

Council Study Session

January 3, 2022

Agenda Item	Enterprise System Budget – Water	
From	Scott Fleury PE	Public Works Director
Contact	Scott.fleury@ashland.or.us	541-552-2412
Item Type	Requested by Council <input checked="" type="checkbox"/> Update <input checked="" type="checkbox"/> Request for Direction <input type="checkbox"/> Presentation <input checked="" type="checkbox"/>	

SUMMARY

Council has expressed a significant interest in gaining a better understanding of the City’s enterprise funds/systems in order to align policy related decisions with financial expectations and risk/liability. Public Works is providing comprehensive background information regarding the Water Fund.

POLICIES, PLANS & GOALS SUPPORTED

City Council Goals:

- Essential Service-Drinking Water System
- Emergency Preparedness
- Address Climate Change

CEAP Goals:

Natural Systems: Air, water, and ecosystem health, including opportunities to reduce emissions and prepare for climate change through improved resource conservation and ecosystem management.

- Strategy NS-2: Manage and conserve community water resources
- Strategy NS-3: Conserve water use within City operations

Department Goals:

- Maintain existing infrastructure to meet regulatory requirements and minimize life-cycle costs
- Deliver timely life cycle capital improvement projects
- Maintain and improve infrastructure that enhances the economic vitality of the community
- Evaluate all city infrastructure regarding planning management and financial resources

BACKGROUND AND ADDITIONAL INFORMATION

The Water Fund consists of Supply, Treatment, Distribution and Conservation divisions. The core of the water system includes Hosler Dam and Reeder Reservoir, a water treatment plant, over 119 miles of distribution piping, six booster pump-stations, telemetry equipment, 32 pressure relief valves, 1,281 hydrants and four potable water storage reservoirs providing 6.7 million gallons of storage.

The supply and treatment fund employs six (6) staff members who maintain the supply and treatment systems for the City (plant operators and supervisor). This staffing also includes a project manager who delivers needed capital projects along with managing significant maintenance improvements to the whole system as needed during the biennium.

The distribution fund employs ten (10) staff members who maintain the distribution system and perform water quality tests as mandated by the Oregon Health Authority.

The conservation fund employs one (1) staff member who works to meet the City’s water conservation and efficiency goals. Currently the City is operating with an Intergovernmental Agreement with the Medford Water Commission to assist in the delivery of conservation programs with the support of one internal Public Works Support staff member.

The Dam Safety Program a component of the City’s overall water system management is supported by staff in the Public Works (PW) Administration/Support Division as well as PW operational, Electric, Police, Fire, Administration, Finance, Human Resources, Community Development, Legal and Parks.

The Water Fund is supported from revenues associated with water rates, System Development Charges (SDCs), loans and grants.

Water rates are the fees associated with the supply, treatment and delivery of water to the end user customer. Water rates are a commodity charge and tiered based on consumption. In 2016 a Water Cost of Service Study was completed to ensure appropriate charges across the customer base, and the recommendations were adopted by the City Council ([Staff Report](#), [Minutes](#)).

System Development Charges are one-time fees charged to help pay for the facilities required to meet growth-related needs for the City. SDC methodology is updated typically after an enterprise system master plan is completed. This is done to better align with projected growth and capacity needs for the planning period. The City is currently working with the SDC Committee and consultant to update the Water SDCs. A recommendation will be brought to Council in spring of 2022 for the methodology update for consideration.

Expenses for the water fund are associated with the personnel/employee costs, materials and services necessary to maintain all the systems for the efficient treatment and delivery of water to the community and capital improvements based on master planning to accommodate growth and large-scale system needs.

2021-2023 Biennium Budget:

A current breakdown of both revenue and expenses for the 2021-2023 budget biennium are detailed below.

Revenue:

Revenue by Type

	2017-18 Actual	2018-19 Actual	2019-20 Actual	2020-21 Adopted Budget	2021-22 Proposed Budget	2022-23 Proposed Budget
Debt Revenue	\$ 732,215	\$ 2,795,804	\$ 1,103,851	\$ 14,252,562	\$ 6,465,900	\$ 17,545,800
Intergovernmental Revenue	-	-	6,331	-	-	-
Charges for Services	8,109,860	8,536,154	8,582,394	8,733,400	8,739,000	9,080,000
Miscellaneous Revenues	40,443	26,996	41,749	25,000	25,000	26,000
Interest on Pooled Investments	139,859	228,124	216,316	146,450	92,800	92,800
Total	\$ 9,022,377	\$ 11,587,078	\$ 9,950,641	\$ 23,157,412	\$ 15,322,700	\$ 26,744,600

Expense:

Expense by Type

	2017-18 Actual	2018-19 Actual	2019-20 Actual	2020-21 Adopted Budget	2021-22 Proposed Budget	2022-23 Proposed Budget
Personnel Services	\$ 1,815,873	\$ 1,863,488	\$ 1,883,177	\$ 2,117,748	\$ 2,210,373	\$ 2,224,198
Material and Services	3,135,546	3,441,770	3,682,053	3,997,398	4,352,194	4,308,624
Debt Services	614,234	617,627	991,033	613,950	684,254	686,132
Capital Outlay	1,569,565	4,351,843	2,988,986	18,082,270	8,208,670	20,576,500
Operation Transfers Out	250,000	250,000	50,000	250,000	50,000	50,000
Contingency	-	-	-	342,500	232,840	232,004
Total	\$ 7,385,217	\$ 10,524,729	\$ 9,595,249	\$ 25,403,866	\$ 15,738,331	\$ 28,077,458

Enterprise System Master Planning:

The City utilizes master plans or similar planning documents to ensure the corresponding utilities and enterprise funds can accommodate projected growth and to keep the systems fully operational, thereby limiting the need for major emergency repairs. Master plans enable a long-term plan to be developed and strengthen the intent to present the most responsible infrastructure improvement costs. Master plans assess the existing systems, establish level of service goals, review future demand, develop a plan for capital improvements, operations, and ultimately propose a rate structure and other financial guidance to enable adherence to the plan. The planning process also utilizes citizen advisory groups and established Commissions to provide feedback and comment on planning efforts. An example of this would be the 2019 Water Master Plan that was guided by the Ashland Water Advisory Committee (AWAC) and the plan also received review and feedback from the Climate Policy and Climate Outreach Commissions. Comments from the Commission’s were incorporated into the final document to better align it with the Climate Energy Action Plan (CEAP).

Water Master Plan:

The 2019 Water Master Plan Update was adopted by the City Council at the August 4, 2020 Business Meeting ([Minutes](#), [Staff Report](#)).

Water Management and Conservation Plan:

In addition to the Water Master Plan the City is required to develop a Water Management and Conservation Plan. The Plan describes water management, water conservation, and curtailment programs to guide the wise use and stewardship of the City’s water supply.

[Water Management and Conservation Plan](#)

The next formal update of the plan is required in 2023 and staff will include a climate assessment for each of the City’s supply sources to better understand climate impacts to the water supply systems. This will help inform mitigation and adaption efforts for water system planning moving forward and potentially how the City can/should manage its supply sources during drought times.

TAP Master Plan:

At the September 3, 2019 Business Meeting the City Council approved entering into an Intergovernmental Agreement with the Cities of Talent and Phoenix to develop the first of its kind a TAP Master Plan ([Minutes](#), [Staff Report](#))

The TAP Master Plan addressed the following:

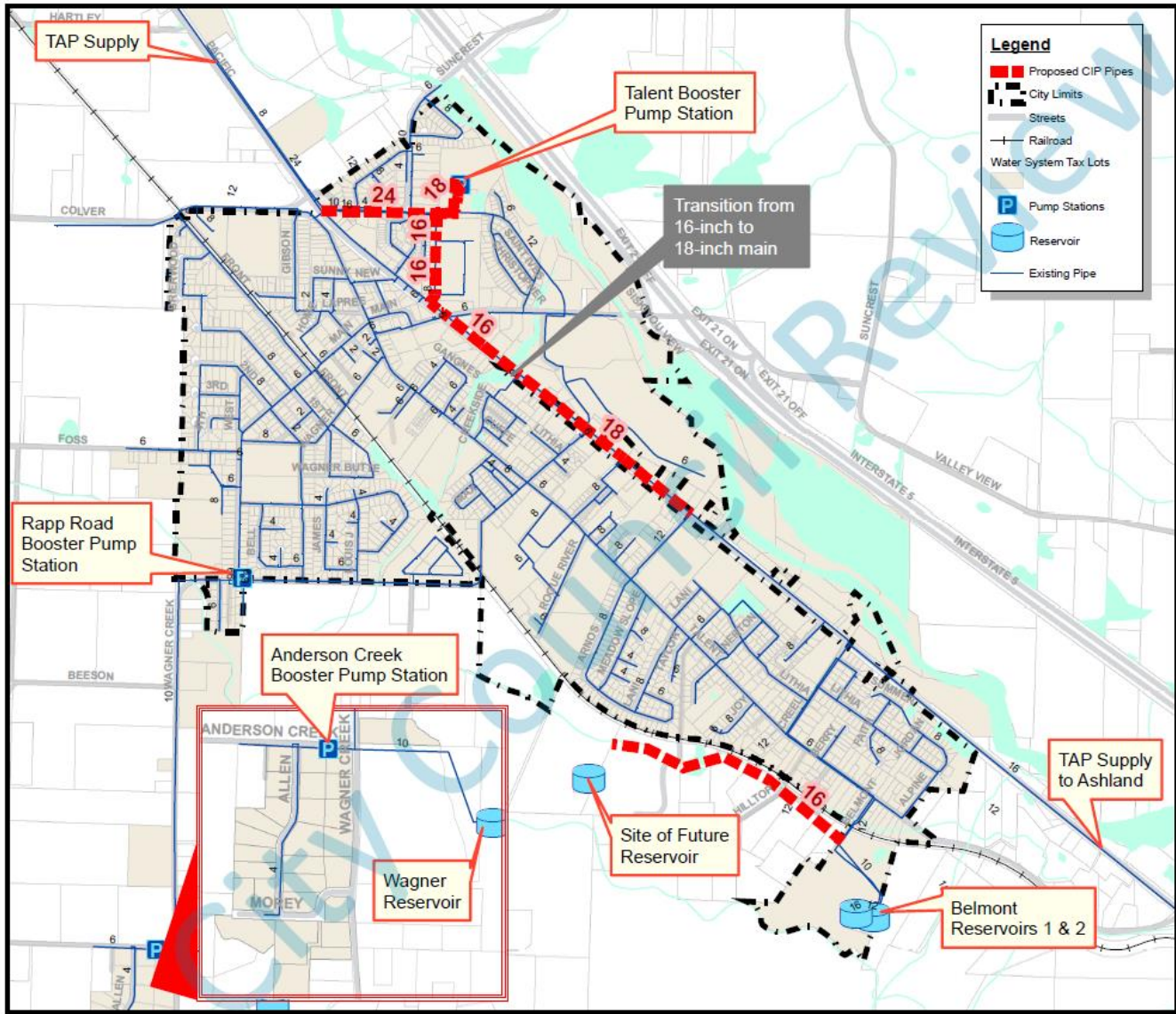
- Document the existing TAP system facility information;
- Confirm future supply demands for the next 40-year planning horizon;
- Assess the condition and capacity of the existing system for future planning;
- Identify operational constraints and recommends operational adjustments for improved efficiency;
- Develop options for meeting or revising the MWC Purchase Agreements to achieve compliance;
- Develop a Capital Improvement Plan (CIP) to meet future demands and major facility replacements;
- Formalize the TAP system financing to guide the allocation of operational, maintenance, and capital costs between the TAP Partner Cities; and
- Provide recommendations for developing a new TAP IGA between the TAP Partner Cities.

The outcomes of the TAP Master Plan were presented to the Council at the October 5, 2020 Study Session ([Minutes](#), [Staff Report](#)). Next steps for the TAP system include developing the updated operating IGA between Talent, Ashland and Phoenix along with implementing proposed improvements. Staff will also bring forward the TAP Master Plan for adoption and is coordinating with Talent and Phoenix to ensure each communities Council also approves of the final document.

The TAP Master Plan provided two distinct improvement options for Ashland and Talent associated with meeting projected maximum day demand flows and minimizing the impact to Talent’s distribution/storage system for delivery of treated water to Ashland.

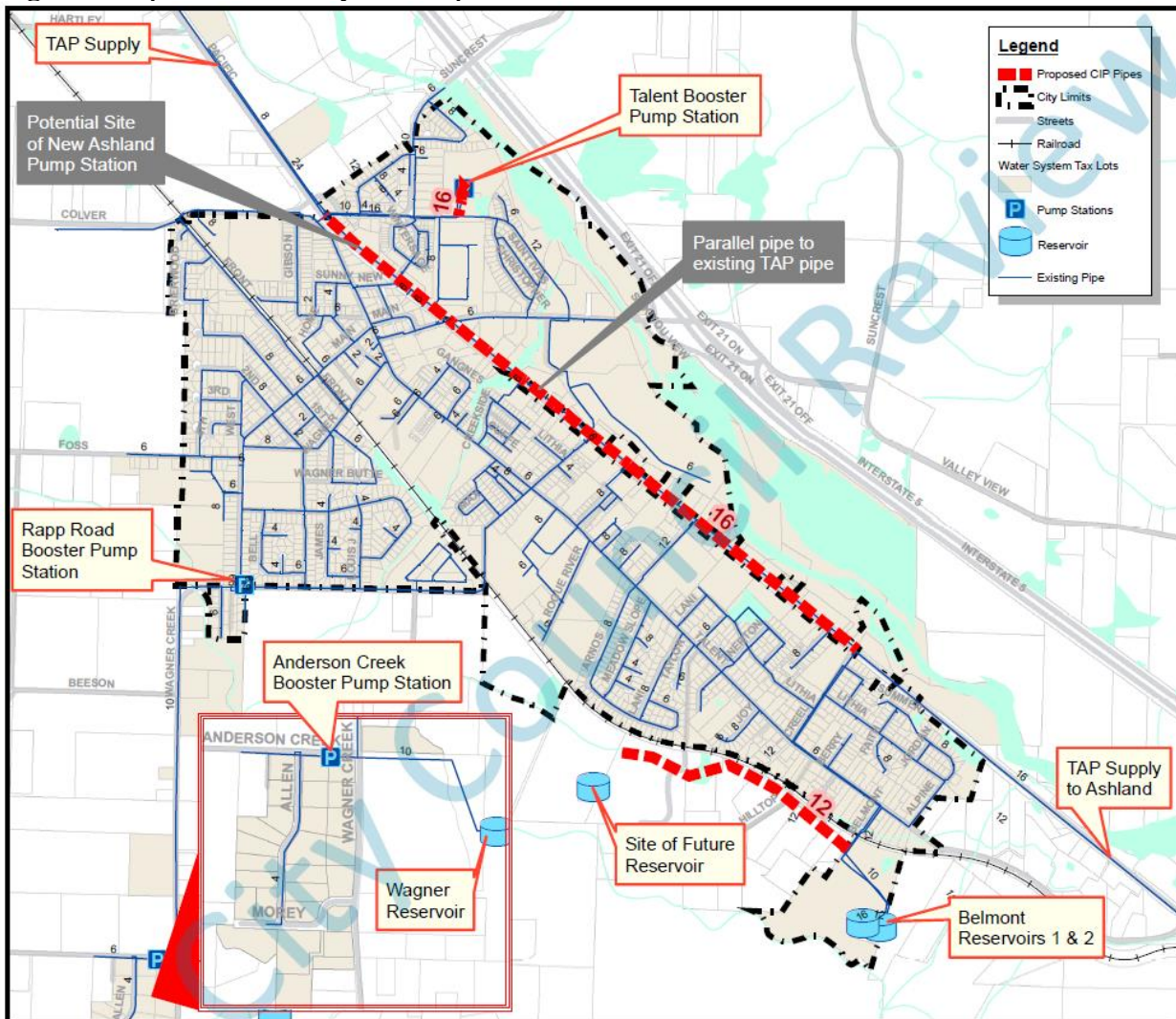
Option #1: This option includes improvements to the Talent booster pump station and distribution piping, see figure 1 below. The estimated cost for this improvement is \$2.61 million for improvements to the Talent booster station and associated pipelines (Ashland share).

Figure 1: Option #1 TAP System Improvements



Options #2: This option includes construction of a stand-alone booster pump station in Talent along with additional transmission mainline connecting to the City’s current transmission main along highway 99. This improvement would eliminate any connection to Talent’s system and be fully owned and operated by the City of Ashland. The estimated cost for this improvement is \$5.19 million for the pump station and associated piping (Ashland share only).

Figure 2: Option #2 TAP System Improvements



The Talent Council has discussed the options but has yet to provide direction to staff on their preferred option. Either option has no impact to the Phoenix system or associated cost sharing.

Another critical improvement defined in the master plan is an emergency & non-peak source connection from Ashland to Talent and Phoenix. The system currently does not allow the delivery of a significant amount of water via gravity flow from Ashland to Talent and Phoenix. The non-peak connection would allow Ashland to provide Talent and Phoenix with non-peak water (approximately November through May) and water for emergencies. The gravity connection for non-peak would eliminate the Regional TAP system pump station operational time in this period, thus reducing greenhouse gas emissions from the TAP system and also provide an additional revenue source to the City via a wholesale water agreement.

The City of Ashland was awarded \$3 million in American Rescue Plan Action (ARPA) funding for projects defined in the TAP Master Plan to improve the redundancy and resiliency of the TAP system. Public Works is coordinating with each community and Business Oregon who is

administering the funding and associated requirements. All three communities will enter into an IGA for project delivery with Ashland leading the design/construction effort.

1. Non-peak/Emergency supply connection from Ashland to Talent/Phoenix.

Pipeline and Pressure Reducing Valve connection around Ashland's TAP booster station to provide non-peak and emergency supply from Ashland to Talent and Phoenix (reversing the normal system delivery method)

2. Backup power generator – Talent booster pump station

Upsized generator for the Talent booster station to provide backup power needs to meet fire flow and max day demand for Talent and Ashland

3. Backup power generator – Ashland booster pump station

New generator to provide backup power to the Ashland station

4. Booster pump upgrades to the regional pump station

Upsize existing pumps to meet fire and max day demand needs into the future

5. Booster pump upgrades to the Talent booster pump station

Upsize existing pumps to meet fire and max day demand needs for Talent and Ashland

6. Seismic retrofit of the Talent booster pump station

Seismic resilience improvements to the facility to protect delivery of potable water to Talent and Ashland

7. Pipeline seismic enhancements

Seismic enhancements to 1000 lineal feet of critical 24-inch transmission main in Phoenix.

8. Booster pump station programming improvements (Telemetry)

Coordinate SCADA improvements in the TAP system to ensure that booster stations and reservoirs are properly coordinated and update topology for the TAP system as a whole.

Regional Water Planning:

In addition to master planning specific to the City's water system there is also regional water management planning done associated with the "Partner" communities who utilize the Medford Water Commission (MWC) source for treated water delivery. The Partner communities have been working with MWC on a regional water rights management and sharing plan. A one-page summary of the work to date is included as attachment #1.

The project started with developing a strategy between all the Partners on when to certify their own water rights to ensure the total volume of rights does not exceed the capacity for production at the Duff Treatment Plant in order to protect each community's formal water rights.

The City of Ashland has 1000 acre-feet of stored water right in Lost Creek Reservoir that utilizes the Duff Treatment Plant as the point of diversion for delivery of treated water through the TAP system. Staff expects to present the Intergovernmental Agreement detailing the parameters of the coordinating water rights management and sharing plan at a study session in the future, once the Partners agree on the final draft language and it has gone through legal review.

Water rights are issued in two stages: The first stage is the “water right permit,” which serves as the initial authorization for a water user to develop the source and begin making use of water. The second stage is the final certificate, which is issued after the water use is fully developed and put to use. The certification date based on the acquisition of the original Lost Creek water right permit is September 7, 2021. This means the City must certify all or a portion of the use and/or request a time extension for the “development” of the remainder of the water right.

To certify the permit a “Claim of Beneficial Use” (COBU) must be developed that shows the water was put to use during a water year (October 1 – September 30). Public Works has contracted with GSI Water Solutions to develop the COBU and associated permit timeline extensions required by the Oregon Water Resources Department (OWRD) as part of a certification process. During the previous water year 550.6 acre-feet of water was delivered to Ashland through the TAP system. The COBU documents have been submitted to OWRD to certify the 550.6 acre-feet of usage and extend the timeline for the certifying the remainder amount.

Water Capital Improvements:

During the approval process for the 20 year Capital Improvement Plan (CIP), the Council expressed concern over project costs and was interested in gaining a greater understanding of project need and associated risk & liabilities for CIP projects ([Staff Report](#)) . This understanding is to align with the Council working towards making recommendations on prioritizing projects. In addition, it was recommended to bring the CIP program back to Council during the off year of the budget process for discussion and approval of the plan in concept. Staff will be working to develop the next iteration of the CIP to bring before Council in fall of 2022.

In the 20-year CIP document there is a focused look at the six-year plan and prioritized improvements within the proposed 2-year budget. Staff included additional columns in the CIP document denoting parameters for each project related to Life Cycle, Regulatory, Capacity and Deficiency.

1. Regulatory - infrastructure is due to be upgraded or replaced to ensure regulatory compliance
2. Capacity - infrastructure is deficient in projected capacity needs and upgrades are required to provide for capacity requirements
3. Deficiency - infrastructure is deficient in some manner and correlates with meeting capacity requirements or just a lack of infrastructure in place (example-sidewalk gaps)
4. Life Cycle - infrastructure is at the end of its useful life and due for replacement

Risk is a possible event that could cause harm or loss or affect the ability to achieve objectives. Typical events that could cause harm, loss or affect the ability to provide potable water to the community include, flood, fire, earthquake, climate change, landslides, extreme weather events, etc.

All of the components have a certain risk level associated with them and the largest risk for not completing a CIP project is associated with not meeting mandated regulatory compliance.

When staff updates the CIP and associated project narratives for the next iteration of Council approval additional information associated risk elements will be better defined for consideration. In addition, when projects are brought before Council on an individual basis moving forward staff would like to include some narrative on risk for the project and how it is directly associated to regulatory, capacity, deficiency or life cycle improvements. Also, staff sees the benefit of including information where applicable and how a project ties into climate adaptation and the City’s climate goals.

FISCAL IMPACTS

The fiscal impacts for the water fund are detailed in the 2021-2023 Budget along with the adopted Capital Improvement Plan. Each biennium the budget, CIP and associated rate structures are analyzed and processed through the budget process and stand-alone Council actions.

Specific to the TAP Master Plan, financial impacts are tied to the options reference above. Depending on the final preferred option Ashland's total share of CIP projects (2020 dollars) would be:

1. \$5,445,619 for Option #1 over the planning window
2. \$7,936,630 for Option #2 over the planning window

DISCUSSION QUESTIONS

Does the Council require any additional information associated with the Water Fund?

SUGGESTED NEXT STEPS

N/A

REFERENCES & ATTACHMENTS

Attachment #1: Regional water rights management and sharing plan

Coordinated Water Rights Management and Water Sharing Plan

A strategic approach to water management

September 30, 2021

Water is a precious but limited resource in Southern Oregon. Because of this, the Cities of Ashland, Central Point, Eagle Point, Jacksonville, Phoenix, and Talent—collectively referred to as the Partner Cities—and the Medford Water Commission have come together to protect and ensure access to this vital resource.

Why is this partnership needed?

The Partner Cities hold numerous water rights that authorize the diversion of water at the Medford Water Commission's Duff Water Treatment Plant (WTP). Because of the complications associated with managing multiple water rights at a single point of diversion, the Partner Cities and Medford Water must work together to manage these water rights to ensure they are protected.

This alliance also allows for the sharing of water supplies. Water sharing eliminates the need for some Partner Cities to obtain new water rights, which would only further complicate water rights management. Ultimately, the partnership's efforts will help diversify the region's water supply portfolio, increase the long-term reliability of the water supplies, and provide additional tools for managing through water shortages and drought.

What is the background of the partnership?

The Partner Cities and Medford Water entered into a cooperative agreement for developing a water rights strategy in 2019, and in February 2020, identified a recommended approach. The recommended approach includes two elements (1) water rights certification coordination, and (2) a water-sharing plan.

How does water sharing work?

Under the water-sharing plan framework, the Partner Cities would retain ownership and control of their water rights, and continue to use water under their own water rights from May 1 through September 30 each year. At the end of each year, Medford Water would compare each city's water use to the volume of water authorized by its water rights. Any Partner Cities that used more water than authorized by their water rights would provide compensation to the other Partner Cities for use of water under their rights.

What are the next steps?

Staff from Medford Water and the Partner Cities have been meeting to develop an Intergovernmental Agreement (IGA) for establishing the Coordinated Water Rights Management and Water Sharing Plan. Staff will continue to keep their Boards and Councils updated and in the near future will bring the IGA to decision makers for their review.

