



## Coast Dairies Property: A Land Use History

*Excerpted from: Coast Dairies Long-Term Resource Protection and Use Plan: Draft Existing Conditions Report for the Coast Dairies Property, Section 1.0.*

*Figures and photos referenced in text are not included.*

**Section 1.1** - Prehistory

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### **1.1 - PREHISTORY**

#### **1.1.1 PHYSIOGRAPHY**

The physical geography of the northern Santa Cruz coast--the North Coast, in local parlance--is marked by broad marine terraces that rise eastward from the ocean to the Santa Cruz Mountains. These terraces comprise two rock formations, including the Santa Cruz Mudstone Formation (a soft, eroding bedrock), and the Monterey Formation, a hard silica-rich deposit containing Monterey chert, an important source of toolstone for the Native Americans of the Central Coast.<sup>[1]</sup> These terraces have been exposed to continuous wave action, resulting in the formation of the distinctive steep cliffs that stand sentinel along the coastline. Sandy "pocket" beaches occur intermittently where streams have cut through the marine terrace to meet the sea, and are often paired with the small estuaries formed by some of the larger streams such as Scott and Waddell Creeks.

The modern climate of the region is considered to be Mediterranean and is characterized by relatively dry summers and moist winters. Average annual rainfall is 27 inches and mean annual temperature is 59 degrees. In the summer months, seasonal upwelling of cold ocean waters generates morning coastal fog. On-shore

north or northwesterly winds usually increase during the day, clearing off the fog, and die down again by evening when the fog returns.

Paleoenvironmental studies suggest that climatic conditions 30,000 to 5,000 years ago were slightly cooler and more moist than today. Pollen studies indicate that the climate was more like present day Fort Bragg in Northern California (Jones and Hildebrandt, 1990). Current conditions appear to have been in place by 5,000 years ago.

### **1.1.2 TERRESTRIAL ENVIRONMENT AND RESOURCES**

The Coast Dairies Property incorporates four major ecological zones <sup>[2]</sup> including coastal terrace, ridge system, riverine, and upland meadow (Hylkema, 1991). Modern vegetation was most likely present for many centuries before recorded history, and its diversity provided early inhabitants an array of plants and trees for food, medicine, tools and baskets.

For the first human inhabitants of the Property, there was a variety of natural resources that might have been the envy of more interior peoples. Plants bearing edible seeds and/or leafy greens are known to have been used throughout the year, as revealed by plant remains from archaeological sites. In the spring, lupine <sup>[3]</sup> was harvested for its edible green leaves, while chia provided edible seeds. During the late spring and summer a variety of seed-bearing plants were gathered including tarweed, goosefoot and elderberry. Soaproot was particularly important as it was used for food (edible root), fish poison, soap, and brushes (Fitzgerald and Ruby, 1997). Numerous species of trees and shrubs were also a source of edible nuts and berries including baynut, hazelnut, and tan oak, all of which were harvested in the fall (Fitzgerald and Ruby, 1997). Buckeye, California bay laurel and coast live oaks are also considered to have been economically important (Hylkema, 1991).

Acorns and grass seeds constituted a significant proportion of the native diet. Ethnographic accounts indicate that the natives sought to increase seed production of coast grasslands through intentional burning. Rediscovered as "prescribed burning" in modern times, this prehistoric practice also served to increase forage and attract large mammals such as black tailed deer, which were regularly hunted (Jones and Hildebrandt, 1990). Other animals in the aboriginal larder came from the coastal scrubland and forests of the area, habitats for terrestrial mammals, reptiles, fish, and amphibians. Oak woodlands in particular harbor a large number of animals and birds for thermal cover, escape, dens, nests, and foraging (Barrett, 1980). Modern and historic use of the region has altered somewhat the ecology of the Central Coast and reconstruction of prehistoric conditions is at least partly by inference, but species known to have been important to native peoples include a wide variety of small to medium mammals including the jackrabbit, cottontail rabbit, kangaroo rat, ground squirrel and badger.

Studies have identified more than two hundred resident species of birds in the region but, perhaps more importantly, the cold and nutrient-rich waters immediately offshore lie astride the Pacific migratory waterfowl flyway. Avifaunal remains from archaeological sites on the Santa Cruz coast indicate that waterbirds such as canvasback duck, common merganser and blue winged teal were part of the prehistoric diet (Dietz et al., 1988).

### **1.1.3 MARINE RESOURCES**

Offshore vegetal resources such as kelp, seaweed and sea palm are known to have been exploited prehistorically. Native peoples collected these plants on-shore and roasted them for immediate consumption or dried and stored them for future use (Jones and Hildebrandt, 1990). Shell refuse from an extensive menu of mussels, barnacles, limpets, chitons, abalone and clams are commonly found in coastal archaeological sites. Migratory marine mammals known historically on the Central Coast were probably present prehistorically, and no doubt harbor seals, northern elephant seals, and sea lions were sources of protein and fat. These species were attracted by the same fish exploited by humans: Pacific mackerel, night smelt, white croaker, righteyed and lefteyed flounder and anchovy (Jones and Hildebrandt, 1990).

### **1.1.4 ARCHAEOLOGICAL RESEARCH**

The coastal region stretching from Santa Cruz to San Francisco has been the focus of numerous archaeological surveys and excavations since the early 1900s. The earliest of these investigations reflected the trophy-hunting mentality of the times, collecting museum specimens for display purposes from some of the largest prehistoric residential sites elsewhere in the San Francisco Bay region. These studies were extremely limited in scope and provided little understanding of prehistoric life-ways of people who inhabited this part of the Central Coast.

Beginning in late 1960s, academic research by students at San Francisco State University (and later San Jose State University) expanded the number of recorded archaeological sites along the coasts of San Mateo and Santa Cruz counties. While much of this research was limited to site recording and limited sampling, a few important studies provided valuable information for the development of a regional chronology and an integrated understanding of prehistoric life (Roop, 1976; Hylkema, 1991). Hylkema's 1991 thesis was particularly important, as it not only provided the first integrated examination of prehistoric adaptations along the San Mateo-Santa Cruz coast, but it also provided the basis for comparisons of local economies with those of surrounding areas including the San Francisco Bay, Monterey Bay and inland valleys.

Finally, studies driven by the requirements of the California Environmental Quality Act (CEQA) since the 1980's have also supplied invaluable chronological information, filling the gaps in archaeological data amassed from this part of the North Coast since the early 1900s (Jones and Hildebrandt, 1990; Fitzgerald and Ruby, 1997).

### **1.1.5 HUMAN OCCUPATION ALONG THE NORTH COAST**

Archaeological and ethnographic studies indicate that the North Coast was possibly occupied from as early as the 10,000 years ago. The earliest evidence for occupation of the region comes from a site located in the Santa Cruz Mountains near Scotts Valley. This deeply buried site has been dated to 8000 BC and is the only evidence of what archaeologists refer to as the Paleo Indian period (Cartier, 1993), a designation that subsumes all occupations dating earlier than 5000 BC. Progressively rising sea levels documented for this period may have obliterated additional evidence for occupation of the coast during this time. As with the climate, sea levels appear to have stabilized to current conditions by 5000 years ago.

Evidence of habitation along the coast proper comes later, during the Lower Archaic period (3000-5000 BC) and from a site immediately adjacent to the Coast Dairies Property at Sand Hill Bluff (Jones and Hildebrandt, 1990). This locale appears to have been occupied over a span of time difficult for modern Californians to comprehend: 5000 years, beginning about 6000 years ago. Habitation of both the coastal and interior regions in and surrounding the Property is evidenced in numerous sites dating to the Middle Archaic (3000 - 1000 BC) and Upper Archaic (1000 BC - AD 1000). The latest prehistoric occupation appears to have occurred during what is known as the Emergent Period (AD 1000 - 1800) as evidenced at a site located at Davenport Landing (Fitzgerald and Ruby, 1997), and at a site about 5 miles inland in the Santa Cruz Mountains (Hylkena, 1991). Native inhabitants of the region were first encountered by Spanish explorers in 1602 and again between 1769 and 1776. Aboriginal groups of the San Francisco and Monterey Bay area came to be known collectively as Costanoan, a word derived from the Spanish word *Costaños* meaning 'coast people' (Levy, 1978).

During the mission period, AD 1770-1835, devastating changes occurred for the Costanoan people. The population was recruited into nearby missions and their traditional subsistence economy was replaced by an agricultural one. Analyses of mission baptismal records demonstrate that the last Costanoan tribelets living a traditional existence had disappeared by 1810 (Levy, 1978). As was true in much of the Americas, the population experienced a dramatic decline due to the introduction of European diseases, which consequently caused lower birth rates. And in a further blow, the mission culture that had absorbed and to some degree supported the Costanoans was short-lived. The secularization or abandonment of the missions by the Mexican government in 1832 caused people to relocate to different areas and establish small settlements, fragmenting the survivors and separating them farther away from their cultural heritage. It is believed that the Costanoan languages were probably not spoken after the year 1835 (Levy, 1978).

Most of what we know about native inhabitants of the region has been pieced together from the Spanish exploring expeditions, ethnographic accounts in the 1920s and 1930s (Krober, 1925), and archaeological research. The Costanoan territory was occupied by approximately 50 separate tribelets, each one occupying one or more permanent village sites. The Coast Dairies Property is located within the boundaries of the area inhabited by the Cotoni tribe, which occupied the land from the mouth of the San Lorenzo River, north to Año Nuevo Creek, and east as far as Bonny Doon Ridge (Milliken, 1995).

The Costanoans encountered by the Spanish were hunter-gatherers who managed their resources to ensure a sustained livelihood. They lived in sedentary communities in domed structures covered with thatched roofs, and relied for subsistence on nuts and seeds from various trees and plants, local fauna, and fish, particularly salmon<sup>[4]</sup>, from the rivers and Pacific Ocean. Materials crafted by the Costanoans and used in subsistence activities included baskets, mortars, pestles, nets, net sinkers, anchors, and a variety of chipped stone tools. Trade with the surrounding Plains Miwok, Sierra Miwok and Yokuts allowed nonindigenous materials and food (i.e. piñon nuts) to be brought into the area as well. In exchange, the Costanoan are thought to have exported bows, salt, and salmon to neighboring groups (Levy, 1979). Economic reciprocity, in addition to intermarriage, is thought to have linked settlements together, some of which, by Spanish accounts, indicate stable and prosperous villages with as many as 200 people (Milliken, 1995). Overall population density along this part of the coast was nevertheless very sparse.

Archaeological research has helped us to understand what life was like prior to European contact, in at least some of its complexity and richness. For example, examination of numerous sites along the coast, adjacent terraces, and ridge systems of northern Santa Cruz County indicates that prehistoric inhabitants made use of a

range of ecological zones including coast terrace, ridge system, riverine, and upland meadows, and that native inhabitants moved between these ecological zones to support a diverse human ecology. In what is referred to as a forager economic strategy, groups of people move from one location to another exploiting the resources in the immediate vicinity. Using their settlements as a base of operations, group movements were on a seasonal basis to optimize resource harvesting. It has been hypothesized that this strategy is extremely efficient in an ecological context like northern Santa Cruz County where resources are relatively dispersed, or not concentrated in one area. The distribution of marine and terrestrial mammals within a mosaic pattern of the coastal terraces and mixed hardwood forests are thought to have encouraged a foraging strategy until very late in time, possibly up until contact with Spanish explorers.

## **1.2 – A HUMANIZED LANDSCAPE**

Most discussions about Santa Cruz County's North Coast emphasize the scenic natural beauty of the coastline, and indeed some aspects of today's scenery have evoked the same reactions for many generations of residents and visitors. Yet, as we begin to review the historic period, we find a landscape heavily altered by long and often intensive human use. On the Coast Dairies Property, sunsets are viewed while standing on massive structures, now unrecognizable as railroad trestles, looking across fields of Brussels sprouts, to a western edge broken by the towers of the cement plant. Streams have been dammed, diverted through tunnels, flumed and in several instances encased in pipes and carried away to serve the citizens of Santa Cruz. Road cuts and fills slice the landscape, and everywhere one can see concrete abutments, truncated water pipes and bolts protruding from the earth, monuments to an industrial (or at least an entrepreneurial) past.

This section of the Existing Conditions Report is an effort to bring the human story to the forefront, to highlight the remarkable ingenuity and energy that came to the North Coast and tried to transform it--to put the human communities that lived or migrated here into the ever-changing landscape beside the animals, plants, and the physical environment.

The story of the North Coast is really two histories, before and after the incorporation of the Coast Dairies & Land Co. in 1901. The combination of the Moretti and Respini family assets, together with the leadership of Louis Moretti, provided a catalyst for an explosion of activity more like the booms of the gold fields or Silicon Valley than the pastoral landscape we value today. The Coast Dairies Corporation was the major agent for change in the early twentieth century. The over-arching theme of both is that of a treasure trove of natural resources locked up and isolated by a formidably rugged landscape. Many who came to the North Coast marveled at its potential--the forests, limestone, bitumin, fresh water, rolling grasslands, terraces--all ripe for utilization, and then added "if only we had..." followed at different times by the phrase "dependable road," "protected harbor," "railroad," "straight highway," or even "freeway." The North Coast is dominated by the long, narrow coastal terrace perched a hundred feet or so above the ocean, offering little access when approaching by sea, while the rugged and irregular Santa Cruz Mountains provide a parallel barrier on the east. The northern end of the terrace was blocked by a mudstone bluff that comes down to the ocean's edge just north of Waddell Creek, which forced early travelers into the surf to get past. The only easy access to this terrace is from the southeast, but its length is so dissected by gullies and valleys that, until the coming of the railroad in 1905, it was extremely difficult to traverse. "The road to Pescadero is thirty-six miles in length, follows along the coast, and is one of continuous ups and downs," wrote one observer in 1880. "It would be a slander to say it is a comfortable road over which to ride." (*Sentinel* 1/31/1880).

The natural landscape blunted the forces of development and forced them into slow motion, creating a thirty-year lag compared to areas north or south. While the railroad connection between Santa Cruz and the outside world was completed in 1876, the North Coast wasn't connected until 1906; likewise, the big sawmills came to the redwood canyons on the east side of Ben Lomond Mountain in the 1880s, but didn't reach the North Coast until 1909.

The North Coast's isolation became an asset when harried citizens from the San Francisco Bay Area sought relief in the sheltered campgrounds that grew up at every stream crossing. The "secret recesses and wildest haunts" lured fishermen, hunters and campers away from the "comparatively bleak valley of Santa Clara." (*Sentinel* 5/18/1872)

Finally, and fortunately for the future of the Coast Dairies Property, some developments never came at all. The coastal subdivision frenzy of the 1920s that saw the entire coastline from Santa Cruz to Aptos divided and sold into houselots was slowed enough that, when it finally arrived in the late 1960s, the community rose up and stopped it.

### **A Landscape for Everyone**

There are a multitude of landforms compressed between the surf and the top of Ben Lomond Mountain. Rainfall amounts double in that distance and a mere turn in a canyon can change the visitor's experience from bright, open landscape to deep, redwood forest. The North Coast offered something for everybody; most immigrants could find a familiar niche within which to live and work. And for some, like the Swiss, for whom the coastal hills evoked Switzerland's Canton Ticino, that was an impetus to settle. Azorean whalers worked from Pigeon Point, Japanese farmers tilled the coastal terraces, Chinese abalone hunters prowled the rocks, Swiss and Portuguese dairymen tended their herds, Filipino and Mexican farm laborers worked under the sun, and Italian farmers coaxed the land to grow artichokes and Brussels sprouts. Greek stonecutters risked their lives quarrying a living out of the San Vicente Canyon.

#### **1.2.1 THE VIEW FROM THE SEA**

##### **Juan Rodriguez Cabrillo, November 1542**

Cabrillo's account includes a brief mention of the North Coast including the fact that they saw "neither Native Americans nor smokes <sup>[5]</sup>" (Wagner, 1929). Cabrillo's emphasis that trees came right down to the water at other locations (Point Reyes, Point Pinos) suggests that the coastal terrace near present-day Año Nuevo had few if any trees.

##### **Sebastian Cermeño, December 1595**

In December 1595, Spanish explorer Sebastian Cermeño sailed southward along the coastline in a makeshift canoe. He was much more definite about the appearance of the land: "In going along very close to land, frequently only a musket-shot from it, all that may be seen is bare land near the sea and pine and oak timber in the high country. No smokes or fires appeared." (Wagner, 1929)

### **Francisco de Bolaños, 1603**

Spanish pilot Francisco de Bolaños was with Cermeño and returned with Captain Sebastian Vizcaíno in the 1603 passage that was the occasion to name Año Nuevo. Bolaños wrote the description that would be the guide for all Spanish ship captains for the next 150 years. His description of the coastline south of Point Reyes: "From the Punta de los Reyes about fourteen leagues <sup>[6]</sup> southeast a quarter south there is a point [probably Pigeon Point]. Before reaching it the country consists in places of sierra, bare to the sea and of medium height with some cliffs, but soon the country inside [inland] becomes massive and wooded until you reach a point of low land in 37 1/2 degrees named the 'Punta de Año Neuvo.'" To emphasize the distinctiveness of Point Pinos on the south side of Monterey Bay, Bolaños noted that the forests there covered the land "down to the sea itself." (Wagner, 1929)

### **Archibald Menzies, November 1792**

One later account further confirms the view from the sea. In November, 1792 English scientist Archibald Menzies described the coastline south of San Francisco: "In the afternoon we coasted along shore to the Southward [from San Francisco] with a fresh breeze, the land appearing much the same as to the Northward of Port San Francisco naked & hilly, with here & there perpendicular cliffs of a whitish appearance facing the Sea." (Menzies, 1792) Since the Mission Santa Cruz had just been established (1791), the North Coast's barren appearance can not be attributed to grazing by mission livestock, and reflects instead the natural factors discussed in Section 3.0.

## **1.2.2 THE VIEW FROM THE LAND**

The first Europeans to pass along the North Coast on land were Spaniards, members of the expedition sent northward from San Diego in 1769 to find the port of Monterey described by Vizcaíno in 1603. They passed along the North Coast twice.

### **The Portolá Expedition 1769**

Led by Captain Gaspar de Portolá, the expedition became confused by the topography around the Monterey Peninsula and continued northward along the coast, looking for the right combination of harbor and pine trees coming "down to the sea itself." Recognizing neither, they continued northward, passing the San Lorenzo River on October 18.

Marching along a mesa approximately three miles wide, they encountered a "toilsome" landscape: "We traveled three hours and a half but only made two leagues during which we descended and ascended four deep watercourses carrying running water which empties into the sea. Only in the watercourses are any trees to be seen; elsewhere we saw nothing but grass, and that was burned." (Bolton, 1966) Since they were looking for a shoreline pine forest and expecting to see many Native Americans as Vizcaíno had, the empty bare hills in the east were very disappointing. On October 19, Engineer Miguel Costansó wrote: "To our right there were some whitish, barren hills that filled us with sadness, and there were days on which we missed the comfort of seeing natives." (Browning, 1992)

But it was the rugged terrace and the seemingly unending sequence of arroyos that made the Spaniards most disconsolate. Father Crespí, the Church's representative on this journey, noted that "this march was very

troublesome, on account of the frequent gulches along the way, for we crossed seven, and they caused a great deal of work in making them passable." (Bolton, 1966) Their mules slipping and falling in the steep-sided arroyos, the Spaniards struggled ever northward along the terrace, finally camping at the mouth of present-day Waddell Creek on October 20. While at this campsite the expedition experienced a startling recovery from an earlier outbreak of scurvy <sup>[7]</sup>, before slipping past the bluffs to the north and out onto the terrace behind Año Nuevo. Portolá's confusion increased when they saw San Francisco Bay; as winter deepened, they headed back southward along the coast.

Since the stream-crossings were still in place, the expedition traversed the North Coast terrace in less than half the time it had taken them going northward. On November 21 they camped at the mouth of present-day Majors Creek, and Father Crespi noted the abundance of geese: "On this and the preceding days the soldiers killed a great many geese, the flocks of these birds that are seen at every step being uncountable. Some of the soldiers' messes have twelve of them saved up. Blessed by the Divine Providence which relieves us in our direst need!" (Bolton, 1966)

Eventually, after returning to San Diego and then marching back up to Monterey Bay, they recognized the harbor and found the pine trees "down to the sea itself." In June of 1770 the Spaniards established the capitol of Alta California at Monterey. The North Coast had been a diversion both worrisome and restorative.

### **The Third and Last Spanish Passage Along the North Coast - The Rivera Expedition 1774**

The Spaniards made the journey from Monterey to San Francisco Bay several times, but their memory of the difficulty of traveling along the coastal terrace encouraged them to follow the route through the more level inland valleys, along the route of present day Highway 101. Over the intervening five years their North Coast stream crossings washed out and vegetation grew up to obscure the trail.

In December 1774, the Spaniards made their last journey of exploration along the North Coast. After exploring San Francisco Bay, the expedition crossed over the ridge of the Santa Cruz Mountains and paralleled the North Coast. The trip's two diarists, Captain Don Fernando Rivera and Padre Francisco Palo left very detailed accounts. After waiting for low tide and making a dash across the sand at the base of the bluff at present-day Waddell, they followed the coastal terrace southward through land of "pure earth covered with grass." Though they saw few Native Americans during their passage, Palo? noted their presence: "...at every step we have come upon paths well beaten by [the Native Americans] which descend from the mountains to the shore." The constant crossing of arroyos was tiresome, and in some instances they were "so precipitous that we were all compelled to go on foot." (Bolton, 1966)

The 1774 trip decided the matter. The North Coast was not to be the route when going from Monterey to San Francisco, and in 1775 Spanish Lieutenant Pedro Fages officially recognized the inland passage from Monterey to Mission Santa Clara and San Francisco. He called it a "short cut" that "traverses more passable ground [than the coast], and saves a matter of ten leagues of distance." (Priestly, 1937)

The die was cast. The primary Spanish north-south route through Central California (later called the El Camino Real) did not come along the "tiresome" North Coast. The land that came to be known as Santa Cruz County's North Coast and ultimately the Coast Dairies Property remained isolated, rugged and forbidding.



### **1.2.3 THE SPANISH COLONIAL ERA (1770-1822)**

Because the North Coast was off the beaten path and remote relative to the other mission establishments at Carmel and Santa Clara, the North Coast was not actively settled until 17 years after Lieutenant Fages made his travel recommendation.

#### **Mission Santa Cruz, established 1791**

The establishment of the Mission Santa Cruz beside the San Lorenzo River in August of 1791 marked the beginning of Spanish occupation of the North Coast. In its early years the mission looked eastward across the coastal terrace for its pasturage, but following the establishment of the Villa de Branciforte <sup>[8]</sup> on that terrace in 1797, the padres turned their attention to the North Coast.

#### **North Coast Controlled by Mission Santa Cruz**

Mission Santa Cruz eventually came to control a swath of the North Coast extending 11 leagues (28.6 miles) with a width of three leagues (7.8 miles) inland from the coast. The land was used to pasture mission livestock including cattle, sheep and horses. Three ranchos <sup>[9]</sup> are mentioned in the mission records: El Matadero which evolved into the Mexican-era Refugio grant located south and east of Laguna Creek; El Jarro which evolved into the Agua Puerca y las Trancas grant, centered on present-day Scotts Creek; and Rancho Punta de Ano Nuevo, centered on Ano Neuvo itself. Rancho El Jarro was mentioned in the Santa Cruz Mission inventory in 1835 as having 2,900 head of sheep (Kimbro, 1985).

#### **The French Spy - February 1827**

When M. Duhaut-Cilly's accounts of his visit to California in 1827-1828 were published, they were so detailed and vivid it was assumed by some that he was actually spying for France. Whatever his purpose his accounts are remarkable and would have served well as a military reconnaissance, albeit with a stylish French flair. Sailing south from San Francisco along the coast:

"There are eighteen leagues from the entrance to San Francisco Bay to the roadstead at Santa Cruz, and the way is south-southeast, without turns and dangers. All day we had spy-glasses in our hands to examine the coast, whose aspect the swift progress of the ship altered every minute. In general it is very high in the interior, and everywhere covered with forests of fir trees; it then grows lower by a gentle slope toward the shore; but before reaching it, it rises again to form a long ridge of hills, whence it descends finally to the sea, now bathing the foot of vertical rocky cliffs, now gliding in sheets of foam over sandy or pebbly beaches. Beautiful verdure clothed the plains and hills, where we constantly saw immense herds of cows, sheep and horses. Those belonging to Santa Cruz meet those, less numerous of San Francisco; so that this long strip of eighteen leagues is but one continual pasture." (Carter, 1940)

### **1.2.4 THE MEXICAN ERA (1822-1848)**

Following Mexico's gaining independence from Spain in 1821, Mexican citizens were allowed and even encouraged to apply for land grants on the lands formerly controlled by the missions. However, while Mexican citizens quickly applied for grants in easily-accessible coastal terraces to the east of Santa Cruz, they were slower to move up to the North Coast. By the 1840s there were three Mexican ranchos on the North Coast (Figure 1-1). The effect of the North Coast's isolation can be noted in the fact that the wide, well-watered

valley we now call Waddell was not requested as a land grant. Getting to the coastal terrace was just too daunting, even when the land was free.

### **Rancho Arroyo de la Laguna**

This one square league (4,418 acre) rancho was granted to Gil Sanchez in 1840, bounded by Rancho Refugio on the east and Rancho San Vicente on the west. Little is known about Sanchez or his occupation. We can assume that, like the adjacent ranchos, the rancho was used to raise cattle for the hide and tallow trade. The land quickly passed out of Californio (Mexican citizen) ownership in the early 1850s when it was acquired by the Williams brothers. Most of this property was eventually acquired by Jeremiah Respini and became part of the Coast Dairies Property (Clark, 1986).

### **Rancho San Vicente**

This huge grant was originally made to Antonio Rodriguez in 1839, but was regranted to Blas Escamilla in 1846. Since it was laid out after the two neighboring ranchos, the shape has the look of being shoehorned into place between them. The ideal Mexican grant had a proportion of one part cultivatable land, six parts pasture and four parts brush or forest. In those instances where the cultivatable land or pasturage was limited, the grantee was often compensated by being given a greater proportion of brushland or forest. Rancho San Vicente reflects the feeling in Mexican California that brush and forest lands had little value: the cow was king, and by this point in time, livestock had been grazing the terraces for almost 60 years (Clark, 1986).

### **Rancho Agua Puerca y las Trancas**

Bordered on the south by the Rancho San Vicente and the north by Arroyo las Trancas, this 4,422-acre grant went through a series of re-grants until it was finally given to Ramón Rodriguez and Francisco Alviso in 1843. The boundaries wrap around the coastal hills that separate Scotts Creek from the coast, reflecting the desirability of the open pasture land for Mexican Californians (Clark, 1986).

No communities grew up on or near the three land grants, and access to them was such that they do not play a central role in the history of Central California. Just as during the Mission Era, the land was used as pasture, with herds of cattle and sheep grazing across the coastal terrace. Hides and tallow were probably shipped off coastal landings. There is no evidence of any other economic activity on the North Coast prior to 1850.

In 1849, Justo Veytia, a Mexican citizen, set out on horseback for San Francisco via the North Coast. Neither of the local residents (both born near Santa Cruz) accompanying him had ever taken this route before, a testimony to the fact that in the 1840s the route of choice was either over the summit of the Santa Cruz Mountains directly north of Santa Cruz, or out through the Pajaro River gap and then north up the Santa Clara Valley. Passing the bluff at present-day Waddell:

"Two days of this expedition were the most difficult. The second day on the road one has to travel along the beach very close to the water and this can only be done when the tide is low. The day we passed the sea was quite choppy. Neither Arana nor I knew the road so when we went onto the beach we figured it was all right because when a very big wave came up, it only reached the horses' hooves. So we rode on about 300 varas <sup>[10]</sup>, experiencing two very bad spots because of some rocks, when the very rough sea began to wash over us up to the pommel of our saddles. We didn't deliberate in making a decision--to go back was clearly dangerous because the rocks were now under water and we couldn't see the openings between them so we resolved to continue forward to look for some pass where we

could go up, for the waves had us pinned against a fairly high cliff. We went on walking for about 200 varas until we found a foot path to ascend and as soon as we were safe we undressed completely to put our clothes to dry because the waves had knocked us down three times, horses and all, so we had to dismount and pull them forcibly. We got out at ten in the morning and as soon as we finished stretching out our clothing and the saddles, we sat down naked on the grass to lunch on the supplies we brought which were now also soup." (Veytia, 1975)

### **1.2.5 STATEHOOD (1850-1900)**

The first 50 years of statehood witnessed continued slow and fitful development on the North Coast. Settlers struggled up the coast periodically and tried to carve out their livings, but the isolation made it extremely difficult. Nevertheless, the years immediately following the Gold Rush saw a surge of activity during which any locale which could produce and ship anything useful was brought into the economy. Products were shipped off the "landings." Without a dependable road connection in any direction, the residents of the North Coast had to transfer goods in and out across several stretches of beach, where in fact no ship could actually land, at the mouths of the coastal creeks. These coastal facilities were quite different than those to the east of Santa Cruz, within the relatively sheltered confines of Monterey Bay: the North Coast landings were exposed to the power of the open ocean. Wharves along the North Coast rarely survived through one winter season, and most shipping was handled using combinations of buoys, winches and cables.

The landings operated with the ebb and flow of economic as well as natural tides. When the prices of commodities were high, such as in the early 1850s when San Francisco began to emerge from the sand dunes and gold dust flowed into that city from the Sierra Nevada, few expenses were spared to operate the North Coast landings. When prices dropped, the landings grew quiet, as during the depression of the mid-1870s when most of them ceased to operate. The North Coast continued to be a wild, rugged, and unforgiving place.

#### **The Shape of Santa Cruz County**

When Santa Cruz County was officially established on February 18, 1850, its northern boundary was the headwaters of San Francisquito Creek, many miles north of the troublesome bluff at Waddell. The county included the watersheds of Pescadero Creek and San Gregorio Creek as well as the settlements that had grown up there, such as the town of Pescadero.

#### **The County Road between Pescadero and Santa Cruz**

For the North Coast, having county neighbors to the north meant that they were on the way to somewhere. As long as Año Nuevo, Pigeon Point, Pescadero and San Gregorio were part of Santa Cruz County, efforts and resources might be expended to improve the run-it-at-low-tide situation at Waddell. Those who lived in Pescadero and wished to use the legal services at the county seat of Santa Cruz were 40 miles of bad road away.

#### **The State of the Road in 1865**

An article written in 1865 declared that the county road was a "great hardship and injustice to the people living at Pescadero and its vicinity." The writer described it as "one of the most abominable roads this side of

Kamchatka--a road, a portion of the distance must be traveled along the beach which is encompassed by a high bluff upon one side and the foaming billows upon the other..." (*Pajaro Times* 1/20/1865)

### **North Coast Land Ownership Patterns**

Where the Californios living along the California Coast to the south and east often lived on their Mexican land grants well into the 1870s, the three grantees on the North Coast seemed eager to dispose of their lands and move elsewhere. There were no Californios living on the North Coast by 1860 (Census of 1860). During the early years of statehood, the land that eventually became the Coast Dairies Property passed to newly-arrived settlers. The Aqua Puerca Rancho was bought by James Archibald, a native of Scotland; the San Vicente grant was purchased by Peter Tracy; the Rancho Laguna was bought by the Williams brothers (Clark, 1986). The optimistic new Americans living in California operated at least four landings, mentioned frequently in the shipping records at the harbor of San Francisco.

### **Pigeon Point**

The northernmost of the four landings was located on the south side of Pigeon Point in present-day San Mateo County. Pigeon Point served people living in the watersheds of Pescadero and Butano Creek as well as on the coastal terrace in the vicinity of Point Año Nuevo. By the early 1870s, the landing had a typical cable and winch system:

"At Pigeon Point there is a semicircular bay, partially sheltered from the northern winds, but the heavy swells rolling in from the southwest prevent any wharves being erected. Out about two hundred yards from the shore is a high monument-like rock, rising to a level with the steep rock bluff which half encloses the bay. From the bluff to the top of this rock stretches a heavy wire cable, kept taut by a capstan. A vessel rounding the reef runs into the sheltered cove under this hawser, and then casts anchor. Slings running down on the hawser are rigged, and her cargo lifted from her deck load by load, run up into the air fifty to one hundred feet, than hauled in shore, and landed upon the top of the bluff...This system is in extensive use along the coast..." (Evans, 1873)

### **Waddell's Landing**

Several efforts were made to provide a shipping point on the south side of Franklin Point to ship the products from the dairies near Point Año Nuevo as well as the lumber and agricultural products from the valley of Waddell Creek. More will be said about this landing in the logging discussion below.

### **William's Landing**

Located at the mouth of Liddell Creek, William's Landing was the most important of the early North Coast Landings. The Williams brothers owned the adjacent Rancho Arroyo de la Laguna and established the landing in the early 1850s (Clark 1986). The landing comprised a large hawser hanging over the water, its ends attached to the cliffs that formed a small cove. Small schooners would attach themselves to the hawser and loads of lime, lumber and agricultural produce would be lowered to the ship in a loading bin suspended from the rope. During the 1850s the harbormaster at San Francisco noted regular shipments from the landing including lumber, firewood and agricultural produce (*Alta* 5/10/1858).

An account published in 1867 provides a good description: "It assumes quite a business air, on account of several fine roads from the timber region, and limestone quarries, north of the place. This port is the present

shipping point of large quantities of lime and leather, tanbark, etc...Shipping is safe and easy, the vessel being moored to a large hawser extending across the estuary, from cliff to cliff." (*Sentinel* 7/6/1867) William's Landing was not safe, in spite of the *Sentinel's* confident boosterism. On at least two occasions, lives were lost while attempting to load the wildly pitching ships. On July 12, 1857, two crewmen from the schooner Harrison drowned when they were knocked out of a small boat by the hawser (*Sentinel* 7/17/58) and in January of 1869, a small lime and lumber schooner named the A. Crosby was dashed on the rocks with her entire crew of five lost (*Sentinel*, 1/16/69) .

### **Davenport's Landing**

In the fall of 1867, shore whaler John Pope Davenport <sup>[11]</sup> moved from Soquel to the small bay at the mouth of Molino Creek and began to build a wharf. A newspaper account in October of 1867 noted Davenport's early success: "Already three schooners have cleared from the wharf with full freights of lumber, shingles and tanbark. (*Sentinel* 11/23/1867)

By 1872, Davenport's Landing eclipsed William's Landing to become the primary shipping point on the North Coast, and a small community grew up beside the road that dipped down beside the beach. The landing boasted a hotel, saloon, general store, and blacksmith shop. A surprising variety of goods was shipped from the landing including lumber, posts, pickets, shingles, shakes, lime, tanbark, butter, cheese, dried venison and deer hides (*Sentinel* 9/21/1872).

The small community at Davenport's Landing was destroyed by a fire on April 26, 1913, and though some of the buildings were rebuilt, the town of Davenport that had grown up beside the cement plant took over as the commercial center of the North Coast (*Sentinel* 4/27/1913).

### **1.2.5.1 EARLY NORTH COAST AGRICULTURE**

The dominant agricultural use of the North Coast up to 1900 continued to be livestock production. While the broader, flatter alluvial valleys of the Pajaro, San Lorenzo and Soquel Rivers were transformed from pasture to intensive agriculture (beginning with the potato boom in the early 1850s), the North Coast continued the pastoral tradition that had begun a century earlier. The coast's isolation and dearth of available labor certainly inhibited intensive farming practices, and the majority of the arable land was either of poor quality or too steep to grow anything but grasses or cereal grains.<sup>[12]</sup>

The North Coast's persistent summertime fog extended the growing season for perennial grasses well into the summer months (see Section 3.1.1), and the green hills above the coastal terrace became one of the Coast's emblematic views. Periodic droughts that often drove Central California's livestock industries into bankruptcy were not as severe here; during the drought of 1862-1864, for example, hundreds of thousands of cattle perished in the Salinas Valley and the adjacent hills. Enterprising North Coast ranchers bought Monterey County cattle for next to nothing and drove them into the hills and terraces of the North Coast, where enough survived to make selling them profitable once the drought ended.

## **The North Coast Dairies**

Dairying was a logical next step and a perfect match for the North Coast. The land was still in large enough parcels to support extensive grazing, and grassland was abundant. Perennial streams to support the water requirements for a dairy operation transected the terrace at regular intervals, now an asset at least as much as an obstruction. By the 1850s, what we might call the North Coast Model had developed: herds of cows grazing across the terrace and hills, with a dairy tucked down in each coastal valley, beside the stream and out of the wind. The dairies produced cheese and butter, commodities that could be shipped relatively easily and had a high value by weight. Those dairies close enough to Santa Cruz could transport their butter and cheese to Santa Cruz by wagon, while farther up the coast, it was shipped off Williams' and Davenport's landings.

## **The Marin County Dairy Connection**

In the 1850s Marin County was the primary butter and cheese-producing region for the San Francisco market and many of the pioneer dairymen in Santa Cruz County came from there. Mr. L. K. Baldwin, himself a dairyman who migrated from Marin County, noted in 1879 that the North Coast dairies "are mostly owned by men who have been residents of Marin County, and been engaged in dairying there." (Elliot, 1879) Santa Cruz soon developed a reputation for producing a sweeter butter that commanded higher prices in San Francisco (*Sentinel* 1/4/1871). L. K. Baldwin summed up the reasons that he established his dairy on the North Coast: "...we find the climate, grass and temperature pretty much the same as Marin, which requires a cool temperature, fresh, breezy air, good sweet grasses, pure water from our numerous springs and streams, and with cleanliness are not excelled in the manufacture of good, sweet butter by any place in the state." (Elliott, 1879)

## **Early Immigrant North Coast Dairymen**

Though the majority of these early dairymen may have come from Marin County, they had very diverse immigrant backgrounds. Some, like James Hall, were from originally from New England. James Archibald, the dairyman at Scotts Creek, was from Scotland, and the manuscript census of 1870 lists several from Ireland. One prominent dairy operator was Antone Silva (sometimes spelled Silvy), a native of the Azores Islands, Portugal.

## **Early Swiss on the North Coast**

Scattered through the 1870 manuscript census we can find the origins of what later will become the Swiss-dominated dairy industry on the North Coast: John Stauband and Jaques Martin were Swiss-born dairymen, as well as Ambrose Gianone, also listed as working in a North Coast dairy. At that point in time, however, the majority of the Swiss living on the North Coast in the 1870s worked in the lumber industry, and most listed their occupation as woodcutters (Census 1870).

### **1.2.5.2 EARLY IRRIGATION ON THE NORTH COAST**

It took the Spanish several summers in Central California to learn that irrigation was the key to successful intensive agriculture in this land of little or no summer rainfall. Early missions, such as that in the Carmel Valley, were hampered by their inability to get water up onto the mission terraces. Since the Spanish had no pumps, the only way they could water terraces was by bringing water down from above, through ditches and

canals. It is not surprising that Father Palou, a veteran of several difficult summers at Carmel, noted the potential for irrigation on Santa Cruz's North Coast. In December 1774, while passing Laguna Creek, he notes: "We then continued on our way in sight of the beach by a wide plain which skirts the range of hills, all good arable land with fine pasture. In half an hour we crossed an arroyo of more than two bues of water which flows with the slope of the land. By means of it, it would be easy to water the plain, more than half a league wide, which we passed, and another one as long which reaches from the hills to the cliff on the beach." (Priestly, 1937)

### **Horace Gushee's Laguna Creek Irrigation Project -1873**

A century later, in August of 1873, the first major irrigation project was undertaken on Laguna Creek by Horace Gushee. A newspaper reporter attended the picnic marking the opening of the flume:

"Mr. Gushee invited some fifty friends and neighbors to a picnic on the occasion, and a right jolly good time there was in the pleasant laurel grove on the creek, about a half mile above the crossing. We attended early, so as to angle for trout before the company arrived. On starting up the creek, trout bit freely and the water was cloudy and running at full force; but when half through the cañon, the water suddenly diminished about one-half in quantity and force, so that we knew the creek had been tapped; the gorge is very narrow and extremely rocky, yet we made good time, climbing over huge boulders and around hanging cliffs until the open stream was reached, and the flume was visible, hanging above us on the eastern hill-side like a golden thread, wove by some fairy-wand in a single night. We proceeded up to a short distance below the dam, and then left the creek and started back down the flume--a distance of two and one-half miles to the present end of the ditch. The flume was brimful of pure, clear, sparkling water, rolling in gladsome volume, as if hurrying to reach the termination, where its invigorating and fertilizing effects would be brought into requisition, and utility appreciated. We followed the flume--which is staunch and strong--alternately walking on it and in the side-path, until we reached the first piece of ditch, where a break occurred, which let one-half the water out; hence the flume and ditch winds around the head of a steep cañon to the hillside, opposite Butler's old residence, where it strikes across the divide and to its termination, to be distributed over some 200 acres of land by numerous branches.

A portion of the water will be conducted to the dairy-house, and thence over another large field of over 200 acres, below the house.

It is the intention of the proprietor to grow alfalfa, sugar beets, carrots, corn, etc, for stock and at seasonable times, irrigate the land so as to furnish green food for his dairy cows. The flume, with a six-inch head, takes out of the stream 144 square inches of water, which is about one-half the creek's supply at this season of the year. The enterprise is a new feature in Santa Cruz county, and if successful, will add materially to the value of agriculture and dairy lands along the coast. Mr. Gushee has already spent about \$5,000 in ditching and fluming, and calculates to run small ditches in various directions to water stock and irrigate the land." (*Sentinel* 8/9/1873)

### **A North Coast Irrigation Rush - 1873**

Within a month several other North Coast landowners were planning to follow Gushee's example:

"We are informed that the plan adopted for irrigating the coast land, by Mr. Horace Gushee and Claus Spreckles [sic]<sup>[13]</sup> is working an entire change in the dairy business along the coast. Every dairyman along the many streams which drain the western slope of the Santa Cruz range, [is] preparing to flume or ditch the banks of the stream to lead the water out over the table land for household purposes. Mr. J.P. Laird, will, during the coming Winter and Spring, flume the San Bicente [Vicente] creek, and others up the coast are talking of similar enterprises. At Gushee's ranch south of the Laguna creek, a fine opportunity is offered of the advantages of irrigation, for grazing purposes. Where heretofore, in this season of the year, everything was dry as powder, now the soil is moist and covered with a luxuriant growth of vegetation, nearly a foot high. The stock of milkers are grazing it, and the return is more than double in milk, butter and cheese, than that from the dry uplands. About 200 acres are irrigated and next year as much more will be brought within the scope of the zanzas or irrigation ditches, and small distributing flumes. Alfalfa will be sown on the sandy soil below the road, and all over the sea-coast plateau below the road. The burr clover, alfalera [newsprint is smudged] and other native clovers and grasses do well, but are not so permanent and durable, in food or production as the alfalfa or Chili clover. Timothy, (or herd's grass) red clover, Kentucky, blue grass and sweet vernal grass will also be tried, as an experiment, and if found successful with irrigation will be adopted. There are at least twenty-five streams along the coast south of Waddell's creek, to the Pajaro, inclusive, that might be utilized with their tributaries for irrigation purposes....Mr. Gushee's farm is more valuable, since irrigated, by a third. Mr. Laird estimates that his land would be improved in value one-half, if he had now the waste water flowing into the sea through the San Bicente creek, to irrigate his land with." (*Sentinel* 10/4/1873)

### 1.2.5.3 EARLY NORTH COAST LOGGING

#### North Coast Logging Potential

The most prominent products stacked on the landings awaiting shipment during these early years were lumber, pickets, posts, shakes, shingles, tanbark <sup>[14]</sup> and firewood. The terraces that faced the ocean may have been treeless, but around the first bend of each of the coastal streams, hidden from the desiccating effects of the salt air, were groves of stunted coast redwoods. And with each succeeding bend in the canyon, the trees grew larger and the groves more pronounced until, in the upper reaches of streams on the west flank of Ben Lomond Mountain, stood some of the most valuable timber stands in all of Santa Cruz County. Lumbermen marveled at the logging potential, but, from the 1850s into the 1880s, they did not have the technology to get the logs or lumber out of the canyons and out to market. None of the North Coast streams had a volume of water sufficient to carry logs down to the landing (as was practiced on the coast of California north of the Golden Gate), so the logs either had to be skidded down using oxen, or processed where they fell. The best the lumbermen could do was fell the redwoods closest to the landings and split them on site, carrying the posts, pickets or shakes out to the landing on mules or wagons. These "split-stuff" operations were episodic, blooming when the price of lumber was high, and wilting when the price dropped and the statewide economy was depressed. Because Marin County could get redwood lumber to San Francisco markets more cheaply, the North Coast timber industry remained relatively dormant until the end of the nineteenth century (see Photo 1-1).



## **William Waddell's Mill and Landing**

The major exception to the primitive aspects of North Coast logging was the construction of a steam sawmill in 1862 by William Waddell on the stream that eventually bore his name. Blessed with a stand of timber "more extensive and compact" than any other on the North Coast, Waddell built his sawmill about two miles inland, and then brought the finished lumber down on small railroad cars that rode on wooden rails (*Sentinel* 4/16/1864).

Waddell built a series of wharves near the mouth of the creek off which to ship his lumber, but the ocean always succeeded in turning them into kindling. The most successful method for off-loading lumber continued to be the system of winching it out to ships anchored offshore. An unfortunate encounter with a grizzly bear in October of 1875 permanently interrupted Waddell's operation.

### **1.2.5.4 THE EARLY LIME INDUSTRY**

The other early industry, one that will have a direct bearing on the Coast Dairies story, involved the huge limestone deposits that underlay most of Ben Lomond Mountain. Isaac E. Davis and Albion P. Jordan developed those deposits closest to Santa Cruz beginning as early as 1849. As the local newspaper noted in 1856, "The supply of lime rock is inexhaustible of the blue, grey and crystallized varieties; in most localities where the rock is found, the land is covered with timber, to be used in burning" (*Sentinel* 7/26/1856).

#### **Early Santa Cruz Lime Kilns**

The limestone was heated ("burned") in high-heat kilns and the resultant lime was packed in barrels and sold throughout the West to make mortar and whitewash. Since the limestone deposits were located uphill from Santa Cruz, it was a relatively easy downhill trip for the heavy barrels of lime. A wharf was built where present-day Bay Street in the City of Santa Cruz intersects the coastal bluff, and a steep wharf extended into the Bay specifically for the shipment of lime. Davis and Jordan had a virtual monopoly on the state's lime industry and were able to control prices by restraining production. By 1870, the dollar value of lime shipped out of Santa Cruz was higher than any other commodity, even lumber (*Sentinel* 1/22/1870).

#### **North Coast Lime**

As it had with the lumber industry, the North Coast's isolation and lack of dependable shipping restrained the development of the lime industry. It had two of the necessary ingredients--limestone and forests--but it lacked the access to market enjoyed by the lime operators at Santa Cruz. There were several efforts made in the 1860s to ship lime off the landings at Williams, Davenport's and Waddell's, but they were usually brief and only marginally successful.

#### **San Vicente Lime Company**

Perhaps the most successful lime operation, and a harbinger for the later story of cement, was the establishment of the San Vicente Lime Company in June of 1875. The company built four lime kilns inland on San Vicente Creek and built a new, thousand-foot long wharf at Davenport's Landing. They planned to ship the barrels of lime on the coastal steamer *San Vicente* (*Sentinel* 6/19/1875). During the month of September, the lime company shipped over 4,000 barrels of lime from their new wharf, and the business appeared to be off and running (*Sentinel* 10/9/1875). In early October, however, as it had with all previous wharves along the

North Coast, high waves shortened it by over 300 feet. With its wharf truncated by the sea and the economy in the grip of a serious depression, the company ceased operation (*Sentine*10/16/1875). The huge limestone deposits on the North Coast remained undeveloped, awaiting the arrival of dependable transportation.

### **1.2.5.5 NORTH COAST SHORE WHALING**

The only documented shore whaling station on the North Coast was located just north of the landing apparatus at Pigeon Point. As noted earlier, there is no evidence that anyone ever whaled from the vicinity of Davenport's Landing or processed any whales on that beach.

#### **Pigeon Point Whaling Station (1862 - 1900)**

By the early 1860s, the Monterey shore whaling scene had become so crowded that two Azorean <sup>[15]</sup>whaling companies decided to move, one to Point Lobos (on Carmel Bay) in 1862 and a second to Pigeon Point <sup>[16]</sup> in 1864 (*Gazette* 9/23/1864). The whales were hunted for their oil, which was acquired by boiling the blubber in huge kettles, called trypots, set up on shore. Once the blubber was removed from the carcass, the remaining meat and bones were discarded, much to the delight of the grizzly bears living in the nearby mountains. Since California shore whaling was pursued only for whale oil, when the price of oil began to drop (following the advent of kerosene in the 1860s) the industry became less and less profitable. Even when the price of whale oil was at its highest, the Azoreans only saw the dangerous business as a part-time occupation. At Pigeon Point, as in the Azores, the whalers were half-time whalers and half-time farmers (Santos, 1995).

The shore whaling industry in Central California ended in the late 1880s, but not because of a dearth of whales. Within a season, the whales, who had been migrating well off the coast, moved their route back, and by 1890 they were cavorting in Monterey Bay in full view of the retired whalers. A Monterey newspaper complained, "Whales have been so thick in the bay of late as to make fishing exceedingly hazardous. They come into the bay about dusk and pursue the mackerel all night long, much to the detriment of the fishing industry." (*Cypress* 8/9/1890)

In the late 1890s, for reasons not yet understood, the shore whaling industry revived for a couple of seasons, and the Pigeon Point Whaling station followed suit: "The Pigeon Point Whaling Co. have been making some fine hauls of their immense game lately. They captured several fine whales within a few weeks, chiefly 'California greys.' The boys are much encouraged at the prospect of a very profitable season." (*Surf* 2/4/1898) Despite whalers' successes at Pigeon Point and elsewhere, by 1900 the old-fashioned shore whaling industry on the California coast was at an end. As the twentieth century dawned more modern methods were used to pursue a dwindling supply, and they supported a dwindling industry elsewhere on the Central Coast until 1924 (Lydon, 1984).

Though no whaling ever occurred at present-day Davenport, the increasing popularity of whale-watching in the 1970s led to the town's adoption of a whaling motif. The large whale-shaped Davenport sign on the west side of the highway and the name "Whale City" that adorns the bakery and tavern in the center of town continue to be a cherished emblem of whaling at this spot.

## 1.2.5.6 EARLY NORTH COAST TOURISM

### Isolation as an Asset

The very isolation that frustrated the development of the North Coast's forests and limestone deposits made it attractive to those seeking a place to camp, fish or hunt. In the 1860s a growing number of factories and mills lined the San Lorenzo River, and the stream became increasingly diverted, dammed and flumed. With the pollution caused by dumping effluent and sawdust directly into the river, it is easy to understand the decline in recreational potential on the San Lorenzo and nearby Soquel. Meanwhile, the North Coast streams continued to be relatively unspoiled.

### San Vicente Creek

An article written in 1866 placed San Vicente Creek at the top of the county's streams:

"The best [trout fishing] stream probably, is the San Beicente [San Vicente], ten miles up the coast, a large creek emptying into the sea. In this stream, trout bite as rapid and as strong as in Eastern streams, and [are] even more abundant and delicious. The largest trout caught (by Mr. Begelow, the insurance agent), being over 22 inches long and weighing about four pounds. In this stream the largest average from ten to fifteen inches." (*Sentinel* 1/13/1866)

### Laguna Creek

In a lengthy article meant to be a guide to the camping and fishing spots in the county, a trout season-opening article written in April, 1874 touted Laguna Creek:

"Probably the best known fishing and camping ground [in Santa Cruz County] is Laguna Creek, situated about nine miles up the coast...The beauty and attractiveness of this spot, the scenery and surroundings alone are sufficient without its fishing advantages to call forth a visit from all strangers. There are but few who visit Santa Cruz but also explore Laguna Creek. Starting, say two or three miles back from the coast and following the creek down to its mouth, ending in the lagoon, a day's fishing would probably give to the experienced angler from **one hundred and fifty to two hundred trout**. [emphasis added] The trout, though very plenty [sic] in this stream, are not as large as in many of our other streams. Experienced anglers, however, prefer these smaller fish to the larger, being sweeter and daintier to the taste. Salmon trout, very large, are also frequently caught at Laguna Creek. (*Sentinel* 4/4/1874)

### "Trout Slaughtering"

Since there were neither limits on size or number of fish taken, the numbers of trout taken from the streams was often astonishing. The year 1891 was a tough one for North Coast trout. An article published in early June noted: "Messrs. Tom Dakan and Rob Dudley whipped the San Vicente for trout Sunday with immense results. Eight hundred and fifty is the record they are willing to make their affidavit on, and all caught with a hook." (*Surf* 6/2/1891) Later in June, 1891: "Chas. B. Richardson drove a merry party to Scotts Creek Saturday and the trout slaughtering was a great one. Here it is, beginning at the largest catch.." The article then listed a total of 1,516 fish taken between seven anglers with one named "Bootsie" taking 675 (*Surf* 6/30/1891).

Some North Coast residents didn't bother with the niceties of hook and line. As the fish populations began to decline, local Fish Patrol wardens <sup>[17]</sup> stepped up their efforts to stop the wholesale depopulation of local

streams. A San Francisco newspaper noted in 1891 that, along the North Coast there was an "unpleasant state of affairs": "The Portuguese, who live within close proximity to the streams, have been slaughtering young grilse by the thousands and salting them down for their own use. The law-breakers use giant-powder cartridges and seines which reach from bank to bank, thus preventing any possibility of the fish ascending the stream." (*Surf* 10/5/1891)

### **Organizations to Foster Trout Planting and Habitat - 1875**

From the early 1850s, trout fishing was a popular attraction to bring visitors to Santa Cruz County, and, as the streams became heavily encumbered with factories and mills, and fishing pressure increased, many saw the need for restocking the county's streams. In the late 1870s, an organization named "The Santa Cruz Organization for the Propagation and Protection of Fish" was formed. The organization was committed to helping catch game law violators as well as encouraging the stocking of local streams. In 1878 10,000 trout were brought in from a state hatchery and planted throughout the county. Described as the "McCloud River variety of trout" the fry were two months old and approximately one inch long (*Sentinel* 4/20/1878). A plant of 1,250 pounds of "Eastern trout fry" was made throughout the county in 1892, again under the auspices of a local fishing club (*Surf* 4/20/1892) (see Appendix 1.2.2, interview with Tom and Richard Dietz, for a description of hunting and fishing in the 1920s-50s).

### **1.2.5.7 NORTH COAST ABALONE**

The two primary consumers of abalone--Native Americans and otters--were all but removed from the Central California coastline by the late 1840s, and the Yankees who came into California with the Gold Rush considered them to be nothing more than very large, inedible snails. For the Chinese, however, the mollusks were a delicacy, and they knew how to dry them for shipment across the Pacific. The California coast must have looked like heaven to a fisherman coming from the heavily fished Chinese coast, and they were the first to harvest abalone commercially in California. Using pry-bars, wedge-tipped poles and gaffs, the Chinese worked the intertidal zone (the Chinese never dove for abalone in California), gathered abalone, dried and baled the meat and shipped it to Chinese markets in San Francisco and across the Pacific. The shells were sold to button and jewelry manufacturers, and oftentimes they brought higher prices, per weight, than the meat (Lydon, 1985).

In the 1880s, harvesters and consumers began to change. John Carpy, the owner of a Santa Cruz seafood restaurant obtained a secret recipe "from an old Spanish woman at Monterey" which made the abalone meat "soft and tender." Carpy was reluctant to divulge the secret, but said that he was not only cooking and selling them in Santa Cruz, but also shipping abalone prepared with his "secret" to restaurants in San Francisco (*Surf* 11/10/1883).

Carpy was getting most of his abalone from the North Coast, which had heretofore been largely unexploited. An account in 1894: "On Sunday a party of abalone gatherers drove into town [Santa Cruz] with an immense wagon load of abalones, which they had gathered some thirteen miles up the coast. They had 118 in all. They are gathered for the San Francisco market." (*Surf* 1/2/1894) By 1898, the mollusk was evolving into a "toothsome univalve": "Tom Amaya was on the streets [of Santa Cruz] today with a wagon load of abalones. These toothsome univalves, once so plentiful near Santa Cruz, have been 'hunted' out until a successful gatherer must now go some distance along the coast. Amaya's load was the result of a two day's trip as far as

Pigeon Point."(*Surf* 1/6/1898) In 1901: "The extreme low tide yesterday afforded mussel and abalone gatherers to reap a large harvest. Perhaps the most successful in the latter line were Joe Perry and George Bowes who brought down two wagon loads gathered from the rocks near the Yellow Bank." The abalones were monsters in size and found a ready market." (*Surf* 1/2/1901)

### **"Abalone Tides"**

All three of the above occurred during January when the lowest tides occur on the North Coast. Low tides were locally known as "abalone tides" as they were most often associated with gathering abalone (Photo 1-2).

### **China Ladder**

The Chinese presence on the terrace north of Davenport's Landing was persistent enough to name a local access point for them, and local Davenport residents remember a ladder leaning up against the coastal bluff down which Chinese abalone hunters climbed to have access to the isolated intertidal rocks. Donald Clark gives the following explanation for the name: "The name applied to an access point along the shore of the Pacific about one-half mile southeast of Pelican Rock. On top of the bluff was a shack in which lived several Chinese, who obtained abalone from the rocks below and dried them for the Chinese trade. From the bluff they followed a trail, then down a rope, and finally a ladder to reach the beach." (Hoover, 1966) "The beach at the foot of China Ladder was known as China Ladder Beach, and the nearby gulch became known as China Ladder Gulch." (Clark, 1986)

### **Japanese Abalone Divers and Hard-Hat Diving in Central California**

In 1898, a group of Japanese immigrants imported the technique of hard hat diving to Point Lobos just south of Monterey. Since the Chinese had not ventured any deeper than they could reach with a pole at low tide, the abalone beds beyond that depth were virtually untouched. At first the Japanese fishermen dried the abalone as had their Chinese predecessors, shipping the dried meat back to Japan. But the Japanese soon added a modern cannery to their operation at Point Lobos, and the canned product began appearing in local stores. As the business grew, the Japanese divers expanded their range, venturing ever-farther south along the California Coast, following the path that the Chinese intertidal gatherers had laid down decades earlier. (Lydon, 1997).

The Japanese immigrants not only inherited and modernized the abalone industry pioneered by their Chinese predecessors, they also fell heir to the anti-Asian racism that characterized so much of California's history. From their entry into the abalone business, the Japanese and their techniques became the targets of both county and state regulations. Between 1899 and 1939, the Japanese divers worked within an ever-tightening net of rules and regulations. By imposing minimum diving depths and closed areas, the Japanese were driven south down the coast from Monterey and deeper into the water.<sup>[18]</sup>

Meanwhile, increasing pressure was being brought on the abalone resource by non-Japanese abalone hunters. Several marine biologists argued that it was not the Japanese divers who were decimating the resource, but the "sportsmen" who used extremely low tides to harvest their huge catches. In January of 1912, for example, we have the following note in the local newspaper: "A wagon piled high with abalones was on the street today. In it were a part of 800 of these shellfish that were gathered by Joe Fritz and L. Kelly at New Years Point." (*Surf* 1/4/1912) In 1940 the leading abalone biologist in California noted that the disappearance of the abalone from the intertidal area should be laid at the feet of the sport fishermen, not the commercial divers (Bonnot,

1940). Following their forced internment during World War II, the Japanese did not return to the abalone industry.

### **1.2.5.8 DEVELOPMENT OF NORTH COAST WATER RESOURCES – THE 1890S**

#### **Water for the City**

Beginning in the early 1850s, Frederick Augustus Hihn supplied water to Santa Cruz through his private water system, the Santa Cruz Water Company. The two main sources of water were the springs above the site of Santa Cruz Mission and upper Branciforte Creek. A second private system was developed on Majors Creek in the early 1880s and managed locally by W.H. Duke. In the mid-1880s the Duke system collapsed financially, and the city of Santa Cruz, seeking an alternative to the Hihn monopoly, began efforts to acquire the system. They tarried too long, however, and Hihn bought the system before the city could act. In response, Santa Cruz then decided to develop its own water system. In 1889, after investigating the potential of a number of coastal streams (including Branciforte Creek, Carbonero Creek, and Majors Creek), the city decided that Laguna Creek had the greatest potential (*Surf* 9/17/1889; 9/18/1889; 12/7/1889).

Construction of the city's Laguna Creek water system began in the spring of 1890 and was completed in December of that year. A dam was constructed on the creek and a ten-mile water main, 14 inches in diameter, carried the water to a 60,000,000-gallon reservoir located above the city on High Street. The system was able to deliver water at ninety pounds pressure at its hydrants on Cooper Street in downtown Santa Cruz (*Surf* 9/30/1890; 10/17/1890).

#### **Big Creek Power - 1896**

With their municipal water system in place, the City of Santa Cruz began to look for electric power, along with almost every other California municipality: "In the 1890-1900 decade, the fever of hydroelectric development was sweeping California. Men everywhere were looking for sites where water could be dropped from higher elevations to drive wheels and turbines at streamside." (Coleman 1952) In 1895 the transmission of hydroelectricity over a long distance was proven possible by the opening of an electric system between generators at Folsom and the city of Sacramento 22 miles away (Coleman, 1952). The Folsom system inspired others throughout the state to build similar systems, and not surprisingly, Santa Cruz leaders began looking toward the North Coast.

In 1896, Duncan MacPherson, the editor of the *Santa Cruz Sentinel*, urged the city to investigate the possibility of using Horace Gushee's irrigation dam on Laguna Creek to form the basis for a city-owned hydroelectric facility. Once again the city was outrun by an entrepreneur. Fred Swanton went farther up the coast to the Scotts Creek watershed, surveyed the hydroelectric potential of Big Creek, and in what he later claimed was a record fifty-eight working days, constructed a hydroelectric system from scratch. On June 12, 1896, the falling waters of Big Creek drove a generator that pushed electricity seventeen miles to Santa Cruz for a huge, public party in front of the Odd Fellows building on Pacific Avenue (*Surf* 6/13/1896). *Surf* Editor Arthur Taylor expressed mixed feelings about the system, recognizing the price that the creek had to pay for the power:

"The stream known as Big Creek which empties into the ocean about twenty miles up the coast is one of the largest streams in the county and flows through a most picturesque and romantic canyon. It has been a favorite trout stream since American occupation of California, barring the obstruction of three

falls, one 90 feet, one of 60 feet and one of 250 feet. Many an angler has questioned the wisdom of placing these obstructions in a good trout stream where distance, declivities and boulders combined to render them inaccessible to sightseers, but this is all solved now for we know that those falls are what has made the Bgt Creek Electric Light and Power Company's scheme a success." (*Surf* 6/10/1896) (see Photo 1-3)

During the first two years, Big Creek power was off as often as it was on. Swanton and his engineers could not have timed their hydroelectric venture at a less opportune moment, as the seasons of 1897-1898 and 1898-1899 saw less than half of the typical rainfall. By the second year of the drought, the flow in Big Creek no longer had sufficient volume to drive the generator and Swanton had to purchase a steam generating plant and install it to supplement the hydroelectric equipment (*Surf* 12/21/1898). Meanwhile, the persistent wind and salt air of the North Coast played havoc with the transmission line into Santa Cruz. In 1900, when he was approached by several investors who wished to purchase the company, Swanton was ready to sell. The new owners refurbished the dams and flumes and re-routed the transmission line by running it directly over the mountain to Ben Lomond and then down along the San Lorenzo River into Santa Cruz. (*Surf* 2/6/1900). Other improvements were made and the power plant continued to provide electricity through the 1930s. The wildfire in September of 1948 destroyed a considerable part of the flume work and dams, and the last owners (Coast Counties Gas and Electric) did not replace them. The power plant site is still marked on the current USGS. quadrangle.

### **1.3 – THE COMING OF COAST DAIRIES: TRANSFORMATION**

One afternoon in April, 1901, Louis Moretti and Jeremiah Respini shook hands at the Santa Cruz County courthouse, a defining moment for the Coast Dairies Property. The signing of the incorporation papers for the Coast Dairies & Land Co. formalized a relationship that had existed for a number of years. The corporation not only combined the considerable real estate owned by Louis Moretti and Jeremiah Respini, but it also had a liberating effect on the entrepreneurial energies in the two men. The words "dairies" and "land" suggest something bucolic: cows grazing lazily across the coastal hills being tended by patient, hardworking dairymen. There continued to be dairies on the property, of course, but the cows were soon sidelined by a surge in industrial enterprise. By the end of the first decade of the twentieth century the natural resources of the North Coast were unlocked and the peace and quiet replaced with the growl and whine of crushers, saws and steam locomotives (see Figure 1-2).

#### **1.3.1 NORTH COAST BITUMEN MINING AND THE OIL RUSH OF 1901**

Since the 1860s, geologists had been confidently predicting that there was oil on the North Coast. The early years were dominated by miners and engineers trying to extract oil from the black asphaltum that oozed from the surface of the earth just north of Majors Creek on Rancho Refugio. Using retorts to heat and distill the oil from the mixture of oil and sand, a series of oil companies worked unsuccessfully to make the process pay (*Sentinel* 5/28/1864). It was much easier to mine the asphaltum material and use it for paving, a practice that began in the early 1880s. By 1887, many of the primary streets in Santa Cruz had been paved with the black material, and sixty tons per day were being taken out of the surface mines:

"The material is found in enormous quantities in the section commonly known as the 'petroleum district' from eight to ten miles up the coast from [Santa Cruz], where it exists in stratas of from four to forty feet in thickness, to an extent not yet explored. There are abundant outcroppings over an area of about two miles. The rock quarried thus far has been taken from...the upper canyon of the Cajo or Majors creek, but last spring good indications were discovered near the ocean shore, along the same canyon on the property of Pio Scaroni <sup>[19]</sup>." (*Sentinel* 10/6/1887)

In 1889 the company shipped 300 tons from the North Coast mine to Seattle (*Sentinel* 2/14/1889). As with all North Coast resources, however, it was a continual challenge to get the bitumin to market. In the early 1890s a bitumin mine near San Luis Obispo could get their product to San Jose cheaper than the mine on the North Coast (*Sentinel* 11/9/1891). The bitumin was waiting for a railroad.

The first glimmer of the North Coast's transformation came in the opening months of 1901, when a gaggle of geologists began poking around the coastal terrace looking for oil. Logic suggested that, if oil-bearing sands emerged from the earth at that spot, there had to be pools of oil lurking underground somewhere in the vicinity. Spurred by reports of large oil deposits found throughout California and even larger fortunes earned by lucky investors, oil-drilling rigs popped up almost overnight throughout Santa Cruz County. The Santa Cruz Oil Company, funded by local investors led by the indefatigable Fred Swanton, negotiated a lease with a number of North Coast property owners (including Jeremiah Respini), and began drilling on the Scaroni property, very near the bitumin beds. Other companies quickly followed, and soon there were daily reports published in the Santa Cruz newspapers giving well depths and the cheerful predictions of the geologists.

Oil was found in some of the wells, but it was measured in buckets, not the barrels necessary to make the operations profitable. By early 1902, the *Santa Cruz Surf* said that the oil boom seemed to be "busted" (*Surf* 1/8/1902). The Santa Cruz Oil Company ceased drilling on the North Coast and the leases ran out. But the miners continued to work the bitumin pits just as they had since the 1860s, loading the heavy dark rock into wagons and hauling it to Santa Cruz for shipment.

### **1.3.2 PORTLAND CEMENT**

Lime and limestone-derived products usually led Santa Cruz County's annual list of industrial production throughout the nineteenth century, and the phrase "Santa Cruz lime" was known and respected throughout California. (*Sentinel* 10/15/1870) Most of the production was controlled by the company owned by Henry Cowell, with its kilns on the hill above Santa Cruz and its long, sloped wharf extending off the cliff just west of town. Other companies tapped into the limestone on both flanks of Ben Lomond Mountain (including several companies on the North Coast), but Cowell had the singular advantage over his competitors of easy access to a dependable wharf and outside markets.

One of the lime-based products that grew increasingly valuable as the twentieth century began was Portland cement. Construction using brick and mortar (lime was used in making mortar) was giving way to concrete, in which the main ingredient was cement. Portland cement was made by burning a combination of limestone and shale, and then grinding the result into a fine powder. Ben Lomond Mountain had both ingredients in abundance, and at least one Portland cement operation had been operating off and on about a mile upstream on the San Lorenzo River since the early 1880s.



Where lime could be produced using a relatively simple technology--all that was needed was limestone, a kiln, lots of firewood, and strong men--Portland cement required some sophisticated equipment to get the proper combinations of ingredients heated to exacting temperatures. In Santa Cruz County, capital was the only factor missing from the equation, and it arrived in 1903 in the satchel of William Dingee, commonly known as the "Cement King." Dingee, through his Standard Portland Cement Company, owned cement plants in Napa California, Bellingham, Washington, and Pennsylvania. He saw the potential offered by Ben Lomond Mountain and proposed to build a cement plant on the brow of the hill just above Santa Cruz.

The debate that raged in Santa Cruz over Dingee's cement plant proposal has a very contemporary feel to it. Some, like the editor of the *Santa Cruz Sentinel*, argued that the plant would bring dependable economic benefits to the community. With the redwood forests fast being turned into lumber, the cement plant could provide a stable economic base for years to come. Others, however, were fearful of the impact that the plant would have on the town's air and ears. Arthur Taylor, the Editor of the *Daily Surf*, suggested that the plant could very well ruin the quality of life in the town. By 1904, it appeared that Dingee might not get the necessary support from the Santa Cruz Town Council.

Meanwhile, Dingee and Louis Moretti of Coast Dairies & Land Company had been talking. It is not clear whether Moretti approached Dingee or vice versa, but by early 1905 there were rumors flying in Santa Cruz that Dingee was moving his proposed cement plant from noisy and contentious Santa Cruz to the isolated canyons of the North Coast. In May of that year, Taylor's *Surf* reported that Dingee had optioned 130 acres of Coast Dairy land on the north side of the mouth of San Vicente Creek for a factory. By moving the plant up to the North Coast, however, Dingee was leaving behind the necessary access to transportation afforded by Santa Cruz's wharves and railroads. Dingee's stated plan was to ship cement off a new wharf at Davenport's Landing, but Taylor hinted that there was something else in the offing: "While independent shipping facilities will be provided, it is a moral certainty that if a cement factory is established a coast railroad will be constructed..."(Surf 5/6/1905)

### **1.3.3 SOUTHERN PACIFIC RAILROAD**

Apparently Dingee had been talking to a lot of people, including the leadership of the Southern Pacific Railroad (SPRR). Several weeks later, SPRR announced that it would be extending its line northward from Santa Cruz to San Francisco along the coast. In reality, as railroad historians have noted, the Southern Pacific had no intention of building all the way to San Francisco. Their goal was to build a twelve-mile line that would end at the cement plant. The freight generated by the cement plant would be enough to support its construction (Hamman, 1980).

### **The Ocean Shore Electric Railway**

Meanwhile, in early 1905 and totally unrelated to the cement plant planned for the North Coast, a group of investors incorporated the Ocean Shore Electric Railway and began surveying for a railroad to run along the coast between San Francisco and Santa Cruz. Their plan was to begin at both ends and work toward the middle, planning to meet somewhere in San Mateo County. As originally planned, it was to be an electric-powered railroad and would have two sets of tracks. The Ocean Shore Electric was born on paper on May 18, 1905. At the beginning of 1905, the North Coast had no railroads, but within six months it had the prospects of two, with three sets of track (Wagner, 1974).

The thought of the fledgling Ocean Shore competing side-by-side with the gargantuan, state-controlling, infamously ruthless Southern Pacific was daunting, but very early on the two railroads reached a moderately cooperative arrangement. The Ocean Shore was the first to begin construction northward out of Santa Cruz, but it had to bring its equipment in over Southern Pacific track. The two companies decided to lay their tracks side by side with the Ocean Shore taking the outer (ocean) side of the right of way and the SPRR the inner. Since there were to be three sets of tracks, the original right of way and the cuts and fills <sup>[20]</sup> were much wider than usual.

The Ocean Shore was the first on the ground and could take advantage of any of the freight being generated by the construction of the cement plant beside the San Vicente. However, the Ocean Shore also knew that, once its rival had completed laying their own track, they would lose all the cement plant freight and would have to depend on the revenues generated from daily traffic between San Francisco and Santa Cruz.

### **Construction of the Ocean Shore Electric Railway**

While the Ocean Shore waited for materials to arrive, they leap-frogged a large crew of laborers up to Waddell Creek and blasted a railroad grade across the base of the historically pesky bluff: "The Ocean Shore engineers, with audacity and dynamite, are doing in a few days what Nature has been lazily working at for ages. In other words, they are blasting down the bluff to make a clear grade for railway and highway at this hitherto perilous place." (*Surf* 6/15/1905) Their reason for racing up to Waddell's was designed to block the Southern Pacific (or anyone else) from getting past that point without drilling a tunnel. They also purchased rights-of-way and made immediate cuts at other rocky points farther up the coast, San Gregorio Bluff and Mussel Rock Bluffs. The Ocean Shore believed that "[their] control of these places makes it absolutely necessary for a competing line to resort to tunneling to get past these places, requiring approximately four miles of tunnel in a distance of fifty (50) miles of road." (*Surf* 10/2/1907) Meanwhile, the railroad had to deal with the very issue they intended to solve: getting the necessary lumber delivered ahead of their northward march out of Santa Cruz. By August of 1905 large loads of Douglas fir poles were being loaded off ships and rafted to North Coast beaches and the trestle building began.

### **The Ocean Shore Trestles**

The plan was to build the trestles across the gullies and lagoons and then fill them in with rock and earth. "All these trestles except the one just beyond Wilder's are to be filled and must be filled before heavy trains can pass over them. This work is on joint account between the two companies, and the embankments, when complete will be 36 feet wide at the top, capable of accommodating three tracks." (*Surf* 2/3/1906) Material taken from the cuts was loaded into special side-dumping gondolas and then dumped off the top of the trestles. The result was a string of huge earth-and-rock ramparts each one containing a reinforcing wooden structure as its heart (see Photo 1-4 and Photos 14, 15, and 16 in Appendix 1.3 for a depiction of the sequence of trestle filling).

### **The Ocean Shore Stream Tunnels**

Rather than direct each stream through a culvert beneath the trestle, the railroad engineers chose to cut tunnels through the rock on the north side of each of the canyons. The engineers picked the north side of the canyons because they knew that the littoral drift on the coast was from north to south, and the tunnel mouths were much less likely to be filled with sand if they were on the "uphill" side of the beach drift. Further, each tunnel was drilled so that it emptied out a little above the land on the ocean side to insure that seasonal high

sand levels did not block it. The pattern holds throughout the Coast Dairies Property: at each trestle fill there is a tunnel through the rock on the north side of the ravine.

One contemporary observer, Arthur Taylor of the *Surf* newspaper, was uncertain of the effectiveness of the tunnels, and in a remarkable article written in 1906, he expressed his skepticism: "Tunnels have been excavated in the solid rock walls of the canyon into which the running streams will be conveyed as fast as the fills are complete. The Old Settler shakes his head when he looks at these holes in the wall, but the Civil Engineer says they are of capacity to carry all the water that can come. Time will tell." (*Surf* 2/3/1906)

Now, almost a century later, after repeated earthquakes and floods, the tunnels continue to gather the upstream water and deposit it on north side of each cove.

### **The Legacy: The Railroad Ramparts**

The effect of these huge earthen walls on the coastal landscape was, and continues to be, dramatic. Because they were built with a 36 foot width at the top, their bulk is such that when one is standing on them, they appear as if they had been leveled out of the existing landscape.

When viewed from the ocean side, the ramparts make the coast appear as one continuous, level wall. Each of the beaches along the rampart is backed by a huge, steep, smooth-faced slope. Some, like the fill that crosses behind the San Vicente beach, still exhibit their unconsolidated heritage by confronting the hiker with an unclimbable bank of scree. Since the fill slopes are too steep to walk, pedestrians have cut trails down to the beaches on the natural bluff faces, and many of them are precarious and rugged.

The effect on the landward side of the ramparts is even more dramatic. Standing at stream-level one cannot see the ocean at all, and the wall blocks the prevailing-onshore wind as well as the late afternoon sun. More importantly for the residents of the North Coast, the railroad fills blocked access to the beaches and lagoons, and since the original coast road looped in and out on the landward side of the railroad line, the residents in each of the coastal valleys were cut off from the immediate coast.

Even when the coast road was straightened and leveled with its own cuts and fills beginning in the late 1930s, the highway grade was below that of the railroad so that each time Highway 1 drops down into one of the valleys, there is a wall on the ocean side blocking any view of the beach. The tradition of hidden "secret" beaches is one of the railroad's legacies, with "clothing optional" beaches and homeless encampments dotting this coastline, effectively screened off from the highway by the walls of earth built by the Ocean Shore Railroad. It is possible to regularly drive along this coast and never know there are beaches at San Vicente, Liddell, Yellowbank or Laguna.

Editor Taylor of the *Surf* was particularly distressed with the effect of the railroad fill at Laguna Creek. Laguna was famous in the nineteenth century for a large stand of California laurel trees that grew upstream from its coastal lagoon, and many early accounts extol the virtues of the place as a picnic ground. Taylor expressed distress at what the railroad did to the grove: "Laguna, grown sacred as a shrine of summer rest and joy to thousands has been cut in twain by a trestle, which will soon become a solid embankment hiding the ocean and shutting off the heavens from the remaining part of the grove." (*Surf* 2/3/1906) Laguna continued to be the social center for the North Coast community and even today, there are picnics in the laurel groves inland from the railroad line. And there are still several old, gnarled laurels on the ocean side of the rampart, their

bark etched with initials and carvings that may date to those days before the railroad came marching inexorably through.

Taylor saved his strongest words for the effect of the railroad and the burgeoning cement plant on San Vicente Creek. San Vicente had been the crown jewel of Santa Cruz County's trout fishing streams, always listed first in comparison to the San Lorenzo and Soquel with their industrially-fouled waters. In 1906 the San Vicente was showing the effects of being launched into the Industrial Age: "The San Vicente Creek, beloved of the angler and the artist, has its mouth stopped by a vast dyke, and its throat choked into a tunnel, a saloon on its border, and its bed for miles denuded of the granite cobbles and sand beds. A sawmill is swiftly cutting out the timber and dirt and debris defile the pools and clog the riffles where lurked the gamey trout." (*Surf* 2/02/1906)

### **Comparisons**

Because there were no trestle-fill ramparts on the immediate coast north of Davenport, there are two beaches within the Coast Dairies Property that provide comparisons with the railroad rampart beaches. The beach at Davenport Landing was visible and accessible from the old coast road and only disappeared from view when the highway was straightened in the 1950s. Scotts Creek Beach is visible and accessible to the public because the modern highway drops down onto the sand itself. Both of these beaches are well known to the public and heavily used.

### **The Railroad Cuts**

A word must be said about the cuts through which the present-day railroad makes its way between Santa Cruz and Davenport. By any measure, they are huge. From base to base they still measure around 30 feet, reflecting the original plan to have three sets of broad gauge rails run through them. Between 1907 and 1923, when both the Southern Pacific and Ocean Shore operated along the coast, there were two sets of rails in operation, but now the Union Pacific's rails are centered in the cuts, running on a raised platform of gravel ballast. From all appearances, the width of the cuts and the raised tracks are relatively easy to maintain. What few landslides have occurred in the cuts have fallen harmlessly at their base, well away from the tracks themselves.

### **Effects on Fishing**

After 1906 the fish that had migrated freely up and down the streams were channeled through tunnels and in some places confronted with new obstructions that they could not surmount. By default, after 1906, rampartless Scotts Creek became an extremely important North Coast stream, a fact that was recognized by the State Fish and Game Commission when they declared the lower section a fish refuge. Scotts Creek's importance as a center of fish propagation on the North Coast is yet another legacy of railroad landscaping down the coast.

In a remarkable description written in early 1906, Arthur Taylor wrote of the immediate effects that the Ocean Shore's cuts and fills were having on the North Coast: "Enterprise has outraged Nature until the human heart must bleed in sympathy with her prostrate, mangled form. The fields where once the grain waved, the kine fed and the poppies spread over the uncultivated corners, are seamed and scarred and gashed; huge embankments as high as tree tops stretch across the canyons where they debouch into the ocean; and the coastwise brooks have all been ruthlessly taken out of their beds and driven through dark, gruesome tunnels. The alluring byroads and by-paths that led from the coast road across the fields to the Natural Bridge and its

nearby beach, to Parson's beach to the little pebbly beach and the other cozy nooks along the shore have all been severed by strips of steel or gouged out by that cruel steam shovel." (*Surf* 2/3/1906)

Hundreds of laborers worked into the fall of 1905, and when the railroad's first locomotive arrived in October, the movement of materials and men to the railhead went much more quickly. Heavy rains in early 1906 slowed the work, but it was the earthquake on April 18 that captured everybody's attention.

### **The 1906 Earthquake**

The early morning earthquake on April 18 interrupted all the North Coast construction projects. The Southern Pacific lost not only its corporate offices in San Francisco, but also suffered extensive damage along its Central California routes. Perhaps the most daunting was the blockage of the huge tunnel through the Santa Cruz Mountains on its South Pacific Coast branch line. It would take the railroad three years to re-open that section to traffic. With all the other challenges facing the Southern Pacific, the North Coast branch to San Vicente was delayed.

The effect on the stretch of Ocean Shore working toward the cement plant site north of Santa Cruz was minimal. There was some settling of the trestle fill just south of Laguna, but as one observer noted, the earthquake combined with the previous heavy rains probably accelerated the settling process all along the line. Since the Southern Pacific had not yet begun to build northward from Santa Cruz, the Ocean Shore immediately resumed work because of the promise of a temporary monopoly.

Work on the segment of the Ocean Shore building south from San Francisco halted for a time after April 18, and the earthquake would eventually prove to be fatal to the plans of the Ocean Shore's two-track electric railroad from San Francisco to Santa Cruz. The Ocean Shore's investors were never able to recover from the effects of the earthquake and its aftermath, economic recession of 1907. Ultimately the deeper pockets of the Southern Pacific corporation would prevail.

The first passenger train from Santa Cruz to San Vicente ran on June 15, 1906 just two months after the earthquake. Taylor described the day: "There was an odor of new-mown hay in the atmosphere, poppies spattered the wayside with their daytime starts, and the uplands were just commencing to show a tinge of the brown of the dry season, and the ocean lay alongside all the way-placid, without a murmur or even a monotone that could be heard a hundred yards. The locomotive still attracts the attention of cattle up the coast, and many horses resent its appearance..."(*Surf* 6/15/1906) In less than twelve months the Ocean Shore railroad had built twelve miles of improbable track and bed, spanning gulches, cutting down hills and leveling out Father Crespi's "tiresome" North Coast. Regular passenger service did not begin until the summer of 1907, but during the intervening year the Ocean Shore locomotives hauled equipment and building materials to the cement plant that was rising alongside the San Vicente. Two immediate effects of the Ocean Shore railroad were an increase in the value of real estate all along its completed and proposed route, as well as an estimated 20 percent increase in land being used for agriculture.

The Ocean Shore's monopoly on railroad traffic between Santa Cruz and San Vicente ended when the Southern Pacific completed its rails and began passenger service in July, 1907. With their hopes to build the railroad through to San Francisco still in place, the Ocean Shore was not overly concerned about losing the cement plant revenue. However, as the recession of 1907 deepened, and it became increasingly obvious that the railroad might never be completed, the Ocean Shore began to search for another source of paying freight to help support the cost of the branch north of Santa Cruz.

The Ocean Shore began working northward from San Vicente in October 1906, and to avoid a long trestle across the mouth of Scotts Creek, the railroad chose a route that followed the old coast road, running inland across Molino Creek and up the east side of Scotts Creek Valley. In October of 1907 the three-mile section between San Vicente and the junction of Scott and Little Creek was completed, and the construction crews departed for other projects while the railroad attempted to gather together enough funds to continue northward towards Waddell (*Surf*, 10/24/1906; 5/20/1907; 10/2/1907). One of the objectives of the Ocean Shore, were it completed between San Francisco and Santa Cruz, was to open the huge old-growth forests on the western slope of the Santa Cruz Mountains. The railroad estimated that over two billion board feet of lumber was standing in the canyons between San Francisco and San Vicente with over 700 million board feet in the watersheds of Waddell Creek, Scotts Creek, and the San Vicente (Wagner, 1974). Even if the railroad was not pushed northward beyond Scotts Creek, it was in a position to haul logs or lumber out of those canyons.

#### **1.3.4 THE CEMENT PLANT AND THE QUARRY RAILROAD**

Meanwhile, as the Ocean Shore was building its railroad to the San Vicente, the cement plant was rising on the treeless terrace. Using horses and an army of laborers, the San Francisco construction company of Healy and Tibbits leveled the site. The camp for the construction company was in the valley of the San Vicente upstream from the proposed Ocean Shore Railroad grade. Hauling granite from the creekbed and sand from the beach, the company made cement to build the factory. During a visit in February of 1906 Taylor described the rising cement factory "a scene of extended walls, open arches and massive battlements [that] reminded one of pictures of ancient ruined cities." (*Surf* 2/3/1906)

The 1906 earthquake may have been a problem for the Ocean Shore line, but it accelerated the demand for concrete construction. Brick and mortar construction was rendered unacceptable by the earthquake, and wooden buildings by subsequent fires, driving most architects toward what became known as "fireproof" concrete construction. Dingee and his associates worked toward the completion of the cement plant secure in the knowledge that there would be a strong market for Portland cement (see Photo 1-5, and Photos 3 through 11, Appendix 1.3). By the end of 1906, the plant was ready to begin limited operation, and six months later was producing 3,000 barrels of cement per day (*Surf* 8/14/1907).

If the work the Ocean Shore Railroad was doing with its trestles and fills along the coast was impressive, the broad gauge railroad laid up the San Vicente Canyon to the limestone quarry site was almost equally so. The "snake-like" railroad was cut into three miles of the north wall of the canyon. The grade required almost continual blasting, and in one impressive instance, rocks thrown by an 8,000-pound blast landed over three miles away from the explosion. The cement company built eight trestles to bridge side canyons along the way, with one 300 feet long and 137 feet above the canyon floor (see Photo 1-6) (*Surf* 12/11/1905).

The tough, dangerous work was done mostly by crews of Greek laborers brought in by Healy and Tibbits just for that purpose. Several hundred Greeks cut the road into the canyon wall undertaking what one official termed "the hardest class of work" (*Surf* 9/23/05). The San Vicente gave up the railroad grade grudgingly, and injuries to the workers were a daily occurrence. Boulders crushed arms and legs and there was a steady stream of injured men taken into Santa Cruz for care. Confronted with what, to them, were unpronounceable Greek names, the newspapers often reported the injuries simply by giving the number that the man wore on

his overalls: "Two Greeks injured by falling rocks. Greek No. 573 and Greek No. 25, employed at the Santa Cruz Portland cement quarry, were treated lately by Dr. P.T. Phillips for injuries received by falling rocks. These Greeks all have numbers, a brass tag around their necks distinguishing them. No 573 received the most severe injury and had his leg badly cut open and No. 25 had his collar bone broken." (*Surf* 12/2/1907)

Simultaneously with all of the other construction, the quarry was opened and a huge rock crusher installed to knock the limestone and shale down to a uniform size. The stone was then hauled down to the cement plant on the railroad to be processed. Another large crew of Greeks worked in the quarry, and a small town named Bella Vista was built downstream from the quarry to house the workers. Arthur Taylor visited the town in 1910: "The quarrymen's boarding house perches against the cliff like a swallow's nest under the eaves. It is stable-like in appearance, but as moss grows on the decaying log, sentiment clings to the human heart, and amid these desolate surroundings the Greek grub house is blazoned with the name of 'Bella Vista Hotel.'" (*Surf* 8/1/1910) The irony of having a town with an Italian name housing Greek workers was not lost on Arthur Taylor.

### **1.3.5 THE ROLE OF COAST DAIRIES – THE COMPANY TOWN OF SAN VICENTE**

Casual visitors often assume that the company town that grew up south of the cement plant belonged to the cement company, but it did not. Bella Vista and San Vicente, as well as all the supporting infrastructure for the cement operation, were owned and managed by Coast Dairies & Land Co. The Standard Portland Cement Company made cement; Coast Dairies did everything else.

The isolation that Dingee needed for his noisy, dusty industrial creation meant that all of those working on the plant and later employed in it would have to live nearby. In 1905, when the construction on the plant began, there was nothing nearby save the small community at Davenport Landing. So, under the guidance of Coast Dairies manager Louis Moretti, a town grew up on the slope between the cement plant and San Vicente Creek. Since most of the workers were single men, the main feature of the little town was its hotels. Eventually there were two hotels to house the workers, along with buildings to house the other businesses necessary to support the men. By 1908, the town had two hotels, a general store (known as the "cash store"), a post office, butcher shop, barber shop, blacksmith shop, livery stable, public hall and public school. The businesses were either managed directly by Moretti or fellow Swiss or Italian immigrants. Initially called San Vicente (or San Vicente-by-the-sea) in 1905 to distinguish the town from Davenport's Landing just up the coast, the town soon came to be known simply as Davenport, a name that everyone used by 1908.

In 1909, to provide the cement plant managers a place for their families to live that was away from the predominantly male culture of Davenport, Coast Dairies & Land company laid out a small sixteen lot town on the north side of the factory. Skeptics also noted that the little subdivision was upwind from the cement plant and thus suffered less cement dustfall than the larger town to the south. Originally called Morettiville in honor of the manager of Coast Dairies, the town eventually came to be known as the "New Town" to distinguish it from the older Davenport, and today it has been shortened to NewTown (Clark, 1986; Orlando pers. comm., 2000).

## **The Coast Dairies & Land Co.**

During the early decades of the twentieth century, the company continued to operate five distinct dairies on their property, with an aggregate total of about 800 cattle. The progressive impulses that the company exhibited in its relationship with the cement plant were also evident in the dairy business. In 1902 they opened a direct-to-the-consumer retail outlet in downtown Santa Cruz with the most modern equipment fully visible through windows facing Pacific Avenue. However, selling butter and cheese in San Francisco supported the bulk of their business, and the completion of the Ocean Shore Railroad brought convenient transportation for their products (although "convenient" in North Coast terms meant via Santa Cruz). The company also raised hay and other farm products, in addition to renting the groves at Laguna and Liddell for picnics.

### **1.3.6 THE LAST EXTRACTION: THE SAN VICENTE LUMBER COMPANY**

The cement plant, quarry and attendant railroad weren't quite enough to satisfy the turn-of-the-century entrepreneurial spirit, and there is still one more industrial story line to emerge from events early in the twentieth century. In the late 1890s, the Santa Cruz Lime Company purchased approximately 7,500 acres immediately upstream on the San Vicente from the land owned by Louis Moretti. The company then built and operated a lime kiln on the San Vicente and freighted their finished product down the creek and over to the old Davenport Landing. Not long after purchasing the site for their cement plant from Coast Dairies, the Standard Portland Cement Company purchased the entire property and kiln operation from Santa Cruz Lime, and it was there (adjacent to the current Coast Dairies Property) that they then established the limestone quarry for the cement plant (*Surf* 8/15/1906). William Dingee was not in the lumber business, however, and in 1907 he sold the timber rights (but not the land itself) to a group of Mormon lumbermen from Salt Lake City. By the spring of 1908 the group was incorporated as the San Vicente Lumber Company and had purchased a total of 16,000 acres of timber rights in the upper San Vicente and Scotts Creek drainages (Hamman, 1980).

Blocked by the cement plant limestone quarry from access to the upper San Vicente, the San Vicente Lumber Co. used the Scotts Creek-Little Creek drainages as their access, coming around to the timber from the northwest. The company then decided to locate their mill on the northern edge of Santa Cruz beside Moore's Creek, and after some wrangling with the town council they received the necessary permission and began building the largest lumber mill in the history of the county. The mill had a daily capacity of 70,000 board feet. Moore's Creek was dammed to create their millpond (today's Antonelli's pond).

Over the next 14 years, the San Vicente Lumber Company built over nine miles of broad gauge railroad into the mountains behind Davenport, felled the trees and brought the logs down to their Santa Cruz mill on the Ocean Shore Railroad. The grades and switchbacks that enabled the San Vicente railroad to achieve 1,400-foot elevation rise were breathtaking, and would be even in 2001. In some places the railroad grade reached eight percent. Since the winter rainfall on that side of Ben Lomond Mountain could be prodigious at times, few of the long, spider-web trestles were ever filled in. It has been estimated that the San Vicente Lumber Company cut over 400 million board feet of lumber before it ceased operations in 1923 (Hamman, 1980). Several other timber operations worked smaller areas during this time, including the Loma Prieta Lumber Company that started a relatively small operation on Mill Creek in 1907. Since the Loma Prieta had a mill on site, they shipped finished lumber out on the Ocean Shore Railroad, while the San Vicente shipped raw logs (*Surf* 1/14/1907) (see Photo 1-7).



### 1.3.7 SANTA CRUZ NEEDS MORE WATER

The dry winters of 1897-1898 and 1898-1899, plus increased silt build up in Santa Cruz's Laguna Creek water system, compelled the city to undertake a series of studies between 1903 and 1912 to find an alternative or supplemental source of water.

Arthur Taylor, whose observations we have quoted before, was something of an amateur hydrologist and over the years he explored a number of North Coast streams and reported about those explorations in his newspaper, the *Surf*. In 1903 he wrote a series of articles describing the shortcomings of the Laguna Creek system. In one article he told of standing above the Laguna Dam and looking upstream: "From this point there is little timber in sight above the dam on the Laguna and for some distance, half a mile or more the canyon is quite broad and open. Beyond the canyon sides rise from fifty to two hundred feet above the bed of the brook and are tolerably well covered by second growth redwood and pine, with about the average amount of shrubbery.." (*Surf* 11/10/1903) The upstream logging had taken its toll on the ability of Laguna Creek to provide water to the city system:

"There is very little tall timber left on any part of the Laguna, but the channel of the stream is choked and filled in many places with huge masses of debris, left by the lumbermen and the woodchopper, and which in times of high water has floated down stream and lodged at convenient and inconvenient spots. Fire has swept over much of this, and in other places the redwood timber is lying in the bed of the brook and slowly decaying...The site of the old Grover Sawmill, is a sorry sight. There is a mass of badly burned, broken, tangled timbers, and a huge pile of sawdust still left by the bank, gradually decaying and percolating into the stream. From the mill site coastward the fall is more rapid, the banks crowd each closely, and big boulders, clog the channel..." (*Surf* 11/16/1903)

Taylor had heard of a famous spring on Liddell Creek, but had never seen it. One day he met Louis Moretti, the manager of the Coast Dairies Property, on the street in Santa Cruz and asked him if the spring was as big as it was rumored to be. Moretti said yes and offered to take Taylor on a guided tour. Taylor's first sighting of the spring was an epiphany: "...Would to God, I could share with every citizen the thrill of joy which was felt when I caught sight of that huge volume of water gushing, bubbling, pouring out of this spring hundreds of gallons per minute." (*Surf* 11/14/1903)

It took another nine years for the city to share Taylor's joy about the spring, but finally, after several more studies, the city purchased the spring from Coast Dairies & Land Co. for \$20,000 (*Surf* 12/24/1912). By early 1913, the spring's estimated daily flow of 950,000 gallons was added to the city water system, and in the following winter it was noted that when Laguna Creek's water was muddy as it entered the city system, the water from the spring flowed crystal clear (*Surf*, 1/28/1914). The Liddell spring at Laguna Creek continues to be a part of the Santa Cruz City water system to this day, providing 20 percent of the city's supply.

In a recent interview, Robert Bosso, long-time attorney for Coast Dairies and past president of the corporation, discussed the impact of the 1912 sale of the spring on the later history of the Coast Dairies Property: "I'm sure that Moretti and Respini thought they were getting a good price for the spring in 1912, but we sure could have used that water later on. That spring is priceless." (Bosso pers. comm., 2000)

### **1.3.8 THE SWISS RETURN TO SWITZERLAND**

It has been estimated that well over half of all the European immigrants who came to the United States returned to their native countries (Takaki, 1993), so the fact that the Swiss owners of the Coast Dairies & Land Company went back to Switzerland is not unusual as such. What made it curious was that they had been so successful during the decades they lived in Santa Cruz County. A number of theories have been advanced over the years about why the Moretti and Respini families returned home, but Robert Bosso was told that the Swiss returned to Switzerland to avoid costly penalties, should they be drafted into the United States military. According to the Moretti descendants in Switzerland, Swiss law, based on that nation's firm notions of neutrality, forbade Swiss nationals from participating in another country's military, and if they did, they faced stiff financial penalties should they ever return home. As the war in Europe heated up after 1914, it appeared that the United States might become involved and, once it did, that a draft might be instituted. Thus, according to Bosso, the Swiss returned to avoid being drafted into the United States military, with the loss of what had, until then, been virtual dual citizenship (Bosso pers. comm., 2000).

The most poignant departure was that of Mr. and Mrs. Louis Moretti in the summer of 1915. Without question, Moretti had been the energy and vision behind the industrial revolution on the North Coast. Moretti stayed until the dedication of his last project-the concrete Catholic chapel on the knoll above San Vicente Creek, in May of 1915. The church can be seen not only as a symbol of the cooperation between Coast Dairies, the cement company, and the community, but also as a personal legacy of Louis Moretti himself. He designed the church to replicate the churches he had seen as a young man around his native Locarno, and it was fitting that he would leave that symbol of Switzerland before he went home (*Surf*5/17/1915). The landmark chapel still stands today on Church Street in Davenport (see Photo 1-8).

By 1920 the shareholders of the Coast Dairies & Land Company were all back in Switzerland, and the property was being managed by local employees of the corporation. The departure of the Coast Dairies leadership and the closing of the San Vicente Lumber Company in 1923 marked the end of a remarkable 20 years of industrial activity. The Santa Cruz Portland Cement Company continued to operate, but the emphasis in the region turned once again to agriculture.

### **1.3.9 THE EFFECT OF THE RAILROAD ON NORTH SHORE AGRICULTURE**

As we have seen, the Ocean Shore and Southern Pacific Railroads had a profound effect on North Coast industrial development. The effects on agriculture came more slowly, but were no less transformative. The keys to the development of the twentieth century crops that are most identified with the North Coast-artichokes and Brussels sprouts-were refrigeration, dependable seasonal farm labor, and the development of national and international markets.

#### **Artichokes**

Artichokes were the first major specialty crop in the agricultural revolution on the North Coast. Though there is considerable debate about who was the first to grow artichokes on the Central California Coast, it seems that they were first grown in large quantities in San Mateo County on the coastal terrace south of Pescadero Creek. The following newspaper item appeared in the *Surf* in March of 1916: "F.H. Widemann of Pescadero has been here en route to King City. He has charge of the 10,000 acre Coburn ranch at Pescadero and has

1,000 acres in artichokes which are grown for the San Francisco and eastern market. The rest of the ranch is in beans and timber...Mr. Widemann states that artichokes are being grown in vast quantities there and that the entire country from Pescadero to Bean Hollow has been utilized for them and vegetables. It is now all irrigated from the Butano Creek..." (Surf 3/10/1916)

Another source indicates that Mr. A.E. Morelli first grew a small plot of artichokes near Davenport in that same year (Watkins 1925). Regardless of who was first, by 1919, local resident Tom Majors attested to there being 600 acres of artichokes under cultivation between Santa Cruz and Davenport: "At present there are about 600 acres leased to Italian vegetable men, along the coast between Santa Cruz and Davenport. About 100 acres on the Charles B. Younger ranch, 120 acres on the Pio Scaroni ranch, 120 acres on the Majors Brothers ranch and about 250 acres by the Coast Dairies & Land Co. These Italian gardeners find that the soil and climate are very well adapted to the raising of this fruit or vegetable. The artichoke plant wants a climate not too hot and not too cold, and the coast salt air keeps them free from bugs and lice...The Italian vegetable men are splendid gardeners, and very industrious workers. Besides the artichokes they raise peas, potatoes, Brussels sprouts, cabbage and other vegetables. The artichokes will be raised and shipped in carload lots from Godola or Majors station direct to Chicago and New York City, where they are selling at present for \$5 per box, consisting of three and one-half dozen in a box which goes to show that the artichoke business is all right when once established."(Surf 1/18/19)

The use of refrigerator cars for shipping vegetables long distances accelerated during World War I, and by 1920 several processing and packing sheds were established on the west side of Santa Cruz to handle the increasing amounts of produce being grown on the North Coast. A major Santa Clara County packing company built a cannery near Pigeon Point to handle produce coming from the Pescadero area in 1917 (*Sentinel* 4/8/1917). By the early 1920s the artichoke acreage began to spread southward onto the coastal terraces around Aptos and Castroville. Artichokes were enough of a commodity in Santa Cruz County that a 1923 newspaper article listed them among the three major agriculture products, the other two being apples and poultry (*Sentinel* 2/8/23).

Artichokes and Brussels sprouts are "niche" vegetables, and the markets are those places in the United States where large numbers of Southern Europeans have settled, particularly Chicago and the Northeast, or Europe itself. According to Ron Tyler, Farm Advisor emeritus of Santa Cruz County, the aging of the European immigrant community (and its replacement by immigrants from Asia and Latin America) has softened the market for both, particularly Brussels sprouts (see Appendix 1.2.4).

### **Farm Laborers**

As the acreage of artichokes and other vegetables grew along the North Coast, so did the need for agricultural laborers. Filipino and Mexican farm laborers were the mainstay of the agricultural workforce on the North Coast from the 1930s well into the 1960s, and there are still several farm labor buildings located on the Coast Dairies Property that once housed Filipinos. Several informants specifically noted that the red-colored buildings on the ocean side of Highway 1 just south of Yellow Bank Creek once housed Filipino farm laborers.

### **The Dairies Decline**

The North Coast dairies continued to do very well financially during the 1920s, but the coming of the Depression in the 1930s, coupled with new regulatory legislation, began to make it increasingly difficult to operate dairies on the coast. A 1938 law required testing of all dairy cattle for tuberculosis and the California

Department of Agriculture's stringent sanitary inspections eventually put many of the North Coast Dairies out of business (Weldon, 1986).

### **Santa Cruz Portland Cement Company Pier - 1934**

The one major exception to a North Coast economic downturn during the 1930s was an expansion of the cement plant at an estimated cost of \$1.5 million. Even with its dependable Southern Pacific Railroad connection, the cement company continued to chafe at its inability to get its product out to market. Finally, after studying all the possibilities, the company decided to build a pier out from the bluff adjacent to the factory and pump dry cement into a ship anchored off shore. The cement company, which had thrown all of its technological muscle into operations at Ben Lomond Mountain, now turned toward the sea. In light of all the failed efforts to set up shipping facilities on the North Coast, it was an audacious plan. The cement was to be stored in a nest of silos atop the bluff. A massive compressor would then suck the cement down through a huge tunnel and into two twelve-inch pipes and out along a half-mile pier into the waiting ship.

The key to the plan was the pier. As no pier on the North Coast had ever weathered a winter season without being ripped apart, it could not be of traditional wooden construction. It was to be a metal pier with its steel pilings driven deep into the coastal bedrock. All the joints were to be welded, and the pier's end was anchored with huge concrete-filled caissons also driven deep into the ocean floor. Construction of the pier began in December 1933, and during the winter of 1933-34 the ocean tested construction and design, with waves in excess of thirty feet. On several occasions the massive swells swatted the pile driver into the sea, but the construction continued until, in early October 1934, it was completed. Extending 2,327 feet into the sea, it was the first all-welded steel pier built on the Pacific Coast.<sup>[21]</sup>

The company purchased a 400-foot freighter, aptly renamed it *Santacruzement*, and on October 16, 1934, sent the first load of 45,000 barrels of cement to a special silo farm in Stockton (*Sentinel* 10/17/1934). The ship continued to carry cement from the plant into the 1950s, until the coast road was improved enough that trucks could take over transporting the company's product. Today, 67 years after the pier was built, several of the steel piers still defy the ocean off the Davenport bluff, marking one of the most brazen efforts to thwart the power of the ocean <sup>[22]</sup> (see Photograph 1-9).

### **Concerns About Cement Dust**

One of the local signatures of the cement plant at Davenport was the coating of dust that radiated out from the plant onto the surrounding countryside. Since the prevailing wind came from the north and northwest, the dust was thickest on the hills and fields south of the plant, but there was enough wind variation to cast all of the immediate vicinity in a gray shroud of dust. Houses, cars and buildings were all coated with the dust, and over the years there had been numerous complaints about the effects of the dust on the local agricultural community. The fact that the cement plant was the major employer in the area made it difficult for many local citizens to complain, but in 1935, a coalition of local farmers and ranchers organized to "force the Santa Cruz Portland Cement Company to eliminate the causes of damage to the coast field crops by the cement dust." Twelve growers filed suit against the cement plant and they were joined by 42 more growers and dairymen (*Sentinel* 3/28/1935).

One of the complaints came from those raising dairy cows and cattle on the North Coast. Range animals that ate large amounts of the dust "did not develop properly" according to one animal husbandry expert working in the University of California Extension office at the time. "They just looked skinny and didn't put on any

weight." The University of California at Davis sent a number of scientists to the North Coast to study the matter, but results were not conclusive (Lydon pers. comm., 2000). The suit against the cement company worked its way through the court system for many years.

In 1955, Davenport residents gathered in a public meeting to air their complaints about the dust. Many of those that testified brought exhibits to demonstrate just how pervasive the dust was, including a cross-section of lawn showing that the dust penetrated six inches into the earth. One auto mechanic brought a fifteen-pound bag of cement dust that he had collected in just one day while servicing the dust-covered automobiles of Davenport residents. Residents complained of being unable to get the family laundry clean, and one testified that they could not keep a television set because the dust always seeped into the cabinet and shorted it out (*Sentinel* 3/18/1955). Several dozen lawsuits were filed against the company following the meeting (see Photo 1-10).

Eventually, after the cement plant changed hands, all of the suits were settled out of court in 1961 and the company agreed to install equipment to minimize the dust emissions (Koch, 1973).

## **1.4 – INTO THE PRESENT**

The Davenport cement plant (it became Pacific Cement and Aggregates in 1956, Lonestar Cement Corporation in 1965 and RMC Pacific Materials in 1988), brought immediate military attention to the North Coast following the attack on Pearl Harbor in December 1941. Believing that Japan might attack the U.S. mainland, the military quickly posted guards and lookouts around Davenport and imposed stringent blackout requirements on its residents. Later in December, when the ship *Agiworld* was attacked by a Japanese submarine off Cypress Point south of Monterey, security along the coast was heightened (Lydon, 1997). A Japanese submarine was also sighted off the coast a few miles north of Davenport, resulting in a brief skirmish between the submarine and a single plane from the Army Air Corps (Lud McCrary Interview, Appendix 1.2.1). Eventually a segment of the all-black 54th Coast Artillery was stationed at Davenport and regular night canine patrols were instituted at all the area beaches. In addition, four shore mounted guns were placed strategically around the Cement Plant. Two 75mm guns were mounted overlooking the pier and two 155mm Howitzers were mounted just to the east of Newtown. Many of the young people living in the area at the time became airplane spotters, spending long hours in the lookout stations posted along the coastal hills (see Appendices 1.2.2 and 1.2.4, McCrary and Tomares Interview) (see Photo 1-11).

Perhaps the most disruptive part of the early months of the war was the removal of many Italians from the coast, along with all persons of Japanese ancestry. Beginning in February of 1942, all Italian aliens living inland from Highway 1 south of Laguna Creek were required to move inland from the highway, and since many of the Italian families living on the North Coast had elderly unnaturalized parents and grandparents, the military orders brought extreme hardships to the farmers between Laguna Creek and the city limits of Santa Cruz. For the few families of Japanese present since the 1920s, the removal from the North Coast to a concentration camp in Arizona was devastating. Very few of the Japanese returned to the North Coast after the war.

### **Taking the Loops Out of Highway 1**

During the 1920s and 1930s Californians developed their definite and persistent preference for automobile transportation over rail, and ridership began to decline on Santa Cruz County railroads. As truck and

automobile traffic increased, the North Coast retreated back into its pre-railroad isolation, the meandering and dangerous Coast Road keeping out all but the most adventurous drivers. World War II interrupted the plans by the state of California to straighten out Highway 1 through the North Coast, but by the late 1950s, the various segments of the highway were realigned and the curves that used to loop back into each of the canyons became secondary roads, or in some cases, private roads with gates at both ends.

The realignment of Highway 1 both in Santa Cruz County and San Mateo County cut many minutes off the drive from Santa Cruz to Half Moon Bay. Continuing work on the Waddell bluff made it more passable, and by the late 1950s, Highway 1 had its current alignment.

### **Coast Dairies & Land Co. as Absentee Landlord**

Under the management of Swiss-born Fred Pfyffer, the Coast Dairies & Land Company continued to lease its various ranches for livestock and agriculture. Income from the Property made it self-sustaining, but the profit sent back to the Swiss owners was never large, rarely exceeding \$100,000 per year. According to Robert Bosso, there were two main reasons that the property continued to be managed as a single entity. First, the fact that it was structured as a corporation. As such, it was difficult to sell the property piecemeal; the options that were negotiated from the 1960s on were attached to the entire property. Corporate ownership also made the tax consequences of selling the land separately very costly. Proceeds would be taxed twice - first at the corporate level and second as personal income for the owners. Thus, any sale would have to involve the entire corporation, reducing the tax burden to just one event. Second, the fact that the owners all lived in Switzerland meant that negotiations of options and the sale of the Property had to involve all the owners (seven in 1998), and all this, exacerbated by the distance, made selling the Coast Dairies Property something of a challenge.

The owners were quite willing to entertain options on the Property, however, and the first came from the oil companies that returned to prowl Santa Cruz County looking to develop the oil that was certainly beneath the ground (Bosso, 2000).

### **The Second Oil Boom**

There had been periodic oil flurries along the North Coast (following the one discussed earlier in this section), but by far the largest and most serious occurred in the 1950s when Shell Oil Company and Texaco negotiated several oil leases on the North Coast. In the mid-1950s, Texaco negotiated an oil lease with Coast Dairies to drill on the terrace near Davenport. Between June and December of 1956 Texaco drilled the deepest exploratory well in the history of Santa Cruz County, probing 9,135 feet down. Though they found periodic evidence of oil and gas, it was insufficient to warrant further exploration. The well is known to geologists as Poletti #1, named for the family that was farming that particular section of Coast Dairies at the time (Griggs and Weber, 1990; Weber, 2000). Shell Oil drilled in a number of North Coast locations in the 1950s and 1960s, including on property owned by the cement company, and on land south of Laguna Creek.

### **The Coming of the University of California to Santa Cruz, 1964**

Meanwhile, the wider context of Santa Cruz was being transformed by the opening of the University of California campus northwest of downtown. The university community quickly discovered the scenic beauty and relative solitude of the North Coast. University faculty members built homes in the Bonny Doon area, and the beaches and canyons became the de facto recreation area for the university. And with the university came

an attitude toward development that was quite different from that held by some old-time Santa Cruz residents. The university set off a mini-housing boom on Santa Cruz's Westside, and developers began to plan large-scale housing projects along the open coastline.

### **The PG&E Nuclear Power Plant Proposal**

In the late 1960s, Pacific Gas and Electric approached Coast Dairies and negotiated an option to purchase the property. PG&E's intent was to build a nuclear power plant on El Jarro Point on the terrace north of Davenport. This impulse was not unlike that followed by William Dingee in 1905 when he sought out the isolated reaches of the North Coast to locate an industrial operation unpopular with the people of Santa Cruz. In this instance, the public perception of nuclear power plants required that they be located in remote places--Diablo Canyon in San Luis Obispo County, for example. PG&E's plan was to build a 6,000 megawatt generating facility on El Jarro Point and then exercise its option and purchase all of the Coast Dairies Property.

The proposal acted as a lightning rod for the burgeoning environmental community in Santa Cruz County, and protests were launched against it. Many now see the protest against PG&E proposal as the beginning of the modern conservation/preservation movement in the county (Scott and Wayburn, 1974). Eventually, seismic studies suggested that the site would not be appropriate for a nuclear power plant, PG&E shelved its plans and let their option on the Coast Dairies Property expire.

### **Wilder Ranch**

Meanwhile, just south of the Coast Dairies property another proposal, this one for housing, was floated in 1969. The Wilder family sold the 2,000-acre ranch to the Moroto Investment Company and in 1972 the company announced its plan to build between 9,000 and 10,000 housing units on the property over the next 30 years. Fresh from their success with the PG&E nuclear power plant proposal, environmentalists formed Operation Wilder, and by 1973 the State of California allocated \$6 million to purchase the land for a state park. Wilder Ranch State Park opened in the late 1980s (Jones, 1999).

### **Publication of the North Coast Bible, 1974**

Following the example of other large-scale environmental movements, such as the move to save the redwoods or the Grand Canyon, a group of local authors and scientists collaborated in a book titled *In the Ocean Wind: The Santa Cruz North Coast* published by the Glenwood Press in 1974. Laden with photographs, poetry and essays, the book was a paean of praise for the North Coast. It is difficult to measure the impact that the book had on public sentiment, but it certainly was a reflection of the opinion held by a number of county residents at the time.

### **The Coastal Act**

Put on the ballot as Proposition 20 and passed in 1972, the Coastal Zone Conservation Act put wheels in motion that eventually lead to the establishment of the California Coastal Commission in 1976. The Coastal Zone Act and the Commission rendered any further developments (such as those proposed for the Wilder property) difficult at best; probably impossible. The manager of the Coast Dairies property, Fred Pfyffer, and the corporation's attorney, Robert Bosso, were convinced that any development proposals for their Property would be extremely difficult, and they believed that the property would be increasingly difficult to sell. However, as the shareholders aged, their interest in selling the property increased (Bosso, 2000).

Over the next 28 years the Property entered into a number of option agreements, none of which resulted in sale. The following list was provided in an interview with Robert Bosso in December, 2000:

### **Outright Sale to Lonestar Cement, 1986**

The Coast Dairies shareholders placed a price of \$12,000,000 on the property and offered it to Lonestar, but the company was not in an economic position to purchase the Property and the opportunity passed.

### **Zemex**

In 1988 a Texas development company secured a three year option on the Property which contained an automatic accelerating sale: \$11,000,000 if they exercised the option the first year and up to \$15,000,000 if they did so at the conclusion of the three years. When the economy softened in Texas, Zemex's option expired around 1993.

### **The Bond Act of 1994**

The purchase price of \$17,500,000 was included in a state bond act offered to the voters of California in 1994. Meanwhile, the Nature Conservancy purchased an option on the Property (for \$1) to hold it until the bond act passed. The act failed, however, and the option expired.

### **Bryan Sweeney and Nevada Pacific**

In 1996, Nevada developer/businessman Bryan Sweeney (Nevada & Pacific Coast Land) took out an option on the Coast Dairies Property for a sale price of \$20,000,000. His intent was to swap the Coast Dairies for land under the control of the Bureau of Land Management in Nevada. Mr. Sweeney was not able to resolve the complicated details on the federal end of the transaction. His option to hold the Property was costing him approximately \$1,000,000 a year.

Meanwhile, eager to sell the property outright, Sweeney promulgated the notion that there were 139 separate and distinct parcels within the 7,500 acres, and that he could and would sell those parcels to individuals for coastside homes (Sweeney, 1997). After a prodigious job of surveying each of the alleged parcels and preparing its history, Sweeney made the 139-parcel document, a blueprint for very high-end housing, public. Sweeney's document got everyone's attention, especially the Save-the-Redwoods League. Eventually, in a cooperative effort with the David and Lucile Packard Foundation, the Trust for Public Land, the Land Trust of Santa Cruz County, and the Nature Conservancy, the Coast Dairies Property was purchased from Nevada & Pacific Coast Land. The stage was set for its future as a unique natural and cultural asset, owned by those who will, hopefully, cherish both its present and its past.



## FOOTNOTES

<sup>1</sup> The term "Central Coast" applies to the region between San Francisco and San Luis Obispo. In this report, the local term "North Coast" applies to the Coast Dairies Property before it was subject to historic boundaries, and may include areas from Point Año Nuevo to the modern day City of Santa Cruz.

<sup>2</sup> Other classification systems, based on alternate vegetation or geological associations for example, will be used in subsequent sections.

<sup>3</sup> Plant and animal lists, with scientific names, are included in Section 3.0.

<sup>4</sup> Curiously, a cursory examination of fish remains from sites in and around the Coast Dairies properties reveals only a single steelhead trout element from a site at Davenport Landing (Fitzgerald and Ruby, 1997).

<sup>5</sup> Presumably, this is a reference to manmade fires.

<sup>6</sup> A Spanish league was approximately 2.6 miles.

<sup>7</sup> The Spaniards considered their recovery a miracle, but present-day botanists suggest that the scurvy might have been alleviated by their eating food containing large amounts of Vitamin C, perhaps either food given to them by the Native Americans, or blackberries and rose hips. See Browning, 1992, p. 113, note.

<sup>8</sup> The Villa de Branciforte was one of three civilian (hence "villa" as opposed to mission) settlements established by the Spanish in Alta California, the other two being San Jose and Los Angeles. Located on the coastal terrace across the San Lorenzo River from Mission Santa Cruz, the town never received the support it needed from the Spanish government.

<sup>9</sup> During the Spanish era, ranchos were lands used by the missions as pasturage for their herds. The boundaries of these tracts of land were generally vague and ill-defined. Later, during the Mexican era, the word rancho came to mean a clearly defined tract of land owned by a private individual.

<sup>10</sup> A Spanish vara was 33 inches.

<sup>11</sup> Shore whaling was the practice of hunting whales in thirty-foot whaleboats and then towing the carcass back to shore for processing. John Pope Davenport pioneered the practice on the Pacific Coast in Monterey in 1853 with a crew of Azorean whalers. Davenport moved his whaling operation to Soquel in 1865 and then moved to the landing at the mouth of Agua Puerca Creek. Though some historians have written that he whaled at this last location, there is no evidence to support that contention. He gave his occupation as whaler when interviewed by the census taker in Monterey in 1860, but he responded with the occupation of wharfinger when he was interviewed at the landing in 1870 (Census 1860, 1870; Orlando pers. comm., 2000).

<sup>12</sup> The Project Achives (interviews) contain a discussion of early dry farming and dairying. The pattern of dairies and hay fields described by Frank "Lud" McCrary is probably close to the pattern in the late 1880s. See especially the annotated 1928 aerial in the Project Airphoto Archives for a depiction of early dry farming operations.

<sup>13</sup> Claus Spreckels had just purchased most of the Aptos Rancho and was laying out an extensive farming operation there, east of present-day Aptos.

<sup>14</sup> The bark from the tanoak tree was the source of tannin for the early tanning industry in California. The trees were felled, the bark peeled from the logs and shipped off the landings. See Lud McCrary Interview, Appendix 1.2.1.

<sup>15</sup> Though the Azores Islands were part of Portugal and emigrants from there were technically Portuguese, they preferred (and continue) to be called Azoreans (Santos, 1995).

<sup>16</sup> Pigeon Point was named for the clipper ship Carrier Pigeon that wrecked there in 1853 (Alta 6/10/1853).

<sup>17</sup> The California State Fish Commission was established in 1870 and, as the Fish and Game Commission, began to hire wardens in 1878. The warden in Santa Cruz County reported to the county Board of Supervisors.

<sup>18</sup> For a complete list of the regulations, see Lydon, 1997, p. 85.

<sup>19</sup> Swiss-born Pio Scaroni established a dairy on part of the Rancho Refugio, just south of Laguna Creek, in 1868 (Clark, 1986). He and his descendants owned and lived on the property until 1998, when the property was sold to become part of Wilder Ranch State Park.

<sup>20</sup> Cutting and filling was the process used by railroad and highway builders to achieve a level grade by digging a channel into a hill and pushing the loose material into the next depression to build it up. The resulting cavity through which the railroad or automobile runs is known as the cut, while the filled in area in the depression is known as the fill.

<sup>21</sup> Company officials believed it to be the first all-welded steel pier in the world.

<sup>22</sup> It is interesting to note that another similar ocean-defying monument, the "Cement Ship" Palo Alto that was sunk off Seacliff Beach (Santa Cruz County) in 1930 was built of Davenport cement.

## **1.5 – REFERENCES CITED**

### **1.5.1 PUBLISHED REFERENCES**

*Alta, California Daily.* Newspaper.

Bolton, H. E., ed.. *Historical Memoirs of New California.* Russell & Russell, New York. 1966.

Bonnot, P. *California Abalones.* California Fish and Game 26(3): 203-204. 1940.

Branciforte. *Letter from Governor Pablo Vicente de Sola, September 14, 1815.* Special Collections, Univ. Calif. Santa Cruz. 1815.

Brown and Caldwell Engineering. *Investigation of Water Supply Project: City of Santa Cruz Water System, Santa Cruz, California.* 1956.

Browning, P., ed. *The Discovery of San Francisco Bay: The Portolá Expedition.* Great West, Lafayette, California. 1992.

California Division of Oil and Gas. *Regional Wildcat Map.* Santa Cruz County.

Carter, F. C. *Duhaut-Cilly's Account of California in the Years 1827-1828.* California Historical Society Quarterly XIV: 131-256. 1940.

- Cartier, R. *The Scott's Valley Site: CA-SCR-177*. Santa Cruz Archaeological Society Monograph I. 1993.
- Census. US Bureau of the Census. Manuscript census, Monterey County. 1860.
- Census. US Bureau of the Census. Manuscript census, Santa Cruz County. 1860.
- Census. US Bureau of the Census. Manuscript census, Santa Cruz County. 1870.
- Census. US Bureau of the Census. Manuscript census, Santa Cruz County. 1880.
- Census. US Bureau of the Census. Manuscript census, Santa Cruz County. 1900.
- Census. US Bureau of the Census. Manuscript census, Santa Cruz County. 1910.
- Census. US Bureau of the Census. Manuscript census, Santa Cruz County. 1920.
- Clark, D.T. *Santa Cruz County Place Names*. Santa Cruz Historical Society, Santa Cruz, 1986.
- Dietz, S.A., W. Hildebrandt, and T. Jones. *Archaeological Investigations at Elkhorn Slough: CA-MNT-229 a Middle Period Site on the Central Coast*. Papers in Northern California Anthropology, Number 3, Berkeley. 1988.
- Elliott, W. *Santa Cruz County, California*. Wallace W. Elliott, San Francisco. 1879.
- Evans, A.S. *Alta California*. Bancroft Publishing, San Francisco. 1873.
- Fitzgerald, R.T. and A. Ruby. *Archaeological Test Excavations at CA-SCR-117, the Davenport Landing Site*. Report prepared for U.S. Abalone, Inc. Davenport, CA. Report on file at the NWIC at Sonoma State University (California). 1997.
- Gazette*, Monterey. Newspaper.
- Griggs and Weber. *Field Trip Guide: Coastal Geologic Hazards and Coastal Tectonics: Northern Monterey Bay and Santa Cruz/San Mateo County Coastlines*. Univ. Calif. Santa Cruz. 1990.
- Hamman R. *California Central Coast Railways*. Pruett Publishing. Boulder Colorado. 1980.
- Henderson, H.B. and L.E. Rushton. *Investigation and Design of Proposed Hydro-Electric Improvement at Big Creek, Santa Cruz County, California for Coast Counties Gas and Electric Company*. Thesis for B.S. Degree in Electrical Engineering, Univ. Calif. Berkeley. 1914.
- Hylkema, M. G., *Prehistoric Native American Adaptations Along the Central California Coast of San Mateo and Santa Cruz Counties*. Master's thesis, San Jose State University, San Jose, CA. 1991.
- Jones. *Santa Cruz County: A Century*. *Sentinel*, Santa Cruz. 1999.
- Jones, D.A. and W. Hildebrandt. *Archaeological Investigations at Sand Hill Bluff: Portions of Prehistoric Site CA-SCR-7, Santa Cruz County*. Report prepared for Pacific Mariculture Incorporated. Far Western Anthropological Group, Inc. 1988.
- Kimbro, E.E., Ryan, M. E., Jackson R. H., Milliken, R.T., and N. Neuerburg. *Restoration Research: Santa Cruz Mission Adobe, Santa Cruz Mission State Historic Park*. California Department of Parks and Recreation. 1985.
- Kroeber, A.L. *Handbook of the Indians of North America*. Dover Publications, Inc., New York. 1925.

- Kuchler, A.W. *Natural Vegetation of California* (Map). In *Terrestrial Vegetation of California*. M.G, Barbour and J. Major eds. John Wiley and Sons, New York. 1997.
- Le Boeuf, B. and S. Kaza. *The Natural History of Año Nuevo*. Boxwood Press, Pacific Grove, CA. 1980.
- Levy, R. *Costanoan*. In *Handbook of North American Indians: Vol. 8, California*. R., Heizer, ed. Smithsonian Institution, Washington, D.C. 1977.
- Lydon, S. *Mankind and Monterey Bay*, Monterey Bay Aquarium, Monterey, CA. 1984.
- *Chinese Gold: The Chinese in the Monterey Bay Region*. Capitola: Capitola Book Co., Capitola, CA. 1985.
- *The Japanese in the Monterey Bay Region: A Brief History*. Capitola Book Co., Capitola, CA. 1997.
- "A Very Close Call." Point Lobos Natural History Association Newsletter, Vol. 21, Number 5, pp. 4-5. 1999.
- Menzies, A. *Archibald Menzies' Journal of the Vancouver Expedition*. California Historical Society Quarterly, Vol. II, No. 4. January, 1924.
- Milliken, R. *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769-1810*. Ballena Press, Menlo Park, CA. 1993.
- Negative Albums. *Albums numbered 1-3*. RMC Lonestar Archives. 1933-1934.
- Pajaro Times*. Newspaper.
- Pajaronian*. Watsonville *Pajaronian*. Newspaper.
- Phelps. A. *Alta California: 1840-1842*. Arthur H. Clark, Glendale, CA. 1983.
- Priestly, H. I.. *A historical, political, and natural Description of California by Pedro Fages, Soldier of Spain*. Univ. Calif. Berkeley. 1937.
- Ricketts, E., Calvin, J. and J. Hedgpath. *Between Pacific Tides. 5th edition*. Stanford University Press, Stanford. 1968.
- Roop, W. *Adaptation on Ben Lomond Mountain: Excavation at CA-CSR-20*. Master's thesis. San Francisco State University, San Francisco. 1976.
- Santos, R.L. *Azoreans to California: A History of Migration and Settlement*. Alley-Cass Publishing, Denair. 1995.
- Scott and Wayburn. *In the Ocean Wind*. Glenwood Publishing, Felton, CA. 1974.
- Sentinel*, Santa Cruz. Newspaper.
- Takaki, R. A. *Different Mirror: A History of Multicultural America*. Little, Brown, Boston. 1993.
- Veytia, J. *Journey to Alta California, 1849-1850*, unpublished typescript, Guadalajara, Mexico. 1975.
- Wagner, H. R. *Spanish Voyages to the Northwest coast of America in the Sixteen Century*: California Historical Society, San Francisco. 1929.
- Wagner, J. R. *The Last Whistle: Ocean Shore Railroad*. Howell-North Books, Berkeley, CA. 1974.

Watkins, R. C. *History of Monterey, Santa Cruz and San Benito Counties, California*. S.J. Clarke Publishing, Chicago. 1925.

Weldon, M. *Swiss Dairies*. Farm Focus, Vol V, Number 3. 1986.

### **1.5.2 PERSONAL COMMUNICATIONS**

Bosso, R. Personal Communication (Interview). 2000.

Lydon, R. Rocky Lydon, Farm Advisor Emeritus, Personal Communication (Interview). 2000.

McCrary, L. Personal Communication (Interview), November 2000.

McLean, H. Personal Communication (Interview), November 2000.

Orlando, A. Personal Communication (Interview), November 2000.

### **SOURCE**

*Coast Dairies Long-Term Resource Protection and Use Plan: Draft Existing Conditions Report for the Coast Dairies Property, Section 1.0*. San Francisco, Calif. : Environmental Science Associates, 2001.

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