

HABITAT COMMITTEE REPORT ON CURRENT HABITAT ISSUES

KZO Sea Farms Mariculture Project Letter

The Habitat Committee (HC) heard an update on the KZO Sea Farms Mariculture Project. The project proponents are in the process of finding a new location for the project, given the U.S. Coast Guard's objections to the close proximity of the current proposal to shipping lanes. While a new site has not been identified, the HC believes the letter remains relevant and even more timely.

Additionally, the HC suggests two minor changes to the letter before it is sent, based on feedback from California Coastal Commission staff:

- 1) On page two, under the "Monitoring" section, in the first sentence change "determination" to "consistency."
- 2) On page two, under the section titled "Specific Essential Fish Habitat Concerns" (first paragraph), change the description of the anchors from weighted (moored) to a description of anchoring by helical screws.

Coleman National Fish Hatchery (NFH) Fall Chinook Release Strategy

The HC heard a briefing on the Coleman NFH release strategy for 2014 from Tim Roth (U.S. Fish and Wildlife Service [USFWS]). The continuing severe drought in the Central Valley of California is expected to produce conditions in the Sacramento River and Delta detrimental to the survival of juvenile salmon. The conditions anticipated in 2014 could lead to the loss of an entire year class of juvenile fall Chinook salmon from Coleman NFH.

To address this situation, and in coordination with National Marine Fisheries Service (NMFS) and California Dept. of Fish and Wildlife, the USFWS has developed a contingency release plan based on a number of environmental criteria and triggers that will be used to inform decisions on the release strategy to be implemented in 2014. These criteria and triggers were developed based on a review of water temperature, river flow, Delta Cross Channel Gate operations, and salmon return data from 1988-1992, a period representing the most recent extended severe drought in the Central Valley. These criteria are designed to minimize the risk of exposing Coleman NFH-produced salmon to river conditions that could result in extremely low survival.

Each of the criteria are intended to be independent of the others, meaning that if any one or more of the criteria are expected to be met, then Coleman NFH-produced salmon would be transported to the acclimation net pens for release into the west Delta. If none of the triggers are forecast to be met, then juveniles will be released into Battle Creek, as per standard operational protocol at Coleman NFH. The USFWS and CDFW have developed a schedule for the delivery (trucking) of hatchery production from the five state and federal hatcheries to acclimation net pens in the west Delta, if trucking is triggered for Coleman releases.

The full USFWS report to the HC on the Coleman NFH trucking issue for 2014 is attached to our HC report for Council information (Attachment 1).

The HC notes that trucking of the Coleman releases is likely to occur in 2014 unless there are major rainstorms during the normal emigration period of April through May. In addition, natural fall Chinook from the upper basin will suffer whatever outmigration conditions occur in 2014.

Draft HC California Drought Report

The Habitat Committee heard a presentation from Garwin Yip from the NMFS California Central Valley Area Office on current NMFS drought management in California. The status of the drought in California is constantly changing, but current reports and projections remain grim.

NMFS is focused on species listed under the Endangered Species Act, and the HC is concerned that there is no active management of non-listed species. However, it is encouraging that state and Federal agencies are intensely managing Bay/Delta habitat, flows, and allocations in real time, and NMFS is using the Contingency Plan from their 2008 Biological Opinion.

The HC is concerned that reductions in flows allowed during the current drought could be proposed in the future, and stresses that although these reductions are currently necessary, they should not set a precedent for the future. The HC is also concerned that projected water delivered from the Bureau of Reclamation's Trinity River Division will violate its Biological Opinion (BO) requirements for end-of-year carryover storage. The Trinity River Division BO requires a minimum storage of 600,000 acre feet, and the present forecast estimate for the Trinity River Division predicts storage on October 1 to be 457,00 acre feet. This will cause problems controlling temperature within the Trinity River, which also has ESA-listed fish.

Columbia River Spill Study

Recently the NWPCC asked its Independent Scientific Advisory Board (ISAB) for guidance concerning proposed spill studies. On Feb 20 the ISAB released a report acknowledging the importance of better information on the value and best uses of spill. The ISAB also raised several concerns about issues related to spill testing and evaluation. Their main conclusion, however, was that they needed a more complete proposal before they could conduct a true scientific review.

The HC made two observations on the controversy around this issue. First, the strong fall Chinook returns currently being experienced correlate with out-migrations during periods of unregulated spill and flow, as noted in the CSS analysis. Second, the spill tests advocated by Oregon call for tests at spills above the current gas cap (120% supersaturation), but there is little difference in total spill volume between the proposed study levels and levels from the full implementation of the Court-ordered spill program which called for spills to the gas cap for extended periods over the spring and summer.

A summary of ISAB comments on experimental spill is attached to this report (Attachment 2.)

Bay/Delta Conservation Plan

The HC received an update from Michael Tucker (NMFS Regional Office) on the Bay Delta Conservation Plan (BDCP). The simultaneous goals of the BDCP are to restore the Sacramento/San Joaquin Delta ecosystem and improve water supply issues. The plan, which encompasses numerous provisions, focuses on 1) habitat restoration, 2) re-engineered conveyance of Sacramento River water to reduce entrainment of fish and to restore the salinity regime, and 3) mitigation plans for other ecosystem stressors such as contaminants and other

decrements to water quality. Habitat restoration includes 65,000 acres of tidal wetland restoration, increased seasonal inundation of Yolo Bypass, and habitat improvements to 20 miles of leveed channels. Changes to water conveyance involve three large screened intakes north of the Delta to shunt water to underground tunnels, which would passively flow to the pumps at the south end of the Delta. The intakes would divert a maximum 9000 cubic feet per second (cfs), but only if river discharge surpasses 30,500 cfs. Below this level, diversions would be a proportion of river discharge. Overall, the volume of water diverted should stay the same compared to before implementation of the BDCP plan. Mitigation of ecosystem stressors include reductions of ammonia in wastewater, reducing agricultural and urban-based contaminants, and control of nonnative species. Notably, the plan calls for extensive adaptive management, including \$100 M for research and monitoring. This is a complex and controversial issue, and there is much uncertainty associated with both modeling and potential impacts. A scientific review, including lifecycle modeling of salmon populations, is proceeding.

Pacific Marine Estuarine Project

The HC has provided the Council information on the Pacific Marine Estuarine Project (PMEP); see Agenda Item E.1.a, Attachment 2. In addition, the HC is providing Attachment 3 to this report, which updates the species lists for PMEP fish-habitat assessments and provides information on the range and management status of the focus species.

Wanapum Dam

Wanapum Dam on the Columbia River is reported to have a crack in the concrete in a structural pier. Wanapum dam is owned by Grant County Public Utility District (PUD) and is situated between Priest Rapids and Rock Island dams. As a precautionary measure, Grant PUD has lowered the reservoir levels 26 feet below normal operating level. The reduced stress allowed the crack to close, and engineering analysis is being conducted. The analysis and future repair will take months. Power generation will be shifted to other dams across the Columbia Basin.

There are at least four possible impacts to salmon essential fish habitat:

1. Fish ladders on Wanapum dam will be perched above reservoir level, and fish ladders crossing Rock Island dam will be stranded from the river.
2. Juvenile passage structures for Wanapum dam may be high and dry, and passage will be through the turbines, leading to increased mortality.
3. Dissolved nitrogen levels below Rock Island may be increased as water falls farther, particularly during the spring freshet.
4. Overall operation of the Columbia and Snake River dams may be altered to make up the generation capacity; there is some concern that reasonable and prudent alternatives included in the Columbia River Hydropower Biological Opinion may be violated.

The HC will continue to track this issue and will report back to the Council in April.

Offshore Energy Development

Pacific Marine Energy Center / Southern Oregon Test Site

At the November meeting, the Habitat Committee informed the Council of the Oregon State University Pacific Marine Energy Center/Southern Oregon [wave energy] Test Site off the central coast of Oregon, which is considering routing cable to shore through or under a nearshore rocky reef. The Council approved the HC drafting a letter to the Bureau of Ocean Energy Management (BOEM) for the March briefing book, with the intention of responding to BOEM's Notice of Intent (NOI) for this project. However, the NOI has yet to be published, and the HC feels it is premature to send this letter without the NOI. Also, it has yet to be determined which Federal agency, BOEM or the Federal Energy Regulatory Commission, will be the lead agency for cable permitting. The NOI is expected in April. If relevant and timely, the HC may provide the Council with a draft letter in April.

Reedsport Ocean Power Technology Wave Energy

Ocean Power Technology has surrendered its preliminary permit for Phase III of its project off Reedsport, Oregon, which involved developing a 100-buoy array. Phase III was dependent on the successful implementation of Phase II (a 10 buoy array) and Phase 1 (one buoy), along with the required baseline and monitoring work. Several aspects of the project are behind schedule, including the deployment of the Phase 1 single buoy. The project still intends to complete Phase II.

PFMC
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