SMALL GRANT PROGRAM APPLICATION 2015-2017

Application Processing Information (to be completed by the Small Grant Team Contact)

Application #: _____

Date Received: _____

Date Acted On: _____

_____ Recommended _____ Denied

SGT Contact
Signature: _____

I. GENERAL INFORMATION

OWEB Funds Requested $10,000.00
Round to nearest dollar

Total Project Cost $ 34,775.00
Round to nearest dollar

Name of Project (five words or fewer) Felda Irrigation Efficiency Improvement Project

Project Location (if more than one, include location/landowner information on each map)

This project occurs at (check one): ☒ A single site ☐ Multiple sites

Willow Creek
Watershed(s)

Morrow
County or counties

T 1S, R 25E S 18
Township, Range, Section(s) (e.g., T1N, R5E, S12)

119.445, 45.284
Longitude, Latitude (e.g., -123.789, 45.613) (Required for federal/state reporting)

1707010402
Subbasin(s) – Please note the 10-digit hydrological unit code, previously 5th Field HUC

_____
River or Creek Name (if applicable)

_____
River Mile (if applicable)

1. Have you previously submitted an application to OWEB, either through the regular or small grant program, for this project, or one similar to it on the same property? ☐ Yes Grant #_____ ☒ No

If yes, explain _____

2. Does this application propose a grant for a property in which OWEB previously invested funds for purchase of fee title or a conservation easement; or is OWEB currently considering an acquisition grant for this property?

☐ Yes Grant #_____ ☒ No

If yes, explain _____

II. CONTACT INFORMATION

Applicant Org.: Morrow SWCD	Tax ID: 93-0797719	Contact: Janet Greenup
Mailing Address: PO Box 127 Heppner, OR		Zip: 97836
Phone: 541-676-5452	Email: swcdmanager@centurytel.net	

Landowner(s): Terry Felda		
Landowner Address:		Zip:
Phone: 541-256-0277	Email:	

Project Manager for the Grantee: Kevin Payne		
Project Manager Address: PO Box 127 Heppner, OR		Zip: 97836
Phone: 541-676-5452	Email: kevin.payne@or.nacdnet.net	

Payee Org.: Morrow SWCD	Tax ID: 93-0797719	Contact: Janet Greenup
Payee Address: PO Box 127 Heppner, OR		Zip: 97836
Phone: 541-676-5452	Email: swcdmanager@centurytel.net	

Technical Contact: Kevin Payne, Morrow SWCD

Phone: 541-676-5452	Email: kevin.payne@or.nacdnet.net

III. PROJECT INFORMATION

Priority Watershed Concern: the project will address—Check One Only:

- ☐ Instream Process & Function
- ☐ Riparian Process & Function
- ☐ Urban Impact Reduction
- ☐ Wetland Process & Function
- ☐ Road Impact Reduction
- ☐ Upland Process & Function
- ☐ Fish Passage
- ☒ Water Quantity & Quality/ Irrigation Efficiency

Small Grant Team Priority Project Type(s) addressed by the project (see application instructions)**:**

Water quantity and quality/irrigation efficiency

1-a. Is the project consistent with the local watershed assessment or action plan?

- ☒ Yes Name primary assessment/plan Umatilla/Morrow Subbasin Plan
- ☐ No
- ☐ N/A—The watershed does not yet have an assessment or action plan

1-b. Is the project consistent with the local Agricultural Water Quality Management Area Plan?

☒ Yes ☐ No

1-c. Is the project consistent with any developed plan for the property (e.g., local conservation or stewardship plans, etc.)**?** ☐ Yes ☐ No

If yes, name the plan(s): _____

2. Describe the current *watershed* PROBLEM(s) you are seeking to address.

Currently Terry irrigates utilizing flood irrigation provided from an open ditch system that is fed from Willow Creek. The current system of tarp dams and open ditch is very inefficient and can suffer water delivery loss through evaporation, seepage, phreatophytes, operational spills and deep percolation (please see photos). Delivery sites from the ditch to the fields are makeshift and rudimentary, making application rates hard to determine. With a more controlled delivery, measuring devices such as flumes can be employed to monitor water quantity applied over time, increasing efficiency. Measuring water overflowing out of the ditch behind a tarp dam is next to impossible. Irrigation water coming from a set pipe size with valve control, allows for a more accurate application. This would help Terry certify proof of water usage, maintaining water rights and meeting legal requirements of western water law. This project would lessen drainage problems and establish a record of improved use. The tail waters associated with over application of flood irrigation can carry herbicides, fertilizers and livestock-chemical inputs directly into Willow Creek, thus decreasing water quality. This project will increase water quality and water quantity in Willow Creek. This should benefit wildlife populations. Years of human impacts and development have increased sediment load and water temperatures in rivers and streams. The cumulative effects of these human impacts have contributed to lower than natural flows. These influences have exacerbated risks to aquatic organism survival. Water conservation projects give managers flexibility to allocate saved water between different uses in critical low flow conditions. Stream biota must have clean, cool, well-oxygenated water for various stages of life and adequate flows are needed for unimpeded passage and system connectivity of spawning and rearing areas.

3. **Describe the <u>SOLUTION(s)</u> you are proposing to address the current problem(s).** Attach a site map, color photo(s), and (if applicable) preliminary project drawings or designs

This project would install a head gate with a flume at the diversion and replace the ditch system with pipe and risers. From the pipeline, the irrigation water could then be released to flood the fields through risers spaced at intervals to accommodate the irrigation strategy. This will allow for a more uniform coverage of the targeted ground, dramatically increasing irrigation efficiencies. The ability to accurately apply the desired amount of water to target species will allow for adjustments to harvest dates to best fit market conditions. Smaller more frequent applications of water will reduce percolation losses below the crop root zone. All practices will be installed to NRCS standards and specifications. The project was designed by PrecisionRain (please see attached concept proposal). With the pipeline in place, Terry could easily convert to sprinkler application in the future with the aid of a pump. That is the ultimate goal that Terry envisions for these fields when both time and resources permit.

4. Technical Guidance Source (check at least one and identify the Practice Code, or page and paragraph).

☒ NRCS Field Office Technical Guide Practice Code 430	☐ Guide to Placing Large Wood in Streams Page # / Para _____
☐ Oregon Road/Stream Crossing Restoration Guide Page # / Para _____	☐ Forest Practices Tech Note #4 Page # / Para _____
☐ Nonpoint Source Pollution Control Guidebook Page # / Para _____	☐ Forest Practices Tech Note #5 Page # / Para _____
☐ Urban Subwatershed Restoration Manual Page # / Para _____	☐ Tribal Natural Resource Plans and Water Plans (attach the relevant page or pages)

5. Maintenance and Post-Implementation Monitoring

a) Project maintenance is the responsibility of the landowner. What aspects of the project will be <u>maintained</u>? (See application instructions.)

Who will maintain?	What will be maintained?	How will it be maintained?	# of years # of times/year
Landowner	Pipeline, risers, gate	routine maintenance	20-25 yrs - as needed/yr

b) Post-implementation monitoring including photo points and visual inspection is <u>required</u> for small grants (Year-Two Status Report). What (if any) additional aspects of the project will be monitored post-implementation? (See application instructions)

Who will monitor?	What will be monitored?	Cite monitoring protocols	# of years # of times/year
Morrow SWCD	Pipeline, risers, gate	NRCS standards/specs.	as needed/ once at YR2
		completion/YR2 reports	

6. Who will be responsible for writing the Year-Two Status Report?

Name: Kevin Payne	Org.: Morrow SWCD	
Mailing Address: PO Box 127 Heppner, OR		Zip: 97836
Phone: 541-676-5452	Email: kevin.payne@or.nacdnet.net	

7. Have the required permits been obtained for the project? ☐ Yes ☐ No ☒ Not Required

If yes, what permits have been issued? (Attach copies) _____

If no, what permits must be obtained and by when? _____

8. Is this project required as a condition of a local, state, or federal permit, order, or enforcement action (e.g., a manure storage and management project required by ODA permit)?

☐ Yes ☒ No

9. Project Partners. Show all anticipated funding sources, and indicate the dollar value for cash or in-kind contributions. Be sure to provide a dollar value for each funding source. If the funding source is providing in-kind contributions, briefly describe the nature of the contribution in the Funding Source Column. In the Amount/Value Column, provide a total dollar amount or value for each funding source.

Funding Source **Name the partner and contribution**	**Cash**	**In-Kind**	**Amount/ Value**
OWEB: Pipe, risers, admin. & reporting	x		10,000.00
Landowner: Pipe, risers, head gate and land use form		x	24,575.00
Morrow SWCD: Project management		x	200.00
Total Estimated Funds (add all amounts in the far right column)			$34,775.00

The total should equal the total cost of the project on page 1

10. Project Budget (Word)—Itemize projected costs for each of the following "Expense Categories" that apply to your project. A minimum of 25% match—cost share—in-kind/cash is required. See application instructions and additional team conditions for further guidance.

PLEASE NOTE: Budgets may be submitted in either Word or Excel (form on website) formats.
http://www.oregon.gov/OWEB/GRANTS/smgrant_forms.shtml

Fill in the amounts, rounded to the nearest dollar, please do not include cents.

Expense Category	No. of Units	Unit Cost	OWEB Funds	Cost Share In-Kind/ Cash(Match)	Description--*what will be purchased or done and who will provide the item/perform the work*
SALARIES, WAGES AND BENEFITS. Refers to in-house staff/applicant employees for whom payroll taxes are paid. List position titles; include only costs of employees charged to this grant.					
Project Management	8	$25.00	$0	$200.00	Morrow SWCD
		$0	$0	$0	
		SUBTOTAL (1)	**$0**	**$200.00**	
CONTRACTED SERVICES. Labor, supplies, materials and travel to be provided by non-staff for project implementation.					
Pipe & Risers - line 1		$14,006.00	$0	$14,006.00	
Pipe & Risers - line 2		$11,500.00	$9,500.00	$2,000.00	
Pipe - pasture		$2,555.00	$0	$2,555.00	
Head gate, culvert, bubbler, mobilization		$5,964.00	$0	$5,964.00	
		$0	$0	$0	
		SUBTOTAL (2)	**$9,500.00**	**$24,525.00**	
MATERIALS AND SUPPLIES. Refers to items that are purchased by or invoiced to the applicant, and are "used up" in the course of the project. Costs to OWEB must be directly related to the implementation of this grant.					
		$0	$0	$0	
		$0	$0	$0	
		SUBTOTAL (3)	**$0**	**$0**	
TRAVEL. Mileage. For current rates go to: http://www.oregon.gov/OWEB/Pages/forms_linked.aspx#					
		$0	$0	$0	
		$0	$0	$0	
		SUBTOTAL (4)	**$0**	**$0**	
OTHER. Land use signature costs, project permit costs, small equipment repair, commercial equipment rental.					
Land-use form	1	$50.00	$0	$50.00	Through Morrow County planning
		$0	$0	$0	
		SUBTOTAL (5)	**$0**	**$50.00**	
		MODIFIED TOTAL DIRECT COST (MTDC) (Add Subtotals 1-5)	**$9,500.00**	**$24,775.00**	
GRANT ADMIN. Not to exceed 10% of Modified Total Direct Costs (MTDC). Compute by multiplying MTDC by 0.10 or less. See the current Budget Categories Definitions document at http://www.oregon.gov/OWEB/Pages/forms_linked.aspx# for eligible costs.					
Grant Administration	10% of MTDC		$300.00	$0	
POST-GRANT					
Year-Two Status Report			$200.00	$0	(Not to exceed $200)
Post-Project Plant Establishment			$0	$0	(Not to exceed $1,000)
		PROJECT TOTALS	**$10,000.00**	**$24,775.00**	(Not to exceed $10,000 in OWEB funds)

We, the undersigned, attest that to the best of our knowledge the information contained in this application is true, that the proposed project is not required by a state or federal agency directive, and that the project will be completed within 24 months from the date of the team funding recommendation of the application. We understand that the submitted application is a matter of public record.

Also, should funding for this project be awarded we understand:

1) **We may not incur any project expenses until all designated signatories have signed an OWEB grant agreement,**
2) **we will be required to provide proper accounting of project expenses, and**
3) **we will be required to provide necessary and normal maintenance to sustain the value of the project once it is completed.**

*By their signatures, the **landowner(s)** attest that they have no plans to sell their property as of the date of this application, are authorized to sign as landowner, and they agree to provide, upon prior request and at a mutually acceptable time, site access to the applicant or representatives of OWEB for a period up to two years following project completion to allow project work to be implemented, monitored, and maintained.*

Applicant Date

Landowner Date

Fiscal Agent Date

ATTACHMENT CHECKLIST

☐ Project location map (Required)
☐ Color photographs of site (Required)
☐ Site drawings/diagrams (if applicable)
☐ Juniper Checklist (if applicable)
☐ Cooperative agreement, if 2 or more landowners (Optional)

May be submitted in lieu of ALL Landowner signatures on Application

ALL Landowners must sign the Grant Agreement

☐ Racial and Ethnic Impact Statement (Required)
☐ Restoration Metrics form (Required)

Other materials (as required by team)

OPTIONAL FORMS AT APPLICATION STAGE ***(Required at the time of payment request, see instructions)***

☐ Irrigation Efficiency
☐ Culvert/Stream Crossing
☐ Secured Match
☐ Land Use

Racial and Ethnic Impact Statement

This form is used for information purposes only and must be included with the grant application.

Chapter 600 of the 2013 Oregon Laws require applicants to include with each grant application a racial and ethnic impact statement. The statement provides information as to the disproportionate or unique impact the proposed policies or programs may have on minority persons[1] in the State of Oregon if the grant is awarded to a corporation or other legal entity other than natural persons.

1. ☐ The proposed grant project policies or programs could have a disproportionate or unique positive impact on the following minority persons:

   Indicate all that apply:

   ☐ Women
   ☐ Persons with Disabilities
   ☐ African-Americans
   ☐ Hispanics
   ☐ Asians or Pacific Islanders
   ☐ American Indians
   ☐ Alaskan Natives

2. ☐ The proposed grant project policies or programs could have a disproportionate or unique negative impact on the following minority persons:

   Indicate all that apply:

   ☐ Women
   ☐ Persons with Disabilities
   ☐ African-Americans
   ☐ Hispanics
   ☐ Asians or Pacific Islanders
   ☐ American Indians
   ☐ Alaskan Natives

3. ☒ The proposed grant project policies or programs will have no disproportionate or unique impact on minority persons.

If you checked numbers 1 or 2 above, on a separate sheet of paper, provide the rationale for the existence of policies or programs having a disproportionate or unique impact on minority persons in this state. Further provide evidence of consultation with representative(s) of the affected minority persons.

I HEREBY CERTIFY on this 4th day of August, 2016, the information contained on this form and any attachment is complete and accurate to the best of my knowledge.

Signature: _____

Printed Name: Kevin D. Payne

Title: Natural Resource Technician

[1] "Minority persons" are defined in SB 463 (2013 Regular Session) as women, persons with disabilities (as defined in ORS 174.107), African-Americans, Hispanics, Asians or Pacific Islanders, American Indians and Alaskan Natives.

RESTORATION METRICS FORM

OWEB receives a portion of its funds from the federal government and is required to report how its grantees have used both federal and state funds. The information you provide in the following form will be used for federal and state reporting purposes.

Please complete all portions of the form below as they apply to your project and submit all pages (do not exclude any pages). Please provide specific values, do not enter values like "2-3" or "<100". Enter your best approximation of what the project will accomplish.

If you have any questions, please contact Cecilia Noyes, OWEB Federal Reporting Coordinator, at 503-986-0204 (cecilia.noyes@state.or.us) or Ginger Lofftus, OWEB PCSRF Reporting Assistant, at 503-986-5372 (ginger.lofftus@state.or.us)

Section 1 - Project Overview

Answer all five questions below, even if you have answered a similar question in a previous section in the grant application.

1. Land Use Setting: CHECK ONE BOX ONLY.

☐ **Urban/Suburban/Exurban** *(Projects located within urban growth boundaries or rural residential areas)*	☒ **Rural** *(Projects located outside urban growth boundaries or rural residential areas.)*

2. Dominant Watershed Setting: CHECK ONE BOX ONLY. Example: Your project involves managing erosion in the upland area with some erosion control extended to the riparian area. Because most of the work is to occur in the upland area, you would check only the Upland box below.

☐ **Estuary** *(where freshwater meets and mixes with saltwater of ocean tides.)*	☐ **Riparian** *(adjacent to a water body, within the active floodplain.)*
☒ **Instream** *(below the ordinary high-water mark or within the active channel — includes fish passage.)*	☐ **Upland** *(above the floodplain.)*
	☐ **Groundwater** *(Projects that recharge groundwater or primarily affect the subsurface water table.)*
☐ **Wetland** *(areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions.*	

3. Total Acres Treated:_____ Total Stream Miles Treated:_____
*(**do not include** upstream stream miles made accessible to fish with passage improvements)*

4. Project Monitoring: ***All OWEB funded restoration projects require post-implementation status reporting including photo point monitoring.*** *Please indicate below: 1) the location of the monitoring activities relative to the project, including photo point locations, 2) whether effectiveness monitoring is planned, and 3) whether additional monitoring will be conducted for this project.*

4.1) Identify the location for the planned monitoring activities relative to the restoration project location. Check as many boxes as apply.

☒ Onsite	☐ Downstream	☐ Upstream	☐ Upslope

4.2) ☐ Effectiveness monitoring will be conducted for this project. Please note that effectiveness monitoring cannot be funded with OWEB Small Grant Funds. To review effectiveness monitoring and post-implementation status reporting definitions click on the link to the OWEB Web site below.

http://www.oregon.gov/OWEB/MONITOR/effective_monitoring.shtml

4.3) Will this project conduct monitoring activities **beyond the required post-implementation status reporting and photo point monitoring**?

☐ Yes ☐ No If you answer yes, select the monitoring activities below, if you answer no proceed to Section 2.

Check all proposed monitoring activities

☐ Adult Fish presence/absence/abundance/distribution survey(s)	☐ Spawning surveys
☐ Juvenile Fish presence/absence/abundance/distribution survey(s)	☐ Upland vegetation (Presence/Absence)
☐ Instream Habitat surveys	☐ Water quality
☐ Macroinvertebrates	☐ Water quantity
☐ Noxious weed (Presence/Absence)	☐ Photo Points
☐ Riparian vegetation (Presence/Absence)	☐ Other (explain): _____

Section 2 - Project Activities

Provide values for each Project Activity applicable to your application. ***Leave blank any Project Activity or metric line that is not appropriate to your application.*** *All data entered in this form should be what you* ***plan*** *to do with the project. Data about* ***completed*** *projects will be reported at the end of the project to the Oregon Watershed Restoration Inventory (OWRI). For each activity type where you enter metrics,* ***estimate*** *the percentage of the total cost of the project (OWEB and <u>all</u> other funding sources, shown in* ***III. 9.****. of this application) that applies to the activity. The sum of all of the activity cost percentages should equal 100%. Please distribute all administrative, project management and other general project costs among the various project activities when estimating percentages.*

Example*: A project will remove a fish passage barrier, place large boulders instream, and plant a riparian buffer. You would enter the appropriate metrics into the Fish Passage, Instream Habitat, and Riparian Habitat activity sections of this form. Then, estimate the percentage of the total cost of the project for each activity. For instance: 20% towards Fish Passage activities, 25% towards Instream Habitat activities, and 55% towards Riparian Habitat activities.*

Fish Screening Projects: *Projects that result in the installation or improvement of screening systems that prevent fish from passing into areas that do not support fish survival, for example, into irrigation diversion channels.*

Note: OWEB funds cannot be used for fish screening projects

_____ % Estimate the percentage of total cost of the project applied to fish screening activities

<u>New Fish Screens Installed</u>

_____ # Estimate the number of <u>new</u> screens installed (do not count diversions where existing screens are replaced)

_____ cfs Estimate the cubic feet per second of flow influenced by <u>new</u> screen(s) installed (to nearest 0.01 cfs)

<u>Existing Screens Replaced, repaired or modified</u>

_____ # Estimate the number of <u>existing</u> screens replaced, repaired or modified

_____ cfs Estimate the cubic feet per second of flow influenced by <u>existing</u> screen(s) screens (to nearest 0.01 cfs)

Fish Passage Improvement: *Projects that improve fish migration by addressing a migration barrier problem.*

Complete sections A-E as they apply to the proposed project. For projects that improve fish passage at road crossings complete both sections A (define the problem) and B (define the treatment). Non-road crossing improvements are reported in sections C and D. Section E should be completed for all fish passage improvement projects. Refer to the application instructions for additional information and examples.

A. Road Crossings – Define *Existing* Fish Passage Problem

1. Culverts hindering fish passage	_____ # crossings
2. Bridges hindering fish passage	_____ # crossings
3. Fords hindering fish passage	_____ # crossings

B. Road Crossings – Define the Fish Passage *Improvements* to be implemented by this project

1. Culverts installed/improved - *Improvements include installing baffles inside culverts or installing/improving engineered bypasses (e.g. weirs) directly below a culvert outlet to improve passage.*	_____ # crossings	_____ str. mi with improved access*
2. Bridges installed/improved - *Improvements include installing/improving engineered bypasses (e.g. weirs) directly below a bridge crossing to improve passage.*	_____ # crossings	_____ str. mi with improved access*
3. Fords installed/improved	_____ # crossings	_____ str. mi with improved access*
4. Road Crossings removed and <u>not</u> replaced	_____ # crossings	_____ str. mi with improved access*

**Estimate stream miles in the main channel and tributaries made more accessible above the crossing(s) (to nearest 0.01 mile). If a barrier exists upstream, report the length made accessible up to that next upstream barrier.*

C. Fish Passage Barriers – Other than Road Crossings

1. Type(s) of barriers to be treated/removed to improve fish passage.	☐ Diversion Dam ☐ Push-up Dam ☐ Wood or Concrete Dam ☐ Weir (not associated with a road crossing) ☐ Logs ☐ Debris ☐ Boulder/Rock Barrier (not weirs) ☐ Landslide Other (explain) _____
2. _____ # Estimate the total number of **non-road** crossing barriers (listed above) to be removed or altered to improve passage.	

D. Fish Ladders or Engineered Bypasses (not associated with Road Crossings)

1. Fish ladders will be installed/improved	_____ # fish ladders to be installed/improved
2. Engineered bypasses will be installed/ improved. *This includes weirs, rock boulder step pools, and chutes constructed/roughened in bed rock. Do not count engineered bypasses located at a road crossing to improve passage at the crossing. These types of improvements should be identified above in section B as a Road Crossing Fish Passage Improvement.*	_____ # engineered bypasses to be installed/improved

E. Fish Passage Summary Metrics

1. _____ % Estimate the percentage of total cost of the project applied to fish passage improvements

2. _____ mi Estimate the total stream miles that will be made more accessible in the main channel and tributaries above the project (to nearest 0.01 mile). *This metric summarizes the stream miles for all of the proposed passage improvements (defined above in Sections A-D). If a barrier exists upstream of the project, report the length made accessible up to that next upstream barrier.*

3. _____ # Estimate the total number of barriers (this includes road crossings, diversion dams, push up dams, wood or concrete dams, weirs, etc.) to be removed or altered to improve passage.

Instream Flow: *Projects that maintain and/or increase the instream flow of water.* Irrigation improvements that are primarily designed to improve water quality should be reported under Upland – Agriculture Management.

Check all proposed activities.

☒ Irrigation practice improved to increase instream flows (e.g. install diversion headgate, replace open ditches with pipes)	☒ Water flow gauges installed to measure water use
☐ This project will dedicate instream flow.	☐ Other (explain): _____

100 % Estimate the percentage of total cost of the project applied to instream flow activities

_____ mi. Estimate the miles of stream where increased flow is the result of decreased/eliminated water withdrawals

_____ cfs Estimate the increase in flow of water in the stream as a result of conservation effort (cubic feet per second)

_____ mm/dd/yyyy Initial start date of irrigation practice improvement

_____ mm/dd/yyyy Final end date of irrigation practice improvement (if improvement is permanent enter 12/31/9999)

_____ mm/dd/yyyy Water lease/agreement initial start date of no withdrawal

_____ mm/dd/yyyy Water lease/agreement final end date of no withdrawal (if lease/agreement is permanent, enter 12/31/9999)

Instream Habitat: *Projects that are designed to improve instream habitat conditions.*

Check all proposed activities.

☐ Channel reconfiguration and connectivity (e.g., creating instream pools, meanders, improving floodplain connectivity, off-channel habitat, removal or alteration of levee or berm, removal of sediment)	☐ Spawning gravel placement
☐ Channel structure - large wood placement	☐ Plant Removal/control (instream) List scientific names of plants _____
☐ Channel structure - boulder placement	☐ Carcass or nutrient placement: ☐ salmonid carcass; ☐ fish meal brick; ☐ other nutrient
☐ Channel structure placement (<u>other</u> than large wood or boulder placements), e.g., engineered structures or deflectors, barbs, weirs, etc.	☐ Other (explain): _____
☐ Streambank stabilization through resloping and/or placing rocks, logs (e.g. revetments, gabions, barbs), or bioengineering on streambank	

_____ % Estimate the percentage of total cost of the project applied to instream habitat activities

_____ mi. Estimate the miles of stream to be treated with instream habitat treatments (to nearest 0.01 mile)

_____ % Estimate the percentage of insteam activity costs for carcass or nutrient placements. If you do not select carcass/nutrient placements as an instream activity, leave this value blank. *Example: Your project will place salmon carcasses. You estimated that 25% of the total project cost will apply to instream habitat activities and one half of the instream improvements costs will apply to the carcass placement, you would report 50%.*

Riparian Habitat: *Projects above the ordinary high-water mark of the stream and within the floodplain of the stream.*

Check all proposed activities.

☐ Riparian planting	☐ Non-native/noxious plant control
☐ Riparian exclusion fencing	☐ Vegetation management (e.g. prescribed burnings, stand thinning, stand conversions, silviculture)
☐ Livestock exclusion by means other than fencing (includes placing obstacles to exclude livestock, people, vehicles, etc., but not for individual plant protection)	☐ Debris/structure removal (OWEB funds cannot be used for general trash removal)
☐ Water gap development (fenced livestock crossing or livestock bridge)	☐ Other (explain): _____ *Do not report livestock water developments here, report livestock water developments under upland habitat treatments.*
☐ Conservation grazing management (e.g., rotation grazing)	

_____ % Estimate the percentage of total cost of the project applied to riparian habitat activities

_____ ac. Estimate the acres of riparian habitat to be planted (to nearest 0.1 acres)

_____ ac. Estimate the acres of riparian habitat to be treated for non-native/noxious weeds (to nearest 0.1 acres)

_____ ac. Estimate the total riparian acres to be treated. (to nearest 0.1 acres)

_____ mi. Estimate the miles of riparian streambank to be treated (to nearest 0.01 mi). Stream sides treated ☐ one ☐ two

(Do not double count miles if a second side is treated)

Upland Habitat: *Projects implemented above the floodplain.* Check all proposed activities.

☐ Planting/seeding for erosion control (e.g., convert from crops to native vegetation, plant area where non-native/noxious weeds removed, grassed waterways, windbreaks, filter strips) List scientific names of plants _____	☐ Livestock Manure Management (e.g., feedlot improvements to reduce runoff , relocate/improve manure holding structures and manure piles to reduce/eliminate drainage into streams)
☐ Slope stabilization (e.g., grade stabilization, landslide reparation, terracing slopes)	☐ Livestock/Wildlife Water Developments
☐ Non-native/noxious plant control; List scientific names of plants: _____	☐ Upland Livestock Management (other than livestock water developments), e.g., grazing plans, fencing
☐ Juniper removal/control	☐ Restore Historic Upland Habitats (e.g. oak woodland, oak savannah, upland prairie restoration)
☐ Vegetation Management (other than non-native/noxious plant control or juniper removal, e.g. tree thinning, brush control, burning) List scientific names of plants: _____	☐ Trail or Campground Improvements (to decrease upland erosion; these may extend into the riparian zone)
☐ Upland Agriculture Management – (e.g., no/low-till, wind breaks, filter strips, crop rotation, terracing, water and sediment control basins, grade stabilization and irrigation improvements)	☐ Other (explain): _____
☐ Erosion control structures not already reported under Upland Agriculture Management or Road Drainage System and Surface Improvements.	

_____ % Estimate the percentage of total cost of the project will apply to upland habitat activities

_____ # Estimate the number of livestock/wildlife water developments

_____ ac. Estimate the acres of upland habitat to be treated for non-native/noxious plants (to nearest 0.1 acres)

_____ ac. Estimate the total acres of upland habitat to be treated (do not include acres of upland habitat affected by livestock water developments (to nearest 0.1 acres)

_____ % Estimate the percentage of upland activity costs applied to Livestock Manure Management. If you do not select Livestock Manure Management as an upland activity, leave this value blank. *Example: Your project will relocate a feedlot to reduce livestock manure runoff. You estimated that 33% of the total project cost will apply to upland habitat activities and one half of the upland improvements costs will apply to the feedlot relocation, you would report 50%.*

Road Activities: *Projects designed to improve road impacts to watersheds.* Check all proposed activities.

☐ Road drainage system and surface improvements & reconstruction	☐ Other (explain): _____
☐ Road closure, relocation, obliteration (decommissioning)	

_____ % Estimate the percentage of total cost of the project applied to road activities

_____ mi. Estimate the miles of road treated (to nearest 0.01 mile)

Urban Impact Reduction: Check all of the urban impact related activities that will be used by this project:

☐ Toxin reduction: list names of each toxic species, element or material: _____	☐ Bioswales
☐ Pesticide reduction: list names of each pesticide: _____	☐ Detention Facility
☐ Stormwater/wastewater modification or treatment (includes rain gardens	☐ Other urban impact reduction (explain): _____

Check all of the water quality limiting factors addressed by the Urban Impact Reduction activities selected above**. Do not** select limiting factors addressed by other types of restoration activities:

☐ Bacteria	☐ Pesticides	☐ Nutrients
☐ Dissolved Oxygen	☐ Toxics	☐ Sediment
☐ Heavy Metals	☐ High Temperature	☐ Other (explain): _____

_____% Estimate the percentage of total cost of the project applied to urban impact activities

Wetland Habitat: *Projects designed to create or improve wetland areas.* Check all proposed activities.

☐ Wetland planting	☐ Artificial wetland area created from an area not formerly a wetland
☐ Non-native/noxious/invasive plant control	☐ Other (explain): _____
☐ Wetland improvement/restoration of existing or historic wetland (other than vegetation planting or removal)	

_____ % Estimate the percentage of total cost of the project applied to wetland habitat activities

_____ ac. Estimate the acres of wetland habitat to be treated for non-native/noxious/invasive plants (to nearest 0.1 acres)

_____ ac. Estimate the acres of artificial wetland created (to nearest 0.1 acres)

_____ ac. Estimate the total acres of wetland habitat (existing or historic) treated (to nearest 0.1 acres)

Estuarine Habitat: *Projects that result in improvement or increase in the availability of estuarine habitat.*

Check all proposed activities.

☐ Estuarine planting	☐ Non-native/noxious plant control
☐ Channel modification/creation (e.g., improve intertidal flow to existing estuarine habitat)	☐ Creation of new estuarine habitat where one did not exist previously by methods other than tidegates or dikes
☐ Dike or berm modification/removal	☐ Estuarine culvert modification / removal
☐ Removal of existing fill material	☐ Exclusion devices (commonly includes fencing, installation of mooring buoys, boardwalks/trails, etc. to keep public/animals away)
☐ Placement of fill material (for proper terrestrial function)	☐ Other (explain): _____

_____ % Estimate the percentage of total cost of the project applied to estuarine habitat activities

_____ ac. Estimate the acres of estuarine habitat to be treated for non-native/noxious plants (to nearest 0.1 acres)

_____ ac. Estimate the total acres of estuarine habitat (existing or historic) to be treated (to nearest 0.1 acres)

Section 3 - Salmon/Steelhead Populations Targeted and Expected Benefits to Salmon/Steelhead

The information provided will be used by OWEB to better meet federal and state reporting requirements. Completion of this section is required but will not be used to evaluate this application for funding.

☒ This project is **NOT** specifically designed to benefit salmon or steelhead.

► **If you check this box, STOP here.**

Targeted Salmon/Steelhead Populations: Select one or more of the salmon ESUs (Evolutionary Significant Unit) or steelhead DPSs (Distinct Population Segment) that the project will address/benefit. For species where the ESU/DPS name is not known or determined, use the species name with unidentified ESU (e.g., Chinook salmon – unidentified ESU). Additional information on the designation and location of the salmon/steelhead populations can be found at: http://www.westcoast.fisheries.noaa.gov/maps_data/species_population_boundaries.html

Chinook Salmon (*Oncorhynchus tshawytscha*)		**Coho Salmon** (*O. kisutch*)	
☐	Deschutes River summer/fall-run ESU	☐	Lower Columbia River ESU
☐	Lower Columbia River ESU	☐	Oregon Coast ESU
☐	Mid-Columbia River spring-run ESU	☐	Southern Oregon/Northern California ESU
☐	Oregon Coast ESU	☐	unidentified ESU
☐	Snake River Fall-run ESU	**Steelhead** (*O. mykiss*)	
☐	Snake River Spring/Summer-run ESU	☐	Klamath Mountains Province DPS
☐	Southern Oregon and Northern California Coastal ESU	☐	Lower Columbia River DPS
☐	Upper Klamath-Trinity Rivers ESU	☐	Middle Columbia River DPS
☐	Upper Willamette River ESU	☐	Oregon Coast DPS
☐	unidentified ESU	☐	Snake River Basin DPS
Chum Salmon (*O. keta*)		☐	Washington Coast DPS (SW Washington)
☐	Columbia River ESU	☐	Upper Willamette River DPS
☐	Pacific Coast ESU	☐	Steelhead/Trout unidentified DPS
☐	unidentified ESU		

Expected Benefits:

Write a brief description of the goals and purpose of the project and how it is expected to benefit salmon/steelhead or salmon/steelhead habitat. **See Application Instructions for helpful examples.**

Small Grant Program
Local Watermaster Review of Proposed Irrigation Efficiency Project

Complete Section 1 before submitting to the local Watermaster for completion and signature.

This form may be submitted along with the Small Grant application or with the first payment request. ***However, it is advisable to obtain this signature before beginning the project as OWEB will void grant agreements for projects determined by the Watermaster to be inadequate.*** Provide a copy of the grant application to the watermaster, when requesting completion of this form.

1. TO BE COMPLETED BY THE GRANTEE PRIOR TO COMPLETION OF SECTION 2

Project Name: Felda Irrigation Efficiency Improvement Project Project #: yet to be determined

Grantee Name: Morrow SWCD

Identify the groundwater quality management area, *if applicable:* N/A
http://www.deq.state.or.us/wq/groundwater/gwmas.htm

Morrow
County

T 1S, R 25E section 18
Township, Range, Section

1S253100
Tax Lot

2. TO BE COMPLETED BY LOCAL WATERMASTER

I have reviewed the application listed in Section 1 above and have determined that the following watershed benefits are associated with this irrigation efficiency project (check whichever applies):

- ☐ Point of diversion consolidation,
- ☐ Replacement of push up dam(s),
- ☐ Measurable reduction in the diversion of surface water at the point of diversion
- ☒ Reduction in ground water pumping from wells within one-quarter mile of a stream so that reduced impacts to the stream or springs are likely,
- ☒ Other watershed benefits:

EVAPOTRANSPIRATION LOSS REDUCTION BY INSTALLING A CLOSED SYSTEM WITH A MEASUREMENT ACCESS NEAR THE POINT OF DIVERSION FOR REGULATION PURPOSES.

Watermaster Signature: Kenneth C. Thiemann Jr. Date: 8/5/2016

Print Name: KENNETH C. THIEMANN JR. Phone: (541) 384-4207

Email: kenneth.c.thiemann@wrd.state.or.us

Felda Irrigation Efficiency Improvement Project Photos

Leaking in concrete ditch near diversion.

More leaking in concrete ditch.

Felda Irrigation Efficiency Improvement Project Photos

Area where canal gate will be installed.

Another view.

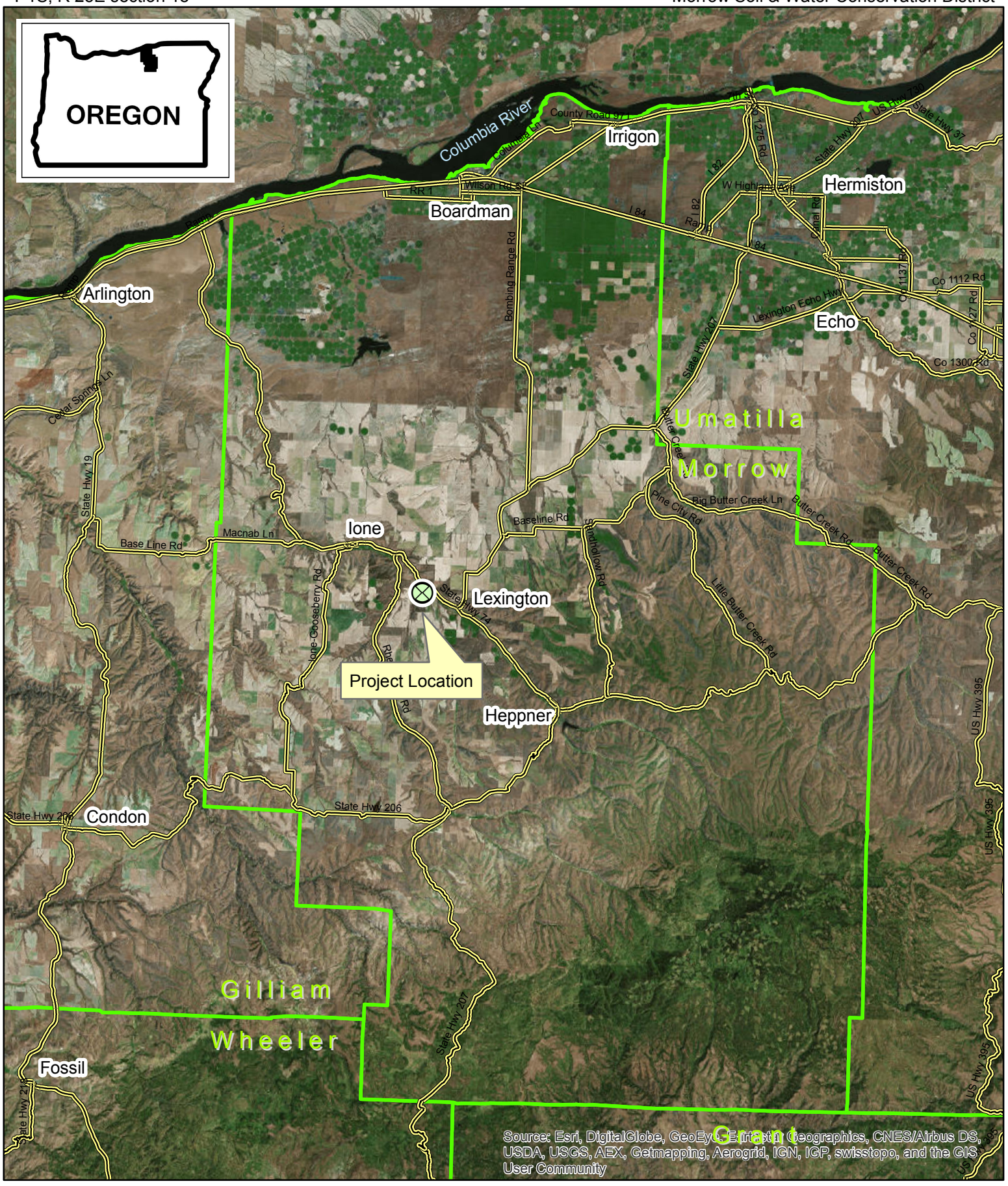
Felda Irrigation Efficiency Improvement Project Photos

Images of existing ditch that will be piped.

Felda Irrigation Efficiency Improvement Project Location Map

T 1S, R 25E section 18

Morrow Soil & Water Conservation District



Felda Irrigation Efficiency Improvement Project

T 1S, R 25E section 18

Morrow SWCD

Felda Irrigation Efficiency Improvement Project

T 1S, R 25E section 18

Morrow SWCD

0 190 380 760 1,140 1,520 Feet

TERRY FELDA - KEN JONES

IRRIGATION PROJECT CONCEPT PROPOSAL

FOR FLOOD IRRIGATION IMPROVEMENTS ON WILLOW CREEK,

IONE, OREGON

Brad Sunderman

Sales & Design

541-962-5077

6/7/2016 (REVISED 8/5/2016)

PROPOSAL SUMMARY FOR FLOOD IRRIGATION PROJECT

PREPARRED FOR: TERRY FELDA & KEN JONES

MAIN OBJECTIVES

Address leaky headworks and ditches on flood irrigation system, for point of diversion (POD C-8151) on Willow Creek. (RM 36.76) Proposal is to convert the entire system from open ditch to sealed PVC pipeline with overflow risers to allow flood irrigation.

PROPOSED PROJECT SUMMARY

HEADWORKS:

- Repair leaks as needed, seal headwall
- Install Canal Gate on Point of Diversion
- Install 12" ADS through old concrete ditch
- Transition to 10" PVC pipe
- Bubbler screen with double outlet at wye in ditch (see detail)
- Diffuser box for silt capture, with drain, serviceable (see detail)

JONES LINE:

- Backfill existing ditch
- Install pipe in new trench on same route as old ditch
- 8" PVC pipe, 6" overflow risers on 60' spacing, to ditch along highway
- Customer to install new tail water ditch at bottom of field

FELDA LINE #1:

- Continuation of Jones Line. Along highway and south along fence
- Backfill existing ditch
- 8" PVC pipe, 6" overflow risers on 60' spacing
- Drain riser at end of line

PROPOSAL SUMMARY FOR FLOOD IRRIGATION PROJECT

FELDA LINE #2:

- Continuation from Bubbler screen/Diffuser box. Abandon old culvert
- Backfill existing ditch
- Utilize existing crossing support structure in place on Willow Creek
- Install 8" ADS across creek
- Route pipe below trees growing in ditch in Jones pasture
- 8" PVC transmission line, no risers through Jones Pasture
- Possible outlet to Bulge on Felda Place for filling/future expansion
- Install 8" PVC pipe, 6" overflow risers on 60' spacing, fence to driveway
- Drain riser at end of line

PROPOSAL SUMMARY FOR FLOOD IRRIGATION PROJECT (REVISED 8/5/2016)

PROJECT NOTES:

Design based on preliminary information taken from water rights maps for the properties supplied by POD C-8181; a shared point of diversion, combined total allotments of .18(Jones) and .93(Felda). Felda and Jones will make an agreement to share total allotment.

Contractor will install a flow metering device on 10" PVC portion of pipeline to allow water master access for measurement and recording of flow. Proposed device is to be a McCrometer saddle type flow meter. This allows contractor to achieve a sealed headworks and deliver all flow downstream. This meter in conjunction with a valve to constrict flow will maintain a full pipeline above the bubbler screen.

Routing the ditch around the trees at the start of the 8"PVC "transmission" line will require grading on the ditch to ensure gravity flow. Pipeline is to join up with existing ditch path as soon as possible.

Bubbler screen/Diffuser box will require service to operate properly. Plan allows for debris capture and removal as well as a solids settling tank, with drain, for easy cleaning. Flow will be directed into the two lines from this point and can be metered at this location.

8" ADS under driveway and across creek will require additional engineering and is in lieu of poly. 12" ADS at Canal gate to transition with 10" PVC is in lieu of steel. Both products will allow an easier, less labor intensive installation.

Headworks and Diffuser box work to be done by independent contractor, ditch company may require specific entity to complete work. Check with your local water master.

MAP LEGEND:

A- POINT OF DIVERSION
B- 12" ADS CULVERT THROUGH CONCRETE DITCH SECTION
C- 10" PVC PIPE BURIED IN DITCH
D- BUBBLER SCREEN/DIFFUSER BOX/SYSTEM OVERFLOW
E- JONES LINE - 8" PVC, 6" RISERS OVERFLOW TOP, 60' SPACING
F- FELDA LINE #1 – 8" PVC, 6" RISERS, OVERFLOW TOP, 60' SPACING
G- 8" ADS CULVERT THROUGH/OVER EXISTING CULVERT SUPPORT
H- 8" PVC PIPE TRANSMISSION LINE THROUGH JONES PASTURE
I- BULGE
J- FELDA LINE #2 – 8" PVC, 6" RISERS, OVERFLOW TOP, 60' SPACING
K- DRAIN RISER AT END OF LINE
L- DRAIN RISER AT END OF LINE

PROPOSAL SUMMARY FOR FLOOD IRRIGATION PROJECT 6/16/16 (REVISED 8/5/2016)

PRICE ESTIMATE

PROJECTS IN COMMON

POINT OF DIVERSION - CANAL GATE AT HEADWORKS	$1,335.00
12" ADS CULVERT THROUGH OLD CONCRETE DITCH	$2,760.00
McCROMETER FLOW METER, VALVE, GOOSENECK, LABOR	$3,940.00
10" PVC BURIED TO SELF CLEANING SCREEN	$1,121.00
SELF CLEANING TURBULENT BUBBLER SCREEN	$4,493.00
8" ADS CULVERT ACROSS CREEK SCREEN TO PASTURE	$ 789.00
SET-UP, DELIVER MATERIALS, CRANE TO REPLACE CULVERT, MOVE OUT	$1,430.00
TOTAL	$15,868.00

KEN JONES PROJECT

PIPE AND RISERS FOR HAY FIELD	$14,171.00**
PIPE THROUGH PASTURE	$4,015.00
HALF OF PROJECTS IN COMMON	$7,934.00
TOTAL	$26,120.00

TERRY FELDA PROJECT

PIPE AND RISERS – LINE #1	$14,006.00**
PIPE AND RISERS – LINE #2	$11,500.00**
PIPE THROUGH PASTURE	$ 2,555.00
HALF OF PROJECTS IN COMMON	$ 7,934.00
TOTAL	$35,995.00

PROPOSAL SUMMARY FOR FLOOD IRRIGATION PROJECT 6/16/16 (REVISED 8/5/2016)

PRICE ESTIMATE NOTES

** COSTS PER PIPELINE ARE BASED ON FLOOD RISERS, SPACED 60 FEET APART.

** CUSTOMER MAY CHOOSE TO MARK SPECIFIC LOCATIONS FOR RISERS TO RELEASE FLOOD WATER AND REDUCE THE COST OF THE PROJECT BY REDUCING THE NUMBER OF RISERS.

CUSTOMERS AGREE TO LEVEL UP DITCHES, CLEAR OUT BRUSH, TREES IN DITCHES, LARGE ROCKS ON THE SURFACE, MOVE/CUT/REPAIR FENCES,ETC…. TO MAKE TRENCHING POSSIBLE ALONG DITCHES TOO DEEP TO STRADDLE.

QUOTED PRICES ARE ESTIMATES ONLY UNTIL A FINAL FIELD SURVEY AND MEASUREMENT HAS BEEN CONDUCTED.

TERMS: 25% DOWN/65% ON DELIVERY/10% AT COMPLETION

CUSTOMER AGREES TO MAKE COMPLETE PAYMENT TO PRECISION RAIN AND RECEIVE OUTSIDE GRANT PAYMENTS PERSONALLY.

ROCK/WATER CLAUSE: IF ROCK TOO BIG OR TOO SOLID FOR TRENCHER IS ENCOUNTERED REQUIRING HEAVY EQUIPMENT, LABOR AND MATERIALS NEEDED MAY BE BILLED IN EXCESS OF QUOTED AMOUNT. IF TRENCHES FILL WITH GROUND OR SURFACE WATER REQUIRING PUMPING, ADDITIONAL LABOR MAY BE BILLED TO CUSTOMER.