CITY OF ASHLAND

Ashland Canal Piping Project
Frequently Asked Questions

What is the Ashland Canal Piping Project?
The project entails piping approximately two miles of the Ashland Canal to improve the water quality of Ashland Creek, (the outlet of the Ashland Canal) and minimize losses through seepage and evaporation. The open-channel irrigation canal will be replaced with a below-ground pipe to meet the city's goal for overall water conservation and improved water quality.

Where is the project located?
The piping will take place along approximately two miles of the Ashland Canal from Starlite Place to Terrace Street. View

Why is the project being proposed?
The City of Ashland places priority on improving water quality, water conservation and water system efficiencies.

Raw water in an open canal, like Ashland Canal, is vulnerable to contamination from a variety of sources. These contaminants require additional treatment at our Water Treatment Plant and reduce the water quality of Ashland Creek. Additionally, open canals are susceptible to water losses through seepage and evaporation. Ashland Creek routinely exceeds the State's maximums for E. coli bacteria in the summer months.

In addition to improving water quality, conservation efforts will help Ashland to manage its water resources for the future. The city loses approximately 30 percent of the canal water due to evaporation and seepage. Piped canals mitigate these losses and conserve a significant portion of this water.

What is the purpose of the Ashland Canal?
The Ashland Canal is a regular source of seasonal irrigation water around the city. The Canal has also been infrequently used as a raw water source for the Water Treatment Plant (WTP). It was most recently used in 2015 due to dropping water levels in Reeder Reservoir.

The city has a contract with the Talent Irrigation District (TID) for approximately 1,369-acre feet of water annually. The front section of the Canal terminates in the wet well of the Terrace Street Pump Station. From there the city can: 1) Choose to pump to the Water Treatment Plant for potable water treatment, 2) Gravity feed into a Siphon that conveys the water across the Ashland Creek drainage to the back section of the Canal, or 3) Gravity overflow through a pipe into Ashland Creek at Lithia Park.

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What is the history of the Ashland Canal?
The Canal was constructed in the early 1920's and is in operation seasonally from April through October (approximate). The Canal consists of an open ditch among most of its length, though some portions have been piped due to past maintenance issues. Water is conveyed to individual users via a combination of piping and ditch systems that run through the city; these networks are owned by either the City of Ashland, Talent Irrigation District, or private land owners. Use of TID water is through individual agreements based on the property size and are generally unmetered.

Where does the city get its water?
The city's primary source of raw water comes from the Ashland Creek watershed.
In 1928, the city constructed Hosler Dam at the confluence of the West and East Forks of Ashland Creek. The resulting impoundment of Reeder Reservoir provides 280 million gallons (MG) of storage for the city's water supply. Water from the reservoir is conveyed to the city's Water Treatment Plant (WTP) located along Ashland Creek, approximately one mile below Reeder Reservoir.

The city has an agreement with the Talent Irrigation District (TID) to provide additional raw water supply in drought years. When needed, TID water is pumped from the Ashland Canal by the city's Terrace Street Pump Station up to the WTP, where it is treated with the Ashland Creek raw water supply.

What is the project timeline?
The preliminary engineering phase (survey and field work) began in February 2018 and is expected to take eleven months. Construction is not anticipated until 2020.

- Phase 1A, February 2018 – December 2018: Preliminary engineering phase (survey and fieldwork)
- Phase 1B, December 2018-June 2019: Public outreach, obtaining permits, easements and construction work agreements
- Phase 2, June 2019-December 2019: Final engineering
- Phase 3, 2020: Construction of piping project

Who are the city's piping partners?
On January 16, 2018, city council approved a contract with Adkins Consulting Engineering, LLP to perform preliminary engineering work associated with piping a portion of the Ashland Canal.

How is the project funded?
The project is funded by the Oregon Department of Environmental Quality Clean Water State Revolving Fund. The loan was authorized August 1, 2017, by city council.

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How will this project benefit Ashland citizens?

- Minimized water pollution and health risks: reduced E. coli contributing bacteria as well as other contaminants in Ashland Creek.
- Conserves water lost to seepage and evaporation: approximately 30%
- Protects drinking water resources: in drought years, canal water is pumped to the Ashland Water Treatment Plant and treated to drinking water standards.
- Safety improvements: piping the canal eliminates some falling and drowning hazards and will drastically reduce the chances of overtopping and bank blow-outs.
- Trail and Surface Improvements: will create a wider smoother gravel path with reduced maintenance.
- Improved irrigation water quality: less debris and sediment buildup

Why isn't the City using the TAP water rather than TID water? TID water is less expensive than the TAP water.

How much water will the Ashland Canal Project save?
During the irrigation season, Ashland Canal loses approximately 23 percent of water to evaporation and seepage. Piping the canal will mitigate these losses and conserve a significant portion of this water, providing more efficient delivery to customers.

How will this project affect the trail along the Canal?
Temporary trail closures will be required during construction as well as some trail restoration after construction. This project is not intended to create additional trails or to secure additional trail segments. However, by burying a pipe this project will un-intentionally remove previous seasonal trail obstacles (the open Canal with water). The City will work closely with adjoining property owners to mitigate any concerns regarding the trail and the removal of previous obstacles. The Ashland Parks and Recreation Division is interested in securing additional trail easements if property owners are interested. If you are interested in these opportunities, please contact Parks Superintendent Michael Oxendine at 541-552-2252.

How will the City address unintended consequences of piping and the impact/limitations of trail access? The existing trail easements grant the City of Ashland, Oregon, a perpetual non-exclusive easement in gross to construct, reconstruct, install, use, operate, inspect, repair, maintain and remove and replace a trail for use by the public across, along and upon the real property described. Current areas that are open that don't have an easement are very small sections.

How will the canal along the Cottle property open space be accessed?
Access will likely be the same as the existing access.

What percentage of the trail along the proposed section is private vs. public? Approximately, 56.6% is public access, of which there are legal easements in place.

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What is an Easement?
An easement is a right to cross or otherwise use someone else's land for a specified purpose.

- The City of Ashland has a maintenance easement along either side of the Ashland Canal from Starlite Place to Terrace Street.
- A trail easement is an agreement with the homeowner and City of Ashland Parks Department to allow trail access along the Ashland Canal. All current trail easements will remain after the project is complete.

Do I have a trail easement on my property?
To find out if you currently have a trail easement through the Parks Department, please contact Parks Superintendent Michael Oxendine at 541-552-2252.

Who are the "City" irrigation customers? Customers who pay the City of Ashland for their irrigation water. On the front side of the canal, City of Ashland irrigation customers are typically located between Starlite Place and Terrace Street. Customers who pay TID directly for their irrigation water, have a water right.

Why are we not piping the back side of the Canal? This (front side) piping project was originally identified in the 2012 water master plan (http://www.ashland.or.us/SIB/files/2012%20CWMP-Carollo(1).pdf). The original intent was to help prevent contaminates from entering the Canal and to prevent water loses to evaporation and infiltration. The backside of the Canal does not have such a direct impact to nearby creeks. Also, water conservation is prioritized in the front section due to drought concerns and the ability to divert that water to our water treatment plant, the more water we save the more we can pump to our water treatment plant. We don't have the ability to divert the water from the backside to our water treatment plant.

What is the Talent Irrigation District's involvement in the project?
The Talent Irrigation District (TID) currently serves water, mainly used for irrigation, within the Talent and Ashland areas via several storage reservoirs and canals. Waters are conveyed to users within the City of Ashland via the Ashland Canal, which extends from the Green Springs Power Plant, along the south side of the city, to its terminus at Wright's Creek. The TID supplies water to the Ashland Canal. The City of Ashland owns and operates the Canal for municipal purposes.

The city has an agreement with the TID to provide additional raw water supply in drought years. When needed, TID water is pumped from the Ashland Canal by the city's Terrace Street Pump Station up to the WTP, where it is treated with the Ashland Creek raw water supply.

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What is happening upstream from the 2 miles that is being piped?
The Talent Irrigation District (TID) owns and maintains the canal upstream of the City's monitoring station at Starlite Place. TID does not plan to pipe their section of the canal at this time.

Why is TID not piping their section? In the late 1990s, a diverse group of local leaders and stakeholders came together to respond to water loss and aging infrastructure issues. Their efforts to create a stable, long-term water supply system for the Rogue Valley have evolved into the proposed water management program known as the WISE Project. Today TID, MID and RRVID are exploring ways to increase supplies through water conservation measures and supplemental storage. http://www.wiseproject.org/about-wise/project-history/

Will TID chemical water treatment in the ditch change with the piping of the canal?
TID does not use any aquatic chemical in its canals.

How will this project benefit irrigation customers?
During the irrigation season, Ashland Canal loses approximately 23 percent of water to evaporation and seepage. Piping the canal will mitigate these losses and conserve a significant portion of this water, providing more efficient delivery to customers. We anticipate the addition of better filtration at the head of the piped section, this will reduce the amount of debris in the canal and ultimately reduce the debris in the Canal lateral lines.

How will irrigation access be established to the pipe for current Ashland Canal irrigation water holders?
We have a few different ways of connecting to the pipe, it will be somewhat dependent on the existing connection/conditions. We will plan for these specific connections with a standard detail or custom detail (depending on the connection). For future connections, an Inserta Tee will likely be the easiest connection for public works. There are no "TID" water right holders attached to this section of canal.

I have an irrigation water right through TID? Will my property be affected?
TID irrigation water right holders will not be affected by this Ashland Canal piping project.

How do I find out if I have Ashland Canal water for irrigation or if I get my water from TID?
Call us at 541-552-2062

Why is the canal being piped rather than lined?
There are three reasons the city chose to pipe over lining:

1) IMPROVED WATER QUALITY: Piping Ashland Canal will reduce contaminants in Ashland Creek, lining the Canal still leaves it open to contaminants.

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2) CONSERVATION: Potential to conserve 23 percent of the canal water due to evaporation and seepage. Piped canals mitigate these losses and conserve a significant portion of this water. Lining the Canal will reduce seepage, but requires frequent and costly repairs to maintain this benefit.
3) COST: While lining may be less expensive to implement in its first installment cycle than piping, it requires significant maintenance and replacement cycles. In the long run maintenance and replacement costs exceed the cost of piping over time.

Why can't the current concrete stay in the ditch? Why does it have to be removed at all?
The concrete canal lining is beyond its service life and has deteriorated to a point where it needs replacement. Long term, it is more cost effective, less maintenance and less water loss to replace the concrete lining with a buried pipe.

What will the area look like after the canal is piped?
The pipe will be buried at grade level and, when the project is completed, the city will restore the trail. The city is exploring partnerships with Ashland Parks and Recreation District and the Southern Oregon Trail Alliance.

Will the canal be gravity fed or pumped? Gravity fed.

What kind of pipe will be used in the Ashland Canal project?
The pipe diameter is yet to be determined, but will likely be between 24 inches and 48 inches.

We are very early in the design process, and have not determined the pipe material to be used. However, it is common to use ADS N-12 Low Head pipe in these applications. https://www.ads-pipe.com

How large of a grade drop will be needed to accommodate the larger pipe?
It depends on multiple factors; of which we are currently working through.

Can the new piping, after it is backfilled be driven over? What is the weight limit for the pipe being used?
Yes, the pipe can be driven over with the proper backfill and trench requirements. The weight limit is dependent on these factors.

How will piping the canal impact natural resources?
Phase 1B of this project, estimated to begin late in 2018 will include wetland surveys and approaches. Currently, the City is working with natural resources professionals to determine and/or mitigate impacts to vegetation. We estimate this analysis to be complete by the end of 2018.

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What will happen to the trees along the Ashland Canal?
We are currently in the preliminary engineering design phase and are evaluating and surveying the landscaping and the trees along the Ashland Canal to determine the impact. Efforts will be made during construction to reduce negative impacts to the trees and landscaping.

How will this project affect the wildlife?
In its current state, water is in the canal April through October. Wildlife is used to not having access to water six months out of the year and will continue to seek other water sources like ponds and natural water bodies.

Have you considered banning dog access? Wouldn't a ban reduce/eliminate E. coli?
Yes, it would reduce the E. coli, however there is still wildlife that frequents the canal such as bear, cougar, raccoons, deer etc.

How is this project going to affect my property?
The city is committed to working with homeowners to address all concerns.
To learn how your property might be impacted by this water quality and conservation project, please contact the Public Works Department at 541-488-5587.

Is the City going to be working on my property?
City staff and our partners have thoughtfully considered the impact this project may have on residents and properties that border this section of canal. The city will do its best to minimize impacts to adjoining properties and irrigation customers from project design through construction. The City has easements that allow the placement, operation and access of the canal on private property. If the Canal crosses your property and you not aware of an easement, please contact us as we may be able to help.

What kind of safety precautions are going to take place during construction?
The contractor will ultimately be responsible for complying with OSHA and state rules for construction access and safety; this will more than likely include temporary fencing, flagging, etc. Additionally, we will have a project representative onsite to ensure the contractor complies with these rules.

What are going to be the working hours of the construction crews?
8:00 a.m. -5:00 p.m. Monday- Friday

What is the "vacuum truck" and how does it work? A **vacuum truck** or **vacuum tanker** is a tank truck that has a pump and a tank. The pump is designed to suck liquids, sludge, debris or the like from a location (often underground) into the tank of the truck. The objective is to enable transport of the liquid material via road to another location. Vacuum trucks transport the collected material to a treatment or disposal site.

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Where is the stormwater that is currently being routed into the canal going to go?
The stormwater that is currently entering the canal will likely be rerouted to adjacent drainages. We will also be considering other alternatives, such as low-impact-development solutions like rain gardens or bio swales. We are currently still in the preliminary design phase of the project and will have more information as we move forward.

If you are not able to eliminate all of the E coli why bother with piping?
The City only has influences on water quality within City limits, we cannot control what happens in and around the canal outside of City limits. However, we know that open canals are susceptible to contamination from a variety of sources and we can minimize contaminates from entering the canal by placing it in a pipe. We feel it's important to do our part to help maximize water quality in the portions of the canal that we manage.

Why doesn't the City reduce the water delivered in the canal to save water?
Our research estimates that we lose 23% of the water that flows through the canal to seepage and evaporation. That amount remains the same even if we reduce flows. Reducing flows isn't a viable option as we have responsibilities to deliver irrigation water to our paying customers. When we're treating the canal water for consumption we often maximize flows to help meet demands at our water treatment plant as well as our irrigation customers.

Why does the canal dump into Ashland creek?
Water levels in the canal fluctuate based on Talent Irrigation District operations and weather. In order to have consistent water deliveries to our irrigation customers and not overflow the canal itself some water is constantly flowing into Ashland Creek. Think of the overflow drain in your bathtub or bathroom sink. If your drain is plugged the tub fills to the level of the overflow drain and begins to trickle out. However, the water level in the tub remains at a consist level. The tub is the canal and the overflow drain is the outlet to Ashland Creek. Overflowing your tub would be equivalent to overflowing the canal walls and causing significant damage to private property downstream.

Can you clean the water before it goes into Ashland Creek?
Water treatment and cleaning is a very expensive undertaking. It can be done but at what cost? For the City it makes more sense to reduce the amount of pollutants that can enter the canal by piping than to consider expensive, labor intensive water treatment methods.

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Why is the City's portion of the canal causing so much pollution, isn't TID section causing as much or more pollution?

The TID does not monitor or test for water quality so we don't have any data to compare regarding which section is causing more pollution. The Ashland Creek E. coli Bacteria Study (2011 Rogue Riverkeeper) shows that the Ashland Canal is a major contributor of E. coli into Ashland Creek. The Study also shows that E. coli concentrations increase gradually from Tolman Creek Road to the Canal outfall into Ashland Creek. It is suggested that pet and/or animal waste adjacent to the Canal may be contributing the higher than normal levels of bacteria in the Canal which is then conveyed to Ashland Creek.

What is the trash rake and how does it work?

The trash rake is a mechanical device currently located at the Terrace Street Pump Station. It's a screening device to keep large debris out of our pump station. It has a series of chain driven scoops that periodically scrape the floating and submerged debris pinned against the screen and remove the debris from the screen and canal. If the City decides to pipe the canal, a replacement trash rake will be placed at the beginning of the piped section.

How are you going to remove the concrete liner?

Specifics of removal are generally decided upon by the Contractor's performing the work. It's likely that the liner will be removed with a small excavator or skid-steer. The size and type of equipment is limited by the size of the canal easements and access points.

What happens if the canal fails?

We hope this never happens but it can cause significant water/flooding damage to downstream property and homes, depending on the extent of failure and amount of erosion. It takes some time and coordination to slow or stop the water from entering the canal which can magnify the damages downstream. This piping project will significantly reduce the chances of failure and limit the liabilities of the City.

How can I learn more about the project?

We invite you to contact the city to learn more about the project at 541-488-5587 or visit www.ashland.or.us/ashlandcanal. If you wish to be included on our email notification list, please send an email to ashlandcanal@ashland.or.us.

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