## **Update: San Anselmo Creek Fish Passage Projects**

by Sandy Guldman 2009

The two barriers to fish passage in the Corte Madera Creek watershed with the highest priority for treatment are on San Anselmo Creek at Saunders Avenue and at Lansdale Station.

To reach the best spawning gravels and summer rearing habitat in the watershed, steelhead must make it up both of these partial barriers – a formidable challenge. And to return to the ocean, smolts must be able to travel downstream when flows are relatively low. A successful fishway must have appropriate water velocity, water depth, turbulence, and drop height at the flows when fish are moving upstream and downstream. Meeting all these requirements in the constrained space between existing structures like retaining walls and culverts is challenging.

The fish ladder/sewer crossing combination at Saunders Avenue not only prevents most fish from moving up and down the creek, it also promotes flooding at Drake High School and at some houses on Saunders Avenue and Agatha Court. To solve both problems, Friends propose to move the sewer upstream and replace the fish ladder with a more natural creek bed. When the work has been done, steelhead of all ages will be able to move up and down the creek more easily and the greater water capacity will reduce flooding. The National Fish and Wildlife Foundation (NFWF) is funding preliminary design work and permitting, which is underway.

The long culverts at Lansdale Station do not affect flooding but they are critical barriers to fish. Baffles in the culverts and a pool-and-drop structure



The almost flat floor of the long culvert under Center Boulevard at Lansdale Station prevents fish passage at low flows, while at high flows there are no resting places for migrating adults.



At the Saunders Avenue bridge over San Anselmo Creek, the present fish passage structure does not accommodate fish at all water levels, and a crosscreek sewer line contributes to local flooding. Photos by Charles Kennard

at the downstream apron would allow fish to move up and down the stream. These changes would help the steelhead survive with no adverse effect on flooding. Again thanks to NFWF, preliminary designs for these modifications have been prepared, the permit process is moving forward, and final design work is underway. For these two projects, our next hurdle is to get approval from property owners where the work will be done. With their approvals in hand, we can begin to raise money for construction.

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