

COASTAL WETLAND SURVEY

Name of Area: Garcia River County: Mendocino

Location: Sec. 35, 36 T. 13N R. 17W Quadrangle: Pt. Arena (7 1/2 min)

Ownership: Private

Field Investigator: Gayle Dana Date of Survey: 2/22/78

HABITAT: Estuary Lagoon Coastal Freshwater Pond

Comments: Tidal influence to about 2.3 miles or HWY 1

PRESENT STATUS:

Water: Marine 55.80 acres (area under water at mean low tide)

Pond Area: High *1.50 acres; Low _____ acres
 *near Stornetta Ranch.

Littoral 75.20 acres (total of marsh and mud flat):

Mud Flat 0 . 00 acres (sand flats = 11.30 acres)

Marsh 63.90 acres (total of salt, brackish and freshwater):

Salt 50.10 acres Dominant Species Salicornia, Distichlia

Brackish 8.10 acres. Dominant Species Cotula, Juncus

Fresh 5.70 acres. Dominate Species Azolla, filiculoides, Hippuris vulgaris Typha; plus about 30.00 acres of seasonally wet areas. (Juncus & Carex) in dune area

Maritime 573.00 acres (including pastureland which accounts for over 1/2 of this figure

Lagoons: Mouth - Open _____ Closed _____

Do high waters breach the barrier yearly? Yes _____ No _____

Every other year or so? _____ Infrequently? _____

Length of time mouth is open following breaching of barrier; _____ days

Riparian Stream Flow - _____ Permanent X

Streamside Vegetation 201.50 acres

Dominant Vegetation Salix, Alnus

Comments: _____

HISTORICAL INFORMATION AND SOURCE OF DATA: Interviews with Leslie & Frank Stornetta, local land owners, and George Curtis, local sportsman.

ACCESS: The majority of this area is owned by the Stornetta family and permission should be secured before going onto their lands. Access to the north bank of the river is afforded by the first road north of Pt. Arena Lighthouse road. The bluffs overlooking the river on the south side of the road to the Pt. Arena Lighthouse affords a good view of the river's mouth.

GARCIA RIVER

Area Description

High bluffs dominate the western edge of the estuary at the mouth of the Garcia River. To the east, stabilized sand dunes and a large salt and brackish water marsh predominate. Marsh vegetation is composed principally of pickleweed (*Salicornia*), salt grass (*Distichlis*), brass button (*Cotula*), and rushes (*Juncus*). Small freshwater marshes with vegetative species, including azolla (*Azolla filiculoides*), mare's tail (*Hippuris vulgaris*), and cattail (*Typha*), are distributed along the river. Between 0.75 and 3.0 miles upriver, agricultural land, used both for grazing and crops, is separated from the river by a thin line of riparian vegetation. Pasture land is integrated with brush, woodland, and coniferous forest inland where the river valley becomes steep.

Tidal influence appears to extend to the Highway 1 bridge, but local fishermen have reported seeing marine-related fish as far as 4.0 miles upstream from the mouth. Most of the bluffs, marshes, and pasture land in the immediate vicinity of the Garcia River is privately owned. Louisiana-Pacific Company owns some land adjacent to the river approximately 14 miles inland. The small town of Point Arena lies approximately 5 miles south of the estuary. Several small ranches and farms are scattered throughout the lower watershed. Manchester State Beach is located about 2 miles to the north. Hikers from this beach occasionally visit the mouth of the Garcia River.

Natural Resources

Waterfowl and gulls utilize the protected bay at the river's mouth to feed and rest. Harbor seals and other wildlife that use the rocky intertidal marine habitat occasionally utilize the bay as well. In the vicinity of the Garcia River-

Hathaway Creek confluence, approximately 300 whistling swans winter on an open pasture. This flock is reported to have started using the area about 50 years ago (pers. comm., Frank and Leslie Stornetta). Their numbers are slowly increasing, and they can be found in the area from November to April. Although most whistling swans winter in the Central Valley, this is one of the few, if not only, whistling swan wintering areas on the northern California coast. In addition to the swans, other birds such as herring and mew gulls, mallards, blue-winged teal, marbled godwit, Canada geese, and brant utilize this pasture land. Another important area near the river for water-associated birds is the small freshwater marsh east of Highway 1 and north of the river. Pintail, gadwall, mallard, and cinnamon teal were observed in the wetland.

The Garcia River provides excellent spawning and nursery habitat for steelhead and silver salmon. Fishing for these species is said to be very good in the river. The Garcia River is unusual in that the mouth remains open throughout the year. As a result, pink salmon (*Oncorhynchus gorbuscha*) occasionally visit the river. A private organization, Save Our Salmon, operates a salmon hatchery and rearing facility in the upper drainage of the Garcia. In addition to providing nursery habitat for young salmonids, the estuary is also used by various marine organisms. A number of species of flatfish, surfperch, and crustaceans (i.e., Dungeness crab) breed in the estuary. A high diversity of raptors (i.e., hawks and owls) were observed hunting over the salt marsh and dunes at the river's mouth. The ponds in the salt marsh provide feeding and resting habitat for dabbling ducks and wading birds. Osprey nest in the Garcia River drainage and feed in the river and estuary. Spotted owls are believed to nest in the general area.

Adjacent Development

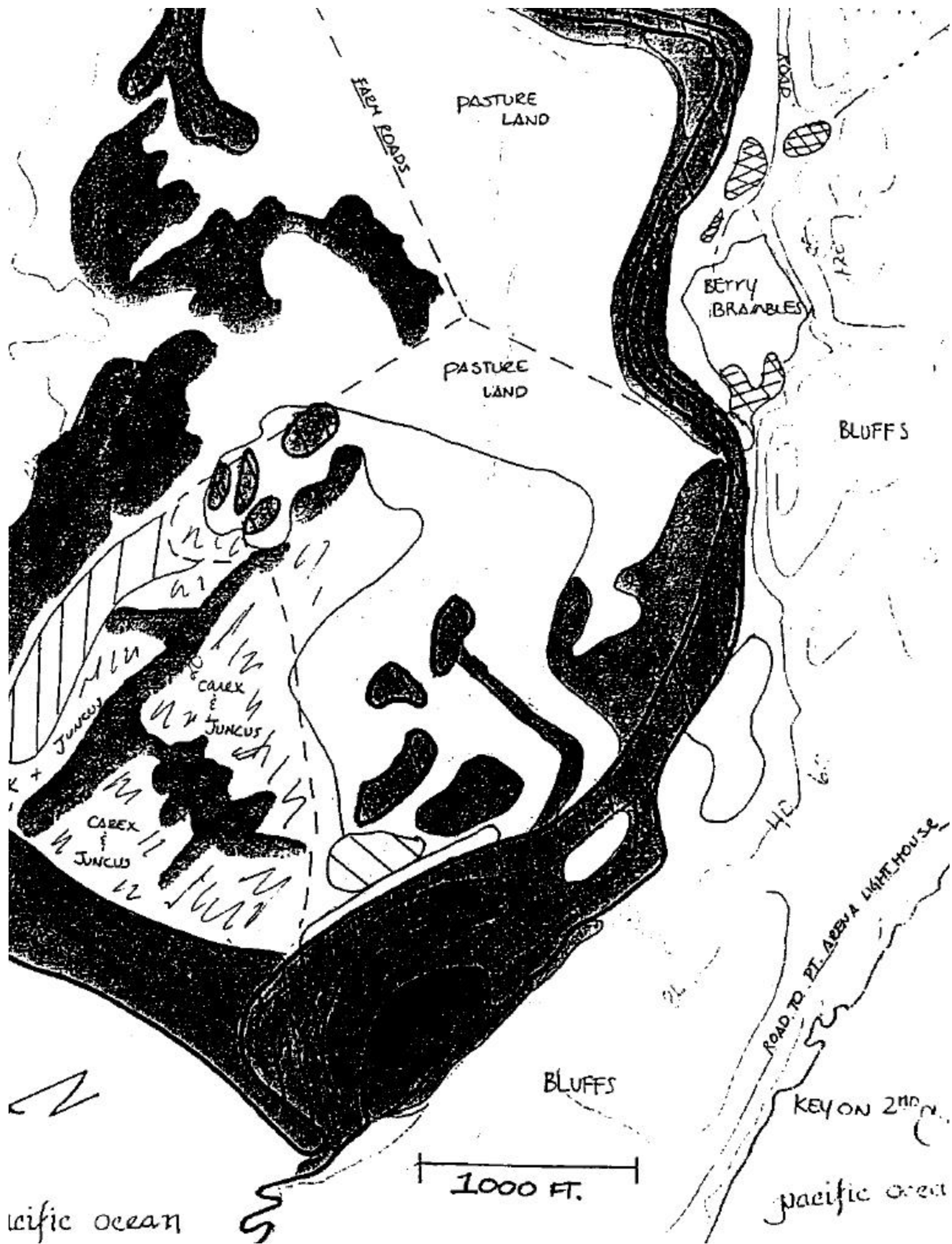
In the past, the upper drainages of the Garcia River were severely damaged by logging activities, but have since largely recovered. During the summers, up to 100 head of cattle are grazed in the marshes. Dairy operations and logging activity may be sources of siltation and pollution in the river. The Manchester Anticline, located partially within the lower watershed of the Garcia River, is currently under consideration as a site for oil exploration. The initial phase of the project involves the drilling of two exploratory wells with the eventual establishment of up to 20 production wells if oil is discovered. Any resulting petroleum products are to be stored on site with transfer to Bay Area refineries by tanker trucks (as many as 20 trucks per day).

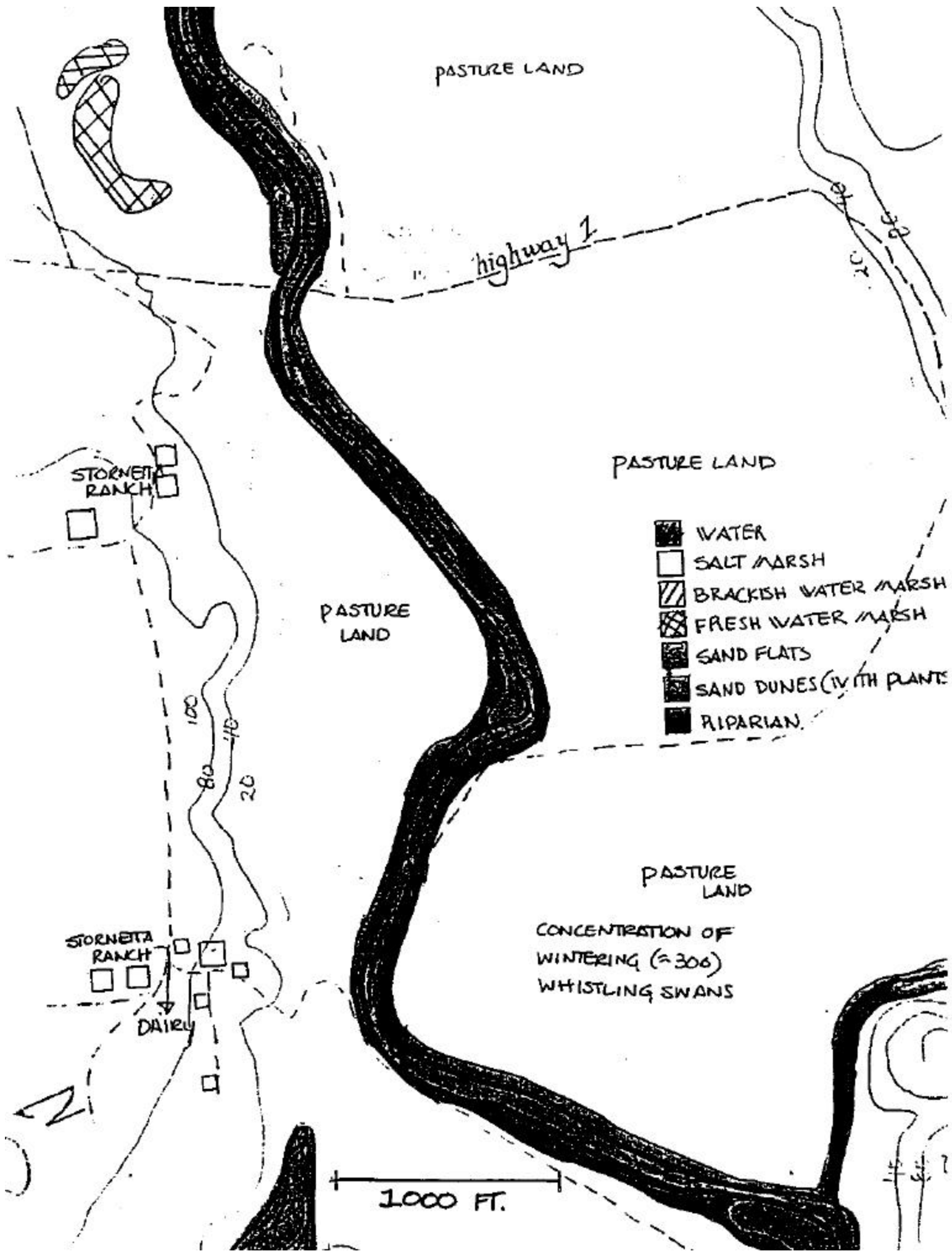
The potential impacts of oil development could have very serious consequences. Major and minor spills of petroleum could occur during both the drilling and production phase of the project. The proposed method of transfer of oil from the project site is by truck along Highway 1 and Highway 128. This travel route is in the immediate watershed of 8 major coastal streams and 5 associated wetlands. The threat to these resources posed by 10 to 20 trucks a day loaded with 8,400 gallons of crude oil and contaminate waste water should not be overlooked. Many of the soils in the Manchester area are highly erodible and sedimentation of the river's valuable estuary may occur. Those wildlife species most susceptible to petroleum spills are the many . water-associated birds that depend on the Garcia River. The toxicity of petroleum products and substances used in drilling muds to aquatic organisms, particularly larval stages, is well documented.

Relative Importance and Habitat Sensitivity

The Garcia River estuary has the second largest salt marsh area of the 16 Mendocino County wetlands recently surveyed by DFG. Furthermore, the lower section of the river is associated with very extensive riparian vegetation, a habitat type similar in importance to wetlands in that it is an extremely productive habitat for fish and wildlife. The entire wetland complex is extremely valuable to fish and wildlife because of its high habitat diversity afforded by the close association of salt, brackish, and freshwater marsh, sand dunes, sand flats, riparian vegetation, and estuary. Current pastoral agricultural uses should be maintained, and no industrial or other incompatible developments should be allowed within the immediate watershed. Large parcel zoning should be maximized and parcel splits resulting in acreage units smaller than that necessary for efficient farm or dairy operations should be prohibited. Planning efforts in this area should treat Hathaway Creek, Garcia River, and Hunters Lagoon as a single resource unit.

Steps should be taken to insure that agricultural practices are consistent with fish and wildlife needs. For example, livestock should not be grazed on marshes, sand dune communities, or in riparian vegetation. Proper soil management practices and the importance of not overgrazing should be addressed in a comprehensive and enforceable watershed management plan. An ordinance for the protection of riparian vegetation should be developed.












PASTURE LAND

highway 1

PASTURE LAND

PASTURE LAND

-  WATER
-  SALT MARSH
-  BRACKISH WATER MARSH
-  FRESH WATER MARSH
-  SAND FLATS
-  SAND DUNES (WITH PLANTS)
-  RIPARIAN

PASTURE LAND

CONCENTRATION OF WINTERING (≈ 306) WHISTLING SWANS

1000 FT.

STORNETA RANCH

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DAIRY

100
80
40
20