, aerial photographs, and GPS (2001).

Contour Interval: 20 feet

Site Map #2 - Main Ranch Area
Vail and Vickers Ranch Historic District
Santa Rosa Island, Channel Islands National Park
2002



Legend

- Fire Utility
- Manger
- Manger Remnant
- Refuse and Building Materials
- Trough
- Trough Remnant
- U.S. Coast Geodetic Survey Marker
- Various Machinery (baler, derrick, piledriver, winch etc.)
- Windsock
- Planted Vegetation
- Buildings
  1. Upper Ranch House
  2. Upper House Outhouse
  3. Horse Barn
  4. Generator Barn
  5. Matanzas
  6. School House/ Residence
  7. Bunkhouse
  8. Chicken Shed
  9. Foreman's House and Outbuildings
  10. Ranch Outhouse (large)
  11. Ranch Outhouse (small)
  12. Scale House
  13. Branding Shed
  14. Cattle Dipping Vat
  15. Rope House
  16. WWII Storage Building
  17. NPS Generator Building
  18. NPS Fuel Building
  19. NPS Restrooms
  20. Corrugated Metal Shed
  21. Radio Shed
  22. Russ Vail House
  23. Elk Slaughter Shed
  24. Pig Pen
- Wooden Structures
- Dirt Roads
- Main Ranch Dirt Roads
- Shoreline
- Cliffedge
- Barbed Wire Fence
- Wooden Fence
- Wooden Stair

0 50 100 Feet

United States Dept. of the Interior
National Park Service
Pacific Great Basin Support Office
Oakland, CA
2002

Source: Map derived from park data sources, aerial photographs, and GPS (2001).