



# City of Nampa

## Wastewater Treatment and Disposal Upgrade

### Wastewater Advisory Group

### Meeting #1 Summary

**August 18, 2011 ♦ 4 p.m. – 6 p.m.**  
Nampa Civic Center ♦ Casler Room  
311 3<sup>rd</sup> Street South  
Nampa, Idaho 83651



**Nampa Wastewater Advisory Group  
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**Overview**

The City of Nampa must implement an extensive program to upgrade its treatment and disposal of wastewater in order to meet the upcoming National Pollutant Discharge Elimination System (NPDES) permit.

The purpose of the Nampa Wastewater Advisory Group (NWAG) is to provide guidance to the City of Nampa on how best to upgrade its wastewater treatment and disposal system. Nampa must make upgrade decisions by early 2012.

The Nampa Wastewater Advisory Group will work with the city at a high level of involvement and commit time to learning technical information about the upgrade process. The group will be asked to provide input on the upgrade options, funding options and ways to educate residents about water quality issues.

Members of the advisory group will be asked to:

- Actively participate in meetings
- Represent the needs and opinions of their organizations and industries (i.e., residential, business, industry, etc.)
- Spend time learning about technical information
- Review and give input on wastewater upgrade options
- Provide guidance to the city on how best to:
  - Fund the upgrade
  - Involve the public in decisions

## **Meeting #1 Agenda and Format**

The City of Nampa hosted the first Wastewater Advisory Group meeting on Thursday, August 18, 2011 at the Nampa Civic Center.

### **The meeting objectives were to:**

- Explain why Nampa must upgrade its wastewater treatment and disposal system
- Outline the wastewater advisory group process
- Provide an overview of how water quality is managed in the Treasure Valley

### **Agenda:**

- Opening remarks – Mayor Tom Dale, City of Nampa
- Introductions – Michael Fuss, Principal Engineer (P.E.), City of Nampa, Public Works Director
- Workshop objectives and role of the Nampa Wastewater Advisory Group – Rosemary Curtin, RBCI, Public Involvement Consultant
- Overview of water quality management – Steve Burgos, Associate, Brown and Caldwell / Craig Anderson, P.E., Murray, Smith & Associates
- Why Nampa needs to upgrade – Michael Fuss, Steve Burgos and Craig Anderson
- What’s next – Rosemary Curtin

Each attendee was provided a meeting binder with the following handouts:

- Agenda for Wastewater Advisory Group Meeting #1
- Wastewater Advisory Group Roles and Responsibilities fact sheet
- Nampa Wastewater Upgrade Overview fact sheet
- Acronyms fact sheet
- Roster of Wastewater Advisory Group members
- Tentative 2011 schedule of future meetings
- “Questions and Comments” comment form
- “Meeting Evaluation” comment form

A list of attendees is attached.

## **Summary of Presentations**

### **Opening remarks – Mayor Tom Dale, City of Nampa**

Mayor Dale thanked all meeting attendees for coming and being a part of the Wastewater Advisory Group process. He encouraged the members to stay involved and engaged as the process continues. During his opening remarks, Mayor Dale also discussed the following:

- A television news report from the previous evening that implied Nampa's intent was to double wastewater bills for its citizens. Raising rates is not at all a motivating factor for why the city's wastewater treatment system needs to be upgraded.
- The City has the responsibility to dispose of its citizens' garbage and treat its wastewater. Currently, water that is treated at Nampa's wastewater treatment plant is discharged into Indian Creek, which is a surface water of the U.S. The EPA has jurisdiction over all surface waters of the U.S. that require anybody who discharges into these waters to have a permit.
- These regulations and permits are a good thing, because they allow the water to stay clean so that people can fish and recreate in the streams, rivers and lakes.
- All of the water from Indian Creek eventually ends up in Brownlee Reservoir. Several years ago there was an algae bloom on the Snake River, and it was determined that there was excess phosphorus in Brownlee Reservoir, which was killing fish.
- The EPA evaluated the phosphorous problem and determined that anyone who discharges water into a drainage that goes into the Snake River has to meet a certain level of phosphorus. EPA has developed new regulations that will require Nampa to lower the amount of phosphorus it discharges into Indian Creek.
- There are several ways that Nampa can meet the EPA's requirements. One way would be to invest a great amount of money into making technological and chemical upgrades to the plant that would treat for phosphorus. Another option being evaluated is to stop discharging water into Indian Creek and instead, apply the treated water to land. One more option being considered is trading credits and remove phosphorus at the plant and also at an offsite agricultural drain.
- The Wastewater Advisory Group's responsibility is to look at all the different options for upgrading Nampa's wastewater treatment system. The group will look at the benefits, drawbacks and costs for each option and help the City decide which direction to go in the most cost-effective, reasonable manner possible.

### **Introductions – Michael Fuss, P.E., City of Nampa, Public Works Director**

Michael thanked the meeting attendees for coming and helping to contribute to the complex issue of upgrading Nampa's wastewater treatment system. He introduced the project team members and presented the following information:

- A program management team has been analyzing and evaluating options for how to upgrade the wastewater treatment system for over a year.

- Upgrading Nampa’s wastewater treatment and disposal system is a significant decision. Nampa has one of the largest wastewater treatment plants in Idaho. Nampa’s wastewater treatment plant is largely impacted by industrial flows and receives more industrial flow than any other plant in the state.
- Nampa needs input from the Wastewater Advisory Group to help the City decide how to make these upgrades. Nampa will receive a new National Pollution Discharge Elimination System (NPDES) permit from the EPA. The City knows that phosphorus will be the major issue with the new permit. The project management team has defined the technical issues, now is the time to have the public involved in the decision of how to best make these upgrades.
- There are currently four options under serious consideration. Each option would cost approximately \$200 million over the life of the plant. The purpose of the Wastewater Advisory Group is to determine if the community has a preference of one option over the others.
- The City has been working with a virtual focus group of approximately 500 people over the past year. The group has been taking surveys online and using the Internet to learn more information about the upgrades.
- Most importantly, the City wants to get as much input as possible to make sure that they are making the right decision for Nampa and its citizens.

**Workshop objectives and role of the Nampa Wastewater Advisory Group – Rosemary Curtin, RBCI, Public Involvement Consultant**

Rosemary thanked advisory group members for willing to commit their time to participate in this process. She presented the following information:

- Each group member has a binder at their table. She reviewed the contents in the binder and indicated all future meeting materials will be prepared for the binders. Team members are encouraged to bring these binders to future meetings and add materials. It is anticipated there will be five more Wastewater Advisory Group meetings over the next year, there could be more or less, depending on how the process progresses.
- All meeting materials and meeting summaries will be posted to Nampa’s website: [www.cityofnampa.us/wastewater](http://www.cityofnampa.us/wastewater)
- Team members are encouraged to fill out the comment sheets and let the project team know what they thought worked well and what did not work well. The input received will help the project team plan the next meeting. There is also a separate comment sheet for questions and issues. All questions and comments listed on the comment sheet will be addressed at the beginning of the next meeting.
- The meeting is being tape recorded to help with the transcription and meeting summary.
- Upgrading Nampa’s wastewater treatment system is a major financial decision for the City. A virtual focus group has been participating in an online survey process. The virtual focus group will continue as the Wastewater Advisory Group process progresses.
- The objectives of this first meeting are:

- Explain why Nampa must upgrade its wastewater treatment and disposal system.
- Outline the Wastewater Advisory Group process.
- Provide an overview of how water quality is managed in the Treasure Valley.

**Overview of water quality management – Steve Burgos, Principal Engineer, Brown & Caldwell / Craig Anderson, Principal Engineer, Murray, Smith & Associates**

Steve Burgos from Brown & Caldwell presented the following information:

- The technical issues have been defined, but the project team is at the point in this project that they now need to understand the values of the community. Understanding these values will help drive the decision of what upgrade option is chosen. It will be the ratepayer that will help the project team and the City make a decision on which option is best for Nampa.
- The upgrade requirements are coming from the federal Clean Water Act. The Clean Water Act was passed in 1972 during the Nixon administration. The goal of the Clean Water Act is to restore and maintain the chemical, physical and biological integrity of the nation's waters.
- Incidents that influenced the creation of the Clean Water Act include severe pollution during the 1960's of water bodies such as:
  - Lake Erie – Industrial discharge caused a green sheen, algae over and slimy mosses that were sucking up much of the dissolved oxygen. Because the fish were not able to survive, the lake was declared “dead.”
  - Hudson River – The river was so polluted that all fishing was banned. It was eventually declared a superfund site so money was provided to clean up the river
  - Cuyahoga River – There was so much pollution on the lower Cuyahoga that a fire started on top of the water. This event brought many people in the country to the realization that severe pollution is not acceptable and steps needed to be taken to clean up our nation's waters.
- As late as the 1950's raw sewage was being discharged into the Boise River, which greatly impacted the water quality.
- The goals of the Clean Water Act were to:
  - Eliminate discharge of pollutants into U.S. waters by 1985.
  - Make water quality in the U.S. fishable and swimmable “wherever attainable” by 1983.
  - Prohibit discharge of toxic pollutants in toxic amounts.
- Section 402 of the Clean Water Act stipulates that there should be no unpermitted discharges into waters of the United States
- The EPA regulates Idaho because the state has decided on multiple occasions not to fund its own National Pollutant Discharge Elimination System (NPDES) program. It would be expensive to fund and staff a state NPDES program. When a state decides not to fund a

program it rolls back up to the federal government's responsibility, therefore the EPA has control over the NPDES program in Idaho.

- Wastewater is any water adversely affected in quality by human impacts such as residences, manufacturing or any human activity. Wastewater encompasses a wide range of contaminants and concentrations. Every city has its own waste stream characteristic and methods of treating to the required levels.
- For the next meeting, the group will take a tour of the wastewater treatment plant to see how the water is cleaned. It is a fascinating process, and it will be important for the group to understand the engineering that goes into treating the water.
- Under the Clean Water Act, federal permits dictate that wastewater must be treated down to a certain level so water bodies are not adversely affected.
- A process identifies which water bodies are “sick” for which nutrients or pollutants. Once that is determined, the state is required by law to develop a Total Maximum Daily Load (TMDL). The TMDL can be thought of as a treatment plan for a sick patient. The TMDL helps determine which contaminants are polluting a water body and dictates what level of certain pollutants can be discharged into that water body by various dischargers.
- The TMDL process begins with the state DEQ and key stakeholders forming a watershed advisory group. This advisory group determines what they want to use a body of water for (i.e. a river for fishing). The watershed advisory group then identifies what the water body is currently being used for – this is called a “use classification.” The use classifications ensure that the water body can be used by people for the designated beneficial use.

▪ **Question: Who identifies the use classifications?**

*It is usually the state DEQ. But there are also stakeholders in the watershed that can give input. If other stakeholders do not agree on a use, they can push back. There is a lot of iteration in the process, but it is led by the regulators.*

- A key term in the Clean Water Act is “waters of the U.S.” In general, if a water stream eventually makes it back to a main stream or a main tributary, it is a water of the U.S. (e.g. Dixie Drain draining back to the Boise River). A permit is required to discharge into the waters of the U.S. The definition of “waters of the U.S.” is evolving and constantly being litigated.
- The EPA uses a watershed approach to regulate. A watershed is the area of land where all the water drains, similar to a bowl. Watersheds come in all shapes and sizes, there are about 2,000 watersheds in the U.S.

▪ **Question: Is phosphorus the only issue we are dealing with?**

*No. There are multiple issues on the lower Boise River. There are specific water quality issues for the watershed.*

Craig Anderson from Murray, Smith & Associates presented the following information:

- The watershed that affects Nampa are tributaries that drain into the Boise River, including Indian Creek. The Lower Boise watershed has been identified for a number of pollutants such as bacteria, sediment, temperature, nutrients and mercury.
- A TMDL is a pollution reduction plan for an impaired stream that no longer meets its use classification.
- EPA regulates organizations and businesses that directly discharge into a water body of the U.S.
- Predominant sources of pollutants are wastewater, stormwater and agriculture.
- Total phosphorus is a combination of inorganic and organic phosphorus. Phosphorus drives algae production. Both phosphorus and nitrogen are needed for algae to grow. Reducing the phosphorus is the focus of upgrading Nampa's wastewater treatment system.
- Nampa currently has no limit for the amount of phosphorus that it can discharge. Nampa's wastewater treatment plant currently discharges approximately 5 mg/l of total phosphorus (TP).
- The upgrades must be made, noncompliance is not an option. If Nampa does not comply it will not be allowed to add any new sewer connections, the City will be fined and then finally mandated to comply.
- There is enough time for Nampa to influence the choice of which option is chosen. The more time it takes to make a decision the City will have less influence and shorter time to make improvements, therefore increasing the cost.
- Nampa expects its new NPDES permit will have much lower limits for phosphorus. This permit is expected in 2013.
- It must be decided what is best for Nampa, between now and when the permit is issued. The City must also engage with the regulators.

▪ **Question: Who is the EPA's boss?**

*The EPA is set up as an independent, self-regulating entity. However, Congress through the appropriations process, has the ability to influence the EPA. Recently there have been funding cuts to EPA. The Obama administration has required the EPA to review every mandate that they have and has restricted their funding.*

▪ **Question: Have the EPA accomplished any of their goals?**

*As a result of the Clean Water Act, the waters of the U.S. are significantly cleaner and there has been a dramatic decrease in pollution.*

▪ **Question: How did the EPA decide to go from 5 mg/l to 0.07 mg/l?**

*There is currently no limit on phosphorus; it just happens that Nampa currently discharges 5 mg/L with nothing at the plant to treat for phosphorus. The 0.07 mg/L is based on water quality analysis of protecting Brownlee Reservoir from becoming over polluted with algae*

blooms. The City of Nampa has been engaged in the TMDL process of determining these limits. The City is part of the Lower Boise Watershed group and it negotiates with the DEQ for requirements on pollutants.

▪ **Question: Is 0.07 mg/l lower than the current level in Indian Creek?**

Yes. Currently, typical total phosphorus concentrations in Indian Creek average about 0.5 mg/L upstream of the Nampa Wastewater Treatment Plant (WWTP).

▪ **Question: What other factors may influence the decisions we make?**

Other pollutants such as mercury and nitrogen will have to be considered, especially nitrogen if land application is the preferred option. Also studies show that pharmaceuticals have a negative influence on the aquatic environment. Temperature is also a potential issue.

▪ **Question: Currently we are discharging 5 mg/L and the new standard will be 0.07 mg/L, will there be a different standard later down the road?**

That may be a possibility and most likely the limit would be lowered further, not raised. In Coeur d'Alene the limit for phosphorus is 0.02 mg/L. Its important to recognize that Nampa is not being singled out, there is a national focus on nutrients within wastewater streams. The 0.5 mg/L level can be reached with biological and chemical treatment at the plant. It will be much harder to get to the 0.07mg/L level.

▪ **Question: What about areas outside the city? Are they controlled or regulated?**

Only water that is discharged from a specific point source is regulated. Agriculture is not regulated by the EPA because the runoff water comes from multiple nonpoint sources. Only point sources, such as a wastewater treatment plant, are required to have an NPDES permit.

▪ **Question: Lake Lowell has a problem with algae and they claim it comes from agriculture. Who is responsible for that area? Are we paying to clean up what they cost?**

Agricultural operations associated with tillage and return flows from farmers' fields are exempt from the Clean Water Act requirements, therefore there is no regulatory driver to remove agricultural, or "nonpoint", sources of pollution. One of the options being evaluated by the City is to divert one of the agricultural drains, treat it to remove its phosphorus, then return the flow to the drain. By doing so, the City may be allowed to "trade" or offset this pollution reduction in exchange for less stringent requirement at the WWTP. Regarding who is paying, as a point source discharger, Nampa is covered under the Clean Water Act's NPDES program and therefore, is paying to do its part in pollution reduction to meet the requirements under the law. The agricultural community is not currently active in funding of pollution reduction related to agricultural sources of pollution such as total phosphorus.

▪ **Question: Can these things change over time?**

*Absolutely. That is why we are coming to you and why we are going to have an open process. We will be sharing costs with you and you will help us get to this decision. We want to capture all the input – the risks, the benefits, the costs – so we can look at the bigger picture than just treating for phosphorus.*

### **Why Nampa needs to upgrade – Michael Fuss**

- The project team wants to be able to provide the advisory group with answers and any information that is available. There is a lot of technical data that has been collected over the past year, but a decision has not been made. The Wastewater Advisory Group will help the City make the decision of which option is best for Nampa.
- Wastewater treatment is a self-supporting, enterprise fund which means only wastewater rates fund wastewater activities. No tax dollars are used for the wastewater program.
- Presently the wastewater fund collects about \$9 to 10 million annually. Approximately twice that amount will be required to make the upgrades.
- Nampa's current wastewater rates are significantly lower than other cities around the Treasure Valley. Nampa is behind in sewer treatment and the City is not charging its citizens for it. The national average rate is around \$27.00 and Nampa's rate is currently \$18.62.
- Nampa anticipates it will receive its draft NPDES permit by early 2013. The new permit will likely be two tiers of limits for phosphorus, one in 5 years and one in 10 years. Nampa is currently in its fifth administrative extension which cannot be expected to last much longer. There will be a five year compliance period after the permit is issued.

### **Next steps – Rosemary Curtin**

- The purpose of the first NWAG meeting was to set the context for the Wastewater Advisory Group process. At the next meeting, group members will receive a briefing paper with more details about the expected permit requirements and the project team will lay the context for the options available to Nampa.
- There are four options that the technical experts believe are reasonable. There are advantages and disadvantages for each option. Currently, one option is not preferred over the others.
- At the next meeting, the Wastewater Advisory Group will be taken on a tour of the wastewater treatment facility. In order to understand the options, it is important to understand the process. There may also be a tour to the Dixie Drain site.
- The blue comment sheets are extremely important to this process. Input from group members will ensure the advisory group process meets its expectations. Group members are strongly encouraged to fill out their comment sheets. If you do not have time to complete your comments sheets at the meeting you may return them at a later date. Instructions on how to do this are at the bottom on the comments sheets.
- Rosemary opened the floor up for questions.

- **Question: What will happen if 95 percent of the committee says option 3 is what we want, but the engineers and city council and mayor say we like option number 1?**

*One of the commitments the City is making is that we will present your input to the council. The hope is that through this process we will get feedback on what the customers' level of service expectations are. (i.e. does Nampa want to be a green community or not, does Nampa want to make short-term or long-term improvements to the treatment plant, etc.)*

- **Question: What is the engineering cost per year?**

*The budget for engineering fees for fiscal year 2012 is approximately \$800,000. This will cover costs associated with continued engineering studies on the preferred options, phasing of upgrades, wastewater rate studies, regulatory/stakeholder coordination and public involvement.*

- **Question: Are there established criteria for how we, as a group, should be evaluating these options? Are there more considerations other than cost? (i.e., promoting Nampa as recreational area, attracting industry)**

*We are in the process of developing that criteria and identifying the risks and benefits of each option. There is a public finance specialist on the team to evaluate these issues, such as monetizing the abstract benefits and risks. It is our intent to share the risks and benefits with you and we will share the monetizing information with you.*

- **Question: When we build this facility, are we going to build it at bare minimum, or with the expectation that there will be more regulations down the road?**

*The purpose of this process is to get input from you on issues just like that. These are the types of questions we will be bringing to you in this process. Nampa is unique from a wastewater perspective. The treatment plant has served the city with no major changes since its last upgrade in the late 1970's. We need to decide if we want to make short-term or long-term upgrades.*

- **Question: The agricultural group is exempt from compliance. Are they similarly exempt from cost allocation?**

*Yes, they are exempt from the cost allocation. The cost will be allocated through the wastewater treatment facility. Cities are a point source that are regulated under the Clean Water Act. That is quickly evolving, it is becoming apparent that in some areas the goals cannot be met even if all the point sources meet the strictest regulations.*

- **Question: Do you know the amount of irrigation that is being pumped from canals?**

*Based on the Oct. 2008 Pressure Irrigation System Master Plan Update, Nampa pumped 7.3 billion gallons of irrigation water in 2007.*

- **Question: Are you exploring how much of the treated wastewater could go into Nampa's pressurized irrigation system?**

*The project team looked at that as an option. However, there are certain times of the year that Nampa does not use enough water in the irrigation system to account for all the wastewater.*

▪ **Question: Would infiltration be a possibility?**

*Yes. Rapid infiltration and direct infiltration are options that are being evaluated.*

▪ **Question: If the state were to take over primacy of the NPDES permit, how would that change things?**

*Nampa has a closer relationship with DEQ than EPA so this would be a benefit, but it would be difficult to fund. Even if they did get a state board, by the time they got it set up and figured out, we would still get our permit from the EPA.*

▪ **Question: Will hookup fees pay for the additional capacity?**

*Capacity is generally paid through hookup fees. That is the intent.*

Michael Fuss and Rosemary Curtin thanked the group for attending the meeting and participating in the Wastewater Advisory Group process. Group members will receive answers to all questions submitted on the blue comment forms. If group members have additional comments or questions please contact Rosemary Curtin at 377-9688 or [rosemary@rbc.net](mailto:rosemary@rbc.net).