

City of Nampa – Treat and Offset Option

Nampa’s wastewater treatment plant currently treats 10 million gallons of wastewater a day, which totals to about 3.65 billion gallons of wastewater a year. Currently, Nampa discharges its treated wastewater into Indian Creek. Disposing treated wastewater into United States waterways such as Indian Creek is regulated by the federal Clean Water Act.

The City of Nampa needs to make extensive upgrades to how it treats and disposes this wastewater in order to meet anticipated stricter federal regulations.

In response to these anticipated stricter regulations, the City of Nampa is analyzing current processes and considering several options for treating and disposing its wastewater. Each option has benefits and risks, which are being thoroughly evaluated by the City and an engineering management team.

This fact sheet explains the option of reducing phosphorus to moderate levels at the treatment plant while also treating runoff from an off-site agricultural drain. Nampa would receive credits for cleaning up runoff from the agricultural drain and the credits would be applied toward the City’s treatment plant. This option is called **treat and offset**.

What is treat and offset?

Moderate upgrades would be made to Nampa’s wastewater treatment plant and treated water would continue to be discharged into Indian Creek. At the same time, the City would identify an agricultural drain that is high in phosphorus and build an enhanced wetlands system to divert and treat the agricultural runoff from this drain.

Through natural and chemical treatment, the enhanced wetlands would remove phosphorus and other pollutants from the selected drain before the pollution reaches the Boise River. The term “enhanced” is used for this option because while the wetlands area would use nature’s ability to act as a filter, it would also include man-made treatment processes. These processes would include sedimentation basins and chemical addition to more efficiently remove phosphorus.

By treating agricultural runoff, the City would receive credits, also known as “offsets,” that can be applied towards its wastewater treatment plant. Removing phosphorus at both the wastewater treatment plant *and* the enhanced wetlands would allow Nampa to meet the EPA’s requirements for lower phosphorus levels.

Why is Nampa considering treat and offset?

This option would require fewer upgrades to Nampa’s wastewater treatment plant. When compared to other options, this option could be less expensive. Constructing an enhanced wetlands area is an innovative approach that would provide water quality benefits, habitat improvements and a natural system for improving overall water quality.

One of the potential limitations with this option is that it will likely be a temporary solution to the phosphorus issue. Currently, phosphorus levels in Indian Creek and the lower Boise River are high due in large part to agricultural runoff. However, the amount of phosphorus from

agricultural drains will be reduced in the future as irrigation practices become more efficient and urban growth reduces the amount of farmland. As this occurs, the City will likely have to consider other options to remove phosphorus.

Another drawback is that this option has some regulatory uncertainty. Enhanced wetlands have not yet been used for meeting wastewater permit requirements. However, the City of Boise is proposing a similar project that would use enhanced wetlands to remove excessive phosphorus pollution from Dixie Drain, an agricultural drain near Parma. If approved by the EPA and Idaho DEQ, the Dixie Drain project will set the national precedent for offset projects for wastewater treatment. The City of Nampa is closely tracking the progress made by the City of Boise.

Finally, this option would not allow the City to reuse a valuable asset. Wastewater treated at Nampa's wastewater treatment plant would continue to be discharged into Indian Creek with no additional benefit to the City.

How would Nampa implement the treat and offset option?

Nampa would construct upgrades to its wastewater treatment plant to reduce the amount of phosphorus levels before discharging treated water into Indian Creek. Additionally, the City would purchase land to construct an enhanced wetlands system. Nampa is analyzing locations around Mason Creek and Indian Creek.

At the enhanced wetlands, a structure would be constructed to divert water from the creek into a sedimentation basin where sediment containing phosphorus would be collected. After the water is discharged from the sedimentation basin, additional phosphorus would be removed at the enhanced wetland by plant absorption and additional sediment settling, followed by chemical addition to create larger particles that would settle out in large settling ponds. After being thoroughly treated, the cleansed water would be discharged back into the creek.

For more information

To give comments or learn more about upgrading Nampa's wastewater treatment plant:

- Visit www.cityofnampa.us/wastewater
- Contact Karla Nelson at the Nampa Public Works Department, (208) 468-5523, nelsonk@cityofnampa.us