

2001 CONSERVATION AGREEMENT IN THE LEMHI RIVER BASIN

SIGNATORIES

Idaho Office of Species Conservation
Idaho Department of Water Resources
Idaho Department of Fish and Game
Upper Salmon Basin Watershed Project

Lemhi Irrigation District
Water District 74
National Marine Fisheries Service
U.S. Fish and Wildlife Service

INTRODUCTION

The National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service (Service) and various Idaho parties have been working to agree on and implement long-term conservation actions needed to minimize the "take" of Endangered Species Act (ESA) listed salmon, bulltrout and steelhead in the Lemhi River. Efforts leading to the appropriate ESA authorization of incidental take continue. Given the forecasted drought year conditions in 2001 and the absence of a long-term agreement, the parties have settled on interim flows and other actions that demonstrate both commitment and good faith progress toward reaching the long-term objectives. This agreement is organized around three implementation tiers. Tier I includes past actions taken to conserve species in the Lemhi River Basin. Tier II lists actions that will be taken in 2001. Tier III identifies actions to further improve flow and habitat conditions in 2002 and establish a long-term plan.

AGREEMENT

I. Tier 1: Measures That Have Been Completed To Date

- A. In the mainstem Lemhi River, the Upper Salmon Basin Watershed Project ("Project"), the Idaho Department of Fish and Game ("IDFG"), and cooperating water users have eliminated 17 diversions through consolidation. In the Hayden Creek tributary, these groups have eliminated 3 diversions through consolidation.
- B. Using IDFG's fish screen development shop and NMFS's screening criteria for the last decade, the Project and IDFG have installed new screens or replaced outdated screens for 65 diversions in the mainstem Lemhi River, 7 diversions in Big Springs Creek tributary, and 12 diversions in Hayden Creek tributary. Additionally, the Project and IDFG have installed new screens on 21 pumps in the Lemhi River Basin.
- C. Throughout the Lemhi River Basin, the Project and IDFG have eliminated 19 push-up dams and improved 4 others to allow fish passage.

- D. The Project has installed over 30 miles of fence in the Lemhi River Basin, for two types of projects: (1) riparian grazing systems, which seasonally protect spawning and rearing habitat, and (2) corridor fencing, which provides year-around protection for riparian habitat.
- E. The Project and IDFG have developed passage and rearing habitat for use by resident and anadromous fish by reconnecting Canyon Creek and Pattee Creek tributaries to the Lemhi River and improving access to Agency Creek tributary.
- F. Idaho Department of Environmental Quality ("IDEQ") has developed Total Maximum Daily Loads ("TMDLs") for the Lemhi River Basin.
- G. In June 2000, the Project, IDFG, Idaho Department of Water Resources ("IDWR"), Lemhi Irrigation District and Water District 74 signed a Memorandum of Understanding ("MOU") to provide water flows for passage of anadromous fish in the Lemhi River between the L-6 diversion and the confluence with the Salmon River. Throughout the 2000 irrigation season, the MOU promised to provide for an instream flow of 10 cubic feet per second ("cfs") to aid downstream migration of juvenile fish as well as "fish flushes" of 35 cfs to aid upstream migration of adult fish. The MOU further directed IDFG to carefully monitor water flows and fish movement to determine when water flushes are needed for fish passage in the lower reaches of the Lemhi River. Finally, the MOU embodied a commitment of the Lemhi water users and state resource agencies to establish a long-term agreement to address fish flow management.

II. Tier 2: Habitat Measures For 2001 and 2002

- A. Enhance Instream Flow in the Lemhi River and Hayden Creek
 - 1. Throughout the 2001 irrigation season, the non-Federal parties will provide rental water pursuant to Idaho Code § 42-1765A to maintain an instantaneous 20 cfs flow in the Lemhi River from the mouth to one mile below the Leadore Bridge and will maintain an instantaneous flow of 8 cfs in Hayden Creek. The parties recognize that some fluctuation in flows may occur due to daily management and thus the 20 cfs and 8 cfs figures represent daily averages; however, the parties will avoid such fluctuations below 18 cfs in the Lemhi River or 6 cfs in Hayden Creek.
 - 2. The parties will establish a water rental bank through the Idaho Water Resources Board. The purpose of the water bank will be to accept on a short or long-term basis leases of natural flow water rights to augment the flow of the Lemhi River and its tributaries. Any rental of water rights will be on a willing lessor basis under state laws and water bank rules.
 - 3. Water District 74 will implement a Spring 2001 turn-on agreement to prevent dewatering when Lemhi water users begin diversions.
 - 4. IDWR and Water District 74 will regulate water diversions during the irrigation season to maintain fish passage flows.
 - 5. The parties will seek funding in 2001 to accomplish the following measures by the 2002 irrigation season:
 - a. Implement water saving mechanisms in the mainstem Lemhi River below L7, such as conversions from gravity to sprinkler irrigation

systems and from surface to groundwater diversion systems, in a manner that will not negatively impact Lemhi River return flows.

- b. Change points of diversion for approximately 16.5 cfs from the lower Lemhi River to S-14 diversion on the Salmon River, allowing the previously diverted Lemhi River flow to satisfy the instream flow created by Idaho Code § 42-1506.
- c. Hire a ditch manager on the Town (L7) and Andrews and Slough (L6) Canals to negotiate water rotation agreements for the purpose of leasing additional fish passage water flow at L6 and L7.
- d. Reprogram the L6 and L7 diversion control structures to ensure proper spill of passage flow through fishways.

B. Other Enhancement Measures

1. The parties will identify irrigation ditches where the fish screen is a significant distance below the headworks, causing a risk that fish can be stranded when water to the ditches is suddenly shut off.
2. The parties will assess each ditch identified above to determine whether (1) the diversion system will be redesigned; or (2) ramp down procedures will be implemented (i.e. gradually shut off water to ditch, leaving a survival flow determined by screen bypass size; if fish are still present after 1 week, IDFG will implement a fish salvage operation). The parties will remedy the stranding problem at the HC 11 ditch in 2001 and will remedy any other identified problem ditches by the 2002 irrigation season.
3. IDFG will screen the one remaining unscreened diversion on the East Fork Hayden Creek if NMFS and Service permitting is provided.
4. The parties will investigate re-creating a more natural stream morphology in the Lemhi River between the L3A and L6 diversions.
5. The parties will seek funding and begin planning in 2001 to accomplish the following measures by the 2002 irrigation season:
 - a. IDFG will replace screen on L43C and will identify and design appropriate diversion structure for L13 and L35A.
 - b. IDFG will update the diversion on LBSC 1.
 - c. The parties will develop and construct alternatives to push-up dams.

C. Planning and Monitoring

1. The parties will implement the 2001 Monitoring Plan, attached hereto.
2. The parties will ensure that all instream structures, such as diversions, road crossings, berms and dams will be designed, constructed and operated so that they are passable by upstream and downstream migrating fish, and screens will be installed, all consistent with the following NMFS criteria:
 - a. Artificial structures will include passage notches, flumes, ladders, or bypasses with individual steps not less than 3 feet in length, 1 foot in depth, 1½ foot in width, and a vertical fall not more than 1 foot in height; water velocities should not exceed 8 feet/second;
 - b. Fishways will be located in or near the thalweg (deepest and primary portion of streamflow) and should include approach and exit water depths of 1 foot or more;

- c. Berms and dams will generally be the lowest in height and shortest in span to reasonably divert the amount of water claimed at that point;
 - d. The frequency, duration, and amount of instream construction and maintenance work will generally be minimized to reduce streambed disturbance;
 - e. Diversions and intakes will be screened to current NMFS criteria;
 - f. At all times during diversion, juvenile bypass pipes will remain open and flowing to NMFS criteria by engineered design; and
 - g. Bypass outfalls will not exceed 1 foot in height or fall into less than 0.8 foot of water.
- D. The parties will implement a dispute resolution process. This requirement shall be satisfied when, upon notification that a dispute exists, representatives from each party meet promptly and attempt to resolve the dispute.

III. Tier 3: Long Term Conservation Agreement

- A. The parties commit to participate in the negotiation of a long-term agreement for the conservation of ESA-listed fish species in the Lemhi River Basin prior to December 31, 2002, consistent with the framework set forth below. Measures included in Tier 3 may be completed prior to negotiation of a long-term agreement, should the opportunity arise. The long-term agreement is intended to establish a process for voluntary compliance with the ESA, resulting in appropriate incidental take authorization. Such agreement will address, but not be limited to, the following subjects:
- 1. Enhancing Instream Flows
 - a. Through the water bank and other mechanisms, the parties will seek to provide sufficient water for flows for appropriate life stages in the Lemhi River Basin.
 - b. The parties will identify and implement projects to improve migration, restore connectivity and increase spawning and rearing habitat in the Lemhi River Basin. The projects may include the following:
 - (1) Installation and renovation of fish screens;
 - (2) Construction or replacement of diversion works;
 - (3) Consolidation of diversion works that will enhance flows through stretches of streams that are prone to dewatering or flows insufficient for fish passage;
 - (4) Elimination or modification of upstream and downstream passage obstacles;
 - (5) Conservation easements to reduce water usage, reduce fish loss to diversion, enhance riparian or flood plain values or other purposes; funding will only be used for those projects that will not result in a reduction of the summer flows of the Lemhi River;

- (6) Negotiation of water sharing and conservation agreements;
 - (7) Seeking legislation to encourage more efficient water diversion practices where such practices will enhance the flow of the Lemhi River.
- 2. Other Enhancement Measures
 - a. Restore/enhance riparian vegetation.
 - b. Install riparian fencing and/or special grazing systems for critical riparian habitat.
 - c. Utilize water gaps or off-stream watering to distribute livestock use.
 - d. Identify and replace the headgates and diversion structures as needed.
 - e. Pursue implementation of TMDLs with Idaho Soil Conservation Commission, IDEQ, and other responsible agencies.
 - f. Investigate projects to reestablish more natural stream morphology, such as: connecting streams to their floodplains; re-opening previously closed flood channels; and allowing natural stream-shaping functions to occur where practicable.
 - 3. Planning and Monitoring
 - a. Monitor instream passage effectiveness, including whether negotiated flow targets and habitat improvement measures are achieved.
 - b. Continue ongoing watershed planning.
 - c. Provide funding for adult passage monitoring (perhaps with new technology) in lower Lemhi River.
 - d. Insure water rights are being diverted in accordance with the Lemhi Decree.
 - e. Sampling regimes and monitoring stations will be designed and maintained to research and validate flow, habitat, and fish survival relationships and the success of protection measures.
- B. The parties will conduct the following analysis to the extent necessary to support development of the long-term agreement:
- 1. Hydrological analysis (water quantity and quality, water use, data gaps).
 - 2. Fish habitat assessment.
 - 3. Fish passage barrier assessment.
 - 4. Fish screen and passage assessment.
 - 5. Instream flow requirements.
 - 6. Identify and prioritize critical low water areas related to water diversion.
 - 7. Fish population response.
- C. The parties will develop the following processes to the extent necessary to support development of the long-term agreement:
- 1. Schedule and work plan for Lemhi River Basin planning.
 - 2. Composition and procedures of committee that develops the agreement/plan and technical groups.
 - 3. Process to allow participation by interest groups.
 - 4. Dispute resolution mechanisms.

IV. **PROSECUTORIAL DISCRETION.** It is the responsibility of the Service, and the National Oceanic and Atmospheric Administration ("NOAA") and NMFS to investigate and take appropriate enforcement action with respect to potential violations of the ESA. Based on the commitments described in this memorandum, including the parties' commitment to secure appropriate authorization for incidental take of ESA-listed species, enforcement action is not the preferred course in this instance. However, if water use or any other activity intended to be covered by this memorandum results in a potential "take" of listed species, the Service and NMFS will investigate and document the apparent violation.

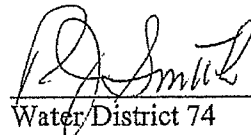
The Service and NOAA and NMFS will exercise their enforcement discretion relative to initiating prosecution in 2001 if measures identified in Tier 2 are implemented as discussed in this memorandum. This exercise of enforcement discretion will apply only to the diversion activities of water users exercising otherwise lawful rights within the boundaries of the Lemhi Water District 74, and shall not apply to any intentional "take" of ESA-listed species.

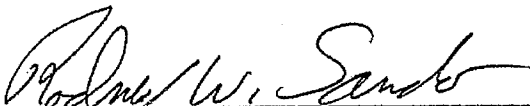
SIGNATURES


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Date of last signature: 7/18/01

Idaho Department of Water Resources

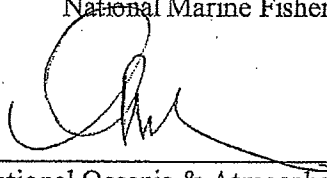
Idaho Department of Fish and Game

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Lemhi Irrigation District

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National Marine Fisheries Service

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National Oceanic & Atmospheric Administration

U.S. Fish and Wildlife Service

Date of last signature: 7/18/01

2001 Lemhi River Monitoring Plan

Purpose: Monitor the implementation and effectiveness of proposed flows to provide passage for adult and juvenile chinook salmon. Sampling regimes and monitoring stations will be designed and maintained to research and validate flow, habitat, and fish passage relationships and the efficacy of existing and proposed protection measures. Information gathered will help ongoing watershed planning efforts.

Implementation Monitoring—to determine how frequently flow targets are achieved. Responsibility for this phase of monitoring belongs to IDWR, Water District 74, BOR, IDFG, NMFS, and the Model Watershed Project (MWP) staff. Responsible parties in parentheses.

1. Determine if proposed flow targets are met. Data from existing gages (L-1, L-5, and near Lemhi) will be checked on a regular basis. Additional instantaneous water measurements will be made at critical passage locations when juvenile and adult chinook are migrating (IDWR, WD 74, BOR, MWP, IDFG, NMFS).
2. Determine if diversion structures constructed by IDFG meet NMFS passage criteria for adult chinook salmon (IDFG).
3. Determine if diversion structures constructed by parties other than IDFG meet NMFS passage criteria for adult chinook salmon (NMFS).
4. Determine if screens constructed by IDFG meet NMFS bypass criteria for juvenile chinook salmon (IDFG).
5. Develop and implement appropriate ramp down procedures to reduce stranding of juvenile chinook in irrigation ditches as flow are reduced or shut off. Obtain NMFS authorization to conduct "salvage" of fish (IDFG, NMFS).
6. Replace/modify/ install new screens at locations identified in the Conservation Agreement. Obtain NMFS authorization (IDFG, NMFS).

Effectiveness Monitoring—to determine if fish are able to migrate past critical passage barriers at the proposed flows. Responsibility for this phase of the monitoring plan belongs to IDFG, NMFS, and MWP, as noted in parentheses.

Staging Monitoring—determine where fish are holding and how long they stage prior to migration.

Data collection:

1. Monitor PIT tag data from Lower Granite Dam to determine approximate timing of the chinook run into the Lemhi River (IDFG).
2. Snorkeling and underwater videography will be used after spring runoff/high flows to determine the presence of migrating adult chinook. Snorkeling will be conducted

once per week and as needed as flows drop below 35 cfs during the migration season (IDFG).

Fish Movement Monitoring—to determine if adult fish are moving past critical diversions and riffles at proposed flows.

Data collection:

1. Underwater video camera at the L-6 diversion (IDFG).
2. Direct visual methods—
 - a. Snorkeling—as noted above and in response to rising or falling river levels to determine influence of the hydrograph on fish movement. Monitoring should occur above and below potential barriers (e.g. diversion structures and shallow riffles) throughout the river (IDFG).
 - b. Continue annual redd counts (IDFG).
 - c. Conduct carcass surveys (IDFG, NMFS, MWP).
 - d. Monitor irrigation diversions for fish stranding problems and coordinate with NMFS if fish salvage is necessary (IDFG, MWP, NMFS).

Physical Habitat Monitoring

1. Collect data on site depth, width and length, measure water velocity, and estimate discharge at each snorkeling site, diversion structure, and critical riffle whenever snorkeling occurs (IDFG, NMFS).
2. Site location should be documented using GPS for future monitoring purposes (IDFG, NMFS).

Temperature/DO Monitoring

1. Review existing Forest Service temperature data for locations, frequency, and trends of data collection. Coordinate with Forest Service on data collection in 2001. Collect additional temperature data at NMFS 2000 sites (site 640, L-5 gage, and below Hayden Creek) and L-1 and Lemhi gage. Use HOBO recorders or similar temperature recording devices. Follow DEQ monitoring protocol for placement and retrieval of temperature monitoring devices (IDFG).
2. Collect periodic instantaneous dissolved oxygen measurements at all temperature-monitoring sites (IDFG).
3. Collect periodic instantaneous discharge measurements at all temperature monitoring sites (IDFG).

Idaho Department of Fish and Game and the Office of Species Conservation will provide approximately \$25,000 to fund a Fishery Research Technician to collect and analyze the fish and habitat data proposed in this plan. Fish and Game will be responsible for coordinating data collection activities with the other responsible entities identified in this plan and reporting the results of the data collection and analysis at the end of the field season. Reports will be made available to interested parties