

March 11, 2008

**Public Notice for Water Quality Certification and/or Waste
Discharge Requirements (Dredge/Fill Projects)**

Humboldt County DPW – Freshwater Park Seasonal Dam
WDID No. 1B07179WNHU

Humboldt County

On December 6, 2007, the North Coast Regional Water Quality Control Board (Regional Water Board) received an application from Humboldt County Department of Public Works (applicant), requesting Federal Clean Water Act, section 401, Water Quality Certification for activities related to the Freshwater Park Seasonal Dam near the community of Freshwater. Freshwater Creek is tributary to Humboldt Bay via Eureka Slough. The proposed project will cause disturbances to waters of the United States associated with Freshwater Creek in the Eureka Plain Hydrologic Unit No. 110.00.

The proposed project is located within Freshwater Park, a Humboldt County park located on the west side of Freshwater-Kneeland Road, about 3.5 miles southeast of Myrtle Avenue. Humboldt County has owned and operated the park since 1939. The park's main attraction during the summer is a swimming area created by a seasonal flashboard dam that has been installed annually since the 1920s. The dam facility includes retaining walls, permanent concrete wing-walls, a concrete foundation, and removable I-beams, flashboards, and gate valve. The dam is not installed before June 15 and is removed by no later than September 30 each year.

Freshwater Creek provides habitat for Chinook salmon, Coho salmon and steelhead. In 2001, efforts were initiated to create a means for these fish to move freely through the dam area while the dam is in place. Humboldt County worked with local fisheries professionals, state and federal agencies, Humboldt State University, and local community groups to design, construct, operate and monitor a temporary fish ladder designed to allow juvenile fish to move upstream and downstream across the dam. The temporary fish ladder structure met its objectives and additional design features were identified to improve its performance, but it was not intended as a permanent solution.

In 2006, Humboldt County received grant funding to implement a variety of environmental, recreational, and educational improvements at the park. One component of the park improvements is the construction of a permanent concrete fish ladder that will be embedded along the stream bank and attached to the concrete wing-wall of the existing dam structure. A Negative Declaration for the improvements project was adopted by the Humboldt County Board of Supervisors on August 27, 2007. The park improvements are scheduled to begin in the summer of 2008. Permits required for implementing the improvement project are being processed separately from the permits required for the seasonal dam installation. The primary purpose of this public notice is to provide information related to the annual installation and removal of the dam. The applicant has submitted a separate application for Water Quality Certification for that project.

Prior to dam installation activities, a fish exclusion fence will be placed approximately 50 feet upstream of the dam or in a nearby location where the channel is more confined. The purpose of this fish exclusion fence is to prevent juvenile fish from entering the construction area from the upstream direction. Silt fence is installed immediately below the dam and another silt fence is installed about 500 feet further downstream of the dam near the bridge. The purpose of these silt fences is to prevent fish from entering the construction area from the downstream direction and they also help to control fine sediment that could enter the water column during construction activities. Although most juvenile salmonids will have out-migrated before the dam installation date, it is possible for some fish to be present in the dam installation area. A qualified fisheries biologist will be present onsite during dam installation to remove and relocate fish to an appropriate area in the creek that is outside the fish exclusion area.

In general, dam installation and removal activities are the same each year because the creek is mostly confined by bedrock and the main flow channel does not migrate significantly in the area of the dam. The main flow channel is typically along the left bank and a gravel bar typically forms on the right bank and upstream of the foundation that supports the flashboard dam. Dam installation activities typically include minor grading of the gravel bar in the swimming area and removal of 50 to 200 cubic yards of sediment to allow heavy equipment to access the dam for installation of the steel I-beams and flashboards. A sandbag diversion dam may be installed across the flow channel upstream of the dam in order to direct flows to the flow channel along the left bank and away from the area where heavy equipment is operated during installation of the I-beams and flashboards. Hand tools are used to remove approximately 2 cubic yards of sediment from the sockets in the concrete foundation that hold the vertical I-beams that hold the flashboards. A backhoe is used to remove 1 to 5 cubic yards of sediment from the ends of a 36-inch long, 24-inch diameter corrugated metal pipe that is built into the foundation so that a gate valve can be attached to the pipe. The gate valve is used to control the flow of water through the dam.

A permanent diving platform is located on the left bank a short distance upstream of the dam. Three to six cubic yards of sediment is typically removed from an 8 foot by 8 foot area below the platform to create a deeper area for divers. A toddlers' pool is also established and staked off on the right bank approximately 100 feet upstream of the dam. Approximately 10 to 20 cubic yards of the gravel that was removed from the dam area is typically used to fill an approximately 30 foot by 30 foot area to create the correct depths for the shallow swimming area. In some years, approximately 10 to 20 cubic yards of gravel from previous excavation activities is also placed along the dam's east wing-wall to fill the scoured areas that may form during high winter flow events.

After the first level of flashboard panels are installed, the gate valve is closed 10 to 20 percent, depending on the amount of flow in the creek, to allow the pool to slowly fill while a majority of the flows are allowed to pass downstream. As the pool fills, the fish exclusion fencing and silt fencing is removed. Once the pool is completely filled the gate valve is closed and flows go over a notched flashboard on the east end of the dam. From 2002 to 2007, flows going over the notched flashboard continued through a

temporary fish ladder. A separate project to construct a permanent fish ladder is planned for the summer and fall of 2008. At this time the applicant does not know whether construction of the new fish ladder in 2008 will delay or prevent installation of the dam and swimming area this season. The construction schedule will be developed later this spring. Following construction of the permanent fish ladder, flows will go over the notched flashboard and into the new fish ladder.

In the fall, the installation procedures will be reversed for removal of the dam. The gate valve is opened gradually to allow the pool to drain slowly and the flashboards, I-beams, and gate valve are removed. The removal and installation process typically takes one to three days to complete.

The proposed dam installation and removal activities will result in approximately 3650 square feet (0.08 acre) of temporary impacts to the channel and right bank of Freshwater Creek. Compensatory mitigation is not required for the dam installation project; however, as described above, Humboldt County is planning another project in the park that involves a variety of environmental, recreational, and educational improvements. Noncompensatory mitigation includes the use of Best Management Practices (BMPs) for sediment and turbidity control and for operation of heavy equipment in a stream channel.

The applicant has applied for authorization from the United States Army Corps of Engineers to perform the project under Nationwide Permit No. 42, pursuant to Clean Water Act, section 404. On March 21, 2000, Humboldt County adopted a negative declaration (SCH No. 2000042015) for the project in order to comply with CEQA. The Regional Water Board has considered the environmental document and any proposed changes incorporated into the project or required as a condition of approval to avoid significant effects to the environment.

The information contained in this public notice is only a summary of the applicant's proposed pier reconstruction activities. The application for Water Quality Certification in the Regional Water Board's file contains additional details about the proposed project including maps and design drawings. The application and Regional Water Board file are available for public review.

Regional Water Board staff are proposing to regulate this project pursuant to Section 401 of the Clean Water Act (33 USC 1341) and/or Porter-Cologne Water Quality Control Act authority. In addition, staff will consider all comments submitted in writing and received at this office by mail during a 21-day comment period that begins on the first date of issuance of this letter and ends at 5:00 p.m. on the last day of the comment period. If you have any questions, please contact staff member Dean Prat at (707) 576-2801 within 21 days of the posting of this notice.