



Native Fish Society

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The Native Fish Society is a forward-thinking organization guided by the best available science to advocate for historically abundant wild, native fish and promote the stewardship of habitats that sustain them

The Native Fish Society is pleased to provide comments on the Washington Department of Fish and Wildlife 2010 Fish and Wildlife Strategic Plan for the record. Our comments address fish management objectives in the strategic plan.

The intent of our comments is to support and improve the stated objectives of the strategic plan. These objectives are:

Objectives

2. Identify and implement hatchery reform actions to reduce the risks of hatchery programs to native salmon and steelhead.

2b. By August 31, 2010, develop an implementation plan for hatchery reform consistent with the Commission policy for Hatchery and Fishery Reform Jim Scott, Heather Bartlett

2c. By August 31, 2010, with the Fish Program, identify areas of physical change needed to comply with juvenile and adult passage requirements in HSRG recommendations, develop a long range plan for implementation and include implementation steps into the 10 year capital plan.

3. Continue the implementation of the 21st Century Salmon and Steelhead Initiative focusing on the completion of the 2009-2011 benchmarks.

3.b. By June 30, 2011, complete all 2009-2011 benchmarks assigned to the Fish Program for the Wild Fish Populations, Fisheries/Harvest, and Co-management key result areas. Jim Scott (FISH) Jim Scott

4. Reduce fishery impacts on native fish of conservation concern

2. Develop and implement fishing gears and techniques that reduce the incidental fishing mortality of fish species and stocks of conservation concern.

2a. Test and report on the effectiveness of three types of alternative commercial fishing selective fishing gear in 2010 in the lower Columbia River by January 31, 2011.

9. Activity Title

Support wild salmon and steelhead recovery by changing hatchery and fishing practices

WDFW promotes the conservation of wild salmon and steelhead by implementing HSRG recommendations, including marking all hatchery-produced salmon and steelhead (more than

100 million fish annually), removing hatchery fish from natural spawning areas, properly managing hatchery broodstock and marking juvenile hatchery fish so they eventually may be harvested in selective fisheries. Capital improvements to hatcheries have also been initiated. Hatcheries also support local stock-recovery programs

Performance Measures:

Number of mark-selective fisheries implemented

Percent of HSRG recommendations implemented

Comment: These performance measures should be based on the effectiveness of the measures as well as the number deployed.

Expected Results: Wild salmon and steelhead populations are stable or growing. Fishing is focused on hatchery-produced fish. Hatchery operations do not adversely affect wild salmon/steelhead.

19 Control Invasive Species

Comment: The emphasis on warm water fisheries management is inconsistent with this stated activity.

22 Use Sound Business Practices

Comment: Include evaluation of fish hatchery programs to determine cost effectiveness and cost benefits to provide a fish for harvest. Since these programs are an investment of public funds used by the agency for public benefits, it is appropriate to adopt sound business practices in the operation of the states fish hatchery programs. This evaluation will help the agency to identify a priority list of hatchery programs that are ranked by high performance and low cost compared to those that are of lower performance and higher cost. This priority list of hatchery programs is available for making cost reduction decisions when required by funding reductions by state and federal funding sources. It also ensures that the public is aware that the agency is fiscally responsible in its hatchery management program.

Some argue that mitigation hatcheries funded by federal agencies and other sources are owed to the public and should not be accountable for costs, benefit cost analysis, cost to provide a fish that is caught, and cost effectiveness. This argument is incompetent because it maintains that cost accountability of public funds is unnecessary and these funds can be used whether they are cost effective or not. It is in the public interest and certainly that of the WDFW to make the best use of public funds so that the productivity, contribution to fisheries, and recovery of losses are consistent with best management practices. Consequently, mitigation hatcheries must be accountable.

ISSUES

Comments:

Habitat Protection and Agency's Performance in Conflict Resolution.

The agency has no authority to protect habitat except on those lands owned by the agency. Habitat protection is one of providing expert advice to another agency with the decision authority to develop administrative rules for habitat management (e.g. forestry, energy development, water management, agriculture etc.) Consequently, the department of fish and wildlife can find itself in conflict with other agencies over management of lands and watersheds. The major question is how does the agency deal with these conflicts? In doing the work of the agency to protect fish and wildlife habitats, agency staff find themselves in an advocacy position. How are staff treated in these situations? If staff follow the rules and the intent of this strategic plan are they punished or rewarded for faithful implementation of the rules and plans? How does the agency resolve conflicts when its interest in protecting habitat comes into conflict with the management authority of agencies managing habitat? These questions must be resolved by WDFW so that its staff gets the support needed to be productive and effective. The public's interest in fish and wildlife habitat protection is best served by WDFW when it is an effective agent for habitat protection. This issue should be resolved in the strategic plan so that there is a clear understanding within the agency and commission regarding habitat protection, staff support and agency performance.

Agency Authority and Performance

Harvest and Hatchery Management. The WDFW and commission have authority over the harvest of fish in state waters and authority to coordinate with tribes and other jurisdictions over harvest of salmonids in the ocean and Columbia River fisheries. A purpose of harvest management is to ensure that spawner escapement goals by population and watershed are achieved as the agency carries out its harvest authority. In addition, harvest impacts on recovery of ESA-listed salmonid populations are managed to rebuild salmonid populations that are at risk. Consequently, the agency and commission develop escapement criteria for each population and the management framework that can achieve it. This criteria is based on historic run reconstruction, habitat capacity, gene conservation, life history requirements, habitat protection, and nutrient enrichment targets for each watershed and population.

In order to achieve improved performance in harvest management that supports sustainable wild populations of salmonids the agency management structure is changed so that harvest serves the purpose of wild salmonid conservation management. This means that the natural production program is supported by harvest and hatchery programs. The structure in place now and for the last 100 years or more gives priority to harvest and hatchery production. Consequently, the purpose of this strategic plan to "provide sustainable fish and wildlife recreational and commercial opportunities" cannot be achieved. It cannot be achieved due to the continuing decline of diverse and productive natural populations of salmonids that have a proven ability to provide abundant and resilient populations and fisheries. We are replacing wild salmonids with unproven artificially produced salmonids that have lower reproductive success and are less resilient in a constantly changing environment.

The cost to provide a fish for harvest can be expensive and even excessive. Public and political support for hatchery produced fish in a troubled economy with dire social funding needs may collapse. If political support for hatchery production erodes due to its ecological risks and expense, the whole established framework for fish management will also collapse. The current management framework depletes natural populations and invests in hatchery replacement, so losing political support for public funded hatchery programs places the

whole of the fish management program and its promise of sustainability at risk. The strategic plan does not address this problem.

In order to change the management framework for salmonids, the strategic plan would make a commitment to develop conservation requirements for each wild native salmonid population by species in each watershed. A conservation requirement would be based on improving and restoring the health of wild native salmonids using the best available scientific evidence, research, and compliance monitoring by the agency. Conservation management would be based on maintaining the genetic and life history diversity of wild native populations, their productivity, abundance, and distribution. It would recognize the benefit of achieving nutrient enrichment targets for each watershed from spawner carcasses, achieving temperature standards for each watershed and fully seeding the habitat. Fisheries would be managed to protect wild native salmonids and achieve conservation requirements for each population in each watershed. Lacking this direction, the strategic plan will not be successful.

Hatchery Management. In order to manage hatchery populations so that wild native fish are protected, naturally spawning hatchery fish are separated from naturally spawning wild native fish. The HSRG formula should be viewed as a means to reduce risk to wild populations when all hatchery fish are not blocked from natural spawning areas for wild fish. At the same time, mining wild fish for an egg supply to adjust the risk adverse protocol for hatchery operations cannot be a limiting factor on wild salmonid viability and recovery goals. Harvest of hatchery fish in selective fisheries is important to reduce the potential impact of stray hatchery fish in wild fish spawning areas. If selective fisheries fail to control the number of naturally spawning hatchery fish, then hatchery releases need to be reduced to a point where the wild fish conservation management objectives are achieved in each stream. All hatchery fish would be externally marked for identification in selective fisheries and in streams. Hatchery fish would also be given an internal tag so that the hatchery of origin can be identified.

Ecological Impacts. There has been considerable attention paid to the conservation and protection of genetic diversity and building a management plan to maintain the evolutionary capacity of individual populations and metapopulations. While that direction is important, it is necessary to recognize that the first impact from a hatchery operation on native, wild salmonids is competition for breeding sites, competition for food and rearing space, and predation, including the attraction of predators that also consume wild fish. These ecological impacts impose important limiting factors on wild salmonids caused by the hatchery program, and they need to be addressed with specific objectives so they are eliminated.

The strategic plan must provide the detail needed to effectively reduce or eliminate ecological impacts from hatchery fish on wild native salmonids in streams, estuaries, and near shore waters.

Improving Productivity, Contribution, Benefit Cost, and Cost Effectiveness of Hatcheries. It is obvious that hatcheries are dependent on having access to healthy wild, native populations of wild salmonids in order for them to improve their survival rate and contribution to fisheries. Recent scientific research (Araki 2008; Kostow 2003) point this out. Araki's research clearly points out that hatchery fish survival is enhanced and it can be assumed their contribution is improved when using native brood stock in the hatchery program. It can also

be assumed that the cost to produce a fish that is harvested is also reduced because their survival rate from smolt to adult is increased. The problem of conferring reduced survival rates on wild salmonids when hatchery and wild fish are allowed to spawn naturally is a consequence of taking this action. So the hatchery fish will need to be precluded from spawning naturally with wild fish.

Kostow's work shows that ecological competition between hatchery and wild steelhead caused a 50% reduction in the productivity of the wild steelhead. This finding further supports the concept of managing hatchery and wild salmonids so that they are not spawning naturally together. It also supports taking measures to reduce competition, predation, and predator attraction in areas of the stream where hatchery and wild juveniles are mixed and outmigrating to the ocean.

Wild Salmonid Management Streams. While streams managed for the conservation and benefit of wild native salmonids is important and should be designated and expanded, it is important to recognize that the majority of streams have wild salmonids. The statewide management program needs to be structured so that wild salmonids are in fact protected so that they are maintained in a healthy condition. Catch and release fisheries for adult salmonids and for juvenile salmonids in streams is necessary to not only achieve spawner abundance and productivity objectives, but to protect rearing juveniles in streams. In addition, for the health of wild steelhead populations, wild resident rainbows require no-kill managed fisheries in order to optimize the contribution they make to steelhead productivity.

Sincerely,

A handwritten signature in cursive script that reads "Bill M. Bakke". The signature is written in black ink and includes a horizontal line extending to the right.

Bill Bakke, Executive Director

References:

Araki, Hitoshi, Barry A. Berejikian, Michael J. Ford, and Michael S. Blouin. 2008. Fitness of hatchery-reared salmonids in the wild. Blackwell Publishing Ltd. 1:342-355.

Kostow, Kathryn, Anne R. Marshall, and Stevan R. Phelps. 2003. Naturally spawning hatchery steelhead contribute to smolt production but experience low reproductive success. Trans. Am. Fish. Soc. 132: 780-790.