

THE RESOURCES AGENCY OF CALIFORNIA
Department of Fish and Game
STREAM SURVEY

Name Denniston Creek Date 20 April 1992
County San Mateo County
Stream Section From Mouth To 2.5-3 miles upstream
Tributary To Pacific Ocean Twp. R. Sec.
Other Names None River System Denniston Creek
Sources of Data Personal Observation

EXTENT OF OBSERVATION

Denniston Creek was surveyed from Highway 1 to approximately 3.0 miles upstream. This was the furthest point of access by road. The survey was conducted by Jennifer Nelson and Dennis McKiver on April 20, 1992 to identify areas of needed improvement.

LOCATION

Denniston creek enters the Pacific Ocean at Pillar Point Harbor in Half Moon Bay. Headwaters are located approximately 4.5 miles from the ocean on Montara Mtn.

RELATION TO OTHER WATERS

There are four unnamed tributaries to Denniston Creek but according to a topographical map from 1956, those tributaries are perennial. None of the tributaries were surveyed at this time.

GENERAL DESCRIPTION

Watershed: The slopes surrounding the lower three miles of Denniston Creek are covered with typical coastal chaparral. Towards the headwater area, the creek flows through a narrow valley (less than 0.25 mile wide) with fairly steep slopes at least 300 feet high. When descending downstream, the creek valley gradually broadens out until at the lower mile the creek is flowing through farmed alluvium.

IMMEDIATE DRAINAGE BASIN

Throughout the 2.5 miles of creek surveyed, the creek was in an incised channel of approximately 7-8 feet deep to 10-12 feet wide. The stream was extremely overgrown with various species of berry bushes, poison oak, ferns and nettles. What was not covered by the aforementioned vegetation was exposed soil. Soils were highly erosive and much deposition into the stream channel has occurred. Sand or cobble with a high degree of embeddedness were the predominate substrate types, with an occasional outcrop of bedrock.

ALTITUDE

The mouth is at sea level; the headwaters are at an elevation of

1200 feet.

GRADIENT

In the lower 2.5 miles of the stream the gradient is minimal (100 feet per mile) increasing to several hundred feet per 0.5 mile thereafter.

WIDTH

Average stream width was four feet (2-7 feet range).

DEPTH

The depth averaged 6 inches.

VELOCITY AND STREAM FLOW

The rate of stream flow was approximately 1 cfs throughout the whole creek. Velocity was slow throughout most of the creek.

BOTTOM

Along the whole reach surveyed, sand and silt had been deposited and although there were areas of gravel and cobble substrate, the embeddedness associated with these areas was fairly high (>60%). Overall bedrock comprised about 5% of the bottom; 50% was sand; 30% was cobble; and 15% was gravels.

SPAWNING AREAS

Spawning substrate in Denniston Creek ranged from poor to fair. Spawning habitat was patchy, with areas 2-4 feet long and 3 feet wide, and as was mentioned before, was highly embedded or compacted.

POOLS

At least 40% of the creek could be considered pool habitat. Pools were fairly shallow with an average depth of 6 inches (range 4-12 inches) and were about 2-4 feet wide and 5 feet long. Undercut banks were also associated with a good portion of these pools.

A fifth of the pools were cascade-type pools which flowed over 2-3 foot bedrock areas.

SHELTER

Undercut banks, larger cobble, and overhanging riparian vegetation provided sufficient cover for aquatic life throughout the system.

BARRIERS

There are two significant impassable barriers located in the lower portion of Denniston. At approximately one mile up from the Pacific Ocean, the local water district has a 10 foot dam with a 100 foot sloping cement apron. Behind this dam, water is backed up for about 0.25 mile with an average width of 75 feet. Tules have established along the shore lines and warmwater fish (Bluegill and probably centrarchid bass species) have been introduced.

At approximately 0.50 mile upstream of this dam there is a six foot culvert that channels the stream under a road. This culvert drains eight feet above the stream channel and was originally placed here because it was the site of a five foot waterfall.

DIVERSIONS

There was one surface diversion above the last barrier.

FOOD

There was fair insect production. The most readily seen food source within the stream was Caddisfly larvae and water striders. Above the stream gnats were found in great abundance, while mosquitos and other flying insects were less abundant.

TEMPERATURE

The air temperature at 0900 was 58 degrees Farenheit and by 1630 was 63 degrees. Water temperatures were about 55-56 degrees Farenheit and remained stable throughout the day. Because the canopy is so dense and the climate is mild, water temperatures probably do not fluctuate much throughout the course of the day.

AQUATIC PLANTS

With the exception of the tules in the warm water pond, there are no submerged or emergent aquatic plants present. The thick riparian cover undoubtedly contributes substantial detritus to the stream.

WINTER CONDITIONS

High water marks along the stream bank would indicate that an occasional stream depth of 3.5-4.0 feet is attained.

POLLUTION

Siltation was the number one pollution problem in this drainage. As was said before, erosion appeared natural as opposed to a questionable land use activity. In addition there was a natural seepage of oil in a backwater pocket of water.

SPRINGS

Several trickling springs were observed.

FISHES PRESENT

Numerous rainbow trout/steelhead were seen throughout the drainage. Most were 4 to 6 inches in length and were inhabiting pool areas. It is unknown how long these two barriers have been in place, but they have prevented adult steelhead from migrating up past one mile. It is unknown what steelhead resource exists below this barrier.

Other fish species observed in the lower reach were bluegill and largemouth bass. Trout may also be inhabiting the deeper sections of the pond, but none were observed.

OTHER VERTEBRATES

Deer and racoon tracks and Pacific Newts were seen throughout the drainage.

FISHING INTENSITY

Fishing can occur west of Highway 1, but the intensity of this fishing is unknown.

Fishing also occurs in the pond area.

OTHER RECREATIONAL USES

The area surrounding the stream is posted and only the individuals associated with the water district have legal access.

ACCESSIBILITY

A dirt road parallels the creek from Highway 1 to a site approximately 3.0 miles upstream.

POSTED OR OPEN

All land is private and posted.

IMPROVEMENTS

None were seen.

PAST STOCKING

Unknown.

GENERAL ESTIMATE

Denniston Creek, did at one time have a steelhead population. Because of the small size of that drainage it may have been a relatively small population.

Spawning areas are limited but rearing habitat is fairly abundant if there is sustained flow throughout the summer and fall. Sedimentation is a problem and if the barriers are removed, this problem also should be addressed.

RECOMMENDED MANAGEMENT

Continue managing as a steelhead stream. To accomplish this, the two barriers noted should be removed or modified to allow adult migration and the reservoir should be treated to eradicate warm waer fish.