Council Business Meeting

November 2, 2021

Agenda Item	Rogue Valley Sewer Services – Ashland Connection Options Next Steps								
From	Scott Fleury PE	Public Works Director							
Contact	Scott.fleury@ashland.or.us	541-552-2412							

SUMMARY

Before Council are suggested next steps and associated financial implications for moving forward with a feasibility analysis and participating in Medford Reclamations Facility Planning Study. This is a continuation of the discussion that occurred at the October 5, 2021 Business Meeting.

POLICIES, PLANS & GOALS SUPPORTED

City Council Goals:

Maintain Essential Services – Wastewater Treatment

Continue to leverage resources to develop and/or enhance Value Services

- Emergency Preparedness
- Address Climate Change

CEAP Goals:

- Reduce Ashland's contribution to global carbon pollution by reducing greenhouse gas emissions associated with City, residential, commercial, and industrial activities
- Prepare the city's communities, systems, and resources to be more resilient to climate change impacts
- Strategic Initiatives:

Maximize conservation of water and energy

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

PREVIOUS COUNCIL ACTION

The Council has previously discussed a potential connection to RVSS for conveyance of wastewater to the Medford Reclamation Facility. These discussions occurred primarily in the 1990's and are part of the Council record. The Council most recently heard a presentation form RVSS and Medford Reclamation at the October 5, 2021 Business Meeting and directed staff to bring back options to move forward with a feasibility study and participate in Medford Reclamation's Facility Planning Study.

BACKGROUND AND ADDITIONAL INFORMATION

In order to move forward to gain a better understanding of connecting to the Regional Water Reclamation Facility (RWRF) the City would need to take multiple specific actions. The first action would be to approve funds to participate in RWRF's Facility Planning Study since no funds are currently allocated to this project. The outcome of participating in this would be to gain an understanding of the capital and operational needs the RWRF would need to undertake to manage and treat the wastewater flows from Ashland in the planning period. Medford Reclamation has

obtained a draft scope and associated fee from West Yost, the consultant group responsible for updating the Facility Plan. The scope and fee can be referenced as attachment #1.

Facility Planning Study Schedule:

- 1. Approve reallocation of funds to participate (October 19, 2021)
- 2. Medford and Ashland develop Intergovernmental Agreement to participate and pay apportioned share of Facility Planning Study (30 days)
- 3. Approve IGA (November 2021)
- 4. Participate in study (24 months fall 2023)

The second distinct action would be to conduct a triple bottom line Feasibility Study that analyzes the connections options, costs/rates and environmental issues for consideration and discussion moving forward. Due to current staffing capacity and projects in the que staff recommends starting to develop the solicitation document now, but not soliciting responses until after the new year.

Feasibility Study Schedule:

- 1. Develop solicitation document (14 days)
- 2. Obtain legal review and approval (14 days)
- 3. Publicly solicit study (30 days after new year -2022)
- 4. Review proposals (14 days)
- 5. Interview (14 days)
- 6. Begin scope and fee negotiations (30-60 days)
- 7. Present contract before Council for award
- 8. Begin Study (12 months)

Wastewater Treatment Plant - National Pollution Discharge Elimination System Permit (NPDES):

If the Council chooses to move forward with these analyses it does not reduce or eliminate the need to meet the wastewater treatment plant NPDES existing requirements and new requirements associated with the pending permit. As discussed at the October 5, 2021 Business Meeting compliance schedule projects are being implemented and designed which include the outfall relocation project, water quality trading (shading) and the UV system upgrades project.

FISCAL IMPACTS

Participation in Medford Reclamation's Facility Planning Study is estimated to cost \$230,100. Development of a feasibility (triple bottom line) study to fully evaluate connection options along with the fiscal and environmental implications is estimated to cost \$200,000.

If the Council choose to move forward, existing appropriations in the wastewater fund will be utilized to cover the project costs. There are two large scale capital maintenance projects for the wastewater treatment plant scheduled in the 2021-2023 Biennium. The first is upgrades to the headworks (\$3.76 million) and the second is improvements to the secondary clarifier (\$795k). Staff recommends pausing these projects if the Council recommends moving forward with both the Facility and Feasibility studies. Funding for these projects will be utilized to cover the cost of the studies.

There is no corresponding increase in revenue as funds from the capital line of the wastewater fund will be utilized. At the completion of the studies and the decision by Council is to not connect to the regional system, a rate increase will be required to offset the expenditures associated with the unplanned studies as the paused projects will still need to be completed.



Staff estimates approximately ¹/₂ to ³/₄ of a Full Time Equivalent (FTE) will be required to support and manage both projects over the next 12-18 months. This FTE would include staffing resources from Public Works, Administration, Legal and Finance.

With respect to financing options for the connection costs the City could look at bonding for the project with full faith and credit backing from the rate payer revenue. The City could also look at traditional debt financing using the Department of Environmental Quality Clean Water State Revolving Fund monies or traditional bank financing.

STAFF RECOMMENDATION

N/A

ACTIONS, OPTIONS & POTENTIAL MOTIONS

I move to approve funding in the amount of \$230,100 to participate in Medford Reclamations Facility Planning Study.

I move to approve funding in the amount of \$200,000 for a Feasibility Study and direct staff to develop appropriate solicitation documents.

I move to direct staff to coordinate with Medford on development of an IGA to participate in the Facility Planning Study and authorize the City Manager to sign the IGA.

I move to take no further action on the matter.

REFERENCES & ATTACHMENTS

Attachment 1: West Yost Scope of Services-Medford Reclamation Facility Plan (Ashland Flow Analysis)

Attachment 2: Crescent City Wastewater Plant Renovation

Attachment 3: Storm Sewer Fee RVSS

Attachment 4: Councilor Graham Memo





5 Centerpointe Drive Suite 130 Lake Oswego OR 97035

503.451.4500 phone 530.756.5991 fax westyost.com

October 4, 2021

SENT VIA: EMAIL

Dustin Hagemann Water Reclamation Division Manager City of Medford 1100 Kirtland Road Central Point, Oregon 97502

SUBJECT: Proposal for Engineering Services for the City of Ashland to Update the Medford RWRF Facilities Plan to Evaluate Addition of Ashland Wastewater Flows

Dear Mr. Hagemann:

West Yost appreciates this opportunity to submit a letter proposal to the City of Medford to evaluate the feasibility of treating the City of Ashland's wastewater at the City of Medford's Regional Water Reclamation Facility (RWRF) and updating the RWRF Facilities Plan to include this evaluation. This letter proposal provides background information related to the project followed by our proposed Scope of Services, Budget and Schedule.

BACKGROUND

Ashland currently treats wastewater flows from the sewer service area via the Ashland Wastewater Treatment Plant (Ashland WWTP) for discharge to the Ashland Creek. Ashland is exploring alternatives to treatment at the Ashland WWTP, including sending untreated wastewater flows to the RWRF for treatment and discharge.

A Facilities Plan is being prepared for the City of Medford to evaluate treatment alternatives for the RWRF to meet more stringent nutrient removal requirements in the latest wastewater discharge permit from the DEQ. The City of Medford has contracted with the West Yost/Black and Veatch team (Project Team) to prepare an Optimization Study and to prepare the RWRF Facilities Plan, focused on the following tasks, as described (Tasks 2 through 10 are part of the RWRF Facilities Plan update):

- Task 1. Optimization Study: Develop a calibrated process model of the RWRF treatment processes, identify and evaluate potential optimization strategies to provide additional nutrient removal, conducted related workshops with City of Medford staff, and prepare an optimization study report.
- **Task 2. Service Area Characteristics:** Update Description of the RWRF environmental setting and existing and projected service area populations.
- Task 3. Wastewater Characteristics: Analysis of expected ranges of existing and projected influent flows and loads for conventional pollutants (Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) and nutrients (nitrogen and phosphorus).

- **Task 4. Existing Facilities:** Description of the RWRF treatment facilities and upstream collection system facilities, condition assessment of the treatment facilities, and descriptions of the hydraulic/treatment capacities of the treatment facilities.
- Task 5. Need for Project: Description of the regulatory and condition-related drivers for improvements to the RWRF.
- **Task 6. Treatment Process Alternatives Overview:** Conceptually define up to eight options for meeting new nutrient effluent limits, then ultimately shortlist three alternatives, based on primarily qualitative factors and following two workshops with City of Medford staff.
- Task 7. Treatment Process Alternatives Evaluation: Develop a comprehensive Life-cycle Cost Analyses (LCAs) of the three shortlisted alternatives from Task 6 and develop a Business Case Evaluation (BCE).
- Task 8. Additional Recommended Improvements: Presentation of condition-related improvements needed at the RWRF and, recommended cogeneration system improvements, potential seismic improvements needed, and other ancillary improvements.
- **Task 9. Recommended Project:** Develop a detailed description of the recommended improvements project and timeline for project implementation, identify key sustainability criteria used to establish the project and incorporate findings from a related financing plan prepared by others.
- Task 10. Environmental Assessment (EA): Prepare an EA consistent with State guidelines to support funding using State revolving funds. The EA would be included as an attachment to the Facilities Plan.
- **Task 11. Report Preparation:** Development of an Executive Summary and preparation of a draft and final report comprised of chapters describing results of the other Facility Plan tasks.
- Task 12. Facility Plan Workshops: Conduct eight workshops with City staff in support of other tasks at key decision points in the project.
- **Task 13. Project Management:** Provide project coordination, status review calls and assistance for a presentation on the updated Facilities Plan to the regional rate committee/City of Medford Council.

Evaluating the addition of Ashland's wastewater flows to the RWRF could be accommodated in the updated RWRF Facilities Plan by including an additional chapter focused on the following:

- Description of the Ashland service area and projected population
- Analysis of Ashland's wastewater characteristics (flows and loads)
- Description of Ashland's collection system
- An analysis on the impacts of adding Ashland's flows and loads to:
 - the need for expansion of existing facilities
 - o selection of the preferred alternative
 - o implementation plan (timing for capital outlays) for the Recommended Project
- additional environmental assessment

Therefore, the approach of the current proposal is to provide an additional chapter to the Facilities Plan that the Project Team is developing under separate contract to the City of Medford.

It is also understood for purposes of this proposal that Rogue Valley Sewer Services (RVSS) would be evaluating the conveyance of Ashland flows to the RWRF under separate contract. RVSS provides collection system services to unincorporated areas of Jackson County that currently are within the RWRF service area for wastewater treatment.

Based on the preceding information, additional work for Ashland is needed related to the following tasks on the RWRF Facilities Plan project:

- Task 8. Additional Recommended Improvements: The Ashland flows and loads would add about 10 to 15 percent to the existing and projected RWRF flows and loads. These additions may thus require additional process improvements apart from the nutrient reduction improvements. For instance, higher peak flows through the RWRF could require larger pumps. The separate RWRF Facilities Update contract does not include a detailed evaluation of expanding existing facilities apart from those needed to meet the nutrient requirements. Therefore, additional effort will be needed to review the impact on existing RWRF facilities of adding Ashland flows to determine whether any capacity-related improvements are needed.
- **Task 9. Recommended Project:** The Project Team will need to determine how the addition of Ashland flows would impact the Recommended Project identified as part of the RWRF Facilities Plan update, including requiring larger and/or additional nutrient removal facilities needed and the associated additional project costs.
- Task 10. Environmental Assessment: An addendum will be needed to accommodate information on how the Project Description and Evaluation of Project Alternatives are impacted by adding Ashland flows to the RWRF influent.
- **Task 11. Report Preparation:** Edits will be needed to the Executive Summary to accommodate additional information about the Ashford analysis.
- **Task 12. Facility Plan Workshops:** Additional meetings/workshops will be needed to discuss the deliverables of the additional scope of services with Ashland and Medford staff.
- **Task 13. Project Management:** Additional project management activities will be needed associated with the additional scope of services.

Specific tasks to complete an evaluation of adding Ashland's flows and loads are detailed in the Scope of Services below.

SCOPE OF SERVICES

The following is a list of the key tasks necessary to perform this proposed Scope of Services, each further described below:

- Task 1. Service Area Description
- Task 2. Existing and Projected Flows and Loads
- Task 3. Collection System Description
- Task 4. Impacts to Alternatives Evaluation and Recommended Project
- Task 5. Capacity-Related Improvements Needed
- Task 6. Ashland Chapter Preparation
- Task 7. Addendum to Environmental Assessment
- Task 8. Project Management and Meetings

Task 1. Service Area Description

West Yost will develop an overview of the Ashland service area and estimates of projected service area population through 2045, based on readily available information from Ashland, including the May 2014 *City of Ashland, Oregon Wastewater Facilities Plan* (Ashland Facilities Plan) and August 2019 *WWTP Facilities Assessment and Major Process Component Improvements Project Summary Report* (Ashland Facilities Assessment).

Under this initial task, West Yost will also prepare a data request to inform efforts under Tasks 1 through 3. Anticipated data needs include the following:

- Existing and projected service area populations
- WWTP influent flows and concentrations for carbonaceous BOD (CBOD), total BOD, TSS, nitrogen, ammonia and phosphorus for 2010-2021
- Temperature data related to the Ashland flows

Besides the data request, this task will not have a standalone deliverable. Results from this task will be incorporated into the chapter developed under Task 6.

Task 1 Assumption

• Ashland will provide requested quantitative data in MS Excel format.

Task 1 Deliverables

- An email request to Ashland for data to complete the project.
- Findings from this task will be incorporated into the Chapter prepared under Task 6.

Task 2. Existing and Projected Flows and Loads

West Yost will complete the following as part of this task:

- Evaluate existing flows and loads for BOD, TSS, TKN, ammonia and phosphorus and characterize these in terms of average, maximum day, and maximum 30-day values based on the past 10 to 11 years of data.
- Develop peaking factors by year for these statistics.
- Develop representative current per capita flow and loads.
- Calculate projected average flow and loads based on the current per capita flow and loads and projected 2045 service area population from Task 1.
- Calculate projected flows and loads in the year 2045, based on the projected average flow and loads and range of peaking factors.
- Compare projected 2045 flows and loads to previously developed projected flows and loads that are adjusted for the target year (2035 and 2040 for the Ashland Facilities Plan and Ashland Facilities Assessment, respectively).

This task will not have a standalone deliverable. Results from this task will be incorporated into the chapter developed under Task 6.

Task 2 Assumption

• West Yost's projected 2045 flows and loads will be reasonably similar to adjusted projected flows and loads from previous analyses.

Task 2 Deliverables

• Findings from this task will be incorporated into the Chapter prepared under Task 6.

Task 3. Collection System Description

West Yost will develop an overview of the Ashland sanitary sewer collection system, including quantification of inflow and infiltration (I&I), based on readily available information provided by Ashland (e.g. Ashland Facilities Plan and recent collection system improvements).

This task will not have a standalone deliverable. Results from this task will be incorporated into the chapter developed under Task 6.

Task 3 Assumptions

• This task will rely on previous I&I analyses completed for Ashland.

Task 3 Deliverables

• Findings from this task will be incorporated into the Chapter prepared under Task 6.

Task 4. Impacts to Alternatives Evaluation and Recommended Project

The Project Team will run an additional Monte Carlo simulation of the three, shortlisted alternatives that will have been identified as part of the RWRF Facilities Plan update. The additional simulation will determine whether the process sizing will be impacted due to the increased flows and loads associated with the Ashford service area, based on the results of Task 2. Results from this task will used to inform Medford's decision on the preferred project.

Additional flow will also influence the temperature credits required for the RWRF. An assessment of the additional credits will be prepared and the cost for those credits will be identified.

Task 4 Deliverables

• Findings from this task will be presented at the workshop under Task 8 and incorporated into the Chapter prepared under Task 6.

Task 5. Capacity-Related Improvements Needed

West Yost will complete the following as part of this task:

- Review the design criteria and capacities of the RWRF process components relative to total current and projected 2045 flows and loads into the RWRF with addition of Ashland flows.
- Identify what capacity-related improvements would be needed for existing facilities with similar equipment as existing to accommodate the current and projected 2045 flows and loads.
- The Project Team will also determine how the addition of Ashland flows would impact the Recommended Project identified as part of the RWRF Facilities Plan update. Expected impacts include larger and/or additional nutrient removal facilities needed, associated additional project costs. Site layouts and planning-level project and life-cycle costs will be developed for the "Recommended Project with Ashland" flows.
- Prepare conceptual site layouts of facilities based on the addition of Ashland flow and loads.
- Prepare planning-level project cost estimates for identified capacity-related improvements, including contingency factors established as part of the RWRF Facilities Plan update project.

Results from this task will be presented at the workshop with Ashland staff that is included under Task 8. Information from this task will also be incorporated into the chapter developed under Task 6.

Task 5 Assumptions

• The capacity review efforts under this task will identify several capacity-related expansion projects needed for existing facilities that would not otherwise be required.

Task 5 Deliverables

• Findings from this task will be presented at the workshop under Task 8 and incorporated into the Chapter prepared under Task 6.

Task 6. Ashland Chapter Preparation

The Project Team will develop a draft Chapter summarizing the analyses completed for this project. A complete draft Facilities Plan, with remaining chapters developed under separate scope, will also be provided for context of the Ashland Chapter.

In addition, West Yost will develop proposed edits to the Facilities Plan Executive Summary developed under the separate contract with City of Medford.

Task 6 includes a meeting with Cities of Ashland and Medford staff to discuss comments on the draft Chapter. Once all comments have been received, West Yost will prepare the final Chapter for submittal to DEQ with the larger Facilities Plan update.

Task 6 Deliverables

- West Yost will provide a draft Chapter for the Medford RWRF Facilities Plan report in PDF and/or MS Word format, as requested.
- West Yost will provide a final Chapter as part of the Medford RWRF Facilities Plan report in PDF format.

Task 7. Addendum to Environmental Assessment

West Yost will prepare a Technical Memorandum (TM) to serve as an addendum to the Environmental Assessment (EA) that will be separately prepared for the RWRF Facilities Plan update. The EA Addendum TM will discuss information on the Project Description and Evaluation of Project Alternatives as they relate to adding the Ashland flows to the RWRF influent and expanded facilities as determined from the other tasks of this Scope. In the context of the EA and EA Addendum, "Project" refers to the ultimate set of improvements determined to be needed to the RWRF to achieve compliance with the current RWRF discharge permit. This analysis will not consider the pipeline improvements needed to accommodate the discharge to the RWRF collection system/treatment plant.

West Yost will develop for Ashland review a draft TM summarizing the results of this task. The draft EA to which this will be appended will also be provided for context of the TM.

Task 7 includes a meeting with Cities of Ashland and Medford staff to discuss comments on the draft TM. Once all comments have been received, West Yost will prepare the final TM for submittal to DEQ with the larger Facilities Plan update.

Task 7 Assumption

• The scope of the EA Addendum will be limited to impacts to the RWRF facilities and not include an assessment of potential environmental impacts to any infrastructure needed to convey Ashland flows to the RWRF.

Task 7 Deliverables

- West Yost will provide a draft EA Addendum TM to the Medford RWRF Facilities Plan report in PDF and/or MS Word format, as requested.
- West Yost will provide a final EA Addendum TM as part of the Medford RWRF Facilities Plan report in PDF format.

Task 8. Project Management and Meetings

This task includes project management related activities, including project initiation, general project coordination, and development and review of project invoices. Under this task, brief descriptions of services performed will be developed and included with monthly invoices.

The following meetings are also included under this task:

- **Kickoff Meeting:** An initial meeting will be held with Ashland staff within one month of Notice to Proceed to discuss project scope and goals and the Project Team's initial data needs.
- Initial Analyses Workshop: Results from Tasks 1 through 3 will be presented to Ashland staff to confirm that the information accurately reflects the service area and collection system and meets expectations for current and projected flows and loads.
- **Draft Chapter and EA Addendum Review Meeting:** Following Ashland review of the draft Chapter and Executive Summary edits, West Yost will facilitate a meeting of the Project Team with Cities of Ashland and Medford staff to discuss comments.

Task 8 Assumptions

• All meetings/workshops will be conducted via video conference.

Task 8 Deliverables

- West Yost will provide monthly invoices and descriptions of services performed in PDF format.
- For the Initial Analyses Workshop, West Yost will prepare figures and tables describing the results of Tasks 1 through 3. Information will be presented in a PowerPoint format.
- West Yost will prepare meeting agenda and meeting notes to document key decisions made during each meeting.

PROJECT BUDGET

West Yost's proposed level of effort and budget for each of the tasks described above is shown in Table 1. West Yost will perform the Scope of Services described above on a time-and-expenses basis with a not-to-exceed budget of \$230,100. Any additional services not included in this Scope of Services will be performed only after receiving written authorization and a corresponding budget augmentation.

Table 1. Estimated Project Budget								
Task	Estimated Budget, dollars							
Task 1. Service Area Description	12,400							
Task 2. Existing and Projected Flows and Loads	41,000							
Task 3. Collection System Description	11,700							
Task 4. Impacts to Alternatives Evaluation and Recommended Project	9,600							
Task 5. Capacity-Related Improvements Needed	82,000							
Task 6. Ashland Chapter Preparation	40,200							
Task 7. Addendum to Environmental Assessment	9,700							
Task 8. Project Management and Meetings	23,500							
Total Project Budget	230,100							

SCHEDULE

It is anticipated that the preparation of the Ashland chapter will extend the project schedule by approximately one month.

This proposal is presented as a draft since additional dialogue would likely be needed to refine the scope and fee. The proposal should provide the City of Ashland with an estimate on the likely cost for addition of this option to the Medford Facility Plan. Please call if you have any questions or require additional information.

Sincerely, WEST YOST ASSOCIATES

Walter Meyer, PE Engineering Manager RCE 10945

cc: Kathryn Gies, West Yost

Crescent City Wastewater Plant Renovation

CITY OF CRESCENT CITY















STATEMENT OF THE PROBLEM

The current facility is operating under a cease and desist order from the California Water Quality Control Board because it can no longer adequately meet the service area's need for safe and efficient treatment of wastewater. A new facility is critical to both current needs and anticipated growth for the next 20 years; there is currently a moratorium on development until wastewater issues are under control. A component of the project will install Membrane Bioreactor technology to treat wastewater to standards suitable for reuse in agricultural irrigation.

PROJECT GOALS

Improve the capacity of the Crescent City wastewater treatment system to adequately treat wastewater to meet pollution control standards for water discharged into the Pacific Ocean habitat.

THE SOLUTION

This project will be implemented in three stages; this Phase I stage included : new influent pumping equipment and controls, new grit removal system, primary clarifier modifications, upsizing and upgrade of site piping, removal of underground storage tank and diesel contaminated soil, addition of membrane bioreactors for production of Title 22 Water, ultra-violet disinfection for Title 22 Water. effluent pumping for Title 22 Water and bio-solids thickening and pumping, and the implementation of state-of-the-art technology using membrane bioreactors able to produce high quality effluent. The City will look for opportunities to use this system in the future.

PROJECT IMPLEMENTATION AND ACCOMPLISHMENTS

The facility has installed the necessary equipment and performed initial testing that shows the system is capable of producing up to 1.2 mgd of recycled water. However, there is currently no economically viable use for recycled water given an anticipated golf course project did not move forward.

COMPLETION DATE

March 2014 (intended)

PROJECT BUDGET

IRWM funds:	\$ 935,602
Leveraged funds:	\$ 40,000,000
TOTAL	\$ 40,935,602

BENEFITS

Economic

- Avoided water supply project benefit estimated at \$3,770,000
- Stalled development will proceed

Water Quality

• Effluent discharge at Title 22 quality, improving discharge quality into the ocean

Jobs and Local Economic Benefit

- The project used local labor and supplies when possible, thus contributing to State goals for social equity
- · Increased economic development

NEXT STEPS & RECOMMENDATIONS

The City of Crescent City will continue to seek funding for and implement further phases of the WWTP facilities plan.

CONTACT

David Wells City of Crescent City Crescent City, CA 95531 707.464.4405



An excerpt from an engineering report on replacement of the Coos Bay Wastewater Treatment Plant from 2015:

Capital Cost Comparison: The City of Coos Bay's Empire WWTP Project (CB2) started in 2004 and was initially projected for a cost of \$9,000,000. Figure 1 shows the old and existing site along with the proposed new CB2 location. Todays expected cost to finish is \$32,450,000 and startup might occur in Dec. 2017. This expected cost is not a final bid but rather a "cost not to exceed" subject to change orders.

https://theworldlink.com/news/local/lakeside-to-receive-14-million-for-sewer-plant/article_9b24423c-1a2d-11ecbbe1-5fc62f7183bb.html

LAKESIDE; population 1,200

Lakeside to receive \$14 million for sewer plant

Sep 23, 2021



Welcoming visitors to Lakeside is a new city sign at the south entrance to the city off of U.S. Highway 101. RON JACKIMOWICZ, THE WORLD

The city of Lakeside has received notice from Business Oregon that it will receive a \$14,628,685 grant to replace its existing wastewater treatment plant.

The funds were approved as a part of Oregon House Bill 5006 which allocates American Rescue Plan Act funding for the project. The city of Lakeside's existing wastewater treatment plant is located in a floodway and has been subject to flood insurance premiums currently costing approximately \$40,000 per year. The plant is over 40 years old and has been experiencing declining mechanical components. A feasibility study concluded it was more cost effective to relocate and build a new treatment plant than rehabilitate it in its existing condition.

CITIES AND COUNTY UNDE	R R	VSS (BILI	S TA	KEN FRO	DM	VARIOUS	STATEM	ENTS	IN THE AREA	FOR ONE M	ONT	H CHARC	GE
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<u>CENTRAL POINT RESIDENT</u> COLUMBINE WAY	IAL				\$	Sewer 23.00	Storm D	Drain	Franchise Fee Res/Comm \$ 1.15		\$	24.15	39%
MEDFORD ALEX WAY	(DU	PLEX)			\$	20.18		1.72 9.43			\$	24.90	37%
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From: Councilor Graham

Date: 10/12/21

Re: Some things to consider regarding climate change and our discussion of the possibility of joining Rogue Valley Sewer Services.

As we consider the possibility of joining the Rogue Valley Sewer Services wastewater treatment system, it is important to think of how this decision might impact our ability to build climate resilience. Climate resilience includes both efforts to reduce greenhouse gas emissions (called "mitigation") and efforts to address the impacts of climate change (called "adaptation").

When considering the best way to handle wastewater from our community, we need to consider both, particularly if we are to act in alignment with our Climate and Energy Action Plan.

Mitigation:

In terms of energy use, there are several things for us to consider. Greenhouse gas emissions are a global issue, which means that it does not matter if carbon dioxide is emitted in Medford or Ashland. What matters is how much is emitted. So, having our wastewater treated by a facility that is not controlled by the City of Ashland does not necessarily move us forward with our greenhouse gas emissions goals as a community. It may take those emissions off of our books in terms of energy used by City-owned facilities, but it has no effect on the actual goal of reducing climate emissions unless there is something fundamentally different with the processing at the Medford facility that makes it use less energy. We do not know what the DEQ is going to require of the Medford facility, so we cannot know the answer at this point, but we do know that Council has recently approved the decision to shift from medium pressure UV to low pressure UV at our treatment plant, which provides a significant reduction in energy consumption. City staff is also looking to add solar to the Hardesty site to offset power needs and intends to release an in-vessel composting RFP to determine the possibility of composting the sludge and providing a beneficial reuse of the product. This will hopefully reduce our truck trips and tipping fees at Dry Creek where we now dispose of the sludge.

What we do know will increase in terms of energy use is the energy needed to pump our wastewater from Ashland to connect in with the RVSS system. From information presented at our last Council meeting, we will need to pump all of Ashland's wastewater to Talent and then there is the possibility of additional energy use to pump our

wastewater to the treatment facility if the water from Talent already needs to be pumped to the Medford facility (as opposed to it being a gravity fed system).

Adaptation:

When considering impacts of different actions on our ability to adapt to climate change, it is critical that we consider impacts to both human and natural systems. Drought has always been an issue in southern Oregon, but climate change is bringing more extreme drought conditions and is expected to only get worse over time. In addition, snowpack is changing, which is particularly important for communities, like ours, that rely on snowpack for drinking water. Climate change is bringing more rain and less snow, earlier runoff in the spring, and more intense and longer dry periods particularly in late summer. While all water is precious now, it will only get more precious over time – even treated wastewater that we currently put back into the natural creek system. Water quality and quantity are closely linked and both are significant challenges to communities in the Western U.S. as climate conditions change.

Natural systems are experiencing climate impacts in real time as well. This is particularly important for freshwater species, like salmon, that have very low survival thresholds for water temperature. As we have seen from periodic fish kills caused by water that is too warm, one of the best things we can do for salmon is make sure they have enough water in the stream to keep it flowing and keep it as cold as possible in spite of warming temperatures. This is particularly true in tributary streams that are at higher elevations in watersheds.