

**Nampa WWTP Phase II/III Upgrades
Design Review Committee
Thursday, December 20, 2018
Nampa Wastewater Treatment Plant | 340 W Railroad St
7:00 AM – 9:00 AM
MEETING SUMMARY**



Meeting Overview

On Thursday, December 20, 2018, the Nampa Wastewater Treatment Plant Design Review Committee (DRC) convened its fourth meeting. The objectives of this meeting were to review and discuss specific design features, as well as continue discussing project packaging and delivery options. The following is a summary of topics discussed and feedback provided at the meeting. Please see meeting materials for more information.

Meeting Summary

Reuse Permitting Update

Nate Runyan, City of Nampa, provided an overview on the status of the City's application to Idaho Department of Environmental Quality for the water reuse permit to discharge into the Phyllis Canal. The City met with IDEQ on December 18 to discuss certain components of the permit and will work to submit a formal application for reuse in 2019.

Nate also explained that the City has received the draft SRF loan offer for the first \$37 million of the \$165 million that will fund the WWTP upgrades. This loan offer also locks in the interest rate. City Council will review the loan offer and consider final approval.

Tertiary Treatment Technology Evaluation

Matt Gregg, Brown and Caldwell, reviewed the tertiary filtration options. Currently, the City is considering the option of accelerating the timing of the recycled water program in order to benefit from less stringent phosphorus limits. However, the decision to accelerate would impact the tertiary filtration technology chosen, as well as impact which phase certain capital costs would be realized. After reviewing what this accelerated change to the construction schedule would look like, DRC members agreed they would like Brown and Caldwell to return to the next committee meeting with options for tertiary filtration technologies for consideration. Please see DRC briefing #11 for more information.

Questions included:

1. Why would the City not accelerate the recycled water program?
2. If the City pays these capital costs earlier in the project, will it have to repay the SRF loan sooner?
3. What does the future of tertiary filtration technology look like? Is there a chance it will improve and increase the City's ability to meet stricter standards? How do we quantify the risk of waiting?
4. Is the City designing upgrades for a 2040 projected population?
5. Why is the City now focusing on winter limits?

Sidestream Phosphorus Treatment Options

Matt Greg provided an overview of the alternatives under consideration for sidestream phosphorus treatment, which prevents struvite buildup in key processes of the WWTP. Due to rapid evolution of this technology, these alternatives range from simple control of the buildup to the harvest and selling of struvite as a product. Each of these alternatives has different costs and savings associated with the technology, as well as benefits and challenges. The purpose of this initial introduction to the five options was to generate questions and feedback from DRC members. The project team will then return with additional information on the alternatives to determine preference. Please see DRC briefing #12 for more information.

Questions included:

1. How long does it take for one ton of struvite to be recovered?
2. What is the potential ROI for one ton of struvite?
3. What is occurring in the WASSTRIP tank under alternative 3?
4. What are the risks associated with relying on one company to buy recovered struvite?
5. Can we have a better estimate of cost versus benefit for recovery?

Project Packaging Alternatives

Matt Gregg reviewed the four potential project packaging options, explaining that the preferred package will be determined by a number of criteria, including site conflicts, schedule, contract package value, organizational commitments, and financial capacity. The City is currently considering options 1 and 2, as the other options have higher risks and complexity associated with delivery. The project package that is ultimately chosen will also be closely tied to the project delivery option that is also chosen. Please see DRC briefing #13 for more information.

Project Delivery Options Feedback

Leafwin Clark, Brown and Caldwell, lead a process for DRC members to identify and prioritize their preferences on key attributes of project delivery. These votes were conducted through the use of “clickers” and were anonymous. Questions were divided into the following categories:

- 1) Clearly defining scope and configuration
- 2) Establishing accountability for performance
- 3) Retaining Nampa control and decision-making
- 4) Getting the “best” price
- 5) Getting the “best” value

Leafwin will return to the January DRC meeting with response results and summaries, which will guide discussion and determination of which project delivery option best meets the identified interests and priorities of the City.

Next Steps

The next Committee meeting will be Thursday, January 17, 2019, from 7-9 a.m. at the Nampa Public Library.

DRC Meeting #4 – December 20, 2018

Responses to Questions

Tertiary Treatment Technology Evaluation

1. Why would the City not accelerate the recycled water program?
Accelerating the recycled water program would impact the overall capital expenditures and may require a new funding model. Moving up the capital expenditure and O/M expenses may change the rate forecast.
2. If the City includes these capital costs earlier in the project, will it have to repay the SRF loan sooner?
No, the SRF Loan maturity date is based on the completion date for the Project. The recycled water program is a component of the Project.
3. What does the future of tertiary filtration technology look like? Is there a chance it will improve and increase the City's ability to meet stricter standards? How do we quantify the risk of waiting?
Treatment technology within the wastewater sector continues to evolve. While the physical processes that are currently being evaluated as part of the tertiary filtration evaluation will be constant, the cost of implementation for these may change in the future.
4. Is the City designing upgrades for a 2040 projected population?
Yes
5. Why is the City now focusing on winter limits?
Both the winter and summer total phosphorus limits are important in the design process. The city's NPDES permit requires reductions in total phosphorus to meet both limits.

Sidestream Phosphorus Treatment Options

6. How long does it take for one ton of struvite to be recovered?
This is largely dependent on the technology selected. Based on current estimates, the City could produce between 200 and 1,100 tons of struvite annually as an average over the design period.
7. What is the potential ROI for one ton of struvite?
This will be presented as part of the sidestream treatment evaluation in DRC Meeting #5.
8. What is occurring in the WASSTRIP tank under alternative 3?
The WASSTRIP tank is an unaerated tank that allows for the release of phosphorus from the biomass.
9. What are the risks associated with relying on a company to buy recovered struvite?
The City would be relying on a third-party to remove the struvite product from the Nampa WWTP. If the third-party could not perform this function, the City would be required to remove the product and find a way to dispose of it, potentially by landfilling it.