

## INTRODUCTION

Spokane County Utilities provides wastewater management for residential, commercial and industrial customers in the Spokane Valley and North Spokane service areas through an interlocal agreement with the City of Spokane. Currently, wastewater generated in the County is sent, via a sewer network, to the Riverside Park Water Reclamation Facility (RPWRF), which is operated by the City of Spokane. A 1980 inter-local agreement established the basis for the City to treat up to 10 million gallons per day of County generated wastewater. The County expects to exceed that capacity by the end of 2013. Due to physical, environmental and implementation constraints, additional capacity at the RPWRF may not be available for use by the County, or may be insufficient for the County's long-term needs.

### *Septic Tank Elimination Program*

The County began a program in 1980 to eliminate septic tanks and connect customers to the County's sewer system to protect the Spokane Aquifer. Since the program began, over 20,000 customers have connected. This sewer expansion program is projected to continue through the year 2015 to provide wastewater service to all existing development within the County's sewer service area. By 2015, it is expected that approximately 11,700 additional existing septic tank customers will connect to the sewer system.

### *Growth*

Along with the sewer system extensions, the County's sewer service area is projected to experience significant growth over the next twenty years to meet growth management requirements. As a result of the septic elimination program and the projected population increase, the population served by the County sewer system may double by 2026 from 80,000 to over 167,000 people. Both factors will sharply increase the quantity of wastewater that must be responsibly managed.

Given this situation, the County has conducted a wastewater facilities planning process to develop long-term wastewater management strategies that will provide reliable service, protect the environment and be economical to local ratepayers.

### *Spokane River Water Quality*

This *2006 Wastewater Facilities Plan Amendment* is focused on updating the previously published and approved *2002 Wastewater Facilities Plan* and the *2003 Facilities Plan Amendment*. The *2006 Wastewater Facilities Plan Amendment* updates the recommendations of the original *2002 Wastewater Facilities Plan* and the *2003 Wastewater Facilities Plan Amendment* to meet the requirements of the Washington Department of Ecology's Dissolved Oxygen Total Maximum Daily Load (TMDL). The June 30, 2006 *Foundational Concepts for the Spokane River TMDL Managed Implementation Plan* identifies the effluent phosphorus requirements for a Spokane County discharge to the

Spokane River with a combination of treatment technology and other offset actions to achieve compliance with seasonal average 10 µg/l phosphorus.

Much of the past facilities planning alternatives analysis and previous conclusions remain valid and are components of Spokane County's wastewater management program. Some revisions are needed to meet the requirements of the *Foundational Concepts for the Spokane River TMDL Managed Implementation Plan*.

## OVERVIEW OF THE RECOMMENDED PLAN

The plan provides a flexible, long-term management strategy for Spokane County, while identifying a phased implementation program to meet capacity and treatment requirements into the future.

### *Plan Components*

The plan encompasses the following components:

- Controlling wastewater generation through use of a water conservation program.
- Maximizing use of the County's prior investment in the RPWRF.
- Building the new Spokane County Regional Water Reclamation Facility (SCRWRF) to serve growth and continued implementation of the septic tank elimination program.
- Producing highly-treated effluent meeting Class A reclaimed water standards and suitable for discharge to the Spokane River in accordance with the *Foundational Concepts for the Spokane River TMDL Managed Implementation Plan*.
- Preparing a detailed Reclaimed Water User Plan that will identify reuse customers, sites, water demands, and distribution system infrastructure required for potential implementation. Pursue effluent reuse opportunities that are affordable and which will augment the region's water resources.
- Beneficially reuse all biosolids produced at the SCRWRF.

### *Estimated Costs*

The recommended plan has an estimated capital cost of nearly \$150 million, including approximately \$106 million to build the new SCRWRF, approximately \$25 million for the conveyance system to route wastewater to the treatment facility and treated effluent to the Spokane River, and the cost to implement a water conservation program. Also included are the costs for developing and implementing a Water Reclamation and Reuse Plan, which will be completed in 2008. Not included are the County's share of costs for a regional non-point source control program and upgrades to the RPWRF to meet the requirements of the *Foundational Concepts for the Spokane River TMDL Managed Implementation Plan*.

The annual operating costs for the new SCRWRF are approximately \$4.0 million, the annual costs to operate the conveyance system is approximately \$0.8 million and the biosolids management program is estimated to cost approximately \$0.3 million per year. These

estimates do not include the costs for operating a potential *Water Reclamation and Reuse Plan* in the future. Also not included are the County's share of operating costs for the RPWRF.

### *Funding Sources*

A number of funding sources will be used to pay for the recommended plan, including a State Revolving Fund Loan administered by the Department of Ecology and revenue bonds. These debts will be retired by wastewater user fees, including rates and connection charges, Aquifer Protection Area funds, and general facilities charges.

## **COORDINATED PLANNING APPROACH**

This *2006 Wastewater Facilities Plan Amendment* is part of a coordinated planning effort to address Spokane County's wastewater management program. Other major elements include:

- *2002 Wastewater Facilities Plan* and the *2003 Wastewater Facilities Plan Amendment*, which developed the original recommended program including the programmatic approach for County wastewater management.
- *2003 Wastewater Facilities Plan Amendment*, which focused the recommended program on the Stockyards site.
- *Environmental Impact Statement Addendum*, developed in parallel with the *2006 Draft Wastewater Facilities Plan Amendment* to provide an update to the environmental analysis from the programmatic *February 2002 Environmental Impact Statement (EIS)* and the *December 2002 Supplemental EIS (SEIS)*.
- *2001 Comprehensive Wastewater Management Plan Update (CWMP)*, which defines collection system improvements needed to eliminate septic tanks and accommodate growth.
- *2000 Basis of Planning Report*, which establishes the planning criteria for subsequent development and evaluation of wastewater management strategies.
- *County/City Negotiations*, which focus on the future allocation of capacity in City/County-owned facilities, methodologies for equitable cost sharing, and the responsibilities and rights of the City and County.
- *Long Range Financial Planning Study*, which defines funding sources and identifies recommended adjustments to rates and charges.

## **Basis of Planning**

### *Goals and Objectives*

At the outset of the planning process, the following goals were established to guide development of a successful wastewater management program:

- Provide reliable wastewater service – both near-term (20-years) and long-term (50-years).

- Protect public health.
- Protect and improve the region's water resources – surface water and groundwater.
- Provide cost-effective solutions for County ratepayers.
- Provide for growth in concurrence with the Growth Management Act.
- Ensure the County has adequate authority and control to meet future wastewater needs.
- Gain approval by the public, elected officials and regulatory agencies.

### *Planning Area*

The planning area for Spokane County Utilities is divided into the 8,359-acre North Spokane section and the 31,103-acre Spokane Valley section (see Figure ES-1 (Spokane County Utilities Service Area). Two major interceptors further divide the Spokane Valley section into the “North Valley Service Area” and the “Spokane Valley Service Area.”

### *Population Forecasts*

For this *2006 Wastewater Facilities Plan Amendment*, the population projections were updated to reflect recorded population from recent years and predicted population and wastewater flows in four regions of the Spokane County service area. Population projections for year 2005 and 2026 were provided by Spokane County Planning Division (December 23, 2005) and extrapolated linearly from 2006 to 2026 for year 2030. These population data are presented in Chapter 2.

### *Wastewater Flow Projections*

The initial wastewater flow projections were developed in 1999 and were updated through an analysis of actual flows from 2006 and updated projections. Projected annual average wastewater flow rates from the County's service areas are presented in Figure ES-2, and compared with the County's 10-mgd capacity allocation in the RPWRF. The flows from 2005 to 2015 were estimated by assuming a growth rate of 600 new connections per year. Also, approximately 800 septic systems will connect to the sanitary sewer per year from 2005 to 2011 during the period of voluntary connection (through 2010). The rate by which septic systems will connect to the sanitary sewer will increase to 916 septic systems connecting per year from 2011 through 2015 on the basis that the new plant will be operational in 2011 and the Septic Tank Elimination Program will be completed by 2015.

The 2030 flow was estimated using the population projected by the Spokane County Planning Department for 2026, linearly extrapolated to the year 2030, and recognizing that annual average population growth projections range from low to high.

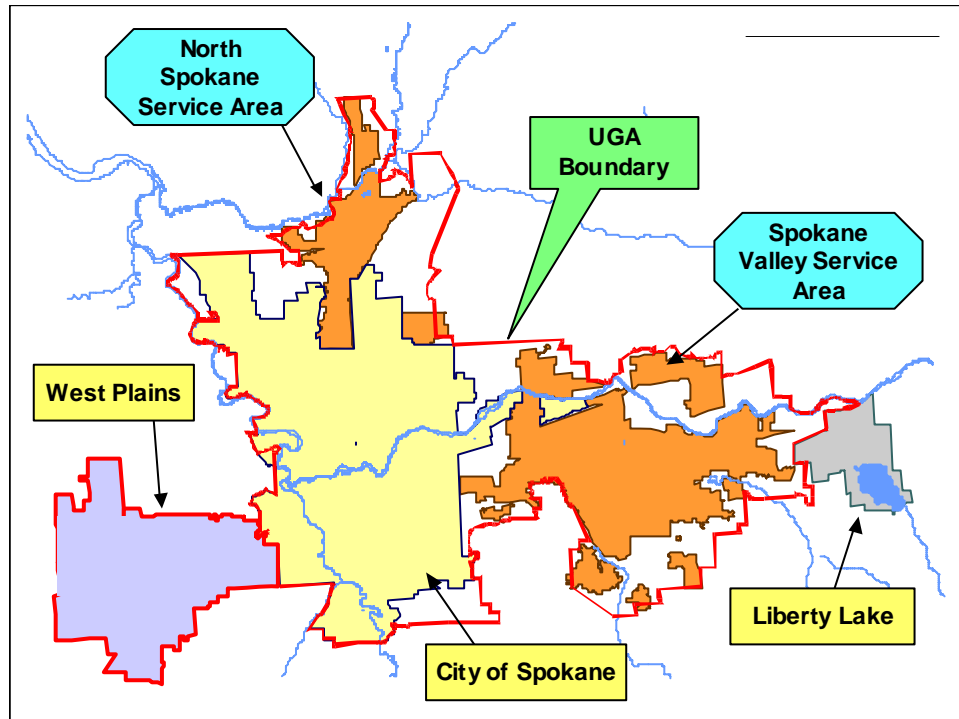


Figure ES-1. Spokane County Utilities Service Area

### Foundational Concepts for the Spokane River TMDL Managed Implementation Plan

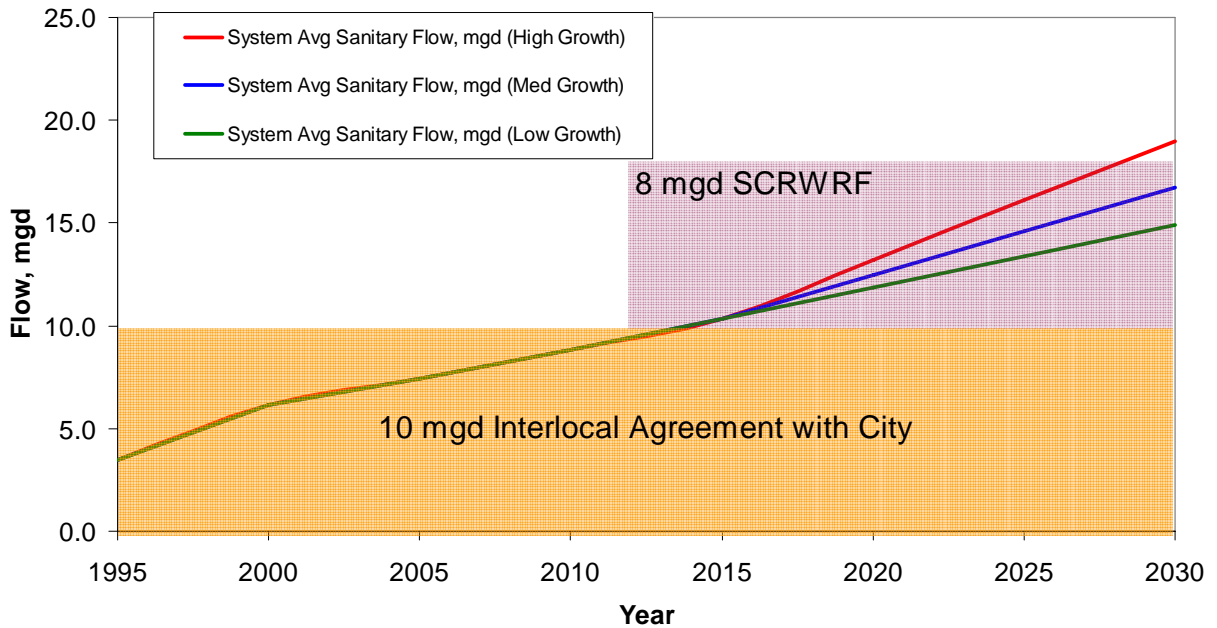
Following the publication of the *Draft Total Maximum Daily Load to Restore and Maintain Dissolved Oxygen in the Spokane River and Lake Spokane (Draft DO TMDL)* in October 2004 a collaborative TMDL process was undertaken which culminated in the June 30, 2006 *Foundational Concepts for the Spokane River TMDL Managed Implementation Plan* (Appendix A). This document identifies the effluent phosphorus requirements for a Spokane County facility to discharge to the Spokane River.

#### ***New Spokane County Treatment Plant***

The *Foundational Concepts* document identifies the following requirements for a new Spokane County treatment plant discharge to the Spokane River:

- County will submit to Ecology for approval, the County's engineering report for the plant showing how the most effective, feasible phosphorus removal technology has been selected, and how the offsets will be timely developed.
- At the time the plant begins normal, routine operations, it is expected the combination of offset actions and the plant's treatment of water to be discharged in the River will together achieve compliance with a seasonal average 10 µg/L total phosphorus.
- Consistent with NPDES requirements, the plant will be permitted by Ecology in order to enable rapid conversion of septic systems to sewers consistent with the approved septic tank elimination program prior to the completion of the County plant.

- The County will construct the plant within the first 6 years of the MIP as the County’s offsets from the target pursuit actions are being developed and made operative.
- It is recognized that any phosphorus reduction actions selected by the County that rely on the plant achieving normal, routine operation for their full implementation (such as septic tank elimination and water reuse) can still contribute to the County’s offsets.
- It is further recognized that, because modern phosphorus removal technology is challenging, achieving normal and routine operation may require two years, assuming average seasonal conditions (temperature and flow) during both years. During this period, Ecology will recognize these conditions and their effects on compliance with interim discharge limits.
- The County will also develop a comprehensive program for reclaimed water production, reuse and aquifer recharge of effluent. This reuse program will be subject to the same conditions described for other reuse target pursuit action plans.



**Figure ES-2. Wastewater Flow Projections**

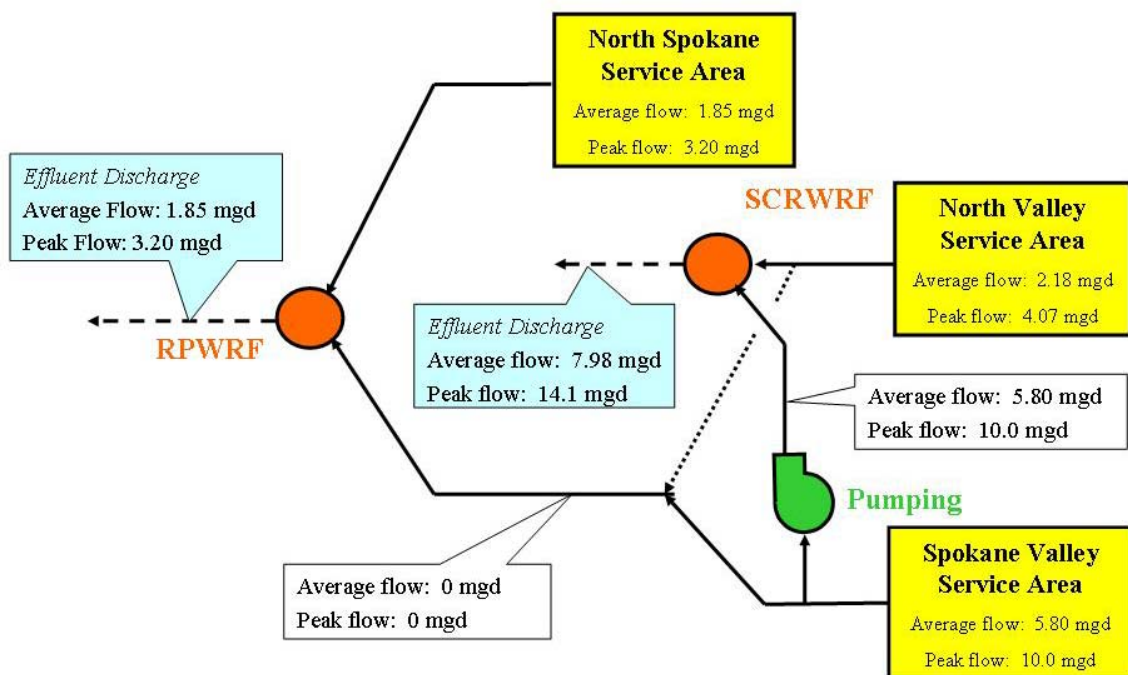
**ELEMENTS OF THE RECOMMENDED PLAN**

The recommended plan presents a phased program to meet the County’s capacity needs and comply with the *Foundational Concepts for the Spokane River TMDL Managed Implementation Plan*. As the program moves forward, the County will continue to pursue cost-effective opportunities to diversify reuse of effluent and biosolids.

*Treatment and Conveyance Configuration*

The recommended plan for treatment and conveyance is to use the County’s current 10 mgd capacity allocation in the RPWRF and to build a new SCRWRF to accommodate additional wastewater flows generated in the County’s service area. Figure ES-4 presents a schematic diagram of this concept based on projected 2012 flows and Figure ES-4 presents the same schematic with projected 2030 flows. Figure ES-5 shows the general location of major facilities that will be required.

At the City’s RPWRF, the County owns 10 mgd of capacity based on average dry-weather flows. This capacity will be used to treat all wastewater generated in the County’s North Spokane Service Area and a portion of the wastewater generated in the Spokane Valley.



**Figure ES-3. Wastewater Flow Schematic Diagram of the Recommended Plan (Distribution Based on Spokane County Projected 2012 Flows)**

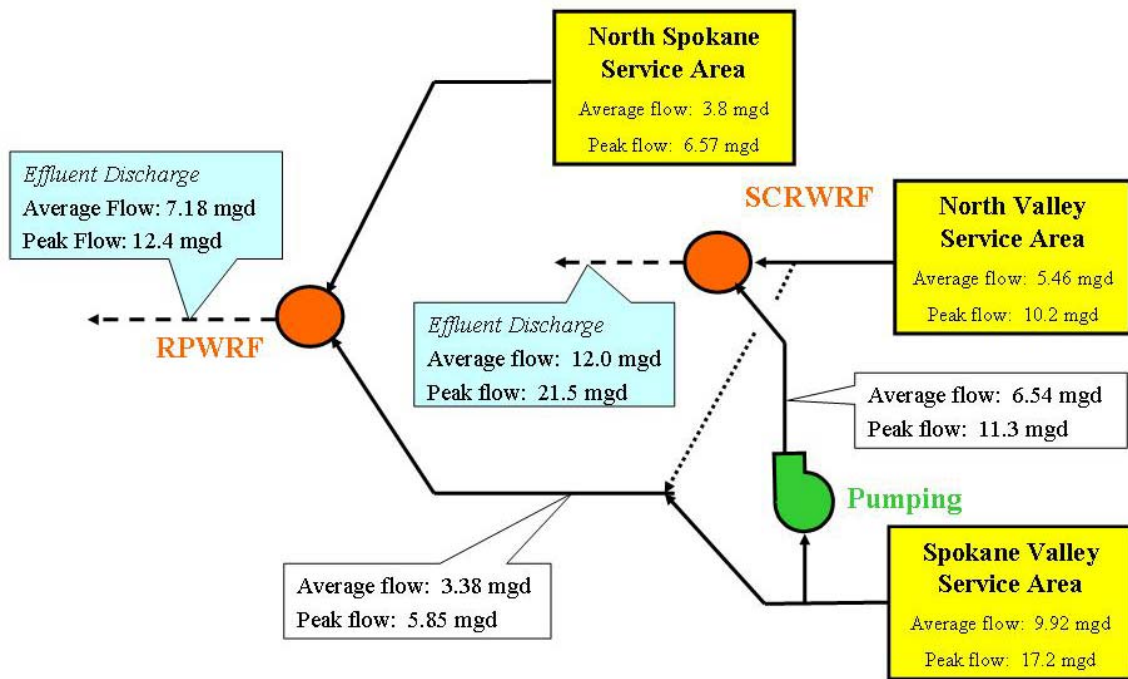


Figure ES-4. Wastewater Flow Schematic Diagram of the Recommended Plan (Distribution Based on Spokane County Projected 2030 Flows)

### CONVEYANCE

Several conveyance improvements will be needed to implement the recommended plan. Those improvements associated with major pumping stations, force mains and interceptors to route wastewater to the SCRWWF.

#### North Spokane

Based on the City of Spokane’s previous engineering analyses, it appears that the existing City interceptor system lacks capacity to handle projected peak flows from the County’s North Spokane Service Area. Resolution of this capacity restriction will require installation of a parallel or replacement sewer along a section of the City’s Hollywood Trunk Sewer from the intersection of Rowan and Cannon to the intersection of Everett Avenue and “A” Street. The specific improvements to be implemented will be determined by the City based on their analysis of all capacity and condition issues in this area.



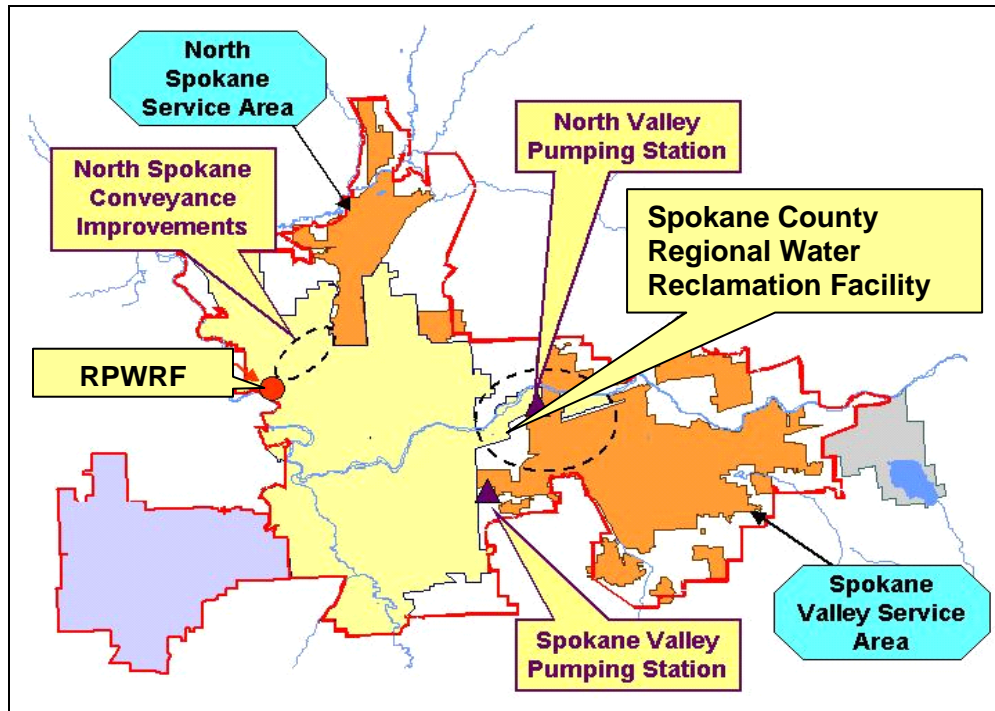


Figure ES-5. Locations of Major Facilities

### *North Valley Interceptor (NVI) Pumping Station*

There are two potential alternative locations for the NVI pumping station.

- The eastern location is at Elizabeth Street and Marietta Avenue. This is the present location of the County's flow meter, and is where the NVI wastewater enters the City of Spokane wastewater system.
- The western location is at Rebecca Street on the south side of the Spokane River, east of the Spokane Community College.

Based on the boundaries of the service areas of the City of Spokane and Spokane County, the normal location of the NVI pumping station would be the eastern location. However, the western location might be beneficial for pumping into the Stockyards Site because it would require a much shorter force main and lower dynamic pumping head. These two factors should be evaluated during preliminary design to select the preferred location.

### *North Valley Interceptor (NVI) Forcemain Routes*

#### **Eastern Pumping Station Location**

From an Eastern Pumping Station location, the force main would be routed west from Elizabeth and Marietta along the southern side of the Burlington Northern Railroad tracks to approximately Fancher Road, and then south to Trent Avenue. The pipe would follow Trent Avenue to the west to Havana, run south to Boone, and then run west to Julia and the entrance to the plant site.

***Western Pumping Station Location***

The force main would be routed parallel to the outfall from the treatment plant, south from the Spokane River along Rebecca to Mission, and then east to the vacated Julia alignment. An easement would be required south from Mission to Boone. At Boone, the force main would enter the Stockyards site.

***Spokane Valley Interceptor (SVI) Pumping Station***

The SVI runs in Fourth Avenue parallel to I-90 on the south side and discharges into the City of Spokane wastewater system at Havana Street. The County flow-metering station is located immediately east of Havana. The location where flows would be diverted to the SCRWRF is in this vicinity. However, within the past five years, an interim pumping station was constructed at Havana and Sprague Avenue to convey the Chronicle sewer basin into the interceptor system. It was anticipated that the location of the SVI pumping station would allow the County to eliminate the interim pumping station. Therefore, alternative pumping station sites will be considered along Fourth Avenue, along Havana Street, and along Sprague Avenue.

***Spokane Valley Interceptor (SVI) Forcemain Routes***

Tentative routes for the force main from the SVI pumping station to the SCRWRF would proceed north in Havana Street. The route would continue north in Havana to Boone, west on Boone to Julia, and then into the Stockyards site.

**TREATMENT**

The recommended plan combines treatment at the City's RPWRF to fully use the County's current 10 mgd capacity allocation and construction of a new SCRWRF located at the Stockyards site. Spokane County will maintain its 10-mgd capacity allocation in the RPWRF. It is anticipated that the City of Spokane will implement additional treatment improvements to meet effluent quality requirements for phosphorus outlined in the *Foundational Concepts for the Spokane River TMDL Managed Implementation Plan*.

***New Spokane County Regional Water Reclamation Facility***

The SCWRF will be a state-of-the-art treatment system employing advanced technologies for production of very high effluent quality. An activated sludge system utilizing membranes or membrane bioreactors (MBRs) is recommended. The system will be capable of meeting Class A reclaimed water standards for effluent reuse with the entire plant flow. Effluent phosphorus is projected to be at or below 50 ug/l on a seasonal average basis and will comply with the requirements for discharge to the Spokane River when coupled with other phosphorus reduction efforts. Anticipated effluent quality using a membrane process is listed in Table ES-1.

Table ES-1. Projected Performance of Proposed SCRWRF

Parameter	Summer Permit Season	Winter Permit Season
5-Day Carbonaceous Biochemical Oxygen Demand (CBOD <sub>5</sub> ), mg/L	<2	<2
Total Suspended Solids (TSS), mg/L	<2	<2
pH	7 to 9	7 to 9
Ammonia-Nitrogen, mg/L	<0.25	<sup>a</sup>
Nitrite-Nitrogen, mg/L	<1	<sup>a</sup>
Total Nitrogen, mg/L	<10	<sup>a</sup>
Total Phosphorus, mg/L	<0.050	<5
Turbidity, NTU (Daily Average)	<0.2	<0.2
Turbidity, NTU (Maximum)	<0.5	<0.5
Total Coliform Organisms, weekly average, organisms per 100 ml	<2.2	<2.2
Total Coliform Organisms, maximum single sample value, organisms per 100 ml	<23	<23

<sup>a</sup>. Operate facilities in nitrification/denitrification mode in winter season for nitrogen reduction

When reviewing this table, the following should be noted:

- Use of the membranes on a year-round basis will result in low concentrations of BOD, total suspended solids and turbidity during both summer and winter permit seasons.
- It is anticipated that phosphorus removal will be required only during the summer permit season; consequently, chemical precipitation of phosphorus will not be practiced during the winter.
- Nitrate removal is not required to meet anticipated permit limits; however, reducing nitrate levels during the summer season will be required to minimize impacts to groundwater quality if the water is irrigated or infiltrated over the aquifer or if water discharged to the river recharges groundwater.

It is anticipated that the SCRWRF will be operated in a nitrification/denitrification mode on a year-round basis. This is because use of a long sludge age (which results in nitrification) minimizes membrane fouling potential. Low concentrations of ammonia-nitrogen and nitrate-nitrogen are not needed in the winter to meet water quality requirements; however, a significant advantage with respect to alkalinity conservation and aeration air reduction can be achieved.

### *Septic Tank Elimination Program*

The *Foundational Concepts for the Spokane River TMDL Managed Implementation Plan (Foundational Concepts)* describes the wasteload allocations for dischargers to meet the requirements of the TMDL. The wasteload allocation for Spokane County is based upon an annual average influent flow rate of 8 mgd and 10 µg/L effluent phosphorus concentration (0.67 lbs/day phosphorus). However, the *Foundational Concepts* document acknowledges the limits of treatment technology to treat to these low concentrations of effluent phosphorus and describes a technology selection protocol as a “target pursuit action” to meet low effluent phosphorus concentrations and provide for a “delta elimination plan” to reduce phosphorus loadings to the Spokane River to the seasonal average equivalent of 10 µg/L to meet the

target wasteload allocation. Effluent phosphorus of 50 µg/L for 8 mgd annual average flow is 3.34 lbs/day. Effluent phosphorus of 10 µg/L for 8 mgd annual average flow is 0.67 lbs/day. The difference of at least 2.67 lbs/day phosphorus is the target “delta” elimination for Spokane County.

Spokane County Division of Utilities has documented sewer service to 3,415 onsite sewage disposal systems within the Spokane County service area since 2001. Another 4,228 sewer service connections have not been recorded specifically as a type of connection, and many of these may also count toward removal of an existing system. Additionally, sewer service will be provided to another 800 onsite sewage disposal systems per year up to the year 2011, and sewer service will be provided to the remaining systems within the service area between 2011 and 2015.

The total annual phosphorus load reduction to the Spokane River was estimated in a technical memorandum called *Spokane County Onsite Sewage Disposal Systems Phosphorus Loading Estimate, Final Draft – Revision #1*, October 18, 2006. This technical memorandum was included in Appendix B of the *2006 Draft Wastewater Facilities Plan Amendment*. In response to comments from Ecology, the technical memorandum was revised. The *Spokane County Onsite Sewage Disposal Systems Phosphorus Loading Estimate, Final*, June 27, 2007 is included in Appendix B of this *2006 Wastewater Facilities Plan Amendment*.

The range in annual total phosphorus load reduction to the Spokane River is summarized in Table ES-2. The TMDL load allocation was based on the year 2001, so the annual total phosphorus load reduction resulting from providing sewer service to onsite sewage disposal systems begins in 2001. By removing septic systems between 2001 and 2005, the estimated phosphorus loading reduction to the Spokane River is currently between 3.8 lbs/day and 6.3 lbs/day. The lower range of annual total phosphorus load reduction to the Spokane River in 2015 is estimated to be 4,450 lbs (12.2 lbs/day). The upper range of annual total phosphorus load reduction to the Spokane River in 2015 is estimated to be 7,410 lbs (20.3 lbs/day).

**Table ES-2. Phosphorus Load Reduction to the Spokane River Resulting from Sewer Connections of Septic Systems**

Year	Estimated Number of Systems with Breakthrough	Loading to Ground Water (lbs/day)	Loading to Surface Water, lbs/day	
			Retention Factor 0.5	Retention Factor 0.7
2001-2005	630 <sup>a</sup>	12.6	6.3	3.8
2005-2015 <sup>b</sup>	1,461	28.0	14.0	8.4
<b>TOTAL</b>	<b>2,091</b>	<b>40.6</b>	<b>20.3</b>	<b>12.2</b>

<sup>a</sup> Based on Spokane County records for number of existing structures provided sewer service between 2001 and 2005.

<sup>b</sup> Future P loading to be removed from the Spokane River system once sewer service is provided to existing onsite sewage disposal systems.

***Spokane County Regional Water Reclamation Facility at the Stockyards***

Following a detailed analysis of potential water reclamation facility sites, Spokane County selected and purchased the Stockyards site as the preferred location for the SCRWRF and purchased the site. The SCRWRF will be designed with pleasing aesthetics that will complement or enhance the surrounding neighborhood in the vicinity of the Stockyards site. Close attention will be paid to odor control. All treatment processes that are generators of

noticeable odors will be covered and ventilated, with the foul air sent to state-of-the-art odor scrubbing systems. Similar attention will be paid to noise and lighting control. All equipment with significant noise generation will be enclosed within buildings or shrouded in sound attenuation structures. Plant lighting systems will be designed to minimize off-site impacts. The facility site will be landscaped to soften the appearance of the facilities and to provide an attractive buffer between it and adjoining properties.

### *Effluent Outfall to the Spokane River*

The recommended effluent discharge location for the SCRWRF located at the Stockyards site is at Rebecca Street (also referred to as Green Street), located at River Mile 78.5, just below the outlet from the Upriver Dam. The County prefers the Rebecca Street location based on the evaluation of technical, cost and water quality considerations as part of a 2002 Supplemental Environmental Impact Statement (SEIS). The Rebecca Street outfall is the most cost effective option and will be easier to construct with fewer special crossings and less construction restoration of the City right-of-way.

## WATER CONSERVATION

Several new programs will be implemented to reduce wastewater flows or loadings that in turn reduce the required capacity of treatment and conveyance facilities. The *Foundational Concepts for the Spokane River TMDL Managed Implementation Plan* calls for a water conservation program similar to that of the LOTT Alliance and the activities in the following sections are recommended. Components of the recommended program are as follows:

**Public Education.** The County should participate in a coalition of regional wastewater utilities and water purveyors to jointly develop and implement a public education program focused on water conservation.

**Physical Devices.** The County should consider implementing a plumbing fixture replacement program for older existing homes and businesses not scheduled for replacement or remodels.

**Water Recycling and Waste Minimization.** As new industries locate in the service area, and as existing industries expand operations, the County should encourage them to aggressively pursue internal reuse and waste minimization programs.

**Leadership in Energy and Environmental Design (LEED).** Administered through the United States Green Building Council (USGBC), LEED is system that focuses on sustainable design and the recognition of “green” buildings. LEED designs may use indigenous materials, low energy consumption appliances, low emission paints and coatings, and water saving or water conserving fixtures. LEED should be considered by the City of Spokane Valley and Board of County Commissioners for new buildings, and appropriate regulations developed to implement the program.

## MANAGEMENT OF RECLAIMED WATER

Spokane County is dedicated to the effective management of the region's water resources, and is an active participant in regional water resources planning. In looking toward the future, the County sees beneficial use of reclaimed water as an increasingly important component of the region's water supply. The SCRWRF will produce an effluent which meets State of Washington Class A reclaimed water quality standards. This will satisfy the mandatory "target pursuit action" related to reuse in the *Foundational Concepts for the Spokane River TMDL Managed Implementation Plan*. Spokane County will also initiate preparation of a detailed Reclaimed Water Use Plan in 2007 that will identify reuse customers, sites, water demands, and distribution system infrastructure required for potential implementation. This will satisfy the elective "target pursuit action" available to the County for reuse. Spokane County will consider the cost-effectiveness of reuse opportunities in conjunction with the potential for phosphorus loading reduction when selecting reuse projects for implementation.

## BIOSOLIDS MANAGEMENT

All biosolids produced at the RPWRF and the new SCRWRF will be stabilized through anaerobic digestion and dewatered to produce a Class B biosolids. The material will be applied to agricultural land or to reclaimed mining sites. This will beneficially recycle nutrients and organic material to the land. At RFWRF, this represents a continuation of current practice. At the SCRWRF, a biosolids management program must be developed and implemented. Spokane County has initiated preparation of a Biosolids Management Plan that will be submitted to Ecology in 2008.

At the SCRWRF, flexibility will be provided to convert the facility to Class A biosolids production in the future. This conversion to Class A biosolids may be driven by changing regulatory requirements, need for greater diversity in reuse options, or public desire for a compost product. The technical options for future conversion to Class A biosolids include temperature-phased digestion, pre-pasteurization, and composting. The first options could be implemented at the SCRTP site, whereas composting would likely require a separate remote site.

## IMPLEMENTATION

The County has evaluated alternatives for the delivery of the components of the recommended plan. Consideration has been given to traditional design, bid, and build (DBB) public works contracting. Alternative methods including design/build (DB) and design/build/operate (DBO) have also been considered. The County has elected to implement the conveyance project improvements using traditional design, bid, and build (DBB) contracting. The County has selected the design/build/operate (DBO) process for delivery of the Spokane County Regional Water Reclamation Facility.

Successful implementation of the recommended plan will require concerted efforts along a number of fronts. Spokane County must:

- Obtain Ecology's approval of the *2006 Wastewater Facilities Plan Amendment* and adopt the plan.
- Secure an NPDES effluent discharge permit for the SCRWRF from Ecology.
- Complete the City of Spokane's Conditional User Permit process and Shoreline Permit process.
- Prepare environmental documentation and obtain all federal, state and local permits needed to implement the projects.
- Develop and execute the design/build/operate (DBO) process for the SCRWRF.