COASTAL WETLAND SURVEY

Name of Area: Navarro River _____ County: Mendocino _____

Location: Sec. 4.5;3.4 T.15N R. 17W Quadrangle: Albion & Elk (7½ min)

Ownership: Unknown_____

Field Investigator: Gayle Dana _____ Date of Survey:.2/21/78

HABITAT: Estuary [x] Lagoon [ ] Coastal Freshwater Pond [ ]

Comments: Tidal influence about 4000 yds._____ ___

PRESENT STATUS:

Water: Marine 63.40 acres (area under water at mean low tide)

Pond Area: High _____ acres; Low _____ acres

Littoral 21.50 acres (total of marsh and mud flat):

Mud Flat 7.60 acres (sand flats = 2.90 acres)

Marsh 10.95 acres (total of salt, brackish and freshwater):

Salt 4.65 acres. Dominate Species Salicornia, Distichlis

Brackish 0.00 acres. Dominate Species_____

Fresh 6.30 acres. Dominate Species Typha, Carex, Scirpus

Maritime 60.00 acres

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 - Intermittent _____ Permanent ____X____

Streamside Vegetation 24.00 acres (measured to extent of tidal influence)

Dominant Vegetation Alnus, Salix _____ _____

Comments: Obtain Dan Verjoun's Ph.D. thesis on the Navarro River (Wildlife and Fisheries Dept., U.C.Davis).

HISTORICAL INFORMATION AND SOURCE OF DATA: Source of data: conversations with Ron Ashby, landowner; Daniel Verjoun, grad. student @ U. C. Davis. Some information obtained from the draft copy of the proposed Navarro River Ecological Reserve (BPG).

ACCESS: Hwy 128 runs along the upper part of the river. The mouth can be reached by the first road to the right after crossing the Hwy 1 bridge going south.

NAVARRO RIVER

Area Description

The Navarro River forms an important estuary on the Mendocino County coast, approximately 3 miles south of the small town of Albion. This estuary is bordered by roughly 5.0 acres of salt marsh in narrow strips along both banks with pockets of freshwater marsh scattered along the southern bank. Pickleweed (Salicornia) and salt grass (Distichlis) dominate the salt marshes, and cattail (Typha), bulrush (Scirpus), and sedges (Carex) are the predominate vegetative species in the freshwater sections. A lush stand of cattails occurs in a former mill pond on the south bank east of the Highway 1 bridge. Riparian woodland is also well represented along the river.

The steep hillsides surrounding the river valley within the upper watershed support dense growths of redwoods with an occasional “horsetail (Equisetum) marsh" on seasonally wet areas. Approximately 3.5 miles upriver the steep slopes give way to a broader floodplain with extensive riparian woodland, grassland, and herbaceous vegetation. Within this area, a gradual transition from the coniferous forest to the coastal scrub community, predominate at the river's mouth, is evident on the adjacent hillsides.

Highway 1 circumscribes the entire lower 1 mile of river estuary and joins Highway 128 at the bridge crossing. Highway 128 closely follows the northern bank of the Navarro for much of the river's length. Within the section of the estuary bounded by Highway 1 is a small island fringed with salt marsh. Approximately 7.0 acres of intertidal mudflats and 3.0 acres of sand flats occur at the mouth. The coast to the north and south of the mouth is charac-terized by a typically rocky shoreline.

The State owns 55.5 acres of land along the estuary. Plans call for the Department of Fish and Game to manage this area as an ecological reserve. A private residence and an old resort complex, Navarro by the Sea, are located along an access road on the south bank near the mouth. These buildings and portions of adjacent uplands are in private ownership.

Natura1 Resources

The Navarro River estuary, including associated marshes, riparian woodland, mudflats and sand flats, supports a high diversity of water-associated and terrestrial bird species. Shorebirds, gulls, and wading birds feed and rest on the mud and sand flats. The marshes at the river's edge provide foraging areas for herons and egrets. Waterfowl as well as osprey and the endangered brown pelican feed in the open water of the estuary and nearshore marine environment. The Navarro drainage contains many osprey nest sites and a heron rookery. The floodplain with its plant communities of riparian and grassy vegetation provides excellent habitat for various small mammals which are preyed upon by the many raptors (i.e., sharp-shinned and Cooper's hawk). Two species of marine amphipods (Corophiurm spinicorne, a tube dweller in mud or sand substrate, and Anisogammarus confercolus, a free living form) occur in great numbers in the estuary. These small crustaceans furnish a valuable food for shorebirds and many marine fish (i.e., surfperch, flatfish, and surf smelt) as well as juvenile salmonids. The estuary is valuable reproductive and nursery habitat for these marine fish and market crab. Steelhead and silver salmon migrate through this section of the river seeking spawning areas in the upper tributaries. Smolts resulting from these spawning runs

also utilize the estuary as nursery habitat. Marine mammals, including harbor seals and sea lions, occasionally utilize the estuary. A river otter den was reported near the Highway 1 bridge.

Adjacent Development

The area around the Navarro River estuary has been modified to a large extent by early homesites, highway development, a motel and resort complex, logging, and extensive lumber mill operations. A homesite was once present on the island and traces of a bridge used to connect the island with Highway 1 are evident. Erosion from logging in the watershed, damming of the mouth, landfill and peat buildup from sawmill operations resulted in sedimentation and acretion of land bordering the estuary.

As was previously mentioned, plans for the area include possible management as an ecological reserve. Current litigation between private landowners and the Wildlife Conservation Board regarding boundary locations complicates the situation.

Relative Importance and Habitat Sensitivity

The Navarro River estuary provides a highly diverse and productive habitat assemblage in spite of historic disturbance. The fish and wildlife values within the area will be afforded a greater degree of protection by inclusion in an ecological reserve. However, these resource values can be severely impacted by improper land management practices in the associated watershed. To protect the resources, timber harvest practices in the immediate watershed (from the waterline to the first ridgeline should be strictly regulated.

Trees used by nesting osprey and herons or those which provide other important wildlife habitat elements (i.e., snags) should not be cut. Buffer zones should be established around nest trees, and timber harvest activities should be seasonally regulated within these zones to preclude disturbance to nesting species. Riparian corridors should be maintained to protect riparian vegetation and stream banks. Stream crossings should be kept to a minimum and accomplished in a manner (i.e., culverts packed with clean, river-run gravel) that minimizes erosion, sedimentation of wetlands, and disruption of salmonid migration and spawning. Slash and other debris resulting from logging operations should be properly disposed of and not placed in streams or areas where they might enter streams.

Highway 128
Navarro Ridge Rd
Coastal Scrub
160
80
320
240
400
WATER
SALT MARSH
FRESHWATER MAR
RIPARIAN
MUDFLAT
SAND
SAND & ROCK
access rd
flood plain
Highway 1
Coastal Scrub
SHRUBS
400
160
320
80
240
Highway 1
flood plain
Ron Ashby's house
Navarro by the sea
Coastal Scrub
N
1000 FT.
Bluffs

redwood forest
NAVARRO RIDGE RD
flood plain
Shrubs
coniferous forest
Redwoods
flood plain
HIGHWAY 128
1000 FT
N