



OREGON WATER RESOURCES DEPARTMENT WATER SUPPLY DEVELOPMENT ACCOUNT LOAN AND GRANT APPLICATION

I. Project Information

Project Name: Dog River Pipeline Replacement Project

Type of Project: Water Transmission Pipeline Construction Check box if project type includes storage

Funding Request Type: Loan Grant

Funding Amount Requested: \$ 4,000,000 Total cost of project: \$ \$8,097,700

Note: Grant funding requests must demonstrate cost match of at least 25% of total project cost. This may include in-kind.

II. Applicant Information

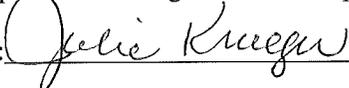
Principal Contact: Dave Anderson	Fiscal Officer: Kate Mast
Address: <u>1215 W 1st Street</u> <u>The Dalles, OR 97058</u>	Address: <u>313 Court Street</u> <u>The Dalles, OR 97058</u>
Phone: <u>541-506-2008</u> Fax: <u>541-296-4346</u>	Phone: <u>541-506-2030</u> Fax: <u>541-298-5107</u>
Email: <u>danderson@ci.the-dalles.or.us</u>	Email: <u>kmast@ci.the-dalles.or.us</u>

Involved Landowner 1: US Forest Service - Attn Kameron Sam	Involved Landowner 2:
Address: <u>780 NE Court St</u> <u>Dufur, OR 97021</u>	Address:
Phone: <u>541-467-5101</u> Fax: <u>541-467-2271</u>	Phone: Fax:
Email: <u>kcsam@fs.fed.us</u>	Email:

**Please include a supplementary document that lists all additional involved landowners if applicable.*

Certification:

I certify that this application is a true and accurate representation of the proposed project work and that I am authorized to sign as the Applicant or Co-Applicant. By the following signature, the Applicant certifies that they are aware of the requirements of an Oregon Water Resources Department funding award and are prepared to implement the project if awarded.

Applicant Signature:  Date: 1/8/16

Print Name: Julie Krueger Title/Organization: Interim City Manager, City of The Dalles

III. Project Summary

Please provide a description of the need, purpose and nature of the project. Include what the applicant intends to complete and how the applicant intends to proceed.

The Dog River Pipeline is a 3.5 mile long, 100+ year old wood-stave water transmission pipeline through which an inter-basin transfer of water, from Dog River to South Fork Mill Creek, occurs as part of the City of The Dalles water system. It currently carries 54% of the City's annual municipal water supply. The pipeline is deteriorated, leaking, and at risk of catastrophic failure. The project will replace the aged wooden pipeline with a ductile iron pipe; ductile iron has been selected over other potential materials due to constructibility issues (narrow construction corridor requiring transport and installation of shorter pipe sections) and durability in freezing conditions. It is anticipated that the new

pipeline will have a service life of 100 years. The pipeline is located on US Forest Service property through a Special Use Permit. Through the project, the capacity of the pipeline will be increased from 8 million gallons per day (MGD) to 17 MGD to meet future municipal water demands. Water metering systems used to measure the amount of water diverted from Dog River for municipal uses will also be improved as part of the project.

The project will voluntarily (since not required by state or federal regulations) install fish screens on the pipeline intake and (likely) upstream fish passage structures where none currently exist in Dog River. Both screening and passage systems will be constructed, installed and operated consistent with ODFW guidance.

The project is currently undergoing an Environmental Analysis by the US Forest Service to comply with NEPA regulations. A NEPA decision is expected in 2016. Once a decision is issued, an RFP will be advertised and the final detailed design engineering for the project will be contractually completed.

Construction of the project will involve the logging of the pipeline construction corridor and construction of the new pipeline along the same alignment as the existing wooden pipe. Revenues from the logging will go to the Forest Service as owner of the property and timber; the City will pay the contracted logging costs. Temporary surface piping will be used to continue to transport water during the construction periods when the existing wooden pipe will be out of service. An arch culvert will be installed on an unimproved Forest Service road where vehicles currently ford a small creek and are causing stream damage and increased stream turbidity; the culvert will remain as a permanent improvement that will benefit the stream system. Staging areas will be constructed to store project materials as approved by the Forest Service. The project will excavate a trench along the route of the existing pipeline and the new pipeline will be buried and bedded consistent with current engineering standards.

It is possible that the project will require two construction seasons to complete since work may be restricted from spring and early summer periods to protect northern spotted owl nesting periods; this will be determined through the NEPA process.

IV. Project Specifics

Instructions: Answer all questions in this section by typing the answer below the question, using additional space as needed.

- 1. Describe how the project will provide public benefits in each of the three public benefit categories.** Project applications will be scored and ranked based on the economic, environmental and social/cultural public benefits identified below. Describe the conditions prior to and after project implementation to demonstrate changes resulting from the project. Descriptions should be quantitative when possible. Information provided must be sufficient to allow evaluation of the public benefits of the project. **Please see the Public Benefit and Evaluation Guidance document for a description of how public benefits will be evaluated.** Applications that do not demonstrate public benefit in each of the three categories (economic, environmental, social/cultural) will be deemed incomplete. Leave blank any categories that are not applicable to project.

Economic Benefits ORS 541.673(2)

(a) Job creation or retention:

The project will retain at least 130 higher-wage (over 150% of County average wage) jobs in the City at existing industrial facilities for which uninterrupted water supply is critical. It will also, in part, support the development of an additional 280 acres of industrial property creating an estimated 200-500 jobs. It will create an estimated 15 prevailing-wage jobs directly related to the pipeline construction lasting over two summer/fall construction seasons. Taken together, this is very significant job creation and retention for a community with a population of 14,515.

(b) Increases in economic activity:

The pipeline will have a service life of 100 years and will be sized to accommodate the City's future water supply needs. As such, the project will support long-term increases in economic activity as it is the second of a four-phase water supply strategy to reliably meet current and anticipated future water demands. Without this project, existing municipal water supplies are at risk (from pipeline failure) and there would be no opportunity to meet future additional water demands as inactive industrial lands redevelop with potential to create 200-500 new jobs.

(c) Increases in efficiency or innovation:

The project will eliminate several days of labor spent each year plugging leaks in the existing pipeline. Ultimately, being able to divert more water at peak flows from Dog River will enhance the capacities of the surface water system, which is gravity operated, and reduce electric-powered pumping from ground water sources which are located in a designated Critical Groundwater Area. The current deteriorated wooden pipeline experiences significant leakage, estimated at as much as 15% (1 million gallons per day) at high flows. The project will eliminate this leakage and, since only the amount needed for municipal uses is diverted from Dog River into the pipeline, allow more water to remain in stream for habitat needs in Dog River and East Fork Hood River.

(d) Enhancement of infrastructure, farmland, public resource lands, industrial lands, commercial lands or lands having other key uses:

The project will greatly enhance the value and integrity, and therefore reliability, of a critical portion of the City's water system infrastructure... one that carries over half of the City's annual water supply. Annually, the City supplies about 1.2 billion gallons of potable water to the community for residential, commercial and industrial uses. The project will increase the value of available industrial lands by providing a water supply adequate to support development of currently vacant properties.

(e) Enhanced economic value associated with tourism or recreational or commercial fishing, with fisheries involving native fish of cultural significance to Indian tribes or with other economic values resulting from restoring or protecting water instream:

It is anticipated that there will be benefits to recreational fishing and/or native fish of cultural significance in the East Fork Hood River/Hood River system as water that is currently being diverted and leaking from the existing pipeline could remain instream, and the provision of fish screening and passage systems will make a meaningful contribution to protect fish populations in those stream systems.

(f) Increases in irrigated land for agriculture:
None.

Environmental Benefits ORS 541.673(3)

(a) A measurable improvement in protected streamflows that accomplishes one or more of the following:

- (A) Supports the natural hydrograph;
- (B) Improves floodplain function;
- (C) Supports state- or federally-listed sensitive, threatened or endangered fish species;
- (D) Supports native fish species of cultural importance to Indian tribes; or
- (E) Supports riparian habitat important for wildlife:

As previously mentioned, more of the natural hydrograph for the lower Dog River/East Fork Hood River/Hood River system would be realized since water that is currently being diverted and leaking from the existing pipeline could remain instream. Also, as the subsequent phases of the City's future water supply strategy are implemented, flows in South Fork Mill Creek which are augmented by the water diverted from Dog River would increase even further in the summer season. Mill Creek supports one of the easternmost runs of indigenous winter steelhead trout, a species listed as "Threatened", in the Columbia River Basin and the best spawning/rearing habitat in the Mill Creek System is the segment that receives flows augmented by this project.

(b) A measurable improvement in groundwater levels that enhances environmental conditions in groundwater restricted areas or other areas:

The existence of the current pipeline and its replacement that is to be constructed with this project allow the City to predominantly (90+%) utilize surface water to meet its municipal water demands. The City utilizes groundwater to supplement the surface water supplies. Groundwater sources are inadequate to meet the full needs of the City and are located in a state-designated Critical Groundwater Area. Completion of this project, in conjunction with the final two phases of the City's Water Supply Strategy (those being an enhancement of Crow Creek Dam to impound and store more water, and an expansion of the Wicks Water Treatment Plant) will reduce reliance on limited groundwater sources to supplement surface water supplies during periods of high demand. This reduced pumping should allow for an improvement in groundwater levels.

(c) A measurable improvement in the quality of surface water or groundwater:

Dog River is the source of the City's highest quality surface water. This low nutrient, clear, cold water preserves water quality and mitigates temperature increases in fish-bearing Crow Creek Reservoir, an on-stream impoundment which is also part of the City's municipal water system. Maintaining these conditions helps minimize algal blooms in the reservoir and associated organic chemicals, including cyanotoxins, which can compromise raw water quality and threaten public health. The cooling affects of the diverted Dog River water also benefit the upper portions of South Fork Mill Creek where summer and fall flow augmentation occurs. Mill Creek supports one of the easternmost runs of indigenous winter steelhead trout, a species listed as "Threatened", in the Columbia River Basin and the best spawning/rearing habitat in the Mill Creek System is in the flow-augmented segment of South Fork Mill Creek.

(d) Water conservation:

Replacing the existing leaking water transmission pipeline will reduce the amount of water loss and therefore the amount of water that must be diverted to meet municipal needs by 15% at all demand level, thereby leaving more water in the stream. Using 2014/15 data, replacement of the pipeline would conserve about 126 million gallons per year of water instream.

(e) Increased ecosystem resiliency to climate change impacts:

It is anticipated that climate change could result in less snow pack at lower elevations and lower summer stream flows. Dog River is the source of the City's highest surface water supply, with the basin topping out at 6200' elevation. As such, it will be more likely to accumulate and maintain snow pack with climate change than any of the City's other surface water sources. This will provide the greatest opportunity of any available to meet the City's water demands and augment stream flows in South Fork Mill Creek to the benefit of threatened winter steelhead trout spawning/rearing habitat during summer months, thereby significantly increasing the resiliency of both the South Fork Mill Creek stream system and the City water system to climate change.

(f) Improvements that address one or more limiting ecological factors in the project watershed:

The project will voluntarily provide for fish screening at the Dog River Pipeline inlet consistent with ODFW guidance. In addition, the project anticipates providing for seasonal upstream fish passage at the intake weir, again consistent with ODFW guidance. Both of these functions are currently lacking with the existing system. The lack of screening has been identified as a detrimental factor to resident cut throat trout in Dog River by the US Forest Service and ODFW. The Mill Creek Watershed Analysis, Appendix J, prepared by the US Forest Service in 2000, identified that the unscreened pipeline may have provided a conduit to transport cut throat trout from Dog River to South Fork Mill Creek. The attached letter from ODFW District Fish Biologist Rod French (Attachment B) summarizes the benefits to fish that would result from this project including the provision of screening and passage systems. The project will also install an arch culvert on Forest Road 1700-014, an unimproved natural surface road, at its crossing of Brooks Meadow Creek where vehicles currently ford the creek and are thereby increasing turbidity and sediment in the stream; installation of the culvert will eliminate these adverse impacts and improve instream water quality.

Social/Cultural Benefits ORS 541.673(4)

(a) The promotion of public health and safety and of local food systems:

This project will provide great benefits for the protection of public health by improving the robustness and reliability of a critical feature of the municipal water supply system; if the existing deteriorated wooden pipeline fails, the City loses access to over half of its annual water supply. In addition, Dog River is the source of the City's highest quality surface water. This low nutrient, clear, cold water preserves water quality and mitigates temperature increases in Crow Creek Reservoir, an on-stream impoundment which is also part of the City's municipal water system. Maintaining these conditions helps minimize algal blooms in the reservoir and associated organic chemicals, including cyanotoxins, which can compromise raw water quality and threaten public health.

(b) A measurable improvement in conditions for members of minority or low-income communities, economically distressed rural communities, tribal communities or other communities traditionally underrepresented in public processes:

The project will provide environmental justice communities, including low-income residents, continued access to high quality, affordable water supplies provided by the City's municipal water system. Approval of this funding request will especially benefit the lower-income residents since any grant funds awarded are monies that don't need to be provided by rate payers. The City's residential water utility rates are already 58% above average in the state (2015 LOC study) and have been increased by over 100% in the last 10 years. 2010 Census data indicates that 17% of the City's population is Hispanic and 18% is over age 65 (compared to Oregon averages of 12% and 14% respectively). The median household income in The Dalles is \$44,465 compared to a statewide average of \$50,251 (2013 data); 15% of households are below the poverty level. As can be seen, The Dalles has higher water rates being paid by a population with a higher percentage of minorities and lower incomes than state averages, therefore a greater financial burden for all residents including the environmental justice communities. Approval of this funding request will help mitigate future rate increases which directly benefits all residents, and especially the low-income community.

(c) The promotion of recreation and scenic values:

(g) River/Stream Mile (where applicable)

The Dog River diversion and pipeline intake is located at approximately RM 6.0.

3. (a) Will the project result in a physical change on private land? Yes No

If yes, attach evidence that landowners are aware of and agree to the proposal. List attachments below.

The project will impact public lands owned by the US Forest Service. The attached letter from Kameron Sam, Ranger of the Barlow Ranger District, US Forest Service confirms their knowledge of the project (Attachment A), as does the Forest Service's 2011 Public Scoping letter (Attachment C).

(b) Will the project result in monitoring on private land? Yes No

If yes, attach evidence that landowners agree to the proposal and are aware that monitoring information is public record. List attachments below.

4. Provide a project schedule, including beginning and completion dates. Use the following table as a guide. Attach a separate sheet to application if needed.

Estimated Project Duration: May 1, 2016 to November 30, 2018

Place an "X" in the appropriate column to indicate when each Key Task of the project will take place.

Project Key Tasks	2016				2017				2018 & Beyond
	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	
Receive NEPA decision from Forest Service		X							
Issue RFP for final design of project with NEPA req'ts		X	X						
Complete final engineering design of project			X	X	X				
Obtain any needed COE/DSL fill/removal permits				X	X				
Advertise for Construction Contract bids					X				
Award Construction Contract for project						X			
Install arch culvert on Brooks Meadow Cr crossing						X			
Construct staging areas						X			
Log trees from construction corridor						X	X		
Install temporary piping							X		
Construct new pipeline							X	X	X
Install fish screen/passage systems									X

5. Describe any conditions that may affect the completion of the project.

NEPA restrictions are not yet known. It is possible that construction work periods may be limited to accommodate northern spotted owl nesting periods and therefore require two construction seasons to complete the project.

6. Attach a completed feasibility analysis if one has been completed.

Copy of Alternatives Cost Analysis Technical Memorandum prepared by Brown and Caldwell Engineers is attached (Attachment I).

7. Provide suggestions for interim and long-term project performance benchmarks.

Obtain NEPA decision, award engineering design contract, complete contractual engineering design, obtain COE/DSL fill/removal permits (if needed), advertise construction project for bid, award construction contract, complete logging of construction corridor, install temporary piping, construct new pipeline, install fish screens and passage systems

8. Provide letters of support for the proposed project (list in this space and attach to application).

Letters of Support for this project and requested grant funding have been provided by the following entities and are attached (Attachment K):

US Forest Service, Barlow District Ranger Kameron Sam (Attachment A)

Oregon Department of Fish and Wildlife District Fish Biologist Rod French (Attachment B)

Attachment K:

Wasco County Commission Chair Rod Runyon

North Central Public Health District

Port of The Dalles

Mid-Columbia Economic Development District

Wasco County Economic Development Commission

North Wasco County School District No. 21

The Dalles Mainstreet

Oregon Cherry Growers

Mid-Columbia Council of Governments

Northern Wasco County People's Utility District

Mid-Columbia Medical Center President Duane Francis

Northern Wasco County Parks & Recreation District

9. Describe partnerships and collaborative efforts associated with the project.

Coordination with US Forest Service to complete NEPA processes. Coordination with ODFW on fish screening and passage systems.

10. Consultations/communications with affected Indian tribes and with the Legislative Commission on Indian Services regarding the project.

Has the Legislative Commission on Indian Services been contacted to identify tribes affected by the project?

Yes No

Please provide correspondence as an attachment to this application.

Has there been consultation/communications with affected Indian tribes?

Yes No

Please provide a description of consultation/communication that occurred and attach documents to this application if applicable.

The NEPA process for this project included a Cultural Resources Evaluation conducted by the US Forest Service. Public Scoping is being done for a second time by the Forest Service that provides an opportunity for any interested party to comment on the project.

11. Provide a description of:

(a) Required local, state and/or federal permits and/or authorizations for project implementation that have been secured to date. Please attach secured permits/authorizations to the application.

Oregon Certificate of Water Right Application No. 14954 (Attachment J)

(b) Required local, state and/or federal permits and/or authorizations that will be secured in the future to implement the project. Describe efforts to date in securing these permits and/or authorizations.

Environmental Analysis and NEPA decision from US Forest Service; fill/removal permit from COE/DSL if needed.

12. Provide any additional supplemental materials to demonstrate ability to implement the project. Examples include project plans and specifications, engineering details and water availability analysis. List documents in this space and attach to application.

A water availability analysis was completed by CH2M Hill engineers as part of the City's 2006 Water Master Plan. The analysis was done for both 50% and 90% exceedances for Dog River (called Dog Creek on the tables); the results are presented in Appendix A of the Water Master Plan (Attachment H).

V. Storage Project Requirements (if not a storage project continue to Section VI)

For any storage project please contact Water Resources Grant Administrator, Jon Unger, at (503) 986-0869 prior to completing the application.

13. Storage Project Type: Above Ground Below Ground

14. If above-ground storage, would the proposed storage project be located in-channel?

Yes No N/A

15. Identify the capacity in acre-feet of the proposed storage project.

16. Has a water right application been filed for the proposed storage project?

Application not yet made.

Water right application made; permit not yet issued Application #

Permit issued.

Application #

Permit #

For Questions 17 & 18 answer the following:

(a) Does the proposed storage project impound surface water on a perennial stream?

Yes No Uncertain

(b) Does the proposed storage project divert water from a stream that supports state- or federally-listed sensitive, threatened or endangered fish species?

Yes No Uncertain

(c) Does the proposed storage project divert more than 500 acre-feet of water annually?

Yes No

17. Water Dedicated Instream N/A

For above ground storage projects seeking grant funding: If you answered “yes” to any of the questions posed in a-c above a minimum volume of water equal to at least 25% of the stored water must be dedicated to instream use.

Identify percentage of stored water to be dedicated to instream use.

 %

Note: Any storage project dedicating 25% of stored water to instream use will automatically receive a median score in the environmental public benefit category with the opportunity to demonstrate additional environmental benefit to increase the score.

18. Seasonally Varying Flow Prescription

For all storage projects: If you answered “yes” to any of the questions posed in a-c above the project will need a **Seasonally Varying Flow (SVF) Prescription**, determining the duration, timing, frequency and volume of flows (including ecological baseflow), necessary for protection and maintenance of biological, ecological, and physical functions outside of the official irrigation season. The initial step in defining the SVF for the project is to schedule an SVF meeting with OWRD. For assistance and more information please contact Water Resources Grant Administrator Jon Unger at (503) 986-0869.

Identify whether the storage project will need a Seasonally Varying Flow Prescription.

Yes No Uncertain

VI. Environmental Public Benefit for Conservation Projects Dedicating Water Instream (if not a conservation project continue to Section VII)

19. Identify percentage of conserved water to be dedicated to instream use. N/A

%

Note: Any project that conserves water and dedicates at least 25% of the conserved water quantity to instream use will automatically receive a median score in the environmental public benefit category with the opportunity to demonstrate additional environmental benefit to increase the score. Water dedicated to instream use must be permanently placed instream and protected by the Oregon Water Resources Department.

VII. Financial Information

For Loan Applicants – Since loan applications do not require cost match, loan applicants who do not offer a cost match need not complete Section A and can disregard the match funding columns in Sections B and C. Budget and costs of key tasks must be identified in sections B & C. Loan applicants will be required to provide additional financial information related to their ability to repay the loan. This request for information will take place after the scoring and ranking process for those projects that are recommended for funding.

For Grant Applicants – Complete Sections A, B and C.

Section A – Cost Match Information

Applicants must demonstrate a minimum 25% funding match based on the total project cost. The match may include: a) applicant funds or secured funding commitment from other sources; b) pending funding commitment from other sources; and/or c) the value of in-kind labor, equipment rental, and materials essential to the project. For secured funding, the applicant must attach a funding award letter from the match funding source that specifically mentions the dollar amount shown in the “Amount/Dollar Value” column. For pending resources, documentation showing a request for the matching funds must accompany the application. Funds expended prior to grant agreement are not reimbursable nor do they qualify for cost match without prior authorization by the Department.

<p>In the Type column below matching funds may include:</p>	<p>In the Status column below matching funds may have the following status:</p>
<ul style="list-style-type: none"> • Cash - Cash is direct expenditures made in support of the feasibility study by the applicant or partner*. 	<ul style="list-style-type: none"> • Secured - Funding commitments already secured from other sources.
<ul style="list-style-type: none"> • In-Kind - The value of in-kind labor, equipment rental and materials essential to the feasibility study provided by the applicant or partner. 	<ul style="list-style-type: none"> • Pending - Pending commitments of funding from other sources. In such instances, Department funding will not be released prior to securing a commitment of the funds from other sources. Pending commitments of the funding must be secured within 12 months from the date of the award.

* “Partner” means a non-governmental or governmental person or entity that has committed funding, expertise, materials, labor, or other assistance to a proposed project planning study. OAR 690-600-0010.

<p>Match Funding Source (if in-kind, briefly describe the nature of the contribution)</p>	<p>Type (✓ One)</p>	<p>Status (✓ One)</p>	<p>Amount/ Dollar Value</p>	<p>Date Match Funds Available (Month/Year)</p>
<p><i>City water utility rate revenue</i></p>	<input checked="" type="checkbox"/> cash <input type="checkbox"/> in-kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> pending	<p>\$2,476,295</p>	<p>June 16</p>
<p><i>City water utility rate revenue & System Development Charges</i></p>	<input checked="" type="checkbox"/> cash <input type="checkbox"/> in-kind	<input type="checkbox"/> secured <input checked="" type="checkbox"/> pending	<p>\$1,617,973</p>	<p>June 16</p>
	<input type="checkbox"/> cash <input type="checkbox"/> in-kind	<input type="checkbox"/> secured <input type="checkbox"/> pending		
	<input type="checkbox"/> cash <input type="checkbox"/> in-kind	<input type="checkbox"/> secured <input type="checkbox"/> pending		
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