



# Fact Sheet #3

## Wastewater Treatment Plant Configurations

### *Spokane County Wastewater Facilities Plan*

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**Where is the County's wastewater treated now?** Nearly all County wastewater is treated at the Spokane Advanced Wastewater Treatment Plant (SAWTP) and then discharged to the Spokane River on a year-round basis. From June through October, when the assimilative capacity of the River is lowest, the level of treatment is increased to achieve more stringent limits for phosphorus, ammonia and other pollutants.

A small portion of the County's wastewater is treated in small treatment plants or community septic tanks. These small systems will be removed from service when the County's collection system is extended to these service areas.

**Why is the County considering other options than sending all flow to the SAWTP?** Currently, the County owns a capacity allocation of 10 million gallons per day (mgd) in the SAWTP, based on average wastewater flows during the summer dry season. Due to the County's sewer construction program and growth in the service area, the County's wastewater flows are projected to reach the 10 mgd allocation by 2006 or 2007. By the year 2020, the County's flow is projected to reach 21 mgd. Continuing to send all flow to the SAWTP is one option being considered, but there are several issues with this approach:

- Preliminary studies indicate that it is possible to expand the SAWTP to handle the projected combined flows for the City and County through the year 2020. However, this will nearly exhaust the capacity limits of the SAWTP site, leaving limited ability to handle increased City and County flows beyond the 2020 projections.
- The County's additional flows would need to be routed through the City's interceptor system, which has severe capacity constraints and experiences combined sewer overflows (CSOs) during significant rainfall and snowmelt events. Resolution of these problems could prove complex and expensive.
- Increasing the County's capacity allocation in the City's treatment plant and conveyance system is not within the County's direct control. It would require a new interlocal agreement with the City, which may be challenging to acquire.
- Discharging all wastewater from the City and County in one location may not be the best solution for protecting instream water quality.
- Resolution of all issues, and construction of the needed conveyance and treatment improvements, may take more time than the County has available for providing its wastewater capacity needs.

### **What Options Are Currently Being Considered for Wastewater Treatment?**

1. ***All Flow to Spokane Advanced Wastewater Treatment Plant (SAWTP)*** - In this alternative, all Spokane County flow would continue to be treated at the SAWTP through the year 2020. This would require major expansion of this treatment plant and resolution of challenging conveyance issues to get Spokane County flow to the SAWTP. Advantages include a lower capital cost for treatment facilities and avoiding the need to site new treatment facilities. Key disadvantages are conveyance expense, consolidation of effluent discharge in one location, low reuse opportunity and the need for an interlocal agreement.
2. ***Combination of SAWTP, New In-City Plant, and New North Spokane Plant*** – In this concept, treatment of County wastewater would be provided in multiple treatment plants using at least two (and possibly three) of the following locations: 1) the existing SAWTP, 2) a new treatment plant located in the south-central part of the City of Spokane, and 3) a new treatment plant along the Little Spokane River that serves the North Spokane service area. Various combinations of treatment plant locations and sizes will be evaluated to determine the most attractive combination. If a new plant were built in the City, it would likely serve part of the County's flow and that part of the City's flow generated in the southern portions of its service area. The North Spokane plant could be designed to provide flow augmentation in the Little Spokane River to help meet minimum stream flow needs. Advantages include partial resolution of CSO bottlenecks and

distribution of effluent among multiple discharges to the rivers. Disadvantages include siting new treatment plant(s), complex flow control issues, low reuse opportunities and the need for a new interlocal agreement.

3. **Combination of SAWTP, New Mid-Valley Plant, and New North Spokane Plant** – This alternative is similar to number 2, except the In-City Plant would be replaced by a new Mid-Valley Plant located along the Spokane River in the western part of the Spokane Valley service area. This plant would serve all or part of the wastewater generated in the Spokane Valley. Again, treatment of County flows would be provided at two, and possibly three, locations. Advantages of this approach are simplified conveyance issues, distribution of effluent among multiple discharges to the rivers, improved reuse opportunities and the ability of the County to implement the facilities on its own. Key disadvantages include siting new treatment plant(s) and the need to operate multiple plants.
4. **Combination of SAWTP, Multiple Mid-Valley Plants, and New North Spokane Plant** – This alternative builds on the concept presented in Alternative 3, but rather than constructing a single wastewater plant in the Spokane Valley, several smaller plants would be built. The reason for this is to place treatment facilities close to where the wastewater is generated and to where the treated effluent could potentially be reused for irrigation or other purposes. This may reduce the cost of conveyance facilities and increase the flexibility of the wastewater management program. Advantages include increased reuse opportunities and the ability of the County to implement the facilities on its own. Key disadvantages include the higher costs and complexity associated with building and operating multiple treatment plants.
5. **No Action** – Under this alternative, the County would take no action to improve or expand wastewater conveyance and treatment facilities. Consequently, it would fail to provide adequate capacity for projected growth within the service area, and may fail to meet permit requirements for discharge to the Spokane River. No action may result in fines being levied against the County. Most likely, it would also result in a building moratorium for the County and may result in the imposition of judicial control over the County's wastewater management program.

**We Need Your Input!** Please consider the following questions, discuss the issues with the planning team representatives, and fill out the public meeting questionnaire to ensure that the planning team understands and can consider your concerns, issues, and opinions.

- ? Which of the proposed alternatives do you prefer and/or support?
- ? Do you think the County should work with the City of Spokane to establish a new interlocal agreement that will allow the County to send its wastewater to the City treatment plant, even though it will only satisfy the County's needs until 2020.
- ? Do you support the siting of a new treatment plant along the Little Spokane River to serve the North Spokane sewer service area and provide stream flow augmentation?
- ? Do you think the County should try and enter into a new interlocal agreement with the City to build a new plant in the south-central part of the City to help resolve part of the Combined Sewer Overflow bottlenecks?
- ? Do you think the County should build a new mid-Valley plant, that is owned and operated by the County, to handle all or part of the wastewater generated in the Spokane Valley?
- ? Do you think multiple mid-Valley plants, owned and operated by the County, should be built if more of the treated effluent can be reused through irrigation and industrial operations?
- ? Please score each of the following criteria to assist the planning team making decision on treatment alternatives, with 5 being highly important and 1 being minimal importance.
  - Overall Cost
  - Independence from the City of Spokane
  - Regional solutions that benefit both City and County
  - Minimizing number of treatment plants
  - Recharging the Little Spokane River
  - Maximizing opportunities for reuse