

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-110	Project Type:	Acquisition
Project Name:	Black Drake Ranch - Fivemile Creek Stream Flow Restoration		
Applicant:	Klamath Basin Rangeland Trust		
Basin:	KLAMATH	County:	Klamath
OWEB Request:	\$81,345.00	Total Cost:	\$166,815.00

Application Description

KBRT requests \$81,345 to fund a permanent instream transfer of water rights from Five Mile Creek tributary to the North Fork Sprague River in Klamath County. The water rights total 2.39 cubic feet per second (CFS) and 287.1 acre-feet (AF). The application states that the project will help address low summer flow in lower Five Mile Creek and the North Fork Sprague River from the confluence with Five Mile Creek to the confluence with the South Fork (approximately 5 miles). The lower reach of Five Mile Creek currently has flows of 20% to 33% (3 to 5 cfs) of historic low flows. This protected in-stream right will increase flows by at least 20%. The reach is identified as a high priority reach for flow restoration.

REVIEW PROCESS

Regional Review Team Evaluation

The priority dates of the water is very junior in the Sprague basin but there are no senior rights above the diversion. The application contained an analysis that demonstrated the water will be available most of the time. The water can be protected throughout the reach of Fivemile Creek and into the North Fork of the Sprague. The analysis was supported by the WRD reviewer. It would be the first permanent transfer in the Klamath basin. It is one of the best reaches of stream in the area. It will have value for anadromous fish when they are re-introduced. Cost per cfs is good.

There has been significant restoration work in the uplands on USFS managed lands and the Black Drake ranch has been actively managed for conservation values for a number of years. This is part of other conservation efforts on this property. The USFS got a national award for restoration on this system. USFWS is actively working with landowner to do habitat work. The lower end of the reach is high priority for restoration for ODFW and WRD.

Ecosystem Process and Function

Summer stream flow.

Regional Review Team Recommendation to Staff

The review team were in consensus that the project had high ecological value.

Staff Follow-Up to the Regional Team Review

The Acquisition Subcommittee of the Board has recommended going forward with this project.

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-112	Project Type:	Acquisition
Project Name:	Tumalo Feed Canal Water Conservation Project (Phase 2)		
Applicant:	Deschutes River Conservancy		
Basin:	DESCHUTES	County:	Deschutes
OWEB Request:	\$581,000.00	Total Cost:	\$3,300,000.00

Application Description

The Deschutes River Conservancy (DRC) submitted a grant application for the Tumalo Irrigation District for Water Acquisition to transfer the right to in-stream purposes (#211-112) project on October 18, 2010. The application requests \$581,000 to fund the remaining costs of a piping project and provide permanent acquisition of a right to 158.01 acre feet of water or 0.44 cubic feet per second (cfs) for transfer to an instream right.

The water rights are owned by Tumalo Irrigation District (TID), which has been working with the Deschutes River Conservancy (DRC) to reduce canal losses and conserve water use. The piping project has been funded with \$820,000 from OWEB and \$1,000,000 from the Bureau of Reclamation. This is the second phase of at least a five phase project. Completion of all five stages will result in conserved water of approximately 20 cfs. The water rights date from 1900 and 1907. Since the initial submittal, the TID has reduced the request to \$439,429 with a water savings of 0.34 cfs.

Tumalo Irrigation District has submitted a Conserved Water Right Application to Water Resources Department who have issued a final order and certificate of instream conserved water. The District has until October 31, 2015 to file a notice of completion to prove the right.

The proposal includes five certificated rights as identified in CW-37. The rights involved date from August of 1900 through June of 1907. The Crescent Lake storage rights date to 1911. The more recent Tumalo rights (1905 and 1907) can not be assured to be satisfied 100% of the time. The applicant has conducted an analysis to demonstrate that protection of these rights would result in protected water in-stream. The Oregon Water Resources Department Deschutes Water Master has reviewed the analysis and identified the likelihood of providing protected water with the application.

REVIEW PROCESS

Regional Review Team Evaluation

The Acquisition Subcommittee of the Board reviewed the application on November 10, 2010 and January 27, 2011; they have identified significant issues with recommending the project for further consideration. The Board Subcommittee was concerned that the only way to evaluate the price of the water was to look at the difference in the cost of piping the canal. Secondly they were concerned that OWEB has a significant participation in the restoration (piping) project. Third for the relatively small increment of water the cost was too high and the ecological benefit was too low.

The Region 4 Regional Review Team reviewed the project on January 11, 2010. The OWEB Review Team considered the ecological merit of the proposed water acquisition and concluded that the project is an additional increment in a larger project that, when completed, will have a significant benefit for decreasing water temperatures in the middle Deschutes River. The review team also was concerned with the high cost for relatively low increment of benefit. The Regional Review Team concluded the project had modest ecological benefit.

The Acquisition Subcommittee agree that the project has modest ecological merit and remained concerned about the pricing mechanism and precedent for the approach that they do not recommend it for funding.

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-113	Project Type:	Acquisition
Project Name:	Mill Creek Ridge Acquisition Project		
Applicant:	Columbia Land Trust		
Basin:	HOOD	County:	Wasco
OWEB Request:	\$265,000.00	Total Cost:	\$460,700.00

Application Description

Columbia Land Trust (CLT) requests \$265,000 to purchase two non-adjacent, upland properties totaling 143 acres near The Dalles, in the Hood River Basin, in Wasco County. The purchases are the first phase of CLT's efforts to protect all of Mill Creek Ridge, which the application states is undisturbed habitat that is highly threatened by residential development and grazing. The properties are located in the Wasco Oaks Conservation Opportunity Area (COA), identified by the Oregon Conservation Strategy. The application stresses that the properties are in very good condition, with good ecological function and exceptional diversity of native wildflowers. Therefore, CLT does not envision extensive restoration for the properties.

The application states that the properties contain 40 acres of oak woodlands, an OWEB priority ecological system. Although no other priority ecological systems are listed in table A2, the application states elsewhere that the properties contain prairie and Ponderosa pine woodland, both of which are also OWEB priority ecological systems. The properties do not contain streams.

The application states that the entirety of the acreage proposed for acquisition contains the following rare or at-risk plant communities: Ponderosa pine – Oregon white oak / arrowleaf balsamroot; white oak / bluebunch wheatgrass.

The application states that Lewis' woodpecker, an OWEB priority species, will benefit from the project, but table A2 does not state whether or not the species has been documented on the properties. The application includes Vaux's swift, white-crowned sparrow, western meadowlark, and western bluebird as species that will benefit from the project, however, these species are not OWEB priority species for the Hood River basin.

The application indicates that the proposed project will: protect a large intact area, secure a transition area, protect a site with exceptional biodiversity, and improve connectivity of habitat. The application does not contain a map that depicts the property locations relative to other protected areas.

The application states that CLT will allow public access to the properties "in a manner that is appropriate to the conservation values of the site." The application discusses tours, scientific research, and a future public trail along the ridge, although not in detail.

REVIEW PROCESS

The RRT concluded that the properties have ecological value, primarily for sensitive bird species and wildflowers. One team member stated that the properties are in an avian migration corridor. The RRT appreciated that CLT plans to conserve the land between the two properties currently proposed for acquisition.

Staff and the RRT concluded that there is a total of approximately 40 acres of woodlands on the properties, and that they are a mix of oak and Ponderosa pine. The RRT acknowledged that the properties are located in the Wasco Oaks Conservation Opportunity Area, but felt that the top priorities for conservation in the COA are wetland and riparian habitats. In its discussion, the RRT took into account the relatively undisturbed condition of the properties. There was an acknowledgement however, that the properties are not pristine. They contain small patches of cheatgrass and knapweed, which would need to be managed, but should not be difficult or expensive to address.

The RRT concluded that the properties are threatened by development. Some members noted the area's proximity to The Dalles, and nearby rural residential development, and stated that it might be only a matter of time before the properties are developed. Furthermore, these members pointed out that poorly managed grazing seems common on rural residential properties in the area. One team member questioned whether the properties are threatened by residential development because there is limited water on the ridge; wells would have to be drilled very deep, and therefore would be expensive. Several other members thought that even if the residential development threat might not be high, the threat of wind development exists.

The RRT concluded that the project's proximity to The Dalles could help to produce good educational outcomes. The RRT felt that the area's wildflowers and birds would be a significant attraction for the public, and that nearby schools could easily use the properties for outdoor learning. Ultimately, the RRT concluded that good educational outcomes are dependent on CLT's ability to successfully promote the properties and provide educational opportunities. Most of the team members were unfamiliar with CLT's educational track record.

Regional Review Team Recommendation to Staff

Medium Ecological and Medium Educational value.

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4024	Project Type:	Education
Project Name:	Upper Klamath Basin Education and Outreach		
Applicant:	Klamath Watershed Partnership		
Basin:	KLAMATH	County:	Klamath
OWEB Request:	\$71,663.00	Total Cost:	\$189,493.00

Application Description

This education project targets landowners, community leaders and students in five sub-watershed areas of the Upper Klamath Basin. Through a series of outreach and education meetings an attempt will be made to identify restoration projects that will improve water quality or quantity in the Klamath Basin. Follow-up meetings with landowners and the appropriate technical experts will be set up so restoration projects can be developed. Working with the Klamath Outdoor Science School, 4th and 6th grade teachers will implement restoration curriculum and coordinate hands-on restoration projects.

OWEB funds would be used for project management, in-house personnel, contracted services (room rental, meals and busing), and production costs. Other partners include Upper Klamath Basin residents, Klamath Outdoor Science School, National Fish and Wildlife Foundation, Klamath County Schools and Sage School.

REVIEW PROCESS

Regional Review Team Evaluation

Reviewers appreciate the council's work in reaching out to landowners, and noted that it is difficult work and a hard area to work in. The team agreed that outreach in the Klamath is important, and past landowner meetings have resulted in restoration projects.

While reviewers agreed on the need for outreach to landowners, they struggled with a recommendation on the application. Some reviewers thought that the proposed approach could work and be effective. Other reviewers were not comfortable with the proposal, finding that it lacked clearly defined goals and outcomes and many of the answers to the questions in the application were vague and did not address the question adequately.

Reviewers questioned whether the workshops on beaver management were science based; it was noted that a recent council beaver workshop discussed efforts to reestablish beaver in the Williamson. Reviewers noted that the application proposed curricula developed by teachers; there is a lot of curriculum already existing and it was not clear what was intended.

Funding covers a two-year period. It is not clear what the landowner contribution of \$50,000 match is. The audience is very diversified with adults (landowners) and 4th and 5th grade students, and the proposal fails to address these two audiences differently.

Following a lengthy discussion, reviewers concluded that while they support landowner outreach and agree it is important, they needed to see more before recommending this proposal for funding. Specifically, reviewers want to see a proposal that includes specific, clearly defined activities and participants; clear objectives, information on the proposed number of meetings; what topics are to be covered in meeting agendas, education messages, and expected outcomes (take-home messages). The proposal lacks a plan; it is too conceptual.

Regional Review Team Recommendation to Staff

Do Not Fund.

Staff Recommendation to the Board

Do Not Fund.

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4036	Project Type:	Education
Project Name:	Outdoor Science Education Camps 2011		
Applicant:	Klamath Outdoor Science School		
Basin:	KLAMATH	County:	Klamath
OWEB Request:	\$48,935.00	Total Cost:	\$144,368.00

Application Description

This education project would continue OWEB funding of the Klamath Outdoor Science School (KOSS). The KOSS provides outdoor learning experiences for 2nd through 9th grade students from throughout Oregon. They have a camp at Jackson Kimball State Park, but they visit other sites in the Upper Klamath Basin to conduct classes and visit restoration projects with local partners.

This project funding would target 5th and 6th grade students. The goal is to provide learning opportunities for 1,100 students and 100 adults during this grant period. The school provides hands-on experience with watershed and forest relationships, cycles, stewardship and restoration. The school would provide eight weeks of spring camps and four weeks of fall camps to local educators. These camps range from single day camps to residential camps that are four days.

OWEB funds would be used for the Executive Director's salary and pay for seasonal instructors, curriculum, camp supplies and travel. Other partners include KOSS volunteers, KOSS participant fees, OSU Klamath Basin Research and Extension Center, Gray Family Foundation, USFWS and Klamath County schools.

REVIEW PROCESS

Regional Review Team Evaluation

This program has been operating for four years. It has an excellent natural resources curriculum to involve the student participants in conducting resource data collection and hypothesis about resource management influences. The program is a "camp" based in an excellent location for education and discovery. OWEB has supported this project two previous times and the applicant has been encouraged to look at other sources of funding. While they have attracted other funding, the review team was concerned about continued reliance on OWEB funding.

The review team questioned why OWEB is being asked to pay for half of the executive director salary instead of paying for instructors, site visits and camp related operating costs. It seemed odd that there was nothing in the application that described their past accomplishments. The application does not address past successes with students or school support/engagement even though the outdoor school has a good reputation and a good curriculum. Now that the state has acquired the forest lands south of Chemult, it seems the county may realize some revenue that has to be spent on school support. They do need to look seriously at other funding.

Regional Review Team Recommendation to Staff

Fund Reduced.

Regional Review Team Priority

1 of 1

Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
			\$24,467.00

Staff Recommendation to the Board

Fund Reduced.

Staff Recommended Award

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
			\$24,467.00

Total Recommended Board Award

\$24,467.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4020	Project Type:	Monitoring
Project Name:	Deschutes River Fish Monitoring - Phase I		
Applicant:	Upper Deschutes WC		
Basin:	DESCHUTES	County:	Deschutes
OWEB Request:	\$145,400.00	Total Cost:	\$288,394.00

Application Description

This study would evaluate the effect increased flows in the Middle Deschutes River (between Bend and Lake Billy Chinook) and Tumalo Creek have had on fish populations. In the last decade, conservation projects and inwater temporary leasing of water have increased the average flow to 120cfs (63cfs being permanently restored flow). The most recent fish population monitoring was coarse-scale, qualitative in nature and conducted in the 1980s.

The five-year study would establish baseline population data, document fish use of coldwater recharge areas, quantify fish response to instream flow restoration, evaluate fish response to changes in water temperature and develop a protocol to monitor these populations into the future so monitoring can extend into other reaches of the Deschutes River. Typical summer flows in the Middle Deschutes River averaged about 30cfs or less since the early 1900s.

OWEB funds would be used for project management but principally for contracted services of ODFW staff. Other partners include ODFW, Central Oregon Irrigation District Mitigation Fund and USFS.

REVIEW PROCESS

Regional Review Team Evaluation

There has not been a lot of fish and water quality monitoring in this area of the Deschutes River historically because it is a tough place to get into. Millions of dollars have been spent restoring flow in this area, and it is important to monitor and evaluate the effect of flow restoration on fish. It is expected that this information will be used to inform future water conservation projects.

The review team discussed the benefit of this effort to quantify flow – fish relationships when the study only covers a two-year time frame. It was pointed out that there is some historical information but there has not been a comprehensive analysis previously. This new data would be the standard for future studies like this. The information gathered can be compared to earlier survey information in part.

It seems like a lot for personnel (2 FTEs), but the work cannot be done with existing staff and staff would have to be hired. Existing personnel would supervise the project.

The fiscal administration seems high but it was pointed out that the study will occur over a two-year period. The ODFW does not have the type of equipment identified in the application. The review team recognized that a lot of money has been invested to restore streamflows in the area and this work is important. GIS should also be used for storing/displaying data.

Regional Review Team Recommendation to Staff

Fund.

Regional Review Team Priority

1 of 1

Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
			\$145,400.00

Staff Recommendation to the Board

Because OWEB lacks sufficient available 2009-2011 non-capital funding to meet the Board's non-capital funding target in March, staff recommends the Board award funds at its June Board meeting dependent on OWEB's 2011-2013 budget.

Staff Recommended Award

Capital Amount	EM Portion	PE Portion	Non-Capital Amount

Total Recommended Board Award

\$ 0.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4033	Project Type:	Monitoring
Project Name:	Crooked River Water Quality Monitoring Program Enhancement		
Applicant:	Crooked River WC		
Basin:	DESCHUTES	County:	Crook
OWEB Request:	\$23,323.00	Total Cost:	\$64,463.00

Application Description

This project would provide funding to purchase and place temperature and multi-parameter water quality monitoring sensors and collect and have analyzed water quality samples from 68 monitoring locations in the Crooked River watershed. The Crooked River watershed consists of three 4th-field subbasins and covers nearly 3 million acres of public and private land.

The Oregon DEQ's water quality assessment database lists 587 miles of 303(d) temperature-listed streams in the Crooked River basin. The lower Crooked River, Ochoco Creek, Mill Creek and McKay Creek are all identified as water quality limited for exceeding the State of Oregon's trout and salmonid rearing criteria. An interagency water quality monitoring group has been created to coordinate monitoring efforts, identify data gaps and provide input into data analyses and interpretation.

OWEB funds would be used to purchase 21 new continuous temperature probes and complete laboratory analysis of water quality samples. Other partners include the DEQ and the BOR.

REVIEW PROCESS

Oregon Plan Monitoring Team Evaluation

Regional Review Team Evaluation

Reviewers noted that they liked the proposal and thought it was well written; their initial impression was that it appeared the study will provide useful information.

However, after a lengthy discussion, reviewers found they had numerous questions that needed to be answered before they felt comfortable recommending funding.

Reviewers were concerned that the project could benefit from a number of partners with monitoring expertise and potentially funding and equipment could be provided for the project, but the partners were not included or mentioned in the application. Partners should include USFS, BLM, Confederated Tribes of Warm Springs, ODFW, WRD, USGS, TNC and ODA.

Reviewers noted that apparently the data format was to be in spreadsheets. They wanted the data to be stored in GIS with locations and a map, and noted that Crook County has a good GIS system and could be a partner on this.

The watershed council has been using DEQ-provided monitoring equipment for the last several years, and it is not clear from the application why they need to buy new equipment rather than continuing to use DEQ equipment. It was pointed out that they are going to have many more stations which will require additional equipment. Reviewers noted that the DEQ lab probably can support the additional equipment but it appeared that the council had not asked DEQ for this support.

Reviewers also discussed the sample sites and parameters and thought that more consideration needed to be put into these items. The proposal is to do a sample grab only from April through October, and reviewers noted it would be important to collect longer term information at different seasons. For example, bacteria and nutrients should be sampled in winter when cattle are wintering in meadows along the creeks and during flushes in February and March. It would also be good to collect multi-parameters in Dry Creek; the council is proposing to monitor only temperature in Dry Creek, and temperature is not an issue for the creek.

Even though the watershed council is doing much better since they hired a monitoring coordinator, they should be working more closely with DEQ and ODA to make it more strategic. The review team supports their efforts but have concerns about the monitoring design. They believe it should be better coordinated and strategic with the help of state and federal resource agencies.

Regional Review Team Recommendation to Staff

Do Not Fund.

Staff Recommendation to the Board

Do Not Fund.

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4021	Project Type:	Restoration
Project Name:	Ryan Meadow Wetland Restoration		
Applicant:	Upper Deschutes WC		
Basin:	DESCHUTES	County:	Deschutes
OWEB Request:	\$117,567.00	Total Cost:	\$670,317.00

Application Description

This project on the west edge of the Deschutes River, nine miles south of Bend in the Deschutes National Forest, would breach an existing levy and restore 70 acres of wetlands. An existing trail would be enhanced and riparian protection and wetland plants would be planted to stabilize the river bank and enhance wetland values.

The levee was constructed in the early 1900s to improve grazing conditions by blocking seasonal inundation from the Deschutes River. Today, much of the meadow dries up in the summer months. Restoring connection to the river will provide needed off-channel habitat for native fish. The area is part of a Deschutes River Trail which will be relocated to protect the restored wetland values to wildlife and fisheries. The project would install large wood “revetment” along the river edge to stabilize the area where the levee will be removed. In addition, approximately 600 feet of boardwalk and 1,000 feet of new trail will be constructed.

OWEB funds would be used for all aspects of project management and implementation. Partners include ODFW, U.S. Scenic Byways Grant, student volunteers, DSL and the Deschutes National Forest.

REVIEW PROCESS

Regional Review Team Evaluation

The review team recognized the ecological value of reconnecting this area to the Deschutes River and the outcome of reestablishing the hydrology of the area both in terms of wetland values and floodplain connectivity. The project would have positive values for the ESA candidate species of the Oregon Spotted Frog.

The review team did not recommend funding this project when it was initially submitted because of a concern over an unresolved water right issue. During the first review, reviewers noted that a resubmitted application needed to include information about water rights. The application as resubmitted appeared to indicate that a water right was not needed. However, at the review team meeting, OWRD confirmed that the project does need a water right. There is a concern by one or more irrigation districts that the project will affect their water rights. The USFS estimates it might take 100 to 200 acre feet and a consultant for an irrigation district estimated it could be up to 2,000 acre feet. A subcommittee formed recently, with an OWRD representative participating, to work on this issue. The process of investigating this issue and getting the water right may take a year. In the meantime, the project cannot be done until the water right is obtained.

There was previous concern raised by the RRT about the amount of money for planting and whether it was necessary; this has not been well addressed in this recent request. It appears, based on the budget, that Question 17 should have been completed for the planting aspect of the project. There are federal funds that may be lost this next summer if the project does not move forward, but that is not a strong consideration for the USFS as they want the partners to support the project.

Regional Review Team Recommendation to Staff

Do Not Fund.

Staff Recommendation to the Board

Do Not Fund.

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4022	Project Type:	Restoration
Project Name:	Tumalo Creek Stream Gauge		
Applicant:	Tumalo Irrigation District		
Basin:	DESCHUTES	County:	Deschutes
OWEB Request:	\$37,230.00	Total Cost:	\$67,713.00

Application Description

This project would complement fish passage work just completed immediately upstream of this site on Tumalo Creek west of Bend. The existing stream gauging station control weir blocks fish at some flows. A fish ladder has just been constructed in conjunction with the Tumalo Irrigation District headworks just upstream of the gauge.

The stream gauge is necessary to document the instream water right flows required to be there below this main irrigation diversion. A new gauge just downstream from the present gauge has been designed to allow fish passage and has been approved by the ODFW. The stream provides excellent redband trout habitat and cold water refugia for fish that go to the Deschutes River and return. Access would be provided to eight miles of habitat upstream of the gauge.

OWEB funds would be used for permitting, project management, contracted services and materials. Partners include the Tumalo Irrigation District and the OWRD.

REVIEW PROCESS

Regional Review Team Evaluation

This project has clear benefits with relatively low costs. The Tumalo Irrigation District is putting up a portion of the funding for this project. There are the appropriate partners supporting the project, and the design for the new gauging station is completed and approved by ODFW.

Ecosystem Process and Function

This project addresses watershed process and function by restoring native fish passage up and downstream to eight miles of historical habitat. It also assures that instream water rights are maintained instream to improve water quality and quantity for aquatic resources.

Regional Review Team Recommendation to Staff

Fund.

Regional Review Team Priority

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Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$37,230.00			

Staff Recommendation to the Board

Fund.

Staff Recommended Award

Capital Amount
\$37,230.00

EM Portion

PE Portion

Non-Capital Amount

Total Recommended Board Award

\$37,230.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4025	Project Type:	Restoration
Project Name:	Robinson Springs Redband Trout Habitat Enhancement		
Applicant:	Klamath Watershed Partnership		
Basin:	KLAMATH	County:	Klamath
OWEB Request:	\$37,208.00	Total Cost:	\$61,358.00

Application Description

This project would change a ditch irrigation system with 3,100 feet of gated pipe to better control water application. The source of the water is Robinson Springs Creek, a tributary to Fishhole Creek on the South Fork Sprague River in the Klamath Basin. Willow plantings would be done to improve the riparian area along the creek which supports redband trout.

A solar powered pump with a fish screen would pump water from the spring into the gated pipe. The adjacent pasture has been rested and now is rotationally grazed to restore the riparian area. It is showing improvement under the new grazing system. The creek flowed year around historically, but recently it often goes dry before reaching Fishhole Creek – causing resident fish to move to the headwaters. The use of gated pipe should result in more water left instream. The 120 willow plantings to be placed in the riparian area will be caged.

OWEB funds would be used for project implementation and materials. Partners include the landowner.

REVIEW PROCESS

Regional Review Team Evaluation

The stream is narrow and deep and it produces redband trout. The project should result in more water in the stream, but it is difficult to quantify and there is no proposal to do so or transfer it instream. There is no way to measure the savings. It is not clear what they are taking now and what this might mean in terms of savings. The reviewers discussed that the proposal to change from flood irrigation to gated pipe is not likely to save much water.

The Oregon Administrative Rules require a piping project to address water savings which can be measured, or it has to address a water quality issue. While this project may have some benefits in this area, it was not clear from the application. The little bit of wetlands associated with the irrigation diversion may have more ecological value than the water benefits instream. The application says there is a water right for a bypass flow and, if they are complying with that, it might be all that is necessary to benefit the stream. It is not clear that this project addresses the fish passage barrier mentioned in the project. Fencing was not mentioned in the alternatives, and reviewers noted that the approach to willow plantings was not likely to succeed in establishing riparian vegetation.

Reviewers appreciated the goals stated in the application but they had too many questions to recommend it for funding.

Regional Review Team Recommendation to Staff

Do Not Fund.

Staff Recommendation to the Board

Do Not Fund.

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4026	Project Type:	Restoration
Project Name:	Lost River Point Source Restoration		
Applicant:	Klamath Watershed Partnership		
Basin:	KLAMATH	County:	Klamath
OWEB Request:	\$68,288.00	Total Cost:	\$101,048.00

Application Description

This project would replace a failing wood-stave pipe that carries irrigation tail water from the Langell Valley Irrigation District back to the Lost River. The failing pipeline has created a gully across private land, dumping sediment into the Lost River which is home to the ESA-listed shortnose and Lost River suckers in the Klamath Basin. An HDPE pipe would replace the existing pipe and carry the tail-water to a small wetland along the river.

The proposed project is fairly high in the Lost River so the improvements in water quality will affect most of the river. The existing 32-inch wood-stave pipe would be replaced with 1,200 feet of 30-inch HDPE buried pipe. At the start of irrigation season the irrigation district flushes (charges) the system and the pipe carries up to 20cfs that discharges an eighth of a mile from the Lost River. During the irrigation season an average of 2cfs discharges from the pipe.

OWEB funds would be used for permitting, implementing the project and for materials. The partner is the Langell Valley Irrigation District.

REVIEW PROCESS

Regional Review Team Evaluation

Reviewers noted that the Lost River has serious water quality issues and that redband trout and suckers live in Miller Creek. The project site is below the Miller Creek confluence. They agreed that the current situation is a problem for water quality, although they noted that the application could have better explained the water quality improvement benefits of the project.

While there was concern about the pipe not being maintained sufficiently that the current problem could have been avoided, it was pointed out the original use of the water was to supplement the High Canal which it no longer does. The project would replace the wood-stave pipe and pipe the area missing to the wetland adjacent to the Lost River.

The review team would have liked to see information about the quality of the water when it comes out of the pipe. This is Bureau of Reclamation (BOR) water so it is odd that they are not partners. It appears there is money requested to pay for the permitting to the BOR. The applicant should talk with the local BOR office and ask them to contribute to the completion of the NEPA process, if indeed there is a federal nexus requiring it.

Ecosystem Process and Function

This proposal addresses watershed process and function by reducing human-caused erosion into a water quality limited stream that supports native fish.

Regional Review Team Recommendation to Staff

Fund Reduced. Reduce the funding by \$10,000.00 by deleting the money indicated for the Bureau of Reclamation NEPA permit processing.

Regional Review Team Priority

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Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$58,288.00			

Staff Recommendation to the Board

Fund Reduced. Reduce the amount awarded by \$10,000.00.

Staff Recommended Award

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$58,288.00			

Total Recommended Board Award

\$58,288.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4027	Project Type:	Restoration
Project Name:	Snake Creek Fish Barrier Removal		
Applicant:	Klamath Watershed Partnership		
Basin:	KLAMATH	County:	Klamath
OWEB Request:	\$104,323.00	Total Cost:	\$194,963.00

Application Description

This project would restore fish passage on Snake Creek, a spring fed tributary of the Sycan River. Access would allow native redband trout and ESA listed sucker fish to spawn and rear in this cold water stream. If anadromous fish are reintroduced into the Upper Klamath Basin, it is likely this tributary would provide habitat for them as well.

The project would create .2 miles of new channel to achieve a grade favorable to fish passage between the Sycan River and a pond next to the river on Snake Creek. From there, currently, water is directed vertically down a pipe to the river. In addition to the new fish passage stream channel, the entire stream would be fenced a mile on both sides, as a riparian pasture to be used once riparian vegetation becomes established and thereafter managed to protect the riparian zones. Two off-stream livestock watering pumps and solar panels will be installed and an existing artesian well will be piped to provide livestock water. A nearly identical fencing and water development for livestock project was completed two years ago on the property immediately upstream of this property.

OWEB funds would be used for all aspects of the project. Partners include the landowners, USFWS, the National Fish and Wildlife Foundation and ODFW.

REVIEW PROCESS

Regional Review Team Evaluation

The project supports redband trout in that it restores access to a spring fed stream/spring which offers cold water refugia when the Sycan and Sprague Rivers heat up in the summer months. It is good that the landowner is willing to work on this project. The review team expressed concern about long term maintenance of the bypass channel as it will, over time, likely aggrade or degrade. It was pointed out that the creek is fairly short and it is spring fed so maintenance may not be a big issue.

The USFWS is working with the landowner and the Klamath Watershed Partnership on this project. Long term, at least 10 years, of maintenance assurance of the improvements must be assured by the cooperator agreement. The application says that the landowner would maintain the improvements for at least 10 years. The application does a better job of showing the landowner's commitment to graze the area to support the establishment of woody species in the riparian area than the original application, but reviewers noted that the application could have been written more clearly in some areas. This project may help the landowner become an advocate for this type of work in the Sprague River basin. It would be a good idea to screen the pump that takes water out of the pond near the residence but the landowner does not want to screen the pump at this time. As a result, the project will not be as protective of juveniles as it could be. Reviewers recognized this weakness but believed that the project is still important to fund even with this weakness. The application did a good job of explaining alternatives that were considered.

Ecosystem Process and Function

This project addresses watershed process and function by restoring connection of two rivers, one of which provides cold water refugia essential for native fish survival and propagation.

Regional Review Team Recommendation to Staff

Fund.

Regional Review Team Priority

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Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$103,623.00			\$ 700.00

Staff Recommendation to the Board

Fund Reduced with Conditions. Fund with the condition that the final Project Completion Report describe and document grantee's efforts to screen the irrigation pump with the landowner and ODFW. Non-capital Education Outreach funds were eliminated due to very limited availability of non-capital funds.

Staff Recommended Award

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$103,623.00			

Total Recommended Board Award

\$103,623.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4028	Project Type:	Restoration
Project Name:	Fish Passage on Sevenmile Creek below West Canal		
Applicant:	Klamath Basin Rangeland Trust		
Basin:	KLAMATH	County:	Klamath
OWEB Request:	\$42,500.00	Total Cost:	\$106,400.00

Application Description

This project would construct a fish-friendly bypass channel around an existing irrigation diversion weir on Sevenmile Creek that flows from the Winema National Forest across private lands and into Upper Klamath Lake. This will open up 16 miles of habitat for ESA-listed shortnose and Lost River suckers and redband trout.

The applicant has worked with several landowners along Sevenmile Creek to restore the riparian conditions and the historical dimension, pattern and profile of the creek. This is a high priority stream for fish production identified by ODFW. The applicant has helped remove seven fish passage barriers and this is the next one "on the list." The passage would accommodate returning anadromous fish if they are successfully reintroduced.

OWEB funds would be used for project management, contracting and materials. Other partners include Brush Creek Ranch and USFWS.

REVIEW PROCESS

Regional Review Team Evaluation

Reviewers agreed there is clear ecological benefit from opening up 16 miles of habitat, and noted this project ties in well with previous and planned projects. They appreciated the lean, efficient proposal and well-written application.

Reviewers had much discussion about maintenance of OWEB funded improvements on this project and the last project (211-4027), it was suggested the responsibility be that of the applicant. There is a provision in the Klamath Basin Restoration Agreement to re-flood property near here but it is not clear whether this site would be affected or when it would be done. The passage is necessary. It was pointed out there is no local or recent documentation on the success of the type of fish bypass channel proposed. The USFWS will be assisting with design of the bypass channel. The design will attempt to reactivate an old channel scar adjacent to the ditch. The team recognized that a bypass is not as good a solution as addressing the irrigation diversion, but that is not possible at this time and providing this passage is important.

Ecosystem Process and Function

This project addresses watershed process and function by restoring native fish passage to a tributary of Upper Klamath Lake that provides high-quality water and spring influenced cold water refugia essential to fish survival and propagation.

Regional Review Team Recommendation to Staff

Fund.

Regional Review Team Priority

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Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$42,500.00			

Staff Recommendation to the Board

Fund.

Staff Recommended Award

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$42,500.00			

Total Recommended Board Award

\$42,500.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4029	Project Type:	Restoration
Project Name:	Fourmile Creek and Harriman Spring Restoration		
Applicant:	Klamath Basin Rangeland Trust		
Basin:	KLAMATH	County:	Klamath
OWEB Request:	\$68,775.00	Total Cost:	\$279,660.00

Application Description

This project would put 1.2 miles of Fourmile Creek back into its historical channel, adding to the 1.3 miles of reconstruction just completed. The creek flows from Fourmile Lake and it used to connect to Harriman Spring and then enter the west side of Upper Klamath Lake at Rocky Point. It was, historically, important spawning and rearing habitat for Lost River suckers, an ESA-listed species. This project would reconnect Fourmile Creek to Harriman Spring.

At the present time, both Lost River suckers and redband trout use this area as water quality refugia but it lacks the habitat characteristics for spawning. Since the creek was altered, there is too much sediment in the channel. In the 1950s lake fringe wetlands along the mouth of Fourmile Creek and Harriman Spring channels were drained and diked for agricultural use. Phase 1 is located about two miles upstream of the proposed Phase 2 project. This phase will be from the mouth of Fourmile Creek upstream 1.2 miles. The straightened channel will be filled in. Large wood, mature willows and various wetland and riparian plants will be placed along the restored channel.

OWEB funds would be used for project management and contracted services. Other partners include Oregon Wild, BOR, USFS RAC Title II funding and USFWS.

REVIEW PROCESS

Regional Review Team Evaluation

Harriman Spring was a spawning area for ESA-listed Lost River suckers. This project would reconnect the spring to the creek providing better access from and to Upper Klamath Lake. Fourmile Creek, which naturally flowed into Harriman Springs, is a short distance from Upper Klamath Lake. It was ditched and straightened in the '50s and '60s. This would reactivate the historical channel.

The spring connection is the most important aspect of the project. This seems to be very cost effective for this type of work. A technical assistance grant was awarded a year ago to do design work on this project. The project is also beneficial for redband trout with possible benefits to an ESA candidate species, the Oregon Spotted Frog in Fourmile Meadow. There are good partners. The USFWS will be involved in the final design of the channel. This is a well-written proposal.

Ecosystem Process and Function

This project addresses watershed process and function by restoring hydrologic connectivity to an important spawning and rearing area for native (now endangered) fish indigenous to Upper Klamath Lake.

Regional Review Team Recommendation to Staff

Fund.

Regional Review Team Priority

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Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$68,775.00			

Staff Recommendation to the Board

Fund.

Staff Recommended Award

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$68,775.00			

Total Recommended Board Award

\$68,775.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4031	Project Type:	Restoration
Project Name:	Lower Williamson and Spring Creek Habitat Enhancement		
Applicant:	Klamath Basin Rangeland Trust		
Basin:	KLAMATH	County:	Klamath
OWEB Request:	\$82,040.00	Total Cost:	\$168,411.00

Application Description

This project would increase fish habitat complexity on the lower four miles of the Williamson River and a half mile of Spring Creek in the Upper Klamath Basin. Past logging and the removal of large wood has left these areas without the habitat and cover necessary to meet the demands of spawning redband trout.

Currently there is superimposition of redds in both systems and significant mortality occurs due to the lack of cover for adult spawning redband trout. The project will add spawning gravel and instream large wood to improve complexity, cover and retention of gravel. A total of 170 large wood pieces will be placed by helicopter in three to five piece complexes. Five to ten large pieces will be felled along Spring Creek. Thirty cubic yards of gravel will be placed just downstream of Kirk Springs and 100 yards of gravel will be placed in Spring Creek across from Collier Memorial State Park's day use area.

OWEB funds will be used for project management and contracted services. Other partners in the project include the OPRD, Klamath Guides Association, Trout Unlimited, ODFW and the Klamath County Flycasters.

REVIEW PROCESS

Regional Review Team Evaluation

There is documentation which shows woody debris was removed and it should be restored to provide needed instream habitat. There has not been a lot of spawning gravel historically, but it is preferred and used by spawning fish. The cost seems high but it is helicopter time which seems to be the best way to get the wood placed. The price seems consistent with other helicopter use. There have been management changes and new standards for agriculture and forestry operations that will positively affect the area over time.

The gravel is likely to stay in the system as there are no high streamflow fluctuations in this area of Spring Creek. There are education opportunities with the project since some of the work will occur within Collier State Park. If funded, the applicant needs to consult with ODFW about raptor nests in the area and timing of activity.

Ecosystem Process and Function

This project addresses watershed process and function by assisting in the replacement of woody debris historically present in the streams that provided essential habitat, contributed to nutrient and food resources and channel complexity in stream reaches important for native spawning fish that spend their life cycles both in the rivers and Upper Klamath Lake.

Regional Review Team Recommendation to Staff

Fund.

Regional Review Team Priority

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Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$82,040.00			

Staff Recommendation to the Board

Fund.

Staff Recommended Award

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$82,040.00			

Total Recommended Board Award

\$82,040.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4032	Project Type:	Restoration
Project Name:	South Fork Beaver Creek Tributary Improvement Project		
Applicant:	Crooked River WC		
Basin:	DESCHUTES	County:	Grant
OWEB Request:	\$164,544.00	Total Cost:	\$275,119.00

Application Description

This project will add to previous restoration efforts in the South Fork Beaver Creek, the headwaters of the Crooked River about 70 miles east of Prineville. The landowner has placed rock check structures in the South Fork Beaver Creek, and this proposal would place over 40 rock and straw bale structures in three tributaries to capture sediment and slow runoff near the restoration efforts completed on the South Fork of Beaver Creek. The South Fork of Beaver Creek supports native redband trout.

The area where previous work was done is showing great improvements in reducing streambank erosion and widening the wetted perimeter of the stream thus storing more water. The landowner reasons that this will be enhanced if similar work is done to intermittent tributaries in the area. As a result of the earlier work, the streamflows have increased and the water quality has improved. This type of work has been done upstream of this landowner with success in aggrading the stream channel and reducing erosion. Willows will be planted around each structure after completion to help hold it in place. In addition, juniper "riprap" will be placed in the channel to help capture sediment and reduce active streambank erosion.

OWEB funds would be used for project management, contracted services, materials and administration. Partners include the landowner and the Crooked River Watershed Council.

REVIEW PROCESS

Regional Review Team Evaluation

The review team was initially concerned that the application really does not address the cause of the degraded stream and tributaries which, in their opinion, is livestock grazing. It appears that the issues are legacy issues, not caused by recent management. The proposed structures seem expensive but the site is remote which affects the cost. If the project moves forward, the structures would have to meet ODFW criteria for fish passage. The projects in the South Fork Beaver Creek are successful in capturing sediment and aggrading the stream. There is flow downstream of the previous structures all year long now when it used to dry up in mid-summer.

The review team had a lengthy discussion about this project and the previous instream rock structures, that apparently had to be redesigned and reconstructed to provide for fish passage, which was affected by the rock structures as originally installed. This led to concerns about the design, including the proposed T-posts, which are not allowed. Reviewers wondered whether it might be a better approach to construct water and sediment control basins in the upper parts of these watersheds to help take the peak off of major flow events above any intermittent stream flows. This could enable the riparian areas to recover. It was shared that the livestock management in the recent past has enabled the riparian and upland areas of the project to show signs of improvement. The application says there will be 13 weeks of excavator work yet the project schedule indicates it will be completed in one month, which is confusing. The review team questioned how there could be specific costs in the budget but there is no design detail in the proposal. While the review

team believes this type of project has merit, there were too many questions to recommend funding at this time. If the application is resubmitted, reviewers want to see design, including fish passage designs for the instream work, a grazing plan, and an explanation and justification for the requested project management hours, which seemed high.

Regional Review Team Recommendation to Staff

Do Not Fund.

Staff Recommendation to the Board

Do Not Fund.

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4034	Project Type:	Restoration
Project Name:	Riverfront Park Wetland & Riparian Restoration		
Applicant:	Wasco SWCD		
Basin:	HOOD	County:	Wasco
OWEB Request:	\$84,886.00	Total Cost:	\$217,866.00

Application Description

This project would initiate the removal of non-native invasive species vegetation within 40 acres of park land in The Dalles adjacent to the Columbia River. The area receives heavy waterfowl use. The area was radically manipulated during the construction of Interstate 84.

The Lone Pine site is at the mouth of Threemile Creek which hosts anadromous fish. There are ten acres of mitigation wetlands on the site. The paved river trail that runs the length of The Dalles along the Columbia River runs along the edge of this site. The trail is closed six months of the year to reduce disturbance to nesting waterfowl. Due to the non-native vegetation there is very little physical access to the riverbank. The N. Wasco Parks and Recreation Department will maintain the site by continuing to mechanically treat and use herbicides for 15 years.

OWEB funds would be used for materials, contracted services and administration. Other partners include the N. Wasco Parks and Recreation, the Wasco County SWCD, ODF, ODFW and Dirt Huggers LLC.

REVIEW PROCESS

Regional Review Team Evaluation

The review team recognized the wildlife benefit of the project. The application is not clear what the nesting birds are, but geese and ducks heavily use this area. Fruitfly infestations are a new issue in the area. Their potential impact to the fruit production in the area has brought new attention to infestations of blackberries, as they provide habitat for the fruitfly.

The site has never been “managed” and reviewers were concerned whether the site would be maintained and managed after project completion, if it has not been maintained to date. It has undergone a high degree of disturbance with the construction of Interstate 84. Another area just east of this (the Lone Pine site) has been successfully treated and gets wildlife and public use. The application is clear that the site will be maintained, post-project, by the N. Wasco Parks and Recreation Department. The review team recognized education potential of this project but it has not been fully explained in the proposal. There is some mention of future interpretive signs. There are good partners.

Ecosystem Process and Function

This project addresses watershed process and function in that it restores a site heavily dominated by non-native vegetation and returns it to native plants which should benefit wildlife use of the site.

Regional Review Team Recommendation to Staff

Fund.

Regional Review Team Priority

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Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$84,886.00			

Staff Recommendation to the Board

Fund.

Staff Recommended Award

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$84,886.00			

Total Recommended Board Award

\$84,886.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4038	Project Type:	Restoration
Project Name:	COID I - Lateral Piping and Streamflow Improvement		
Applicant:	Deschutes River Conservancy		
Basin:	DESCHUTES	County:	Deschutes
OWEB Request:	\$1,157,583.00	Total Cost:	\$1,678,823.00

Application Description

This project would install 1.4 miles of 54-inch pipe in a Central Oregon Irrigation District (COID) lateral canal for the purpose of conserving water. As a result, 4.1cfs of water will be converted to an instream water right that would be allowed to stay in the Deschutes River between Bend and Lake Billy Chinook.

Through other water saving projects in the last 12 years, there is now 63cfs in this section of the Deschutes River. Historically, prior to irrigation withdrawals, the river flowed an average of 1,300cfs. There are seven irrigation districts taking water out of the Deschutes River at Bend where the river is near the elevation of the surrounding land. Due to the porous geology of the area, up to 500 percent more water has to be diverted because of ditch losses than is actually necessary for irrigation. Below (downstream) of Bend, the river goes into a canyon making it difficult to divert. The irrigation districts provide irrigation water (and to a lesser extent – potable water) to properties in Deschutes, Crook and Jefferson Counties. The instream flow goal of the ODFW is 250cfs in the Middle Deschutes River.

OWEB funds would be used for in-house personnel, contracting and fiscal administration. Other partners include the COID and the National Fish and Wildlife Foundation.

REVIEW PROCESS

Regional Review Team Evaluation

Reviewers agreed there is good ecological benefit in the amount of flow proposed to be conserved instream through this project, but once again they struggled with a recommendation regarding high-cost piping projects through the regional grant process. Reviewers would like to see OWEB set a separate targeted budget for big ticket projects. Staff reminded the review team not to factor in the cost of the project in the evaluation of its ecological merit.

Although reviewers thought the benefits of the project were important, they found several issues led them to a “do not fund” recommendation at this time.

First, the applicant has indicated that the project will not go forward if they cannot secure an easement to realign the canal. The review team was reluctant to recommend funding and have funds tied up when it is not clear whether the project will ultimately go forward.

Reviewers also had a number of questions that the application did not address. This is the first application proposing to pipe a lateral for water conservation. The team wondered whether the district plans to pipe the entire 20 miles of the lateral, or just this 1.4 miles? The application does not explain why piping this lateral is proposed as opposed to any other laterals – there are miles of laterals and what was the analysis used to choose this one, was it the amount of water savings, etc.?

Reviewers also had significant concerns about the budget. It does not appear that COID is contributing much match, including in-kind match, and the project would benefit them. Reviewers wanted to see more match from the district. Further, reviewers noted that the application states that if it is not funded, the district may fund the project with their own money and sell the water to another conservation buyer. Reviewers found it concerning that the district may fund the project on its own, but when proposing OWEB funding the district would only provide 6/10 of one percent of the project financing. Reviewers did not think that the application provided justification for the high amount of fiscal administration requested, and questioned whether all of the requested project management and staff time is needed for this project.

The review team had too many questions and concerns to recommend funding at this time.

Regional Review Team Recommendation to Staff

Do Not Fund.

Staff Recommendation to the Board

Do Not Fund.

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4039	Project Type:	Restoration
Project Name:	Holiday Ranch - Thomas Creek Fish Passage Project		
Applicant:	Lake County Umbrella Watershed Council		
Basin:	LAKES	County:	Lake
OWEB Request:	\$143,731.00	Total Cost:	\$307,165.00

Application Description

This project would replace a diversion weir of sheet piling and boards with a precast concrete weir that will provide for fish passage at a variety of stream flows. The project is seven miles upstream of Goose Lake on Thomas Creek west of Lakeview. Thomas Creek supports redband trout, Goose Lake tui chub, Goose Lake lamprey, pit roach, pit sculpin and speckled dace. Many of these species are found nowhere else.

The Lake County Watershed Council has been working with eight landowners who own most of the Thomas Creek contiguous private property below the national forest. Over the last three years, they have completed several bank stabilization and instream habitat projects. This work has encouraged the Holiday Ranch to work with the council to address fish passage issues at their diversion. The current weir blocks passage during irrigation season when fish often seek refuge upstream of Goose Lake in periods of dry weather when the lake can completely dry up. There is one other fish barrier upstream of this project about two miles and plans are developing to address that barrier after this project is completed.

OWEB funds would be used for all elements of the project. Other partners include the Holiday Ranch, Ducks Unlimited, Inc., North American Wetland Conservation Association, USFWS and ODFW.

REVIEW PROCESS

Regional Review Team Evaluation

Reviewers noted that fish can pass now, but the project will provide connectivity between Goose Lake and upstream habitat, and improve passage. The structures would be built to accommodate screens at some future date and reviewers hope these are provided for juvenile protection. It is important to create fish passage at all flows.

In the past, the system has been highly manipulated for agriculture. Flash grazing a 50-foot buffer has to be done very carefully as they can be overgrazed easily. Hardened crossings need to be used for crossing and not a loafing area where they can be a point source for bacteria. The landowner's vision of the riparian area must be for the recruitment of woody species as stated in the application.

Reviewers thought that the project is important but the application could have provided better information by showing where the old fence is and where the new fence is going. They noted that maintenance of the bypass structure needs to be addressed. Finally, they would have liked to see more landowner match.

The landowner and applicant need to check with the Oregon Water Resources Department regarding whether a point of diversion change is needed.

Ecosystem Process and Function

This project addresses watershed process and function by restoring up and downstream fish passage of native fish.

Regional Review Team Recommendation to Staff

Fund with Conditions. The applicant will provide a grazing management plan, a measuring device (to be paid for by OWEB) will also be required, and remove OWEB funding for the "rubbish" removal.

Regional Review Team Priority

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Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$143,731.00			

Staff Recommendation to the Board

Fund with Conditions. The grant agreement will require the grantee to submit a grazing management plan with the final project completion report. The grant agreement will also require a measuring device (to be paid for by OWEB). OWEB will not fund the "rubbish" removal.

Staff Recommended Award

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$143,731.00			

Total Recommended Board Award

\$143,731.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4041	Project Type:	Restoration
Project Name:	Maxwell Ranch Riparian Restoration Project		
Applicant:	Ducks Unlimited - Klamath		
Basin:	LAKES	County:	Lake
OWEB Request:	\$80,176.00	Total Cost:	\$119,565.00

Application Description

This project on the Maxwell Ranch at the head of the Goose Lake Valley in Lake County proposes to install riparian fencing along the entire length of Cox Creek (on the landowner's property), a distance of three miles on both sides of the creek. Along with fencing the riparian areas to manage livestock impacts, three off-stream solar livestock watering facilities will be constructed, two rock crossings will be constructed to provide for seasonal livestock crossing, juniper revetment will be placed to reduce bank erosion and 5,000 willow cuttings will be planted along 3,000 feet of the stream channel.

The proposed work would take place partially on a recently acquired 400-acre portion of the 3,514 acre ranch protected under a conservation easement. Within the past year, the owners have cleared 350 acres of juniper to enhance upland habitat and improve spring flows in Spring Creek and Bauer's Creek. The stream sections affected are partially incised and do contribute sediment due to unstable and downcut streambanks. The landowner is engaged in working on several fish passage projects and other restoration activities on the ranch.

OWEB funds would be used for project management, contracted services, the purchase of fencing and fiscal administration. Other partners include Maxwell Cattle Company, Ducks Unlimited Inc., Lake County Watersheds Council and USFWS.

REVIEW PROCESS

Regional Review Team Evaluation

This is a redband trout stream and a Modoc sucker stream. The review team believes the project will enhance the riparian area and reduce excessive erosion. It should promote aggradation and a rising water table to store more water in the upper part of the basin.

The hardened crossings need to be used for crossings related to moving cattle so they do not become loafing or gathering areas. They are trying to do the solar pumping and troughs, and the water gaps are backup. The gated water crossings are for moving livestock. The application should have included a map showing where fencing is being removed or installed. It would be a stronger application if it had included more match from the landowner since part of the work is protecting a center pivot.

Ecosystem Process and Function

This project will help restore watershed process and function by enabling the riparian area to improve so the stream aggrades with increased floodplain interaction while storing more water in the soil profile.

Regional Review Team Recommendation to Staff

Fund.

Regional Review Team Priority

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Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$80,176.00			

Staff Recommendation to the Board

Fund.

Staff Recommended Award

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
\$80,176.00			

Total Recommended Board Award

\$80,176.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4018	Project Type:	Technical Assistance
Project Name:	MFID Middle Fork Hood River In-stream Flow Assessment		
Applicant:	Middle Fork Irrigation District		
Basin:	HOOD	County:	Hood River
OWEB Request:	\$50,000.00	Total Cost:	\$165,800.00

Application Description

The Middle Fork Irrigation District (MFID) in the Hood River Basin diverts as much as 75 percent of the water from tributaries of the Middle Fork Hood River. This impacts ESA listed bull trout, winter steelhead, Chinook and other aquatic species. This study would allow the MFID to model alternative flow regimes below diversion points in the Clear, Coe and Eliot creeks and the Middle Fork Hood River. Study results will be used over the next eight years to identify and implement alternative river operation regimes and infrastructure changes to improve flow, passage, water quality and habitat.

OWEB funds would be used for contracted services. Other partners on this project include the Middle Fork Irrigation District, Hood River County Title II program, the USFS, confederated Tribes of Warm Springs, and the Hood River Working Group.

REVIEW PROCESS

Regional Review Team Evaluation

The study will provide information that will help the irrigation district understand how its operations affect water quality and fish species. The study will determine if they can make operation changes to meet flows to benefit fish and meet the Total Maximum Daily Loads water quality parameters set by the Oregon DEQ. Temperature and flow are an issue in the Middle Fork Hood River. This is a well written proposal. Reviewers appreciated that the applicant did a good job addressing the review team's comments from the previously submitted application which was not recommended for funding. There is a large amount of match and this work is important for native fish recovery. The review team appreciated that the proposal will look ahead for climate change impacts and relationships with the glaciers on Mt. Hood which are the source for Hood River basin streams.

Regional Review Team Recommendation to Staff

Fund.

Regional Review Team Priority

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Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
			\$50,000.00

Staff Recommendation to the Board

Fund.

Staff Recommended Award

Capital Amount

EM Portion

PE Portion

Non-Capital Amount
\$50,000.00

Total Recommended Board Award
\$50,000.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4019	Project Type:	Technical Assistance
Project Name:	North Canal Dam Fish Passage Design		
Applicant:	Upper Deschutes WC		
Basin:	DESCHUTES	County:	Deschutes
OWEB Request:	\$39,825.00	Total Cost:	\$69,065.00

Application Description

This project would fund an engineering design for a fish ladder at the 40-foot high North Canal Dam at the north end of the City of Bend on the Deschutes River. The dam, operated by three irrigation districts (Central Oregon, Swalley and North Unit Irrigation District), is one of two complete fish passage barriers within the Bend area. The North Unit Canal Dam is the highest and most downstream. The barrier impacts native redband trout. Once fish passage is achieved, it will open up 1.3 miles of river upstream to the next man-made passage barrier. Once passage is achieved at that location (Mirror Pond Dam), it will open up 90 miles of the Upper Deschutes River, Little Deschutes River and Fall River.

OWEB funds would be used for project administration and contracting services. Other partners in the project include the three irrigation districts listed above, ODFW and Steidl Dam Company.

REVIEW PROCESS

Regional Review Team Evaluation

The review team could see the need for this in the context of connecting the Middle and Upper Deschutes. The North Unit Dam provides a diversion for four irrigation districts. The design will provide both upstream and downstream passage. The irrigation diversions are screened. The review team appreciated that the proposal had the support of the irrigation districts and the owner of the dam. Each site is different so fish ladder designs cannot just be plugged in from other site applications.

Reviewers noted that the City of Bend is trying to figure out what to do with Mirror Pond which is 1.3 miles upstream of the North Unit Dam. The pond is formed by a log-crib dam that is also a fish passage barrier. Mirror Pond will probably be addressed at some point, and fish passage will have to be provided at the log-crib dam.

Regional Review Team Recommendation to Staff

Fund.

Regional Review Team Priority

1 of 7

Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
			\$39,825.00

Staff Recommendation to the Board

Fund.

Staff Recommended Award

Capital Amount

EM Portion

PE Portion

Non-Capital Amount
\$39,825.00

Total Recommended Board Award

\$39,825.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4023	Project Type:	Technical Assistance
Project Name:	South Fork Sprague River Habitat Enhancement Design		
Applicant:	Jeremiah J. Geaney		
Basin:	KLAMATH	County:	Klamath
OWEB Request:	\$15,091.00	Total Cost:	\$20,155.00

Application Description

This project would provide funding for assessment and design of restoration work on bank stabilization and fish habitat improvements for a half mile of the South Fork Sprague River as it comes out of the National Forest and into the Sprague River Valley. The area has been grazed hard and there is active streambank erosion. The soil is naturally high in phosphorous and nitrogen which, when it erodes downstream, contributes to water quality problems in Upper Klamath Lake. The South Fork Sprague River in this reach provides habitat for redband trout and potentially for Klamath largescale suckers, shortnose and Lost River suckers. The river also provided historical habitat for steelhead and Chinook salmon.

OWEB funds will be used to contract for the assessment and design. The Bureau of Reclamation may be a partner on this project.

REVIEW PROCESS

Regional Review Team Evaluation

South Fork Sprague has been significantly altered and is in poor condition due to straightening, disconnection from its floodplain, levees and land management practices that discourage establishment of a healthy riparian area. It is a good project location that warrants restoration design work.

Reviewers discussed whether the proposed design would address the underlying problems of the stream. Erosion is a major problem but the stream is trying to re-establish itself to a historical pattern. Reviewers questioned whether the juniper “riprap” would be the best thing for the system since the stream is trying to establish a floodplain. The proposal lacked detail to determine if juniper is the right fix but that will be better understood once they complete the analysis and design. During the discussion, it was recognized that there are serious problems with the reach and this is a good opportunity to work with the landowner. The contractor for the project has a good track record in the basin.

The application could have been improved by providing more detail and reviewers would have liked to see letters of support from agencies. The proposal would be stronger if the landowner was providing some match for the project. There is mention of a possibility of enrolling in some protection program like CREP.

Following discussion, reviewers concluded that although they had some questions about the application, the area is a high priority reach. The review team wanted to inform the applicant that if a restoration grant comes back proposing only juniper riprap, the team may not recommend it for funding.

Regional Review Team Recommendation to Staff

Fund Reduced with Conditions. The landowner will contribute at least \$500.00 in cash or in-kind service.

Regional Review Team Priority

Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
			\$14,591.00

Staff Recommendation to the Board

Fund Reduced.

Staff Recommended Award

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
			\$14,591.00

Total Recommended Board Award

\$14,591.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4030	Project Type:	Technical Assistance
Project Name:	Deming Ranch Sprague Fish Passage		
Applicant:	Deming Ranch Land & Cattle LLC		
Basin:	KLAMATH	County:	Klamath
OWEB Request:	\$50,000.00	Total Cost:	\$157,000.00

Application Description

This project would complete an analysis and engineered design to construct a new stream channel for a 1.2 mile reach of the South Fork Sprague River near Bly in the Klamath Basin. The stream was straightened and diked over fifty years ago, leading to higher stream velocities and streambank erosion. The soils in this system are high in phosphorous and nitrogen and, when they are flushed downstream to Upper Klamath Lake, they contribute to algae blooms and poor water quality. The stream supports redband trout and Lost River suckers which are blocked by a diversion weir in this stretch of river. The design would accommodate fish passage as well as restore the historical meander pattern of the river.

OWEB funds would be used for project management and travel costs. Partners include the USFWS, the Deming Ranch and Oregon Wild – Fremont/Winema Mitigation Fund.

REVIEW PROCESS

Regional Review Team Evaluation

The proposed project is a major replumbing of the basin and it is the highest priority for the USFWS in the basin. This area is a major source of sediment in the watershed and Upper Klamath Lake. There is a major fish passage barrier in this reach that will be addressed with the design. The purpose of a Technical Assistance grant is to study and design a restoration project. The engineering firm selected to do the design work has been used a lot on USFWS projects in the basin and is considered very qualified.

The review team would have liked to see more detail in the application, but they recognized the project is critical to restoring the Sprague River and will need a lot of design work. The project includes data collection, analysis and modeling.

Regional Review Team Recommendation to Staff

Fund.

Regional Review Team Priority

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Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
			\$50,000.00

Staff Recommendation to the Board

Fund.

Staff Recommended Award

Capital Amount

EM Portion

PE Portion

Non-Capital Amount
\$50,000.00

Total Recommended Board Award
\$50,000.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4035	Project Type:	Technical Assistance
Project Name:	Rock Creek Restoration Design		
Applicant:	Wasco SWCD		
Basin:	HOOD	County:	Wasco
OWEB Request:	\$15,440.00	Total Cost:	\$41,280.00

Application Description

This project would study the lower three miles of Rock Creek near Mosier that are accessible to ESA-listed steelhead for the purpose of identifying limiting habitat factors and design specific restoration activities. A rock quarry adjacent to the river has contributed angular cobbles that may be the cause of the stream going subsurface in the last one-half mile to its mouth during dry periods. The study would provide preliminary restoration designs. Field investigations suggest spawning gravels should be added as well as large wood to provide habitat structure. A team of stakeholders, including, Wasco County SWCD, City of Mosier, ODOT, Oregon State Parks, ODFW and the USFS will provide technical assistance.

OWEB funds would be used for contracted services. Other partners include the landowners, City of Mosier, Wasco County SWCD, the agencies mentioned above and a Nonpoint Source Implementation 319 grant.

REVIEW PROCESS

Regional Review Team Evaluation

Reviewers noted that this project has good match and good partners, and addresses steelhead which is a priority species. There is a waterfall that blocks the stream three miles up but the lower section is used by anadromous fish, and even though steelhead habitat is limited, it is all important. The abandoned quarry was an ODOT quarry and they appear to be the owner. The City of Mosier is trying to get a conservation easement on the quarry. There are other areas that are higher in priority for restoration for anadromous fish, but it is a small amount of money to invest in this reach used by anadromous fish. A technical assistance grant would help them figure out what the issues are. The applicant is very involved in working with TMDLs and has a good track record. Water flows in the stream only a few months out of the year which may be caused by the quarry tailings and the study will address this. If this is funded, the applicant should be aware that the review team indicated it hopes that a conservation easement for the quarry property can be in place before a restoration grant application is submitted.

Regional Review Team Recommendation to Staff

Fund.

Regional Review Team Priority

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Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
			\$15,440.00

Staff Recommendation to the Board

Fund.

Staff Recommended Award

Capital Amount

EM Portion

PE Portion

Non-Capital Amount
\$15,440.00

Total Recommended Board Award

\$15,440.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4037	Project Type:	Technical Assistance
Project Name:	Using LiDAR to Map Groundwater-Dependent Ecosystems in the Upper Deschutes Basin		
Applicant:	The Nature Conservancy		
Basin:	DESCHUTES	County:	Deschutes
OWEB Request:	\$49,976.00	Total Cost:	\$118,022.00

Application Description

This project would fund a watershed modeler to use fine scale topographic data from LiDAR (Light Detection and Ranging) aerial imagery to identify areas in the Upper Deschutes Basin where groundwater discharges at the surface to form springs and wetlands. The LiDAR imagery will be used in conjunction with FLIR (Forward Looking Infra-red) and ground-truthed data to confirm areas of groundwater/surface water interactions on which ecosystems depend.

These ecosystems are threatened by groundwater pumping, contamination and climate change. There is a major gap in the understanding of the distribution and characteristics of groundwater-dependent wetlands and other off-channel habitats. This study will take place using existing LiDAR in Tumalo Creek and Whychus Creek. A subset of predicted groundwater-dependent wetlands will be ground-truthed by measuring depth of organic soils, late summer soil moisture and percent carbon content.

OWEB funds would be used primarily for contracted services. Other partners include the Bella Vista Foundation, The Nature Conservancy (TNC) and TNC's Portland General Electric Salmon Habitat Fund.

REVIEW PROCESS

Regional Review Team Evaluation

This project will use existing LiDAR information. It is important to know how the groundwater relates to springs in the area. This is a highly technical type project. This type of information could be used effectively in the Klamath Basin. Once the information is known, the areas can be mapped and land use considerations can factor in the importance of these areas. This should have an impact on groundwater pumping management and land use development. This should help determine habitat related to Oregon Spotted Frog recovery planning.

While this looks like a research project, it is important knowledge to guide future watershed restoration. The project will help in understanding the relationship between ground and surface water and lead to future projects. Understanding where the springs are helps understand where habitat needs to be protected and restored. This will complement work being done by the USFS in the area of a similar nature. There are different types of groundwater-dependent ecotypes and this has management implications. This work is important although it is not as directly linked to future OWEB eligible restoration projects as other proposals.

Regional Review Team Recommendation to Staff

Fund.

Regional Review Team Priority

5 of 7

Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
			\$49,976.00

Staff Recommendation to the Board

Because OWEB lacks sufficient available 2009-2011 non-capital funding to meet the Board's non-capital funding target in March, staff recommends the Board award funds at its June Board meeting dependent on OWEB's 2011-2013 budget.

Staff Recommended Award

Capital Amount	EM Portion	PE Portion	Non-Capital Amount

Total Recommended Board Award

\$ 0.00

October 18, 2010 OWEB Grant Cycle Central Oregon Review Team (Region 4)

Application No.:	211-4040	Project Type:	Technical Assistance
Project Name:	Crooked Creek Reconnaissance and Survey Project		
Applicant:	Lake County Umbrella Watershed Council		
Basin:	LAKES	County:	Lake
OWEB Request:	\$36,358.00	Total Cost:	\$52,858.00

Application Description

This project would complete an analysis of Crooked Creek north of Lakeview to determine limiting factors for stream stabilization and habitat for aquatic species and riparian-dependent wildlife. The stream supports redband trout. The stream runs along portions of Highway 395. The analysis will identify restoration opportunities.

The stream has downcut and disconnected from its floodplain leading to vertical streambanks and active erosion. The area has a history of livestock grazing. The stream is 22 miles in length and it connects to the Chewaucan River. The project starts in the Fremont-Winema National Forest and crosses 15 property boundaries. The highway location has effectively narrowed the existing floodplain and valley bottom and restricted the natural meandering of the channel. These conditions have led to channel headcutting and streambank instability in some reaches of the stream.

OWEB funds would be used for contracting services. Partners include landowners, USFS and Lake County SWCD.

REVIEW PROCESS

Regional Review Team Evaluation

Reviewers thought this was a high priority project because it involves the watershed council and soil and water conservation district working together in a focused, strategic manner. This is a great opportunity to work with a number of landowners. Reviewers commented that having 8 of 16 landowners already involved is "phenomenal." The creek needs work and it is highly visible adjacent to Hwy 395. The creek has a lot of restoration potential and it has a lot of need. The USFS has just finished a lot of work at the upper end of this stream. The lower end has a fish passage problem and ODFW is working with OWRD to address flow issues. There is good habitat within the state park boundaries. The stream, remarkably, is a good producer of redband trout.

Reviewers noted the application could have been improved by providing more clarity about how it accounts for the landowner time (shown as match in the budget). It seems as though the applicant is talking about their time in a future restoration project. The landowners will be escorting the contractor on their properties and they will be attending meetings.

Regional Review Team Recommendation to Staff

Fund.

Regional Review Team Priority

2 of 7

Distribution of Recommended Award Amounts

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
			\$36,358.00

Staff Recommendation to the Board

Fund.

Staff Recommended Award

Capital Amount	EM Portion	PE Portion	Non-Capital Amount
			\$36,358.00

Total Recommended Board Award

\$36,358.00