# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5028** | **Project Type:** | Outreach |
| **Project Name:** | Wallowa Resources' Watershed Evaluation Teams (WET) Program | | |
| **Applicant:** | Wallowa Resources | | |
| **Basin:** | GRANDE RONDE | **County:** | Wallowa |
| **OWEB Request:** | **$31,995.00** | **Total Cost:** | $42,620.00 |

**Application Description**

The watershed evaluation team (WET) program is designed to provide a hands-on experience in data collection that builds awareness for students. The WET Program reaches 150 students in Wallowa County providing students with opportunities to increase understanding of watershed science and how science is used for land management. WET addresses anticipated barriers to learning by using a variey of teaching methods to address various learning styles. Students collect field data and analyze watershed condtions. This program targets 6th, 10th and 11th grade school students in Wallowa County. Students will be introduced to the concept of watershed health in hopes of influencing their personal practices, as well as community practices towards a healthy watershed. The WET program utilizes both classroom and field time and increases awareness and knowledge of watershed stewardship through participation in real-life research and reaching students several times throughout their education.

Several entities including the local Wallowa County Schools, ODFW, USFS, USFWS and the Grande Ronde Model Watershed Program support this program and provide staff to engage students in the field. The WET program follows standardized watershed science collection techniques and engages youth directly with the protection of salmon and steelhead habitat by being stewards of their local watershed.

OWEB funds are requested for project management and in-house personnel (77%), supplies (5%), equipment (8%) and administration (9%). USFWS, Nez Perce Tribes, ODFW and the National Forest Foundation are cost-share partners.

## REVIEW PROCESS

**Regional Review Team Evaluation**

The school systems have integrated portions of the WET program into their curriculum. One reviewer noted that the WET program has already shown results and works well. There are water quality sampling sites near the participating schools. The team was impressed with the success that Wallowa Resources has achieved with the WET program. Targeting older kids and then having those students mentor the middle school is very impressive. That mentoring has the potential to change those students' lives and be influential in future career paths. It is an excellent way for student to have hands-on learning with various watershed and environmental topics.

It was also noted that there is a lack of evaluation from the program's previous effort presented in the application. If Wallowa Resources requests future funding, some summary results of the program should be included. WET began more informally to help fill the void of no school on Fridays, since Wallowa schools are on a four-day week, and has grown to a much more involved effort. Students enjoy the field sessions. Much of the monitoring is water quality oriented. Involving children early will have many positive results in the future. Overall, the team felt that this project is very worthwhile and should be funded this grant cycle. They noted that the application could have been improved by including letters of support from the schools and that the budget could have been more clearly presented. Also, the backpacking component is not eligible

for funding and needs to be removed from the budget. Overall, the team stated that this is a very positive effort and impacts most of the students in Wallowa County. It is ready for funding this grant cycle.

**Regional Review Team Recommendation to Staff**
Fund Reduced with Conditions. The backpacking component needs to be removed from the request.

**Regional Review Team Priority**
1 of 1

**Distribution of Recommended Award Amounts**

| Recommended Amount |
| --- |
| $27,662.00 |

**Staff Follow-up to Review Team Comment**
Staff contacted the applicant who revised the budget and removed the backpacking and associated overhead from the OWEB request.

**Staff Recommendation to the Board**
Fund Reduced.

**Staff Recommended Award**

| Recommended Amount |
| --- |
| $27,662.00 |

**Total Recommended Board Award**
**$27,662.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

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|---|---|---|---|
| **Application No.:** | **212-5038** | **Project Type:** | Outreach |
| **Project Name:** | Sharing our Success - Outreach Videos | | |
| **Applicant:** | Harney SWCD | | |
| **Basin:** | LAKES | **County:** | Harney |
| **OWEB Request:** | **$15,200.00** | **Total Cost:** | $19,000.00 |

**Application Description**

Harney SWCD is proposing to develop a video to share information about the local watershed efforts and natural resource issues with non-agricultural Oregonians. Providing that information fulfills a need identified by the Harney Basin Agricultural Water Quality Local Advisory Committee (LAC). At the last biennial review in December 2009, the LAC expressed a desire to promote the successful restoration efforts and stewardship in Harney County.

To address the desired outreach to non-Harney County residents, Harney SWCD is proposing to have a high quality video produced. SWCD personnel do not have the essential skills to produce a quality video themselves. However, since landowners may be hesitant to open up to a filming crew and effectively convey their story, the Harney SWCD will help to reassure landowners that the footage will be used appropriately and be a quality product. The SWCD will internally identify prospective landowners and determine a detailed scope and theme of the video production. Videos will highlight past restoration projects and progressive-thinking stewards who are likely to continue their restoration or monitoring efforts. Outreach regarding positive on-the-ground success is necessary for the public to encourage future funding efforts. Short internet clips will provide quick, visual and auditory information designed to intrigue and motivate the viewer to invest their time to watch the comparatively lengthier DVD production. End products include four to five 90-second video clips with a clear message and objective; four to five 10-minute (or less) video clips with overarching theme highlighting specific topics with different landowners and 800 DVD copies of the 10-minute video.

OWEB funds are requested for project management (41%), contracted services (54%) and administration (5%). Harney County landowners, Harney Cattlewomen and the SWCD are cost-share partners.

## REVIEW PROCESS

**Regional Review Team Evaluation**

The proposal has a good objective but it was not clear if this will actually reach the intended target audience. It seems that some critical detail was missing including a script and potential videographers. The team expressed that videos/DVD's are often short-lived and after they are initially viewed by a small audience and end up on a shelf and are not viewed again.

The application did not provide details that reviewers would have liked to have seen. The budget seemed like it was a guess. Additional pre-planning was needed in order to provide more detail. The team questioned if there was a plan to get the video to its target audience as that was not stated. Also, the target audience is very broad – "non-agricultural-oriented Oregonians" – and may be difficult to really target. The potential participating landowners – or the intended projects - were not identified. While it may be that those landowners would be ones with current restoration projects, that information was not clearly articulated.

OWEB staff noted that due to changes under Ballot Measure 76, if the review team recommended it for funding, OWEB would need to further look into the application to determine if it is eligible. Since the

application requested funds only for producing a video, it was a "stand-alone" video application and lacked connection to efforts to engage landowners in on-the-ground restoration and monitoring projects. The team expressed that the project was potentially a good idea but is not ready for funding this grant cycle.

**Regional Review Team Recommendation to Staff**
Do Not Fund.

**Staff Follow-up to Review Team Comment**
If the applicant wants to resubmit this application in the future, they should contact OWEB staff to discuss what activities are eligible under Measure 76 constitutional changes for OWEB outreach grants.

**Staff Recommendation to the Board**
Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5077** | **Project Type:** | Outreach |
| **Project Name:** | Comparing Watershed - Wilsonville Capstone Trip | | |
| **Applicant:** | Harney SWCD | | |
| **Basin:** | WILLAMETTE | **County:** | Harney |
| **OWEB Request:** | **$26,984.00** | **Total Cost:** | $43,256.00 |

**Application Description**

Harney SWCD and Hines Middles School (HMS) currently have an educational project that provides for three years of field trips to the Northern Great Basin Experimental Range (NGBER) for juniper-canopy related research and data collection. That information is being shared with the Inza R. Wood Middle School (WMS) in Willamette Valley via the internet. This project proposes to move the riparian study for eighth-grade students to Arrowhead Creek adjacent to the WMS. The specific proposal idea was the result of dialogue arising from WMS instructors during a visit to Harney County. In May 2011, five instructors and 27 eighth-grade students from Inza R. Wood Middle School and over 80 HMS students participated in a field day at NGBER and collected various data.

This project proposed to continue the partnership between HMS and WMS. The main focus for this project will be a trip for HMS to the Willamette Valley. The targeted audience is the students at HMS. For two years, 80 students per year (160 total), will travel to the Willamette Valley to analyze the riparian area with the student from WMS. The SWCD anticipates that the target audience reached is comprised of the families of HMS students, fellow teachers in the community, local citizens through local publications and non-agricultural-oriented middle school students from urban and suburban areas in the West Linn area.

OWEB funds are requested for project management (8%), contracted services – substitute teachers (10%), travel – 2 trips over 2 years to WMS (64%), equipment –SMART Board (14%) and administration (4%). WMS staff, CREST staff, parent volunteers and student fundraising will provide the cost-share.

## REVIEW PROCESS

**Regional Review Team Evaluation**

Reviewers appreciated the creative approach and sharing across Oregon, but had a hard time understanding what was being proposed.

The learning objectives were not clear and they were not articulated in the application. It was also stated that this may be too complex for a new program; reviewers were not confident of success. The previous project involved juniper and now they propose a different ecosystem; reviewers did not think the approach was well thought through. Also, the benefit of taking students out of their own areas was questioned. It was also stated that perhaps the existing project should have been completed first and then expand on that effort. Overall, the team was perplexed by this project and felt that it should not be funded this grant cycle.

**Regional Review Team Recommendation to Staff**

Do Not Fund.

**Staff Recommendation to the Board**

Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5037** | **Project Type:** | Monitoring |
| **Project Name:** | Prairie Creek Water Quality Monitoring | | |
| **Applicant:** | Wallowa SWCD | | |
| **Basin:** | GRANDE RONDE | **County:** | Wallowa |
| **OWEB Request:** | **$25,851.00** | **Total Cost:** | $36,839.00 |

**Application Description**

Prairie Creek watershed is approximately 15,000 acres with irrigation water from Wallowa Lake that is conveyed from several ditches and spur ditches. Tailwater from runoff flows into Prairie Creek from the irrigated acreage. In the springtime there is a high flush of bacteria and nutrients in the system since many of the fields are also used as winter-feeding areas.

The Prairie Creek watershed was part of a water quality monitoring study conducted in 1991 and 1992. As a result of the higher levels of nutrients and sediment in the stream, many conservation efforts were focused in Prairie Creek from several entities in the mid to late 1990s. Conservation projects included exclosure fencing, planting riparian areas, CREP enrollment, piping irrigation ditches to reduce nutrients and sediment in tailwater as well as converting flood irrigation to sprinklers. Wallowa SWCD and other agencies have started to implement a Coordinated Resource Management Plan (CRMP). As improvement projects are made, effectiveness monitoring should show positive changes to the watershed.

Wallowa SWCD is proposing both baseline and effectiveness monitoring. The applicant proposes to collect data on macroinvertebrates, bacteria, dissolved oxygen, pH, temperature, turbidity, nutrients, nitrates and conductivity. Twelve locations were selected with sampling conducted five times per year in April, June, August, October and December. April provides data before the irrigation season; June during irrigation and high flows; August during irrigation and low flows; October after irrigation and December during winter feeding and calving. Macro-invertebrate data will be collected at nine sites three times during the year – April, August and December. Flow data will be collected at twelve sites in April, June, August and October. Water quality will be collected at twelve sites in April, June, August, October and December. Data loggers will be installed in April and removed in October. Riparian vegetation will be noted and photographed April, June, August and October to determine presence-absence. The sampling design and site are based on locations relative to tailwater inflow, past monitoring sites and location within the watershed.

OWEB funds are requested for materials (5%), in-house personnel (31%), contracted services – lab analysis – (51%), travel (4%) and administration (8%). Wallowa SWCD is contributing cost-share.

## REVIEW PROCESS

**Regional Review Team Evaluation**

Lower Prairie Creek is spawning and rearing habitat for ESA-listed steelhead. The team felt that the objectives were defined well and clearly articulated. Having the data from twenty years ago will provide a good baseline and watershed improvement from project implementation should be very evident. The potential to compare current data with past data is positive. Many recent projects have been implemented and results should be positive. The timing for this monitoring project is excellent.

The team thought that the sampling locations and timing were well-thought out. The application was well-written. The team agreed this is a good project, thought that all monitoring parameters are important, and

was confident that the SWCD can handle the parameters. They need assurances that ODA has reviewed and signed off on the monitoring plan. It is ready for funding this grant cycle.

**Regional Review Team Recommendation to Staff**
Fund with Conditions. A condition of funding should be that ODA has reviewed and signed off on the monitoring plan

**Regional Review Team Priority**
3 of 3

| Recommended Amount |
| --- |
| $25,851.00 |

**Oregon Plan Monitoring Team Evaluation**
The OPMT agreed that this project has good potential and are interested in the results that may come from this effort. The team identified some concerns with breaking out the sampling effort by seasons and this may lead to lower applicability of the data overall. The team also recommended adding some component of macroinvertebrate sampling in future phases. Coordination with other agencies on this monitoring is valuable and important to the overall success.

Benefit to Oregon Plan: High Certainty of success: High

**Staff Recommendation to the Board**
Fund with Conditions. The grant agreement will require written confirmation from ODA that ODA has reviewed and signed off on the monitoring plan, before the first release of funds to grantee.

**Staff Recommended Award**

| Recommended Amount |
| --- |
| $25,851.00 |

**Total Recommended Board Award**
**$25,851.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

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|---|---|---|---|
| **Application No.:** | **212-5041** | **Project Type:** | Monitoring |
| **Project Name:** | Finding the Truth in the Juniper Mahogany Conflict | | |
| **Applicant:** | Burnt River SWCD | | |
| **Basin:** | POWDER | **County:** | Baker |
| **OWEB Request:** | **$37,000.00** | **Total Cost:** | $47,186.00 |

**Application Description**

In 2009, the Woodtick effectiveness monitoring project was established to determine the effects of juniper removal on mountain-mahogany and quaking aspen recruitment. Burnt SWCD is at the mid-point of the monitoring project and the results are showing that recruitment occurs at varying levels under the various treatments. There were eight fixed-area plots for mountain-mahogany including control; partial-cut juniper; cut juniper and let lie in place; cut, lop and scatter; cut and pile; cut, pile and light burn; cut, pile and burn with fencing and cut and pile with fencing. New mountain-mahogany seedlings are browsed by rodents and other animals. The applicant wants to continue this effort to ascertain under which treatment the mahogany seedlings will survive to the sapling size and if mortality ratios decline as plants advance to the next age class. There were three treatments for quaking aspen.

The SWCD monitored 23 plots over the last three years. The initial monitoring project was to ascertain why the reproductive capability of mountain-mahogany has been declining. Mountain-mahogany is important winter food and shelter for big game. While mountain-mahogany has sufficient populations in older age classes, there is minimal recruitment of younger seedling and sapling-sized plants. The lack of recruitment could be the result of overgrazing by big game and livestock, lack of disturbance and competition from juniper and conifer encroachment.

OWEB funds are requested for contracted services - $5,800 per year for 6 years (94%) and administration (6%).

## REVIEW PROCESS

**Regional Review Team Evaluation**

The team thought that investigating a variety of treatments was positive. It is an important to question how to encourage mahogany recruitment and there is a lack of available information. Reviewers appreciated that the applicant is addressing this issue.

However, reviewers had questions about the project's design and wondered if the applicant needs assistance from other partners to develop a proposal for strong monitoring design and data analysis. Reviewers were disappointed that the application did not discuss analysis of the monitoring data resulting from the existing effectiveness monitoring grant for this area. Specific questions the reviewers asked included where the monitoring plots are located on the ground; how many days are involved in the monitoring; are the treatments replicated so that inferences can be drawn from the data?

There is currently ongoing effectiveness monitoring for this project from a funded 2009 restoration project. Another summer (2012) of data collection is planned and final report results will be due in late 2012. There are some findings on the conditions which resulted in higher mountain-mahogany recruitment rates from the last progress report submitted in 2011. It was also not clear if the plot locations represented in this study are uniformly distributed and contain the same "potential" for recruitment based on this application and previous progress reporting.

There were also questions how long to carry out this particular project, how much more information would be gained, and how the data would be analyzed. OSU Extension had signed as a cost-share partner but their planned participation was unclear. The budget lacked detail.

There is value in knowing how much mountain-mahogany will get past the seedling stage. There is a definite need for collecting additional data. However, there was not enough detail in the application to determine if this is the right method. There were too many questions to recommend funding at this time.

**Regional Review Team Recommendation to Staff**
Do Not Fund.

**Oregon Plan Monitoring Team Evaluation**
The OPMT recognized the knowledge gap that exists for western juniper and mountain-mahogany interaction. The team would like to see a more detailed study design and resulting application that would lead to the success of the monitoring project.

Benefit to Oregon Plan: Medium Certainty of success: Low

**Staff Recommendation to the Board**
Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

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|---|---|---|---|
| **Application No.:** | **212-5042** | **Project Type:** | Monitoring |
| **Project Name:** | Harney Basin Aquatic Health Monitoring Phase 1 | | |
| **Applicant:** | Harney SWCD | | |
| **Basin:** | LAKES | **County:** | Harney |
| **OWEB Request:** | **$31,765.00** | **Total Cost:** | $114,058.00 |

**Application Description**

Harney-Malheur Lakes basin has been inhabited by invasive common carp, *Cyrinus carpio*, since the 1920s. Numerous control efforts have been attempted since the 1950's while yielding only short-term results. Carp populations eventually rebounded quickly. Carp have degraded 70,000 acres of habitat for migratory birds and native fish in the Malheur Wildlife Refuge (Refuge). Water quality is degraded from increased silt. Carp uproot riparian vegetation. Birds relying on these aquatic systems have to move on to more productive wetlands or expend excessive energy searching for food. Historically, Malheur Lake was utilized by up to 35 percent of the Pacific flyways' canvasback population. It was also the second most important redhead duck production site in the West and at its peak produced over 100,000 ducklings annually. The Refuge currently averages about 2 to 7 percent of its former waterfowl population capability.

MWR is leading a sustainable, collaborative and comprehensive basin-wide approach by treating the carp problem as in integrated pest management issue that extends beyond the Refuge's boundaries upstream into the *Donner und Blitzen* River, Silvies River and Silver Creek. Numerous government agencies, NGO's, the Burns-Paiute Tribes and private citizens are involved in finding a solution.

The project will inventory macroinvertebrates; monitor carp movement via telemetry and carp population in Boca Lake; determine populations; experiment with commercial fishing techniques and fertilizer opportunities and collect water quality data at 50 random locations. Monitoring will also include baseline relative bird abundance by habitat type to assess the effect of carp-control practices and to determine long-term trends after carp removal.

OWEB funds are requested for project management (38%), in-house personnel (4%), contracted services – sampling (40%), materials (6%), equipment (6%) and administration (6%). Cost-share partner include Ducks Unlimited, University of Minnesota, ODFW, NRCS, and Malheur Wildlife Associates.

## REVIEW PROCESS

**Regional Review Team Evaluation**

The team felt that this project is comprehensive and is treating an enormous problem as a whole watershed issue beyond the boundaries of the Refuge. That is very significant if they are serious about treating the carp. The group has to think beyond the Refuge since the carp would migrate back there in the future if treatments were successful at MWR. That is what has occurred in the past. There have been some successes at reducing the population only to have it increase again within a few years. Several letters of support were submitted from various entities including the Refuge, ODFW, Ducks Unlimited, the Malheur Wildlife Associates, Oregon Habitat Joint Venture and NRCS. The team agreed that there is good coordination between multiple agencies and groups and this is a positive start. Efforts to control carp in the past have proven short-lived at best.

This effort is a pilot project from which information will be used in the future on a larger scale. The monitoring is attempting to show success from one of the proposed individual treatments and then implement

that treatment on a larger scale. Carp are the largest water quality issue in the Harney-Lakes basin. It was noted that a very significant effort was placed into this coordinated effort and that those involved have been working on this collaboratively for a long time. The partnership is diverse and excellent. Reviewers appreciated that the proposal takes a focused approach rather than trying to do it all at once. Information collected from this project is critical in ascertaining methods to reduce the carp population. The team recognizes that addressing the carp problem is very difficult and there is no guarantee of success, but if not addressed, carp will destroy the refuge for waterfowl. It is ready for funding this grant cycle.

**Regional Review Team Recommendation to Staff**
Fund.

**Regional Review Team Priority**
1 of 3

| Recommended Amount |
| --- |
| **$31,765.00** |

**Oregon Plan Monitoring Team Evaluation**
The OPMT appreciated the fact that there were many partners involved with this monitoring project and identified with the need to start small before attempting control efforts in a more complex lake system. The team valued using biological indicators such as the macroinvertebrate approach contained in the application, however the team also suggested that vegetation may be a more useful indicator than water quality.

Benefit to Oregon Plan: High Certainty of success: High

**Staff Recommendation to the Board**
Fund.

**Staff Recommended Award**

| Recommended Amount |
| --- |
| **$31,765.00** |

**Total Recommended Board Award**
**$31,765.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

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|---|---|---|---|
| **Application No.:** | **212-5043** | **Project Type:** | Monitoring |
| **Project Name:** | Choirboys Wetland Pond Monitoring Project Phase II | | |
| **Applicant:** | Malheur SWCD | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$11,509.00** | **Total Cost:** | $20,149.00 |

**Application Description**

Choirboys Wetland was constructed in 2008 using a design different than other constructed wetlands previously installed by the Malheur SWCD. This wetland has seven cells which total 10.2 acres and drains over 1,000 acres. The SWCD has been monitoring the individual cells for three years now to ascertain the performance of each cell. They want to continue this effort in order to understand how well each individual cell is functioning since each cell has a different function. By monitoring the water quality in each cell in the wetland, the collected data will be used to help design future wetlands in order to ascertain the appropriate depth for the specific purpose of each individual pond. Currently temperature and flow are measured at the inlet and outlet of the wetland.

In the constructed wetland, the multiple ponds perform a specific function in each individual pond. Cell one is a 4-feet deep sediment pond and collects organic matter and total suspended solids. Cell two is 2- to 4–feet deep, the primary filter, is planted with rhizomatous grasses and wetland plants and removes fine sediment and nitrates. Cells 3 and 3a, slow-water ponds, remove nitrites and bacteria. Cells 4 and 4a are 5- to 7-feet deep and remove nutrients and fine sediment. The final pond is 15-feet deep and removes algae and nutrients.

OWEB funds are requested for project managements (8%), in-house personnel (31%), contracted services (lab analysis) 44%, travel (4%) and administration (9%). The landowners and BOR lab are cost-share partners.

## REVIEW PROCESS

**Regional Review Team Evaluation**

The project proposes to collect data in order to improve the design for future wetlands projects. The team questioned the maintenance schedule for this wetland and if that would adversely affect the data. It was questioned if they harvest vegetation from these sites, if that would affect the sampling. The team questioned if there should be an allowance for a more thorough analysis by another entity.

It was stated that the landowner would obtain more site-specific information. The team felt that the spirit of the project is positive and information would be valuable. The team expressed that there needs to be a more comprehensive plan. While the BOR is doing analysis of the samples, a more comprehensive analysis of the all the collected data would be needed. Perhaps this should be combined with the other constructed wetland as a more comprehensive project and involve OSU Extension or some other agency to help with the analysis. While the information is important, the project is not ready for funding this grant cycle.

**Regional Review Team Recommendation to Staff**

Do Not Fund.

**Oregon Plan Monitoring Team Evaluation**

The OPMT felt that this monitoring project had proven successful in the past and valuable results have come forward from this work. The study design was not developed to be a long-term monitoring project. To make this a long-term project, an additional study design should be developed, possibly in other locations to build upon the previous success rather than just collection of another year of data.

Benefit to Oregon Plan: Medium

Certainty of success: Medium

**Staff Recommendation to the Board**

Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5044** | **Project Type:** | Monitoring |
| **Project Name:** | Luther Wetland Intensive Monitoring Project - Phase 3 | | |
| **Applicant:** | Malheur SWCD | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$10,066.00** | **Total Cost:** | $28,463.00 |

**Application Description**

The Luther Wetland was constructed in 2003 by the Malheur SWCD. This wetland has five cells that drain over 850 acres before it enters the Malheur River. The wetland is designed to treat phosphorous, sediment, bacteria, nitrates and *E. coli*. The wetland functions to decompose residual chemical runoff of pesticides, herbicides and effluent transport in Malheur River. The SWCD has been monitoring the individual cells for several years now to ascertain the performance of each cell. They want to continue this effort in order to understand how well each individual cell is functioning as each cell has a different function. By monitoring the water quality in each cell in the wetland, the collected data will be used to help design future wetlands in order to ascertain the appropriate depth for the specific purpose of each individual pond. Currently temperature and flow are measure at the inlet and outlet of the wetland.

In the constructed wetland, the multiple ponds perform a specific function in each individual pond. Cell one is a 4-feet deep sediment pond and collects organic matter and total suspended solids. Cell two is 1- to 2-feet deep, the primary filter, and planted with rhizomatous grasses and wetland plants and removes chemical and effluent. Cell three is a shallow wetland, 3- to 4-feet deep, removes ammonia, nitrites and bacteria. Cell four is 5- to 7-feet deep and removes nutrients and fine sediment. The final pond is 6-feet deep and removes algae and nutrients.

OWEB funds are requested for project managements (9%), in-house personnel (30%), contracted services (lab analysis) 50%, and administration (9%). The landowner, Idaho Power and BOR lab are cost-share partners.

## REVIEW PROCESS

**Regional Review Team Evaluation**

The project was reviewed simultaneously with application 212-5043 since they are very similar. Luther Wetland has had individual cell monitoring since the summer of 2008. The project proposes to collect data in order to improve the design for future wetlands projects. The team questioned the maintenance schedule for this wetland and if that would adversely affect the data. It was questioned if they harvest vegetation from these sites, if that would affect the sampling. The team questioned if there should be an allowance for a more thorough analysis by another entity.

It was stated that the landowner would obtain more site-specific information. The team felt that the spirit of the project is positive and information would be valuable. While the BOR is doing analysis of the samples, a more comprehensive analysis of the all the collected data would be needed. Perhaps this should be combined with the Choirboys' constructed wetland and the other constructed wetlands for a more complete project and involve OSU Extension, ODA, DEQ or some other agency to help with the analysis. A more comprehensive approach is needed. While the information is important, the project is not ready for funding this grant cycle.

**Regional Review Team Recommendation to Staff**

Do Not Fund.

**Oregon Plan Monitoring Team Evaluation**

The OPMT felt that this monitoring project had proven successful in the past and valuable results have come forward from this work. The study design was not developed to be a long-term monitoring project. To make this a long-term project, an additional study design should be developed, possibly in other locations to build upon the previous success rather than just collection of another year of data.

Benefit to Oregon Plan: Medium

Certainty of success: Medium

**Staff Recommendation to the Board**

Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5076** | **Project Type:** | Monitoring |
| **Project Name:** | Phase III Wallowa Mountains Bull Trout Redd Monitoring (2012-2013) | | |
| **Applicant:** | Grande Ronde Model WS Program | | |
| **Basin:** | GRANDE RONDE | **County:** | Wallowa |
| **OWEB Request:** | **$24,000.00** | **Total Cost:** | $51,400.00 |

### Application Description

The Grande Ronde Model Watershed is seeking funding to continue bull trout monitoring on 42 miles of stream in the Grande Ronde and Imnaha Subbasins over a two-year period. Bull trout (*Salvelinus confluentus*) were listed as "threatened" under the Endangered Species Act (ESA) in 1998 due to declining populations. Spawning survey data is important for determining relative abundance and distribution trends in bull trout populations. A minimum of 15 years is needed for determining population trends. To date, 12 years of bull trout monitoring data were collected in the project area. The U.S. Fish & Wildlife Service (USFWS) lists continuing to survey for bull trout as a top priority.

Survey data will be collected in the Bear Creek and the Lostine River in the Wallowa River drainage and in Big Sheep Creek and the Imnaha River in that watershed. Surveys are conducted in September and October. Surveys are conducted utilizing experienced bull trout surveyors and paired with inexperienced surveyors. Bull trout redds are identified, recorded and flagged. Bull trout presence on or near redds is documented and also measured to distinguish between life history types – resident or fluvial.

OWEB funds are requested for surveyors and horse packers (84%), supplies and equipment (7%) and administration (9%). Cost-share and participating partners include Wallowa-Whitman National Forest, ODFW, USFWS, Nez Perce Tribe and volunteers.

## REVIEW PROCESS

### Regional Review Team Evaluation

The information is needed to meet the *Bull Trout Recovery Plan* goals. To date, there should be 12 years of data already collected. The information collected is needed in order to delist the bull trout. This is the third time that this project has been submitted to OWEB and should be the last. There is already 12 years of data collected with one more year remaining on the existing grant. Funding this project would enable USFWS to have 15 total years of data. It was also noted that while there are large sums of money for salmon recovery, funding for bull trout recovery is limited.

Once there is 15 years of data collected, bull trout population trends can be determined. Also, finding qualified individuals to participate in these surveys can be problematic. The USFWS relies mostly on retired fish biologists to conduct the survey. Also, because of the rugged terrain and limited access, this is difficult data to collect. Data collected will be published. Overall, the team felt that this is a very good project, is reasonably priced and that it is important to continue to collect this data. The project was recommended for funding this grant cycle.

### Regional Review Team Recommendation to Staff

Fund.

**Regional Review Team Priority**
2 of 3

| Recommended Amount |
| --- |
| **$24,000.00** |

**Oregon Plan Monitoring Team Evaluation**
The OPMT understood this monitoring project has only three years until project completion at the fifteen-year mark and the need for developing and maintaining investments from a longer-term viewpoint. There is good linkage between habitat restoration and bull trout abundance from existing literature. The team would like to see the data managed in a database format and not stored in spreadsheets. There was no clear pattern from the previous 10 years of bull trout redd data displayed in the application. The OPMT would like to have more results from previous work in the current application.

Benefit to Oregon Plan: Medium

Certainty of success: Medium

**Staff Recommendation to the Board**
Fund.

**Staff Recommended Award**

| Recommended Amount |
| --- |
| **$24,000.00** |

**Total Recommended Board Award**
**$24,000.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5032** | **Project Type:** | Restoration |
| **Project Name:** | Upper Grande Ronde Invasive Weed Control | | |
| **Applicant:** | Tri-Cnty Coop Weed Mgmt Area | | |
| **Basin:** | GRANDE RONDE | **County:** | Union |
| **OWEB Request:** | **$40,000.00** | **Total Cost:** | $141,000.00 |

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**Application Description**

The Upper Grande Ronde Invasive Weed Control program targets a specific geographic area and focuses on the treatment of leafy spurge, spotted knapweed, yellow starthistle and meadow hawkweed. The Tri-County Cooperative Weed Management Areas (CWMA) proposes to increase plant biodiversity and improve upland vegetative plant health through various methods. Noxious weeds adversely affect watershed function by decreasing organic matter, increasing sedimentation, decreasing water quality and increasing overland flow. Wildlife habitat is negatively affected as forage and seed opportunities decline. Native perennial bunchgrass communities are displaced by annuals. In addition, leafy spurge and meadow hawkweed release alleopathic toxic chemicals.

Project components include bio-control for leafy spurge, yellow starthistle and knapweed on approximately 2,000 acres. The CWMA will collect data on 50,000 acres; chemically treat 400 acres; reseed as needed and monitor success for five years. The collected data is targeted for 30,000 acres of hawkweed and surveying spurge and knapweed along 25 miles of the Grande Ronde River. Herbicides will be applied terrain-dependent using ATV's, backpack sprayers, fixed-wing aircraft or helicopters. Planned herbicides include Milestone, Plateau and Transline among others.

Watershed benefits include improved riparian vegetation, water quality and wildlife habitat. OWEB funds are requested for project management (8%), monitoring & spraying (13%), contracted services (54%), supplies/materials (15%) and administration (9%). Cost-share partners include ODFW, BLM, USFS, Grande Ronde Model Watershed Program and Union County Weed Control.

The proposed project has a direct relationship with the *Oregon Conservation Strategy* (2006) as it lists the Upper Grande Ronde Weed Control Project's entire target weed list as invasive species currently considered to be the primary cause of species becoming threatened and endangered. Noxious weeds are identified as contributing factors to increased sedimentation in the *Grande Ronde Subbasin Plan* (December 2004). Invasive species are prioritized as "Moderate Impact" by the OWEB Restoration Priorities.

## REVIEW PROCESS

**Regional Review Team Evaluation**

This effort has been on-going for several years. It is a programmatic effort but is targeted to a specific geographic area. There are many participating entities, agencies and private landowners which was impressive to the team. Several restoration planning efforts will be implemented including the draft *Snake River Recovery Plan* that was not mentioned in the application. Previous projects with this applicant were very positive and the quality of reporting and follow-up were very good. The targeted species and treatment were clearly defined as well as whether that species is an upland or riparian location.

The application provided good maps, photos and clearly described planned monitoring. Reviewers commented that of all the applications proposing treatment of invasive weeds, this applicant's proposals

have been the best, with very clear and specific information about what is being treated, the locations of treatment, and with good reporting of treatment results.

Reviewers briefly discussed the dilemma that weed treatment needs to be ongoing to be successful, the difficulty of finding funding for weed programs, and the concern over OWEB funding the same program over many years when there are other important needs. One member felt that since this was the fourth proposal, the application could have provided a better description of results. Overall the team concluded that this is a very positive effort providing significant coordination between several entities and has high ecological merit with positive upland habitat and wildlife benefits.

## Ecosystem Process and Function

Treating noxious weeds and reestablishing native perennial grasses on treated sites will significantly reduce soil erosion which annually contributes tons of sediment into the Grande Ronde River. In addition, improving upland vegetation will provide better wildlife habitat for a variety of avian and terrestrial species.

## Regional Review Team Recommendation to Staff

Fund.

## Regional Review Team Priority

1 of 19

## Distribution of Recommended Award Amounts

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| **$40,000.00** | | |

## Staff Recommendation to the Board

Fund.

## Staff Recommended Award

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| **$40,000.00** | | |

## Total Recommended Board Award

**$40,000.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5033** | **Project Type:** | Restoration |
| **Project Name:** | Cottonwood Ranch Knapweed Restoration Project | | |
| **Applicant:** | Harney WS Council | | |
| **Basin:** | LAKES | **County:** | Harney |
| **OWEB Request:** | **$62,293.00** | **Total Cost:** | $82,332.00 |

**Application Description**

The Pueblo Valley in southern Harney County is the location of the Cottonwood Ranch adjacent to a BLM allotment. The ranch is approximately four miles northeast of Denio, Nevada in the Cottonwood Creek watershed. Noxious weeds have expanded in recent years as a result of long-term drought, wildfires in 2007 and a lack of management by the ranch's previous owners. Infestation from the noxious weeds greatly reduces survival rates for native vegetation and increases erosion and soil loss. There is a loss of winter and summer habitat for mule deer and pronghorn antelope caused by the expansion of noxious weeds including Russian knapweed, perennial pepperweed, whitetop and Scotch thistle. The BLM's restriction on using species-appropriate herbicides has also resulted in the expansion of noxious weeds on the adjacent allotment.

The applicant proposes to treat 639 acres; seed the area with a mixture of crested wheatgrass and native seed; construct 5,200 feet of a four-strand, barbed-wire fence to connect to existing fences for improved management and develop a livestock grazing plan. The proposed herbicides include Milestone, Telar and Escort to be applied at the recommended time and for the targeted weed. Treatments will be done in spring and summer. After the herbicide is sprayed, seed will be applied with a rangeland drill the following year per label restrictions and recommendation. Seeding earlier would inhibit germination rates and growth. Crested wheatgrass, orchardgrass and native seed will be applied as recommended. To restrict livestock access from the newly seeded areas, 5,200 feet of four-strand barbed wire fencing will be installed. A grazing plan will be developed to optimize seeding establishment and will allow the landowner to rotate areas for wintering and calving to facilitate a grazing rest period, which is necessary for seed establishment. Upland wildlife including mule deer, antelope and sage-grouse will benefit from having improved vegetation and forage. Watershed benefits include improved riparian vegetation, water quality and wildlife habitat.

OWEB funds are requested for contracted services - herbicide application (18%), materials- fencing, seed and chemcials (71%), administration (9%) and travel (1%). Cost-share partners include the landowners, ODFW, Harney County Watershed Council and the Harney County Cooperative Weed Management Association.

Implementation follows the *Greater Harney Basin Agricultural Water Quality Management Plan* (March 2003) and encourages practices that help to achieve water quality standards that will result in the improvement of rangeland conditions, rangeland trend wildlife habitat and enhanced environmental quality. It also follows the *Sandhills' Allotment Management Plan (AMP)* (2003) and enhances streamside vegetation.

## REVIEW PROCESS

**Regional Review Team Evaluation**

The team agreed that the proposed treatment was detailed and well thought out. However, some aspects of the applications lacked clarity. The watershed benefit was not clearly articulated. However, it was expressed that improving the upland vegetation in this area of Harney County will have significant wildlife habitat

benefits due to the extensive expansion of noxious weeds. This is important rangeland for mule deer, antelope and sage-grouse.

While the team expressed that the proposed treatments were detailed, there was significant amount of discussion on the proposed use of native seed. The native seed cost many times more than crested wheatgrass and assuring the establishment of the native seed is very problematic, especially given the amount of noxious weeds present. It was questioned if the native seed would work in the high impact areas. While the native seed is ultimately the preferred choice, if the survival rate is very low, its use is seen as premature and too costly. Establishing a stand of a beneficial non-native perennial grass such as crested wheatgrass would displace the noxious weeds and allow the native to return over a period of time. The team also felt that local expertise would be best to ascertain the final seed choice. The team also stated that two full seasons of rest to promote seed establishment was a very positive aspect of the project. Other aspects of the budget were very favorable. OWEB funds were not requested for project management and the cost to apply herbicide at $17.50 per-acre seemed very reasonable.

Overall, the team agreed that this was a very holistic approach. They recommended that the applicant obtain advice on the appropriate seed mix and recommended a reduction in the seed budget. The project has sufficient ecological merit to warrant funding this grant cycle.

**Ecosystem Process and Function**

Treating noxious weeds and reestablishing perennial grasses on treated sites will significantly improve upland vegetation and enhance wildlife habitat for a variety of avian and terrestrial species in a desert environment.

**Regional Review Team Recommendation to Staff**

Fund Reduced with Conditions. Reduce the cost of seed. Applicant will need to consult with ODFW, OSU Extension and other appropriate local entities to ascertain the best choice for a seed mix.

**Regional Review Team Priority**

13 of 19

**Distribution of Recommended Award Amounts**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $56,293.00 | | |

**Staff Follow-up to Review Team Comment**

Staff subsequently discussed the seed mix with the applicant who received advice from OSU Extension. The revised recommended mix includes crested and intermediate wheatgrass, forage kochia and travois alfalfa. The budget has been changed accordingly.

**Staff Recommendation to the Board**

Do Not Fund; falls below staff-recommended funding line.

**Staff Recommended Award**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| | | |

**Total Recommended Board Award**

**$ 0.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5034** | **Project Type:** | Restoration |
| **Project Name:** | Clear Creek Restoration | | |
| **Applicant:** | Eagle Valley SWCD | | |
| **Basin:** | POWDER | **County:** | Baker |
| **OWEB Request:** | **$130,900.00** | **Total Cost:** | $164,100.00 |

**Application Description**

Clear Creek is located near Halfway in eastern Baker County. Clear Creek drains into Pine Creek which flows directly into the Snake River. It is a high-quality, cold-water stream supporting both ESA-listed bull trout and native redband trout. This project is located at rivermile (RM) 4. Past grazing practices, mechanical substrate movement and high flashy flows have resulted in significant devegetation, downcutting and excessive erosion. The straightened channel currently has unstable banks lacking adequate vegetation for beneficial aquatic and terrestrial habitat.

The applicant proposes to restore this stretch of Clear Creek by activating the historic channels, and adding habitat and stabilization structures. Eagle Valley SWCD proposes to install 75 woody habitat structures-(large woody debris-LWD); four riffles containing a total of 900 cubic yards of material (225 cubic yards each); regrade 3 to 4 gravel piles remaining from failed attempts to stabilize the creek; activate historic channels to dissipate flows and prepare a planting plan in conjunction with a planned CREP. The riffles will act as grade-control structures to stop headcuts from moving upstream and also allow bankfull events to access the floodplain. A proposed terrace with LWD will create a small floodplain from a large vertical bank and protect the bank from further deterioration. Activating the historic channels will also provide offstream habitat for juveniles. The landowner plans to enroll the project area into CREP and fence the stream at least 35 feet from each side of the creek. Livestock will be excluded from the riparian area. Watershed benefits are improved water quality and fisheries habitat.

OWEB funds are requested for engineering (33%); contracted services (62%), project management (2%) and and administration (4%). Cost-share partners include the landowner, USFWS, CREP and Eagle Valley SWCD.

The proposed project implements the *Powder/Brownlee River Agricultural Water Quality Plan*. Implementation follows OWEB's basin priorities for the Pine Creek Watershed as it considers habitat fragmentation and connectivity as having moderate impact to watershed values.

## REVIEW PROCESS

**Regional Review Team Evaluation**

Clear Creek is an important stream, with the highest population of bull trout in the watershed. There has been a lot of previous work in the area improving fish passage. The area would benefit from fencing the riparian area so it was hoped that the CREP enrollment would occur. Given the nature of the system it was thought that a CREP buffer greater than 35 feet might be needed for success.

Reviewers familiar with the project area stated that there has been extensive flood damage over the last few years and this area is in need of restoration. In addition, the landowner has used heavy equipment periodically to move gravel in an attempt to stabilize the banks, further compromising the watershed function. The instream work needs to be completed prior to enrolling in CREP, otherwise it cannot be completed.

Some questioned if further design from a technical assistance grant would be needed or if the preliminary design was adequate. These projects can be very complex and without some final designs it is difficult to ascertain costs. However, several team members expressed confidence based on the engineer's conceptual design and due to the engineer's experience. The engineering costs seemed high. However, it was stated that the costs are not out of line especially given the need for hydraulic modeling on sediment transport.

Overall, the team concluded the project was ready for funding, but wanted to see it enrolled in CREP to provide the most ecological benefit.

**Ecosystem Process and Function**

Implementation addresses altered watershed function affecting water quality and fisheries habitat. Project implementation will improve water quality, fisheries, riparian and aquatic habitat in Clear Creek for bull and redband trout as well as other wildlife.

**Regional Review Team Recommendation to Staff**

Fund with Conditions. Enroll the property into CREP.

**Regional Review Team Priority**

7 of 19

**Distribution of Recommended Award Amounts**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $130,900.00 | | |

**Staff Recommendation to the Board**

Fund with Conditions. The grant agreement will require the landowner agreement to include the intention of the landowner to enroll in CREP, as stated in the application. However, it is understood that circumstances may preclude CREP enrollment. The final report and post-implementation status reports will include information whether the property was enrolled in CREP and if not, explain the reasons it was not.

**Staff Recommended Award**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $130,900.00 | | |

**Total Recommended Board Award**

**$130,900.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5035** | **Project Type:** | Restoration |
| **Project Name:** | Sutton Creek Restoration | | |
| **Applicant:** | Baker Valley SWCD | | |
| **Basin:** | POWDER | **County:** | Baker |
| **OWEB Request:** | **$53,630.00** | **Total Cost:** | $73,090.00 |

### Application Description

Sutton Creek is located southeast of Baker City and flows into the Powder within the city limits. This watershed was adversely affected by a major wildfire in 1989 which resulted in flashy flows in Sutton Creek. The landowner along Sutton Creek diverts irrigation water from two different points-of-diversion (POD) to irrigate wild hay and pasture ground. These diversions are typical push-up dams that incorporate stream materials and heavy machinery to block the stream channel and divert water into a ditch. In addition, pastures adjacent to Sutton Creek have no control of the grazing. The lack of controlled grazing, irrigation diversion methods and watering from Sutton Creek led to increased streambank erosion, overuse of the riparian vegetation and a decline in water quality. In addition, a 32-acre foot reservoir upstream provides gravity flow and a pressurized mainline used to irrgate several fields. Installation of that pipeline has already eliminated three PODs.

The applicant proposes to restore Sutton Creek by extending the existing gravity-pressurized system. Project components include installing 4,300 feet of 6-inch mainline to connect to the existing pipeline; 600 feet of 2-inch pipe for two new troughs; 2,300 feet of four-strand, barbed-wire wildlife friendly fencing; 2,800 feet of smooth, hot-wire fencing and a 60-inch, 14-foot culvert. A grazing plan will also be prepared. The project will connect the existing pipeline to serve the two fields currently irrigated by the remaining three push-up dams. The fencing and offstream watering will control grazing access along Sutton Creek. The project was designed by a retired state irrigation specialist. Watershed benefits include improved riparian and upland vegetation, water quality and aquatic resources.

OWEB funds are requested for project management (2%), engineering (9%), contracted services (36%), supplies/materials (46%) and administration (6%). Angus Ranch, Baker Valley SWCD and NRCS are contributing cost-share.

The proposed project implements the *Powder/Brownlee River Agricultural Water Quality Plan.* Implementation follows OWEB's basin priorities for the Sutton Creek Watershed as it considers habitat fragmentation and connectivity as having high impact to watershed values and domestic animals and loss of shade and cover as moderate impacts.

## REVIEW PROCESS

### Regional Review Team Evaluation

The team agreed that overall this was a good project with positive water quality benefits to Sutton Creek and will improve both streambank and riparian vegetation. Some team members visited the site and expressed that the proposed project would be very beneficial to Sutton Creek. They also noted an intact aspen stand that included lower age classes. The project is very straightforward and has positive watershed benefits. Reviewers specifically appreciated that the project includes installation of a flow meter and will fence the riparian areas.

There was a question regarding what event the culvert is designed for as that was not clear in the application. The culvert will need to be designed to a 50-year minimum event and must meet fish passage standards In addition, the application stated that no permits were needed. However, the team felt that a DSL permit would be needed for the culvert installation. While the culvert is a cost-share component, the applicant still needs to ascertain if a DSL permit is required. Overall, the team expressed that this is an excellent project with significant watershed benefits. Implementation will improve instream habitat and water quality. The team felt that there is substantial ecological merit to warrant funding this grant cycle.

**Ecosystem Process and Function**

This project addresses altered watershed function affecting water quality and fisheries habitat. Project implementation will improve water quality, riparian and aquatic habitat in Sutton Creek for native fish as well as other wildlife.

**Regional Review Team Recommendation to Staff**

Fund with Conditions. Determine if a DSL permit is required for the culvert. Culvert needs to be sized for a 50-year flow event.

**Regional Review Team Priority**

4 of 19

**Distribution of Recommended Award Amounts**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $53,630.00 | | |

**Staff Recommendation to the Board**

Fund with Conditions. The grant agreement will require applicant to provide OWEB with a copy of the DSL permit, if required; and written confirmation that the culvert is sized for a 50-year flow event.

**Staff Recommended Award**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $53,630.00 | | |

**Total Recommended Board Award**

**$53,630.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5045** | **Project Type:** | Restoration |
| **Project Name:** | Dry Mountain Ranch Riparian Crossing | | |
| **Applicant:** | Harney SWCD | | |
| **Basin:** | LAKES | **County:** | Harney |
| **OWEB Request:** | **$87,412.60** | **Total Cost:** | $127,412.60 |

**Application Description**

The project is located eight miles northwest of Riley in the Silver Creek drainage. Upstream water control and natural flows have been altered increasing the water flows through this stream segment. As Silver Creek enters the valley, it braids into numerous channels and spreads out as much as a mile wide in some locations. This area produces an extremely high amount of silt during high-water events. This riparian crossing with an undersized culvert washes out during high-flow events and compromises an intact CREP area downstream. During high water in the spring, the West Fork of Silver Creek spreads over a 500- to 600-foot area of native meadow, making access to adjacent fields difficult or impossible. The West Fork of Silver Creek crossing needs to accommodate a minimum flow of 1,000 cfs based on a 25-year storm frequency. The other three minor crossings will needs to accommodate 50 cfs combined. Currently, up to 60 cfs (cubic feet per second) flows through an undersized culvert that blocks redband trout migration and has blown out.

Proposed project components include three 24-inch culverts installed in the smaller braided channels and prefabricated railroad-car bridge to span the West Fork of Silver Creek. Watershed benefits are improved water quality, fish passage and streambank stability in the Silver Creek drainage.

OWEB funds are requested for project oversight (3%), contracted services – installation (31%), materials- pipe- CMP and multi-plate arch (34%), administration (8%) and monitoring (1%). Dry Mountain Ranch is the cost-share partner who will provide pit-run rock. Watershed benefits are improved water quality, fish passage and streambank stability in the Silver Creek drainage.

The proposed project implements the *Greater Harney Agricultural Water Quality Plan* (2003) since it will improve water quality, fisheries habitat and connectivity. In addtion, the proposed project will improve riparian vegetation, stream channel morphology and upland condition.

## REVIEW PROCESS

**Regional Review Team Evaluation**

The undersized culvert and road constriction are creating excessive erosion into the West Fork of Silver Creek. The application was submitted as a restoration application in April 2010. At that time, the review team expressed that a technical assistance (TA) grant would be beneficial to develop a better design than what was initially proposed. This application is based on the results of the TA grant. However, reviewers had significant questions about the designs.

The project was originally identified from aerial photos which showed excessive sedimentation during runoff. It is important to protect the intact riparian area below this site that is currently enrolled in CREP. While the project had an engineered design, it was not clear from the application exactly what was being proposed. There was a design attached with a railroad car bridge, but the application stated that that project would install a sufficient-sized riparian crossing to span the stream width. The budget did not mention a bridge, but a prefabricated crossing. It was not clear if the railroad car bridge was the "final" design. Reviewers wondered why the previous TA grant did not result in a final design that was reviewed by ODFW.

Reviewers were also concerned because ODFW had indicated the design needs to go through the fish passage program, and that has not happened. If the designs have not been through the fish passage program, the designs could change. It was also questioned if the engineer who designed the crossing has previous experience with this type of project. The team also questioned if the ad hoc committee had met and considered alternatives for this crossing. The team agrees that the project is needed. However, they need concurrence from ODFW that they approve of the design and that fish passage is assured for redband trout. The project has water quality benefits, but it is not ready for funding this grant cycle.

**Regional Review Team Recommendation to Staff**
Do Not Fund.

**Staff Recommendation to the Board**
Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5046** | **Project Type:** | Restoration |
| **Project Name:** | Five Creeks - Riddle Ranch Restoration - Phase II | | |
| **Applicant:** | Harney SWCD | | |
| **Basin:** | LAKES | **County:** | Harney |
| **OWEB Request:** | **$21,327.00** | **Total Cost:** | $29,327.00 |

**Application Description**

The project proposal is a continuation of the previously funded Five Creeks–Riddle Ranch Project, a joint effort on public and private land. The Riddle Mountain Allotment is 60 miles southeast of Burns and will treat 3.9 miles of Riddle Creek and 7.3 miles of Paul Creek. Burns BLM, Harney SWCD and the Riddle Ranch have collaborated to implement this project that includes juniper cutting and prescribed burning on 9,557 acres of public and 2,785 acres of private land in the Harney-Malheur Lakes Subbasin. The project area is large spans of high elevation uplands adjacent to rugged terrain draining to perennial and intermittent streams with significant amounts of juniper encroachment.

Multiple sage-grouse leks exist in the Five Creeks area. Prior to burning of one of the units in the existing project, an unknown and significantly sized lek was discovered. Juniper treatment and burn boundaries were adjusted to ensure high quality habitat was retained for the ESA-candidate sage grouse. Great Basin redband trout, a BLM tracking species, and Malheur mottled sculpin, a BLM sensitive species, are found in Riddle Creek. Juniper treatment costs for hand-piling and cutting in both Paul and Riddle Creeks were more than doubled the original estimate due to access and terrain conditions. In order to complete the components from the first project, funds are needed for the construction of two miles of four-strand, barbed-wire fence along the upland bench southwest of Paul Creek. Implementation will improve riparian resources and help to protect habitat for both redband trout and sculpin.

OWEB funds are requested pre-implementation and management (10%), fencing labor (82%) and administration (7%). BLM will provide fencing materials. Riddle Ranch is also a cost-share partner.

Implementation follows the *Steens Mountain Cooperative Management and Protection Act*, the *Greater Harney Basin Agricultural Water Quality Management Plan* (2003), the Malheur-Lakes Subbasin Assessment, Riddle Mountain Allotment Plan and well as other plans for the BLM.

## REVIEW PROCESS

**Regional Review Team Evaluation**

This is a continuation of a very successful effort begun 9 years ago when the BLM, Harney SWCD, Harney WSC and various ranches collaborated on several landscape-level juniper projects. These projects treated both public and private ownership and include the removal of juniper and follow-up broadcast burn where appropriate.

The area where the fence will be located had a prescribed burn during the juniper treatment. Some fencing was intentionally burned as it was attached to juniper trees which were cut and burned. The BLM is providing the materials and the applicant will build fencing. Anti-strike markers for sage-grouse will be used where appropriate. For the overall total cost of this project, this last remaining component is a minor cost. The team commended the applicant on excellent budgeting for entire project. Riddle Creek is a terminal creek that has a unique population of red band trout and the fencing will help to protect biodiversity.

Overall, the team felt that this last component for this project should be funded as the entire project is a landscape approach and there are significant ecological benefits. It is ready for funding this grant cycle.

**Ecosystem Process and Function**

Upland and riparian vegetation and water quality will improve in Paul and Riddle Creeks. This project addresses altered watershed function affecting water quality and aquatic resources especially for the Great Basin redband trout and the Malheur mottled sculpin.

**Regional Review Team Recommendation to Staff**

Fund.

**Regional Review Team Priority**

3 of 19

**Distribution of Recommended Award Amounts**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $21,327.00 | | |

**Staff Recommendation to the Board**

Fund.

**Staff Recommended Award**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $21,327.00 | | |

**Total Recommended Board Award**

**$21,327.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

**Application No.:** 212-5047 **Project Type:** Restoration
**Project Name:** Maupin Medusahead Control and Restoration
**Applicant:** Harney SWCD
**Basin:** LAKES **County:** Harney
**OWEB Request:** **$35,256.00** **Total Cost:** $52,728.00

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**Application Description**
Located three miles north of Crane, this project is on the western slope of the Stinkingwater Mountains that transitions from flat agricultural ground to rolling sagebrush foothills. Medusahead rye is becoming widespread throughout the northeast corner of Harney County. This property lies within the Stinkingwater core infestation area. Medusahead rye is a shallow-rooted, non-native annual grass that aggressively outcompetes native perennial grasses for moisture and available nutrients. As it dominates the site, erosion potential increases as more soil is exposed. Medusahead can grow all winter and forms a very dense inpenetrable mat. Precipitation does not infiltrate the soil profile and moisture availability is lost to native vegetation.

Harney SWCD proposes to treat this property by spot spraying 30 acres of the most dense areas with Plateau in the fall and drill seed into those areas with a mixture of crested wheatgrass, perennial rye and bluebunch wheatgrass at a rate of 10 to 12 pounds per acre. Aerial spraying will occur on 433 acres with Plateau and a follow-up treatment conducted. In addition, 1,800 feet of four-stranded, barbed-wire wildife accessible fencing will be installed to protect seeded areas. Once the seed is established, a rest-rotation grazing system will be established to maintain rangeland health and prevent the further spread of Medusahead. Watershed benefits include improved upland vegetation, decreased soil erosion and improved wildlife habitat.

OWEB funds are requested project management (5%), contracted services – including aerial herbicide application (41%), materials – seed, herbicide and fencing (34%), and administration (7%). The landowner, Harney County and NRCS are cost-share participants.

Implementation follows the *Greater Harney Basin Agricultural Water Quality Management Plan* (2003) as it treats noxious weeds and improves rangeland health.

## REVIEW PROCESS

**Regional Review Team Evaluation**
The application had good detail. However, the team had several questions regarding the proposed action. They had concerns with the aerial herbicide application. It was questioned if the helicopter would be able to spot all the Medusahead from the air. Also, there were questions about the rate of herbicide and the amount of water being applied with that rate. Would that be sufficient to penetrate the thatch layer of the Medusahead? Also, can you fly with the amount of water needed to mix with the herbicide?

It was also questioned if seeding the surrounding areas would be beneficial. While protecting the seeded area with new fencing is very positive, it was unclear where the fencing tied in with existing fencing. The map needed to show other existing fencing in order to better evaluate the proposal. While there were several questions, overall the team felt that this was a pro-active project, just some of the design elements need to be improved. There is a lot of Medusahead in the area and treating this area may help to prevent a monoculture from getting established. A future application should provide a better map showing the location of both existing and proposed fencing as well as address concerns regarding aerially spraying the Medusahead. It is not ready for funding this grant cycle.

**Regional Review Team Recommendation to Staff**
Do Not Fund.

**Staff Recommendation to the Board**
Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5050** | **Project Type:** | Restoration |
| **Project Name:** | Catherine Creek - 37 Stream and Fish Habitat Restoration | | |
| **Applicant:** | Union SWCD | | |
| **Basin:** | GRANDE RONDE | **County:** | Union |
| **OWEB Request:** | **$287,711.00** | **Total Cost:** | $1,356,798.00 |

### Application Description

Catherine Creek, a major tributary of the Grande Ronde, is critical juvenile Chinook salmon winter habitat. This proposed project is located 1.7 miles west of Union and is 37 miles upstream from the confluence. It encompasses 30 acres and both banks of .75 miles of the mainstem of Catherine Creek and associated wetlands. Historic channelization and poor agricultural practices caused the area to erode at a high rate. This channel annually releases excessive sediment into the system, decreasing water quality, reducing stream complexity and fish habitat and inhibiting riparian vegetation establishment. These conditions are limiting factors for ESA-listed species including steelhead, spring and summer Chinook and bull trout.

Union SWCD is proposing a coordinated approach and bioengineering techniques to restore and improve water quality and fish habitat by reactivating the historic channel meanders and reconnecting the floodplain. Project components include constructing 1,300 feet of new complex meandering channel and enhance 800 feet of the existing channel; slope the banks to a 3:1 ratio to decrease soil erosion and increase riparian planting area; excavate 2.5 acres of inset floodplain; develop edge habitat; install 9 rock cross vanes, 16 "J" hooks and 20 large woody debris structures and reconnect two historic oxbows. In addition, geotextile fabric, erosion control blanket and sod mats will be installed for the riparian planting of 4,382 live-stake willow, alder and cottonwood and 5,842 larger container trees. Watershed benefits are improved riparian vegetation, channel complexity and fisheries habitat.

OWEB funds are requested for project management (3%), in-house personnel (3%), contracted services – earthwork, log placement and mobilization (28%), materials (48%), plant material (10%) and administration (8%). Cost-share partners include landowners on both sides of Catherine Creek.

Implementation follows the *Upper Grande Ronde Basin Agriculture Water Quality Management Plan* as it addresses water quality and improved riparian vegetation and conditions.

## REVIEW PROCESS

### Regional Review Team Evaluation

The application was submitted with a conceptual design. However, a revised design was submitted only a few days before the regional review team met. The initial total budget for this project was over $1.3 million with OWEB's request at $287,711. The revised total budget was subsequently reduced to $691,561 and $221,880 for OWEB to consider. The change was significant and it did not allow reviewers sufficient time to compare the difference with the new proposal and revised design. The reason the design is critical for this project is the fact that the top 12 feet of the area is all silt, on top of an alluvial fan, with a risk of failure of a new channel. Reviewers were also uncertain if the submitted design is the final one; the applicant indicated there would be a 30 percent design in January.

This portion of Catherine Creek is critical juvenile habitat. Providing the habitat complexity proposed should be very beneficial for ESA-listed species including salmon, steelhead and bull trout. While there are potentially significant benefits to Catherine Creek, the team had several questions. The amount of plants

proposed – over 10,000 - seems excessive. It was questioned if that many was really needed and if the spacing is too close. One member thought that a high number of plants was needed to stabilize the streambanks and keep the erosion-control mat in place. However, it was also stated that having a well-stocked stand of trees and shrubs may reduce the ability for the landowners to enroll the property into CREP. CREP pays for riparian plant establishment, fencing and an annual rental payment. Having a fully stocked stand prior to enrolling in CREP may affect eligibility. Plants would be needed to help stabilize the streambank components such as rootwads but perhaps the amount planned for the riparian area was more than necessary.

Reviewers recognized that if successful, the project would have tremendous benefits for important Chinook populations. The biggest limiting factor is rearing habitat, and fish populations will not increase without improved habitat from increased stream sinuosity.

However, reviewers finally concluded that with less than a 30 percent design and the fact that the design had changed right before review, there was low confidence in the design and budget. They were not sure they knew what the results of a grant would be at this time. A more detailed final design would be needed. It is not ready for funding this grant cycle.

**Regional Review Team Recommendation to Staff**
Do Not Fund.

**Staff Recommendation to the Board**
Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5051** | **Project Type:** | Restoration |
| **Project Name:** | Joseph Creek Invasive Weed Control | | |
| **Applicant:** | Wallowa Resources | | |
| **Basin:** | GRANDE RONDE | **County:** | Wallowa |
| **OWEB Request:** | **$75,000.00** | **Total Cost:** | $145,000.00 |

**Application Description**

The Wallowa Canyonlands Partnership (WCP) is a cooperative weed management area formed to protect and restore both private and public canyon grasslands of the Lower Snake Basin watershed from the invasion and degradation by noxious weeds. This project will focus on weed management activities in the upper and lower Joseph Creek and Chesnimnus Creek. The topography is steep, semi-arid native grasslands that are very subject to natural disturbances from heavy rainfall, fire or constant erosion. Much of the landscape is not grazed. ESA-listed species in the basin include Chinook salmon, steelhead, bull trout, McFarland's four o-clock and Spalding's catchfly. WCP will continue to concentrate on high-priority noxious weeds such as orange hawkweed, plumeless thistle, Mediterranean sage, Medusahead rye, sulfur cinquefoil, whitetop, meadow hawkweed and rush skeletonweed, allowing the native vegetation to thrive and support critical habitat. Noxious weeds adversely affect water quality, increase sediment and erosion and displace native vegetation.

Project components include an aerial inventory of approximately 81,000 acres in high-risk areas to identify infestation and treatment areas; conducting ground surveys on 24 miles of riparian area along the Grande Ronde and Imnaha rivers to identify and update existing sites; landowner meetings to identify weed species and areas of concern; apply species-specific herbicides to high-priority noxious weeds on approximately 330 acres; revegetate 30 acres dominated by annual grasses; record site population characteristics such as species, size and density for every site and track population trends for every rush skeletonweed site. Herbicides will be applied using backpacks, ATV's and horse-mounted sprayers. Seed will be applied by helicopter, ATV (broadcast) or using a rangeland drill. The recommended seed mix includes sheep fescue, Sherman's big bluegrass, intermediate wheatgrass, Great Basin wildrye and Sandberg's bluegrass. Watershed benefits are improved upland vegetation, wildlife habitat and decreased soil erosion.

OWEB funds are requested for project management (6%), in-house personnel (12%), contracted services (60%), travel (1%), materials (11%) and administration (9%). Cost-share partners include various landowners, Nez Perce Tribe, National Forest Foundation, Rocky Mountain Elk Foundation, Oregon State Weed Board, ODFW and BLM.

The *Grande Ronde Subbasin Plan* (2004) lists as a management strategy a coordinated weed control effort on both public and private lands and also identifies noxious weeds as contributors to increased sedimentation as a high priority in the Upper and Lower Grande Ronde watershed. The *Imnaha Subbasin Plan* (2004) suggests implementing an integrated noxious weed management program including survey, prevention practices, education, treatment and revegetation. The *Wallowa County/Nez Perce Tribe Salmon Habitat Recovery Plan* (1993) states as a high priority goal to "identify, map and monitor noxious weeds on an ongoing basis and to use whatever combination of herbicides, biological and mechanical control necessary to control or eradicate noxious weeds".

# REVIEW PROCESS

## Regional Review Team Evaluation

The project involves multiple landowners, both private and public, located in very steep canyonlands with difficult access. Some of the area is extremely remote requiring significant effort and expense on a per-acre basis to successfully locate and treat. Access in some areas is by horse, foot or boat, taking considerable time. This is the sixth application from Wallowa Resources and continues an on-going effort to target and treat noxious weeds in a remote landscape. This effort has been ongoing for ten years. Wallowa Resources has done a good job of leveraging funds from other sources.

An application was submitted in the spring but fell below the recommended level. This application provided some comparative before-and-after photos depicting some of Wallowa Resources successes with past treatments. The team expressed that this is a motivated, hard-working organization. The budget had good detail and with reasonable costs. There are multiple cost share partners from diverse organizations. Reviewers noted that their approach includes inventory, treatment, spray, mechanical and biocontrol for a very complete approach. This watershed has high conservation value, with wild steelhead and salmon population in Joseph Creek. Overall, the team felt the project has significant ecological merits to warrant funding this grant cycle.

## Ecosystem Process and Function

Noxious weeds, especially in remote hard-to-reach areas, represent a significant threat to native upland vegetation, wildlife habitat and water quality. This project has substantial benefits to ecosystem function as there are no other ways to treat invasive vegetation effectively. Noxious weeds reduce biodiversity, increase soil erosion and decrease water quality.

## Regional Review Team Recommendation to Staff

Fund.

## Regional Review Team Priority

2 of 19

## Distribution of Recommended Award Amounts

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $75,000.00 | | |

## Staff Recommendation to the Board

Fund.

## Staff Recommended Award

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $75,000.00 | | |

## Total Recommended Board Award

**$75,000.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5052** | **Project Type:** | Restoration |
| **Project Name:** | Leap Area Leafy Spurge Reduction | | |
| **Applicant:** | Wallowa SWCD | | |
| **Basin:** | GRANDE RONDE | **County:** | Wallowa |
| **OWEB Request:** | **$88,044.00** | **Total Cost:** | $118,192.00 |

### Application Description

A concentrated leafy spurge infestation is located in the Leap area northeast of Wallowa. Topographic features of the Leap area consists of hills, draws, grazing pastures, CRP and dryland farming. Over the last ten years, there has been an effort to eradicate an infestation of leafy spurge. Previous trial efforts had some success, but the control was never a joint effort between all affected landowners. Wallowa SWCD and Weed Department recently began an effort between all affected landowners to aggressively control spurge until eradicated.

Approximately 410 acres of spurge infestation was identified. Wallowa SWCD proposes to chemically treat the area with Tordon on the small infestations and Plateau on the larger infestation in the fall. Prior to the chemical treatment, a concentrated herd of goats will heavily graze the weed-infested areas in the early spring and summer to stress the plants. With the plants in a high-stress mode, the chemical treatment will be more effective. The treatment will be repeated the following year. The leafy spurge flea beetle, *Apthona spp.*, will be released to act as a bio-control in addition to the mechanical and chemical treatment. According to research from Colorado State University, intensive grazing by sheep or goats over a five-year period followed by the leafy spurge beetle eradicated spurge. Watershed benefits are improved upland vegetation, wildlife habitat and water quality.

OWEB funds are requested for contracted services (69%), materials (20%) and administration (1%). Cost-share partners include various landowners and Wallowa County Vegetation Department.

The *Grande Ronde Subbasin Plan* (2004) lists as a management strategy a coordinated weed control effort on both public and private lands and also identifies noxious weeds as contributors to increased sedimentation as a high priority in the Upper and Lower Grande Ronde watershed. The *Wallowa County/Nez Perce Tribe Salmon Habitat Recovery Plan* (1993) states as a high priority goal to "identify, map and monitor noxious weeds on an ongoing basis and to use whatever combination of herbicides, biological and mechanical control necessary to control or eradicate noxious weeds.

## REVIEW PROCESS

### Regional Review Team Evaluation

The team thought that the project had good demonstration value and is modeled after other existing programs. Goats are used in other areas to heavily graze on noxious weeds with success. The team thought the project seemed well-thought through. Also, the fact that all the landowners are committed to the project was viewed as positive by the team. Landowners will seed the affected areas after the goats are finished. The seed mix will be site-specific as recommended by NRCS. Also, since this is a two-year effort, there is a much greater likelihood of success. Using goats not only to heavily graze the spurge but also to drill in the seed was positive. In many of these areas, using a rangeland drill is not possible and using the goats' hoof action to drill in seed will assure better seed-soil contact.

The budget was very reasonable. There are no project management or other overhead costs associated with the project and the Wallowa County Vegetation Department will provide project oversight as in-kind. Administration was very nominal at 1 percent. Overall, the team felt that the project had significant ecological merit to warrant funding this grant cycle.

## Ecosystem Process and Function

Noxious weeds represent a significant threat to native upland vegetation, wildlife habitat and water quality. This project has substantial benefits to ecosystem function as there are no other ways to treat invasive vegetation effectively. Noxious weeds reduce biodiversity, increase soil erosion and decrease water quality.

## Regional Review Team Recommendation to Staff

Fund.

## Regional Review Team Priority

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## Distribution of Recommended Award Amounts

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| **$88,044.00** | | |

## Staff Recommendation to the Board

Fund with Conditions. The grant agreement will require the final report and post-implementation status reports to provide maps and photos showing where seed was planted, describe the type and amount of seed planted, and describe how upland vegetative conditions have changed as a result of the seeding.

## Staff Recommended Award

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| **$88,044.00** | | |

## Total Recommended Board Award

**$88,044.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5053** | **Project Type:** | Restoration |
| **Project Name:** | Farmers Ditch Spur Ditch Elimination | | |
| **Applicant:** | Wallowa SWCD | | |
| **Basin:** | GRANDE RONDE | **County:** | Wallowa |
| **OWEB Request:** | **$195,326.00** | **Total Cost:** | $612,167.00 |

### Application Description

Located six miles northeast of Enterprise, this project proposes to remove 19,566 feet of open-earthen ditch providing irrigation water to 688 acres of cropland on five ownerships and replace it with 15,500 feet of mainline. By installing a pipe in lieu of a ditch, consistent water volume can be supplied to the pumps and evaporative and seepage loss eliminated and water quality improved. A spur ditch currently diverts excess water from the Farmers' Ditch, which diverts water from Wallowa Lake. Water flowing through the spur ditch needs to maintain a constant supply to the five pumps and then the excess tailwater flows into Prairie Creek. Tailwater flowing into Prairie Creek is sediment and nutrient-laden and adversely impacts water quality for ESA-listed fish habitat in Prairie Creek and downstream in the Wallowa River. Piping the ditch will reduce the amount of water diverted from Farmers Ditch.

Project components includes installing one diversion box for the pipeline; pipe consisting of 4,600 feet of 27-inch; 3,710 feet of 24-inch; 2,700 feet of 18-inch; 3,600 feet of 15 inch and 840 feet of 10-inch mainline and three 40-foot road crossings. In addition, seven flow meters and seven permanent pumps will be installed. Significantly improved water quality is the main watershed benefit.

OWEB funds are requested for contracted services installing pipe (20%), materials - pipe, pumps, flow meters (76%) and administration (3%). The landowners and NRCS (EQIP) are cost-share partners.

Implementation follows the *Wallowa County Salmon Habitat Recovery Plan* (1993) as it states that high levels of sediment and nutrients are a high concern in Prairie Creek; the *Wallowa County Agricultural Water Quality Management Plan* as it addresses water quality and improved riparian vegetation and conditions and the *Grande Ronde Subbasin Plan* (2004) as it indicates that improve water quality will improve fisheries habitat.

## REVIEW PROCESS

### Regional Review Team Evaluation

Prairie Creek was a high priority for many restoration and water quality improvement efforts in the mid-1990's, due to the high amount of nutrients, runoff and E. coli concentrations. Significant amounts of tailwater return to Prairie Creek which currently provides marginal steelhead habitat. Eliminating 3.7 miles of ditch has very significant water quality benefits. There are excess amounts of sediment and bacterial contaminations in Prairie Creek. While sprinkler irrigation is fairly common is this area, the conveyance is still primarily earthen ditch which increases evaporative and seepage loss. The pipeline will divert significantly less water than the current earthen ditch. Many existing ditches are incised and contribute high sediment loads to the system. Many landowners were previously unwilling to pipe the ditches. This is the fifth project in recent years and almost 10 miles of ditch have already been converted to pipeline.

A team member noted that Wallowa County has good water quality except for Prairie Creek. In addition, Wallowa SWCD received a Cooperative Conservation Partnership Initiative (CCPI) in June and a portion of

those funds will be used for this project. Prairie Creek is also a priority area for ODA to show relationships to TMDL.

This project will help to solve water quality, flow issues and is a meaningful contribution to the sediment problem. It addresses high-priority limiting factors in a water quality-limited stream and has significant water quality benefits. Installing a flow meter on each pump is also positive as it will assist landowners with better water management. The project addresses priority issues including reducing water use and improving habitat for ESA-listed steelhead. The budget is detailed and the amount of request for administration is low, especially considering there are multiple landowners. OWEB's contribution is less than one-third of the total project cost. There is a high likelihood that these types of projects will continue in the Prairie Creek area and have significant water quality benefits. The team agrees there is very significant ecological merit to warrant funding this grant cycle.

**Ecosystem Process and Function**

Eliminating earthen conveyance ditches will reduce soil erosion runoff that annually contributes significant sediment and other pollutants to Prairie Creek and the Wallowa River. This project addresses altered watershed functions affecting water quality.

**Regional Review Team Recommendation to Staff**

Fund.

**Regional Review Team Priority**

5 of 19

**Distribution of Recommended Award Amounts**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| **$195,326.00** | | |

**Staff Recommendation to the Board**

Fund with Conditions. The project completion report and post-implementation status reports will include any information or calculations done by grantee, irrigation district or other, regarding water savings from completion of this project, whether from stopping evaporative loss and/or conversion to a more efficient irrigation system. The report should also include, if applicable, whether there have been any changes in irrigation practices including the timing and duration of irrigation. In addition, include water quality monitoring data collected, if any, in the post-implementation status reports.

**Staff Recommended Award**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| **$195,326.00** | | |

**Total Recommended Board Award**

**$195,326.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

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|---|---|---|---|
| **Application No.:** | **212-5054** | **Project Type:** | Restoration |
| **Project Name:** | Tree Top Water Quality Improvement | | |
| **Applicant:** | Owyhee WC | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$92,866.00** | **Total Cost:** | $172,602.00 |

**Application Description**

Located 10 miles northwest of Adrian, Owyhee Watershed Council proposes to convert 140 acres of furrow-irrigated row crop to sprinkler irrigation. A cement ditch follows the ridgetop with the furrows running perpendicular to the ditch down the hill. As irrigation water flows through the furrows sediment is carried with the water and resulting in accelerated erosion. The slope of the field is 2 to 5 per cent with highly erodible soils. Based upon research nu the OSU Malheur Experiment Station, erosion is occurring at the rate of 10-15 tons per-acre per year or 140 to 210 tons per acre annually from this field.

Owyhee Watershed Council is proposing to 1,840 feet of 10-inch mainline, 3,080 feet of 8-inch mainline and 8,380 feet of 6-inch mainline. In addition, a 1,292-foot pivot and big guns will be installed for sprinkler irrigation.

## REVIEW PROCESS

**Regional Review Team Evaluation**

Not reviewed. Owyhee Watershed Council withdrew the application before the review team meeting.

**Regional Review Team Recommendation to Staff**

Withdrawn.

**Staff Recommendation to the Board**

Withdrawn.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5055** | **Project Type:** | Restoration |
| **Project Name:** | Ridgeline Water Quality Improvement | | |
| **Applicant:** | Owyhee WC | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$72,411.00** | **Total Cost:** | $147,702.00 |

**Application Description**

Located 11 miles northwest of Adrian, Owyhee Watershed Council (OWC) is proposing to convert 63 acres from furrow-flood irrigation to sprinkler pivot. The field has a corn-alfalfa rotatation with most acres planted to corn. The open-ditch delivery system results in water loss of 30 percent from evaporation and seepage. The cement ditch follows the ridgeline to irrigate fields. Furrows run perpendicular to the ditch and vertically down the slope resulting in accelerated erosion. Tailwater from the fields is collected in a ditch and then flows through drain pipes into East Cow Hollow Creek. Currently, excess runoff flows into East Cow Hollow Creek that reaches the lower Owyhee River. Based on the 5 to 8 percent slopes of the fields, soil loss is estimated at approximately 10 to 15 tons per-acre per year or over 630 to 945 tons of sediment annually from this farm. This is the last property to connect to the Cow Hollow Pipeline. Water quality standards for phosphorus in the Mid-Snake TMDL are set at 0.07mg/L.

The project proposes to install 1,460 feet of 8-inch mainline to convert an open delivery ditch to pipeline; 5,300 feet of 4-inch mainline for the pivot. A 1,084-foot pivot will irrigate 50 acres and fixed sprinklers will irrigate 13 acres. Converting 63 acres of row-cropped farmland with steeper slopes and highly erodible soils from furrow to sprinkler will minimize irrigation-induced erosion from flowing into the Lower Owyhee River. Improved water quality is the primary watershed benefit.

OWEB funds are requested for project management (2%), contracted services (23%), materials - pipe, bubblers, pumps (65%) and administration (9%). The landowner is the cost-share partner.

Implementation addresses the *Owyhee Subbasin Plan* (2004) by reducing sediment and improving water quality; the *Owyhee Agricultural Water Quality Management Plan* (2003) which suggests practices that include irrigation water management and conversion from furrow irrigation to sprinklers; the *Mid-Snake-Succor Creek TMDL* that also addresses converting from furrow irrigation to sprinklers to reduce sediment, nutrient and phosphorous and it addresses the *Lower Owyhee Assessment* (2007).

## REVIEW PROCESS

**Regional Review Team Evaluation**

The project continues the on-going effort of the OWC to improve water quality to the Owyhee River. Antiquated irrigation delivery systems and a series of drains contribute to excess runoff and high levels of sediment in the Owyhee and Snake Rivers. Growing corn on steeper slopes creates significant excess runoff. Currently, corrugate rows run vertically down the slope which increases the erosion rate. Converting from flood to sprinkler will significantly help to ameliorate the runoff and will facilitate contour plowing.

Data collected by the agricultural drain monitoring by the Malheur SWCD shows improvements to water quality as a result of BMP's and conversion from flood irrigation to sprinkler. In addition, the Cow Hollow project that replaced five miles of an irrigation delivery system for several landowners on 450 acres was completed in 2008. Data collected in 2009 showed significant reductions in the Cow Hollow drainage in nitrogen, phosphorous and total suspended solids. These reductions can be attributed to landowners

converting from flood to sprinkler irrigation as a result of a new delivery system and improved best management practices. It is clearly evident that feet of soil have eroded here and that needs to change. OWC is strategically working in areas to make a difference.

Some team reviewers expressed that OWEB should not be paying for mainlines and risers for solid set systems for corners of the field – that such a system is more of a convenience than necessary and increases the cost.

Overall, the team felt that the budget is feasible, but asked OWEB staff to work with the applicant to revise the budget so that OWEB is not paying for risers and pipe to solid sets for the corners. The team appreciated the significant landowner match. The OWEB-requested amount is mostly for materials and the overhead is low. The project is also identified as being needed by on-going monitoring. Project implementation continues the water quality improvement work in the Malheur and Owyhee basins. There is significant ecological merit to warrant funding this grant cycle.

**Ecosystem Process and Function**

Implementation of efficient irrigation systems will minimize erosion, reduce transport of farm chemicals to the Owyhee River, improve water quality and address limited water availability. The project addresses irrigation-induced erosion caused by furrow irrigation.

**Regional Review Team Recommendation to Staff**

Fund Reduced with Conditions. 1. Applicant will submit revised plans reducing pipe to corners - to water delivery only. 2. Water right transfer notice will be required. 3. Flow meter required. 4. Old delivery system must be decommissioned.

**Regional Review Team Priority**

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**Distribution of Recommended Award Amounts**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $71,411.00 | | |

**Staff Follow-up to Review Team Comment**

Staff confirmed with the applicant that the old delivery ditch will be rehabilitated and that is part of the project. If this grant is awarded, the grant agreement should include the RRT-recommended conditions, and also require reporting on project results including water use and any water quality monitoring information.

**Staff Recommendation to the Board**

Do Not Fund; falls below staff-recommended funding line.

**Staff Recommended Award**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| | | |

**Total Recommended Board Award**

**$ 0.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5056** | **Project Type:** | Restoration |
| **Project Name:** | Deer Butte Water Quality Improvement | | |
| **Applicant:** | Owyhee WC | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$45,957.00** | **Total Cost:** | $127,741.00 |

**Application Description**

Located 10 miles northwest of Adrian, Owyhee Watershed Council (OWC) is proposing to convert a 75-acre field from furrow-flood irrigation to sprinkler-pivot. The field is planted to a crop rotation of corn and other crops. The open-ditch delivery system results in 10 to 30 percent evaporative and seepage loss. Topographic characteristics include 2 to 5 percent slopes and the tailwater currently drains into Fletcher Gulch. The area historically has high erosion rates because of the intensive row cropping and highly erodible soils. Based on slope of the fields, furrow irrigation and slope length, soil loss is estimated at approximately 10 to 15 tons per-acre per year or over 750 to 1,125 tons of sediment annually from this farm.

Monitoring from the Fletcher Gulch has shown a significant reduction in nitrogen (N), phosphorous (P) and total suspended soils (TSS) between the 2008 and 2009 measurements. Water quality is improving as conversion from furrow irrigation to sprinklers is being implemented with projects by the OWC and the Malheur SWCD. Monitoring from 2008 of this drain indicated that 7.8 tons of N, 1.4 tons of P and 5,957 tons of TSS flow into the drain. In 2009, monitoring data indicated that 7.3 tons of N, .7 tons of P and 3,981 tons of TSS were measured. Water quality standards for phosphorus in the Mid-Snake TMDL are set at 0.07mg/L. Improved water quality is the primary watershed benefit.

The project proposes to install 1,640 feet of 6-inch mainline and 3,200 feet of 4-inch mainling to replace the open ditch. In addition, a 651-foot pivot to irrigate 34 acres, a 596-foot pivot to irrigate 30 acres and fixed sprinklers (big guns) will be installed to irrigate 11 acres.

OWEB funds are requested for project management (3%), contracted services (62%), administration (9%) and monitoring (1%). The landowner is the cost-share partner.

Implementation addresses the *Owyhee Subbasin Plan* (2004) by reducing sediment and improving water quality; the *Owyhee Agricultural Water Quality Management Plan* (2003) which suggests practices that include irrigation water management and conversion from furrow irrigation to sprinklers; the *Mid-Snake-Succor Creek TMDL* that also addresses converting from furrow irrigation to sprinklers to reduce sediment, nutrient and phosphorous and it also addresses the *Lower Owyhee Assessment* (2007).

## REVIEW PROCESS

**Regional Review Team Evaluation**

This project is very similar to the other applications submitted from the Owyhee basin with slope and water quality challenges. The team agreed that this project would provide significant water quality benefits as it continues the effort in the Owyhee basin to address irrigation-induced erosion and sediment loss. Growing corn on even moderately sloped ground creates significant excess runoff. Agri-lines of Parma designed this project as well as several others for the OWC. Implementation continues the water quality improvement work in the Malheur and Owyhee basins. Providing data from the Malheur SWCD's Ag Drain monitoring effort is a good tool as it shows improving water quality and progress as a result of past project

implementation. Once the Fletcher Gulch drain is completed, additional water quality improvement should be realized.

Requested funding from OWEB was reasonable and there was significant cost share from the landowner for the pivot and the big guns. The landowner is responsible for the fixed sprinklers in the corners as well as the pivot and other components. The overall cost per-acre was reasonable. This type of project is a high priority in the lower Owyhee basin for both ODA and DEQ. The team expressed that this will continue the positive effort in the Owyhee basin by the watershed council. There is significant ecological merit to warrant funding this grant cycle.

**Ecosystem Process and Function**

Implementation of efficient irrigation systems will minimize erosion, reduce transport of farm chemicals to the Owyhee River, improve water quality and address limited water availability. The project addresses irrigation-induced erosion caused by furrow irrigation.

**Regional Review Team Recommendation to Staff**

Fund with Conditions. (1) Applicant will submit revised plans reducing pipe to corners to allow for water conveyance. (2) Water right transfer notice will be required. (3) Flow meter required. (4) Old delivery system must be decommissioned.

**Regional Review Team Priority**

11 of 19

**Distribution of Recommended Award Amounts**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $45,957.00 | | |

**Staff Follow-up to Review Team Comment**

Staff confirmed with the applicant that the old delivery ditch will be rehabilitated as part of the project. In order to install the big guns to facilitate sprinkler irrigation in the corners, the conveyance pipe as planned is required and no reduction is warranted.

**Staff Recommendation to the Board**

Fund with Conditions. (1) A water right transfer notice will be required. (2) Flow meter required.

**Staff Recommended Award**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $45,957.00 | | |

**Total Recommended Board Award**

**$45,957.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5057** | **Project Type:** | Restoration |
| **Project Name:** | Fire Ridge Water Quality Improvement | | |
| **Applicant:** | Owyhee WC | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$29,066.00** | **Total Cost:** | $46,746.00 |

### Application Description

The Fire Ridge Water Quality project is located adjacent to the East Cow Hollow and 11 miles northwest of Adrian. Owyhee Watershed Council (OWC) proposes to convert 35 acres of furrow-flood irrigation to sprinkler-pivot. The field is rotated with row crops and alfalfa with the rows running perpendicular to East Cow Hollow Creek which flows into Cow Hollow and then into the lower Owyhee. Based on the 2 to 8 percent slopes of the field, soil loss is estimated at approximately 10 to 15 tons per-acre per year or over 350 to 525 tons of sediment annually from this farm. Open-ditch delivery systems result in water loss of 30 percent from evaporation and seepage. Water quality standards for phosphorus in the Mid-Snake TMDL are set at 0.07mg/L.

Monitoring data collected in 2008 water sampling measured 53.5 tons of nitrogen; 4.8 tons of phosphorous and 7,747 tons of total suspended solids (TSS) deposited that year in Cow Hollow Creek. In 2009, measurements were 41 tons of nitrogen; 4 tons of phosphorous and 6,142 tons of TSS. Water quality improvements can be attributed to converting furrow irrigation to sprinkler throughout Cow Hollow. An OWEB-funded project (207-118) provided a gravity-pressurized delivery system to 560 acres and enabled landowners to install sprinkler irrigation including pivots, wheel lines and big guns.

The project proposes to install 2,320 feet of 6-inch mainline to pipe a wheel line to irrigate 11 acres and install 1,720 feet of 4-inch mainline for 28 big guns to irrigate 24 acres.

OWEB funds are requested for project management/mileage (5%), materials (56%), contracted services (29%) and administration (9%). The landowner is the cost-share partner.

Implementation addresses the *Owyhee Subbasin Plan* (2004) by reducing sediment and improving water quality; the *Owyhee Agricultural Water Quality Management Plan* (2003) which suggests practices that include irrigation water management and conversion from furrow irrigation to sprinklers; the *Mid-Snake-Succor Creek TMDL* that also addresses converting from furrow irrigation to sprinklers to reduce sediment, nutrient and phosphorous and it also addresses the *Lower Owyhee Assessment* (2007).

## REVIEW PROCESS

### Regional Review Team Evaluation

The project would continue the positive effort occurring in the Owyhee and Malheur basins to convert furrow irrigation to sprinkler. Sampling shows that projects like this are reducing water pollution. Previous work has been done in this area, which is a priority area for the Oregon Department of Agriculture with respect to water quality improvement plan (TMDL) implementation. However, the application seemed rushed and there were several questions from the team.

Of main concern was the proposal for one wheel line and 28 big guns, instead of two wheel lines. This setup was not explained in the application and is unusual. If this is a unique field with specific topographic challenges, then that needs to be clearly explained. The 28 big guns seems like a poor design. A better map

is needed to show the location of the map within the proximity to the closest waterway. The vicinity map provided was too general and a future one needs to be more specific to the nearest drainage. The map also did not indicate where the cement ditch was located and if it would be filled in or rehabilitated. If so, that should have been clearly noted on the map. Also, the project description in question R-3 should have clearly articulated that project element. While the project has potential as a water-quality improvement project, a better application is needed to clearly articulate the project benefits and components. It is not ready for funding this grant cycle.

**Regional Review Team Recommendation to Staff**
Do Not Fund.

**Staff Recommendation to the Board**
Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5058** | **Project Type:** | Restoration |
| **Project Name:** | Three Fingers Water Quality Improvement | | |
| **Applicant:** | Owyhee WC | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$72,795.00** | **Total Cost:** | $114,555.00 |

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**Application Description**

A project located near Adrian will address seepage from a lateral that is accelerating excess alkalinity. Owyhee Watershed Council (OWC) sponsored two previous projects on this property that converted furrow irrigation to sprinklers. This new project will convert 10 acres from furrow to sprinkler irrigation on a 5 percent slope that is annually planted to corn. Tailwater flows into a drain that flows into the Snake River. In addition, seepage from the lateral located on the upper end of the property has intensified the alkaline deposition and erosion is increasing sediment loading into the drain.

Project component include installing 1,700 feet of 27-inch pipe to replace the earthen lateral; 1,360 feet of 6-inch mainline; one headwall and a pivot to irrigate 10 acres. Based on the 5% slope of the field, soil loss is estimated at approximately 10 to 15 tons per-acre per year or 100 to 150 tons of sediment annually from this farm. Water quality standards for phosphorus in the Mid-Snake TMDL are set at 0.07mg/L. Improved water quality is the primary watershed benefit.

OWEB funds are requested for project management (2%), contracted services (4%), materials - pipe (84%) and administration (9%). The landowner and South Board of Control are cost-share partners. South Board will install the 27-inch lateral.

Implementation addresses the *Owyhee Subbasin Plan* (2004) by reducing sediment and improving water quality; the *Owyhee Agricultural Water Quality Management Plan* (2003) which suggests practices that include irrigation water management and conversion from furrow irrigation to sprinklers; the *Mid-Snake-Succor Creek TMDL* that also addresses converting from furrow irrigation to sprinklers to reduce sediment, nutrient and phosphorous and it addresses the *Lower Owyhee Assessment* (2007).

## REVIEW PROCESS

**Regional Review Team Evaluation**

The project was confusing to the review team. It was difficult to understand exactly what was being proposed and why. One reviewer commented that the application was so hard to understand, and it did not seem complete enough to review. The map was not clear and did not include project components or a legend. The map of the area for the pivot was poor and had no detail. The resource benefit to installing the lateral is low and seems to be more maintenance that the irrigation district should correct. Reversing alkalinity will take a long time and requires flushing with a significant amount of water.

The team expressed that installing the pivot has some benefit, but the watershed benefits are small, and the cost high.

**Regional Review Team Recommendation to Staff**

Do Not Fund.

**Staff Recommendation to the Board**

Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5059** | **Project Type:** | Restoration |
| **Project Name:** | East Cow Hollow Water Quality Improvement | | |
| **Applicant:** | Owyhee WC | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$31,701.00** | **Total Cost:** | $55,081.00 |

### Application Description

Located 11 miles northwest of Adrian, Owyhee Watershed Council (OWC) is proposing to convert 25 acres from furrow-flood irrigation to sprinkler pivot. The field is planted to various crops including alfalfa, corn, sorghum and other row crops. Furrows run vertically down the slope amd erosion is accelerated as irrigation water flows through the corrugates. The open-ditch delivery system results in water loss of 30 percent from evaporation and seepage. Currently, excess runoff flows into East Cow Hollow Creek that reaches the lower Owyhee River. Based on the 5-8 percent slopes of the field, soil loss is estimated at approximately 10 to 15 tons per-acre per year or over 375 tons of sediment annually from this farm. Water quality standards for phosphorus in the Mid-Snake TMDL are set at 0.07mg/L.

Monitoring data collected in 2008 water sampling measured 53.5 tons of nitrogen; 4.8 tons of phosphorous and 7,747 tons of total suspended solids (TSS) deposited that year in Cow Hollow Creek. In 2009, measurements were 41 tons of nitrogen; 4 tons of phosphorous and 6,142 tons of TSS. Water quality improvements can be attribtued to converting furrow irrgation to sprinkler throughout Cow Hollow. An OWEB-funded project (207-118) provided a gravity-pressurized delivery system to 560 acres and enabled landowners to install spinkler irrigation including pivots, wheel lines and big guns. Implementation will improve water quality.

The project proposes to install 2,320 feet of 8-inch mainline to convert an open delivery ditch to pipeline; 1,320 feet of 6-inch for permanent big guns; a 1,280-foot wheel line and an 800-foot wheel line. Tailwater from the fields is collected in a ditch and then flows through drain pipes into East Cow Hollow Creek. Converting 25 acres of row-cropped farmland with steeper slopes and highly erodible soils from furrow to sprinkler will minimize irrigation-induced erosion from entering the Lower Owyhee River.

OWEB funds are requested for project management (1%), contracted services (21%), materials - pipe, electrical and pump (68%) and administration (9%). The landowner is the cost-share partner.

Implementation addresses the *Owyhee Subbasin Plan* (2004) by reducing sediment and improving water quality; the *Owyhee Agricultural Water Quality Management Plan* (2003) which suggests practices that include irrigation water management and conversion from furrow irrigation to sprinklers; the *Mid-Snake-Succor Creek TMDL* that also addresses converting from furrow irrigation to sprinklers to reduce sediment, nutrient and phosphorous and it addresses the *Lower Owyhee Assessment* (2007).

## REVIEW PROCESS

### Regional Review Team Evaluation

It was noted that this is the type of project needed for implementing local water quality improvement plans (TMDLs). The application was previously submitted and not recommended for funding due to questions regarding design and budget, since it had a large number of big guns and had high costs. OWC incorporated the review teams' previous comments from the last submission and recommended wheel lines. However, the map would be better if it provided more detail and had a legend.

The project is highly visible from the road and would be a good outreach opportunity. Providing the water quality data in the application was positive as it showed that these types of projects are making a difference. This project has very positive water quality benefits and should continue improving water quality throughout the Owyhee basin. This type of project is a high priority in the lower Owyhee basin to address the TMDL. There is significant ecological merit to warrant funding this grant cycle.

**Ecosystem Process and Function**

Implementation of efficient irrigation systems will minimize erosion, reduce transport of farm chemicals to the Owyhee River, improve water quality and address limited water availability. The project addresses irrigation-induced erosion caused by furrow irrigation.

**Regional Review Team Recommendation to Staff**

Fund with Conditions. A flow meter will be required and the old delivery system must be decommissioned.

**Regional Review Team Priority**

16 of 19

**Distribution of Recommended Award Amounts**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $31,701.00 | | |

**Staff Follow-up to Review Team Comment**

Staff verified subsequent to the meeting that the old delivery system will be decommissioned and rehabilitated.

**Staff Recommendation to the Board**

Do Not Fund; falls below staff-recommended funding line.

**Staff Recommended Award**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| | | |

**Total Recommended Board Award**

**$ 0.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5060** | **Project Type:** | Restoration |
| **Project Name:** | Kingman Water Quality Improvement | | |
| **Applicant:** | Owyhee WC | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$41,362.00** | **Total Cost:** | $98,659.00 |

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**Application Description**

The Kingman project is located east of Highway 201 north of Adrian. Owyhee Watershed Council (OWC) is proposing to combine five fields to convert 24 acres from furrow-flood irrigation to sprinkler-pivot. Crop rotation includes corn, wheat and alfalfa on uneven slopes ranging from 2 to 5 percent. Open-ditch delivery systems result in 10 to 30 percent evaporative and seepage loss. Based on the 2 to 5 percent slopes of the fields, furrow irrigation and slope length, soil loss is estimated at approximately 10 to 15 tons per-acre per year or over 240 to 360 tons of sediment annually from this farm. It is located within the Upstream Snake River segment of the Snake River-Hells Canyon TMDL where the majority of the agricultural land use occurs. This segment is listed for bacteria, dissolved oxygen, mercury, nutrients, pH, sediment and temperature.

Proposed components are installing 200 feet of 6-inch mainline to convert an open ditch to pipe; a 737-foot pivot to irrigate most of the acres and solid-sets in the corners. Pivots will use 25 percent less water than the current furrow irrigation.

OWEB funds are requested for project management (3%), contracted services – installation (13%), materials - pumps, electrical, pipe (74%), administration (9%) and monitoring (4%). The landowner is the cost-share partner.

Implementation addresses the *Owyhee Subbasin Plan* (2004) by reducing sediment and improving water quality; the *Owyhee Agricultural Water Quality Management Plan* (2003) which suggests practices that include irrigation water management and conversion from furrow irrigation to sprinklers; the *Mid-Snake-Succor Creek TMDL* that also addresses converting from furrow irrigation to sprinklers to reduce sediment, nutrient and phosphorous and it also addresses the *Lower Owyhee Assessment* (2007).

## REVIEW PROCESS

**Regional Review Team Evaluation**

The project would continue the positive effort occurring in the Owyhee and Malheur basin to convert furrow irrigation to sprinkler and reduce water pollution. However, the application lacked essential detail to fully evaluate the project. The map was incomplete and lacked detail. It was not clear where the cement ditch was located and if it would be filled in or rehabilitated. Needing two pumps was not explained and the location of both of these pumps needed to be on the map. One reviewer also questioned the size of the pumps. The map also should have indicated the location of the bridge structures that cross the canal and that component needed to be explained in question R-3.

A better map is needed to show the location of the project within the proximity to the closest water way. The vicinity map provided was too general and a future one needs to be more specific to the nearest drainage and where this tailwater drains. While the project has potential as a water quality improvement project, a better application is needed to clearly articulate the project benefits and components. It is not ready for funding this grant cycle.

**Regional Review Team Recommendation to Staff**

Do Not Fund.

**Staff Recommendation to the Board**

Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5061** | **Project Type:** | Restoration |
| **Project Name:** | Jasper Water Quality Improvement | | |
| **Applicant:** | Owyhee WC | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$78,506.00** | **Total Cost:** | $210,492.00 |

### Application Description

The Jasper Water Quality project is located ten miles northwest of Adrian in the Lower Owyhee Subbasin. The Owyhee Watershed Council (OWC) is proposing to convert 120 acres of furrow irrigation to sprinkler and is part of the Fletcher Gulch pipeline. The open-ditch delivery system results in water loss of 30 percent from evaporation and seepage. NRCS determined that actual furrow efficiencies in the project area are in the 20 to 40 percent range. The low efficiency is due to the combined effects of a shallow root zone, long furrow lengths (1,300 feet or greater) and highly erosive soils. Tailwater from these fields flows into Fletcher Gulch which flows into the Old Owyhee drain and then into the Malheur and onto the Snake River. These soils are highly alkaline, reducing water infiltration capacity thereby increasing runoff. Converting 120 acres of row-cropped farmland with steeper slopes and highly erodible soils from furrow to sprinkler will minimize irrigation-induced erosion from entering the Malheur and Snake Rivers.

Based on the 2 to 8 percent slopes of the fields, soil loss is estimated at approximately 10 to 15 tons per-acre per year or over 1,200 to 1,800 tons of sediment annually from this farm. According to the Malheur County Sil Survey, two tons per-acre per year is the maximum rate of soil erosion that can occur without reducing environmental water quality. Water quality standards for phosphorus in the Mid-Snake TMDL are set at 0.07mg/L. Monitoring data collected in 2008 measured 7.8 tons of nitrogen; 1.4 tons of phosphorous and 5,957 tons of total suspended solids (TSS) deposited into Fletcher Gulch. In 2009, measurements were 7.3 tons of nitrogen; 0.7 tons of phosphorous and 3,981 tons of TSS.

Project components include installing 5,620 feet of 4-inch, 2,400 feet of 6-inch, 2,780 feet of 8-inch, 1,040 of 10-inch mainline and fixed sprinklers to irrigate 20 acres and 3 pivots to irrigate 100 acres in 3 fields. Tailwater from the flows into Fletcher Gulch.

OWEB funds are requested for project management (3%), contracted services (15%), materials - pipe, bubblers, pumps (72%) and administration (9%). The landowner is the cost-share partner.

Implementation addresses the *Owyhee Subbasin Plan* (2004) by reducing sediment and improving water quality; the *Owyhee Agricultural Water Quality Management Plan* (2003) which suggests practices that include irrigation water management and conversion from furrow irrigation to sprinklers; the *Mid-Snake-Succor Creek TMDL* that also addresses converting from furrow irrigation to sprinklers to reduce sediment, nutrient and phosphorous and it addresses the *Lower Owyhee Assessment* (2007).

## REVIEW PROCESS

### Regional Review Team Evaluation

This application is similar to other projects submitted by the OWC but encompasses a much larger area and therefore has more substantial water quality benefit. The overall cost per-acre is lower and the cost-share from the landowner is more substantial. While similar to other projects proposed by the OWC, tailwater from this field flows much farther and is deposited into the Malheur River. The project will also connect to

the Fletcher Gulch pipeline (211-5051) which is currently being installed and will significantly improve water quality in this portion of Malheur County.

The application would have benefitted from a better map. The location of all the pipe was questioned especially the pipe accessing the corners. This project may not need a water right transfer but that will need to be verified. The application also had some discrepancies in the amount of 4-inch pipe between the budget, the detail in question R-3 and also the submitted estimate of the pivot costs. Staff will need to verify the correct amount prior to grant award. Overall, the team concluded there are substantial improvements to water quality from project implementation and ecological merit to warrant funding this grant cycle.

**Ecosystem Process and Function**

Implementation of efficient irrigation systems will minimize erosion, reduce transport of farm chemicals to the Malheur River, improve water quality and address limited water availability. The project addresses irrigation-induced erosion caused by furrow irrigation.

**Regional Review Team Recommendation to Staff**

Fund with Conditions. (1) Applicant will submit revised plans reducing pipe to corners - to water delivery only. (2) Water right transfer notice may be required. (3) Flow meter required. (4) Old delivery system must be decommissioned.

**Regional Review Team Priority**

8 of 19

**Distribution of Recommended Award Amounts**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $78,506.00 | | |

**Staff Follow-up to Review Team Comment**

Staff verified subsequent to the meeting that the old delivery system will be decommissioned and rehabilitated. Staff also ascertained that the proposed pipe to the corners was necessary to meet the goals and objectives of the project and therefore was not excessive.

**Staff Recommendation to the Board**

Fund.

**Staff Recommended Award**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $78,506.00 | | |

**Total Recommended Board Award**

**$78,506.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5062** | **Project Type:** | Restoration |
| **Project Name:** | Jordan Valley Weed Restoration | | |
| **Applicant:** | Owyhee WC | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$97,380.00** | **Total Cost:** | $223,380.00 |

**Application Description**

The Jordan Valley Coordinated Weed Management Area (CWMA) has been working in the upper Owyhee watershed to address noxious weeds. This area encompasses over 4.0 million acres of rangeland in Oregon. Sagebrush habitat, threatened by non-native weed encroachment, is important habitat for sage-grouse, sage thrasher, Brewers's sparrow and other sagebrush-obligates. Noxious weeds decrease water quality and damage the overall watershed health and function. Water quality and long-term production potential of land are reduced when tap-rooted species such as knapweed invade rangelands replacing deep, fibrous-rooted perennial native grasses. Invasive species alter hydrologic cycles, increase sediment deposition, erosion and adversely affect other ecosystem processes. Studies have demonstrated that surface runoff is 56 percent higher and sediment yield 192 percent higher on knapweed-infested sites compared to sites dominated by native bunchgrass. In addition, the fire regime is altered resulting in higher intensity fires on the rangeland, adversely affecting native vegetation. Noxious weeds of concern in the Owyhee basin include cheatgrass, Russian knapweed, perennial pepperweed (tall whitetop), leafy spurge, Scotch thistle, yellow starthistle and Medusahead rye.

Project components include treating 100 acres of leafy spurge, releasing 150,000 leafy spurge (Apthona) beetles on 400 acres of Boulder Creek in the Jordan Basin; inventory and mapping 100,000 acres over the next two years; treating 510 acres of leafy spurge; seeding 200 acres with native and/or desirable non-native species and initiate an integrated weed management program to manage invasive species within the CWMA. A coordinator is required to facilitate this diverse group responsible for local weed management, develop common weed management objectives; facilitate effective treatment methods and coordinate weed management activities. Watershed benefits include improved water quality, upland vegetation and wildlife habitat.

OWEB funds are requested for in-house personnel (67%), contracted services (10%), travel/mileage (5%), seed (4%), outreach (4%) and administration (9%) and monitoring (1%). Cost-share partners include basin landowners, Malheur County Weed Control, BLM, ODA, ODOT, Oregon Department of State Lands, ODA and the local Sage-Grouse Working Group.

Implementation addresses the *Owyhee Subbasin Pl*an (2004) by reducing sediment and improving water quality; the *Owyhee Agricultural Water Quality Management Plan* (2003) which suggests treating noxious weeds to address water quality issues; the *Mid-Snake-Succor Creek TMDL* and the *Jordan Creek/Middle Owyhee Assessment* (2007).

## REVIEW PROCESS

**Regional Review Team Evaluation**

This is the fourth time that this project has been submitted. The CWMA has successfully treated many noxious weeds in the upper Owyhee watershed for the last five years with several basin partners. Jordan Valley CWMA covers an extensive area in southeast Oregon and is very sparsely populated, making

coordination problematic with both landowners and various agencies. There are very few agency offices in the entire region.

The application was previously submitted in the spring of 2011, but fell below the funding level. The previous application was weak in describing past accomplishments and success. The October application provided more detail with past treatment areas located on the map, weeds treated and areas surveyed. The applicant provided "before" pictures. However, it would have been better if they also provided "after" pictures of previously treated areas. Treating invasive weeds will have benefits to the riparian waterway, wildlife habitat and also some sage-grouse benefits.

The application provided a letter from ODA which ranked this project as their highest of the three programmatic applications. The CWMA's has worked diligently to build partnerships that has taken several years. The application had good match. There is a significant amount of public land. The BLM treats their land and the CWMA treats mostly the private land. Outreach is a significant part of their mission and was viewed as positive. Opportunities for partnership in this isolated area are very limited. The team felt that their previous concerns were addressed from the last cycle. The project has significant ecological merit to warrant funding this grant cycle.

**Ecosystem Process and Function**

Treating noxious weeds and reestablishing the sites with native grasses will significantly reduce soil erosion that annually contributes tons of sediment into the Owyhee River. In addition, improved vegetation will enhance habitat for a variety of wildlife.

**Regional Review Team Recommendation to Staff**

Fund.

**Regional Review Team Priority**

6 of 19

**Distribution of Recommended Award Amounts**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $97,380.00 | | |

**Staff Recommendation to the Board**

Fund.

**Staff Recommended Award**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $97,380.00 | | |

**Total Recommended Board Award**

**$97,380.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5063** | **Project Type:** | Restoration |
| **Project Name:** | Malheur Riparian & Bull Trout Project | | |
| **Applicant:** | Oregon Natural Desert Association | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Grant |
| **OWEB Request:** | **$93,500.00** | **Total Cost:** | $817,928.00 |

### Application Description

The Malheur and North Fork Malheur River systems contain designated critical habitat for a declining local population of ESA-listed bull trout. Portions of these rivers are also designated as "Wild and Scenic" and maintain certain "outstanding remarkable values" including wildlife habitat, fisheries, recreation and scenery. Historic livestock grazing contributed to a decrease in riparian vegetation, bank stability and water quality attributes necessary for a viable trout population and overall watershed health. The life history stages of bull trout is associated with complex cover, stream channels, large woody debris (LWD), under-cut banks and pools. Over-grazing effects can lead to reduced cover, increased summer water temperature, promote the formation of anchor ice and increase sediment in spawning and rearing habitats. Bull trout require the coldest water of the ESA-listed fish species.

ONDA is proposing to construct riparian fences with water gaps that will limit livestock use of the riparian corridor and provide piping, water troughs, headwater boxes and spring protection fencing to provide alternative water sources. Project components include constructing 9.75 miles of four-strand fence (smooth-wire top and bottom and barbed the other two strands), two water gaps, one cattle guard and alternative water including one spring development, one spring extension piped to a new trough and clean one pond and extend water to two troughs. At Big Bend site, water will be captured in a headbox and piped 20 feet to a trough and the spring site protected with buck-and-pole fencing. At Dollar Basin water from an undeveloped spring source will be piped into a headbox, the pond will be cleaned and water piped 3,500 through a culvert and into troughs. The Cross Spring Extension will replace existing headbox and trough system and take the overflow 1,300 feet into a trough. The riparian fencing will be constructed at least 160 feet from the streambank. Malheur National Forest will build two miles of fence along the Malheur River corridor in Dollar Basin to limit livestock access to the river.

OWEB funds are requested for contracted services (100%) of the riparian fencing and spring site construction. No administration or project overhead was requested. Cost-share partners include USFS, the Burns-Paiute Tribes and ONDA.

Implementation addresses the *Malheur Subbasin Plan* (2004) that identifies the creation of riparian buffers as part of the strategies for meeting habitat restoration goals and objectivses. The *Bull Trout Draft Recovery Plan* identifies fencing and off-stream water developments in the Malheur Recovery Unit as methods for reducing grazing impacts in bull trout spawning areas.

## REVIEW PROCESS

### Regional Review Team Evaluation

The application was well-written and provided good detail. The proposed project is in an area with a high-risk bull trout population. However, the team had several questions regarding the overall project.

The proposed fence location was depicted on the map. However, none of the current fences were shown on the map, and the team could not evaluate existing management fencing or how the proposed fencing ties in.

It was recommended that an allotment-scale map would be better to identify the location of all the existing and proposed fencing so that reviewers could understand the function and benefits of the project. Reviewers also wondered if permittees were in support of the project, noting that permittees will need to maintain the fencing, and need to be involved and supportive of the project for the project to be successful. The team appreciated the letters of support from the Burns-Paiute Tribe and USFS, but would have liked to see some letters from permittees.

Also, fencing costs were $1.21 per foot, which seemed low. Perhaps there were some materials to be donated and these were not shown in the budget. However, it could also be a very modest price. There were also questions about the riparian planting and costs. The Tribes already planted over 128,000 plants. Also, future rental payments for CREP are not appropriate match, although the application has sufficient match without that line item. While the team felt overall that this is potentially a very good project, there were too many questions to warrant funding this grant cycle. Any future application needs to address the concerns raised by the team.

**Regional Review Team Recommendation to Staff**
Do Not Fund.

**Staff Recommendation to the Board**
Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5064** | **Project Type:** | Restoration |
| **Project Name:** | Blue Bucket Creek Riparian Improvement | | |
| **Applicant:** | Harney SWCD | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Harney |
| **OWEB Request:** | **$42,462.00** | **Total Cost:** | $53,552.00 |

**Application Description**

The headwaters of the Middle Fork of the Malheur River contain critical bull trout habitat. Located at the headwaters of Bluebucket Creek, a tributary of the Middle Fork, this project site is a broad, wet meadow surrounded by ponderosa pine and juniper-sagebrush ecosystem. The lack of fire has enabled juniper density to expand which negatively impacting plant diversity, soil movement, water quality and wildlife habitat. Bluebucket Creek is identified as critical bull trout habitat which needs high water quality. The meadow area serves as high quality foraging habitat for sage-grouse during the brood-rearing period of the summer. Juniper removal surrounding the meadows and springs would improve precipitation retention and stream and spring flows. Improved fence locations will help to control timing and duration of livestock and improve riparian vegetative conditions.

Project components juniper removal on 88 acres. Site 1 is 30 acres near the head of the meadow. The stage 1 juniper will be cut and left in place. Site 2, stage 2 juniper, is 48 acres located near the mouth of the canyon where Bluebucket leaves the meadow. Site 3, stage 2 juniper, is 10 acres located above a spring flowing to the east side of the meadow. Juniper boles from sites 2 and 3 will be utilized as firewood. Approximately 2.85 miles of four-strand, barbed-wire, wildlife-accessible fence will be installed at three locations. Also, 500 feet of 1.5-inch pipe will be installed to move an 8-foot rubber tire trough outside of the riparian area and a rest-rotation grazing system will be developed for the project area.

OWEB funds are requested for layout and project management (10%), contracted services (41%), materials (31%), travel (2%), administration (9%) and monitoring (7%). The landowner is the cost-share partner.

Implementation follows the *Malheur River Agricultural Water Quality Management Plan* that encourages practices that help to achieve water quality standards and enhance streamside vegetation toprovide sufficient root mass for streambanks stability and shading. The Upper Malheur Subbasin Water Quality Restoration Plan addresses juniper expansion on the sagerbush-steppe.

## REVIEW PROCESS

**Regional Review Team Evaluation**

The team felt that this was a good project, with benefits for wildlife and water quality. However, there were several questions regarding some of the detail in the application. The application claimed this is critical bull trout habitat, but a reviewer noted that Bluebucket Creek is not critical bull trout habitat and the stream is virtually ephemeral, providing no habitat for fish. The project was also not in the BLM plan cited in the application.

The team appreciated the proactive, holistic approach by removing the early stages of juniper, moving the trough outside of the meadow to enhance the vegetation in the riparian area, and developing a rest-rotation grazing plan. However, the application would have been improved by including information about the current grazing system.

The team spent time discussing the fencing component of the application. The map raised a number of questions. The application mentioned a 3-pasture rotation, but the map seemed to show 5 pastures. In addition, the fences shown on the map did not connect and left areas that seemed to be open, raising questions about the purposes and management. It was also unclear whether the fencing was boundary fencing. OWEB has not typically funded boundary fencing. However, one reviewer stated that boundary fencing may be justified if it is to keep trespass cattle off a pasture that will be rested over two years. It would have been better if all the existing fencing was located on the map as it was not clear where all the current fencing is located. At the end of the fencing discussion, the team concluded they did not feel comfortable funding the fencing with so many questions.

The team then discussed funding the other parts of the project, without the fencing. Juniper is encroaching on the mixed-conifer area and removing it from both the pine site, the spring area and near the meadow was positive. The per-acre cost requested for juniper removal was modest at $65 to $85 per acre. Reviewers then raised concerns that the application proposed to cut "less than 24-inch" juniper without explaining how trees would be selected and left. It was not clear whether the plan was to cut all juniper except for those exhibiting old-growth characteristics beneficial for wildlife habitat. The reason why a 24-inch diameter-limit cut was chosen should have been articulated.

Overall, the team felt there were many positive aspects to this project and it was holistic in nature. However, there were questions regarding parts of the application and the team felt it was not ready for funding this grant cycle. If the application is resubmitted it should provide more information including explaining the current grazing use of the property; describing the problem that is being address; a more detailed map showing all the fencing; an explanation of whether they are asking for OWEB to help fund a boundary fence and if so, why.

**Regional Review Team Recommendation to Staff**
Do Not Fund.

**Staff Recommendation to the Board**
Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5065** | **Project Type:** | Restoration |
| **Project Name:** | Vale Heights | | |
| **Applicant:** | Malheur SWCD | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$11,551.00** | **Total Cost:** | $46,521.00 |

**Application Description**
This application had proposed to convert 32 acres from furrow irrigation to sprinkler irrigation with wheel lines, but was withdrawn before the RRT meeting.

## REVIEW PROCESS

**Regional Review Team Recommendation to Staff**
Withdrawn.

**Staff Recommendation to the Board**
Withdrawn.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5066** | **Project Type:** | Restoration |
| **Project Name:** | About Time | | |
| **Applicant:** | Malheur SWCD | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$82,190.00** | **Total Cost:** | $102,774.00 |

### Application Description

An earthen lateral in East Cow Hollow 11 miles northwest of Adrian has excessive evaporative and seepage loss. In addition, maintenance issues for the irrigation district and for three landowners who divert from the lateral near the North Canal is a concern. The lateral is slow moving and by installing a pipe in the existing ditch both water quality and quantity will improve. The lateral is 1,680 feet of open, earthen ditch four-feet wide with evaporative and seepage loss of 10 to 30 percent. Malheur SWCD and the Owyhee Irrigation District (OID) propose to pipe the lateral from the headgate 20.3 at the North Canal and pipe to existing mainline that sprinkles 344 acres of row-crops. The project is part of Malheur County SWCD's attempt to address the 303(d) listing in the Lower Owyhee River. Both the SWCD and Owyhee Watershed Council are working with landowners in the area to address water quality.

Malheur SWCD proposes to install 400 feet of 21-inch pipe, 1,220 feet of 18-inch pipe and 60 feet of 15-inch pipe; three turnouts; a self-cleaning screen and a radio telesite to monitor storm events. Because of the lateral moves slowly, a different flow measurement is needed on the first two takeouts and a flow meter can be used on the third takeout since the fall (gravity-flow) will be adequate.

OWEB funds are requested for project management/engineering oversight (5%), materials - pipe, headwall, screen, telesite (87%) and administration (7%). OID will install the pipe. The landowner is the cost-share partner.

Implementation addresses the *Owyhee Subbasin Plan* (2004) by reducing sediment and improving water quality; the *Owyhee Agricultural Water Quality Management Plan* (2003) which suggests practices that include irrigation water management and conversion from furrow irrigation to sprinklers; the *Mid-Snake-Succor Creek TMDL* that also addresses converting from furrow irrigation to sprinklers to reduce sediment, nutrient and phosphorous and it addresses the *Lower Owyhee Assessment* (2007).

## REVIEW PROCESS

### Regional Review Team Evaluation

The project may have some watershed benefit, but the team was confused by what was being proposed. A project component map clearly showing where the lateral connects to the North Canal is essential for the team to review the project. The map was missing from the application. It was also not clear if the proposed lateral will connect to existing piping. The exact location of the project was uncertain.

There have been several earthen lateral ditch-to-pipe projects previously approved. However, this application was proposed more as a "maintenance" issue than one with clearly articulated watershed benefits. The actual watershed benefit was not defined well. The team also questioned the telesite. That was not described. It was questioned if that was necessary or a luxury. The cost of the telesite could not be determined from the budget. A team member thought that it was used in the event of a flash flood. That cost needs to be stated clearly and its function identified. The perceived watershed benefit from the application is that installation of a new pipe will eliminate an earthen ditch from washing out during a flash flood. The

application also did not state whether the ditch could be decommissioned and filled. Overall, the team felt that the application was confusing and a clear watershed benefit was not articulated. It is not ready for funding this grant cycle. Any future application needs to address the concerns raised by the review team.

**Regional Review Team Recommendation to Staff**
Do Not Fund.

**Staff Recommendation to the Board**
Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5067** | **Project Type:** | Restoration |
| **Project Name:** | Nyssa Bench Water Quality Improvement | | |
| **Applicant:** | Malheur SWCD | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$40,189.00** | **Total Cost:** | $124,167.00 |

**Application Description**

Located southwest of Nyssa, the Malheur SWCD is proposing to convert 74 acres from gated-pipe irrigation to sprinkler-pivot and solid-set irrigation. The proposed project is in the Sand Hollow drainage. The various fields are planted to hay, grain and pasture. Currently, excess runoff flows into Drain 301, one of the five major drains in the Owyhee River basin. Converting 74 acres from furrow to sprinkler irrigation with solid set on the ends will eliminate irrigation-induced erosion from entering the canal that eventually reaches the Snake River. Reducing erosion runoff will help to achieve the water quality standards for phosphorus in the Mid-Snake TMDL's set at 0.07mg/L.

The project proposes to install 740 feet of 8-inch mainline to replace gated pipe; attach a permanent 20 HP Berkeley pump to the pivot pad; install 1,000 feet of 10-inch pipe for the overflow drain; install 1,400 feet of 15-inch drain pipe; install 300 feet of 8-inch to pipe to a field corner and connect to gated pipe; install 1,281-foot pivot, 6 pivot bridges, 18 pivot gates and a bubbler with screen.

OWEB funds are requested for project management (2%), materials - pipe, bubbler, pump - (89%), administration (9%) and monitoring (2%). The landowner and NRCS are cost-share partners.

Implementation addresses the *Owyhee Subbasin Plan* (2004) by reducing sediment and improving water quality; the *Owyhee Agricultural Water Quality Management Plan* (2003) which suggests practices that include irrigation water management and conversion from furrow irrigation to sprinklers; the *Mid-Snake-Succor Creek TMDL* that also addresses converting from furrow irrigation to sprinklers to reduce sediment, nutrient and phosphorous and it addresses the *Lower Owyhee Assessment* (2007).

## REVIEW PROCESS

**Regional Review Team Evaluation**

The application was previously submitted but lacked essential detail to warrant funding. This application had a better project component map and pictures that depicted the steep slopes and water quality issues. Converting furrow irrigation to sprinkler irrigation on steep slopes will significantly reduce the amount of erosion and sediment entering the drain. In addition, the revised application also included piping the drain that will eliminate cattle access and provides additional water quality benefits. It was noted that keeping gated pipe for the field corners is a concern – but better than flood irrigation, and the area really needs improved irrigation. Reviewers appreciated the landowner contribution to the project.

Tailwater from this project area flows into the 301 drain which is one of the major drains into the Owyhee River. The cost per-acre was fairly low which was also positive. However, the application still had some errors and the applicant should be advised to avoid last-minute changes that create unnecessary mistakes. Reviewers noted that the application should have stated the percent slope of the fields; what type of crops are grown in the fields; and overall, the application was still hard to read and understand. However, the team decided that project implementation is important due to the significant water quality benefits of the project.

## Ecosystem Process and Function

Implementation of efficient irrigation systems will minimize erosion, reduce transport of farm chemicals to the Owyhee River, improve water quality and address limited water availability. The project addresses irrigation-induced erosion caused by furrow irrigation.

## Regional Review Team Recommendation to Staff

Fund with Conditions. (1) Applicant will submit revised plans reducing pipe to corners - to water delivery only. (2) Water right transfer notice will be required. (3) Flow meter required. (4) Old delivery system must be decommissioned.

## Regional Review Team Priority

17 of 19

## Distribution of Recommended Award Amounts

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| **$40,189.00** | | |

## Staff Follow-up to Review Team Comment

Staff verified that a flow meter is planned for installation. It was in the budget but not stated in question R-3. Also, the old delivery ditch is decommissioned as part of the project.

## Staff Recommendation to the Board

Do Not Fund; falls below staff-recommended funding line.

## Staff Recommended Award

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| | | |

## Total Recommended Board Award

**$ 0.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

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|---|---|---|---|
| **Application No.:** | **212-5068** | **Project Type:** | Restoration |
| **Project Name:** | Phase III Vale Lateral 227 | | |
| **Applicant:** | Malheur SWCD | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$169,416.00** | **Total Cost:** | $272,680.00 |

### Application Description

Malheur SWCD and the Vale Oregon Irrigation District (VOID) are replacing an earthen lateral near Vale and less than one mile from the Malheur River. Lateral 227 delivers water to 836 irrigated acres comprising alfalfa, corn, wheat and permanent pasture. The lateral is approximately 4 to 5-feet wide and flows approximately 20 cfs.

This project will focus on continuing the the pipeline an additional 9,220 feet. Malheur SWCD is proposing to install and bed 2,820 feet of 18-inch pipe; 560 feet of 15-inch pipe; 2,480 feet of 12-inch and 3,360 feet of 4-inch to 10-inch pipe. By converting to sprinklers, the amount of runoff is minimized, thus reducing the nitrates, E. coli, excess sediments, chemicals and other pesticides to drainages ditches and the Malheur River. Water will also be more efficiently applied to the fields and will be metered. The primary watershed benefit is improved water quality.

OWEB funds are requested for project management (1%), engineering (3%), materials (91%) and administration (6%). VOID will install and bed the pipe at a cash value of $103,264 or $11.30 per foot installation.

Implementation addresses the *Malheur Subbasin Plan* (2004) by reducing sediment and improving water quality; the *Malheur Basin Agricultural Water Quality Management Plan* (2003) which suggests practices that include irrigation water management and conversion from furrow irrigation to sprinklers; the *Mid-Snake-Succor Creek TMDL* that also addresses converting from furrow irrigation to sprinklers to reduce sediment, nutrient and phosphorous and it addresses the Malheur Action Plan.

## REVIEW PROCESS

### Regional Review Team Evaluation

The review team previously recommended funding for this project in restoration applications 210-5050 and 212-5023, both of which were awarded by the OWEB Board. The team's previous support reflects the important water quality benefits from the project.

Unfortunately, the team was confused by the poor quality of the application. It was not clear exactly what was being requested in this application, and the map was unclear and did not include a legend explaining the project components. The team's confusion was further complicated by conflicting information about why the project still needs more funding after being awarded a technical assistance grant, and two previous restoration grants. During the discussion, it was unclear whether the additional funding was needed because pipe costs had increased, or because the design from the technical assistance application fell short of bringing pipe as far as it needed to go to serve the irrigation district's customers. If the latter, the team was concerned why this issue wasn't identified in the first or second application, especially since there had been a technical assistance grant. This situation led to questions whether this third application would lead to completion of the project or whether there would be future issues.

While the overall quality of the application was flawed, due to the ecological merit of the project the team recommended it for funding. However, future applications will not be recommended if the overall quality does not improve. Future applications need to provide better project components and vicinity maps as well as clear and concise detail on the actions being proposed. This effort continues the on-going positive effort by VOID to continue piping earthen laterals which will lead to greatly improved water quality.

**Ecosystem Process and Function**

Replacing earthen laterals with pipe eliminates evaporative and seepage water loss. By providing a pressurized pipe, landowners can more readily convert to sprinkler irrigation from flood irrigation. Previous piping of laterals has resulted in conversion or planned conversion of 50 to 80% of the irrigated acres from flood irrigation to sprinklers or pumpbacks. Eliminating flood irrigation will significantly reduce soil erosion runoff that annually contributes tons of sediment and other pollutants to the Malheur River. This project addresses altered watershed functions affecting water quality.

**Regional Review Team Recommendation to Staff**

Fund.

**Regional Review Team Priority**

19 of 19

**Distribution of Recommended Award Amounts**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $169,416.00 | | |

**Staff Recommendation to the Board**

Do Not Fund; falls below staff-recommended funding line.

**Staff Recommended Award**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| | | |

**Total Recommended Board Award**

**$ 0.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

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|---|---|---|---|
| **Application No.:** | **212-5069** | **Project Type:** | Restoration |
| **Project Name:** | 4-D Brothers | | |
| **Applicant:** | Malheur SWCD | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$135,574.00** | **Total Cost:** | $287,940.00 |

**Application Description**

A 180-acre farm located six miles north of Ontario is currently using flood irrigation on a crop rotation of grain crop, barley, winter wheat, alfalfa and corn. Irrigation runoff flows into a drain on the north side of the farm that flows into a canal that will either used again for irrigation for flow directly into the Snake River. Property slopes are 2 to 5 percent. Furrow irrigation causes excessive soil erosion and contributes to nutrient and bacterial contamination. A 10,900-foot open ditch, the current delivery system, is ineffective and results in a water loss of 10 to 30 percent through evaporation and seepage. According to a letter of support from ODA, the Malheur River is the second most polluted system in Oregon and the TMDL requires an 87 percent reduction in phosphorous through the Malheur and its tributaries. ODA stated that this project would prevent 1,620 tons from entering the Snake River.

Project components include installing: 2,500 feet of 24-inch pipe in the earthen lateral; 8,940 feet of 12-inch mainline and 1,960 feet of 6 inch mainline to replace the earthen irrigation ditch; 1,800 feet of 4-inch mainline for the wheel lines; a 1,080-foot pivot for 97 acres and a 657-foot pivot for 20 acres and two wheel lines to irrigate 60 acres.

OWEB funds are requested for project management (1%), materials (94%) and administration (5%). The landowner has significant cash and in-kind cost-share. The budget also shows that the Owyhee Irrigation District (OID) will install a headgate, but they are not shown as cost-share partners.

Implementation addresses the Malheur Subbasin Plan (2004) by reducing sediment and improving water quality; the Malheur Basin Agricultural Water Quality Management Plan (2003) which suggests practices that include irrigation water management and conversion from furrow irrigation to sprinklers; the Mid-Snake-Succor Creek TMDL that also addresses converting from furrow irrigation to sprinklers to reduce sediment, nutrient and phosphorous and it addresses the Malheur Action Plan.

## REVIEW PROCESS

**Regional Review Team Evaluation**

This project treats a significant amount of acres and has a high water quality benefit. Tailwater reaches the Snake River and the project will reduce both sediment and bacteria. Implementation addresses the local water quality improvement plan (TMDL) as it will reduce phosphorous loading. The review team felt that the match from the landowner was significant. The project cost and cost per-acre were also positive.

While it was expressed that the project is exactly what is needed to address the TMDL, the team also stated that there were several errors and numbers transposed that made the application frustrating to review. It would seem that the second pivot would irrigate the 60 acres and the wheel lines irrigate the 20 acres, but that could not be determined by reviewing the map. The map lacked essential detail. However, the estimate from the irrigation company was helpful in clarifying the project components. The project will also need a water-rights transfer notice. While there were concerns regarding some of the aspects of the application, overall, the team felt that there are significant water quality benefits to warrant funding this grant cycle

especially since this treats 180 acres. The team hoped that the applicant can get guidance to improve its applications so they are more clear and understandable, provide important details and have less errors.

**Ecosystem Process and Function**

Implementation of efficient irrigation systems will minimize erosion, reduce transport of farm chemicals to the Snake River, improve water quality and address limited water availability. The project addresses irrigation-induced erosion caused by furrow irrigation and will help to implement the TMDL.

**Regional Review Team Recommendation to Staff**

Fund with Conditions. (1) Applicant will submit revised plans reducing pipe to corners - to water delivery only – if necessary. (2)Water right transfer notice will be required. (3) Flow meter required. (4) Old delivery system must be decommissioned.

**Regional Review Team Priority**

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**Distribution of Recommended Award Amounts**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $135,574.00 | | |

**Staff Follow-up to Review Team Comment**

The flow meter was not listed in question R-3 but was included in the budget. Staff also verified that the existing delivery ditch will be rehabilitated.

**Staff Recommendation to the Board**

Do Not Fund; falls below staff-recommended funding line.

**Staff Recommended Award**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| | | |

**Total Recommended Board Award**

**$ 0.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5070** | **Project Type:** | Restoration |
| **Project Name:** | Down Memory Lane | | |
| **Applicant:** | Malheur SWCD | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$46,357.00** | **Total Cost:** | $136,276.00 |

### Application Description

An 81-acre farm located eight miles north of Ontario is currently using furrow-flood irrigation on a crop rotation of pasture, alfalfa, corn or grain. An antiquated concrete ditch with numerous fractures and berm ditches are used as delivery systems for irrigation. The concrete ditch is one of the first installed in Malheur County from 40 years ago. The open-ditch results in water loss of 10 to 30 percent through evaporation and seepage. Irrigation runoff flows into a drain that flows into a canal that will reach the Snake River. Property slopes are 2 to 5 percent. Soil loss from furrow irrigation is estimated at 10 to 15 tons per-acre or 810 to 1,215 tons annually from this farm.

Project components include installing: 1,780 feet of 8-inch pipe for the mainline replacing the ditch; 1,960 feet of 6-inch mainline for the pivots; 28 riser sets to irrigate big guns; an 8-inch flowmeter; 1,269-foot pivot to irrigate 64 acres and big guns to irrigate 7 acres. Idaho Power estimated that the 20-HP pump would only need to be used on one-third of the acres and the remaining acres could have sufficient gravity pressure. Watershed benefits are improved water quality.

OWEB funds are requested for project management (2%), contracted services (9%), materials (79%) and administration (9%). The landowner has significant cash and in-kind cost-share. The budget also shows that the Owyhee Irrigation District (OID) will install a headgate.

Implementation addresses the *Malheur Subbasin Plan* (2004) by reducing sediment and improving water quality; the *Malheur Basin Agricultural Water Quality Management Plan* (2003) which suggests practices that include irrigation water management and conversion from furrow irrigation to sprinklers; the *Mid-Snake-Succor Creek TMDL* that also addresses converting from furrow irrigation to sprinklers to reduce sediment, nutrient and phosphorous and it addresses the *Malheur Action Plan*.

## REVIEW PROCESS

### Regional Review Team Evaluation

The team agreed that there is a substantial resource benefit from changing from flood to sprinkler irrigation. This project was one of the lower cost projects and will reduce erosion and runoff. However, while the project has excellent potential, it lacked essential detail to warrant funding.

The map did not show where the tailwater flows, how far the discharge point is from the Malheur or Snake Rivers, and lacked a legend. Without this information, it is hard to evaluated the relative watershed benefit. The various pipes need to be clearly shown on a map and identified as to specific function. A vicinity map needs to be included that clearly shows proximity to a major creek, drainage or river and that was lacking. It was not clear if the irrigated acreage is 81 acres or 71 acres as both acreages were stated for this property. The pivot will irrigate 64 acres and big guns were to irrigate 7 acres. It was not clear how the remaining 10 acres would be irrigated or if that was an error in the application.

While the team overall felt that project has excellent potential, the application was lacking in essential detail. Better maps with more detailed description of project component locations, vicinity map, big guns and diagram are needed. The application should explain whether the ditch is being decommissioned and filled in. A future application needs additional detail and description to warrant funding. The project is not recommended for funding this grant cycle.

**Regional Review Team Recommendation to Staff**

Do Not Fund.

**Staff Recommendation to the Board**

Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5071** | **Project Type:** | Restoration |
| **Project Name:** | Bendire Invasive Control and Improvement | | |
| **Applicant:** | Malheur SWCD | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$109,113.00** | **Total Cost:** | $136,055.00 |

### Application Description

Butler Ranches, north of Beulah Reservoir near Juntura in northwestern Malheur County has significant juniper encroachment. This project proposes to treat 760 acres of juniper now occupying historic sagebrush-steppe rangelands. Sage-grouse leks are identified in this watershed and it is a targeted area for NRCS' Sage-Grouse Initiative (SGI) funds.

Project components include juniper removal using a chainsaw - on slopes greater than 15 percent - on 70 acres with the slash lopped and scattered. Slopes less than 15 percent will be mechanically treated with a dozer and the slash machine piled on 70 acres. Native grasses and forbs should naturally reseed. Reseeding is planned on 250 acres where revegetation is sparse. Proposed seed mix includes bluebunch wheatgrass, Sherman's big bluegrass, Sandberg's bluegrass, intermediate wheatgrass, small burnett and alfalfa. Of the 250 acres seed, 150 acres will be seeded twice at half the rate and the other 100 acres will just be seeded once. In addition, one spring will be developed, fenced and piped to a 1,000-gallon trough; a weed management plan will be implemented and 300 acres aerially sprayed for Medusahead rye.

NRCS will assist with a grazing plan and the certified native plant and vegetation selection mix for areas where reseeding is slow. A grazing plan, including temporary rest and deferment, will be implemented. ODFW will provide advice on best management practices for upland wildlife species concentrating on sage grouse. In addition, an integrated weed plan addresses the issues where a confllict may arise between the elimination or juniper and controlling Medusahead. Watershed benefits include improved upland vegetation, decreased soil erosion and stream sedimentation and improved sage-grouse habitat, water quality, infiltration and wildlife habitat. Riparian vegetation along the Little Malheur River will improve.

OWEB funds are requested for project management (3%), in-house personnel (2%), mileage (2%), contracted services - juniper removal (67%), materials - seed (13%) and administration (9%). Cost-share partners are the landowner, ODFW, USFWS and NRCS. The landowner will provide juniper cutting and seed the area.

Project objectives follow goals outlined in the *Malheur Basin Action Plan*, Goal 1 to achieve properly functioning conditions in streams and waterways, the *Malheur Basin Agricultural Water Quality Management Plan* and the *Snake Basin TMDL*. Limiting factors include sediment, riparian conditions and shade. Project implementation will address these factors.

## REVIEW PROCESS

### Regional Review Team Evaluation

The application was previously submitted and recommended for funding but fell below the funding line. This project complements several previous juniper-removal projects located in the upper Malheur watershed from the Ironside area to the Beulah Reservoir and continues that effort. Spread over a large geographic area and interspersed with the 48,000-acre Irish Spring fire, many thousands of acres were treated to date. Positive effects in terms of flow to the Malheur River are noted anecdotally by local landowners. The project

has wildlife benefits especially for sage-grouse. Also, the landowner is very pro-active and has done a good job with previous projects.

Treating the Medusahead is beneficial, but may be difficult. It was expressed that the multiple treatments may be needed. Treatment timing for Medusahead is critical and it was noted that sufficient water needs to be used with the herbicide in order for adequate penetration through the dense mat layer. One reviewer commented that if the juniper is treated but not the Medusahead, this would not have as much benefit for wildlife. Others commented that at the early stages this might not be as much of a problem; also it would be beneficial to tackle this problem early. Since there is higher precipitation in this area, treating the thatch layer of Medusahead may not be such a problem. The attached weed management plan was beneficial and thorough. The team agreed that lop-and-scatter treatment methods should be used in Phase I and II juniper to reduce Medusahead spread. The landowner does plan on mechanically harvesting Phase III during winter months when the ground is snow-covered or frozen. This will greatly reduce any chance of soil disturbance as well as the threat of additional Medusahead spread.

The team previously recommended that the fencing surrounding the spring development be wildlife friendly and meet ODFW standards. Post-implementation status reports needs to include information regarding success of Medusahead treatment and status of the infestation. The team felt that there is significant ecological merit to warrant funding this grant cycle.

**Ecosystem Process and Function**

Removing juniper will lead to decreased erosion and overland flow by increasing infiltration and water storage. Upland and riparian vegetation and water quality will improve to the Malheur basin drainage. This project addresses altered watershed function affecting water quality and wildlife habitat. The aspen component is critical to many wildlife species.

**Regional Review Team Recommendation to Staff**

Fund Reduced with Conditions. Remove the camera cost at $1,750.

**Regional Review Team Priority**

10 of 19

**Distribution of Recommended Award Amounts**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| **$107,187.00** | | |

**Staff Recommendation to the Board**

Fund Reduced with Conditions. The grant agreement will require a debris fence be constructed around aspen groves and the fencing around the spring exclosure needs to be wildlife friendly. The project completion report must include a grazing plan and long-term juniper management plan. The project completion report and post-implementation status reports must include information regarding success of Medusahead treatment and status of the infestation. Remove $1,750 for camara costs.

**Staff Recommended Award**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| **$107,187.00** | | |

**Total Recommended Board Award**

**$107,187.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5072** | **Project Type:** | Restoration |
| **Project Name:** | Eight Fields Water Quality Improvements | | |
| **Applicant:** | Bully Creek Coalition | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$131,501.00** | **Total Cost:** | $277,066.00 |

### Application Description

Located four miles southwest of Vale, 130 acres of uneven farmland is separated into eight fields all of which are furrow-irrigated. Corn is the primary crop, but other crops are also rotated periodically. High amounts of sediment and fertilizer residues are transported from the fields in the tailwater. The runoff flows into Bully Creek less than one mile away. Additionally, the furrow irrigation contributes to significant amount of soil loss over time. By converting the entire acreage to a pivot sprinkler system, runoff will be eliminated and soil loss prevented. The open earthen ditch system can have evaporative and seepage loss of 30 percent and can be as high as 40 percent if there are rodents or structural problems.

Sediment is the major source of phosphorous and concentrates in Willow and Bully Creeks, the main tributaries to the Malheur River. Farm samples have shown phosphorous levels in tailwater from furrow irrigation as high as 4.5 mg/L and the target for the TMDL is .007 mg/L. Tailwater from irrigated pasture can contain up to 230,000 E. coli colonies and state standards allow only 406 colonies.

Project components include installing: 3,160 feet of 18-inch pipe to replace an earthen delivery lateral; 2,640 feet of 12-inch pipe to access the pivot point; headgate to divert water from the buried lateral; overflow device at the point where water is diverted from the open lateral to the buried pipe; screening device; bubbler; flow meter; 1,400 feet of conduit and 1,296-foot pivot. The project was designed by a registered technical service provider for NRCS who is also a certified irrigation designer and was reviewed by an engineer.

OWEB funds are requested for project management and layout (3%), materials (91%) and administration (5%). The landowner has significant cash and in-kind cost-share. Vale Oregon Irrigation District (VOID) will install the 18-inch lateral and headgate.

Implementation addresses the *Malheur Subbasin Plan* (2004) by reducing sediment and improving water quality; the *Malheur Basin Agricultural Water Quality Management Plan* (2003) which suggests practices that include irrigation water management and conversion from furrow irrigation to sprinklers; the *Mid-Snake-Succor Creek TMDL* that also addresses converting from furrow irrigation to sprinklers to reduce sediment, nutrient and phosphorous and it addresses the *Malheur Action Plan*.

## REVIEW PROCESS

### Regional Review Team Evaluation

This project supports the Malheur TMDL. Bully Creek is a very important, high priority area to implement restoration efforts. The project addresses a significant water quality issue in this portion of Malheur County. The project treats 130 acres which is a considerably larger parcel than treated in other similar projects. Therefore, the watershed benefits are more substantial.

The application provided better detail than some of the previous projects that were similar in nature. While the application was better, the maps could be improved and provide more detail including the location of the

discharge point for tailwater, proximity to major drainage or waterway and include more detail on the map and legend. This project had a higher cost per-acre and total cost, but it also included replacing a large lateral with 18-inch pipe. Pipe cost alone for the lateral was 40 percent of the OWEB-requested amount. Cost-share from both the landowner and VOID was substantial. Overall, the team felt that this project had significant water quality benefits and ecological merit to warrant funding this grant cycle.

**Ecosystem Process and Function**

Implementation of efficient irrigation systems will minimize erosion, reduce transport of farm chemicals to the Malheur River, improve water quality and address limited water availability. The project addresses irrigation-induced erosion caused by furrow irrigation and will help to reduce bacterial and phosphorous inputs and implement the Malheur River Basin TMDL.

**Regional Review Team Recommendation to Staff**

Fund with Conditions. 1. Provide revised plans reducing pipe to corners for conveyance only. 2. Water-right transfer notice will be required. 3. Flow meter required. 4. Old delivery system must be decommissioned.

**Regional Review Team Priority**

12 of 19

**Distribution of Recommended Award Amounts**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| $131,501.00 | | |

**Staff Follow-up to Review Team Comment**

Staff contacted the applicant regarding the pipe to the corners as that was not shown on the map. Currently, there is no plan to address the corner irrigation and no pipe requested for that component. The pipe to the corners was not addressed in the application. Therefore, no revised plan is needed. Also the flow meter and decommissioning of the old delivery system were already included in the application and are project components. If this grant is awarded, a water-right transfer notice will be required.

**Staff Recommendation to the Board**

Do Not Fund; falls below staff-recommended funding line.

**Staff Recommended Award**

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| | | |

**Total Recommended Board Award**

**$ 0.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5073** | **Project Type:** | Restoration |
| **Project Name:** | Alder Creek Elimination of Irrigation Return Flow | | |
| **Applicant:** | Malheur WC | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$70,706.00** | **Total Cost:** | $192,133.00 |

**Application Description**

Malheur Watershed Council proposes to address flood-irrigated pastures located 50 miles north of Vale above the Malheur Reservoir and addresses impaired water quality. The farm ground encompasses 95 acres growing alfalfa hay and pastures cattle. Slope exceeds 3 percent and irrigation is supplied from developed springs located more than half mile north of the fields. An existing well and pumping station will be used as supplemental water to the springs. Currently, all irrigation wastewater flows into Alder Creek and can be laden with bacteria, sediment and nutrients. Additionally, the furrow irrigation contributes to significant amount of soil loss over time. By converting 95 acres to a pivot sprinkler system, runoff will be eliminated and soil loss prevented.

Sediment is the major source of phosphorous and concentrates in Willow Creek, a main tributary to the Malheur River. Farm samples have shown phosphorous levels in tailwater from furrow irrigation as high as 4.5 mg/L and the target for the TMDL is .007 mg/L. Tailwater from irrigated pasture can contain up to 230,000 *E. coli* colonies and state standards allow only 406 colonies.

Project components include bury 2,100 feet of power line to remove a power pole that will allow the pivot better movement across the field; install 1,600 feet of 10-inch pipe from the existing well pumping station to access the pivot pad. Also, that line will be used to augment the springs, if necessary, to supply water to the pivot. In addition, a 5-foot bubbler and 3,400 feet of 8-inch pipe will connect from the bubler to the 10-inch pipe. The project will also install a headgate to divert water from the buried lateral; overflow device at the point where water is diverted from the open lateral to the buried pipe; screening device; bubbler; flow meter; 1,400 feet of conduit and 1,296-foot pivot. The project was designed by a registered technical service provider for NRCS who is a certified irrigation designer and was reviewed by an engineer.

OWEB funds are requested for project management (7%), materials (53%), contracted services (33%) and administration (6%). The landowner has significant cash and in-kind cost-share.

Implementation addresses the *Malheur Subbasin Plan* (2004) by reducing sediment and improving water quality; the *Malheur Basin Agricultural Water Quality Management Plan* (2003) which suggests practices that include irrigation water management and conversion from furrow irrigation to sprinklers; the *Mid-Snake-Succor Creek TMDL* that also addresses converting from furrow irrigation to sprinklers to reduce sediment, nutrient and phosphorous and it addresses the *Malheur Action Plan*.

## REVIEW PROCESS

**Regional Review Team Evaluation**

The application was well-written and included a discussion of alternatives which was positive. The team's main concern was with the well used potentially for supplemental water in addition to the springs and the potential effect on the water right. The groundwater right is supplemental and can only be used when other right is exhausted (or diminished). The team questioned then if there was sufficient water right to operate the

pivot. It was also stated that it is possible for the landowner could apply for some changes to the water right – if needed – to make this work. The team agreed these issues needed to be addressed before funding.

Overall, the team liked the proactive approach and the potential for inspiring locals. The proposed project is a good positive step, but the water right needs to be verified. The project had good maps, photos and detail. The water quality benefits are smaller since it is alfalfa ground and not row crops. Runoff flows into Alder Creek and the team assumed that flowed into Willow Creek above the Malheur Reservoir. However, the project could have a higher wildlife benefit due to its location. A future application needs to verify that there is sufficient water right to use supplemental water from the well for the pivot. Also, more cost-share would be needed to bury the power line since that is more operational than watershed benefit. Overall, the team had favorable comments regarding the project but felt it could not be funded until the water right is clarified.

**Regional Review Team Recommendation to Staff**
Do Not Fund.

**Staff Recommendation to the Board**
Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5074** | **Project Type:** | Restoration |
| **Project Name:** | Jamieson Livestock Waste Water Elimination | | |
| **Applicant:** | Malheur WC | | |
| **Basin:** | OWYHEE-MALHEUR | **County:** | Malheur |
| **OWEB Request:** | **$48,477.00** | **Total Cost:** | $155,737.00 |

### Application Description

Malheur Watershed Council proposes to address a flood-irrigated pasture located east of Jamieson on Highway 26. Willow Creek runs along the north and east side of the 64-acres farm that is divided into two fields. A small feedlot is located in the southeast corner of the property. The farm is currently flood-irrigated. Irrigation wastewater flows into two separate ditches which empty into a collection pond. The pond is used in a pump-back system which pumps the water back onto the field to be reused. The system is designed to prevent irrigation wastewater from entering Willow Creek.

Willow Creek borders both fields and both ditches run along the creek. Any destabilization of the ditch caused by erosion, silt, debris, gophers or storm events can lead to the wastewater seeping or leaking out. A hole at the bottom of the field or in the side of the ditch can allow a tremendous amount of contaminated water to flow into Willow Creek in a relatively short amount of time. During high runoff, large volumes of waste water enter the pumpback system which the pump cannot always accommodate. The system is designed for excess water to flow through the emergency overflow and into Willow Creek. Malheur Watershed Council is proposing to convert the flood irrigation system to a pivot-sprinkler system to eliminate the possibility of contaminated waste water entering Willow Creek. A third pivot is planned for the future when economically feasible. Excess levels of sediment, nutrients, algae and E. coli are found in Willow Creek.

Project components include installing 2,200 feet of 6-inch pipe from the pumping station to two pivots; a 4-foot bubbler and screen; power and electrical; 2,250 feet of electrical wire; two 7000-series pivots and four 30-inch ditch crossings to enable the pivots to cross the delivery ditch. The project was designed by a registered technical service provider for NRCS and a certified irrigation designer.

OWEB funds are requested for project management and layout (6%), travel (2%), materials (86%) and administration (6%). The landowner has significant cash and in-kind cost-share.

Implementation addresses the *Malheur Subbasin Plan* (2004) by reducing sediment and improving water quality; the *Malheur Basin Agricultural Water Quality Management Plan* (2003) which suggests practices that include irrigation water management and conversion from furrow irrigation to sprinklers; the *Mid-Snake-Succor Creek TMDL* that also addresses converting from furrow irrigation to sprinklers to reduce sediment, nutrient and phosphorous and it addresses the *Malheur Action Plan.*

## REVIEW PROCESS

### Regional Review Team Evaluation

The team expressed that this is a good project in an area of Malheur County that needs significant water quality improvement. The application provided good description, background information, maps and budget detail. Willow Creek has substantial water quality issues and implementation will help to implement the Malheur TMDL. The landowner is very proactive. A third pivot is planned in the future and will provide further water quality improvement.

The crossings over the lateral were questioned. The team thought that the lateral was to be piped anyway and that the ditch crossings will eventually be unnecessary. The team felt that cost should be the landowner's. However, there is already significant landowner cost-share as he is responsible for the installation and the cost of the pivots. Staff will verify how soon that the lateral will be piped. Also, the water needs to be automatically shut off when the pivot crosses the lateral as most likely there are no water rights over the lateral. A water-right transfer may be necessary and the applicant needs to contact OWRD to ascertain if a transfer is required. Also, a team member expressed concern regarding the close proximity of the sprinkler to Willow Creek. Willow Creek has erosion problems and if too close, the pivot could fall into the creek. It was recommended that the pivot needs a permanent filter strip along the creek. Staff will need to work with the applicant to determine specifics of the filter strip. The team had many favorable comments on the project and expressed that it was a positive step in this area of Willow Creek.

## Ecosystem Process and Function

Implementation of efficient irrigation systems will minimize erosion, reduce transport of farm chemicals to Willow Creek and then onto the Malheur River, improve water quality and address limited water availability. The project addresses irrigation-induced erosion caused by furrow irrigation and will help to reduce bacterial and phosphorous inputs and implement the Malheur River Basin TMDL.

## Regional Review Team Recommendation to Staff

Fund with Conditions. The team has the same conditions for all irrigation improvement projects. 1. Provide revised plans reducing pipe to corners for conveyance only. 2. Water-right transfer notice will be required. 3. Flow meter required. 4. Remove crossing costs. 5. Plant a filter strip along Willow Creek. 6. The pivot water should be turned off over the lateral and Willow Creek.

## Regional Review Team Priority

18 of 19

## Distribution of Recommended Award Amounts

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| **$48,477.00** | | |

## Staff Follow-up to Review Team Comment

The team had the same conditions as with the previous projects, however the application already addressed some of them. 1. The applicant will continue to water the corners with the pumpback, no pipe is requested. 2. There is no old conveyance system to be rehabilitated. 3. Staff checked with the applicant regarding the timeline for the lateral to be replaced. This is a large lateral and it is not scheduled to be replaced in the near future. Therefore, the crossings are needed. 4. There is an existing filter strip adjacent to Willow Creek already.

## Staff Recommendation to the Board

Do Not Fund; falls below staff-recommended funding line.

## Staff Recommended Award

| Recommended Amount | EM Portion | PE Portion |
|---|---|---|
| | | |

## Total Recommended Board Award

**$ 0.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5029** | **Project Type:** | Technical Assistance |
| **Project Name:** | Wrangling the Wilcox Ditch | | |
| **Applicant:** | Baker Valley SWCD | | |
| **Basin:** | POWDER | **County:** | Baker |
| **OWEB Request:** | **$9,190.00** | **Total Cost:** | $12,460.00 |

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**Application Description**

The Wilcox Ditch is located west of Haines in the foothills of the Elkhorn Mountains by Rock Creek. There are five users on the ditch with an allocated water right of 62 cfs. The ditch diverts water from Rock Creek and is situated on steep, forested slopes (up to 70 percent) and has blown out several times. When the ditch fails, large amounts of sediment are deposited into Rock Creek, at one time a bull trout stream. The first 2,650 feet has several unstable spots which have a high probability of future failure since signs of "soil creep" are already evident. Currently, there is a 30 percent ditch loss from seepage and evaporation.

In the 1980's the ditch failed releasing 200 yards of material in Rock Creek causing a significant amount of mass sedimentation and adversely affecting water quality and aquatic species in Rock Creek. Ditch irrigators have previously piped broken sections of the earthen ditch.

Technical assistance is sought for guidance on hydrology, water conveyance, irrigation, topography, steep slopes and aquatic systems. The SWCD is seeking a 60 percent design to develop a good budget and apply for the required permits. A steering committee comprised of ODFW, USFWS, SWCD and one of the irrigators will assist with the design process to assure a mutually beneficial design.

OWEB funds are requested for project management (9%), contracted services (86%) and administration (9%). The Wilcox Ditch irrigators, Baker Valley SWCD, USFWS and ODFW are cost-share partners.

## REVIEW PROCESS

**Regional Review Team Evaluation**

Rock Creek is no longer bull trout critical habitat and there is only anecdotal evidence of bull trout presence. The reviewers questioned the actual watershed benefit from this proposal. There is potential human safety issue if there is a blowout, as well as a water quality problem. The team thought that this was also more of a maintenance problem.

The team discussed the restoration project that would result from funding this technical assistance project. It was noted that this is the most junior water right on Rock Creek, with a significant portion of it being a paper water right. As a result, there would likely be no instream flow benefits from a restoration project. Further, if a new diversion was installed, it should have a fish screen. Since this is currently an unscreened diversion, there would be future watershed benefits from installing a fish screen, but the watershed benefit from the installed pipeline would be minimal. The reviewers had difficulty articulating the watershed benefit and questioned if this was more a maintenance problem. Overall, the team concluded that this was not ready for funding this cycle.

**Regional Review Team Recommendation to Staff**

Do Not Fund.

**Staff Recommendation to the Board**

Do Not Fund.

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5030** | **Project Type:** | Technical Assistance |
| **Project Name:** | Medicine Creek Wetland Restoration | | |
| **Applicant:** | Grande Ronde Model WS Program | | |
| **Basin:** | GRANDE RONDE | **County:** | Union |
| **OWEB Request:** | **$19,245.00** | **Total Cost:** | $31,189.00 |

### Application Description

Medicine Creek, a tributary of Gordon Creek, was channelized many years ago to most likely drain the wet meadow and convert it to agricultural production or pasture. This channelized reach has downcut up to 10 feet converting the wet meadow to a dry meadow. The current landowner would like to reverse this negative trend with a project that restores the wet meadow. Steelhead spawn below the project site on nearby property.

The planning and design phase of the project will need a topographic site survey, channel design, ESA-consultation, cultural resource survey and DSL/COE permitting. The proposed design solution is to produce a channel design for a sinuous, meandering stream on the surface of the meadow. The basic concept is to elevate the channel and plug or fill-in the downcut channel. Engineering and hydrologic expertise will be needed to analyze the physical watershed. Alternatives to consider include how much wood or grade-control to incorporate in the design and how to convert the vegetation from non-native meadow foxtail to native species. The final design will be reviewed and approved by selected members of the Grande Ronde Model Watershed Program's (GRMWP) technical committee including the regional fish biologist and hydrologic engineer. A letter of support was provided by the District Fish Biologist.

OWEB funds are requested for contracted services (91%) and administration (9%). The Grande Ronde Model Watershed Program and the landowner are cost-share partners.

## REVIEW PROCESS

### Regional Review Team Evaluation

The project was previously submitted as a restoration project where the existing channel would have weirs placed in the channel to raise the water level. While that was recommended for funding a few years ago, it fell below the recommended funding line. This project is to develop a design that will instead have a sinuous, meandering channel that is more natural with a larger watershed benefit.

The team thought that restoring the meadow would provide good benefits, including wildlife habitat and connecting the groundwater table to surface water and improving summer flows as well as reducing erosion. They appreciated the goal of addressing the headcut, which needs attention and a good design. Steelhead habitat exists further downstream from the project site.

The team had several questions. They wondered whether this proposed action might affect downstream landowners and if they were contacted or would be included in the design process. Also the possibility of replacing the culvert downstream, which may be the barrier to steelhead, was questioned. The team felt that it is most likely the responsibility of Union County and replacement in the near future financially problematic.

The team wondered if greater benefits could be gained by making this into a "bigger picture" project by bringing in neighboring property owners to increase overall restoration. However, they recognized such an effort would need additional funding if the scope is modified too much.

The team also questioned the water rights. Moving the stream would not require a transfer but removing or moving a diversion would. That needs to be considered in the design, if applicable. The team also thought that having an historical photo would have been beneficial. While the team had a number of questions, they concluded that a future restoration project would have ecological merit and recommended it for funding.

**Regional Review Team Recommendation to Staff**

Fund with Conditions. The project needs to contact the adjacent landowner(s); check out the water rights and evaluate the off-site impacts.

**Regional Review Team Priority**

4 of 4

**Distribution of Recommended Award Amounts**

| Recommended Amount |
|---|
| **$19,245.00** |

**Staff Recommendation to the Board**

Do Not Fund; falls below staff-recommended funding line.

**Staff Recommended Award**

| Recommended Amount |
|---|
| |

**Total Recommended Board Award**

**$ 0.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5031** | **Project Type:** | Technical Assistance |
| **Project Name:** | Newt-Young Diversion Restoration | | |
| **Applicant:** | Eagle Valley SWCD | | |
| **Basin:** | POWDER | **County:** | Baker |
| **OWEB Request:** | **$25,000.00** | **Total Cost:** | $33,645.00 |

**Application Description**

The Newt-Young ditch is one of the major irrigation ditches in Eagle Creek. Eagle Creek is a high-gradient, high water quality bull trout stream. The ditch, which diverts approximately 40 cfs, serves 1,604 acres of irrigated land with 35 users. A gravel push-up dam serves as the diversion structure and increased in size over the last few years due to 2010 100-year flood event that altered Eagle Creek's channel. In addition to the push-up dam increasing in size, the banks are eroding and need stabilization.

The technical skills required are an engineer to survey the site and design a permanent fish-friendly structure to replace the push-up dam and restore the severely incised streambanks above and below the diversion. Skill sets required include an engineer with hydrology, diversion structure, irrigation ditch and bank restoration expertise. A steering committee comprised of the Eagle Valley SWCD, USFWS, ODFW and the landowners will select the engineering firm. The engineer will be selected based on several factors including expertise in designing project in similar type streams. Expected ecological benefits from a future restoration project include improved fish passage, riparian habitat and water quality.

OWEB funds are requested for project management (4%), contracted services (90%) and administration (6%). OWRD, Eagle Valley SWCD and USFWS are cost-share partners.

## REVIEW PROCESS

**Regional Review Team Evaluation**

This project seems similar to the Kay-Young diversion which was implemented originally in 2009 and then blew out during the 2010 flood. That diversion was then re-designed and necessary repairs recently completed. Eagle Creek is designated critical habitat for bull trout and a high-velocity, high-gradient stream. It is important to have a design that meets a 100-year flood event. The original design for Kay-Young was for a 25-year event and the following year Eagle Creek experienced over a 100-year event after installation causing the diversion to fail.

The application did not state the maximum flow event that the diversion needs to withstand in the design criteria. The team stipulated that it needs to be designed to handle a 100-year event. Future project implementation will lengthen the amount of time that fish passage is available. The future project will also have high ecological merit. The team also would like to see that a fish screen will be pursued in the future, once there is funding secured for project implementation. The project is a high priority and should be funded this grant cycle.

**Regional Review Team Recommendation to Staff**

Fund with Conditions. Design standards need to meet a 100-year event.

**Regional Review Team Priority**

2 of 4

## Distribution of Recommended Award Amounts

| Recommended Amount |
| --- |
| $25,000.00 |

## Staff Recommendation to the Board

Fund with Conditions. The grant agreement will require design standards to meet a 100-year event and meet fish passage requirements. The project completion report should include information about plans to install a fish screen on the resulting restoration project.

## Staff Recommended Award

| Recommended Amount |
| --- |
| $25,000.00 |

## Total Recommended Board Award

**$25,000.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

| | | | |
|---|---|---|---|
| **Application No.:** | **212-5039** | **Project Type:** | Technical Assistance |
| **Project Name:** | The Model to Protect Sage Grouse | | |
| **Applicant:** | Harney SWCD | | |
| **Basin:** | LAKES | **County:** | Harney |
| **OWEB Request:** | **$50,000.00** | **Total Cost:** | $91,650.00 |

**Application Description**

The Harney County Sage-Grouse CCAA Steering Committee was established in August 2011 to develop a programmatic Candidate Conservation Agreement with Assurances (CCAA) for sage-grouse on non-federal lands in Harney County. The steering committee began earlier in the year to investigate the benefits and requirements of a CCAA. In a CCAA, participants voluntarily commit to implementing specific actions that remove threats to species and help to stabilize species so that a listing is not necessary. USFWS provides "assurances" that if a species is listed, USFWS will no assert additional restrictions or require additional actions above those the property owner voluntarily committed to in the CCAA.

In March 2010, USFWS determined the greater sage-grouse was a candidate species for ESA. In response to that concern, several endeavors were undertaken to identity limiting factors and corresponding conservation or mitigation measures that need to address declining populations. Harney County has over six million acres of sagebrush-steppe that are potential sage-grouse habitat.

Harney SWCD proposes to hire in-house and contract personnel with biology and range ecology background to develop and write a programmatic CCAA for landowners. In order to prepare the CCAA, baseline information on current status of the sage-grouse and habitat is needed. The conservation plans will include comprehensive, site-specific and actionable plans for protecting the sage-grouse and its habitat. The steering committee will utilize multiple proposed monitoring methods including photo point, vegetative transects, ODFW sage-grouse population and range health assessment monitoring. The committee is seeking a candidate familiar with NEPA (National Environmental Policy Act), wildlife sciences and has good written and oral skills. NRCS, OSU Extension, Harney County Court, Sharp Ranches and the Office of the Governor all provided letters of support.

OWEB funds are requested for project management (78%), in-house personnel (4%), travel (5%), contracted services (9%) and administration (3%). Harney Coounty CCAA Committee, NRCS, Harney County, OSU Extension and USFWS are cost-share partners.

## REVIEW PROCESS

**Regional Review Team Evaluation**

This project is another example of the effort to improve sage-grouse habitat and populations in southeast Oregon. The applicant provided several letters of support which indicated the enthusiasm for this project. The CCAAs would be in effect with the individual landowners. The applicant provided good detail and explanation for this project. The CCAA process will be a good test case project and may be applicable to other areas including Baker, Crook, Malheur and Lake Counties where sage-grouse habitat is also critical.

The CCAAs are voluntary conservation program efforts that are similar to habitat conservation plans. These plans should result in many restoration projects and practices. The team expressed that projects beneficial for the sage-grouse are also very beneficial for overall watershed conditions. The team felt that this project

will result in potentially viable projects to help sage-grouse and its habitat as well as improve overall watershed conditions. It is ready for funding this grant cycle.

**Regional Review Team Recommendation to Staff**
Fund.

**Regional Review Team Priority**
1 of 4

**Distribution of Recommended Award Amounts**

| Recommended Amount |
| --- |
| $50,000.00 |

**Staff Recommendation to the Board**
Fund.

**Staff Recommended Award**

| Recommended Amount |
| --- |
| $50,000.00 |

**Total Recommended Board Award**
**$50,000.00**

# October 17, 2011 OWEB Grant Cycle
## Eastern Oregon Review Team (Region 5)

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|---|---|---|---|
| **Application No.:** | **212-5040** | **Project Type:** | Technical Assistance |
| **Project Name:** | Gekeler Slough Drainage Surface Water Management Plan | | |
| **Applicant:** | Union County | | |
| **Basin:** | GRANDE RONDE | **County:** | Union |
| **OWEB Request:** | **$49,000.00** | **Total Cost:** | $169,000.00 |

### Application Description

The Gekeler Slough drainage begins above the City of La Grande and flows southeast approximately 14 miles into essential fish habitat of Catherine Creek and includes the City of La Grande, private farmland and portions of Ladd Marsh. Gekeler Slough drains approximately 20,000 acres to its confluence with Ladd and Catherine Creeks. Downstream from Gekeler Slough, Catherine Creek is water quality-limited for temperature, dissolved oxygen and pH. Changes within the drainage have left the system subject to reoccurring flooding which has led to stranding steelhead and other native fish, habitat loss and degraded water quality. Gekeler Slough regularly floods multiple times during the spring.

The proposed technical assistance will create the Gekeler Slough Drainage Surface Water Management Plan (SWMP). The SWMP involves collecting and analyzing data needed to identify drainage limitations and issues; provides alternatives and identifies preferred actions and implementation strategies. SWMP will identify and evaluate data gaps. Data from existing maps including zoning, topographical, LiDAR, irrigation systems and others will be compiled. Watershed characteristics collected will include soil, riparian area data, wetland, floodplain and other data. Other data collected includes water quality and identifying regulatory requirements. Additional tasks include drainage modeling, development of alternatives and an outline for project implementation.

Union County is seeking engineering expertise with hydrology, fish passage, irrigation, erosion control and surface water management. The primary technical service provider has already been selected following public contracting rules. Additional expertise is needed from ODFW, NOAA, Grande Ronde Model Watershed, USFWS, ODOT and private landowners.

OWEB funds are requested for project management (15%) and contracted services (85%). There is no administration requested. Union County and the City of La Grande are cost-share partners.

## REVIEW PROCESS

### Regional Review Team Evaluation

The team expressed that the application was well-thought and the need for SWMP clearly articulated. It appears that the SWMP will include the appropriate parameters for a comprehensive plan. There are significant water quality and drainage issues through this watershed. Team members familiar with the seasonal flooding issues stated that this is a real problem throughout this drainage. The periodic flooding at the livestock sale yard is an example of the severity of the problem. When that area floods, significant amounts of bacteria, *E. coli* and animal waste wash into the Gekeler Sough drainage. It was also noted that during these flood events culverts overflow and cause excessive streambank erosion as well as property damage. Floodwaters will also run through the city streets, resulting in oil and other toxics and pollution to the streams.

The team did question the steelhead concern. It was stated that steelhead would be in the lower end of the drainage near the confluence with Catherine Creek. They also doubted that the slough goes through Ladd Marsh.

One member of the team expressed that this effort has the potential to hit OWEB's triple-bottom line of economy, community and environment, making this a very beneficial project. The team recognized that the resulting restoration efforts were likely to be in the multi-millions, and recognized that it may be unrealistic for OWEB to be seen as a primary funder for restoration work. It is possible that with the completed Gekeler Slough Drainage SWMP that Union County would be better able to apply for federal or other grants to help implement needed restoration work. There are positive watershed benefits from future restoration efforts. The project is ready for funding this grant cycle.

**Regional Review Team Recommendation to Staff**
Fund.

**Regional Review Team Priority**
3 of 4

**Distribution of Recommended Award Amounts**

| Recommended Amount |
|---|
| **$49,000.00** |

**Staff Recommendation to the Board**
Fund.

**Staff Recommended Award**

| Recommended Amount |
|---|
| **$49,000.00** |

**Total Recommended Board Award**
**$49,000.00**