



Oregon

Theodore R. Kulongoski, Governor

Oregon Watershed Enhancement Board

775 Summer St NE, Suite 360

Salem, OR 97301-1290

(503) 986-0178

FAX (503) 986-0199

www.oregon.gov/OWEB

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MEMORANDUM

TO: Oregon Watershed Enhancement Board

FROM: Ken Bierly, Deputy Director

SUBJECT: Agenda Item F-2: Acquisition Grants
Water Lease Application for Upper Klamath Basin (#211-100)
June 2-3, 2010 OWEB Board Meeting

I. Introduction

This report seeks Board approval of funding for a water acquisition application that proposes to fund a three year water lease on Sevenmile Creek in the Upper Klamath Basin. The water would be leased for in-stream aquatic resource values.

II. Background

The Klamath Basin Rangeland Trust (KBRT) submitted a grant application for the Upper Sevenmile Creek Critical Habitat Instream Water Lease (#211-100) project on April 14, 2010. The application requests \$171,252 to fund half of the cost of a three year water right lease (2010-2012) to apply the water to in-stream uses in Sevenmile Creek. The water rights are owned by JaCox Ranch, which has been working with the Klamath Basin Rangeland Trust to reduce cattle numbers and adjust grazing management to conserve water use. The lease arrangement has developed confidence with the landowner to consider a permanent arrangement, and the three year lease includes an option to negotiate a permanent transaction. The option would use the lease payment towards the purchase price of the acquisition of the water right.

Normally, this grant application would be reviewed by staff and the Central Oregon Regional Review Team over the summer, and would receive consideration along with the other applications received in April at the September Board meeting. This application is being taken out of regular sequence to help address Klamath Basin drought issues. The project will help to maintain water in the upper basin, which is a current critical need. A Board award in June will allow the project to achieve benefits this summer.

III. Project Proposal

The JaCox Ranch diverts flow from Sevenmile Creek near River Mile 17 for distribution throughout the ranch property for irrigation purposes. The four surface water rights involved in the application date from 1891, 1898, 1928, and 1971. An application to lease the water rights instream was originally submitted to the Oregon Water Resources Department (WRD) in 2003. WRD issued a Final Order approving Instream Lease 479 (IL-479) in January 2005, with a termination date of 2008.



In March of 2009, a lease renewal application was submitted. It was approved in April 2009 with a termination date of September 30, 2013. KBRT and the water right owner executed a three-year Water Rights Instream Lease Agreement in March 2010. That agreement requires IL-479 to remain in effect through 2012 if funding is secured by February 15 of each year to pay the annual lease price of \$114,168. In February 2010, KBRT secured matching funds from the National Fish and Wildlife Foundation (NFWF) for the three-year agreement price.

The proposed project will extend IL-479 for three years to increase flow in a 17-mile reach of Sevenmile Creek. The instream water lease will also supply additional high-quality water to Agency Lake for fisheries, agriculture, and downstream river flow. The cost of the three year lease will be credited towards the price of an instream transfer, currently in negotiation. OWEB is requested to contribute 50 percent of the total three-year lease purchase price of \$342,504. WRD will hold the IL-479 in trust for the people of Oregon.

The lease adds flow to a critically dewatered, two-mile reach of Sevenmile Creek (from the Upper Sevenmile Ditch diversion down to Blue Springs). The restored flow is up to 16.41 cfs starting in April, decreasing to between 5 and 8 cfs restored in August and September. The lease also restores a lesser amount of flow to a 15-mile secondary reach of Sevenmile Creek (to the mouth).

Prior to the lease, Sevenmile Creek was often dewatered from the diversion at River Mile 17 for at least two miles. This reach of the creek is critical; documented effects from the first three years of the lease have shown that flow in this portion of the stream has significantly enhanced access to critical habitat for bull trout, Lost River sucker, and red-band trout. There is a robust monitoring program in place funded by the KBRT and conducted by Graham Matthews and Associates, Inc. to document effects of the lease.

IV. Application Review

The application is timely to addressing a critical need for this summer. The application review process was accelerated to ensure adequate review and to allow for the project to be implemented during the current drought conditions in the Klamath Basin. However, the process has included all of the elements contained in OWEB's administrative rules at OAR 695-046-0040, including ecological benefits, financial partners and support for the project, effect on the local and regional community, and the soundness of the legal and financial terms of the proposed transaction.

The Acquisition Subcommittee of the Board reviewed the application on May 10, 2010; they have identified it as a high priority for funding. Staff have reviewed the project with members of the Regional Review Team individually who recognize the importance of the project's ecological benefits.

In an effort to use existing water transaction expertise, OWEB staff requested that Andrew Purkey, manager of the Columbia Basin Water Transaction Program for the NFWF, review the application. The review is attached to the staff report. (Attachment A) The review considered the four criteria described in rule. The lease provides ecological benefits of increased seasonal habitat for aquatic species, including candidate and listed species, increased connectivity for more than 17 miles of Sevenmile Creek, and improved water quality conditions. The project has full match (50 percent cost share) committed from the NFWF, which will also support the

transaction and monitoring costs of the project. The project is also supported by the Oregon Department of Fish and Wildlife, U.S. Forest Service, Natural Resources Conservation Service, and U.S. Fish and Wildlife Service. The owner, rancher of JaCox Ranch sees the lease as an integral part of his operation at this time, and there does not appear to be any evidence that the previous lease or other instream leases in the Wood Valley have had any detrimental effect on the local and regional community. There is strong support for cooperative solutions to water use like this in the basin.

OWEB staff also consulted with Oregon Water Resources Department staff on the application. They were familiar with the project since they approved the lease in 2009. The water lease has been perfected and is being renewed. The draft valuation conducted by WestWater Research concluded that \$120 per acre is a reasonable annual lease price for the Upper Klamath Basin. This equates to be a price of just over \$26/acre-foot/year of water procured for instream use.

V. Recommendation

Staff recommend the Board award \$171,252 of capital funds to the Upper Sevenmile Creek Critical Habitat Instream Water Lease grant application (#211-100).

Attachment

- A. Review Comments from Andrew Purkey

Funding Recommendation

Sevenmile Creek Water Transaction Grant Application

National Fish and Wildlife Foundation to Oregon Watershed Enhancement Board

May 11, 2010

Per Oregon Administrative Rules (OAR) 695-046-0090(2)(c), the Director of the Oregon Watershed Enhancement Board (OWEB) is charged with making a staff funding recommendation to the OWEB Board on all water acquisition projects considered for funding. Andrew Purkey, director of the National Fish and Wildlife Foundation's (NFWF's) Western Water Programs, has developed the following recommendation for the Director based on criteria found under (OAR) 695-046-0090(2)(c)(A)-(F). The recommendation is based on information provided by the project sponsor, the Klamath Basin Rangeland Trust (KBRT), to NFWF.

The transaction will extend existing instream water lease 479 (IL-479) with the JaCox Ranch for three years (2010-2012) to increase flow by up to 16 cubic feet per second in a 17-mile reach of Sevenmile Creek that provides critical habitat for numerous important species, including bull trout, redband trout, suckers and Oregon spotted frog. The instream water lease also will supply additional water to Agency Lake for the potential benefit of fisheries, agriculture and downstream river flows.

(A) The ecological benefits of a proposed project:

NFWF has based its evaluation of the proposed transaction on the following criteria used for evaluating proposals submitted under other funding programs.

Watershed Planning Criteria. The proposal satisfies the following:

Environmental flow in the stream reach(es) or area(s) addressed by the proposal is identified as a limiting factor for fish and wildlife, biodiversity, and/or ecosystem function in a publicly-available, scientifically credible assessment, study or plan; or through a written statement by a biologist or ecologist with in-depth knowledge of the site.

The Oregon Conservation Strategy is divided into Ecoregions. The project is in the East Cascades Ecoregion, Conservation Opportunity Area EC-09. Conservation Opportunity Area EC-09 key habitats are aquatic, riparian and wetlands. Recommended conservation actions include: maintain or enhance watershed function, connection to riparian habitat, flow and hydrology.

KBRT, the Oregon Department of Fish and Wildlife (ODFW), and the United States Forest Service (USFS) identified the primary limiting factors to a functional Sevenmile Creek

Watershed as excessively low flows throughout the irrigation season; impediments to fish passage due to irrigation diversion structures and stream modifications for diversions; poor riparian conditions due to unmanaged cattle access to the streams; and lack of habitat features such as large wood, undercut banks, and spawning areas due to cattle activity and channel modification for irrigation.

These factors are listed in the 2006 ODFW Sevenmile Creek Fish Survey and Limiting Factor Analysis, the 2003 and 2008 Wood River Valley Aquatic Habitat Study, the 2002 KBRT Wood River Valley Restoration Plan, the USFS Westside Action Plan (in production), and the 2008 NFWF Business Plan for the Lost River sucker, shortnose sucker, and redband rainbow trout.

Collaborative and synergistic efforts with other entities are demonstrated with regard to efforts to resolve other factors limiting fish, wildlife, and/or ecosystem function in the target stream or site.

Since 2003 KBRT has taken a strategic approach to address these limiting factors. In that time, KBRT and its' partners have established riparian corridors on all but one ½ mile reach of the natural creek and its tributaries, removed all but one (which is in the planning stages) of the impediments to fish passage, restored miles of habitat by placing large wood and spawning gravel, returning tributaries to their natural channels, and reconnecting the creek to important springs. High-quality habitat is now available in the primary reach and is quickly improving in much of the secondary reach. Fish passage barriers have been addressed and much of the riparian corridor has been fenced to exclude cattle. Only the lowest few miles of the secondary reach are not currently good habitat because of poor water quality and a straightened, simplified stream channel (known as the Sevenmile Canal).

In the primary reach of the water right transaction, flow historically got as low as less than 1 cubic foot per second (cfs), resulting in diminished habitat. The low flow in this primary reach also disconnected the lower segment of Sevenmile Creek from high-quality habitat on USFS land upstream. The transaction will improve habitat in the primary reach of flow restoration and connect the lower segment of the creek to the upper segment of the creek.

Hydrologic Criteria. The proposal satisfies the following:

Environmental flow will be secured and/or protected at both a location and time of year where low flows are a limiting factor for fish and wildlife, biodiversity, and/or ecosystem function.

The transaction adds flow to a critically dewatered, two-mile reach of Sevenmile Creek (from the Upper Sevenmile Ditch diversion down to Blue Springs). The restored flow is up to 16.41 cfs starting in April, decreasing to between 5 and 8 cfs restored in August and September. The lease also restores a lesser amount of flow to a 15-mile secondary reach of Sevenmile Creek (to the mouth).

An application to lease the water rights instream was originally submitted to the Oregon Water Resources Department in 2003. The Department issued a Final Order approving Instream Lease 479 with conditions resulting from a Stipulated Agreement on January 5, 2005, with a termination date of September 30, 2008. In March of 2009 a lease renewal was submitted and approved on April 24, 2009, with a termination date of September 30, 2013, while allowing for the option to terminate early. The water rights to be leased have priority dates of 12/31/1891, 12/31/1898, 09/25/1928 and 09/24/1971.

The transaction adds up to 16.41 cfs in April decreasing to up to 8 cfs in August/September - to a critically dewatered, two-mile reach of Sevenmile Creek (from the Upper Sevenmile Ditch diversion down to Blue Springs). The lease also describes a 15-mile secondary reach to the mouth of Sevenmile Creek.

As described above, in the primary reach of the water right transaction, flow historically got as low as less than 1 cfs, resulting in diminished habitat. The low flow in this primary reach also disconnected the lower segment of Sevenmile Creek from high-quality habitat on USFS land upstream. The transaction will improve habitat in the primary reach of flow restoration and connect the lower segment of the creek to the upper segment of the creek.

Biological Criteria. The proposal satisfies the following:

Native fish, wild fish, and/or wildlife populations are expected to benefit from the proposed project.

Resident fish species that benefit from the proposed water transaction include Brook, Brown, Bull, and Redband Trout. There currently are no anadromous fish in the Upper Klamath Basin due to total blockage by several downstream dams. These dams may be removed and anadromous fish passage may be restored to the Upper Basin sometime after 2020. It is expected that both salmon and steelhead may use the Sevenmile Creek system if and when passage is restored.

The biological benefits of the transaction have been documented in a 2008 report by Graham Matthews and Associates entitled "Wood River Valley Aquatic Habitat Study Final Report":

Pg 11. Significantly more habitat was available in the summer of 2008 than in 2003 due to the large increase in flow. [IL-479 went into effect in 2005]

Pg 12. Reach 6 (JaCox Ranch above Bluespring) has experienced the most dramatic changes resulting from the KBRT Project land management changes, which directly affected water diversions and grazing practices. Fish habitat greatly improved as shown by increased pool numbers, pool quality, pool depth, large woody debris, and presence of gravel substrate. As glides scoured into pools, existing pool depths increased, and silt substrate was scoured into gravel, substantial amounts of sediment were released. Some of these sediments were trapped by the improved riparian vegetation, contributing to the narrowing of the channel, while others were flushed downstream. Reach 6 clearly demonstrates the possible improvements in channel and riparian conditions over a 5 year period with new management

prescriptions. We believe Reach 6 saw the most significant improvements for several reasons: (1) it is the most upstream reach, thus having less sediment to move through it from upstream reaches, (2) it has a much steeper gradient than the other reaches (4-5 times steeper) thus providing considerably more energy with the increased streamflows to scour the bed, and (3) it likely saw the highest percentage increase in base flow, as prior to the management changes, it was essentially dewatered much of the summer.

The transaction also results in improved water quality conditions. Water quality is excellent in the upper portion of Sevenmile Creek as the water comes from the Cascade Mountains and from natural springs. Water quality historically decreased downstream in the lower segment of the creek due to water withdrawals, sediment, solar radiation, and poor-quality irrigation tailwater. Water quality has been improving since much of the water has been leased instream along Sevenmile Creek, and the riparian area has been improved do to conservation efforts.

(B) Financial partners in and other support for the project:

This transaction is a 3-year lease with the annual lease payments counting toward the price of a parallel Transfer Option Agreement KBRT is now negotiating with the landowner. This is essentially a lease-to-own transaction that will allow time to identify and secure the balance of the transfer purchase price, anticipated to be in excess of \$2,000,000. Funding from NFWF will provide cost-share for the 3 year lease. Additional funding must be secured in order to implement the proposed permanent transaction. KBRT anticipates that federal funding sought through the Klamath Basin Restoration Agreement is a likely source of funding for the desired permanent transaction.

The annual lease rate being paid to landowners in the Wood River Valley in 2010 is \$120/acre. In 2009 the price was \$150 per acre. These prices reflect both water being leased instream and obligations to manage cattle stocking rates to maintain a 3-inch stubble height. The landowner is willing to take the 2010 per acre rate for three years. A draft valuation by WestWater Research confirms that \$120 per acre is a reasonable annual lease price for the Upper Klamath Basin. This equates to be a price of just over \$26/acre-foot/year of water procured for instream use. This is a reasonable price for water in the Upper Klamath.

(C) The effect of the proposed project on the local and regional community:

NFWF has not discovered any evidence that the previous implementation of this instream lease had any detrimental effect on the local and regional community.

(D) The due diligence review of a proposed project:

The implementation of this lease since 2005 provides assurances that the water rights of record are valid and qualified for continued lease instream.

Recommendation: NFWF supports OWEB funding of this proposed transaction. The positive ecological impacts of the lease since 2005 have been well documented. Continuation of this lease for an additional 3 years will maintain the ecological value of flow restored to Sevenmile Creek. Importantly, the lease price will counts towards the purchase price under negotiation between the landowner and KBRT to permanently acquire the water right.