

HENRY'S FORK WATERSHED COUNCIL — FIVE YEARS OF LEARNING TO SHARE A RIVER

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ABSTRACT

The Henry's Fork Watershed Council (HFWC) was formed in 1993 in response to several years of conflict over natural resources management in the Henry's Fork of the Snake River basin. HFWC participants use a nonadversarial, consensus-based approach to assess and manage natural resources in the region. The Council is cofacilitated by the Henry's Fork Foundation (a fishing-based conservation organization) and the Fremont-Madison Irrigation District (that oversees the distribution of irrigation water in the Henry's Fork basin). It is composed of three component groups: agency, citizen, and technical that use the Watershed Integrity Review and Evaluation (WIRE) criteria to evaluate projects that are presented to the Council. Volunteers from the HFWC serve on four subcommittees: Water Quality, Sheridan Creek Restoration, Native Trout, and Million Acre-Feet committees that perform in-depth studies of specific topics and then report back to HFWC. Issues dealt with by HFWC include: water management and water quality; forest service land management; agricultural conservation programs; land development and planning and zoning; and one-time seed funding for watershed based projects. Successes have included the development of working relationships between previously adversarial groups, educational programs about natural resources management, and a venue for agencies to present and receive feedback about projects. Critiques of the Council include the lack of prioritization of projects, lack of legal authority and lack of long-term funding.

THE HENRY'S FORK OF THE SNAKE RIVER WATERSHED

Watershed Description

The Henrys (North) Fork of the Snake River watershed lies in eastern Idaho and western Wyoming at the head of the Snake River Plain (Figure 1). Most of the upper watershed is forested public land, while the lower half is dominated by private agricultural land, including Idaho's largest seed potato production area.

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Water stored in Henrys Lake and Island Park Reservoir is diverted downstream of Ashton to irrigate potato and grain crops. Elevations in the 3,000 mi² (7,770 km²) watershed range from over 10,000 ft (3,050 m) along the continental divide to 4,800 ft (1,460 m) at the South Fork confluence. Mean annual precipitation ranges from 60 inches (152 cm) at the highest elevations to 10 inches (25 cm) at the lowest; most precipitation falls as snow. The basin's geology is dominated by volcanic features; correspondingly, groundwater strongly influences surface hydrology. An estimated 42 percent of total discharge at Ashton originates from springs at the base of the Yellowstone Plateau rhyolite flows (Whitehead, 1978). Volcanic geology and spring-influenced hydrology combine to create a river characterized by relatively constant discharge and water temperature, low gradient, and abundant macroinvertebrates. Because of these features, the Henrys Fork is one of the best known rainbow trout fishing rivers in the country (Brooks, 1986). The most popular angling reach is the 15 river miles (24 km) immediately downstream of Island Park Dam, a stretch of river that also provides habitat for trumpeter swans, bald eagles and other wildlife.

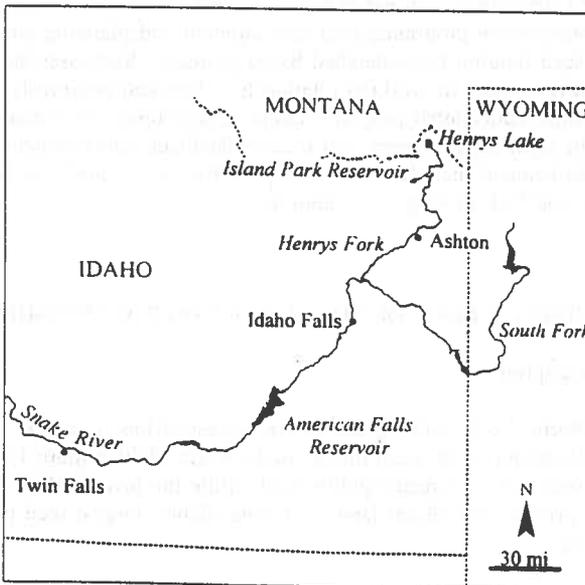


Figure 1. Map of Upper Snake River Region Showing Henry's Fork and South Fork of the Snake River

The Henry's Fork Basin is sparsely populated with a total of 38,000 residents (Idaho State Water Plan, Henry's Fork Basin, 1992). The principle cities are Rexburg, St. Anthony, Driggs, and Sugar City and urbanization onto agricultural lands is not considered a problem. Summer tourist influxes are heavy and since the 1980s the basin has experienced population growth in upper Fremont County and Teton County in relationship to the recreation industry and retirement populations. In Teton County most of the residents are from out-of-state.

Natural Resource Management Issues in the Henry's Fork Basin

A billboard on the south edge of Ashton welcomes visitors to the "world's largest seed potato producing area"; a 1998 Trout Unlimited member poll voted the Henry's Fork the "country's best trout fishing stream". Despite the basin's proximity to Yellowstone and Grand Teton national parks and a myriad of other recreational opportunities, it remains potatoes and fish that the basin is most famous for. It is also these two items that underlie much of the conflict over resource management that we see in the basin. Since the 1970's, and the heyday of the Henry's Fork fishery, advocates for wild trout management, riparian protection and consideration for fish and wildlife in water management decisions have come into conflict with agricultural interests who have depended heavily on irrigation water to maintain their livelihoods. As in many other regions in the western United States, "rich out-of-state anglers" and third- and fourth- generation farmers, loggers and ranchers struggled for control over natural resource management (Van Kirk and Griffin, 1997).

In 1992 the conflicts peaked with three events: the first was a construction accident on the Marysville canal (a component of a controversial small hydroelectric facility) that caused failure of the canal and a sediment spill into the Fall River; the second was a massive sediment spill from Island Park Reservoir into the most popular angling reach of the Henry's Fork; the third was the completion of a draft of the Henry's Fork basin plan. The development of the basin plan had been marked with controversy for three years and culminated in the protection of 195 stream miles from further hydroelectric or irrigation development; it was adopted unanimously by the state legislature in 1993. Following the sediment spills local residents were becoming weary of conflicts over natural resource management in the area and the idea that a cooperative watershed based approach to develop constructive solutions to resource management issues was advanced by several individuals.

FORMATION OF THE HENRY'S FORK WATERSHED COUNCIL

Following discussions between citizens, scientists, and government agency personnel throughout 1993 the Henry's Fork Watershed Council (HFWC) was formed to coordinate management activities in the watershed. The two groups

most at odds over the basin plan, the Henry's Fork Foundation and the Fremont-Madison irrigation District, volunteered to work together and lead the new organization. The HFWC was chartered by the 1994 Idaho legislature as a "grassroots, community forum which uses a nonadversarial, consensus based approach to problem solving and conflict resolution among agencies, citizens, and scientists with varied perspectives." (State of Idaho, 1994). The HFWC's charter identifies four duties: 1) promote cooperation in resource studies and planning that transcends jurisdictional boundaries; 2) review, critique, and prioritize proposed watershed projects; 3) identify and coordinate funding for research, planning implementation, and long-term monitoring programs; and 4) serve as an education resource about the Henry's Fork basin (State of Idaho, 1994). The primary source of funding for HFWC activities and projects sponsored by the council comes from a fund established by Idaho Department of Environmental Quality using mitigation money from Marysville Hydro Partners following the Marysville canal accident (approximately \$115,000). Other funding has included a \$20,000 Basic American Foods challenge grant, \$2,000 Chevrolet/Geo Outdoor Conservation award and \$1,000 from J.R. Simplot.

HFWC ORGANIZATIONAL AND MEETING STRUCTURE

HFWC is jointly facilitated by Henry's Fork Foundation staff and Fremont-Madison staff and board members. The council is composed of three component groups: 1) a citizen's group of local community members representing commodity, conservation and community development interests; 2) an agency roundtable of representatives from federal, tribal, and local entities with land and resource management jurisdiction in the watershed; and 3) a technical team of agency, university, and independent scientists from various disciplines. HFWC has no formal membership or appointed positions; all meetings are open to any person. Bimonthly meetings are attended by an average of 50 people. Additionally, HFWC subcommittees have been created on an as needed basis to do more specialized research and advisory work and report back to the council. Currently there are four subcommittees: 1) The Water Quality Subcommittee that has examined water quality issues in the basin and has served in an advisory capacity in the Total Maximum Daily Load (TMDL) process; 2) The Native Trout Subcommittee that has adopted goals for maintaining and recovering populations of Yellowstone Cutthroat Trout; and has implemented inventory and recovery projects; 3) The Sheridan Creek Restoration Committee that received a \$142,000 319 grant to restore the hydrology and stream habitat conditions of Sheridan Creek (a tributary to Island Park Reservoir); and 4) The Million Acre-Feet Committee that was formed to examine the implications for the Henry's Fork basin of the Army Corps of Engineers proposal for an additional million acre-feet of water to be provided by the upper Snake River basin for endangered salmon recovery.

HFWC meetings open with a community building circle and generally consist of educational programs about specific issues or proposals in the morning, followed by discussions in component groups in the afternoons. Meetings close with a wrap-up session of the whole group. Proposals are evaluated in component groups using a 10 point set of criteria, the Watershed Integrity and Review Evaluation (WIRE). The WIRE criteria include: 1) Watershed Perspective: Does the project employ or reflect a total watershed perspective? 2) Credibility: Is the project based on credible research or scientific data? 3) Problem and solution: Does the project clearly identify the resource problems and propose workable solutions that consider the relevant resources? 4) Water Supply: Does the project demonstrate an understanding of water supply? 5) Project Management: Does the project employ accepted or innovative practices, set realistic time frames for their implementation and employ an effective monitoring plan? 6) Sustainability: Does the project emphasize sustainable ecosystems? 7) Social and Cultural: Does the project sufficiently address the watershed's social and cultural concerns? 8) Economy: Does the project promote economic diversity and help sustain a healthy economic base? 9) Cooperation and Coordination: Does the project maximize cooperation among all parties and develop sufficient coordination among appropriate groups and agencies? 10) Legality: Is the project lawful and respectful of agencies' legal responsibilities? Each component group reports its findings back to the entire council, which then decides whether to endorse and/or provide financial support for the proposal. An annual "State of the Watershed Conference" is held each fall to monitor the progress of Council-endorsed projects and to provide research and monitoring results. An annual council field trip is held in July to show membership and the public current issues and projects.

ISSUES ADDRESSED BY HFWC

A wide range of issues has been addressed by HFWC that fall under the following categories: water management and water quality; forest service land management; agricultural conservation programs; land development and planning and zoning; one-time seed funding for watershed based projects. Water quality and management have proved to be the most controversial of the topics addressed in the council. The State of Idaho is currently developing TMDLs, and HFWC serves as the Watershed Advisory Group (WAG) for eastern Idaho. The council subcommittee on water quality has been pivotal in providing data and feedback to DEQ both about specific streams in the watershed and about the methodology used by DEQ to assess stream health. Additionally, the Sheridan Creek restoration project was spearheaded by HFWC and its activities are coordinated under the auspices of a council subcommittee. Several council meetings have been devoted to developing a council position and Henry's Fork watershed perspective on endangered salmon recovery. Most recently the 1 million acre-feet flushing flow proposal and lower Snake River

dam breaching was presented by a panel of experts from the irrigation community, NMFS, the Bureau of Reclamation, and Idaho Fish and Game and later WIRED by component groups. Managed aquifer recharge has emerged as an important topic in Idaho water management and has been presented to and discussed by HFWC. The different perspectives of the irrigation and conservation communities were discussed quite openly. Winter discharge levels (minimum instream flows) on the Henry's Fork of the Snake River below Island Park reservoir have been a source of controversy between irrigators and anglers for a long time. A winter flow committee, aided by recent hydrologic research and attended by participants in HFWC, now meets twice in the fall to decide winter flow levels out of the reservoir. Additionally, another committee monitors and regulates temperature of water released in the spring and early summer to produce optimal temperature ranges for juvenile trout. The most important issue that faces HFWC participants in the near future is the proposed title transfer of Island Park and Grassy Lake Reservoirs from federal ownership to local ownership under Fremont-Madison Irrigation District.

U.S. Forest Service proposed land exchanges and the Targhee National Forest plan (including large areas of road closures to protect grizzly habitat) have been debated heatedly at HFWC meetings. The Targhee forest has also presented less controversial projects like the Willow Creek vegetation management project for council discussion and endorsement.

HENRY'S FORK FOUNDATION'S RESEARCH PROGRAM AND ITS RELATIONSHIP TO HFWC

The Henry's Fork Foundation (HFF) was formed in 1984 by a group of anglers who were initially concerned with riparian degradation on the Henry's Fork, their first project was to construct fencing to protect 12 miles of streambank along the Henry's Fork. In 1987 HFF successfully lobbied for a change in fishing regulations to catch and release below Island Park Dam. Additionally, HFF was able to protect several stretches of the Henry's Fork and its tributaries against future hydropower and irrigation development. Until 1992 HFF opposed local and agricultural interests and based its lobbying efforts on generic science (e.g. cattle degrade streambanks or catch-and-release regulations improve trout populations) (Van Kirk and Griffin, 1997). HFF was, until this time, not involved in cooperative efforts.

As detailed earlier, in 1993 HFF became actively involved in creating, and a cofacilitator for, HFWC. At the same time a group of researchers in the Henry's Fork basin and interested HFF board members formed the HFF Research Committee and began to outline strategies to address the question:

"What environmental factors are impacting the Henry's Fork watershed and its unique hydrologic and biologic resources?"

By 1994 the following approaches to research in the basin were adopted: Hydrogeologic investigations including compilation of hydrologic data; Henry's Fork geomorphology; flushing flow investigations below Island Park dam; interconnections between Snake River Plain aquifer and Henry's Fork basin; long-term monitoring of Henry's Fork and its tributaries.

1. Aquatic ecology investigations including management of Island Park Reservoir and its downstream effects; relationships between macrophytes, water level and waterfowl grazing; baseline macroinvertebrate studies; Henry's Lake water quality.
2. Fishery investigations including trout overwintering, trout movement and socioeconomic studies of anglers
3. Research integration and application at the Henry's Fork Watershed Center and research committee meetings.

Several months later a research director was hired and the research program at HFF was developed. The program was designed to improve understanding of watershed processes, determine restoration needs in the watershed, and provide information to assist in ongoing stewardship programs. Research has been seen at HFF as an integral part of education and stewardship programs that IIFF is involved with.

HFF research projects have included the following: a watershed-wide stream condition and native trout inventory; juvenile rainbow trout overwinter survival research; hydrologic analysis of the upper Henry's Fork basin and assessment of Island Park Reservoir operations; tubifex worm and whirling disease inventory; riparian health assessment; and spring recharge study. Results from these research efforts have formed the basis for stewardship activities by IIFF and have also provided data to HFWC. IIFF researchers have consistently reported findings at HFWC meetings and have been able to articulate the management implications of their work. The council has relied on the HFF research program to provide accurate and informative data with which to approach natural resource management issues. Unfortunately, at present, due to downsizing pressures, IIFF employs no technical or scientific staff.

ACCOMPLISHMENTS OF HFWC AND CRITIQUE OF HFWC APPROACH

"The Henry's Fork Watershed Council promotes coordination rather than restores habitat."

The greatest strength, and perhaps weakness, of HFWC is that it provides a context for working relationships to be created; it does not initiate and administer projects. There is little doubt amongst participants in the council from government agencies, the private sector, environmental organizations, agricultural interests, and scientists that HFWC fosters relationships between former adversaries and enables different stakeholders to work together on issues of mutual interest. Unfortunately there remains no formal process within

the council for prioritizing projects or legal authority to carry out projects. HFWC provides a venue for local, state and federal agencies to present proposals and receive feedback from the public and educates participants on natural resource management issues. Educational presentations are a critical part of decision-making at council meetings. Another accomplishment is HFWC's emphasis on community building and the consensus-based model of decision making as a method of encouraging people to work for better natural resource management. Although participants disagree they have agreed to do so in a non-adversarial manner. Development of the WIRE criteria has been seen as a major accomplishment of the council that has enabled participants to focus on the specifics of a proposal instead of on blanket endorsement or rejection. Finally, the HFWC has used monetary incentives to encourage private landowners to improve natural resource management.

Critiques of the council include: 1) as mentioned above, the lack of legal authority and process to prioritize projects; 2) lack of established long-term funding for HFWC; 3) concerns as to whether all stakeholder interests participate in HFWC (for example, few outfitters or guides attend the meetings); 4) many participants feel that the council has not been tested by decision-making about controversial issues (for example, since HFWC was formed a series of high precipitation years have occurred therefore decision-making about water allocation can be made without the pressure of a drought situation).

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