



King County

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CLERK
KING COUNTY COUNCIL

September 28, 2007

The Honorable Larry Gossett
Chair, King County Council
Room 1200
COURTHOUSE

Dear Councilmember Gossett:

I am pleased to provide you with the Regional Wastewater Services Plan (RWSP) 2006 Comprehensive Review and Annual Report. This report meets the reporting requirements outlined in Ordinance 15384 and King County Code 28.86.165 for RWSP comprehensive reviews.

The *RWSP 2006 Comprehensive Review and Annual Report* is the second comprehensive review report since adoption of the RWSP. The report focuses on policy implementation from 2004 through 2006; it also includes all elements of the RWSP 2006 annual report as required by the RWSP reporting policies. The first comprehensive review report, *2004 RWSP Update*, focused on RWSP policy implementation from 1999 through 2003.

The review process confirms that the RWSP policies continue to be effective and provide important guidance to King County in our role as a regional clean-water agency. It also caused me to reflect on the eight-year process to develop the RWSP. The King County Council, the Regional Water Quality Committee, the Metropolitan Water Pollution Abatement Advisory Committee (MWPAAC), and the hundreds of stakeholders involved in that process should feel proud about where we are today with implementation of the RWSP. The RWSP remains a forward-thinking, regional plan that protects our region's water quality and public health for generations to come. The RWSP is a dynamic plan and those involved in its development understood the need for flexibility in the event of changing conditions. The RWSP policies and programs were developed in a way that allows King County to be better prepared for future regulations, potential climate change impacts, and actions resulting from the Puget Sound Partnership efforts.



I am confident that during your review of this report you will find that King County is meeting the goals outlined in the RWSP. A summary of major highlights in the report follows.

Meeting Wastewater Treatment Capacity Needs

The Brightwater Treatment System remains on schedule for completion in 2010. Activities in 2004 focused on completing pre-design, applying for permits, and continuing to involve stakeholders and the public in the Brightwater design and permitting process. In 2005, the project team continued its permitting, design, and stakeholder involvement activities in addition to other activities such as purchasing properties and negotiating mitigation agreements. In 2006, final design was completed and construction began on the treatment plant.

In 2004, construction began on major upgrades to the Vashon Treatment Plant to increase capacity and enhance the facility's backup systems to ensure the facility meets or exceeds permit limits. Construction on the Vashon plant upgrades was completed in fall 2006.

Progress continues to be made on the Carnation Treatment Plant. Activities in 2004 focused on preparing and completing the Final Environmental Impact Statement and selecting the treatment plant site. The focus in 2005 was on design and permitting activities, completion of a facilities plan for submittal to the Washington State Department of Ecology (Ecology), and progress on discharge options. In 2006, final design was completed and construction began on the treatment plant. The project is scheduled for completion in 2008.

Making Conveyance System Improvements (CSI)

We continue to make improvements to the conveyance system to ensure our conveyance facilities meet the 20-year peak flow storm design standard and ensure there is sufficient capacity in the regional conveyance system to accommodate planned growth. There were eight RWSP conveyance projects in design or construction in 2004–2006. In addition, work began in 2005 to update the conveyance system improvement program; this work was completed in 2007. The county's Wastewater Treatment Division (WTD), in the Department of Natural Resources and Parks (DNRP), worked closely with individual component agencies and MWPAAC to update this program. Based on the work conducted to complete the CSI program update and recommendations from MWPAAC, in the near future, I will propose amendments to the conveyance policies. The purpose of the amendments is to ensure the CSI program remains current, reconfirm assumptions and conveyance capacity needs prior to implementing capital projects, and to evaluate other alternatives to meet identified needs, such as infiltration and inflow (I/I) control.

Working to Reduce Infiltration and Inflow (I/I)

In 2005, WTD completed a joint county/local agency comprehensive six-year study of I/I in the portions of the regional wastewater service area served by separated sewers. This informative study led to the development of the Recommended I/I Control Program that was adopted by the King County Council via Motion 12292, in May 2006. In spring 2006, WTD worked with MWPAAC's Engineering and Planning Subcommittee to start implementing the recommended I/I control program.

Controlling Combined Sewer Overflows (CSO)

The county remains committed to the RWSP CSO control goal to meet Ecology's "control" standard of no more than an average of one untreated discharge per year at each CSO location by 2030. Key achievements of the CSO control program, in 2004 through 2006, include completion and startup of the Mercer Elliott West and Henderson/Norfolk CSO control systems, submittal of the first CSO Program Review, and the start of pre-design for the Puget Sound beach CSO control projects.

Creating Resources from Wastewater: Recycling Biosolids, Energy Recovery, and Producing Reclaimed Water at Existing and Future Treatment Plants

The RWSP biosolids and water reuse policies focus on creating resources from wastewater. One hundred percent of King County's biosolids were recycled in 2004–2006. The county's biosolids consistently meet or exceed all federal and state standards.

Both the West Point Treatment Plant and South Treatment Plant recover digester gas to generate electricity and heat for treatment plant processes; it is used to power engines, boilers, turbines, and a fuel cell to produce heat and power. Some of the gas produced at South plant is sold to Puget Sound Energy for distribution in its natural gas system.

Annually, the West Point and South treatment plants use about 255 million gallons of reclaimed water for landscape irrigation, internal plant reuse, and other non-drinking purposes. At South plant, some of the water is used for irrigation of nearby sports fields at the city of Tukwila's Fort Dent Park, a wetland plant nursery, and habitat restoration efforts.

When the Carnation Treatment Plant is operational, reclaimed water from the plant will be used to enhance a wetland in the Chinook Bend Natural Area. King County is partnering with Ducks Unlimited, a nonprofit organization dedicated to wetland conservation, to design the wetland discharge project.

In 2006, design was completed on the Brightwater reclaimed water pipeline. The Brightwater backbone will be able to provide up to 7 million gallons per day (mgd) of reclaimed water. Potential reclaimed water opportunities include uses for parks and businesses in Bothell, Woodinville, Redmond, and other cities in the area, as well as farms, parks, and businesses in the Sammamish Valley. In addition, the county has an agreement with Willows Run Golf Course to supply the golf course with reclaimed water from the Brightwater backbone.

Keeping Our Commitment to Growth Pays for Growth

The RWSP financial policies provide direction for establishing annual sewer rates and capacity charges, and for allocating the wastewater system costs between existing and new customers. A cornerstone of these policies is that "growth pays for growth". The policy calls for existing customers to pay a monthly sewer rate to cover the portion of the existing and expanded system that serves existing customers. New customers will pay costs associated with the portion of the existing system that serves new customers and costs associated with expanding the system to

serve new customers. King County continues to establish its annual sewer rate and capacity charge based on this direction.

RWSP Cost Estimates

In accordance with the RWSP reporting policies, updated cost estimates are included as an element of RWSP annual reports. The 2006 cost estimate for implementing the projects and programs associated with the RWSP through 2030 is approximately \$3.14 billion, an increase of about \$98 million from the 2005 cost estimate. Cost increases are attributed to new projects identified during the process to update the conveyance system improvement program, rising inflation and construction costs, and modifications to projects.

Protecting Water Quality

To meet the RWSP's water quality protection policies and protect public health, DNRP regularly monitors the county's major lakes, beaches, streams, marine waters, and wastewater effluent. In general, monitoring activities in 2006 found that the quality of marine and fresh waters in King County is good.

In 2004–2006, the county's treatment plants continued to be in compliance with the terms and conditions of their NPDES (National Pollutant Discharge Elimination System) permits. In 2006, the South and West Point plants both received the National Association of Clean Water Agencies Platinum Peak Performance Award for operating five consecutive years with no permit exceptions.

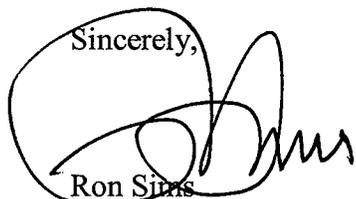
The RWSP reporting policies provide guidance for future RWSP comprehensive reviews to occur every three to five years, depending on availability of necessary information and key milestones. I recommend that the next comprehensive review be transmitted to the King County Council in September 2012 to cover RWSP policy implementation from 2007 through 2011. Two key milestones are expected to be achieved in 2010—completion of Brightwater construction and the combined sewer overflow control program review. Important information associated with Brightwater operations will be gathered in 2011; WTD would then be able to include this information in the 2007–2011 comprehensive review. It is also possible that population and employment growth forecasts based on the Puget Sound Regional Council's analysis of the 2010 census would be available in 2011. If so, WTD staff would have time to analyze the updated forecasts and their effects, if any, on RWSP planning assumptions and facility needs; this information would be included in the 2007–2011 review. RWSP annual reports would continue to be provided for 2007, 2008, 2009, and 2010; the 2011 annual report elements would be included with the RWSP 2011 Comprehensive Review and Annual Report.

If you have any questions about the *RWSP 2006 Comprehensive Review and Annual Report*, or would like a briefing on it, please contact Christie True, Division Director in the Wastewater Treatment Division of the Department of Natural Resources and Parks, at 206-684-1236, or Laura Wharton, Comprehensive Planning and Technical Resources Supervisor in the Wastewater Treatment Division, at 206-684-1238.

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Thank you for your review of this report. I look forward to continue working with the King County Council and the Regional Water Quality Committee to implement this important regional effort.

Sincerely,

A handwritten signature in black ink, appearing to read "Ron Sims", is written over the word "Sincerely,".

Ron Sims
King County Executive

Enclosure

cc: King County Councilmembers
ATTN: Ross Baker, Chief of Staff
Nancy Glaser, Interim Policy Staff Director
Anne Noris, Clerk of the Council
Regional Water Quality Committee (RWQC) Members
Theresa Jennings, Interim Director, Department of Natural Resources and
Parks (DNRP)
Christie True, Division Director, Wastewater Treatment Division (WTD), DNRP
Laura Wharton, Supervisor, Comprehensive Planning and Technical Resources,
WTD, DNRP