

WILLOW CREEK PIPELINE PROJECT

Vale Oregon Irrigation District

Vale, Oregon

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Vale, Oregon

January, 2013

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EXECUTIVE SUMMARY
Willow Creek Pipeline Project
Vale Oregon Irrigation District

January 16, 2013
Vale Oregon Irrigation District
Vale, Malheur County, Oregon

We are proposing to pipe 61,439 feet of lateral canals. We are requesting Reclamation funding to pipe 37,920 feet of that total. Our project will result in approximately 25.5 acre-feet of water savings per day or a total of 5,450 acre-feet per year, and the Reclamation portion will save 2,125 acre-feet per year. These savings will help us achieve a sufficient carryover pool in Beulah Reservoir to benefit the habitat of the federally listed bull trout. Side benefits of piping will be improved water quality by enabling landowners to convert from furrow irrigation to sprinklers, which will eliminate irrigation-induced erosion. The future of our food supply will be protected by ensuring irrigation water supply and maintaining our soil quality.

Piping open canals will help protect and improve water quality by helping to eliminate irrigation return flow and livestock access to surface water in feedlots. Willow Creek receives excessive levels of sediment, nutrients, algae, and E. coli. The Oregon Department of Environmental Quality placed the stream on the 2002, 303 (d) list for not meeting chlorophyll a (algae) and bacteria standards. Excessive amounts of algae growth are an indication of high levels of nutrients, particularly phosphorus, in the water column.

While DEQ has not listed Willow Creek for sediment, it is a large source of phosphorus input into a stream. Monitoring data has shown total phosphorus concentrations in Willow Creek as high as 1.97 mg/L. Only 12 of 270 samples taken in the past few years had concentration levels less than the Snake River-Hells Canyon TMDL target of 0.07 mg/L set for the mouth of the Malheur River. Willow Creek is a tributary of the Malheur.

E. coli levels in Willow Creek can be as high as 20,000 colonies per 100 ml sample. More than 40 percent of the 1,400 samples taken over the past three years exceeded the state standard of 406 colonies per 100 ml sample. Nearly all the 30-day averages of E. coli colony counts were above the standard of 126 colonies per 100/ml sample.

Obviously not all the nutrients, sediments and bacteria in Willow Creek are the result of agricultural activities. There are plenty of other sources, but agriculture does play a significant role. Perhaps the largest source of pollutants from agriculture is irrigation return flow. The preferred method for eliminating return flow is for farmers to convert from furrow irrigation to sprinklers. Piping laterals will facilitate conversion to sprinklers by providing a gravity pressure water system. Improved water quality will benefit Snake River salmon and steelhead runs and enhance human water recreation along the Snake River.

Another benefit of this project will be the improvement in delivery of water. Water delivered to the farm will be cleaner because of screening and piping. With proper design and installation, there will be no breaks and water delivery will be more reliable. District employees are constantly battling holes and other canal maintenance problems.

Much of the open ditches are weed infested. The water running down the ditch is a natural transport mechanism for spreading these plants. Piping will reduce herbicide application both on farm and along Willow Creek itself.

We anticipate the project will take three years and be completed by February, 2016.



360

WillowCreek Piping Project Vale, Oregon

349

349

289

278

245

Hartman

Background Data

Map required

The Vale Oregon Irrigation District is located in Malheur County, Oregon. Vale is about 60 miles northwest of Boise Idaho. The District's average annual water supply is 87,000 acre-feet per year and farmers use all of that water for irrigation. The District has 430 water accounts with 34,993 acres of irrigable farmland. The annual assessment is \$37.90 an acre with an account fee of \$90 per year. This money helps to pay for 13 full time employees and other expenses.

Crops grown include grains, potatoes, onions, irrigated pastures, hay, alfalfa seed, other seed crops, sugar beets, and corn. The most common method of irrigating is furrow irrigation, although drip and sprinkler irrigation are gaining in popularity.

The District diverts water at the Namorf Diversion from the Malheur River using a low profile dam constructed about 10 miles west of Harper, Oregon. From this point of diversion, the water flows down 73 miles of main canal to Jamieson on the west side of Willow Creek. This main canal is designed to carry 1 cubic foot of water per second for every 50 acres of irrigated land. Lateral canals intersect the main canal at irregular intervals to deliver water to individual farms in the Willow Creek and Vale area.

The District has three storage facilities. They are: Warm Springs Reservoir on the middle fork of the Malheur River, Bully Creek Reservoir on Bully Creek a tributary of the Malheur River, and Beulah Reservoir on the north fork of the Malheur River. This system was constructed in the early 1930's. The Agency Valley Dam, creating Beulah Reservoir, was completed in 1935.

The total storage capacity available to the District is 185,000 acre-feet. Warm Springs Reservoir holds 190,000 acre-feet, but other irrigation districts use half of this capacity. Beulah Reservoir holds 60,000 acre-feet, and Bully Creek Reservoir stores 30,000 acre-feet.

Overall, the district operates at an estimated 60 to 65% delivery efficiency. We estimate that the on-farm efficiency is approximately 30 to 40% at best. It is most likely that furrow irrigation is much less efficient than what we cite here.

Shortfalls in Water

Water shortages have been an increasing problem for the District, especially since 2000. Because of a lack of water in the reservoirs, the irrigation season has ended early **for 6 of the past 12 years**. It is likely with a changing climate and increased demands for existing water for environmental concerns and ESA listed species, we expect shortages will continue and may become worse.

Federally listed bull trout use Beulah Reservoir during the winter months. There are indications that severe drawdowns to supply irrigation water may negatively affect habitat for this species. Leaving a carryover pool will possibly help recover the species.

Existing Irrigation Improvements

The District has been heavily involved in improving its infrastructure for many years, but especially in the last 12 years. We have been integral partners in a diverse partnership consisting of:

- Landowners
- NRCS
- Malheur Watershed Council
 - Lower Willow Creek Working Group
- Bureau of Reclamation
- Oregon Department of Environmental Quality
- Oregon Department of Agriculture
- Oregon Watershed Enhancement Board
- Oregon Department of Fish and Wildlife
- Pheasants Forever
- Malheur County Weed Advisory Board

Since 2003, this consortium has implemented more than **\$8 million** worth of improvements. A summary of these accomplishments follows.

Accomplishments 2003 to 2012

- Total Individual Projects (excluding Laterals) = 63
- **Total Acres Converted From Flood To Sprinkler = 8,000**
- **Total Miles of Laterals Piped = 35**
- **Total Miles of Mainlines & Delivery Systems Piped = 17.86**
- Total Miles of Drains and Canals Piped = 4.14
- Total Number of Pumpback Systems = 15 systems serving 1,175 acres
- Total Number of Off-stream Water Troughs Installed = 20
- Total Miles of Pipe for Troughs = 1.93 (10,210 feet)
- Total Miles of Cross Fencing = 2.5
- Total Miles of Riparian and Wetland Protection Fencing = 15.26
- Total Riparian Plantings = 4,000
- Total Number of Wetland Filter Ponds = 3
- Total Acres of Rangeland Improved = 755
- Total Acres Served By Piped Laterals = 6,500

Past Interactions with BOR

The District works closely with the BOR. The responsible Reclamation Area office is the Snake River Area Office, whose staff coordinates with the District on Safety of Dams and operational matters. The District has received several grants from the Bureau. One of our most notable interactions was a \$300,000 grant to pipe lateral canals to improve water conservation and improve water quality.

Technical Project Description

We are proposing to pipe 61,439 feet of lateral canals. We are requesting Reclamation funding to pipe 37,920 feet of that total. Our project will result in approximately 25.5 acre-feet per day of water savings, or a total of 5,450 acre-feet per year, and the Reclamation portion will save 2,125 acre-feet per year. These savings will help us achieve a carryover pool in Beulah Reservoir to benefit the habitat of the federally listed bull trout. Side benefits of piping will be improved water quality by enabling landowners to convert from furrow to sprinklers, which will eliminate irrigation-induced erosion. The future of our food supply will be protected by ensuring irrigation water supply and maintaining our soil quality.

This proposal is a part of an ongoing program of water conservation and water quality improvements the District has been engaged in for many years. The District has developed a Master Plan, *The Willow Creek Piping Project (2008)*, that sets priorities for projects and monitoring for effectiveness. This Plan calls for improvements in measurement and automation, efficiency increases due to conversion from furrow irrigation to sprinklers and piping 78 miles of open laterals to eliminate losses from seepage and evaporation.

Project Design

Don Curtis, retired BLM engineer with more than 35 years of experience, will complete preliminary designs. Each pipeline will be designed to accommodate maximum flows and pressures. The District, with Mr. Curtis' and Reclamation's help, has successfully installed miles of pipe with little trouble. Each piped lateral will have to meet BOR and the Irrigation Districts' specifications.

Construction Method

District staff will excavate trenches and install pipe after the end of the irrigation season while the canal is not in operation. All design, installation, and construction methods will meet or exceed Reclamation specifications.

The design calls for the pipeline to deliver an inch per acre at less than 5 foot per second velocity. The pipes will be covered with a minimum of 3 feet of material. Each turnout will be gated and fitted with a flow meter. They will be designed for hook up to sprinklers for on-demand irrigation.

Besides water savings from eliminating seepage and evaporation, piping the laterals allows for some gravity pressure. This energy savings will provide an incentive for farmers to convert to sprinklers from furrow and flood irrigation of pastures. Sprinklers will enable water savings above the savings from

pipings alone. The gravity pressure will vary, depending on the lateral and the location on the particular lateral. We estimate the highest pressure will be 100 psi.

Mr. Curtis has developed a detailed plan that lays out how many feet of pipe of different sizes and pressure ratings. The pressure ratings vary from 100 to 160 psi and pipe diameter ranges from 6 to 27 inches. Among other items we will install 42 tee's, 13 reducers, 40 outlet assemblies, 65 elbows, 35 concrete thrust blocks, 12 air vac valves, and a screen to keep debris out of the pipe.

Summary of pipe requirements
for Lateral 278 (Reclamation
funding)

Pipe Diameter (Inches)	Length (Feet)
27	1127
24	13964
21	6501
18	798
15	8275
12	5812
10	3950
8	4348
6	1246
TOTAL	46,021

Evaluation Criteria

A.1. - Water Conservation

A.1.(a) Quantifiable Water Savings

Describe the amount of water saved.

(1) What is the applicant's average annual acre-feet of water supply?

The District's average annual water supply is 87,000 acre-feet per year. We estimate our normal losses to be about 37% per year or 32,000 acre feet.

(2) Where is that water currently going (e.g., back to the stream, spilled at the end of the ditch, seeping into the ground, etc.)?

Most of the lost water is seeping into the ground, and a smaller percentage is lost to evaporation to the atmosphere.

(3) Where will the conserved water go?

Conserved water will help maintain higher reservoir levels. Some of this conserved water will be available for meeting our goals for maintaining a carryover pool for bull trout in the reservoir. Some will help meet irrigation needs especially during dry years.

Canal Lining/Piping:

- (1) How has the estimated average annual water savings that will result from the project been determined? Please provide all relevant calculations, assumptions, and supporting data.

We have learned over many years of experience and actual measurement how much water is lost in the lateral canals. The measurements are simple. We measure how much is diverted into a lateral and then measure how much is applied to the fields. The difference is the amount lost to seepage and evaporation. Consistently our average loss is 1 cfs per mile per day of earthen lateral.

- (2) How have average annual canal seepage losses been determined?

We have measured how much water is diverted from the main canal into the lateral and then how much is applied to the fields. The difference is the loss due to seepage and evaporation.

- (3) Have ponding and/or inflow/outflow tests been conducted to determine seepage rates under varying conditions? If so, please provide detailed descriptions of testing methods and all results. If not, please provide an explanation of the method(s) used to calculate seepage losses. All estimates should be supported with multiple sets of data/measurements from representative sections of canals

Inflow/outflow measurements are made routinely in this Irrigation District. We know that seepage is greatest in the spring, moderate throughout the summer and the fall.

- (4) What are the expected post-project seepage/leakage losses and how were these estimates determined (e.g., can data specific to the type of material being used in the project be provided)?

Piping will eliminate leakage loss in the lateral. We have not seen an appreciable amount of leakage losses in the miles of piping we have completed.

- (5) What are the anticipated annual transit loss reductions in terms of acre-feet per mile for the overall project and for each section of canal included in the project?

We will save about 470 acre-feet per mile per year, or about 5,450 acre-feet per year.

- (6) How will actual canal loss seepage reductions be verified?

We will have measurements of the water diverted into the canal and measurements of the amount applied to each field from previous years.

- (7) Include a detailed description of the materials being used

Mr. Curtis has developed a detailed plan that lays out how many feet of pvc pipe of different sizes and pressure ratings. The pressure ratings vary from 100 to 160 psi and pipe diameter ranges from 6 to 27 inches. Among other items we will install 42 tee's, 13 reducers, 40 outlet assemblies, 65 elbows, 35 concrete thrust blocks, 12 air vac valves, and a screen to keep debris out of the pipe.

A.1. - Water Conservation

A.1.(b) Improved Water Management

NA

A.2. – Percentage of Total Supply

NA

A.3. – Reasonableness of Cost

NA

B. Energy-Water Nexus

NA

C. Benefits to Endangered Species

For projects that will directly accelerate the recovery of *threatened or endangered species* or address *designated critical habitats*, please include the following elements:

(1) How is the species adversely affected by a Reclamation project?

Beulah Reservoir supports an adfluvial population of threatened bull trout (*Salvelinus confluentus*). The fish over-winter in the reservoir from November through early May. This reservoir is also critical for irrigation water. In short water years, which have occurred many times in the past decade, the reservoir is drawn down by 100%.

The USGS in cooperation with the BOR have studied the effects of the drawdown on bull trout populations. They conclude in a 2008 report that:

“Our results indicate that drawdowns in Beulah Reservoir affect the aquatic community and perhaps the health and well-being of bull trout.”

The studies done to date have not had sufficient data to make biologically based recommendations for minimum pool size. They have only studied a moderate draw down and a severe draw down. More studies are underway. However, it is clear that any amount of water saved will benefit the species and its habitat.

(2) Is the species subject to a recovery plan or conservation plan under the Endangered Species Act?

Yes. The US Fish and Wildlife Service has developed a draft Bull Trout Recovery Plan. Chapter 14 covers the Malheur River Basin. The Service issued a Biological Opinion in 2005 that includes the Vale project and 11 others in the region. Terms and Conditions of the Opinion address the issue of carryover pools in Beulah. Because of the lack of adequate data on the effects of a minimum pool, an extension of the Terms and Conditions has been granted until 2015.

(3) What is the extent to which the proposed project would reduce the likelihood of listing or would otherwise improve the status of the species?

The conserved water from piping 11.6 miles of lateral canal will be a significant step towards meeting our goals for carryover pools for bull trout. This should help improve habitat and eventually contribute to the recovery of the species.

D. – Water Marketing

NA

E. – Other Contributions to Water Supply Sustainability

(2) Points may be awarded for projects that will help to expedite future on-farm irrigation improvements, including future on farm improvements that may be eligible for NRCS funding. Please address the following:

(1) Include a detailed listing of the fields and acreage that may be improved in the future.

Based on the Irrigation District accounts, we expect the total number of acres needing treatment, conversion from flood/furrow irrigation to sprinkler, to be about 25,000. The Willow Creek Piping Project Master Plan has set a goal of converting 12,000 acres from furrow irrigation to sprinkler. Currently they are converting about 1,000 acres per year.

(2) Describe in detail the on-farm improvements that can be made as a result of this project. Include discussion of any planned or ongoing efforts by farmers/ranchers that receive water from the applicant.

Our observations have shown that landowners have installed more than 90 sprinkler systems over the past 10 years. Prior to that, there were only a handful of fields under sprinklers. During the past 6 years, we have seen a thousand acres per year converted.

This is the direct result of our piping projects and partnerships for on-farm improvements through OWEB grants, NRCS' EQIP and AWEP grants and landowner efforts. We fully expect that with more piping there will be more sprinkling.

- (3) **Provide a detailed explanation of how the proposed WaterSMART Grant project would help to expedite such on-farm efficiency improvements.**

One of the biggest obstacles for farmers to convert to sprinklers in the District is the availability and expense of power for pumping. Gravity pressure from piping laterals makes it feasible to install sprinklers. Additionally, the improved water management the pipes provide allows farmers to control the water, which further facilitates the conversion to sprinklers.

- (4) **Fully describe the on-farm water conservation or water use efficiency benefits that would result from the enabled on-farm component of this project. Estimate the potential on-farm water savings that could result in acre-feet per year. Include support or backup documentation for any calculations or assumptions.**

We estimate from NRCS studies and our observations that furrow irrigation is only 30 to 40% efficient. However, properly managed sprinklers can be 75 to 85% efficient. Our possible water savings if all acres served by the pipelines could be 0.7 or more acre-feet per acre per year when all fields are converted.

- (5) **Projects that include significant on-farm irrigation improvements should demonstrate the eligibility, commitment, and number or percentage of shareholders who plan to participate in any available NRCS funding programs. Applicants should provide letters of intent from farmers/ranchers in the affected project areas.**

Our experience over the past 12 years has shown that all the grant programs, including EQIP, OWEB, and AWEP, have more applicants than money available. In fact, many farmers have installed pivots on their own once the lateral has been piped. The landowners here have a solid and exemplary record of participating. We have no doubt this will continue. Currently they are converting about 1000 acres annually to sprinkler. The goal of the group is to maintain this level of conversion for the next 10 years or more.

- (6) **Describe the extent to which this project complements an existing or newly awarded AWEP project.**

NRCS awarded \$1.5 million to the Willow Creek area starting in 2009. The program will conclude at the end of 2013. We anticipate that we will have a good opportunity to obtain more funding if Congress decides to continue the program. Piping laterals is intimately connected to the on-farm projects that EQIP and AWEP fund.

F. Implementation and Results

F.1. - Project Planning

- (1) Identify any district-wide, or system-wide, planning that provides support for the proposed project. This could include a Water Conservation Plan, SOR, Basin Study, or other planning efforts done to determine the priority of this project in relation to other potential projects.**

The Vale Oregon Irrigation District Water Management/Conservation Plan, approved by BOR and Oregon Water Resources Department in 1998, contains general guidance regarding all the waters of the State relative to water conservation, in-stream flows, and water management. This project is in line with these overall objectives.

- (2) Identify and describe any engineering or design work performed specifically in support of the proposed project.**

Don Curtis, retired BLM engineer with 35 years of experience, will complete preliminary designs. Each pipeline will be designed to accommodate maximum flows and pressures. The District, with Mr. Curtis and Reclamation's help, has successfully installed miles of pipe with little trouble. Each buried mainline will have to meet BOR and the Irrigation District's specifications.

- (3) Describe how the project conforms to and meets the goals of any applicable planning efforts, and identify any aspect of the project that implements a feature of an existing water plan(s).**

This proposal to pipe 11.6 miles of lateral canal is an integral part of *The Willow Creek Piping Project* (2008) a master plan developed by the District and partners to address water supply and water quality issues in Willow Creek and the Malheur River.

This project will help implement the USFWS' Bull Trout Recovery Plan, Chapter 14: The Malheur River Basin by helping improve habitat in Beulah Reservoir.

The Snake River TMDL requires an 80% reduction of total phosphorus at the mouth of the Malheur River, and the Malheur River Agricultural Water Quality Management Plan encourages farmers to convert to sprinklers to eliminate irrigation-induced erosion. Piping these laterals helps to meet the requirements and goals of these two plans.

F.2. – Readiness to Proceed

Construction Schedule

We estimate construction time to range from 140 to 190 workdays depending on production crew rate and weather conditions. Our experience shows that our crews can install pipe at 600 to 800 feet a day. Given these calculations, we anticipate installing the 114,660 feet well within the 3-year period allowed.

The schedule for the project is estimated as follows:

ESTIMATED PROJECT SCHEDULE

Activity	Estimated Start Month	Estimated Completion Month
Grant Agreement Signed	September 2013	September 2013
NEPA/NHPA Compliance	September 2013	October 2013
Pipeline Design	September 2013	November 2013
Pipeline Installation (Year I)	December 2013	February 2014
Break for irrigation season	March 2014	October 2014
Pipeline Installation (Year II)	December 2014	February 2015
Break for irrigation season	March 2015	October 2015
Pipeline Installation (Year III)	December 2015	February 2016

F.3. – Performance Measures

Water Conservation

Converting 11.6 miles of open lateral canal to pipes will result in conserving an estimated 5,450 acre-feet per year of water ordinarily lost to seepage and evaporation. The water will be saved during the irrigation season, which runs from April to October.

A typical farm delivery will be through a 6 to 12-inch diameter pipe from the canal that discharges into a vertical pipe well. An inline flow meter will be placed at the outlet structure to measure the flow. Installing these meters will greatly improve the Districts ability to accurately measure water.

Another benefit of this project will be the improvement in delivery of water. Water delivered to the farm will be cleaner because of screening and piping. With proper design and installation, there will be no breaks and water delivery will be more reliable. District employees are constantly battling holes and other canal maintenance problems.

G. Additional Non-Federal Funding

<u>Non-Federal Funding</u>	<u>\$1,291,932</u>
Total Project Cost	\$2,550,133

We have secured \$460,301 from the Oregon Watershed Enhancement Board. OWEB is funded from lottery profits. The District will be installing the pipe at a cost of \$831,631 for all piping. This money is derived from District assessments and fees.

H. Connection to reclamation Project Activities

- (1) How is the proposed project connected to Reclamation project activities? **NA**
- (2) Does the applicant receive Reclamation project water? **NA**
- (3) Is the project on Reclamation project lands or involving Reclamation facilities? **Vale is a BOR project.**
- (4) Is the project in the same basin as a Reclamation project or activity? **NA**
- (5) Will the proposed work contribute water to a basin where a Reclamation project is located? **NA**

Environmental and Cultural Resource Compliance

- (1) Will the project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.

Anticipated environmental impacts are from the conversion of approximately 11.6 linear miles of open lateral. There will be a temporary decrease in air and noise quality due to construction activities associated with trenching the new pipeline alignment. There will be no adverse impact to water quality, to any endangered, threatened, or migratory bird species, or to any cultural or historical resource.

- (2) Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?

From discussions with Reclamation, the U.S. Fish and Wildlife Service, and the Oregon Department of Fish and Wildlife, there does not appear to be any threatened or endangered species in the project area. Bull trout habitat is above Beulah Reservoir and will not be affected by the proposed work. Installing the pipeline could potentially help fish habitat in the reservoir itself by helping with carryover pools.

- (3) Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as “waters of the United States?” If so, please describe and estimate any impacts the project may have.

There are seepage areas along the lateral. Converting the lateral to pipe will prevent this seepage from occurring. We believe these areas are not classified as jurisdictional wetlands requiring compliance with the Clean Water Act. However, we will conduct further investigation and concurrence/permitting will be coordinated with the Corps of Engineers if it is needed.

- (4) When was the water delivery system constructed?

The system was constructed in the early 1930’s. Agency Valley Dam that creates Beulah Reservoir was completed in 1935.

- (5) Will the project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.

Lateral #278 will be converted to a pipeline. This lateral was constructed in the 1930s. Since construction to the present day, the lateral has been cleaned and the capacity has been increased. Erosion and flood damage has been repaired on several occasions.

- (6) Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.

There are none.

- (7) Are there any known archeological sites in the proposed project area?

The District is not aware of any sites within the main canal project area.

- (8) Will the project have a disproportionately high and adverse effect on low income or minority populations?

No.

- (9) Will the project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?

No.

(10) Will the project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?

No. This project will improve weed management. By eliminating the earthen lateral there will be less area for weeds to grow and there will be less spread of weed seeds through irrigation water. Water quality will improve because there will be less herbicide applied to the lateral.

Required Permits

There does not appear at this time that a Clean Water Act Section 404 permit is required for the subject work on the main canal. If it is determined that there is, then the District will contact the appropriate Corps of Engineers office to begin the permit process.

Project Budget

Funding Plan and Letters of Commitment

See attached.

- (1) How you will make your contribution to the cost share requirement, such as monetary and/or in-kind contributions and source funds contributed by the applicant (e.g., reserve account, tax revenue, and/or assessments).

We have secured \$460,301 in OWEB funds, and we will have \$831,631 of in-kind cost-share for installing the pipelines. The installation costs are from District assessments.

- (2) Describe any in-kind costs incurred before the anticipated project start date that you seek to include as project costs. Include:

- (a) What project expenses have been incurred

NA

- (b) How they benefitted the project

NA

- (c) The amount of the expense

NA

- (d) The date of cost incurrence

NA

- (3) Provide the identity and amount of funding to be provided by funding partners, as well as the required letters of commitment.

Oregon Watershed Enhancement Board is providing \$460,301. Letters of commitment are attached.

Vale Oregon Irrigation District is installing the pipeline for \$831,631. See Board Resolution authorizing this expenditure.

- (4) Describe any funding requested or received from other Federal partners. Note: other sources of Federal funding may not be counted towards your 50 percent cost share unless otherwise allowed by statute.

NA

- (5) Describe any pending funding requests that have not yet been approved, and explain how the project will be affected if such funding is denied.

NA

RESOLUTION 2013-01

Applicant: Vale Oregon Irrigation District

WHEREAS, the U.S. Bureau of Reclamation is seeking proposals from irrigation districts who want to leverage their money and resources in partnership with Reclamation to make efficient use of existing water supplies. Through the WaterSmart: Water And Energy Efficiency Grants for 2013, Reclamation will provide funding on a 50/50 cost share basis for projects focused on water conservation, efficiency and water marketing.

WHEREAS, the Vale Oregon Irrigation District desires to apply for funding through Reclamation's WaterSmart: Water and Energy Efficiency Grants for 2013 Program.

NOW THEREFORE, BE IT RESOLVED that the Board of Directors of the Vale Oregon Irrigation District agree and authorize the following:

1. The Board has reviewed and supports the proposal submitted;
2. The Vale Oregon Irrigation District is capable of providing the amount of funding and/or in-kind contributions as specified in the funding plan; and
3. If selected for a WaterSmart Grant, the Vale Oregon Irrigation District will work with Reclamation to meet established deadlines for entering into a cooperative agreement.
4. The Board is giving Dan Fulwyler the authority to apply for and enter into agreement with BOR for a Water Smart Grant not to exceed 1.5 million dollars.

This Resolution is effective January 16th, 2013.



Dan Fulwyler, District Manager



Warren Chamberlain, Chairman of the Board

MALHEUR WATERSHED COUNCIL

Chairman: Jerry Erstrom

Coordinator: Kelly Weideman

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*Leading the effort to conserve, protect, and enhance all watershed resources for optimum economic and environmental benefits within the Malheur watershed.*

January 14, 2013

Bureau of Reclamation  
230 Collins Road  
Boise, Idaho 83702

The Malheur Watershed Council has been given the authorization to expend approximately \$340,000.00 in funds to pipe Vale Oregon Irrigation District (VOID) Laterals identified as #245, #349, and Hartman. These funds have been awarded through Grant #210-5021 from the Oregon Watershed Enhancement Board (OWEB).

An additional \$188,941.00 was authorized by OWEB through Grant #213-5015 to pipe VOID Laterals #289 and #360.

Please contact me if you require any further information.

Sincerely,



Kelly Weideman  
Coordinator

**Table 1. Summary of non-Federal and Federal funding sources.**

| <b>Funding Sources</b>          | <b>Funding Amount</b> |
|---------------------------------|-----------------------|
| Non-federal entities            |                       |
| OWEB                            | \$460,301.06          |
| Vale Oregon Irrigation District | \$831,631.56          |
|                                 |                       |
| Non-Federal Subtotal            | \$1,291,932.62        |
| Other Federal Entities          |                       |
|                                 |                       |
| Other Federal Subtotal          |                       |
|                                 |                       |
| Requested Reclamation Funding   | \$1,258,200.90        |
|                                 |                       |
| Total Project Funding           | \$2,550,133.52        |

**Table 2. Funding Group II Funding Request.**

| <b>Funding Group II Request</b> |                         |                         |                         |
|---------------------------------|-------------------------|-------------------------|-------------------------|
|                                 | <b>Year 1 (FY 2013)</b> | <b>Year 2 (FY 2014)</b> | <b>Year 3 (FY 2015)</b> |
| Funding Request                 | \$400,000               | \$400,000               | \$658,200.90            |
|                                 |                         |                         |                         |

| <b>Funding Sources</b> | <b>Percent of Total Project Cost</b> | <b>Total Cost by Source</b> |
|------------------------|--------------------------------------|-----------------------------|
| Recipient Funding      | 52                                   | \$1,291,932.62              |
| Reclamation Funding    | 48                                   | \$1,258,200.90              |
| Other Federal Funding  |                                      |                             |
| <b>Totals</b>          | 100                                  | \$2,550,133.52              |

## **Budget Narrative**

### ***Salaries, Wages and Fringe Benefits***

All salaries, wages and fringe benefits will be paid by Vale Oregon Irrigation District.

### ***Travel***

We do not anticipate any travel as part of this project.

### ***Equipment***

We do not anticipate purchasing any equipment for this project. The District has all the equipment required to install the pipe.

### ***Materials and Supplies***

Our estimates of the amounts and costs of the materials we require for this project are based on an engineer's plan, and our significant experience in implementing projects of this kind.

### ***Contractual***

A project manager will be hired to oversee the project and assure compliance with project specification and reporting.

### ***Environmental and Regulatory Compliance Costs***

We expect the environmental and regulatory costs to be minimal. Thus, we have budgeted the minimum required amount of 1 percent of the requested budget. We expect to hire a consultant to fulfill these requirements.

### ***Reporting***

If we are successful in acquiring Reclamation funding we will be required to submit 6 interim reports and a final report. We expect to spend 240 hours on these reporting requirements, 30 hours per interim and 60 hours for the final report.

### ***Other Expenses***

### ***Indirect Costs***

### ***Total Costs***

**Non-federal cost share**

OWEB = \$460,301.06 (secured)

Vale Oregon Irrigation District (installation of pipe) = \$831,631.56

This amount is derived from \$17.00 per foot to install the pipe. We base this on our significant experience in installing pipe.

**Reclamation request**

Materials and supplies = \$1,258,200.90

Environmental Compliance = \$12,000

Reporting = \$13,000

Project Management = \$15,000

**Budget Form**



| Budget Item Description                                                         | Quantity | Unit  | Cost Per Unit | OWEB GRANT | RECEIPIENT FUNDING | BOR FUNDING | TOTAL COST   |
|---------------------------------------------------------------------------------|----------|-------|---------------|------------|--------------------|-------------|--------------|
| <b>Vale Oregon Irrigation District Willowcreek Pipeline Project Totals Pg-1</b> |          |       |               |            |                    |             |              |
| <b>Salaries &amp; Wages</b>                                                     |          |       |               |            |                    |             |              |
| Manager                                                                         | 2604     | hrs   | \$28.85       |            | \$75,125.40        |             | \$75,125.40  |
| Assistant Manager                                                               | 2604     | hrs   | \$24.53       |            | \$63,876.12        |             | \$63,876.12  |
| Trackhoe Operator                                                               | 1952     | hrs   | \$22.04       |            | \$43,022.08        |             | \$43,022.08  |
| Cat Operator                                                                    | 1952     | hrs   | \$22.04       |            | \$43,022.08        |             | \$43,022.08  |
| Labor 5 Employees                                                               | 13024    | hrs   | \$22.04       |            | \$287,048.96       |             | \$287,048.96 |
|                                                                                 |          |       |               |            |                    |             |              |
|                                                                                 |          |       |               |            |                    |             |              |
| <b>Equipment</b>                                                                |          |       |               |            |                    |             |              |
| 320DL Excavator                                                                 | 2007     | hrs   | \$75.00       |            | \$150,525.00       |             | \$150,525.00 |
| Truck and Trailer                                                               | 326.5    | hrs   | \$70.00       |            | \$22,855.00        |             | \$22,855.00  |
| 420 Backhoe                                                                     | 651      | hrs   | \$50.00       |            | \$32,550.00        |             | \$32,550.00  |
| Pickups                                                                         | 3256     | miles | \$0.57        |            | \$1,855.92         |             | \$1,855.92   |
| Hyster                                                                          | 326      | hrs   | \$23.00       |            | \$7,498.00         |             | \$7,498.00   |
| Shop Truck                                                                      | 1301     | miles | \$1.00        |            | \$1,301.00         |             | \$1,301.00   |
| D5 Cat                                                                          | 2007     | hrs   | \$50.00       |            | \$100,350.00       |             | \$100,350.00 |
| Lowboy                                                                          | 1301     | miles | \$2.00        |            | \$2,602.00         |             | \$2,602.00   |
|                                                                                 |          |       |               |            |                    |             |              |
|                                                                                 |          |       |               |            |                    |             |              |
|                                                                                 |          |       |               |            |                    |             |              |
|                                                                                 |          |       |               |            |                    |             |              |
|                                                                                 |          |       |               |            |                    |             |              |

| <b>Vale Oregon Irrigation District Willowcreek Pipeline Project Totals Pg-2</b> |       |      |  |             |  |              |              |
|---------------------------------------------------------------------------------|-------|------|--|-------------|--|--------------|--------------|
| 27" pipe 100 psi                                                                | 120   | feet |  | \$4,593.60  |  |              | \$4,593.60   |
| 27" pipe 100 psi                                                                | 1100  | feet |  |             |  | \$44,220.00  | \$44,220.00  |
| 24" pipe 100 psi                                                                | 1840  | feet |  | \$51,796.00 |  |              | \$51,796.00  |
| 24" pipe 100 psi                                                                | 12600 | feet |  |             |  | \$372,456.00 | \$372,456.00 |
| 21" pipe 100 psi                                                                | 1240  | feet |  | \$30,975.20 |  |              | \$30,975.20  |
| 21" pipe 100 psi                                                                | 2120  | feet |  |             |  | \$53,614.80  | \$53,614.80  |
| 18" Pipe 100 psi                                                                | 1780  | feet |  | \$38,839.60 |  |              | \$38,839.60  |
| 18" pipe 100 psi                                                                | 280   | feet |  |             |  | \$6,414.80   | \$6,414.80   |
| 15" pipe 100 psi                                                                | 3940  | feet |  | \$60,602.40 |  |              | \$60,602.40  |
| 15" pipe 100 psi                                                                | 8220  | feet |  |             |  | \$118,203.60 | \$118,203.60 |
| 12" pipe 100 psi                                                                | 1700  | feet |  | \$15,416.20 |  |              | \$15,416.20  |
| 12" pipe 100 psi                                                                | 2980  | feet |  |             |  | \$27,237.20  | \$27,237.20  |
| 10" pipe 100 psi                                                                | 380   | feet |  | \$2,469.60  |  |              | \$2,469.60   |
| 10" pipe 100 psi                                                                | 1880  | feet |  |             |  | \$12,088.40  | \$12,088.40  |
| 8" pipe 100 psi                                                                 | 6500  | feet |  | \$27,462.00 |  |              | \$27,462.00  |
| 8" pipe 100 psi                                                                 | 1660  | feet |  |             |  | \$6,772.80   | \$6,772.80   |
| 6" pipe 100 psi                                                                 | 980   | feet |  |             |  | \$2,450.00   | \$2,450.00   |
| <b>125# Pipe</b>                                                                |       |      |  |             |  |              |              |
| 24" pipe 125 psi                                                                | 1340  | each |  |             |  | \$47,275.20  | \$47,275.20  |
| 21" pipe 125 psi                                                                | 980   | each |  |             |  | \$30,497.60  | \$30,497.60  |
| 15" pipe 125 psi                                                                | 40    | each |  |             |  | \$761.20     | \$761.20     |
| 12" pipe 125 psi                                                                | 1500  | each |  |             |  | \$19,935.00  | \$19,935.00  |
| 10" pipe 125 psi                                                                | 2060  | each |  |             |  | \$18,045.60  | \$18,045.60  |
| 8" pipe 125 psi                                                                 | 820   | feet |  | \$4,583.80  |  |              | \$4,583.80   |
| 8" pipe 125 psi                                                                 | 2680  | each |  |             |  | \$10,854.00  | \$10,854.00  |
| 6" pipe 125 psi                                                                 | 840   | feet |  | \$2,100.00  |  |              | \$2,100.00   |

| <b>Vale Oregon Irrigation District Willowcreek Pipeline Project Totals Pg-3</b> |           |      |            |             |  |              |              |
|---------------------------------------------------------------------------------|-----------|------|------------|-------------|--|--------------|--------------|
| 21" pipe 160 psi                                                                | 3380      | each |            |             |  | \$141,960.00 | \$141,960.00 |
| 18" pipe 160 psi                                                                | 500       | each |            |             |  | \$18,900.00  | \$18,900.00  |
| 12" pipe 160 psi                                                                | 1320      | each |            |             |  | \$33,264.00  | \$33,264.00  |
| 6" pipe 160 psi                                                                 | 260       | each |            |             |  | \$4,095.00   | \$4,095.00   |
|                                                                                 |           |      |            |             |  |              |              |
| <b>Pipe Fittings</b>                                                            |           |      |            |             |  |              |              |
| Tee's & Reducers                                                                | Misc. Qty | each | Varies     | \$15,035.38 |  |              | \$15,035.38  |
| Tee's & Reducers                                                                | Misc. Qty | each | Varies     |             |  | \$32,584.28  | \$32,584.28  |
| Z - Pipe Assemblies                                                             | 21        | each | Varies     | \$80,580.00 |  |              | \$80,580.00  |
| Z - Pipe Assemblies                                                             | 30        | each | Varies     |             |  | \$139,135.50 | \$139,135.50 |
|                                                                                 |           |      |            |             |  |              |              |
| <b>Supplies/Materials</b>                                                       |           |      |            |             |  |              |              |
| Tracer Wire                                                                     | 18420     | feet | \$0.08     | \$1,547.28  |  |              | \$1,547.28   |
| Tracer Wire                                                                     | 45880     | feet | \$0.08     |             |  | \$3,853.92   | \$3,853.92   |
| Air Vac                                                                         | 12        | each | \$882.00   |             |  | \$10,584.00  | \$10,584.00  |
| Air Vac                                                                         | 6         | each | \$840.00   | \$5,040.00  |  |              | \$5,040.00   |
| Concrete (Thrust Blocks)                                                        | 35        | each | \$630.00   |             |  | \$22,050.00  | \$22,050.00  |
| Concrete (Thrust Blocks)                                                        | 29        | each | \$600.00   | \$17,400.00 |  |              | \$17,400.00  |
| Surge Valves                                                                    | 2         | each | \$630.00   | \$1,260.00  |  |              | \$1,260.00   |
| Surge Valves                                                                    | 3         | each | \$630.00   |             |  | \$1,890.00   | \$1,890.00   |
| Drain                                                                           | 10        | each | \$630.00   |             |  | \$6,300.00   | \$6,300.00   |
| Inline Valve                                                                    | 2         | each | \$3,024.00 |             |  | \$6,048.00   | \$6,048.00   |

| <b>Vale Oregon Irrigation District Willowcreek Pipeline Project Totals Pg-4</b> |   |      |             |                     |                     |                       |                       |
|---------------------------------------------------------------------------------|---|------|-------------|---------------------|---------------------|-----------------------|-----------------------|
| Canal Gate                                                                      | 1 | each | \$600.00    | \$600.00            |                     |                       | \$600.00              |
| Canal Gates                                                                     | 2 | each | \$1,155.00  |                     |                     | \$2,310.00            | \$2,310.00            |
| Inlet Structure                                                                 | 4 | each | \$20,000.00 | \$80,000.00         |                     |                       | \$80,000.00           |
| Inlet Structure                                                                 | 1 | each | \$23,100.00 |                     |                     | \$23,100.00           | \$23,100.00           |
| Screen (Filter)                                                                 | 1 | each | \$6,300.00  |                     |                     | \$6,300.00            | \$6,300.00            |
| Screen (Filter)                                                                 | 4 | each | \$5,000.00  | \$20,000.00         |                     |                       | \$20,000.00           |
|                                                                                 |   |      |             |                     |                     |                       |                       |
| <b>Other</b>                                                                    |   |      |             |                     |                     |                       |                       |
| Project Management                                                              |   |      |             |                     |                     | \$15,000.00           | \$15,000.00           |
| Engineer                                                                        |   |      |             |                     |                     | \$20,000.00           | \$20,000.00           |
|                                                                                 |   |      |             |                     |                     |                       |                       |
| <b>Total Project Costs</b>                                                      |   |      |             | <b>\$460,301.06</b> | <b>\$831,631.56</b> | <b>\$1,258,200.90</b> | <b>\$2,550,133.52</b> |

### BUDGET INFORMATION - Construction Programs

NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.

| COST CLASSIFICATION                                                                                                                                     | a. Total Cost                                                    | b. Costs Not Allowable for Participation | c. Total Allowable Costs (Columns a-b) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------|----------------------------------------|
| 1. Administrative and legal expenses                                                                                                                    | \$ .00                                                           | \$ .00                                   | \$ 0.00                                |
| 2. Land, structures, rights-of-way, appraisals, etc.                                                                                                    | \$ .00                                                           | \$ .00                                   | \$ 0.00                                |
| 3. Relocation expenses and payments                                                                                                                     | \$ .00                                                           | \$ .00                                   | \$ 0.00                                |
| 4. Architectural and engineering fees                                                                                                                   | \$ <i>\$12,000</i> .00                                           | \$ .00                                   | \$ <i>\$12,000</i> 0.00                |
| 5. Other architectural and engineering fees                                                                                                             | \$ .00                                                           | \$ .00                                   | \$ 0.00                                |
| 6. Project inspection fees                                                                                                                              | \$ <i>\$8,000</i> .00                                            | \$ .00                                   | \$ <i>\$8,000</i> 0.00                 |
| 7. Site work                                                                                                                                            | \$ .00                                                           | \$ .00                                   | \$ 0.00                                |
| 8. Demolition and removal                                                                                                                               | \$ .00                                                           | \$ .00                                   | \$ 0.00                                |
| 9. Construction                                                                                                                                         | \$ <i>2,520,133</i> .00                                          | \$ .00                                   | \$ <i>2,520,133</i> 0.00               |
| 10. Equipment                                                                                                                                           | \$ .00                                                           | \$ .00                                   | \$ 0.00                                |
| 11. Miscellaneous                                                                                                                                       | \$ <i>15,000</i> .00                                             | \$ .00                                   | \$ <i>15,000</i> 0.00                  |
| 12. SUBTOTAL (sum of lines 1-11)                                                                                                                        | \$ <i>2,550,133</i> 0.00                                         | \$ 0.00                                  | \$ <i>2,550,133</i> 0.00               |
| 13. Contingencies                                                                                                                                       | \$ .00                                                           | \$ .00                                   | \$ 0.00                                |
| 14. SUBTOTAL                                                                                                                                            | \$ 0.00                                                          | \$ 0.00                                  | \$ 0.00                                |
| 15. Project (program) income                                                                                                                            | \$ .00                                                           | \$ .00                                   | \$ 0.00                                |
| 16. TOTAL PROJECT COSTS (subtract #15 from #14)                                                                                                         | \$ <i>2,550,133</i> 0.00                                         | \$ 0.00                                  | \$ <i>2,550,133</i> 0.00               |
| FEDERAL FUNDING                                                                                                                                         |                                                                  |                                          |                                        |
| 17. Federal assistance requested, calculate as follows:<br>(Consult Federal agency for Federal percentage share.)<br>Enter the resulting Federal share. | Enter eligible costs from line 16c Multiply X <u><i>50</i></u> % |                                          | \$ <i>1,275,067</i> 0.00               |

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**VALE OREGON IRRIGATION DISTRICT - 2013 BUDGET**

O&M Assessments Set At \$90.00 Per Account And \$37.90 Per Acre  
 Adopted by The Board of Directors on 01/10/2013 / \$1.20 p/ac OR 2.95% Increase from Prior Year

**GENERAL FUND**

REVENUES:

|                               |         |
|-------------------------------|---------|
| O&M Assessments               | 1364935 |
| Investment Earnings           | 2500    |
| Delinquent Interest           | 1500    |
| Miscellaneous Income          | 0       |
| Rent Revenue                  | 3000    |
| Proceeds From Sale of Assets  | 0       |
| Trnsf. from Debt Service Fund | 0       |

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|                       |                |
|-----------------------|----------------|
| <b>TOTAL REVENUES</b> | <b>1371935</b> |
|-----------------------|----------------|

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EXPENDITURES:

|                                |        |
|--------------------------------|--------|
| Manager                        | 48000  |
| Asst Manager                   | 33495  |
| Secretary                      | 35545  |
| Labor & Operators              | 194205 |
| Ditchriders                    | 146890 |
| Temporary Labor                | 6300   |
| Workman's Comp Insurance       | 20000  |
| Social Security Taxes          | 35530  |
| Employee Benefit Insurance     | 77430  |
| Directors Fees                 | 2250   |
| Vacation & Comp Time Liability | 635    |
| AL & SL Accrual Expense        | 3000   |
| Mileage                        | 22930  |
| Travel - Education             | 3800   |
| Legal                          | 10500  |
| Audit                          | 5000   |
| Bully Creek Park Payment       | 2800   |
| Bank Charges                   | 240    |
| District Insurance             | 32000  |
| Union Employee Retirement      | 47300  |
| Non-Union Employee Retirement  | 9340   |
| Telephone                      | 11720  |
| Utilities                      | 11700  |
| Dues & Fees                    | 28630  |
| Office Supplies                | 4200   |
| Office Equipment R&M           | 500    |
| Public Notices                 | 400    |
| Election Expense               | 270    |
| Freight                        | 1600   |
| Miscellaneous Expense          | 1300   |
| Radio R&M                      | 4500   |
| Misc Small Tools               | 2000   |
| Herbicides                     | 98000  |
| Propane                        | 400    |
| Fuel & Oil                     | 114000 |

VALE OREGON IRRIGATION DISTRICT - 2013 BUDGET

EXPENDITURES:

|                                                      |                |
|------------------------------------------------------|----------------|
| Equipment Maintenance Supplies                       | 875            |
| Irrigation System O&M                                | 25000          |
| Dam R&M                                              | 5000           |
| Building R&M                                         | 10000          |
| Major Equipment R&M                                  | 36000          |
| Vehicle R&M                                          | 18000          |
| Shop Supplies                                        | 6000           |
| Other Equipment R&M                                  | 10000          |
| Tires                                                | 9500           |
| Computer R&M                                         | 8000           |
| Postage                                              | 2100           |
| Hydromet, ESA & GIS Reimb to BOR                     | 13500          |
| W.S. Dam Labor Expense                               | 17340          |
| <b>TOTAL O&amp;M EXPENDITURES</b>                    | <b>1177725</b> |
| Other Expenditures:                                  |                |
| Contingency                                          | 101499         |
| Bridge Fund (Jan - Mar expenses)                     | 255000         |
| Trnsf. to Debt Service Fund                          | 0              |
| Trnsf. to Captial Projects Fund                      | 17000          |
| Trnsf. To Main Canal Fund                            | 37500          |
| Trnsf. to Unemployment Res. Fund                     | 10000          |
| Trnsf. to Equipment Purchase Fund                    | 40000          |
| Trnsf. to Vacation & Sick Leave Fund                 | 10000          |
| <b>TOTAL OTHER EXPENDITURES</b>                      | <b>470999</b>  |
| <b>TOTAL OF ALL EXPENDITURES</b>                     | <b>1648724</b> |
| Excess (Deficiency) of Revenues<br>Over Expenditures | -276789        |
| Beginning Fund Balance                               | 276789         |
| Ending Fund Balance                                  | 0              |

Saved: 2013 Budget.xls

## VALE OREGON IRRIGATION DISTRICT - 2013 BUDGET

### DEBT SERVICE FUND

|                                                     |       |
|-----------------------------------------------------|-------|
| Revenues:                                           |       |
| Construction Assessments                            | 99378 |
| Trnsf. From General Fund                            | 0     |
| Investment Interest                                 | 25    |
| Total Revenue                                       | 99403 |
| Expenditures:                                       |       |
| Principal U.S. Obligations                          | 99360 |
| Restricted Funds                                    | 0     |
| Reserved For Repairs                                | 0     |
| Trnsf. to General Fund                              | 0     |
| Total Expenditures                                  | 99360 |
| Excess (Deficiency) Of Revenue<br>Over Expenditures | 43    |
| Beginning Fund Balance                              | 63305 |
| Ending Fund Balance                                 | 63348 |

\*\* NOTE - The District is required to have a balance of \$60,000 for restricted funds.

### CAPITAL PROJECTS FUND

|                                                     |        |
|-----------------------------------------------------|--------|
| Revenues:                                           |        |
| Trnsf. from General Fund                            | 17000  |
| Conservation Grant From BOR                         | 0      |
| Conservation Grant From OWEB                        | 0      |
| Water 2025 Grant from BOR                           | 0      |
| OWEB Cons. Grant #323 & 230                         | 0      |
| OWEB Cons. Grant # 227                              | 0      |
| Flood Water Revenue                                 | 0      |
| Minimum Pool @ Beulah from BOR                      | 0      |
| Investment Interest                                 | 106    |
| Total Revenue                                       | 17106  |
| Expenditures:                                       |        |
| Misc Pipe Projects                                  | 25000  |
| OWEB Cons Grant Exp #323 & 230                      | 9700   |
| OWEB Cons. Grant #227                               | 0      |
| OWEB Cons. Grant #230                               | 0      |
| BOR Water Cons. Grant Expenses                      | 0      |
| Contract Labor                                      | 0      |
| Main Canal Repairs                                  | 0      |
| Hydromet, ESA & GIS (moved to GF)                   | 0      |
| Total Expenditures                                  | 34700  |
| Excess (Deficiency) Of Revenue<br>Over Expenditures | -17594 |
| Beginning Fund Balance                              | 17594  |
| Ending Fund Balance                                 | 0      |



VALE OREGON IRRIGATION DISTRICT - 2013 BUDGET

**MAIN CANAL & CONTRACT  
LABOR FUND**

New Fund in 2013

|                                                     |       |
|-----------------------------------------------------|-------|
| Revenues:                                           |       |
| Trnsf. from General Fund                            | 37500 |
| Investment Interest                                 | 50    |
| Total Revenue                                       | 37550 |
| Expenditures:                                       |       |
| Contract Labor                                      | 2550  |
| Main Canal Repairs                                  | 35000 |
| Total Expenditures                                  | 37550 |
| Excess (Deficiency) Of Revenue<br>Over Expenditures | 0     |
| Beginning Fund Balance                              | 0     |
| Ending Fund Balance                                 | 0     |

**UNEMPLOYMENT RESERVE FUND**

|                                                     |        |
|-----------------------------------------------------|--------|
| Revenue:                                            |        |
| Trnsf. from General Fund                            | 10000  |
| Investment Interest                                 | 150    |
| Total Revenue                                       | 10150  |
| Expenditures:                                       |        |
| Unemployment Expense                                | 30521  |
| Total Expenditures                                  | 30521  |
| Excess (Deficiency) of Revenue<br>Over Expenditures | -20371 |
| Beginning Fund Balance                              | 20371  |
| Ending Fund Balance                                 | 0      |

VALE OREGON IRRIGATION DISTRICT - 2013 BUDGET

**EQUIPMENT PURCHASE FUND**

|                                                     |        |
|-----------------------------------------------------|--------|
| Revenue:                                            |        |
| Trnsf. from General Fund                            | 40000  |
| Investment Interest                                 | 250    |
| Total Revenue                                       | 40250  |
| Expenditures:                                       |        |
| Equipment Purchases                                 | 80500  |
| Total Expenditures                                  | 80500  |
| Excess (Deficiency) of Revenue<br>Over Expenditures | -40250 |
| Beginning Fund Balance                              | 40250  |
| Ending Fund Balance                                 | 0      |

**VACATION & SICK LEAVE INSURANCE FUND**

|                                                     |        |
|-----------------------------------------------------|--------|
| Revenue:                                            |        |
| Trnsf. from General Fund                            | 10000  |
| Investment Interest                                 | 100    |
| Total Revenue                                       | 10100  |
| Expenditures:                                       |        |
| Sick Leave Insurance Expense                        | 18924  |
| Vacation Leave Expense                              | 24979  |
| Total Expenditures                                  | 43903  |
| Excess (Deficiency) of Revenue<br>Over Expenditures | -33803 |
| Beginning Fund Balance                              | 33803  |
| Ending Fund Balance                                 | 0      |

**VALE OREGON I.D. - EQUIPMENT COST LIST AS OF 01/10/2013**

| V#   | TYPE    | DESCRIPTION                                     | COST P/HOUR OR P/MILE                          |
|------|---------|-------------------------------------------------|------------------------------------------------|
| V-1  | Vehicle | 94 GMC 4X4 PU - Danny G.                        | .585 p/mi                                      |
| V-2  | Vehicle | 97 Ford Utility PU - Green                      | 2.00 p/mi                                      |
| V-4  | Vehicle | 95 Ford F-250 4X4 - Jim                         | 2.00 p/mi                                      |
| V-5  | Vehicle | 95 Ford F-350 1 Ton Utility PU                  | 2.00 p/mi                                      |
| V-6  | Vehicle | 82 GMC 3/4 Ton 4X4 PU                           | .585 p/mi                                      |
| V-7  | Vehicle | 90 Dodge Ram 250 4X4                            | .585 p/mi                                      |
| V-8  | Vehicle | 86 Ford 1/2 Ton PU                              | .585 p/mi                                      |
| V-9  | Major   | Hyster Forklift Model (pur 07-07 from Don Fulk) | 22.00 p/hr                                     |
| V-10 | Vehicle | 92 Ford LTL Transport Truck w/82 Loby Trailer   | 2.50 p/mi                                      |
| V-11 | Other   | 70 Utility Backhoe Trailer                      | Truck & Trailer 2.00 p/mi                      |
| V-12 | Vehicle | 82 Chevy 4X4 - Beige                            | .585 p/mi                                      |
| V-13 | Major   | 71 John Deere Grader                            | 100.00 p/hr                                    |
| V-14 | Vehicle | 79 Yellow Chevy Dump Truck                      | 65.00 p/hr short haul                          |
| V-15 | Major   | Hyster Forklift Model S50C                      | 20.00 p/hr                                     |
| V-16 | Vehicle | 75 Chevy 1 Ton Flatbed                          | .585 p/mi                                      |
| V-17 | Major   | D5H Cat Crawler                                 | 140.00 p/hr                                    |
| V-18 | Vehicle | 08 Ford 4X4 PU - Lloyd                          | .585 p/mi                                      |
| V-23 | Vehicle | 99 Chevy 4X4 PU - John                          | .585 p/mi                                      |
| V-25 | Major   | 98 Cat 426-C Backhoe                            | 110.00 p/hr                                    |
| V-27 | Major   | 75 580-B Case Backhoe                           | 80.00 p/hr                                     |
| V-28 | Vehicle | 08 Ford 4X2 PU - Alan                           | .585 p/mi                                      |
| V-32 | Vehicle | 06 Ford F-350 PU - Spray Rig                    | .585 p/mi                                      |
| V-33 | Major   | 73 D-4 Cat                                      | 95.00 p/hr                                     |
| V-36 | Major   | 04 Cat 320-CL Long Boom Trackhoe                | 150.00 p/hr                                    |
| V-38 | Other   | 87 Tilt Bed Trailer                             | Truck & Labor 1.85 p/mi                        |
| V-39 | Vehicle | 98 GMC 4X4 PU - Dan S.                          | .585 p/mi                                      |
| V-40 | Major   | 88 Cat 426 Backhoe                              | 110.00 p.hr                                    |
| V-41 | Vehicle | 88 Kenworth Dump Truck                          | 70.00 p/hr short haul &<br>2.50 p/mi long haul |
| V-44 | Vehicle | 08 Ford 4X4 PU - Gerald                         | .585 p/mi                                      |
| V-48 | Major   | 95 John Deere 690E LC Excavator                 | 140.00 p/hr                                    |
|      | Other   | Welder / Compressor on Service Truck            | 25.00 p/hr                                     |



# Oregon

John A. Kitzhaber, MD, Governor

## Department of Environmental Quality

Eastern Region - Pendleton Office

700 SE Emigrant Ave, Suite 330

Pendleton, OR 97801

Phone: (541) 276-4063

Fax: (541) 278-0168

Relay Service: 711

Vale Oregon Irrigation District  
521 A Street West  
Vale, OR 97918

January 15, 2013

RE: Open Lateral Conversion to Pipeline – WaterSMART Grant Application

Dear Sirs,

Oregon Department of Environmental Quality (DEQ) has reviewed information you provided specific to the proposed Open Lateral Conversion to Pipeline Grant Application. It is our understanding that this project proposal will be submitted to the Bureau of Reclamation WaterSMART Water and Energy Efficiency Grant Program for consideration this year.

DEQ is strongly supportive of the activities being proposed by the Vale Oregon Irrigation District to pipe six irrigation laterals and convert approximately 2,000 acres of land to sprinkle irrigation. The 15 miles of piped laterals proposed by this grant application will result in the ability to conserve water and increased efficiency of water use. The successful implementation of the proposed piping will also result in improved water quality and habitat quality in the Willow Creek Subbasin and the greater Malheur River Basin which, together with the conserved water, will help to protect endangered and threatened species including bull trout and will improve the ability of local surface waters to more effectively meet future water demands.

The Vale Oregon Irrigation District, Lower Willow Creek Working Group, Malheur Watershed Council, Malheur Soil and Water Conservation District and countless local producers and land owners have long demonstrated a strong collaborative spirit and have worked tirelessly together to implement many successful conservation and water quality improvement projects in the Willow Creek Subbasin. The proposed project will complement existing and ongoing project work and will directly support the TMDL and water quality goals of the Oregon DEQ.

We appreciate the work that has been accomplished in the Willow Creek Subbasin and strongly support the proposed activities. Thank you for the opportunity to discuss this project. If you have any questions, please contact me at (541) 278-4615.

Sincerely,

Tonya Dombrowski  
TMDL and Nonpoint Source Implementation  
DEQ - Eastern Region



# Oregon

John A. Kitzhaber, MD, Governor

Department of Agriculture  
635 Capitol St NE  
Salem, OR 97301-2532



January 15, 2013

Bureau of Reclamation  
PO Box 25007  
Denver, CO 80225

RE: Willow Creek Pipeline Project

Dear Sirs:

I am writing to provide support of the Malheur Watershed Council's proposal for the Willow Creek Pipeline Project, which addresses both water quantity and water quality projects in the Malheur Basin.

The Oregon Department of Agriculture's Water Quality Program supports this proposal since it addresses key issues identified in the Malheur River Basin Agricultural Water Quality Management Area Plan (Area Plan). The Area Plan recognizes several agricultural water quality concerns including: erosion, sediment, manure, nutrients and other potential waste pollutants. Pollution prevention and control measures that address these concerns are of high priority to achieve the water quality standards that support beneficial uses such as: irrigation, drinking water, and aquatic life.

I commend the landowners, the Watershed Council, and additional partners for their proactive efforts to improve water issues in the Malheur River Basin.

Sincerely,

Sheila Marcoe, Water Quality Specialist  
Natural Resources Division  
Oregon Department of Agriculture  
PH (503) 986-4707  
FX (503) 986-4730  
Email: smarcoe@oda.state.or.us



# Malheur County

## Weed/Vector Control Departments

251 B Street West, Vale OR 97918 ☐ Phone (541)473-5102

January 15, 2013

Bureau of Reclamation  
Pacific Northwest Regional Office  
1150 North Curtis Road, Suite 100  
Boise, ID 83706-1234

Dear Sirs:

The Malheur County Weed Advisory Board (MCWAB) continues to be very concerned about the spread of noxious weeds in this area. The Board has been very proactive in its efforts to encourage ways to mitigate the spread and introduction of invasive plant species. It is widely known that irrigation canals, laterals and ditches are natural conveyance mechanisms for weed seeds and plant propagates. Controlling weeds in these irrigation installations is exceedingly difficult; they remain a constant weedy problem. The use of effective herbicides is very difficult and limited mainly due to the proximity to water and cropland. For these same reasons cultural controls are also difficult and are largely ineffective. This proposed project will obviously prevent weed seeds and propagates from entering the irrigation waterways. Opportunities to replace the weeds with either native or introduced perennial grasses are also made possible by this project, and that would obviously enhance habitat and further reduce the chances for weeds to establish.

The Malheur County Vector Control District also supports this project. Even though mosquitos don't commonly use flowing irrigation waters as oviposition sites, there are some limited opportunities for reproduction along the peripheral edges of those lateral ditches. By putting these sources underground those breeding opportunities are eliminated.

The Malheur County Weed and Vector Control Departments are very encouraged to see this and other similar projects progress. I cannot think of another conservation project that could be more beneficial to the reduction of noxious weeds and mosquitos in this area.

Sincerely,

Gary Page  
Malheur County Weed Inspector

| Budget Item Description                                              | Quantity | Unit  | Cost Per Unit | OWEB GRANT  | RECEIPIENT FUNDING | RECLA FUNDIN | TOTAL COST  |
|----------------------------------------------------------------------|----------|-------|---------------|-------------|--------------------|--------------|-------------|
| <b>245 Pipeline Construction</b>                                     |          |       |               |             |                    |              |             |
| <b>Salaries &amp; Wages</b>                                          |          |       |               |             |                    |              |             |
| Manager                                                              | 172      | hrs   | 28.85         |             | \$4,962.20         |              | \$4,962.20  |
| Assistant Manager                                                    | 172      | hrs   | 24.53         |             | \$4,219.16         |              | \$4,219.16  |
| Trackhoe Operator                                                    | 129      | hrs   | 22.04         |             | \$2,843.16         |              | \$2,843.16  |
| Cat Operator                                                         | 129      | hrs   | 22.04         |             | \$2,843.16         |              | \$2,843.16  |
| Labor 5                                                              | 860      | hrs   | 22.04         |             | \$18,954.40        |              | \$18,954.40 |
| 350 hrs to install pipe and 400 hrs to install head works and screen |          |       |               |             |                    |              |             |
| <b>Equipment</b>                                                     |          |       |               |             |                    |              |             |
| 320DL Excavator                                                      | 129      | hrs   | 75            |             | \$9,675.00         |              | \$9,675.00  |
| Truck and Trailer                                                    | 22       | hrs   | 70            |             | \$1,540.00         |              | \$1,540.00  |
| 420 Backhoe                                                          | 43       | hrs   | 50            |             | \$2,150.00         |              | \$2,150.00  |
| Pickups                                                              | 215      | miles | 0.57          |             | \$122.55           |              | \$122.55    |
| Hyster                                                               | 22       | hrs   | 23            |             | \$506.00           |              | \$506.00    |
| Shop Truck                                                           | 86       | miles | 1             |             | \$86.00            |              | \$86.00     |
| D5 Cat                                                               | 129      | hrs   | 50            |             | \$6,450.00         |              | \$6,450.00  |
| Lowboy                                                               | 86       | miles | 2             |             | \$172.00           |              | \$172.00    |
|                                                                      |          |       |               |             |                    |              | \$0.00      |
| <b>100# Pipe</b>                                                     |          |       |               |             |                    |              |             |
| 15" pipe 100 psi                                                     | 160      | feet  | 16.02         | \$2,563.20  |                    |              | \$2,563.20  |
| 12" pipe 100 psi                                                     | 20       | feet  | 9.71          | \$194.20    |                    |              | \$194.20    |
| 10" pipe 100 psi                                                     | 20       | feet  | 6.72          | \$134.40    |                    |              | \$134.40    |
| 8" pipe 100 psi                                                      | 3300     | feet  | 4.26          | \$14,058.00 |                    |              | \$14,058.00 |
| 6" pipe 100 psi                                                      |          | feet  | 2.41          | \$0.00      |                    |              | \$0.00      |
| <b>125# Pipe</b>                                                     |          |       |               |             |                    |              |             |
| 8" pipe 125 psi                                                      | 820      | feet  | 5.59          | \$4,583.80  |                    |              | \$4,583.80  |

| <b>245 Pipeline Construction</b> |      |      |       |                    |                    |  |                     |
|----------------------------------|------|------|-------|--------------------|--------------------|--|---------------------|
| <b>Pipe Fittings</b>             |      |      |       |                    |                    |  |                     |
| Tee's & Reducers                 |      | each |       | \$2,602.00         |                    |  | \$2,602.00          |
| Z - Pipe Assemblies              | 4    | each | 4350  | \$17,400.00        |                    |  | \$17,400.00         |
|                                  |      |      |       |                    |                    |  |                     |
| <b>Supplies/Materials</b>        |      |      |       |                    |                    |  |                     |
| Tracer Wire                      | 4320 | feet | 0.08  | \$345.60           |                    |  | \$345.60            |
| Air Vac                          | 1    | each | 840   | \$840.00           |                    |  | \$840.00            |
| Concrete (Thrust Blocks)         | 6    | each | 600   | \$3,600.00         |                    |  | \$3,600.00          |
| Surge Valves                     |      | each | 500   | \$0.00             |                    |  | \$0.00              |
| Inlet Structure                  | 1    | each | 20000 | \$20,000.00        |                    |  | \$20,000.00         |
| Screen (Filter)                  | 1    | each | 5000  | \$5,000.00         |                    |  | \$5,000.00          |
|                                  |      |      |       |                    |                    |  |                     |
| <b>Total Project Costs</b>       |      |      |       | <b>\$71,321.20</b> | <b>\$56,237.23</b> |  | <b>\$127,558.43</b> |



| Budget Item Description          | Quantity | Unit  | Cost Per Unit | OWEB GRANT  | RECEIPIENT FUNDING | RECLAMA FUNDING | TOTAL COST  |
|----------------------------------|----------|-------|---------------|-------------|--------------------|-----------------|-------------|
| <b>289 Pipeline Construction</b> |          |       |               |             |                    |                 |             |
| <b>Salaries &amp; Wages</b>      |          |       |               |             |                    |                 |             |
| Manager                          | 145      | hrs   | 28.85         |             | \$4,183.25         |                 | \$4,183.25  |
| Assistant Manager                | 145      | hrs   | 24.53         |             | \$3,556.85         |                 | \$3,556.85  |
| Trackhoe Operator                | 107      | hrs   | 22.04         |             | \$2,358.28         |                 | \$2,358.28  |
| Cat Operator                     | 107      | hrs   | 22.04         |             | \$2,358.28         |                 | \$2,358.28  |
| Labor 5                          | 724      | hrs   | 22.04         |             | \$15,956.96        |                 | \$15,956.96 |
| <b>Equipment</b>                 |          |       |               |             |                    |                 |             |
| 320DL Excavator                  | 107      | hrs   | 75            |             | \$8,025.00         |                 | \$8,025.00  |
| Truck and Trailer                | 18       | hrs   | 70            |             | \$1,260.00         |                 | \$1,260.00  |
| 420 Backhoe                      | 36       | hrs   | 50            |             | \$1,800.00         |                 | \$1,800.00  |
| Pickups                          | 181      | miles | 0.57          |             | \$103.17           |                 | \$103.17    |
| Hyster                           | 18       | hrs   | 23            |             | \$414.00           |                 | \$414.00    |
| Shop Truck                       | 72       | miles | 1             |             | \$72.00            |                 | \$72.00     |
| D5 Cat                           | 107      | hrs   | 50            |             | \$5,350.00         |                 | \$5,350.00  |
| Lowboy                           | 72       | miles | 2             |             | \$144.00           |                 | \$144.00    |
| <b>Pipe</b>                      |          |       |               |             |                    |                 |             |
| 15" pipe 100 psi                 | 200      | feet  | 16.02         | \$3,204.00  |                    |                 | \$3,204.00  |
| 12" pipe 100 psi                 | 600      | feet  | 9.71          | \$5,826.00  |                    |                 | \$5,826.00  |
| 10" pipe 100 psi                 | 220      | feet  | 6.72          | \$1,478.40  |                    |                 | \$1,478.40  |
| 8" pipe 100 psi                  | 2600     | feet  | 4.26          | \$11,076.00 |                    |                 | \$11,076.00 |
| 6" pipe 100 psi                  |          | feet  | 2.41          | \$0.00      |                    |                 | \$0.00      |
| <b>Pipe Fittings</b>             |          |       |               |             |                    |                 |             |

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| <b>289 Pipeline Construction</b> |      |      |       |                    |                    |  |                     |
|----------------------------------|------|------|-------|--------------------|--------------------|--|---------------------|
| Tee's & Reducers                 |      | each |       | \$2,812.00         |                    |  | \$2,812.00          |
| Z - Pipe Assemblies              | 4    | each | 4350  | \$17,400.00        |                    |  | \$17,400.00         |
|                                  |      |      |       |                    |                    |  |                     |
| <b>Supplies/Materials</b>        |      |      |       |                    |                    |  |                     |
| Tracer Wire                      | 3620 | feet | 0.08  | \$289.60           |                    |  | \$289.60            |
| Air Vac                          | 2    | each | 840   | \$1,680.00         |                    |  | \$1,680.00          |
| Concrete (Thrust Blocks)         | 5    | each | 600   | \$3,000.00         |                    |  | \$3,000.00          |
| Surge Valves                     |      | each | 500   | \$0.00             |                    |  | \$0.00              |
| Inlet Structure                  | 1    | each | 20000 | \$20,000.00        |                    |  | \$20,000.00         |
| Screen (Filter)                  | 1    | each | 5000  | \$5,000.00         |                    |  | \$5,000.00          |
|                                  |      |      |       |                    |                    |  |                     |
| <b>Total Project Costs</b>       |      |      |       | <b>\$71,766.00</b> | <b>\$45,581.79</b> |  | <b>\$117,347.79</b> |

| Budget Item Description          | Quantity | Unit  | Cost Per Unit | OWEB GRANT  | RECEIPIENT FUNDING | RECLAMA FUNDING | TOTAL COST  |
|----------------------------------|----------|-------|---------------|-------------|--------------------|-----------------|-------------|
| <b>349 Pipeline Construction</b> |          |       |               |             |                    |                 |             |
| <b>Salaries &amp; Wages</b>      |          |       |               |             |                    |                 |             |
| Manager                          | 228      | hrs   | 28.85         |             | \$6,577.80         |                 | \$6,577.80  |
| Assistant Manager                | 228      | hrs   | 24.53         |             | \$5,592.84         |                 | \$5,592.84  |
| Trackhoe Operator                | 171      | hrs   | 22.04         |             | \$3,768.84         |                 | \$3,768.84  |
| Cat Operator                     | 171      | hrs   | 22.04         |             | \$3,768.84         |                 | \$3,768.84  |
| Labor 5                          | 1140     | hrs   | 22.04         |             | \$25,125.60        |                 | \$25,125.60 |
| <b>Equipment</b>                 |          |       |               |             |                    |                 |             |
| 320DL Excavator                  | 171      | hrs   | 75            |             | \$12,825.00        |                 | \$12,825.00 |
| Truck and Trailer                | 28.5     | hrs   | 70            |             | \$1,995.00         |                 | \$1,995.00  |
| 420 Backhoe                      | 57       | hrs   | 50            |             | \$2,850.00         |                 | \$2,850.00  |
| Pickups                          | 285      | miles | 0.57          |             | \$162.45           |                 | \$162.45    |
| Hyster                           | 28       | hrs   | 23            |             | \$644.00           |                 | \$644.00    |
| Shop Truck                       | 114      | miles | 1             |             | \$114.00           |                 | \$114.00    |
| D5 Cat                           | 171      | hrs   | 50            |             | \$8,550.00         |                 | \$8,550.00  |
| Lowboy                           | 114      | miles | 2             |             | \$228.00           |                 | \$228.00    |
| <b>Pipe</b>                      |          |       |               |             |                    |                 |             |
| 27" pipe 100 psi                 | 120      | feet  | 38.28         | \$4,593.60  |                    |                 | \$4,593.60  |
| 24" pipe 100 psi                 | 1840     | feet  | 28.15         | \$51,796.00 |                    |                 | \$51,796.00 |
| 21" pipe 100 psi                 | 1240     | feet  | 24.98         | \$30,975.20 |                    |                 | \$30,975.20 |
| 18" pipe 100 psi                 |          | feet  |               | \$0.00      |                    |                 | \$0.00      |
| 15" pipe 100 psi                 | 2500     | feet  | 16.02         | \$40,050.00 |                    |                 | \$40,050.00 |
| 12" pipe 100 psi                 |          | feet  | 9.71          | \$0.00      |                    |                 | \$0.00      |
| 10" pipe 100 psi                 |          | feet  | 6.72          | \$0.00      |                    |                 | \$0.00      |
| 8" pipe 100 psi                  |          | feet  | 3.9           | \$0.00      |                    |                 | \$0.00      |

| <b>349 Pipeline Construction</b> |      |      |       |                     |                    |  |                     |
|----------------------------------|------|------|-------|---------------------|--------------------|--|---------------------|
|                                  |      |      |       |                     |                    |  |                     |
| <b>Pipe Fittings</b>             |      |      |       |                     |                    |  |                     |
|                                  |      |      |       |                     |                    |  |                     |
| Tee's & Reducers                 | 10   | each |       | \$3,580.00          |                    |  | \$3,580.00          |
| Z - Pipe Assemblies              | 6    | each | 4350  | \$26,100.00         |                    |  | \$26,100.00         |
|                                  |      |      |       |                     |                    |  |                     |
| <b>Supplies/Materials</b>        |      |      |       |                     |                    |  |                     |
| Tracer Wire                      | 5700 | feet | 0.08  | \$5,700.08          |                    |  | \$5,700.08          |
| Air Vac                          | 1    | each | 840   | \$841.00            |                    |  | \$841.00            |
| Concrete (Thrust Blocks)         | 6    | each | 600   | \$606.00            |                    |  | \$606.00            |
| Surge Valves                     | 1    | each | 500   | \$501.00            |                    |  | \$501.00            |
| Inlet Structure                  | 1    | each | 20000 | \$20,001.00         |                    |  | \$20,001.00         |
| Screen (Filter)                  | 1    | each | 5000  | \$5,001.00          |                    |  | \$5,001.00          |
|                                  |      |      |       |                     |                    |  |                     |
| <b>Other</b>                     |      |      |       |                     |                    |  |                     |
|                                  |      |      |       |                     |                    |  |                     |
| <b>Total Project Costs</b>       |      |      |       | <b>\$189,744.88</b> | <b>\$72,202.37</b> |  | <b>\$261,947.25</b> |

| Budget Item Description                                   | Quantity | Unit  | Cost Per Unit | OWEB GRANT  | RECEIPIENT FUNDING | RECLAMA FUNDING | TOTAL COST  |
|-----------------------------------------------------------|----------|-------|---------------|-------------|--------------------|-----------------|-------------|
| <b>360 Pipeline Construction</b>                          |          |       |               |             |                    |                 |             |
| <b>Salaries &amp; Wages</b>                               |          |       |               |             |                    |                 |             |
| Manager                                                   | 191      | hrs   | 28.85         |             | \$5,510.35         |                 | \$5,510.35  |
| Assistant Manager                                         | 191      | hrs   | 24.53         |             | \$4,685.23         |                 | \$4,685.23  |
| Trackhoe Operator                                         | 144      | hrs   | 22.04         |             | \$3,173.76         |                 | \$3,173.76  |
| Cat Operator                                              | 144      | hrs   | 22.04         |             | \$3,173.76         |                 | \$3,173.76  |
| Labor 5                                                   | 956      | hrs   | 22.04         |             | \$21,070.24        |                 | \$21,070.24 |
| 350 hrs to install pipe and 400 hrs to install head works |          |       |               |             |                    |                 |             |
| <b>Equipment</b>                                          |          |       |               |             |                    |                 |             |
| 320DL Excavator                                           | 191      | hrs   | 75            |             | \$14,325.00        |                 | \$14,325.00 |
| Truck and Trailer                                         | 24       | hrs   | 70            |             | \$1,680.00         |                 | \$1,680.00  |
| 420 Backhoe                                               | 48       | hrs   | 50            |             | \$2,400.00         |                 | \$2,400.00  |
| Pickups                                                   | 239      | miles | 0.57          |             | \$136.23           |                 | \$136.23    |
| Hyster                                                    | 24       | hrs   | 23            |             | \$552.00           |                 | \$552.00    |
| Shop Truck                                                | 95       | miles | 1             |             | \$95.00            |                 | \$95.00     |
| D5 Cat                                                    | 191      | hrs   | 50            |             | \$9,550.00         |                 | \$9,550.00  |
| Lowboy                                                    | 95       | miles | 2             |             | \$190.00           |                 | \$190.00    |
| <b>Pipe</b>                                               |          |       |               |             |                    |                 |             |
| 18" Pipe 100 psi                                          | 1780     | feet  | 21.82         | \$38,839.60 |                    |                 | \$38,839.60 |
| 15" pipe 100 psi                                          | 1080     | feet  | 13.69         | \$14,785.20 |                    |                 | \$14,785.20 |
| 12" pipe 100 psi                                          | 1080     | feet  | 8.7           | \$9,396.00  |                    |                 | \$9,396.00  |
| 10" pipe 100 psi                                          | 140      | feet  | 6.12          | \$856.80    |                    |                 | \$856.80    |
| 8" pipe 100 psi                                           | 600      | feet  | 3.88          | \$2,328.00  |                    |                 | \$2,328.00  |
| 6" pipe 100 psi                                           |          | feet  | 2.41          | \$0.00      |                    |                 | \$0.00      |
| <b>Pipe Fittings</b>                                      |          |       |               |             |                    |                 |             |

| <b>360 Pipeline Construction</b> |      |      |       |                     |                    |  |                     |
|----------------------------------|------|------|-------|---------------------|--------------------|--|---------------------|
| Tee's & Reducers                 |      | each |       | \$5,581.38          |                    |  | \$5,581.38          |
| Z - Pipe Assemblies              | 7    | each |       | \$19,680.00         |                    |  | \$19,680.00         |
|                                  |      |      |       |                     |                    |  |                     |
| <b>Supplies/Materials</b>        |      |      |       |                     |                    |  |                     |
| Tracer Wire                      | 4780 | feet | 0.08  | \$382.40            |                    |  | \$382.40            |
| Air Vac                          | 1    | each | 840   | \$840.00            |                    |  | \$840.00            |
| Concrete (Thrust Blocks)         | 10   | each | 600   | \$6,000.00          |                    |  | \$6,000.00          |
| Surge Valves                     |      | each | 500   | \$0.00              |                    |  | \$0.00              |
| Inlet Structure                  | 1    | each | 20000 | \$20,000.00         |                    |  | \$20,000.00         |
| Screen (Filter)                  | 1    | each | 5000  | \$5,000.00          |                    |  | \$5,000.00          |
| Canal Gate                       | 1    | each | 600   | \$ 600.00           |                    |  | \$600.00            |
|                                  |      |      |       |                     |                    |  |                     |
| <b>Other</b>                     |      |      |       |                     |                    |  |                     |
|                                  |      |      |       |                     |                    |  |                     |
| <b>Total Project Costs</b>       |      |      |       | <b>\$124,289.38</b> | <b>\$66,541.57</b> |  | <b>\$190,830.95</b> |

| Budget Item Description              | Quantity | Unit  | Cost Per Unit | OWEB GRANT | RECEIPIENT FUNDING | RECLAMA FUNDING | TOTAL COST |
|--------------------------------------|----------|-------|---------------|------------|--------------------|-----------------|------------|
| <b>Hartman Pipeline Construction</b> |          |       |               |            |                    |                 |            |
| <b>Salaries &amp; Wages</b>          |          |       |               |            |                    |                 |            |
| Manager                              | 33       | hrs   | 28.85         |            | \$952.05           |                 | \$952.05   |
| Assistant Manager                    | 33       | hrs   | 24.53         |            | \$809.49           |                 | \$809.49   |
| Trackhoe Operator                    | 25       | hrs   | 22.04         |            | \$551.00           |                 | \$551.00   |
| Cat Operator                         | 25       | hrs   | 22.04         |            | \$551.00           |                 | \$551.00   |
| Labor 5                              | 168      | hrs   | 22.04         |            | \$3,702.72         |                 | \$3,702.72 |
| <b>Equipment</b>                     |          |       |               |            |                    |                 |            |
| 320DL Excavator                      | 33       | hrs   | 75            |            | \$2,475.00         |                 | \$2,475.00 |
| Truck and Trailer                    | 4        | hrs   | 70            |            | \$280.00           |                 | \$280.00   |
| 420 Backhoe                          | 8        | hrs   | 50            |            | \$400.00           |                 | \$400.00   |
| Pickups                              | 42       | miles | 0.57          |            | \$23.94            |                 | \$23.94    |
| Hyster                               | 4        | hrs   | 23            |            | \$92.00            |                 | \$92.00    |
| Shop Truck                           | 16       | miles | 1             |            | \$16.00            |                 | \$16.00    |
| D5 Cat                               | 33       | hrs   | 50            |            | \$1,650.00         |                 | \$1,650.00 |
| Lowboy                               | 16       | miles | 2             |            | \$32.00            |                 | \$32.00    |
| <b>125# Pipe</b>                     |          |       |               |            |                    |                 |            |
| 6" pipe 125 psi                      | 840      | feet  | 2.5           | \$2,100.00 |                    |                 | \$2,100.00 |

| <b>Hartman Pipeline Construction</b> |   |      |     |                   |                    |  |                    |
|--------------------------------------|---|------|-----|-------------------|--------------------|--|--------------------|
| Tees and Reducers                    |   | each |     | \$460.00          |                    |  | \$460.00           |
| Air Vac                              | 1 | each | 840 | \$840.00          |                    |  | \$840.00           |
| Surge Valve                          | 1 | each | 150 | \$150.00          |                    |  | \$150.00           |
| Thrust Block                         | 2 | each | 600 | \$1,200.00        |                    |  | \$1,200.00         |
|                                      |   |      |     | \$0.00            |                    |  | \$0.00             |
|                                      |   |      |     | \$0.00            |                    |  | \$0.00             |
|                                      |   |      |     |                   |                    |  |                    |
| <b>Total Project Costs</b>           |   |      |     | <b>\$4,750.00</b> | <b>\$11,535.20</b> |  | <b>\$16,285.20</b> |



| Budget Item Description          | Quantity | Unit  | Cost Per Unit | OWEB GRAN | RECEIPIENT FUNDING | RECLAMATION FUNDING | TOTAL COST   |
|----------------------------------|----------|-------|---------------|-----------|--------------------|---------------------|--------------|
| <b>278 Pipeline Construction</b> |          |       |               |           |                    |                     |              |
| <b>Salaries &amp; Wages</b>      |          |       |               |           |                    |                     |              |
| Manager                          | 1835     | hrs   | 28.85         |           | \$52,939.75        |                     | \$52,939.75  |
| Assistant Manager                | 1835     | hrs   | 24.53         |           | \$45,012.55        |                     | \$45,012.55  |
| Trackhoe Operator                | 1376     | hrs   | 22.04         |           | \$30,327.04        |                     | \$30,327.04  |
| Cat Operator                     | 1376     | hrs   | 22.04         |           | \$30,327.04        |                     | \$30,327.04  |
| Labor 5                          | 9176     | hrs   | 22.04         |           | \$202,239.04       |                     | \$202,239.04 |
| <b>Equipment</b>                 |          |       |               |           |                    |                     |              |
| 320DL Excavator                  | 1376     | hrs   | 75            |           | \$103,200.00       |                     | \$103,200.00 |
| Truck and Trailer                | 230      | hrs   | 70            |           | \$16,100.00        |                     | \$16,100.00  |
| 420 Backhoe                      | 459      | hrs   | 50            |           | \$22,950.00        |                     | \$22,950.00  |
| Pickups                          | 2294     | miles | 0.57          |           | \$1,307.58         |                     | \$1,307.58   |
| Hyster                           | 230      | hrs   | 23            |           | \$5,290.00         |                     | \$5,290.00   |
| Shop Truck                       | 918      | miles | 1             |           | \$918.00           |                     | \$918.00     |
| D5 Cat                           | 1376     | hrs   | 50            |           | \$68,800.00        |                     | \$68,800.00  |
| Lowboy                           | 918      | miles | 2             |           | \$1,836.00         |                     | \$1,836.00   |

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| <b>278 Pipeline Construction</b> |       |      |       |  |  |            |              |
|----------------------------------|-------|------|-------|--|--|------------|--------------|
| 27" pipe 100 psi                 | 1100  | feet | 40.2  |  |  | 44,220.00  | \$44,220.00  |
| 24" pipe 100 psi                 | 12600 | feet | 29.56 |  |  | 372,456.00 | \$372,456.00 |
| 21" pipe 100 psi                 | 2120  | feet | 25.29 |  |  | 53,614.80  | \$53,614.80  |
| 18" pipe 100 psi                 | 280   | feet | 22.91 |  |  | 6,414.80   | \$6,414.80   |
| 15" pipe 100 psi                 | 8220  | feet | 14.38 |  |  | 118,203.60 | \$118,203.60 |
| 12" pipe 100 psi                 | 2980  | feet | 9.14  |  |  | 27,237.20  | \$27,237.20  |
| 10" pipe 100 psi                 | 1880  | feet | 6.43  |  |  | 12,088.40  | \$12,088.40  |
| 8" pipe 100 psi                  | 1660  | feet | 4.08  |  |  | 6,772.80   | \$6,772.80   |
| 6" pipe 100 psi                  | 980   | feet | 2.5   |  |  | 2,450.00   | \$2,450.00   |
| <b>125# Pipe</b>                 |       |      |       |  |  |            |              |
| 24" 125 psi                      | 1340  | each | 35.28 |  |  | 47,275.20  | \$47,275.20  |
| 21" 125 psi                      | 980   | each | 31.12 |  |  | 30,497.60  | \$30,497.60  |
| 15" 125 psi                      | 40    | each | 19.03 |  |  | 761.20     | \$761.20     |
| 12" 125 psi                      | 1500  | each | 13.29 |  |  | 19,935.00  | \$19,935.00  |
| 10" 125 psi                      | 2060  | each | 8.76  |  |  | 18,045.60  | \$18,045.60  |
| 8" 125 psi                       | 2680  | each | 4.05  |  |  | 10,854.00  | \$10,854.00  |
| 6" 125 psi                       |       | each |       |  |  | 0.00       |              |
| <b>160# Pipe</b>                 |       |      |       |  |  |            |              |
| 21" 160 psi                      | 3380  | each | 42    |  |  | 141,960.00 | \$141,960.00 |
| 18" 160 psi                      | 500   | each | 37.8  |  |  | 18,900.00  | \$18,900.00  |
| 12" 160 psi                      | 1320  | each | 25.2  |  |  | 33,264.00  | \$33,264.00  |
| 6" 160 psi                       | 260   | each | 15.75 |  |  | 4,095.00   | \$4,095.00   |
| <b>Pipe Fittings</b>             |       |      |       |  |  |            |              |
| Tee's & Reducers                 | 78    | each |       |  |  | 32,584.28  | \$32,584.28  |
| Z - Pipe Assemblies              | 30    | each |       |  |  | 139,135.50 | \$139,135.50 |
|                                  |       |      |       |  |  |            |              |

| <b>278 Pipeline Construction</b> |       |      |       |               |                     |                     |                       |
|----------------------------------|-------|------|-------|---------------|---------------------|---------------------|-----------------------|
| <b>Supplies/Materials</b>        |       |      |       |               |                     |                     |                       |
| Tracer Wire                      | 45880 | feet | 0.084 |               |                     | \$3,853.92          | \$3,853.92            |
| Air Vac                          | 12    | each | 882   |               |                     | \$10,584.00         | \$10,584.00           |
| Concrete (Thrust Blocks)         | 35    | each | 630   |               |                     | \$22,050.00         | \$22,050.00           |
| Surge Valves                     | 3     | each | 630   |               |                     | \$1,890.00          | \$1,890.00            |
| Drain                            | 10    | each | 630   |               |                     | \$6,300.00          | \$6,300.00            |
| Inline Valve                     | 2     | each | 3024  |               |                     | \$6,048.00          | \$6,048.00            |
| Canal Gates                      | 2     | each | 1155  |               |                     | \$2,310.00          | \$2,310.00            |
| Inlet Structure                  | 1     | each | 23100 |               |                     | \$23,100.00         | \$23,100.00           |
| Screen (Filter)                  | 1     | each | 6300  |               |                     | \$6,300.00          | \$6,300.00            |
|                                  |       |      |       |               |                     |                     |                       |
| <b>Other</b>                     |       |      |       |               |                     |                     |                       |
| Project Management               |       |      |       |               |                     | \$15,000.00         |                       |
| Engineer                         |       |      |       |               |                     | \$20,000.00         |                       |
|                                  |       |      |       |               |                     |                     |                       |
| <b>Total Project Costs</b>       |       |      |       | <b>\$0.00</b> | <b>\$581,247.00</b> | <b>1,258,200.90</b> | <b>\$1,804,447.90</b> |