

Meeting Summary
Nampa Wastewater Advisory Group
Meeting #2 | Alternatives Overview
April 12, 2017 | 4-6pm
Nampa Civic Center

Overview

The City of Nampa is evaluating options to upgrade its wastewater infrastructure, address regulatory requirements and prepare for the future. Based on community input and technical analysis, the City has adopted a multi-phase approach to the upgrades. The first phase is under construction. The City is currently evaluating alternatives for the next phases.

The NWAG met for the second time on April 12, 2017. City public works staff and engineers have committed to preparing group members with a basic knowledge of wastewater and the complexities of Nampa’s system. The group is tasked with providing feedback and assisting the City during the decision-making process for phases II and III. Approximately 45 NWAG members attended the meeting.

Meeting #2 Objectives

- Present the process Nampa is using to evaluate wastewater alternatives.
- Review the reasons why the City eliminated the Infiltration alternative from consideration.
- Provide an overview and ask for input on the range of wastewater alternatives being evaluated.

Summary Contents

This document includes a summary of the presentation, questions and comments from the NWAG meeting. Answers to members’ questions have also been included.

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Next Meeting Dates

NWAG Meeting #3	June 14 (4-6 p.m. at the Nampa Civic Center)
NWAG Meeting #4	Sept. 13 (4-6 p.m. at the Nampa Civic Center)

Presentation Summary | NWAG Meeting #2

The content of NWAG Meeting #2 was presented on PowerPoint slides. The slides detailed information about each agenda item and are attached as an appendix to this document. A brief overview is included here for reference.

Opening remarks | Nate Runyan, Deputy Public Works Director

- Nate welcomed the group and recognized Councilmember Levi and Councilmember Raymond.
- Michael Fuss, Public Works Director, could not attend the second meeting.

Meeting objectives and administration | Rosemary Curtin, RBCI

- Rosemary reviewed the objectives for the meeting.
- Meeting summary #1 contains all questions and responses from NWAG members.
- Members are always welcome to email additional questions to wastewater@cityofnampa.us. Responses will be prepared and included in the NWAG meeting summaries made available to members following the meeting.

Overview of Nampa's alternative evaluation process | Matt Gregg, Brown and Caldwell

- Matt reviewed the process of creating a wastewater facility plan, as well as the decision-making methodology involved in the process.
- The sustainable decision for Nampa's wastewater will fit four "boundary conditions" (as described in the PowerPoint presentation). These boundary conditions are represented by the critical success factors that were discussed in NWAG #1. The decision will be aligned with community values, regulatory requirements, projected City growth, existing system condition and treatment capacity, and utility financial capacity.
- The City would like to hear comments today about its approach to allocating wastewater treatment capacity to future industrial growth. Relative to other cities in the area, Nampa has a significant percentage of industry that make up its customer base.
- The City is conducting a "business case evaluation," which is the decision-making process that will be used to select the preferred alternative moving forward.
- The process will involve identifying level of service goals for the community, brainstorming alternatives, and then developing capital, operations and maintenance, and risk and benefit costs for each alternative. This approach monetizes the decision process and helps select the preferred alternative for the City.

Infiltration Alternative – Recap of the decision to eliminate | Matt Gregg, Brown & Caldwell

- Matt reviewed the initial discharge alternatives analysis from 2012, additional infiltration investigations, as well as the updated discharge alternatives analysis performed in 2016.
- The infiltration alternative appeared to involve several benefits (i.e., availability of Class A water, economic growth, etc.). The NWAG members in 2012 indicated interest in further evaluating this alternative.
- The City Council expressed interest in continued investigation of alternatives with economic development potential.
- The 2016 discharge alternatives analysis showed increased capital costs for infiltration (e.g. about \$40 million more than treat and discharge alternative).

Alternatives Overview | Matt Gregg

- Matt gave an overview of each of the six alternatives under consideration, including risks and benefits of each.
- Alternative costs will be discussed at NWAG Meeting #3. NWAG members were asked to provide input on the alternatives with focus on their respective benefits and risks, aside from costs which would be discussed in the future. NWAG members were given a fact sheet about each alternative and comment sheets to provide feedback.

Wastewater Program Update | Matt Gregg

- Matt provided an update on the status of two ongoing projects that are part of the Phase I Upgrades.
- The City has recently learned that it was ranked third in the evaluation process for a \$5 million State Revolving Fund loan (from the Idaho Department of Environmental Quality). Members were notified that the public comment period to the loan was available to them.

Working Groups and Next Steps | Rosemary Curtin

- Rosemary thanked group members for attending and reiterated that the NWAG meetings are open to anyone wishing to attend.
- NWAG members are welcome to bring interested community members to future meetings and are encouraged to discuss issues and information learned during NWAG meetings with peers and family members.
- Group members were encouraged to work in groups to complete their comment sheets.

Questions and Answers | NWAG Meeting #1

Attendees were invited to ask questions during the presentation and on their comment sheets. Answers from the City and its technical team have been provided here for reference.

Alternative 1: Treat & Discharge

- 1. You mentioned ambient temperature helped cool the water. Have you considered evaporation?**

We have considered a number of approaches to meeting the new temperature limits. At this time, the combination of cooling towers and chillers is the most technically feasible.

- 2. Does this alternative meet the 0.35 mg/l or 0.07 mg/l requirement?**

The Treat and Discharge alternative must meet a total phosphorus limit of 0.1 mg/L in the summer and 0.35 mg/L in the winter.

Alternative 2: Treat & Discharge, Class A

- 3. Does Alternative 2 (Treat & Discharge Class A) present an additional cost to industry? How much interest (and future interest) is there on behalf of industry?**

The City's Economic Development Director has provided information on recent businesses that have looked at relocating to Nampa. This information indicates there is potential that a future industry may relocate to the City if sufficient Class A water were made available. For the purposes of the evaluation, it is assumed that the water is provided free of charge to the industrial customer. The City may revisit this in the future depending on the selected alternative.

- 4. Would water from industry come back to the plant? How would it be discharged?**

It depends on how the industry uses the water, but in general industrial discharge comes back to the plant for treatment.

- 5. Is there any way to derive income from cleaned water before dispensing it into Indian Creek?**

There is a potential for recycled water to be sold. However, for the purposes of this evaluation it is assumed that any recycled water would be provided free of charge to the end users. The City may revisit this in the future depending on the selected alternative.

- 6. As the rates to treat industrial water continue to rise and push industry to look at "other options," what is being done to continue to attract industry into continued business partnerships? Or to maintain current partnerships?**

The City is proactively working on ways to collaborate with current and future industries and identify mutually beneficial solutions. One example of this is the City's Industrial Incentive Policy, which provides several types of incentives to both new and existing industries. The City is always open to working with its industrial customers to identify additional opportunities for collaboration.

Alternative 3: Treat & Irrigation Discharge

- 7. If we discharge to the irrigation canal (Alternative 3), would we raise the water level of the canal? Would we need to account for this?**

The City would work closely with the irrigation company that controls the canal to manage the amount of water in the canal. Therefore, it is not expected that the flow would have an appreciable impact on the canal's operation.

8. Since the irrigation canals don't run all year long, what would Nampa do for Alternative 3 in the winter?

Alternative 3 assumes that flow is discharged to the irrigation canal in the summer (May – September), when temperature limits apply to the City's discharge, and continues to discharge to Indian Creek during the winter (October – April).

If you're dumping warmer water in the canal, would that generate more algae?

While there is a potential for algae growth, the treated wastewater would not raise the temperature of the water as it is a small portion of the overall flow in the irrigation canals.

9. Doesn't most water in irrigation canals end up in the Boise River? If so, how does this alternative help to mitigate temperatures?

The water in the irrigation canals is primarily used for irrigation with only a small portion being returned to the Lower Boise River. By not discharging the treated wastewater directly to Indian Creek, the temperature impacts on Indian Creek would be mitigated.

10. What about run-off to Lake Lowell?

The alternatives presented are not expected to impact the runoff to Lake Lowell.

11. Could the water from Alternative 3 (Treat & Irrigation System) also go to the City's pressurized irrigation system?

Yes, this could be an option in the future if the City elects to pursue Alternative 3.

12. Was industry considered as part of a small side stream for Alternative 3?

The same approach of providing a small side stream to industry could also apply at Alternative 3, but this has not been looked at as a separate alternative yet.

Alternative 4:

13. How far downstream of the WWTP is available to be considered for the offset?

Downstream of the WWTP to the Boise River, only land located on Indian Creek is considered. The City has identified available land, most of which is in Caldwell. While the regulatory framework for water quality trading is still under development, the current assumption is that an offset facility must be located on the impaired water body that the permittee discharges to. This helps prevent creating localized impacts on Indian Creek.

14. Are there any tributaries within that zone that could potentially have land?

The City has done a preliminary review of phosphorus loadings of some of the tributaries and have not identified any that would be ideal for an offset project.

Alternative 5: Treat and Trade

15. What is the interest from the farming community? Will that potential up-front interest last and continue to be a workable option in the future?

Trading is a relatively new concept in Idaho. If the community expressed interest in Alternative 5, the City would engage with farmers to recruit potential participants. Participation in water quality trading is voluntary and landowners can choose to not re-enroll or break their lease. This would require the City to recruit more landowners at unplanned, intermittent intervals. What is currently unknown and a potential risk to the City is the level of landowner interest that will exist in the future.

16. What is the potential for trading for temperature (enough to eliminate the need for chilling)?

The City has investigated the possibility for trading as a temperature mitigation strategy. The results of this analysis indicate that for the estimated amount of heat (i.e., thermal load) the City would have to remove there is insufficient temperature credit supply in Indian Creek to meet the City's demand. In other words, due to the small size of Indian Creek there isn't enough thermal load to match the amount the City is required to take out. Alternative 5 capital costs therefore include temperature mitigation technology in order to meet permit requirements during the summer.

Alternative 6: Do Nothing More

17. Is there any relaxation in the federal requirements?

The City recently received a permit with a 15-year compliance schedule. It is not expected that the requirements of this permit will be relaxed.

Infiltration

18. Was the TDS the big thing that swayed the cost of the infiltration alternatives? Are these treatment technologies – as far as the future – things you would need to install anyway?

The risk of needing to treat for total dissolved solids (TDS) was one of the items that raised the total cost of the infiltration options. It was not expected that the technology used to treat for TDS would be needed in the future for the other discharge alternatives.

19. Would it be possible to construct the pipeline (for infiltration) in smaller pieces? Possibly dig some now and some in 10 years?

The construction of the pipeline is challenging as the full length is needed before the first drop of water can be applied to an infiltration site. The City investigated possible alternatives to pipeline construction, including phasing of pipeline installment and using smaller diameter, parallel pipelines. These different pipeline configurations did not change the overall cost of the pipeline.

Other Questions

20. How are you considering life cycle costs and replacement costs (for equipment) in the analysis? Is there a standard rate?

Asset life cycle is evaluated as part of the facility planning process. The City is considering both the needed investments in existing infrastructure and what will be required to maintain the equipment installed to address phosphorus and temperature requirements. The City has established standards on the expected life for certain types of equipment and structures that are then used to inform this process and plan spending accordingly.

21. Is the future industrial growth planned for the year 2040? How would it be phased over time?

Yes, future industrial allocations are for the 2040 planning horizon. The City is evaluating approaches to phasing capacity for growth as part of the facility planning process.

22. What is the percentage interest rate for the DEQ State Revolving Fund loan?

For fiscal year 2017 the interest rate for the SRF loan ranges between 1.50% to 3.00%.

Comment Sheets | NWAG Meeting #2

Group members received a fact sheet for each of the six alternatives. Each fact sheet included a comment sheet for members to record their “likes” and “dislikes.” In addition, a general comment sheet included space to record comments about the planning process, the proposed approach for future industrial growth, the evaluation process and any additional questions and comments.

The City of Nampa received 53 comment sheets about the alternatives, as well as 16 general comment sheets. Some NWAG members completed comment sheets about multiple alternatives.

A few overall themes emerged.

- The majority of the comment sheets expressed support for the re-use of water for industry or irrigation purposes (Alternative 2 and Alternative 3).
- Of the six alternatives, Alternative 6 (Do Nothing More) received the fewest positive comments and the highest number of negative comments.
- Alternative 3 (Treat and Irrigation Discharge) generated the highest number of positive comments and the fewest negative comments.
- Alternative 2 (Treat and Discharge, Class A) received a high number of positive comments and a high number of negative comments.
- Other less-popular alternatives included alternatives 1, 4 and 5.

A summary of representative comments is included here for reference. Several questions from the comment sheets were included with the Q&As on page 3 and answered by the technical team.

Alternative 1

Likes included:

- It works.
- Potentially the least expensive.
- Low risk, low cost? Proven. Easy to control.
- Meets the discharge permit. Nothing new outside of plant.

Dislikes included:

- Cooling requirements and costs associated.
- Does not offer water for alternative uses.
- Risks but lack of benefits.
- Doesn't solve potential future problems. Over time, there may be more we have to do which will lead the city right back to another round of upgrades. It also does nothing to promote or better community by giving the water back to industry or irrigation where it can be used again.
- No, not my favorite.

Alternative 2:

Likes included:

- Reuse is valuable; I like the idea of re-using water for industry.
- Would promote industry and economic growth/development.
- This is the plan I liked the most without taking costs into consideration.
- Headed towards class A which should be the end goal.
- Combine alt. #2 and alt. #3?
- Good use of water in right applications.
- The risks seem very similar to other alternatives with benefits outweighing the risks.
- Reuse is great, but not my favorite.
- 3 stars.

Dislikes

- Not sure why on this alternative we still need cooling towers.
- Water right issue could bring litigation/expense.
- Only giving back some of the waste, not all. Seems wasteful to go to the effort to recycle this water, make it grade A, and then put it into a dirty creek.
- I still dislike the construction of the cooling towers due to their cost.
- Sounds costly.

Alternative 3:

Likes included:

- Economic development potential. Help irrigation needs potentially. Recycle water.
- Just seems like this is an environmentally sound idea.
- Putting the water BACK to where it can be used! Some summers are hard for farmers to get enough water... this helps those years!
- Saves on costs for cooling towers. Full class A so we are good for the future.
- Gets you out of cooling requirements.
- I do think this alternative has great potential. I would definitely encourage further investigation to address the water rights concern. I believe the public perception risk is far less with this alternative.
- I like reusing the water for the crops and lawn. Seems like value is added to the whole process.
- Positive alternative to recycle water.
- Could be low cost.
- More water in reservoirs and maintain water table levels.
- Most favorable.
- I like the idea of using the irrigation canal. Alternative #3 is a good, workable plan.
- 3 stars.

Dislikes included:

- Difficult to control with irrigation district.
- DEQ permit.
- Might only get us down the road 10 years.
- Exceed capacity at canal. Not year round.

Alternative 4:

Likes included:

- Potential for proven success by City of Boise; like Dixie Drain example.
- I really think this should be explored more. This seems to be potentially the most cost effective alternative.
- Net environmental benefit.
- Great water quality.

Dislikes included:

- Risk of finding a good offset location on Indian Creek.
- Chemical usage and/or cost.
- Dealing with a number of stakeholders will be difficult and may not be a working solution – can't get around. Offset rates could change.
- Probably the most costly, doesn't make sense when all things can be done at the plant. Now you have to buy more land, build more buildings, hire more people to work at this site.
- Cooling towers.
- Evaporation
- Don't favor dumping Class A water away.

Alternative 5:

Likes included:

- Reductions in phosphorus, fewer upgrades.
- Good idea but not likely to go over with farmers.
- Good use of water.
- Could investigate the possibilities.

Dislikes included:

- Unpredictable cooperation by farmers. Could lead to outright increased regulations on farmers. Third party administration. Trading credits not well defined or available.
- Asking farmers to go away from gravity/flood irrigation to pumping is not going to happen ... now the farmer pays ALOT more for irrigation when you have to buy and sink pumps, sprinkler systems and maintain them all.
- Cooling towers, risk.
- Too much uncharted territory. Cumbersome to manage. Nampa doesn't need to extend such risk even if NDR might feature the project.
- This could be difficult to coordinate.
- Too many risks. Could be hard to control. Need many farmers to agree.
- Risk of having contract with farmers or private individuals is too high.

Alternative 6:

Likes included:

- I do think that at least with the current presidential administration, some of the over-burdensome regulation could be lightened.
- Low cost.

Dislikes included:

- The fines and legal fees are too costly.
- This is not a viable option.
- Waste of time to pursue this further.
- Not a real option.
- Not acceptable.
- Fine risk, regulatory issues.
- Can't do this.
- No cost implies no expansion. Is that at all feasible?

Industrial growth:

Comments included:

- I support reasonable growth reserve, especially if it can be phased to prevent over-building.
- I would like the City to continue to plan and encourage industrial growth.
- It is vital for Nampa to expand capacity to accommodate new industry to build and diversify our tax base.
- I like the idea of planning for future industry. Based on information in presentation, looks like 10-15% reserve capacity for industry is justified. Even if no industries come, this reserve capacity can also be used with more residential/commercial growth (win-win).
- Any way to derive income from cleaned water before dispensing it into Indian Creek? I like the idea of collecting revenue from industry for our class A cleaned water.
- Re-address unused capacity fee – reduce/remove.
- Environmentally friendly, strategically placed, use natural reusable local resources.
- Utilize local (Nampa preferred) workforce.
- Limit burden on current/future wastewater system – willing to invest if applicable.
- As a whole, is it the proposed industry beneficial to our city? Long-term commitment to our community. What investment are they willing to make in our city?

Other general comments (planning, evaluation and other comments)

Comments included:

- Important to plan for growth, but more important to make these services available for growth! Have to stay ahead of growth.
- Estimated Treasure Valley growth by 2040 on I-84 corridor + 1,000,000 between Ontario, OR and Mountain Home, ID.
- Good overview of alternatives. Looking forward to review of costs of each alternative.
- I appreciate the level of professionalism of the speaker. Presentation is extremely easy to follow. The handouts are beneficial.