State of Oregon
Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900

Application for
Allocation of Conserved Water
Part 1 of 4 – Minimum Requirements Checklist

This application will be returned if Parts 1 through 4 and all required attachments are not completed and included.
For questions, please call (503) 986-0900, and ask for Allocation of Conserved Water Section.

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Check all items included with this application. (N/A = Not Applicable)

☒ Part 1 – Completed Minimum Requirements Checklist.

☒ Part 2 – Completed Applicant Information and Signature.

☒ Part 3 – Completed Water Right Information and Conservation Measures. Please include a separate Part 3 for each water right. List all water right certificates involved in this application here: **74146, 74147, 74148**.

☒ Part 4 –Completed Mitigation, Proposed Use, Project Schedule, Funding, and Fee Calculation.

Attachments:

☒ Fees – Amount enclosed: $ **990** (From last page of application).

☒ Application Map. Must have sufficient detail to locate and describe the facilities and areas involved in the conservation measures. Must show the place of use where water is being used if the rate or duty are changing. **See Attachment A**

☐ Land Use Information Form with approval and signature. (Not required if 100% of Conserved Water is being transferred instream.) **N/A – 100 percent of Conserved Water being allocated instream.**

Land Use Notice - Notice of the intent to create an instream water right must be provided to each affected county, city, municipal corporation, or tribal government along the proposed instream reach. **See Attachment B**

☒ ☐ N/A Completed Evidence of Use Affidavit and Supporting Documentation. **See Attachment C**

☐ ☒ N/A Affidavit(s) of Consent.

☐ ☒ N/A Letter of approval from Irrigation or Water Control District. For water rights served by or issued in the name of a District, this must be provided when the transfer applicant is not the District.

☒ ☐ N/A Irrigation or Water Control District's adopted policy on allocation of conserved water. **See Attachment D**

☒ ☐ N/A If construction of the project has begun or been completed and if more than 25 percent of the project costs have been expended before applying for allocation of conserved water, evidence that you have attempted to identify and resolve the concerns of water right holders in the area, governmental entities or other organizations who have asked to be consulted regarding the allocation of conserved water. **See Attachment E**

☐ ☒ N/A Evidence for Fee Waiver. **The OWEB project number is 219-4000-16321.**

☐ ☒ N/A Notice of Completion.

☐ ☒ N/A Request for Finalization. (Entire project listed on the application must be complete. No partial finalization will be recognized.) **N/A**

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Part 2 of 4 – Applicant Information and Signature

Applicant Information

APPLICANT/BUSINESS NAME			PHONE NO.	ADDITIONAL CONTACT NO.
Tumalo Irrigation District			(541) 382-3053	
ADDRESS				FAX NO.
64697 COOK AVE				
CITY	STATE	ZIP	E-MAIL	
BEND	OR	97701 3	KEN@TUMALO.ORG	

☒ The applicant is an irrigation district organized under ORS Chapter 545 or a water control district organized under ORS Chapter 553. The District's OAR 690-018-0025 allocation of conserved water policy was adopted: 3/8/2005. Reviewed by board 10/13/2015.

OR

☐ The applicant is the sole owner of the land on which the water right, or portion thereof, proposed for conservation measures is located? ☐ Yes ☐ No **N/A – The applicant is an irrigation district.**

If NO, include signatures of all landowners (and mailing address if different than the applicant's) or attach affidavits of consent (and mailing addresses) from all landowners or individuals/entities to which the water right(s) has been conveyed.

LANDOWNER NAME			PHONE NO.
ADDRESS			
CITY	STATE	ZIP	E-MAIL

Representative Information – The person(s) listed below is/are authorized to represent the applicant in all matters relating to this application.

REPRESENTATIVE/BUSINESS NAME			PHONE NO.	ADDITIONAL CONTACT NO.
OWEN MCMURTREY			(541) 257-9005	
ADDRESS				FAX NO.
1600 SW WESTERN AVENUE, SUITE 240				
CITY	STATE	ZIP	E-MAIL	
CORVALLIS	OR	97333	OMCMURTREY@GSIWS.COM	

☐ Check this box if this project is fully or partially funded by the American Recovery and Reinvestment Act. (Federal stimulus dollars)

I understand that I will be required to submit payment to the Department for publication of a notice in a newspaper with general circulation in the area where the water right is located, once per week for two consecutive weeks. If more than one qualifying newspaper is available, I suggest publishing the notice in the following paper: Bend Bulletin.

I (we) affirm that the information contained in this application is true and accurate.

Applicant signature	Print Name (and Title if applicable)	Date
KBRC	Kenneth B Rieck / Manager	3-2-2020
Applicant signature	Print Name (and Title if applicable)	Date

In your own words tell us what conservations measures you have made or propose to make and the reason for the change(s): Consistent with TID's watershed plan-environmental assessment for its irrigation modernization project, TID is submitting this Application for Allocation of Conserved Water for Project Group 2, which includes piping of the Steele, Highline, 2 Rivers (Box S), Parkhurst, Gill, and Lacy laterals. The piping of Tumalo Feed and Tumalo Reservoir Feed Canals is included in Conserved Water Project 37 (CW-37). This application is for the first phase of piping for TID's laterals. TID anticipates that this will eliminate a total of 2,588 acre-feet of canal loss, based on a seepage loss study completed by Black Rock Consulting in 2016. TID anticipates allocating 100 percent of water conserved through publicly funded piping to instream purposes from Certificates 74146, 74147, and 74148.

TID proposes to allocate 100 percent of the conserved water instream for this project. Of the water allocated instream TID proposes that 750 out of a total of 1216.56 AF allocated instream under Certificate 74148 will be protected from Crescent Dam downstream to approximately river mile 179, at the location of the USFS Ryan Ranch Meadow Restoration Project.

To meet State Land Use Consistency Requirements, you must list all local governments (each county, city, municipal corporation, or tribal government) within whose jurisdiction the conservation project and/or proposed instream reach will be located.

ENTITY NAME	ADDRESS	
KLAMATH COUNTY	**305 MAIN STREET #1**	
CITY	STATE	ZIP
KLAMATH FALLS	**OR**	**97601**

ENTITY NAME	ADDRESS	
DESCHUTES COUNTY **ATTN: COMMUNITY DEVELOPMENT**	**PO BOX 6005**	
CITY	STATE	ZIP
BEND	**OR**	**97708-6005**

ENTITY NAME	ADDRESS	
JEFFERSON COUNTY COMMUNITY DEVELOPMENT	**85 SE D STREET**	
CITY	STATE	ZIP
MADRAS	**OR**	**97741**

ENTITY NAME	ADDRESS	
CITY OF LA PINE	**PO BOX 2460** **16345 SIXTH STREET**	
CITY	STATE	ZIP
LA PINE	**OR**	**97739**

ENTITY NAME	ADDRESS	
CITY OF BEND	**710 NW WALL STREET**	
CITY	STATE	ZIP
BEND	**OR**	**97701**

ENTITY NAME	ADDRESS	
CONFEDERATE TRIBES OF WARM SPRINGS	**1233 VETERANS STREET** **PO BOX C**	
CITY	STATE	ZIP
WARM SPRINGS	**OR**	**97761**

ENTITY NAME	ADDRESS	
CITY	STATE	ZIP

Part 3 of 4 – Water Right Information and Conservation Measures

Please use a separate Part 3 for **each** water right involved in the proposed allocation of conserved water.

WATER RIGHT INFORMATION:

Water Right Subject to Transfer (check and complete **ONE** of the following):

☒	Certificated Right	74146 Certificate Number	Tumalo Creek Permit Number or Decree Name
☐	Adjudicated, Un-certificated Right	Name of Decree	Page Number
☐	Permit for which Proof has been Approved	Permit Number	Special Order Volume _____, Page
☐	Transferred Right for which Proof has been Filed	Previous Certificate / Transfer Number	Date Claim of Beneficial Use Submitted

County: Deschutes

Describe the pre-project water delivery system. Include information on the diversion structure, pumps, and conveyance facilities (including canals, pipelines and sprinklers used to divert, convey and apply the water at the authorized place of use). *Provide sufficient detail for the Department to determine the system capacity.* TID has two primary points of diversion, Tumalo Feed Canal (TFC) on Tumalo Creek and Bend Feed Canal (BFC) on the Deschutes River. Water under certificate 74146 is diverted at the TFC. The TFC is a gravity diversion on Tumalo Creek near river mile 3, North 70° 21' W; 1,550 feet from the East ¼ corner of section 23; SW¼ NE¼, Section 23, township 17 south, range 11 east. Water at the TFC diversion dam enters a dual-pipe conveyance system and is transported approximately 4,000 feet to the convergence of the BFC. The maximum capacity of the intake is 225 cfs. TID has previously piped approximately two miles of the Tumalo Feed Canal with 84-inch diameter high-density polyethylene pipe (HDPE).

Certificate 74146 has been altered since it was issued by OWRD to reflect TID's petition under HB-3111 in June 1997.

Table 1: Pre-Project Description

List: A) the maximum rate and annual duty (volume) of water that may be diverted **as stated on the water right of record;** and B) the maximum amount of water that can be diverted using the pre-project facilities **("system capacity")**. If there are multiple priority dates on the water right, list the rate and duty associated with each priority date. (*If the water right is only limited by rate, do not list a duty, and conversely, if the water is only limited by duty, do not list a rate.*)

See Attachment F for Table 1.

CONSERVATION MEASURES:

Describe the type of conservation measures, check all that apply:

- ☐ On-Farm efficiency project
- ☒ Distribution project, such as a ditch piping or lining project
- ☐ Other: _____

Describe the proposed changes to the physical system, operations and application methods that will result in the conservation of water. If these proposed changes will change the point of diversion, you must meet the ODFW fish screen and bypass requirements pursuant to ORS 540.525. *Please include a description and details of how the estimate of water conserved was determined. Please provide sufficient detail for the Department to provide notice of the project.* TID anticipates that this project will eliminate a total of 2,588 acre-feet of seepage loss, based on a seepage loss study completed by Black Rock Consulting in 2016. Loss numbers were corroborated through measurements taken by the District in 2018. Allocation of water conserved through this project will differ from the allocation of water proposed under CW-37 to account for the amount and timing of water use from the District's two sources. However, the District may modify the approach to shaping the instream water right resulting from allocations of conserved water in future applications, as the timing and amount of water allocated to instream use may affect the District's ability to deliver water under certain streamflow conditions.

Place of Use Involved in Conservation Measures

List only the part of the right that will be affected. If the entire right is being affected, just state "entire Certificate."

Twp		Rng		Sec	¼	¼	Tax Lot	Gvt Lot or DLC	Acres	Type of Use listed On Certificate	Priority Date
2	S	9	E	15	NE	NW	153.0	100		EXAMPLE	1/1/1865
Entire Certificate											
									Total	5,010.9	

Are there other water right certificates, water use permits, ground water registrations, or uncertificated decreed rights associated with the above lands? ☒ Yes ☐ No. If YES, list the certificates, water use permits, ground water registrations, or uncertificated decreed numbers:

The District holds water right certificates 74146, 74147, 74148, 74149, 76520, and 88894.

Is the project within the boundaries of an irrigation district or water control district? ☒ Yes ☐ No If YES, and applicant is not a District, you must provide a letter of approval from the District.

Table 2: Conserved Water

In Column A, list the smaller of A or B from Table 1 (Pre-Project Description). In Column B, list the amount of water that will be needed for the existing, authorized use(s) after implementing the conservation measures. In Column C, subtract Column B from Column A and enter the results *(e.g.,* A – B = C). (*If the water right is only limited by rate, do not list a duty; and conversely, if the water is only limited by duty, do not list a rate.*)

N/A – This method is not applicable to the proposed allocation of conserved water under Certificate 74146. Because TID has a dual source system, the amount of water needed depends on the combined volume of water available from both sources. Currently, TID's annual need is approximately 53,000 AF. The need for water under Certificate 74146 and 74147 will depend on the availability of water from Crescent Lake. In general, the flow of Tumalo Creek has not been sufficient to meet the District's demands during late summer. However, over-allocation of conserved water to Tumalo Creek during late summer would cause the District to rely too heavily on Crescent Lake, resulting in negative annual water budgets as Crescent Lake is drawn down and does not refill.

See Attachment F for Table 2.

Table 3: Allocation of Conserved Water

List the portions of the conserved water that will be allocated to the state and applicant. Note: Column A plus Column B should total Column C (e.g., A + B = C).

** must be at least 25%*

The priority for the conserved water is requested to be:

☒ The same as the original right, or

☐ One minute junior to the original right.

See Attachment F for Table 3.

TID diverts water from both Tumalo Creek and Crescent Lake. In this application, as in CW-9 and CW-37, TID has divided the amount of conserved water based on the relative volumes historically diverted from each source. Based on TID's recent diversions, TID proposes that 53 percent of conserved water be allocated to Crescent Lake and 47 percent be allocated to Tumalo Creek. During the early part of the irrigation season (April through mid-July), when Tumalo Creek flows are high, the majority of TID's water supply comes from Tumalo Creek. During the late irrigation season (mid-July through September), the majority of TID's water supply comes from water stored in Crescent Lake Reservoir.

Additionally, on lands where Certificate 74147 is supplemental to Certificate 74146, the former authorizes a higher per-acre rate and duty than Certificate 74146. TID delivers water to primary and supplemental acreage under Certificate 74147 throughout the irrigation season.

This application requests to seasonally shape conserved water in Tumalo Creek, and to allocate conserved water from Certificates 74146 and 74147 to align with TID's seasonal utilization of Tumalo Creek. This approach is designed to prevent allocating conserved water to Tumalo Creek in excess of the amount of water actually diverted from Tumalo Creek during the latter half of the irrigation season, when TID has relied on Crescent Lake Reservoir.

The rates shown in Table 3 were calculated by identifying the historic average diversion from Tumalo Creek during each semi-monthly time period from 1958 to 1987, prior to the decommissioning of the Columbia Southern Canal and any other conservation projects on Tumalo Creek.

Table 4 shows the rate and duty of water to be conserved under Certificate 74146 and Certificate 74147 throughout the irrigation season. See Attachment F for Table 4.

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Part 3 of 4 – Water Right Information and Conservation Measures

Please use a separate Part 3 for **each** water right involved in the proposed allocation of conserved water.

WATER RIGHT INFORMATION:

Water Right Subject to Transfer (check and complete **ONE** of the following):

☒	Certificated Right	74147 Certificate Number	Tumalo Creek Permit Number or Decree Name
☐	Adjudicated, Un-certificated Right	Name of Decree	Page Number
☐	Permit for which Proof has been Approved	Permit Number	Special Order Volume _____, Page
☐	Transferred Right for which Proof has been Filed	Previous Certificate / Transfer Number	Date Claim of Beneficial Use Submitted

County: Deschutes

Describe the pre-project water delivery system. Include information on the diversion structure, pumps, and conveyance facilities (including canals, pipelines and sprinklers used to divert, convey and apply the water at the authorized place of use). *Provide sufficient detail for the Department to determine the system capacity.* TID has two primary points of diversion, Tumalo Feed Canal (TFC) on Tumalo Creek and Bend Feed Canal (BFC) on the Deschutes River. Water under Certificate 74147 is diverted at the TFC. The TFC is a gravity diversion on Tumalo Creek near river mile 3, North 70° 21' W; 1,550 feet from the East ¼ corner of section 23; SW¼ NE¼, Section 23, township 17 south, range 11 east. Water at the TFC diversion dam enters a dual-pipe conveyance system and is transported approximately 4,000 feet to the convergence of the BFC. The maximum capacity of the intake is 225 cfs. TID has previously piped approximately two miles of the Tumalo Feed Canal with 84-inch diameter high-density polyethylene pipe (HDPE).

Certificate 74147 has been altered since it was issued by OWRD to reflect TID's petition under HB-3111 in June 1997.

Table 1: Pre-Project Description

List: A) the maximum rate and annual duty (volume) of water that may be diverted **as stated on the water right of record;** and B) the maximum amount of water that can be diverted using the pre-project facilities **("system capacity")**. If there are multiple priority dates on the water right, list the rate and duty associated with each priority date. (*If the water right is only limited by rate, do not list a duty, and conversely, if the water is only limited by duty, do not list a rate.*)

See Attachment F for Table 1.

CONSERVATION MEASURES:

Describe the type of conservation measures, check all that apply:

- ☐ On-Farm efficiency project
- ☒ Distribution project, such as a ditch piping or lining project
- ☐ Other: _____

Describe the proposed changes to the physical system, operations and application methods that will result in the conservation of water. If these proposed changes will change the point of diversion, you must meet the ODFW fish screen and bypass requirements pursuant to ORS 540.525. *Please include a description and details of how the estimate of water conserved was determined. Please provide sufficient detail for the Department to provide notice of the project.* TID anticipates that this project will eliminate a total of 2,588 acre-feet of seepage loss, based on a seepage loss study completed by Black Rock Consulting in 2016. Loss numbers were corroborated through measurements taken by the District in 2018. Allocation of water conserved through this project will differ from the allocation of water proposed under CW-37 to account for the amount and timing of water use from the District's two sources. However, the District may modify the approach to shaping the instream water right resulting from allocations of conserved water in future applications, as the timing and amount of water allocated to instream use may affect the District's ability to deliver water under certain streamflow conditions.

Place of Use Involved in Conservation Measures

List only the part of the right that will be affected. If the entire right is being affected, just state "entire Certificate."

Twp		Rng		Sec	¼	¼	Tax Lot	Gvt Lot or DLC	Acres	Type of Use listed On Certificate	Priority Date
2	S	9	E	15	NE	NW	153.0	100		EXAMPLE	1/1/1865
Entire Certificate											
									Total	6,575.97	

Are there other water right certificates, water use permits, ground water registrations, or uncertificated decreed rights associated with the above lands? ☒ Yes ☐ No. If YES, list the certificates, water use permits, ground water registrations, or uncertificated decreed numbers:

The District holds water right certificates 74146, 74147, 74148, 74149, 76520, and 88894.

Is the project within the boundaries of an irrigation district or water control district? ☒ Yes ☐ No If YES, and applicant is not a District, you must provide a letter of approval from the District.

Table 2: Conserved Water

In Column A, list the smaller of A or B from Table 1 (Pre-Project Description). In Column B, list the amount of water that will be needed for the existing, authorized use(s) after implementing the conservation measures. In Column C, subtract Column B from Column A and enter the results *(e.g.,* A – B = C). (*If the water right is only limited by rate, do not list a duty; and conversely, if the water is only limited by duty, do not list a rate.*)

N/A – This method is not applicable to the proposed allocation of conserved water under Certificate 74147. Because TID has a dual source system, the amount of water needed depends on the combined volume of water available from both sources. Currently, TID's annual need is approximately 53,000 AF. The need for water under Certificate 74146 and 74147 will depend on the availability of water from Crescent Lake. In general, the flow of Tumalo Creek has not been sufficient to meet the District's demands during late summer. However, over-allocation of water to Tumalo Creek during late summer would cause the District to rely too heavily on Crescent Lake, resulting in negative annual water budgets as Crescent Lake is drawn down and does not refill.

See Attachment F for Table 2.

Table 3: Allocation of Conserved Water
List the portions of the conserved water that will be allocated to the state and applicant. Note: Column A plus Column B should total Column C (e.g., A + B = C).

** must be at least 25%*

The priority for the conserved water is requested to be:

☒ The same as the original right, or

☐ One minute junior to the original right.

See Attachment F for Table 3.

TID diverts water from both Tumalo Creek and Crescent Lake. In this application, as in CW-9 and CW-37, TID has divided the amount of conserved water based on the relative volumes historically diverted from each source. Based on TID's recent diversions, TID proposes that 53 percent of conserved water be allocated to Crescent Lake and 47 percent be allocated to Tumalo Creek. During the early part of the irrigation season (April through mid-July), when Tumalo Creek flows are high, the majority of TID's water supply comes from Tumalo Creek. During the late irrigation season (mid-July through September), the majority of TID's water supply comes from water stored in Crescent Lake Reservoir.

Additionally, on lands where Certificate 74147 is supplemental to Certificate 74146, the former authorizes a higher per-acre rate and duty than Certificate 74146. TID delivers water to primary and supplemental acreage under Certificate 74147 throughout the irrigation season.

This application requests to seasonally shape conserved water in Tumalo Creek, and to allocate conserved water from Certificates 74146 and 74147 to align with TID's seasonal utilization of Tumalo Creek. This approach is designed to prevent allocating conserved water to Tumalo Creek in excess of the amount of water actually diverted from Tumalo Creek during the latter half of the irrigation season, when TID has relied on Crescent Lake Reservoir.

The rates shown in Table 3 were calculated by identifying the historic average diversion from Tumalo Creek during semi-monthly time period from 1958 to 1987, prior to the decommissioning of the Columbia Southern Canal and any other conservation projects on Tumalo Creek.

Table 4 shows the rate and duty of water to be conserved under Certificate 74146 and Certificate 74147 throughout the irrigation season. See Attachment F for Table 4.

Part 3 of 4 – Water Right Information and Conservation Measures

Please use a separate Part 3 for **each** water right involved in the proposed allocation of conserved water.

WATER RIGHT INFORMATION:

Water Right Subject to Transfer (check and complete **ONE** of the following):

☒	Certificated Right	74148 Certificate Number	Tumalo Creek Permit Number or Decree Name
☐	Adjudicated, Un-certificated Right	Name of Decree	Page Number
☐	Permit for which Proof has been Approved	Permit Number	Special Order Volume _____, Page
☐	Transferred Right for which Proof has been Filed	Previous Certificate / Transfer Number	Date Claim of Beneficial Use Submitted

County: Deschutes

Describe the pre-project water delivery system. Include information on the diversion structure, pumps, and conveyance facilities (including canals, pipelines and sprinklers used to divert, convey and apply the water at the authorized place of use). *Provide sufficient detail for the Department to determine the system capacity.* TID has two primary points of diversion, Tumalo Feed Canal (TFC) on Tumalo Creek and Bend Feed Canal (BFC) on the Deschutes River. Water under Certificate 74148 is diverted at the BFC. The BFC is a gravity diversion on the Deschutes River at the location of the Steidl Dam near river mile 166 in the NW¼ NE¼, Section 32, township 17 south, range 12 east. The BFC is fully piped for 5 miles to the convergence with the TFC. Piping consists of a combination of 72-inch diameter reinforced concrete pipe that was installed in the 1970s and 84-inch diameter high-density polyethylene (HDPE) pipe that was installed by the District over the last 15 years.

Certificate 74148 has been altered since it was issued by OWRD to reflect TID's petition under HB-3111 in June 1997.

Table 1: Pre-Project Description

List: A) the maximum rate and annual duty (volume) of water that may be diverted **as stated on the water right of record;** and B) the maximum amount of water that can be diverted using the pre-project facilities **("system capacity")**. If there are multiple priority dates on the water right, list the rate and duty associated with each priority date. (*If the water right is only limited by rate, do not list a duty, and conversely, if the water is only limited by duty, do not list a rate.*)

See Attachment F for Table 1.

CONSERVATION MEASURES:

Describe the type of conservation measures, check all that apply:

- ☐ On-Farm efficiency project
- ☒ Distribution project, such as a ditch piping or lining project
- ☐ Other: _____

Describe the proposed changes to the physical system, operations and application methods that will result in the conservation of water. If these proposed changes will change the point of diversion, you must meet the ODFW fish screen and bypass requirements pursuant to ORS 540.525. *Please include a description and details of how the estimate of water conserved was determined. Please provide sufficient detail for the Department to provide notice of the project.* TID anticipates that this project will eliminate a total of 2,588 acre-feet of seepage loss, based on a seepage loss study completed by Black Rock Consulting in 2016. Loss numbers were corroborated through measurements taken by the District in 2018. Allocation of water conserved through this project will differ from the allocation of water proposed under CW-37 to account for the amount and timing of water use from the District's two sources. However, the District may modify the approach to shaping the instream water right resulting from allocations of conserved water in future applications, as the timing and amount of water allocated to instream use may affect the District's ability to deliver water under certain streamflow conditions.

Place of Use Involved in Conservation Measures

List only the part of the right that will be affected. If the entire right is being affected, just state "entire Certificate."

Twp		Rng		Sec	¼	¼	Tax Lot	Gvt Lot or DLC	Acres	Type of Use listed On Certificate	Priority Date
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Entire Certificate											
									Total	6,575.97	

Are there other water right certificates, water use permits, ground water registrations, or uncertificated decreed rights associated with the above lands? ☒ Yes ☐ No. If YES, list the certificates, water use permits, ground water registrations, or uncertificated decreed numbers:

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Is the project within the boundaries of an irrigation district or water control district? ☒ Yes ☐ No If YES, and applicant is not a District, you must provide a letter of approval from the District.

Table 2: Conserved Water

In Column A, list the smaller of A or B from Table 1 (Pre-Project Description). In Column B, list the amount of water that will be needed for the existing, authorized use(s) after implementing the conservation measures. In Column C, subtract Column B from Column A and enter the results *(e.g.,* A – B = C). (*If the water right is only limited by rate, do not list a duty; and conversely, if the water is only limited by duty, do not list a rate.*)

N/A – This method is not applicable to the proposed allocation of conserved water under Certificate 74148. Because TID has a dual source system, the amount of water needed depends on the combined volume of water available from both of TID's sources, Crescent Lake and Tumalo Creek. Currently, TID's annual need is approximately 53,000 AF. The need for water under Certificate 74148 will depend on the availability of water from Tumalo Creek. In general, the flow of Tumalo Creek has not been sufficient to meet the District's demands during late summer. However, over-allocation of water to Tumalo Creek during late summer would cause the District to rely too heavily on Crescent Lake, resulting in negative annual water budgets as Crescent Lake is drawn down and does not refill.

See Attachment F for Table 2.

Table 3: Allocation of Conserved Water

List the portions of the conserved water that will be allocated to the state and applicant. Note: Column A plus Column B should total Column C (e.g., A + B = C).

** must be at least 25%*

The priority for the conserved water is requested to be:

☒ The same as the original right, or

☐ One minute junior to the original right.

See Attachment F for Table 3.

TID diverts water from both Tumalo Creek and Crescent Lake. In this application, as in CW-9 and CW-37, TID has divided the amount of conserved water based on the relative volumes historically diverted from each source. Based on TID's recent diversions, TID proposes that 53 percent of conserved water be allocated to Crescent Lake and 47 percent be allocated to Tumalo Creek. During the early part of the irrigation season (April through mid-July), when Tumalo Creek flows are high, the majority of TID's water supply comes from Tumalo Creek. During the late irrigation season (mid-July through September), the majority of TID's water supply comes from water stored in Crescent Lake Reservoir. However, because conserved water allocated under Certificate 74148 is stored water, it is available for release during the winter month, when flows on Crescent Creek below Crescent Dam have historically been low.

Table 3 shows the annual volume of water to be conserved under Certificate 74148. See Attachment F for Table 3.

Part 4 of 4 – Mitigation, Proposed Use, Project Schedule, Funding, and Fee Calculation

MITIGATION:

Describe any expected effects from the proposed allocation of conserved water on other water rights. Describe what currently happens to the water that is proposed to be conserved. Water proposed to be conserved is lost to seepage and evaporation in TID's open canals and laterals. The City of Bend is the only other water user on Tumalo Creek and the City's point of diversion is above TID's. TID will continue to pass water at a rate consistent with the volume of water actually conserved through this allocation. Water lost to seepage enters the Deschutes Regional Aquifer, which discharges a large volume of water to the Deschutes River above gage 14092500 (Deschutes River near Madras). Water is not protected below Lake Billy Chinook for this reason. For water conserved under Certificate 74148, water is released from Crescent storage, and would not otherwise have been available in the Deschutes River, so there is no effect of this proposed allocation of conserved water on other water rights. Therefore, there are no effects from the proposed allocation of conserved water on other water rights.

Describe any mitigation or other measures that are planned to avoid harm to other water rights. N/A

PROPOSED USE:

☐ ☐ N/A For new out-of-stream uses, describe the intended use and boundaries of the expected area within which the diversion structures and places of use of the applicants' conserved water right will be located. This is land other than that to which this water right is appurtenant. Intended Use: Wildlife and Fish Life (Wetland Enhancement) Boundaries: US Forest Service Ryan Ranch Restoration Project.

☒ For instream uses to be created:

Originating Water Right (as identified in Part 3)	Priority Date	Source	Proposed Instream Period	Rate (cfs)*	Volume (ac-ft)**
See Table 4 in Attachment F for shaping of instream water right.					
			TOTAL VOLUME		

*Tip: To calculate rate (if other than the rate allowed by the right), divide the volume by the number of days in the period and then divide by 1.983471; or

To calculate volume, multiply the rate by the number of days in the instream period and then multiply by 1.983471.

Note: The instream rate may not exceed the maximum rate conserved and the total volume may not exceed to maximum volume or duty conserved (Table 3, Column C)

Location of the proposed instream water right.

☒ Water is requested to be protected within a reach. Location of the proposed reach (identify the extent of the reach): *(e.g., from the upstream POD located at RM _____ to downstream location at the mouth at RM _____)* For water allocated under Certificates 74146 and 74147: In Tumalo Creek from the location of the Tumalo Feed Canal diversion to the mouth of Tumalo Creek at the confluence with the Deschutes River, and then into the Deschutes River to Lake Billy Chinook at River Mile 120.

For the first 750 acre-feet of water allocated under Certificate 74148: In Crescent Creek from Crescent Dam to the mouth of Crescent Creek and then into the Little Deschutes River from the

mouth of Crescent Creek to the mouth of the Little Deschutes River and then into the Deschutes River to river mile 179.

For the remaining water allocated under Certificate 74148: In Crescent Creek from Crescent Dam to the mouth of Crescent Creek and then into the Little Deschutes River from the mouth of Crescent Creek to the mouth of the Little Deschutes River and then into the Deschutes River to Lake Billy Chinook at river mile 120.

OR

☐ Water is requested to be protected at a point at the following location (i.e. legal description of the point of diversion (POD)) _____

Public Use for which conserved water right should be managed under an instream right (check at least one box):

☒ Conservation, maintenance and enhancement of aquatic and fish life, wildlife, fish and wildlife habitat, and other ecological values.

☐ Recreation.

☐ Pollution Abatement.

List any existing instream water rights at the same point or within the same requested reach(es):

☐ None.

☒ Instream Water Right Certificates: 81332, 81333, 84351, 88991, 88993, 91922, 94203, Inchoate CW-37 Remaining, 73222

Is it your intent to have the proposed instream water right transfer be additive to any instream water right established under ORS 537.348 (instream transfer application process) and ORS 537.470 (allocation of conserved water) and replace a portion of any instream water right established under ORS 537.341 (state agency application process) and ORS 537.346 (conversion of minimum perennial streamflows) with an earlier priority date?

☒ Yes ☐ No. If no, please explain your intent below:

Is the requested instream flow intended to exceed the estimated average natural flow or natural lake level occurring from the drainage system?

☒ No; **OR**

☐ Yes (Provide supporting documentation that demonstrates why additional flows are significant for the public use requested.); **OR**

☐ Yes, and it is presumed that flows that exceed the estimated average natural flow or natural lake levels are significant because:

- ☐ The requested flow does not exceed the maximum amount of any instream water right applied for under ORS 537.338 (state agency instream water right application process); the requested public use is for the same public use; and the requested reach covers a portion or same reach as the state agency instream water right; **and**
- ☐ The stream is in an ODFW flow restoration priority watershed during the requested instream period; **or**
- ☐ The stream is listed as water quality limited by DEQ.

PROJECT SCHEDULE:

☒ ☐ N/A For a project that has **not** been completed, please provide the dates on which the applicant intends to do the following:

Begin Construction	Complete Construction and File Notice of Completion	Request that Entire Conserved Water Allocation be Finalized
Date:10/2019	*Date:3/2021*	**Date:9/2021*

** Must be within 5 years from the date of filing the Notice of Completion.*

Note: If construction of the project has begun or has been completed, and if more than 25 percent of the project costs have been expended before submitting this application, you must submit evidence that you have attempted to identify and resolve the concerns of water right holders in the area, governmental entities or other organization who have asked to be consulted regarding the allocation of conserved water. **TID completed a Watershed Plan Environmental Assessment describing planned piping activities in 2018. The Watershed Plan process included mailing of public scoping letters and meetings to identify stakeholders. The publishing of the Watershed Plan included a notice and comment process. TID received comments from the City of Bend regarding the Allocation of Conserved Water. TID has worked with the City to ensure that this allocation of conserved water avoids harm to the City's water rights.**

☐ ☒ N/A For a project that has been completed, provide the dates when the conservation measures were implemented and the date by which the applicant intends to request the allocation be finalized. Complete and attach Notice of Completion form.

Conservation Measures Were Implemented	Request that Entire Conserved Water Allocation be Finalized
**Date:*	***Date:*

** Must be within 5 years prior to the date of filing this application.*
*** Must be within 5 years from the date of filing this Application and Notice of Completion.*

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FUNDING

☐ ☐ N/A Federal or state public funds that are not subject to repayment are to be used for the project. *Refer to OAR 690-018-0040(18)(a)-(d) for further information in completing this section.*

☒ Source of Funding: ☒ Federal: $2,800,000 (est.) ☒ State: $2,800,000 (est.)

☐ Total cost for project engineering N/A
Total cost for construction $6,000,000 (est.)

☐ The present value of any incremental changes in the cost of operations and maintenance that are directly attributable to the project that would not be incurred or realized in the absences of the project is **N/A.**

☒ The amount of funding and the value of any in-kind contributions for project engineering and construction and for any incremental changes in the costs of operations and maintenance to be provided from federal or state public funds that are not subject to repayment is $3,600,000 (est).

☒ The amount of funding and the value of any in-kind contributions for project engineering and construction and for any incremental change since costs of operations and maintenance to be provided from other funds is $400,000 (est.).

☐ ☐ N/A Enter the percentage from Table 3, Column B (Applicant's Portion of Conserved Water) 0%. If this is more than 25%, what portion of project funds (expressed as a percentage) come from federal or state public sources?

☒ ☐ N/A The Oregon Watershed Enhancement Board (OWEB) have a contractual interest in this project. The OWEB project number is 219-4000-16321.

FEE CALCULATION

Fee Schedule – ORS 536.050	
$1,160.00 - Base (1st Water Right)	Add $410.00 for each additional right
$1,160 + (2 x $410) = Total Fee $1,980	

	Fee Waiver Worksheet
To qualify for a waiver of up to 50%, you must provide evidence to establish your application meets the following criteria:	
	(a) Will be converted to an instream right pursuant to ORS 537.348; **or**
	(b) Is necessary to complete a project funded under ORS 541.375 (OWEB); **or**
	(c) Is approved by the Oregon Department of Fish and Wildlife as a project that will result in a net benefit to fish and wildlife habitat. *See* OAR 690-018-0040(25).
If the project meets one of the above standards, use the following formula to calculate the fees:	
	(d) Enter Percentage from Table 3, Column A = 100%
	(e) Deduct 25% from percentage in (d) above = 75%
	(f) Enter the lesser of (e) above or 50% 50%
	(g) Total Fee x % waived (f) = Fee Waiver $990*
	Example: (d) = 100% - 25% (e) = 75% (max 50% waived) = Fee x 50% = Fee Waiver
	Total Fee $1,980 – Fee Waiver (g) $990 = Amount Due $990

Attachment B
Land Use Notice

Conserved Water Application – Tumalo Irrigation District

TUMALO IRRIGATION DISTRICT

February 17, 2020

City of La Pine
PO Box 2460
16345 Sixth Street
La Pine, OR 97339

City of Bend Planning Department
710 NW Wall Street
Bend, OR 97701

Deschutes County Community Development
117 NW Lafayette Avenue
Bend, OR 97701

Klamath County Community Development
305 Main Street, #1
Klamath Falls, OR 97601

Jefferson County Community Development
85 SE D Street
Madras, OR 97741

Confederated Tribes of the Warm Springs
1233 Veterans Street
PO Box C
Warm Springs, OR 97761

To Whom It May Concern:

Tumalo Irrigation District is providing notification of its intent to create an instream water right through an Allocation of Conserved Water pursuant to ORS 537.470. TID proposes to allocate the following volumes of water to instream use as described:

- 466.56 acre feet under Certificate 74148, to be released from Crescent Lake Reservoir at the location of Crescent Dam into Crescent Creek, then into the Little Deschutes River, then into the Deschutes River, then into Lake Billy Chinook.
- 750 acre feet under Certificate 74148, to be released from Crescent Lake Reservoir at the location of Crescent Dam into Crescent Creek, then into the Little Deschutes River, then into the Deschutes River to approximately river mile 178.5.
- 1,371.87 acre feet under Certificates 74147 and 7417 in Tumalo Creek, from the District's authorized point of diversion from Tumalo Creek in the SW NE, Section 23, Township 17 South, Range 11 East, then into the Deschutes River, then into Lake Billy Chinook.

Sincerely,

Kenneth B. Rieck
Manager/Secretary to the Board
Tumalo Irrigation District

64697 Cook Ave, Bend Oregon 97703 - Phone 541-382-3053 - Email Staff@tumalo.org

Attachment C
Evidence of Use Affidavit

Conserved Water Application – Tumalo Irrigation District

Application for Water Right
Transfer
Evidence of Use Affidavit

Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900
www.wrd.state.or.us

Please print legibly or type. Be as specific as possible. Attach additional pages if you need more spacing. Supporting documentation must be attached.

State of Oregon)
) ss
County of DESCHUTES)

I, KENNETH RIECK, in my capacity as MANAGER,

mailing address 64697 COOK AVENUE, ~~TUMALO~~ BEND, OR 97703

telephone number (541)382-3053, being first duly sworn depose and say:

1. My knowledge of the exercise or status of the water right is based on (check one):

☐ Personal observation ☒ Professional expertise

2. I attest that:

☒ Water was used during the previous five years on the **entire** place of use for Certificate # 74146, 74147, 74148; **OR**

☐ My knowledge is specific to the use of water at the following locations within the last five years:

Certificate #	Township		Range		Mer	Sec	¼ ¼	Gov't Lot or DLC	Acres (if applicable)

OR

☐ Confirming Certificate # ____ has been issued within the past five years; **OR**

☐ Part or all of the water right was leased instream at some time within the last five years. The instream lease number is: ____ (Note: If the entire right proposed for transfer was not leased, additional evidence of use is needed for the portion not leased instream.); **OR**

☐ The water right is not subject to forfeiture and documentation that a presumption of forfeiture for non-use would be rebutted under ORS 540.610(2) is attached.

☐ Water has been used at the actual current point of diversion or appropriation for more than 10 years for Certificate # ____(For Historic POD/POA Transfers)

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(continues on reverse side)

3. The water right was used for: (e.g., crops, pasture, etc.): CONSISTENT WITH USES DESCRIBED IN CERTIFICATES 74146, 74147, AND 74148

4. I understand that if I do not attach one or more of the documents shown in the table below to support the above statements, my application will be considered incomplete.

Signature of Affiant

3-2-2020
Date

Signed and sworn to (or affirmed) before me this 2nd day of March, 2020.

OFFICIAL STAMP
APRIL LENEA HARRIS SPATH
NOTARY PUBLIC – OREGON
COMMISSION NO. 974620
MY COMMISSION EXPIRES MAY 10, 2022

April L Harris Spath
Notary Public for Oregon

My Commission Expires: May 10, 2022

Supporting Documents	Examples
☐ Copy of a water right certificate that has been issued within the last five years. (not a remaining right certificate)	Copy of **confirming** water right certificate that shows issue date
☐ Copies of receipts from sales of irrigated crops or for expenditures related to use of water	• Power usage records for pumps associated with irrigation use • Fertilizer or seed bills related to irrigated crops • Farmers Co-op sales receipt
☐ Records such as FSA crop reports, irrigation district records, NRCS farm management plan, or records of other water suppliers	• District assessment records for water delivered • Crop reports submitted under a federal loan agreement • Beneficial use reports from district • IRS Farm Usage Deduction Report • Agricultural Stabilization Plan • CREP Report
☐ Aerial photos containing sufficient detail to establish location and date of photograph	Multiple photos can be submitted to resolve different areas of a water right. If the photograph does not print with a "date stamp" or without the source being identified, the date of the photograph and source should be added. Sources for aerial photos: OSU –www.oregonexplorer.info/imagery OWRD – www.wrd.state.or.us Google Earth – earth.google.com TerraServer – www.terraserver.com
☐ Approved Lease establishing beneficial use within the last 5 years	Copy of instream lease or lease number
☒ Tumalo Irrigation District Water Use Reports from 2015 through 2019.	TID has attached water use reports for Tumalo Feed canal (Certificate 74146 and 74147), and Crescent Lake release/Bend Feed Canal Diversion (Certificate 74148).

*Additionally, TID can provide a report of all patron water assessments upon request.

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Water Year	Report ID	Facility Name	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total Water Used (AF)	Irrigated Acres	Method of Measurement
2019	12563	CREO GAGE 14060000 (USE FROM CRESCENT LAKE RES)	2031	1753	1680	1298	1161	1553	1782	1847	2044	5135	7305	7486	35075		Flume
2019	16598	TUMALO CR #1/TUMALO FEED CANAL)	0	0	0	0	0	0	2287	6239	6446	3526	1512	1196	21206		Flow Meter
2019	16630	DCMO (DESCHUTES R--TID BEND FEED CANAL)	0	0	0	0	0	0	1645	2276	2305	4966	6532	4593	22317		Flow Meter
2018	12563	CREO GAGE 14060000 (USE FROM CRESCENT LAKE RES)	1761	1726	1866	2336	1857	1769	1896	1867	2717	6595	6680	4803	35872		Flume
2018	16598	TUMALO CR #1/TUMALO FEED CANAL)	831	212	16	35	200	260	3282	966	3676	2516	1757	809	14561		Flow Meter
2018	16630	DCMO (DESCHUTES R--TID BEND FEED CANAL)	0	0	0	0	0	0	263	582	565	584	584	528	3106		Flow Meter
2017	12563	CREO GAGE 14060000 (USE FROM CRESCENT LAKE RES)	2176	1731	1525	1384	1222	1654	1866	1720	1549	3995	5459	3921	28202		Flume
2017	16598	TUMALO CR #1/TUMALO FEED CANAL)	0	1143	60	0	283	0	1686	6320	6037	4944	3083	2075	25631		Flow Meter
2017	16630	DCMO (DESCHUTES R--TID BEND FEED CANAL)	0	0	0	0	0	0	226	486	453	555	584	565	2869		Flow Meter
2016	12563	CREO GAGE 14060000 (USE FROM CRESCENT LAKE RES)	1737	1626	1699	1583	1648	1818	1763	1863	1823	1722	6167	5875	29325	8110	Flume
2016	16598	TUMALO CR #1/TUMALO FEED CANAL)	25	578	0	315	0	0	1516	193	2293	3442	2849	180	11390		Flow Meter
2016	16630	DCMO (DESCHUTES R--TID BEND FEED CANAL)	2	0	0	0	0	0	218	542	565	584	584	226	2721	8110	Flow Meter
2015	12563	CREO GAGE 14060000 (USE FROM CRESCENT LAKE RES)	4777	748	981	1094	1428	1928	1927	1739	2483	8622	7730	6389	39845	8110	Flume
2015	16598	TUMALO CR #1/TUMALO FEED CANAL)	1380	1143	257	1111	260	420	2743	5194	4316	2943	2188	2113	24068		Weir or Flume measurement of flow rate x time
2015	16630	DCMO (DESCHUTES R--TID BEND FEED CANAL)	283	0	0	0	0	0	268	584	565	584	584	565	3433	8110	Flow Meter

Attachment D
Conserved Water Policy

Conserved Water Application – Tumalo Irrigation District

TUMALO IRRIGATION DISTRICT

11/18/2019

Dear TID patron,

In accordance with the District's Water Conservation Policy, TID would like to notify you of our next Conserved Water application. As you are aware, TID has been chronically short of water due to issues such as over allocation of Tumalo Creek in the early nineteen-hundreds, drought, endangered species, and the inefficiencies of an open canal-based system. As such, among other programs, TID has been aggressively piping our canals since 1997 and placing the seepage loss instream.

As per our District Water Conservation Policy "G" (enclosed), when we start a new group of piping projects, we will first offer the District patrons an opportunity to purchase part of the conserved water before it is placed in stream.

An estimate of the costs of the conserved water for this group of laterals is complete and works out to roughly $14,000 per acre of water right. Final costs will be determined after the project is complete and the rights are created (please see enclosed policy).

If you would like to purchase a water right, available in late 2022 or there about, you have thirty days from the date this notice is placed in the mail to notify the District in writing, and to include a payment of $14,000 per acre desired. Transfer costs will be charged at the time of the transfer.

If you have any questions, please contact the District office.

Sincerely,

Kenneth B. Rieck
Manager/Secretary

64697 Cook Ave, Bend, OR 97703 | (541) 382-3053 | Email: staff@tumalo.org

G. WATER CONSERVATION POLICY

Policy regarding conserved water allocations pursuant to ORS 537.455 to 537.500
This policy is adopted pursuant to Oregon Administrative Rule 690-018-0025.

1. Water conserved through conservation measures for which no new water rights are sought shall be used to reduce the District's demand on Crescent Lake supplemental water. This conserved water will be allocated between District patrons proportionate to each patron's share of water rights.

2. Water conserved through conservation measures for which new water rights are sought, shall be allocated as follows:
A minimum of 25% to instream use with the balance allocated proportional based on financial contribution to the Conservation measure. If there are public monies contributed, the percent of instream water allocated for the public benefit shall include the 25% instream allocation required under the Conserved Water Statutes, ORS 537.455 to 537.500.

3. When the district adopts a water conservation project providing for conserved water, notice of the project and its adoption shall be given to all district patrons. The notice to the patrons shall indicate the project's estimated cost per irrigated acre and allow the patrons thirty days from the date the notice is placed in the mail, postage pre-paid, for first class mail, to elect to fund their prorata share of the project and receive their prorata share of conserved water less any state mandated instream percentage of the conserved water. Notification to the District by the patron of the patron's election to fund their prorata share of the water conservation project, shall be in writing and shall include a check to cover the costs estimated for the district patron's prorata share of the project. If the project estimates are high then patron will upon completion of the project receive a refund. If the project estimate is low the patron will upon completion of the project pay the increased prorata costs.

4. District patrons shall have period of 60 days from the date of the adoption of this policy to petition for a vote by all district patrons on this policy. The petition for a vote shall be governed by the applicable statutes governing elections or recalls in the district.

5. District patrons shall have a period of 30 days from the date a conservation project is adopted by the Board of Directors within which to file a notice of an appeal requesting review by the Board of Directors for failure to follow this policy of the District in adopting the conservation project.

6. This policy shall be reviewed and updated by the Board of Directors of the district at least once every five years.

(a) Review/changes - December meeting
(b) Notice - January Newsletter
(c) Hearing February
(d) Hearing/Adoption March

*Reviewed by the Board December 14, 2010 and October 13, 2015. No changes were made.

Attachment E
TID Watershed Plan Notifications
Conserved Water Application – Tumalo Irrigation District

Farmers Conservation Alliance
11 Third Street, Suite 101
Hood River, Oregon 97031
(541) 716-6085

Public and Interagency Meeting

Thursday, July 6th, 2017
5:30 – 6:30 PM
Tumalo Community Church
64671 Bruce Avenue, Bend, OR 97701

Tumalo Irrigation District Irrigation Modernization Project

Purpose: To inform the community of the proposed Tumalo Irrigation District Irrigation Modernization Project to conserve water, improve fish habitat and enable in-conduit hydroelectric power generation; and to gather community comments on the proposed project.

Project Sponsor
Deschutes Basin Board of Control (DBBC)

Based on a
Preliminary Investigative Report (PIR)
prepared by Farmers Conservation Alliance
in cooperation with the Natural Resources Conservation Service (NRCS)
11 Third Street, Suite 101
Hood River, Oregon 97031
(541) 716-6085

Proposed Agenda

I. Welcome
II. Introduction: Description, Goal, and Objectives of the proposed Irrigation Modernization Project
III. Spotted Frog Issues and Opportunities in the Upper Deschutes Watershed
IV. Project Costs, Benefits, and Effects
V. Contributions and Responsibilities of the USDA-NRCS, Sponsors, and Agricultural Landowners
VI. Discussion, Questions, and Answers

Presenters

Tom Makowski, Natural Resources Conservation Service
Ken Rieck, Manager, Tumalo Irrigation District
Margi Hoffmann, Farmers Conservation Alliance
Bridget Moran, United States Fish and Wildlife Service

Farmers Conservation Alliance
11 Third Street, Suite 101
Hood River, Oregon 97031
(541) 716-6085

Tumalo Irrigation District Irrigation Modernization Project

Project Goal

The goal of the proposed project is to conserve water and improve Oregon Spotted Frog and fishery habitat in the Upper Deschutes Watershed while improving the economic sustainability of agriculture in the Deschutes Basin. This plan will help the agricultural community meet the requirements under the Clean Water Act and the Endangered Species Act.

Sponsors and Other Stakeholders

The project sponsors are the Deschutes Basin Board of Control (DBBC) and the Tumalo Irrigation District (TID), in cooperation with the Natural Resources Conservation Service (NRCS) and Farmers Conservation Alliance (FCA). Other stakeholders include:

- United States Fish and Wildlife Service
- National Oceanic and Atmospheric Administration Fisheries
- United States Army Corps of Engineers
- United State Bureau of Land Management
- United States Department of Agriculture, United States Forest Service, Deschutes National Forest
- Oregon Department of Fish and Wildlife
- Oregon Water Resources Department
- State Historic Preservation Office
- Oregon Department of Environmental Quality
- Oregon Department of Agriculture
- Oregon Department of State Lands
- City of Bend
- Bend Parks and Recreation
- Deschutes County
- Oregon Department of Fish and Wildlife
- Oregon Water Resources Department
- Confederated Tribes of the Warm Springs
- Deschutes River Conservancy
- Water Watch
- Trout Unlimited
- Coalition for the Deschutes
- Central Oregon Land Watch
- Interested Public

Location

- Deschutes, Jefferson and Klamath Counties

Farmers Conservation Alliance
11 Third Street, Suite 101
Hood River, Oregon 97031
(541) 716-6085

- 2nd Congressional District
- Hydrologic Units: Tumalo Creek and Deschutes River (17070301)

Resource Concerns

The sponsors have identified the following resource concerns:

- Reduced habitat associated with low stream flows
- Inefficient irrigation water delivery and on-farm irrigation water management leading to low drought tolerance.
- Risk of open canals to human health and safety
- Poor water quality, elevated stream temperatures
- Inefficient energy conservation
- Economic instability of agricultural lands

Project Facts

- The project area is the TID system within the Upper Deschutes watershed, irrigating approximately 7,417 acres using two primary diversions, one on the Deschutes River and one on Tumalo Creek.
- Water is delivered mostly through a series of open canals and on-farm ditches, losing 40 to 60% to seepage and evaporation.
- TID is struggling to deliver sufficient flows to its members due to an inefficient and outdated infrastructure, along with new environmental demands and drought.
- Water for the TID is diverted from the Deschutes River and Tumalo Creek, which experience low flows that diminish water and habitat quality throughout the Deschutes River.
- The project area is important for providing habitat for the Oregon Spotted Frog, an Endangered Species Act (ESA) listed species.

Project Measures

- Funding will be requested from the USDA-NRCS Small Watershed Program (PL-566) and other sources to replace 2.5 miles of open canal with 84-inch diameter pipeline and over 67 miles of open laterals with 60-inch and smaller diameter pipe with pressurized high-density polyurethane (HDPE) pipe.
- TID is currently working under CW-37 (Conserved Water Agreement #37) for the remaining Tumalo Feed Canal which consists of 2.5 miles of 84-inch diameter pipe and 1.25 miles of 60-inch diameter pipe and places all of the conserved water in-stream.
- New Conserved Water Agreements will be made with the State of Oregon placing water instream for the remaining conserved water as funding is obtained.
- The USDA-NRCS Environmental Quality Incentive Program (EQIP) will be used to provide on-farm efficiency upgrades.

Project Benefits and Costs

Direct Project Benefits Include:

Farmers Conservation Alliance
11 Third Street, Suite 101
Hood River, Oregon 97031
(541) 716-6085

- Fully enclosing the District delivery system in pipe will allow for the pressurization of deliveries which will reduce or eliminate the need for pumping depending on the District members location
- Eliminate seepage and evaporation losses from the open canals of up to 50 cubic foot per second (CFS)
- Conserved water, (new water rights created under Oregon's Conserved Water Program) created from the elimination of seepage is placed instream thereby, enhancing stream flow in Tumalo Creek and the Deschutes River.
- More instream flow in Tumalo Creek in the summer will lower stream temperatures and targeted winter flow increases in Crescent Creek will improve available habitat for the Oregon Spotted Frog and other aquatic species.

Total cost for the installation of HDPE pipe is estimated to be $50,000,000. The District has currently secured $2,600,000 in grant funding.

- $5,000,000 from PL-566
- $1,300,000 Oregon Water Resources Department
- $1,000,000 Bureau of Reclamation WaterSmart
- $2,000,000 Oregon Department of Environmental Quality Clean Water State Revolving Loan Fund (pending)
- $750,000 Oregon Watershed Enhancement Board (pending)
- $200,000 In-kind services from TID

Attachment F
Allocation of Conserved Water Tables 1 through 4

Conserved Water Application – Tumalo Irrigation District

Table 1: Pre-Project water right (Certificate 74146) and system capacity.

PRE-PROJECT DESCRIPTION										
			Column A Water Right of Record				Column B System Capacity			
			Rate		Duty		Rate		Duty	
Originating Water Right #	Priority	Acres	Maximum[1]	CFS/AC	Maximum	AF/AC[2]	Maximum	CFS/AC	Maximum	AF/AC
74146	8/5/1900	407.60	4.778	1/70		1.8	224	0.04	95,080	18.97
	9/30/1900	3,265.85	33.506	1/70		1.8				
	4/28/1905	301.60	3.536	1/70		1.8				
	5/27/1907	43.20	0.495	1/70		1.8				
	6/1/1907	992.65	11.636	1/70		1.8				
Totals (74146)		5,010.90	53.951	1/70		1.8	224	0.04	95,080	18.97

[1] Maximum rate after completion of CW-9 and CW-37.

[2] At or within one-half mile of the land to be irrigated, for each acre irrigate during the irrigation season of each year.

Table 1: Pre-Project water right (Certificate 74147) and system capacity.

PRE-PROJECT DESCRIPTION										
			Column A Water Right of Record				Column B System Capacity			
			Rate		Duty		Rate		Duty	
Originating Water Right #	Priority	Acres	Maximum	CFS/AC	Maximum	AF/AC	Maximum	CFS/AC	Maximum	AF/AC
74147[3]	10/29/1913	1,573.93	48.578	1/32.4	15,597.65	9.91				
	10/29/1913	5,010.90	154.657	1/32.4	49,658.02	9.91				
Totals (74147)		6,584.83	203.235	1/32.4	65,255.67	9.91	224	0.03	95079.62	14.44

[3] Certificate 74147 has 1,573.93 acres of primary irrigation and 5,010.90 acres supplemental to Certificate 74146.

Table 1: Pre-Project water right (Certificate 74148) and system capacity.

PRE-PROJECT DESCRIPTION										
			Column A Water Right of Record				Column B System Capacity			
			Rate		Duty		Rate		Duty	
Originating Water Right #	Priority	Acres	Maximum	CFS/AC	Maximum	AF/AC	Maximum	CFS/AC	Maximum	AF/AC
74148	4/7/1911	6,575.97	N/A	N/A	65,167.86	9.91	175.00	0.03	74280.95	11.30
Totals (74148)		6,575.97	N/A	N/A	65,167.86	9.91	175.00	0.03	74280.95	11.30

Table 2: Pre-Project water right (Certificate 74146) and system capacity.

CONSERVED WATER DESCRIPTION													
			Column A Table 1 - Smaller of A or B				Column B Needed				Column C Conserved Water		
			Rate		Duty		Rate		Duty		Rate	Duty	
Originating Water Right #	Priority	Acres	Maximum[1]	CFS/AC	Maximum	AF/AC[2]	Maximum	CFS/AC	Maximum	AF/AC	Maximum CFS	Maximum AF	AF/AC
74146	8/5/1900	407.60	4.778	1/70		1.8	N/A				0.217	66.07	0.162
	9/30/1900	3,265.85	33.506	1/70		1.8					1.524	463.72	0.142
	4/28/1905	301.60	3.536	1/70		1.8					0.159	48.46	0.161
	5/27/1907	43.20	0.495	1/70		1.8					0.023	6.90	0.160
	6/1/1907	992.65	11.636	1/70		1.8					0.531	161.43	0.163
Totals (74146)		5,010.90	53.951	1/70		1.8					2.454	746.6	0.162

Table 2: Pre-Project water right (Certificate 74147) and system capacity.

CONSERVED WATER DESCRIPTION													
			Column A Water Right of Record				Column B Needed				Column C Conserved Water		
			Rate		Duty		Rate		Duty		Rate	Duty	
Originating Water Right #	Priority	Acres	Maximum	CFS/AC	Maximum	AF/AC	Maximum	CFS/AC	Maximum	AF/AC	Maximum CFS	Maximum AF	AF/AC
74147	10/29/1913	1,573.93	48.58	1/32.4	15,597.65	9.91	N/A				3.865	625.29	0.095
	10/29/1913	5,010.90	154.66	1/32.4	49,658.02	9.91							
Totals (74147)		6,584.83	203.24	1/32.4	65,255.67	9.91					3.865	625.29	0.095

Table 2: Pre-Project water right (Certificate 74148) and system capacity.

CONSERVED WATER DESCRIPTION													
			Column A Water Right of Record				Column B Needed				Column C Conserved Water		
			Rate		Duty		Rate		Duty		Rate	Duty	
Originating Water Right #	Priority	Acres	Maximum	CFS/AC	Maximum	AF/AC	Maximum	CFS/AC	Maximum	AF/AC	Maximum CFS	Maximum AF	AF/AC
74148	4/7/1911	6,575.97	N/A	N/A	65,167.86	9.91	N/A				N/A	1216.56	0.185
Totals (74148)		6,575.97	N/A	N/A	65,167.86	9.91					N/A	1216.56	0.185

Table 3: Allocation of Conserved Water (74146).

Conserved Water Allocation											
			Column A			Column B			Column C		
			State's Portion			Applicant's Portion			Conserved Water		
Originating Water Right #	Priority	Acres	Percentage*	Maximum Rate	Maximum Duty (Volume)	Percentage	Maximum Rate	Maximum Duty (Volume)	Percentage	Maximum Rate	Maximum Duty (Volume)
74146	8/5/1900	407.60	100%	0.217	66.07	0%	0	0	100%	0.217	66.07
	9/30/1900	3,265.85	100%	1.524	463.72	0%	0	0	100%	1.524	463.72
	4/28/1905	301.60	100%	0.159	48.46	0%	0	0	100%	0.159	48.46
	5/27/1907	43.20	100%	0.023	6.90	0%	0	0	100%	0.023	6.90
	6/1/1907	992.65	100%	0.531	161.43	0%	0	0	100%	0.531	161.43
Totals (74146)		5,010.90	100%	2.454	746.58	0%	0	0	100%	2.454	746.58

Table 3: Allocation of Conserved Water (74147).

Conserved Water Allocation											
			Column A			Column B			Column C		
			State's Portion			Applicant's Portion			Conserved Water		
Originating Water Right #	Priority	Acres	Percentage*	Maximum Rate	Maximum Duty (Volume)	Percentage	Maximum Rate	Maximum Duty (Volume)	Percentage	Maximum Rate	Maximum Duty (Volume)
74147	10/29/1913	6,575.97	100%	3.865	625.29	0%	0	0	100%	3.865	625.29
Totals (74147)		6,575.97	100%	3.865	625.29	0%	0	0	100%	3.865	625.29

Table 3: Allocation of Conserved Water (74148).

Conserved Water Allocation											
			Column A			Column B			Column C		
			State's Portion			Applicant's Portion			Conserved Water		
Originating Water Right #	Priority	Acres	Percentage*	Maximum Rate	Maximum Duty (Volume)	Percentage	Maximum Rate	Maximum Duty (Volume)	Percentage	Maximum Rate	Maximum Duty (Volume)
74148	4/7/1911	6,575.97	100%	N/A	1216.56	0%	0	0.0	100%	N/A	1216.56
Totals (74148)		6,575.97	100%	N/A	1216.56	0%	0	0	100%	N/A	1216.56

Table 4. Allocation of Conserved Water in Tumalo Creek by Certificate, Time Period, and Priority Date

TUMALO CREEK

Originating Certificate	Priority	Date														Duty (AF)	Maximum
		4/1 4/14	4/15 4/30	5/1 5/15	5/16 5/31	6/1 6/15	6/16 6/30	7/1 7/15	7/16 7/31	8/1 8/15	8/16 8/31	9/1 9/15	9/16 9/30	10/1 10/15	10/16 10/31		
74146	8/5/1900		0.173	0.217	0.217	0.217	0.217	0.217	0.217	0.169	0.148	0.141	0.135	0.102		66.1	0.217
	9/30/1900		1.212	1.524	1.524	1.524	1.524	1.524	1.524	1.184	1.040	0.988	0.948	0.716		463.7	1.524
	4/28/1905		0.127	0.159	0.159	0.159	0.159	0.159	0.159	0.124	0.109	0.103	0.099	0.075		48.5	0.159
	5/27/1907		0.018	0.023	0.023	0.023	0.023	0.023	0.023	0.018	0.015	0.015	0.014	0.011		6.9	0.023
	6/1/1907		0.422	0.531	0.531	0.531	0.531	0.531	0.531	0.412	0.362	0.344	0.330	0.249		161.4	0.531
Total (74146)		**0.000**	**1.951**	**2.454**	**2.454**	**2.454**	**2.454**	**2.454**	**2.454**	**1.906**	**1.675**	**1.591**	**1.526**	**1.153**	**0.000**	**746.6**	

Originating Certificate	Priority	Date														Duty (AF)	Maximum
		4/1 4/14	4/15 4/30	5/1 5/15	5/16 5/31	6/1 6/15	6/16 6/30	7/1 7/15	7/16 7/31	8/1 8/15	8/16 8/31	9/1 9/15	9/16 9/30	10/1 10/15	10/16 10/31		
74147	10/29/1913	1.301	0.613	1.397	3.169	3.865	3.358	2.136	0.924	0.599	0.526	0.500	0.479	0.362	1.430	625.3	3.865
Total (74146 and 74147)		**1.301**	**2.564**	**3.851**	**5.623**	**6.319**	**5.812**	**4.590**	**3.378**	**2.504**	**2.201**	**2.090**	**2.005**	**1.515**	**1.430**	**1371.9**	