

Regional Wastewater Services Plan

Semi-annual Report

June 2004



King County

Department of
Natural Resources and Parks

Wastewater Treatment Division

This information is available in alternative formats upon request by calling 206-684-1280 (voice) or Relay Service 711 (TTY).

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Please visit the RWSP Web site at <http://dnr.metrokc.gov/wtd/rwsp/rwsp.htm>

Introduction

This report describes progress made in implementing the Regional Wastewater Services Plan (RWSP) for the period January through June 2004, as administered by the King County Department of Natural Resources and Parks (DNRP). The report is organized according to the major elements of the RWSP, including treatment, conveyance, infiltration and inflow, combined sewer overflows, biosolids, and water reuse. The activities under each element are summarized along with a schedule for the remainder of 2004. In addition, the final section of the report—RWSP Project Information—provides specific budget, schedule, milestones, labor, and contract status for active RWSP capital projects through June 2004.

Background

In December 1999, the King County Council adopted Ordinance 13680, which comprehensively updated King County's Comprehensive Water Pollution Abatement plan. This update, termed the Regional Wastewater Services Plan, is a 30-year capital improvement program designed to provide wastewater capacity for this region's rapidly growing population and protect its aquatic resources.

Ordinance 13680 requires the King County Executive to report in June and December to the King County Council and King County Regional Water Quality Committee about progress in siting and constructing new wastewater facilities. This semi-annual report, in conjunction with the December annual report, satisfies this requirement.

Accomplishments

A significant amount of work was completed on the Regional Wastewater Services Plan through June. The highlights for RWSP implementation are presented as follows.

RWSP Three-year Update

In April, King County WTD issued the *Regional Wastewater Services Plan 2004 Update*.¹ This comprehensive update is required every three years by Ordinance 13680. The purpose of the Update is to review the assumptions that were used to develop the original 1998 Regional Wastewater Services Plan, evaluate the phasing and sizing of facilities, and assess the effectiveness of RWSP policies. Based on the information provided in the 2004 Update and in future updates, the King County Executive and Council may recommend changes to RWSP policies based on new regulations, emergent technologies, or other relevant factors.

1. The RWSP 2004 Update can be found in the RWSP Website Library at <http://dnr.metrokc.gov/wtd/rwsp/library.htm#3yrupdate>

Treatment

King County DNRP completed predesign on the Brightwater facilities in late June. DNRP staff began applying for permits needed to support the design and construction of the Brightwater conveyance system and outfall and hired many new employees to carry out the design and construction of the Brightwater system. Brightwater's public involvement process was recognized with two awards in 2004.

Conveyance

Design work continues on seven major conveyance projects, including five pump stations and two interceptors. Two projects will be completed in 2004: the North Creek Storage Facility and the East Side Interceptor Section 1.

Infiltration and Inflow

The Infiltration and Inflow (I/I) program is implementing post-construction flow monitoring to assess the effectiveness of the pilot projects constructed in 2003. A report summarizing the effectiveness of the pilot projects will be available later this year.

Combined Sewer Overflows

King County continues work to develop the 2005 CSO Control Plan Update and has selected a consultant to support the development of the CSO program review—a precursor to the Update. The CSO program successfully completed the cleanup of sediment at Diagonal/Duwamish. Over 60,000 cubic yards of contaminated sediment were removed over a 7-acre area of river bottom in the Duwamish industrial area and replaced with clean sediment and rock.

Biosolids

King County continued its ongoing effort of produce Class B biosolids at the regional treatment plants. King County expects to produce approximately 125,000 wet tons of biosolids in 2004, all of which will be recycled for use in compost, forestry, and agricultural applications.

Water Reuse and Conservation

The King County Council approved the design and construction of an interim reuse facility to provide half a million gallons per day of reclaimed water to the Sammamish Valley until the Brightwater Plant comes on line in 2010. This facility is expected to be operational in 2007.

Treatment Improvements

The Regional Wastewater Services Plan identified the need for a 36 million-gallon per day (mgd) treatment plant in the north service area by the year 2010. Beginning in January 2000, King County's Department of Natural Resources and Parks conducted a multi-year process to find a site for the new treatment plant and its associated conveyance facilities and marine outfall. Collectively these facilities were referred to as the Brightwater Facilities.

On December 1, 2003, after four years of careful analysis and public review, the King County Executive selected the Route 9–195th Street System as the final Brightwater alternative. This system, shown in Figure 1, includes a new regional treatment plant, deep-tunnel conveyance facilities, and an outfall to Puget Sound. The Brightwater system will provide needed wastewater capacity for the rapidly growing north service area for the next 30 years and beyond. A summary of the siting process was provided in the December 2004 *Regional Wastewater Services Plan Annual Report*.²

Following the siting decision, DNRP began the design process in close coordination with host jurisdictions and neighboring communities to identify and implement those actions necessary to accommodate the Brightwater facilities. King County DNRP also started work on the permitting process, working with local officials to identify additional information that may be needed to process development permits and agency approvals. As the details of the Brightwater project are refined in response to interaction with regulatory agencies and continued design and engineering work, DNRP may adjust the overall location, size, and shape of individual Brightwater facilities as part of mitigation agreements and to keep the project cost effective.

Brightwater Activities

King County DNRP completed a considerable amount of work on the Brightwater project during the first half of 2004. For example, predesign was finalized in June, which included a value engineering study of the preliminary design of the Brightwater facilities. Project staff applied for many of the permits needed to support the project and many new employees were hired to carry out the design and construction phases of Brightwater. In addition, the public involvement effort continued its efforts to involve stakeholders and members of the public in the Brightwater design and permitting process. Each of these activities is described in more detail below.

2. Details of the Brightwater siting process can be found in the "Treatment Improvements" sections of previous annual and semi-annual Regional Wastewater Services Plan reports, which can be accessed on the RWSP Web site at <http://dnr.metrokc.gov/wtd/rwsp/library.htm>. Additional information about the siting process can be found at <http://dnr.metrokc.gov/wtd/brightwater/library.htm>.

Value Engineering

Value engineering (VE) is a process to review and challenge a project's design elements, including the underlying assumptions and methodologies, to increase value within the design by improving performance, reliability, quality, safety, and reducing life-cycle costs. Between January and March 2004, a team of independent experts conducted the review at the 20 percent design stage and made recommendations for the treatment plant, conveyance system, and effluent pump station. For example, VE recommendations for the treatment plant were to reduce the size of the grit and screening facilities, evaluate chemically enhanced primary clarification as an alternative to ballasted sedimentation, and reduce the number of digesters and the size of the solids processing building.

Between March and June the design team completed a review of alternatives, including input from Metropolitan Water Pollution Abatement and Advisory Committee (MWPAAC) and the King County Regional Water Quality Committee (RWQC), and incorporate the VE suggestions into the final design scope of work.

Permitting

One of the primary activities undertaken by Brightwater staff since January has been working with federal, state, and local agencies toward securing the permits necessary to develop and construct the Brightwater facilities. To date, DNRP has applied for many of the required systemwide permits at the federal and state level, including Section 404 of the CWA and Section 7 of the Endangered Species Act. These permits regulate the discharge of dredged material, placement of fill material, or excavation within waters of the United States and impacts to endangered species and their habitat, respectively. DNRP has also applied for an HPA (Hydraulic Project Approval) permit and an NPDES permit.

Staffing

In October 2003, King County DNRP developed a staffing plan that outlined the staffing necessary to support the major RWSP projects entering design and construction between 2003 and 2005—primarily the Brightwater facilities.³ The staffing plan identified the need for approximately 22 employee equivalents for continued program management, design, construction management, SEPA compliance, community relations, right-of-way/permitting, and environmental & technical analysis. As of June 2004, 18 of the 22 employee equivalents had been hired.

3. October 2003. *Regional Wastewater Services Plan Phase II Staffing Plan: Brightwater Facilities*. King County Department of Natural Resources and Parks, Wastewater Treatment Division.

Public Involvement

King County DNRP continues to place a high priority on involving stakeholders and members of the public in the Brightwater design and permitting process. A number of public meetings were held since January along with the continuation of ongoing activities such as quarterly newsletters, speakers' bureau, and the Web site. These and other activities are summarized as follows.

Public Meetings

Brightwater staff presented information about the Brightwater project at 35 meetings and briefings with leaders, groups, and individuals, in addition to the meetings described below.

- January–February: Brightwater staff held five smaller meetings with immediate neighbors of conveyance pipe constructions portals. Participants discussed local construction impacts and timelines. Some meetings were focused on neighboring business interests and others were focused on residential issues
- March: Brightwater staff had a booth at the annual Basset Bash in Woodinville
- March–April: Brightwater staff held three large public meetings to explain the Brightwater conveyance system. Participants learned about tunneling technology and construction timelines
- June: Brightwater staff held a public meeting to provide information on refinements to the treatment plant design and meet immediate neighbors of the treatment plant site

Other Activities

- A new publication, the Brightwater Bulletin, was developed to provide pre-construction and construction details to immediate neighbors of the treatment plant site. The first edition was mailed in May 2004
- A traveling information display provided written and graphic information regarding conveyance at 11 area libraries, city halls, and community gathering spaces
- A model of the preliminary design for the treatment plant was on display at the City of Woodinville in January and February along with design questionnaires for the public
- Information about the treatment plant design was shared in a spring 2004 newsletter and on the Web page

Awards

The Brightwater public involvement program was recognized in 2004 with two awards. The first was the public involvement process during the four-year Brightwater Siting Project received the International Association for Public Participation's Core Values Project of the Year award. The second award was for the Brightwater Web site, which received the Association of Metropolitan Sewerage Agency's (AMSA) National Environmental Education Achievement Public Information and Education award.

Schedule for 2004

The primary activities for the remainder of 2004 will including developing a predesign cost estimate, initiating final design, and continuing permitting for the Brightwater treatment plant, conveyance facilities, and marine outfall. These activities are expected to continue through mid-2006. As part of final design there will be additional opportunities for public participation on treatment plant design, permitting, and mitigation. In addition, DNRP will open a project office at the Route 9 site in Woodinville in the fall.

Conveyance Improvements

Planning, design, and construction work continued on a number of conveyance projects outlined in the Regional Wastewater Services Plan. The accomplishments of the Conveyance System Improvement (CSI) program are described first, followed by an overview of conveyance projects in design, construction, and those that were completed in 2003. Schedule information for 2004 is summarized under each project description. For additional project schedule information, please refer to the RWSP Project Information section of this report.

Conveyance System Improvement Program

Initial wastewater basin planning is now complete in the county's regional basins as part of the CSI program. The focus of the program is to upgrade and improve the level of service of the regional conveyance system for the 33 local sewer agencies in King and Snohomish Counties. The CSI program integrates with the RWSP and other programs such as asset repair and replacement to provide consistency in conveyance planning system-wide and to take advantage of opportunities to address common issues, leverage resources, and minimize customer disruption.⁴

As discussed in the December 2003 *RWSP Annual Report*, the initial wastewater basin planning was completed in 2003 for ten regional basins.⁵ Since then, program staff have begun reevaluating wastewater peak flows using new information on infiltration/inflow and recently updated population information from the Puget Sound Regional Council (PSRC). This revised flow information will help assess whether the planned conveyance projects are still adequate to address future capacity needs, or if additional capacity is required.

An important development related to conveyance planning was the recent reorganization in WTD to combine the infiltration and inflow program (described later in this report) with the conveyance planning (CSI) program. Both of these programs will be administered within WTD's Comprehensive Planning and Technical Resources Section, ensuring that I/I controls are considered in the development of future conveyance alternatives. This will help identify the most cost effective mix of I/I controls and new conveyance facilities to address future capacity needs.

4. Visit the CSI Web site at <http://dnr.metrokc.gov/wtd/csi/index.htm> for more information on this program.

5. December 2003, Regional Wastewater Services Plan Annual Report, pp. 13–19.

Projects in Design

After a working alternative for a particular conveyance project is identified during the planning process, the project starts predesign and is assigned a project number and project manager. Following predesign, which takes a project through approximately 30 percent of the design process, the project starts final design, where detailed drawings and specifications for construction are developed. There are seven RWSP projects currently in design, as shown in Figure 2.

Bellevue Pump Station

This project provides needed capacity to prevent sewage overflows at the Sweyolocken Pump Station. A preferred alternative was selected to divert excess flows from the Sweyolocken Pump Station by upgrading the Bellevue Pump Station and constructing a new 5,500 linear foot, 24-inch diameter force main from the pump station to the East Side Interceptor. King County expects to complete 90 percent design by the end of 2004.

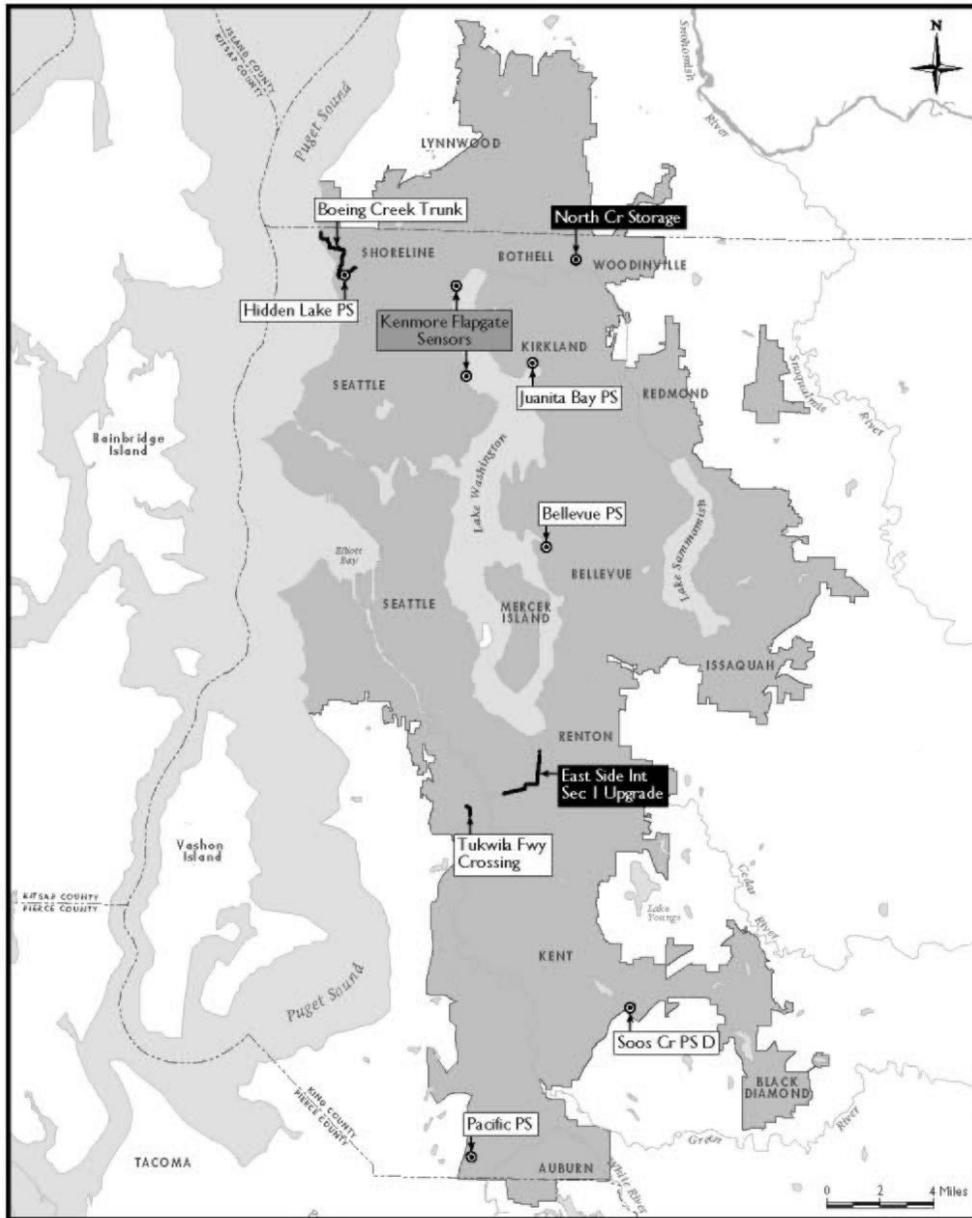
Pacific Pump Station

The existing 1.6-mgd Pacific Pump Station, located in City of Pacific right-of-way, has insufficient capacity to convey existing and estimated future peak flows. This project will construct a new 3.3-mgd pump station in an industrial zoned site suggested by the City two blocks to the west of the existing station, which will then be abandoned. The new pump station will have features that the existing pump station does not, such as standby power, odor control, improved access, and equipment lifting devices. A new forcemain will not be required, as recommended by the earlier planning study, since the flow projections have been revised. Predesign for the project was completed in June 2002 and the 90 percent design was completed in April 2003. Construction bids will be advertised in January 2004. Construction Notice to Proceed (NTP) was issued in June.

Juanita Bay Pump Station

The Juanita Bay Pump Station is an aging facility that is experiencing significant operational difficulties in conveying existing flows and has insufficient capacity to convey future flows. A new pump station is being designed to replace the existing 14.2-mgd pump station. A site for the new pump station was purchased across the street from the existing station. The environmental review and 90 percent design are complete and construction permits and easements are being obtained. Demolition of an existing maintenance building is scheduled in late Summer 2004 to clear the site in preparation for the pump station construction, which is targeted to begin in Spring 2005.

Figure 2. RWSP Conveyance Projects in Design and Construction



RWSP Conveyance Projects

-  Project Location
-  KCWTD Service Area
-  Project in Design Phase
-  Project under Construction
-  Completed Project

King County
 Department of Natural Resources and Parks
 Wastewater Treatment Division

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Data: King County WTD Database
 File name: 0401RW3Convey.ai vgab

Hidden Lake Pump Station and Boeing Creek Trunk

The 40-year old Hidden Lake Pump station does not have capacity to handle existing or future peak storm flows, nor does it meet current design standards of odor control, instrumentation, space, and equipment handling. Further, the pump station discharges to the Boeing Creek Trunk, which has a history of capacity, odor, and corrosion problems. This project will address these problems through phased system improvements to control overflows and increase the capacity of the Boeing Creek Trunk to handle the 20-year storm. The capacity increases include a new Hidden Lake Pump station with a capacity of 5.5 mgd and a future peak capacity of 6.8 mgd built on the existing site, a 0.5 million gallon storage facility constructed upstream of the pump station, and approximately 12,000 linear feet of pipeline replacement. Future needs in the area will depend on whether a reduction of inflow and infiltration will enable us to reduce the size or need for additional facilities. Predesign was completed in February 2003 and the project is currently at the 60 percent design level.

Tukwila Interceptor and Freeway Crossing

King County DNRP is evaluating alternatives to upgrade portions of the Tukwila Interceptor and Tukwila Freeway Crossing under the I-5/I-405 freeway near Tukwila. The working alternative will initially parallel or replace portions of the Tukwila Freeway Crossing, but before the project is ready for predesign we will assess the impacts of the Port of Seattle SeaTac airport industrial waste discharges and development proposals in the Southcenter area of Tukwila. The schedule for this project is under consideration, as preliminary indications are that capacity is available and flows from the Port of Seattle flows will likely not be a factor in accelerating the schedule for this project.

Soos Creek Pump Station D

The Soos Creek Pump Station D project will provide needed conveyance capacity in the South Green River planning area. The project includes a new 19-mgd pump station and conveyance (16,200 feet of forcemain and 5,400 feet of gravity sewer) connected to the South 277th Interceptor. Predesign for the project is underway and will be completed in October 2004; final design will continue through August 2005. Other activities in 2004 include acquisition of the pump station site and conveyance easements. Construction is expected to begin in January 2006.

Projects in Construction/Underway

Kenmore Interceptor Flapgate Sensors

The Kenmore Interceptor, also known as the Lake Line, is a gravity sewer in Lake Washington that conveys sewage from the Kenmore pump station and Log Boom Regulator into the Matthews Beach Pump Station (Figure 2). The Lake Line has a series of seven flap gates that open automatically if the line becomes filled during extreme high flows, protecting the Matthews Beach Pump Station from flooding or shutting down. This only happens on rare occasions but, until recently, it was difficult to confirm whether the flap gates had opened and discharged sewage into the Lake. To address this issue, DNRP committed to a system that can monitor the flap gates so we can alert residents of potential health hazards if the gates open and discharge sewage. The county completed the design of the flap gate monitors and the components were installed in July 2001. We then began testing the sensors and developing a response sequence for use by Wastewater Operations and Maintenance staff, who are working with the City of Lake Forest Park and the nearby community on ways to keep them informed in the event the flap gates open. Testing of the flap gates continued into 2004 and the online date is expected at the end of 2004.

Projects Completed

North Creek Storage

Construction began in November 2001 on the 6-million-gallon North Creek Storage facility. This underground facility, located at the site of the North Creek Pump Station, will store sewage flows from the Bothell-Woodinville and North Creek Interceptors during large storms, providing protection against sanitary sewer overflows into Lake Washington upstream of the Kenmore Interceptor. After the storm, the stored wastewater will be pumped back into the interceptors. The six million gallons of storage was completed and online in December 2003. Project closeout will occur by the end of 2004.

East Side Interceptor

The East Side Interceptor (ESI) is the primary conveyance for wastewater from the eastside communities to the South Treatment Plant. In 1965, Section 1 of the ESI was damaged during an earthquake. The repair of the damage reduced the capacity of the pipe. This project restores the East Side Interceptor to its original design capacity of 224 mgd by constructing 1,800 feet of 72-inch pipeline around the earthquake-damaged section. The construction used a tunnel-boring machine, placing the new pipe approximately 30 feet underground. Construction began in November 2001 and was completed in February 2003. Final close-out and commissioning will be completed by the end of 2004.

Infiltration and Inflow

The regional Infiltration and Inflow Control program is a comprehensive six-year study to identify sources of infiltration and inflow (I/I) to the regional system, establish the cost effectiveness of removing I/I, and recommend actions to control I/I in the future. The study runs through 2005, after which a long-term program will be implemented based on the recommendations of this program. The primary goal of the study is to determine the cost effectiveness of rehabilitating pipelines to remove infiltration and inflow from private and public sewers and if these improvements are more cost effective than building new conveyance facilities to convey the extra flow.⁶

The I/I program is based on a cooperative partnership between King County and the 33 local agencies that provide wastewater collection services within the wastewater service area, including portions of Snohomish County. The core components of the I/I program include:

- Flow monitoring and system modeling to assess and forecast levels of I/I throughout the service area
- Construction of pilot projects to demonstrate the effectiveness of various I/I control techniques
- Local agency workshops to build consensus in developing the regional I/I program
- Development of standards, procedures, and policies for new construction, rehabilitation of existing sewer systems, and sewer system maintenance
- Public education to raise public awareness of I/I impacts to the regional system

In 2002, DNRP completed flow and rainfall monitoring over two wet seasons⁷ in the separated portion of the service area (the portion with no combined sewers). Using the flow monitoring information, staff began calibrating a hydraulic model to predict 20-year peak design flows⁸ in the separated system and determine downstream impacts from possible reductions in I/I.

6. To learn more about infiltration and inflow, please visit the Web site at <http://dnr.metrokc.gov/wtd/i-i/index.htm>

7. Monitoring was originally scheduled to occur only during the 2000–2001 wet season; however, that winter was one of the driest on record. This circumstance, coupled with the fact that soils were not saturated at normal levels because of a dry fall, necessitated another round of monitoring during the 2001–2002 wet season.

8. 20-year peak flow is the amount of base flow and I/I expected to enter the wastewater system during a storm of an intensity that occurs once every 20 years on average

In 2003, DNRP completed engineering, design, and construction of ten I/I pilot rehabilitation projects and conducting pre-construction flow monitoring to assess the effectiveness of the pilot projects. The County also completed calibration of the I/I model for 146 basins throughout the King County service area and set up the hydraulic model to simulate 20-year flow volumes throughout the entire conveyance system.

In 2004, DNRP is evaluating the I/I pilot projects. Staff collected and analyzed more than two wet seasons of flow data for the entire conveyance system and projected peak flows for all King County trunks and interceptors. A baseline list of all new capital projects that will be required has been assembled and will be used as a basis for estimating the benefits of I/I reduction efforts.

Pilot Projects

During summer and fall 2003, program staff constructed 10 pilot projects throughout the wastewater service area; two additional pilots were managed by the Ronald and Skyway Districts. The pilot projects represented a variety of I/I improvements ranging from repairing mainlines and side laterals to rehabilitating the entire system through a variety of techniques. By mid-summer 2004, staff will develop a report describing the findings from the pilot projects. A brief overview of the pilots is provided below.

City of Auburn: The pilot area was divided into two pilot areas. In Pilot Area A, 11 percent of the area was completely rehabilitated; in Pilot Area B, 19 percent of the area was rehabilitated, including fitting nine manholes with pans to prevent water from entering the system. No apparent reduction in I/I was observed in this area.

City of Brier: This pilot project involved rehabilitating 23 percent of a neighborhood system including 2,938 linear feet of mainline sewer and chemical grouting or lining of 51 manholes. Evaluation results from one storm showed approximately 54 percent removal of I/I in the area.

Coal Creek Utility District: This project involved the repair and rehabilitation of 69 manholes by chemical grouting to prevent leaks, adjusting frames and covers to prevent water infiltration, and coating of the manhole chimneys to eliminate leaks. These improvements resulted in a 42 percent removal of I/I. No apparent reduction in I/I was observed in this area.

City of Kent: This project focused on rehabilitating 150 side sewers and 134 laterals in a residential neighborhood. The original project scope specified a cured-in-place lining system for rehabilitation; however, conditions found in the field and actual alignments of the side sewers precluded the use of the specified product. The prime contractor changed to pipe bursting to ensure completion of the project in time to meet the flow-monitoring schedule. Based on the results from one storm, a 78 percent reduction in I/I was observed.

City of Kirkland: The Kirkland pilot project made improvements to 25 percent of the system, including rehabilitating 4,157 linear feet of mainline & 74 laterals and replacing 18 manholes. Post flow monitoring showed a 28 percent reduction in the 20-year peak I/I flow.

City of Lake Forest Park: This project made repairs to 35 percent within the pilot project system. Evaluation results from just one storm showed a 69 percent reduction in I/I removal.

City of Mercer Island: Within the residential area's Pilot basin, 15,635 linear feet of main lines were rehabilitated—about 70 percent of the system. This resulted in a 37 percent reduction in I/I.

Northshore Utility District: This project made improvements within 64 percent of the system, including grouting 109 manholes, adjusting frames and covers to prevent water infiltration, and coating of the manhole chimneys to eliminate leaks. Results from one storm showed a 23 percent reduction in I/I.

City of Redmond: The Redmond project area was divided into two areas. In pilot area A, 36 percent of the system was rehabilitated, including 5,647 linear feet of main, 17 laterals, and 25 manholes. In pilot area B, which was dominated by groundwater I/I, 8 percent of the system was improved. This included rehabilitating 410 linear feet of main using a cured-in-place pipe, pipe bursting 265 linear feet of main, and fixing 7 manholes. Only portions of the sewer system located within the right-of-way were rehabilitated. No apparent reduction of I/I was observed in this area.

Ronald Wastewater District: Ronald managed its own I/I rehabilitation project, making improvements to 72 percent of the system that included rehabilitating 208 side sewers and 53 laterals. Initial post construction monitoring shows about a 74 percent reduction in I/I within the basin.

Skyway Water and Sewer District: Skyway managed the replacement of 95 percent of their system in the West Hill and Bryn-Mawr area of unincorporated King County. The project involved the complete replacement of 9,524 linear feet of mains, 163 laterals and side sewers, and 38 manholes. Monitoring data showed the area achieved a 87 percent reduction in I/I entering the system.

Val Vue Sewer District: This project made improvements within 45 percent of the system, including grouting 30 manholes, adjusting frames and covers to prevent water infiltration, and coating of the manhole chimneys to eliminate leaks. No apparent reduction in I/I was observed in this area.

Pilot Project Assessment Monitoring

King County completed pre-rehabilitation monitoring of the pilot projects from November 2002 through January 2003. Post-rehabilitation monitoring was conducted between October 2003 and May 2004 for both the Pilot and Control basins.

Pilot Project Effectiveness Analysis

Each pilot project was modeled for both pre- and post-rehabilitation conditions. Peak 20-year flows were then estimated from each pilot basin. Measurable I/I reduction was quantified in 8 of the 12 basins and summarized in Table 1. Many of the projects were completed after mid-November, 2003, and there was only one significant rainfall event after that. Therefore, there is quite a bit of uncertainty in the actual percentage of I/I removed, since a wide variety of storms and groundwater conditions were not present in the post-rehabilitation monitoring period. The Skyway and Kirkland basins were the pilot basins with the most variation in rainfall and groundwater condition in the post-rehabilitation condition. Another wet season of flow monitoring is being planned to refine the I/I removal effectiveness estimates.

Table 1
Infiltration and Inflow Rehabilitation by Type and Basin

| Basin | Rehabilitation Type | | | | Percentage of Basin Rehabilitated | I/I Reduction Effectiveness (%) |
|------------------|---------------------|----------|---------|------------|-----------------------------------|---------------------------------|
| | Main | Man-hole | Lateral | Side Sewer | | |
| Skyway | X | X | X | X | 95 | 87 |
| Kirkland | X | X | X | | 25 | 28 |
| Auburn A | X | X | X | X | 11 | NAR |
| Auburn B | | X | | | 19 | NAR |
| Brier | X | X | | | 23 | 54 |
| Lake Forest Park | X | X | | | 35 | 69 |
| Coal Creek | | X | | | -- | NAR |
| Northshore | | X | | | 64 | 23 |
| Mercer Island | X | | | | 70 | 45 |
| Kent | | | X | X | 100 | 78 |
| Ronald | | | | X | 72 | 74 |
| Val Vue | | X | | | 45 | NAR |
| Redmond A | X | X | X | | 36 | NAR |
| Redmond B | X | X | X | | 8 | NAR |

NAR = No Apparent Reduction

I/I Benefit/Cost Analysis

Work is currently underway to determine which I/I reduction efforts will be cost effective. The I/I monitoring data has been used with a computer model to estimate peak flows everywhere in the King County collection system. Future flows have been projected in each trunk and interceptor and estimates have been made for when each conveyance facility will be at capacity and when additional facilities will be brought on line.

Based on the results of the I/I pilot projects, staff will make assumptions as to the cost and effectiveness of I/I reduction efforts in various combinations of the 775 mini-basins in the King County service area. Impacts to downstream facilities will be determined for each combination of I/I reduction assumed, and a benefit/cost analysis will be performed to determine the potential I/I Program that will be cost effective (benefits greater than costs). These alternatives will be presented in the Alternatives Options Report, which will describe the controls used and discuss the cost-effectiveness of rehabilitating local systems. The report is expected to be released in December 2004.

Other information and analyses will be included in the Alternatives Options Report as well.

- Standards and procedures for rehabilitating systems
- Policy and code changes necessary to implement a regional program
- Funding alternatives for I/I reduction
- Regulatory considerations and requirements
- Evaluation on conducting work on private property
- Summary of options for involving the public in reducing I/I

Standards, Procedures, and Policies

King County DNRP and the local agencies are developing a set of regional I/I control standards, procedures, and policies for new construction, rehabilitation of existing sewer systems, and sewer system maintenance for local agencies.

In 2002, a subcommittee of the Metropolitan Water Pollution Abatement Advisory Committee (MWPAAC) met to define regional design standards, procedures, and policies for new construction, rehabilitation of existing sewer systems, and sewer system maintenance. MWPAAC recommended that these draft standards, procedures, and policies be used during the pilot projects where possible.

In 2004, the MWPAAC Engineering & Planning (E&P) Committee took the place of the RWSP Subcommittee to review and finalize the draft standards, procedures, and policies for recommendation to the Executive for inclusion in the long-term infiltration and inflow control program. The E&P Committee worked with King County staff and consultants to outline the Alternatives Options Report that will be prepared in 2004 for the King County Executive. The Executive will present his recommendation to the Council by December 31, 2004, per I/I Policy 2.3.

Schedule for 2004

During the second half of 2004 the I/I Program will complete several projects. These are highlighted below.

Pilot Basins/Projects

Representatives from King County and the local agencies have met to discuss lessons learned from implementing the pilot projects. This review included analyses of technologies used and their effectiveness. Monitoring of flows and rainfall will also be completed for each of the pilot basins and projects to compare pre- and post-construction conditions, information that can help determine the cost-effectiveness of removing I/I within the system. The findings from this work will be included in the Pilot Project Summary Report due in mid-summer 2004 and the Alternative Options Report.

Conveyance System Modeling

King County has estimated peak flows throughout the wastewater service area for several decades in the future and identified facilities that are projected to have capacity limitations. Facilities to address those limitations have been proposed. These facilities, and their associated costs, will form a baseline of conveyance facilities required through 2050. Then, alternatives to reduce I/I will be proposed and modeled. The resulting facilities and associated costs will be compared with the baseline facilities and costs to determine which alternatives are most cost effective.

Standards, Procedures, and Policies

The E&P Committee will review the draft Standards, Procedures, and Policies following their use in the pilot projects and then modify them to better reflect actual working conditions. These Standards, Procedures and Policies will be included in the Alternative Options Report.

Local Agency Workshops

Local Agency Workshop Number 10 is tentatively scheduled for late fall 2004. This workshop will present the pilot projects results and cost-benefit analysis criteria developed by the E&P Committee.

Combined Sewer Overflows

The primary work effort for the Combined Sewer Overflow (CSO) Control program in 2004 has been to lay the groundwork for future combined sewer overflow control projects and to complete consultant selection for the 2005 CSO Update. This work includes coordinating with the City of Seattle on their CSO Plan and continuing our response to the Environmental Protection Agency's Superfund listing of the Lower Duwamish Waterway. We are also moving forward with our sediment management plan. Each of these activities is described in more detail below.⁹

CSO Control and Improvement

This project will implement 21 combined sewer overflow control projects identified in the Council-approved Regional Wastewater Services Plan between the years 2005 and 2030. Combined sewer overflows are discharges of dilute wastewater to receiving waters that occur primarily during large storms when excess rainfall exceeds the capacity of the pipelines. These discharges can contribute pathogens, organic material, sediments, and chemicals to local waterbodies. The County owns 38 CSO outfalls which are located along Lake Washington, the Ship Canal, the Duwamish River, Elliott Bay, and Puget Sound.

The City of Seattle has requested that the County consider accepting stormwater into the combined system that presently discharges along the central waterfront. This would be done as part of a major re-plumbing of their sewer system in conjunction with the Viaduct and Seawall replacement project. The County would need to accelerate construction of the planned Connecticut CSO treatment facility to provide treatment for these flows. The County (Department of Transportation and WTD) submitted comments on the project's Draft Environmental Impact Statement in June 2004.

9. To learn more about CSOs, please visit the Web site at <http://dnr.metrokc.gov/wtd/cso/index.htm>

Year 2005 CSO Plan Update and Program Review

This project is reviewing the CSO Control Program and adjusting the program as needed to meet on-going regulatory requirements and county business needs. The review will provide formal opportunities to assess the impact of new regulations and initiatives affecting the CSO Plan such as Total Maximum Daily Loads (TMDLs), Endangered Species Act (ESA), and proposed Superfund listings. The 5-year CSO Update is required by the Department of Ecology and the NPDES permit for West Point. The Update will assess progress to date, status of current projects, and description & schedule for CSO projects scheduled for completion in the next five years. These projects include the Murray CSO storage tank, the Barton pump station, the South Magnolia CSO storage tank, and the North Beach CSO storage tank and pump station.

As part of the 2005 Update process, King County is required to conduct a program review, which has several objectives.

- Maximize use of existing CSO control facilities
- Identify the public and environmental health benefits of continuing the CSO control program
- Ensure projects are in compliance with new regulatory requirements and objectives such as the ESA and the Wastewater Habitat Conservation Plan
- Analyze rate impacts to ensure that the program review will honor and be consistent with long-standing commitments
- Assess public opinion
- Integrate the CSO control program with other water/sediment quality improvement programs for the region

Any program changes recommended by the Executive, Regional Water Quality Committee, and the King County Council will be addressed in the Plan Update that follows the program review. Final planning for the first CSO control projects under the RWSP will begin in 2005 following completion of the program review and 2005 Plan Update process.

Lower Duwamish Superfund Site

King County DNRP is partnering with the City of Seattle, the Port of Seattle, and Boeing—in coordination with EPA and Ecology—under a consent agreement to prepare a remedial investigation and feasibility study (RI/FS) for the Lower Duwamish Waterway Superfund Site.¹⁰ The agreement gave DNRP the opportunity to shape the process and to implement any clean ups earlier than would occur under a traditional Superfund approach. King County DNRP is continuing to meet the consent agreement, negotiating the Phase 2 work plan and starting the field studies needed to complete the remedial investigation. The partnership has committed to moving forward on four of the early action sites which will get those portions of the waterway cleaned up years earlier. We are also participating in two of those early action sites at Diagonal/Duwamish CSO and Slip 4.

The cleanup of contaminated sediment at Diagonal/Duwamish was successfully completed in February 2004. King County oversaw the removal of about 60,000 cubic yards of sediment over a 7-acre area of river bottom in the Duwamish industrial area. The dredged area was covered with 3 to 6 feet of clean sediment and rocks for new fish habitat, helping to restore a vital area of the river environment. In addition, lessons learned during this project will lead to further improvements in best management practices for dredging.

DNRP worked with the City of Seattle and Port of Seattle to secure a state grant for the portion of this work done in the 2003–2005 biennium.

Sediment Management Program

King County is responsible for cleaning up sediment contamination related to combined sewer overflows under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the state Model Toxics Control Act (MTCA). King County's plan is to comply with these regulations and meet the following objectives.

- Remediate sediments in a timely, efficient, and economical manner
- Prevent harm to public health
- Limit future liability

King County has begun the first of the cleanup sites in front of the old Denny Way outfall structure. This 3-year project will clean up the remaining contaminated sediment in the nearshore area adjacent to the Denny outfall. DNRP is also coordinating with the Port of Seattle to conduct cleanup work at Hanford and Lander CSOs by dredging in East Waterway.

10. This listing could impact the priorities for CSO control that were identified in the Regional Wastewater Services Plan. The 2005 Plan Update will assess this impact.

Schedule for 2004

The major focus of the CSO Control Program in 2004 is the completion of the Henderson/Martin Luther King and Denny Way/Lake Union CSO Control Projects. Denny will control the largest CSO in the County's system, decreasing annual overflow volumes nearly 500 million gallons per year—a third of the remaining CSOs. Henderson will control the last County CSO discharge to Lake Washington. Efforts to increase collaboration and coordination with the City of Seattle on CSO control will continue, including recommendations for stormwater management and other joint project opportunities. These opportunities will be incorporated in the amendment of the CSO Control Plan during 2004, with the report to be completed in 2005.

Biosolids

King County continued its ongoing effort of produce Class B biosolids at the regional treatment plants. King County expects to produce approximately 125,000 wet tons of biosolids in 2004, all of which will be recycled for use in compost, forestry, and agricultural applications.¹¹

Schedule for 2004

King County DNRP will continue producing Class B biosolids at its regional treatment facilities. Staff will continue to investigate cost-effective means to achieve Class A biosolids at these facilities. Design work will be initiated on the West Point Digestion System Improvements project. This 3-year project is intended to increase the stability of the digestion system and decrease the potential for digester upsets. In addition, new high-solids centrifuges are scheduled for installation at the South Treatment Plant by the end of 2004. These new facilities are projected to reduce the amount of biosolids produced in 2005 to 105,000 wet tons.

11. Please visit <http://dnr.metrokc.gov/WTD/biosolids/> for more information on biosolids recycling

Water Reuse & Conservation

The goal of the county's Water Reuse program is to use reclaimed water to meet the water resource needs of this region's residents and environment. The primary implementation effort at this time is the Sammamish Valley Reclaimed Water Production Facility. This section also describes the efforts to date under King County's five-year water conservation program.

Sammamish Valley Reclaimed Water Production Facility

The approved Regional Wastewater Services Plan identified policy direction to guide the development of reclaimed water; namely, to actively pursue and to accelerate the development of a water reuse program; and to investigate recycling and reusing reclaimed water as a significant new source of water.

Based on this policy direction and the recommendations of a multi-stakeholder Reclaimed Water Task Force, DNRP developed a list of potential demonstration projects, identified and ranked a set of potential users, and selected a demonstration project—the Sammamish Valley Reclaimed Water Production Facility. The facility was planned to produce approximately 1.5 million gallons of reclaimed water throughout the summer irrigation season to irrigate nearby farms and recreational venues. The facility was projected to cost approximately \$35.1 million.

Following planning and environmental review, predesign work began on the Sammamish facility in early 2002. However, as the project permits were nearing approval and design was nearing completion, concerns were raised about possible conflicts with other parkland users and the overall project costs. As part of the subsequent project review, DNRP found that it would be more cost-effective to deliver reclaimed water from Brightwater to the Sammamish Valley if the Brightwater Treatment Plant was sited at the Route 9 site north of Woodinville and the Brightwater treatment process used membrane bioreactor (MBR) treatment technology.

However, because Brightwater will not be online until 2010, the delivery of reclaimed water from the Route 9 site to the Sammamish Valley will not be possible in the near term. Accordingly, in an April 2004 report¹² to the King County Council, DNRP proposed an interim facility to provide 0.5 mgd of reclaimed water to the Sammamish Valley beginning in 2007. This facility would also produce reclaimed water using MBR, providing future Brightwater treatment plant operators valuable experience in using MBR.

12. April 2004. *Proviso Report for King County Council - Sammamish Reclaimed Water Project*. King County Department of Natural Resources and Parks, Wastewater Treatment Division.

The report estimated the cost of the new Sammamish Valley demonstration project at \$9.6 million, or about \$14 million if including the costs accrued to date on the original project. Much of the environmental work done on the original project and a significant portion of the design work will carry over to the new project. It is expected that predesign for the new demonstration facility will be completed later in 2004 and the SEPA public comment period will occur during the winter 2004–2005.

Water Conservation Program

Under the Regional Wastewater Services Plan, the King County Council decided to implement a water conservation program to provide a holistic approach in water resource management and to reduce impacts to the wastewater system.¹³ Specifically, the RWSP policy calls for King County to “support regional water supply agencies and water purveyors in their public education campaign on the need and ways to conserve water through pilot projects that support homeowner water conservation, emphasizing strategies and technologies that reduce wastewater.” King County DNRP has \$300,000 per year for a five-year program. The program has two areas, public education and implementation of water conservation retrofits that result in substantial water conservation savings.

Water Audits and Retrofits

In 2004, water conserving fixtures are continuing to be installed in King County park, pool, public health, district court, animal shelter and sheriff precinct facilities. These fixtures include toilets, urinals, faucets, faucet aerators, and timed showers. The fixtures are projected to save over 4 million gallons per year, which will amount to considerable savings in water and sewer charges to these facilities. These facilities also offer an excellent venue for water conservation-related informational signage because of their high public use.

Public Education and Outreach

King County launched a water conservation Web site¹⁴ this year and also contributed to the Water Conservation Coalition of Puget Sound’s Regional Public Awareness Campaign, Water: Use It Wisely. Bert the Salmon water conservation baseball cards were handed out at a variety of events and venues.

13. For more information about King County’s Water Conservation Program, call (206) 296-8361.

14. The water conservation Web site can be accessed at <http://dnr.metrokc.gov/wtd/waterconservation/>

Schedule for 2004

Sammamish Valley Reclaimed Water Production Facility: Predesign for the new demonstration facility will be completed in October 2004 and the SEPA public comment period will be November–December 2004.

Water/Wastewater Conservation Program: Water/Wastewater Conservation Program: Public education and water conservation retrofits will continue in 2004. Highlights of the 2004 program are the completion of water conserving retrofits at King County Park facilities, King County’s animal shelters and installation of water conserving washing machines for several non-profit organizations serving low-income and homeless citizens, the Millionaire Club, and the Compass Center.

RWSP Project Information

This section provides additional information for each RWSP capital project as required by Ordinance 14018 in the 2001 Budget Proviso; namely, the year-to-date budget and staffing status. The projects are organized in the following tabs as shown in the Table 2.

Table 2. RWSP Capital Improvement Projects

| Project | Project Number |
|---|-----------------------|
| Tab 1 - Treatment Improvements | |
| Brightwater Treatment Plant | 423484 |
| Brightwater Conveyance | 423575 |
| Brightwater Marine Outfall | 423457 |
| Tab 2 - Conveyance Improvements | |
| Conveyance System Improvements | 423373 |
| East Side Interceptor Section 1 Repair | 423420 |
| North Creek Storage | 423519 |
| Tukwila Interceptor/Freeway Crossing | 423520 |
| Hidden Lake/Boeing Trunk Upgrade Improvement | 423365 |
| Juanita Bay Pump Station Modifications | 423406 |
| Pacific Pump Station | 423518 |
| Bellevue Pump Station | 423521 |
| Soos Creek Pump Station D and Pipeline D | 423583 |
| Tab 3 - Infiltration & Inflow | |
| RSWP Local System I/I Control | 423297 |
| Tab 4 - Combined Sewer Overflow | |
| CSO Plan Update | 423441 |
| Sediment Management Program | 423368 |
| Tab 5 - Water Reuse | |
| Samamish Valley Reclaimed Water Production Facility | 423528 |
| Water/Wastewater Conservation Program | 423523 |

Table 2 shows that there are 17 RWSP capital projects in various stages of design and construction. An example of the information provided for each project is depicted in Figure 3, including the project's scope, milestones, schedule, budget, and contract status. Each of these fields are described in more detail below and are consistent with the reporting requirements for Regional Wastewater Services Plan projects per Ordinance 13680 and by proviso in Ordinance 14018.

Project Number

Each wastewater capital project is assigned a six-digit number such as 423413. The first two numbers (42) identify this as a wastewater project (as opposed to a transit project or roads project). The third number (3) identifies the project as a capital project (as opposed to operating) and the last three numbers are sequential numbers reflecting the order the projects were assigned in a particular year.

2004 Adopted Budget and Percent Spent

The 2004 adopted budget is the approved project budget for the year 2004. The “Percent Spent” number reflects how much of the budget has been spent as of the reporting period (through May 2004). However, projects in construction have their entire construction contract amount appropriated in the first year of construction, even if it’s a multi-year construction project. As such, the percent spent value for these projects will be very low early in the project life.

Project Scope

The project scope gives a brief overview of the project as described by the project manager. In general, the narrative describes the project and its purpose.

Schedule

The project schedule information includes a start date and an end date for the project phases that are appropriate for that project. There are six phases for construction projects: planning, predesign, final design, implementation, closeout, and land acquisition.

Project Cost

Project costs are provided for contracts, staffing, and permits & right-of-way (ROW) expenditures. The costs come from the IBIS financial reporting system and are reported both year-to-date and life-to-date for the month indicated.

Contract Information

There are generally four types of contracts associated with wastewater capital projects as identified by the first letter in the contract number: 'P' denotes a professional services contract, 'E' denotes an engineering & architectural services contract, 'T' denotes a technical consultant services contract, and 'C' denotes a construction services contract. The information provided for each contract is the total paid by project as of the report date and the contract amount. In some cases, a contract may support several projects, such as on call services, so the project may use only a portion of the contract amount.

Figure 3. Project Information Sheet

| Project No. and Title 423297 RWSP Local System I/I Control | | Council District: All | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|---------------------|-------|--------|------------|--|----------|------------|-------------|--|----------|-----------|----------------|--|-----------|----------|------------------|--|----------|-----------|------------|--|----------|-----------|-------------------|--|--|--|---|--|--------------|--------------|--------------|----------------------|--------|--------|--------------|-------------|-------------|-----------------------|-----------|-------------|-------------|----------|-------------|---------------|-----|---------|-------------------|-----------|-------------|-----------------------|--------|--|----------------------------|--------------------|---------------------|
| 2004 Adopted Budget: \$4,755,018 | | Project Manager: Sturgill, Dan | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Percent Spent: 53% | Phase: Construction (CM Support) | Appropriation: A20700 Inflow & Infiltration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Scope This project is a five-year regional program to reduce infiltration and inflow (I/I) into the County's wastewater system from local component agency sewers. This program, part of the Council-approved Regional Wastewater Services Plan, is based on a cooperative partnership between King County and its 33 local component agencies. The program is designed to (1) meter and identify I/I sources in local sewer systems; (2) conduct pilot I/I rehabilitation projects in order to identify cost effective I/I removal techniques for this region; (3) regionally evaluate control solutions and their benefit; and (4) ultimately design a long-term enforceable control program to reduce I/I coming from local sewer systems. King County's wastewater system is running out of capacity not only because of new flows generated from population growth, but also because of excessive infiltration and inflow. I/I is the water that enters the sewer system during storms from sources such as leaky sewer pipes, roof drain connections, storm drains and leaking manholes. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Phase</th> <th>Schedule</th> <th>Start</th> <th>Finish</th> </tr> </thead> <tbody> <tr> <td>1 Planning</td> <td></td> <td>1/1/2000</td> <td>12/31/2005</td> </tr> <tr> <td>2 Predesign</td> <td></td> <td>4/1/2002</td> <td>10/1/2002</td> </tr> <tr> <td>3 Final Design</td> <td></td> <td>10/1/2002</td> <td>4/1/2003</td> </tr> <tr> <td>4 Implementation</td> <td></td> <td>4/1/2003</td> <td>11/1/2008</td> </tr> <tr> <td>5 Closeout</td> <td></td> <td>1/1/2006</td> <td>12/1/2006</td> </tr> <tr> <td>6 Land Aquisition</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | Phase | Schedule | Start | Finish | 1 Planning | | 1/1/2000 | 12/31/2005 | 2 Predesign | | 4/1/2002 | 10/1/2002 | 3 Final Design | | 10/1/2002 | 4/1/2003 | 4 Implementation | | 4/1/2003 | 11/1/2008 | 5 Closeout | | 1/1/2006 | 12/1/2006 | 6 Land Aquisition | | | | <table border="1"> <thead> <tr> <th>Project Cost</th> <th>Year to Date</th> <th>Life to Date</th> </tr> <tr> <th>Type of Project Cost</th> <th>MAY-04</th> <th>MAY-04</th> </tr> </thead> <tbody> <tr> <td>CONSTRUCTION</td> <td>\$1,086,994</td> <td>\$5,433,100</td> </tr> <tr> <td>ENGINEERING CONTRACTS</td> <td>\$673,322</td> <td>\$2,139,388</td> </tr> <tr> <td>OTHER COSTS</td> <td>\$84,756</td> <td>\$2,658,590</td> </tr> <tr> <td>PERMITS & ROW</td> <td>\$0</td> <td>\$1,518</td> </tr> <tr> <td>STAFF LABOR COSTS</td> <td>\$407,043</td> <td>\$3,522,699</td> </tr> <tr> <td>Staff Labor LTD Hours</td> <td>67,467</td> <td></td> </tr> <tr> <td>Total Project Cost:</td> <td>\$2,252,115</td> <td>\$33,755,295</td> </tr> </tbody> </table> | | Project Cost | Year to Date | Life to Date | Type of Project Cost | MAY-04 | MAY-04 | CONSTRUCTION | \$1,086,994 | \$5,433,100 | ENGINEERING CONTRACTS | \$673,322 | \$2,139,388 | OTHER COSTS | \$84,756 | \$2,658,590 | PERMITS & ROW | \$0 | \$1,518 | STAFF LABOR COSTS | \$407,043 | \$3,522,699 | Staff Labor LTD Hours | 67,467 | | Total Project Cost: | \$2,252,115 | \$33,755,295 |
| Phase | Schedule | Start | Finish | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 Planning | | 1/1/2000 | 12/31/2005 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 Predesign | | 4/1/2002 | 10/1/2002 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 Final Design | | 10/1/2002 | 4/1/2003 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 Implementation | | 4/1/2003 | 11/1/2008 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 Closeout | | 1/1/2006 | 12/1/2006 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 Land Aquisition | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Cost | Year to Date | Life to Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Type of Project Cost | MAY-04 | MAY-04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONSTRUCTION | \$1,086,994 | \$5,433,100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ENGINEERING CONTRACTS | \$673,322 | \$2,139,388 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OTHER COSTS | \$84,756 | \$2,658,590 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PERMITS & ROW | \$0 | \$1,518 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STAFF LABOR COSTS | \$407,043 | \$3,522,699 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Staff Labor LTD Hours | 67,467 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Project Cost: | \$2,252,115 | \$33,755,295 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Current Contract Information | | Total Paid | Contract Amt | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Contract Number and Title | | by Project | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C33042C/AUBURN I/I PILOT PROJECT | | \$384,737 | \$353,618 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C33043C/BRIER I/I PILOT PROJECT | | \$372,684 | \$425,359 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C33044C/KENT I/I PILOT PROJECT | | \$1,077,931 | \$1,099,544 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C33045C/KIRKLAND I/I PROJECT | | \$838,189 | \$794,618 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C33046C/LAKE FOREST PARK I/I PILOT PROJECT | | \$790,420 | \$801,893 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C33047C/I/I PILOT PROJECT | | \$805,726 | \$740,556 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C33048C/REDMOND I/I PILOT PROJECT | | \$840,108 | \$916,284 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C33060C/WW MISC. PIPE REPAIR AND RESTORATION | | \$1,210 | \$500,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C33120C/MANHOLE I/I PILOT PROJECT | | \$200,823 | \$231,990 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E83043E ENGN SUPPORT FOR REGIONAL I/I CONTROL PROGRAM | | \$149,935 | \$149,935 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E93051E REGIONAL INFILTRATION / INFLOW CONTROL PROJECT | | \$22,218,800 | \$2,785,607 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P32001P/AUDIT SERVICES FOR KC CONTRACT E93051E | | \$24,582 | \$25,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Project No. and Title

423484 Brightwater Treatment Plant

Council District: N/A

Project Manager: Hummel, Stan

2004 Adopted Budget: \$64,279,836

Phase: Predesign 30%

Appropriation:

A20220 Brightwater Treatment Plant- New Facilities & Improvements

Percent Spent: 28%

Project Scope

This project will site, design, and construct a new 36-mgd wastewater treatment facility as described in the 1999 Council-adopted Regional Wastewater Services Plan. The new treatment plant is a key element of the County's strategy to provide necessary capacity to meet wastewater demand and comply with federal and state regulations in the years ahead. If this facility is not constructed, the county's sewer customers would face wastewater capacity problems by approximately 2010.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------------------|-----------------|-----------|------------|-------------------------------|------------------------|------------------------|
| | | | | Type of Project Cost | Year to Date MAY-04 | Life to Date MAY-04 |
| 1 Planning | | 1/1/2001 | 5/1/2002 | CONSTRUCTION | (\$1,031,663) | \$43,957 |
| 2 Predesign | | 6/1/2002 | 11/30/2003 | ENGINEERING CONTRACTS | \$4,325,591 | \$30,435,463 |
| 3 Final Design | | 12/1/2003 | 4/30/2007 | OTHER COSTS | \$621,699 | \$3,798,670 |
| 4 Implementation | | 11/1/2004 | 7/30/2011 | PERMITS & ROW | \$11,720,528 | \$38,320,099 |
| 5 Closeout | | 8/1/2009 | 7/31/2011 | STAFF LABOR COSTS | \$812,621 | \$8,808,751 |
| 6 Land Aquisition | | | 12/31/2004 | Staff Labor LTD Hours 152,252 | | |
| | | | | Total Project Cost: | \$16,448,776 | \$81,406,940 |

Current Contract Information

Contract Number and Title

**Total Paid
by Project**

Contract Amt

| | | |
|---|--------------|-------------|
| 2002-01/SNOHOMISH COUNTY - BRIGHTWATER PROJECT | \$719,925 | \$1,011,174 |
| COK12902/BRIGHTWATER ENVIRONMENTAL IMPACT STATEMENT | \$3,111 | \$20,000 |
| COLFP112902/BRIGHTWATER ENVIRONMENTAL IMPACT STATEMENT | \$20,000 | \$20,000 |
| Contract for Technical Services-2004 | \$27,413 | \$44,000 |
| COS112102/BRIGHTWATER ENVIRONMENTAL IMPACT STATEMENT | \$20,000 | \$20,000 |
| COW110602/WOODINVILLE AGREEMENT/BRIGHTWATER DEIS | \$16,217 | \$18,000 |
| E03030E/WO BASED MULTIDISCIPLINARY ENVIRONMENTAL SERVICES | \$4,187 | \$250,000 |
| E13035E/ENGRG. SVCS FOR BRIGHTWATER TREATMENT PLANT | \$9,704,762 | \$4,146,700 |
| E23002E/ARCHITECTURAL, LANDSCAPE ARCH & INTERIOR DESIGN | \$4,121,102 | \$4,440,618 |
| E23007E/GEOTECHNICAL SERVICES FOR THE BRIGHTWATER CONVEYANCE SYS | \$36,322 | \$1,168,455 |
| E33019E/WO MECH & ELECTRICAL DESIGNS SVCS | \$1,799 | \$500,000 |
| E33021E/QA/QC Design Review Services for WTD | \$13,808 | \$500,000 |
| OVWSD12502/BRIGHTWATER ENVIRONMENTAL IMPACT STATEMENT | \$20,000 | \$20,000 |
| P03012P/RWSP PROGRAM MANAGEMENT SERVICES DEVELOPMENT | \$3,637,891 | \$1,104,635 |
| P13009P/WASTEWATER TREATMENT EAST AND WEST SECTIONS SPACE PROGRAM | \$7,302 | \$215,684 |
| P93006P PHASED HABITAT CONSERVATION PLAN FOR KC | \$278,935 | \$3,813,216 |
| P93012P SITE SELECTION AND MITIGATION FOR NEW REGIONAL WASTEWATER | \$10,520,720 | \$1,274,892 |
| P93013P ON-CALL MANAGEMENT, PROFESSIONAL AND TECHNICAL SERVICES FOR | \$731 | \$1,600,000 |
| POE081302/BRIGHTWATER ENVIRONMENTAL IMPACT STATEMENT | \$20,000 | \$20,000 |
| PROFESSIONAL SERVICES | \$5,000 | |
| SUQUAMISH AGREEMENT/BRIGHTWATER DEIS | \$8,619 | \$39,887 |
| T01129T/LEGAL SUPPORT SERVICES FOR NTF | \$1,134,474 | \$2,400,000 |
| T01130T/LEGAL SUPPORT SERVICES FOR NTF SITING | \$1,049,849 | \$1,150,000 |
| T01145T/REAL ESTATE BROKER SUPPORT SVCS FOR NORTH TREATMENT FAC. | \$15,165 | \$24,000 |
| T01352T/WRITING & EDITING SERVICES ON A WO BASIS | \$87,067 | \$240,000 |
| T01430T/PUBLIC RELATIONS FOR BRIGHTWATER TREATMENT PLANT | \$24.954 | \$24.998 |

Project No. and Title

423575 Brightwater Conveyance

Council District: 14 CountyWide -

Project Manager: Sreibers, Gunars

2004 Adopted Budget: \$55,330,380

Phase: Predesign 30%

Appropriation:

Percent Spent: 7%

Project Scope

The King County Wastewater Treatment Division is making major improvements to its sewage treatment system as part of the approved Regional Wastewater Services Plan. These improvements are needed to handle rapid population growth and support our mission to protect public health and the environment.

One project is the Brightwater Treatment Facilities. This project is responsible for the design and construction of the conveyance facilities associated with Brightwater. The conveyance system is comprised of:

- An influent pipeline for carrying untreated wastewater
- An effluent pipeline that carries treated wastewater from the treatment plant to a marine outfall.
- Conveyance structures and facilities (both above- and below-ground).
- Most of the pipelines will be installed in tunnels. Most of the construction activity will be below ground and at construction portals, thereby minimizing above-ground construction activity along streets.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------|-----------------|----------|------------|-----------------------------|------------------------|------------------------|
| | | | | <u>Type of Project Cost</u> | Year to Date MAY-04 | Life to Date MAY-04 |
| 1 | Planning | 1/1/2002 | 12/28/2003 | CONSTRUCTION | \$0 | (\$365,645) |
| 2 | Predesign | 3/1/2003 | 8/31/2004 | ENGINEERING CONTRACTS | \$2,297,127 | \$16,611,574 |
| 3 | Final Design | 4/1/2004 | 1/31/2008 | OTHER COSTS | \$161,429 | \$335,767 |
| 4 | Implementation | 8/1/2005 | 1/31/2010 | PERMITS & ROW | \$61,987 | \$151,997 |
| 5 | Closeout | 2/1/2010 | 7/31/2011 | STAFF LABOR COSTS | \$434,403 | \$1,128,260 |
| 6 | Land Aquisition | | | Staff Labor LTD Hours | 17,514 | |
| | | | | Total Project Cost: | \$2,954,946 | \$17,861,953 |

Current Contract Information

Contract Number and Title

Agreement/Mitigation-Lake Forest Park Water District
 E23006E/ENGRG SVCS FOR THE BRIGHTWATER CONVEYANCE SYSTEM
 E23007E/GEOTECHNICAL SERVICES FOR THE BRIGHTWATER CONVEYANCE SYS

| Total Paid by Project | Contract Amt |
|----------------------------------|---------------------|
| \$40,000 | \$862,000 |
| \$7,764,888 | \$1,163,537 |
| \$8,692,291 | \$1,168,455 |

Project No. and Title

423457 Brightwater Marine Outfall Study

Council District: N/A

Project Manager: Simmonds, Jim

2004 Adopted Budget:

Phase: Planning

Appropriation:

A20220 Brightwater Treatment Plant- New Facilities & Improvements

Percent Spent:

Project Scope

This project is responsible for the environmental studies needed to support the design and permitting of the Brightwater Marine Outfall. The outfall pipe and diffuser will be placed within outfall Zone 7S, starting at Portal 19 off Point Wells. The outfall will continue on land to Point Wells and then cross the shoreline into Puget Sound using open-cut construction. The outfall pipe will then be placed on the floor of Puget Sound, extending about 5,200 feet offshore and ending in a 500-foot diffuser at a depth of approximately 600 feet.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------------------|-----------------|----------|------------|------------------------------|------------------|--------------------|
| | | | | Year to Date | Life to Date | |
| | | | | <u>Type of Project Cost</u> | <u>MAY-04</u> | <u>MAY-04</u> |
| 1 Planning | | 1/1/2000 | 12/31/2002 | CONSTRUCTION | \$17,332 | \$83,751 |
| 2 Predesign | | 1/1/2003 | 1/31/2005 | ENGINEERING CONTRACTS | \$47,265 | \$5,493,573 |
| 3 Final Design | | 2/1/2005 | 1/31/2008 | OTHER COSTS | \$9,632 | \$495,802 |
| 4 Implementation | | 2/1/2009 | 7/31/2010 | PERMITS & ROW | \$0 | \$883 |
| 5 Closeout | | 8/1/2010 | 7/31/2011 | STAFF LABOR COSTS | \$113,529 | \$2,414,226 |
| 6 Land Aquisition | | | | Staff Labor LTD Hours 66,518 | | |
| | | | | Total Project Cost: | \$187,759 | \$8,488,236 |

Current Contract Information

Contract Number and Title

Total Paid by Project

Contract Amt

| | | |
|--|-------------|-------------|
| E23006E/ENGRG SVCS FOR THE BRIGHTWATER CONVEYANCE SYSTEM | \$61,748 | \$1,163,537 |
| E23007E/GEOTECHNICAL SERVICES FOR THE BRIGHTWATER CONVEYANCE SYS | \$96,384 | \$1,168,455 |
| P93001P PUGET SOUND OCEANOGRAPHIC SUPPORT STUDIES | \$1,363,111 | \$1,363,247 |
| P93009P - NORTH TREATMENT FACILITY - MARINE OUTFALL SITING STUDY | \$2,932,060 | \$3,030,047 |

Project No. and Title

423373 CONVEYANCE SYSTEM IMPROVEMENTS

Council District: All

Project Manager: Peterson, Bob

2004 Adopted Budget: \$7,831,754

Phase: Planning

Appropriation:

A20420 Conveyance Pipelines and Storage - New Facilities & Improvements

Percent Spent: 10%

Project Scope

The Conveyance System Improvement (CSI) project develops planning-level scopes, schedules, and budgets for all new conveyance projects. Beginning in 1999, the CSI program identified and prioritized ten planning areas in the wastewater service area. Starting in the highest priority areas, teams of county staff and consultants evaluate the area's conveyance needs, identify a range of alternatives, and specify a working alternative to address the needs. Planning is underway this year in five planning areas: North Lake Sammamish, North Lake Washington, South Lake Washington, Southeast Lake Washington, and Northwest Lake Washington. The CIS program is also planning for projects to safeguard the north end against sewer backups and overflows such as those that occurred during the winter storms of 1996-97. Once the project-level planning level work is completed, a new project is created with its own project budget. The CSI project is part of the Regional Wastewater Services Plan. Note: Approximately \$17 million of Other costs related to the acquisition of Alderwood Interceptors in Snohomish County per the RWSP's Uniform Interceptor Policy.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------------------|-----------------|-----------|------------|----------------------------|------------------------|------------------------|
| | | | | Type of Project Cost | Year to Date MAY-04 | Life to Date MAY-04 |
| 1 Planning | | 1/1/2001 | 12/31/2008 | CONSTRUCTION | \$117,394 | \$801,339 |
| 2 Predesign | | 1/30/2002 | 12/31/2008 | ENGINEERING CONTRACTS | \$190,340 | \$8,970,964 |
| 3 Final Design | | 1/1/2002 | 12/31/2008 | OTHER COSTS | \$375,605 | \$33,716,575 |
| 4 Implementation | | 1/1/2004 | 12/31/2008 | PERMITS & ROW | \$0 | \$3,128 |
| 5 Closeout | | 10/1/2007 | 12/31/2008 | STAFF LABOR COSTS | \$151,894 | \$4,640,267 |
| 6 Land Aquisition | | 1/1/2003 | 12/31/2008 | Staff Labor LTD Hours | 77,023 | |
| | | | | Total Project Cost: | \$835,234 | \$48,132,273 |

Current Contract Information

Contract Number and Title

**Total Paid
by Project**

Contract Amt

| | | |
|---|-------------|-------------|
| AGREEMENT #1/TECH SUPPORT FOR THE DEVELOPMENT OF REGIONAL | \$74,908 | \$75,000 |
| AGREEMENT #2/DEVELOP GEOLOGIC DATABASE & GEOLOGIC INTERPRETATIONS | \$783,466 | \$845,843 |
| C03009C/WEST DIV. CORROSION REPAIRS 2000-2001 | \$4,765 | \$400,000 |
| C03051C/WEST DIVISION MECHANICAL CONSTRUCTION 2000-2001 | \$67,305 | \$458,000 |
| C03114C/DIVING INSPECTION AND REPAIRS | \$13,637 | \$300,000 |
| C13004C/SEWER REPAIR - 2001-2002 | \$9,647 | \$100,000 |
| C13123C/EAST & WEST MECHANICAL CONSTRUCTION | \$863 | \$500,000 |
| C83075C DIVING INSPECTION AND REPAIR | \$18,637 | \$250,000 |
| C83161C/MISCELANEOUS PIPE REPAIRS | \$161,538 | \$750,000 |
| C93180C WEST DIVISION - CIP - ELECTRICAL 2000 | \$17,237 | \$400,000 |
| C93200C WEST DIVISION CIVIL/STRUCTURAL CONSTRUCTION 2000 | \$17,845 | \$400,000 |
| E23033E/SOOS CREEK AREA PUMP STATION D AND PIPELINE 3 | \$76,506 | \$1,810,263 |
| E83004E CONVEYANCE SYSTEM IMPROVEMENT PROJECT, PROJ MANAG AND | \$4,868,094 | \$5,024,612 |
| E93018E CIP ELECTRICAL & ELECTRONICS EMGINEERING SUPPORT SERVICES | \$503 | \$475,000 |
| P03012P/RWSP PROGRAM MANAGEMENT SERVICES DEVELOPMENT | \$2,849,415 | \$1,104,635 |
| P23002P/WO BASED COMMUNITY RELATIONS SVCS FOR WTD CIP | \$9,814 | \$200,000 |
| P820042P PROFESSIONAL CONSULTANT SERVICES | \$400 | \$25,000 |
| P93013P ON-CALL MANAGEMENT, PROFESSIONAL AND TECHNICAL SERVICES FOR | \$19,546 | \$1,600,000 |
| T00943T/ON-CALL COMMUNITY RELATIONS SUPPORT FOR PROJECTS IN THE CIP | \$45.891 | \$200.000 |

Project No. and Title

423420 ESI SECTION 1 CAPACITY RESTORATION

Council District: 06

Project Manager: Dittmar, David

2004 Adopted Budget: \$97,850

Phase: Construction (CM Support)

Appropriation:

A20420 Conveyance Pipelines and Storage - New Facilities & Improvements

Percent Spent: 19%

Project Scope

The East Side Interceptor (ESI) is the primary conveyance for wastewater from the eastside communities to the South Treatment Plant. In 1965, Section 1 of the ESI was damaged during an earthquake. The repair of the damage reduced the capacity of the pipe. This project restores the East Side Interceptor to its original design capacity of 224 mgd by constructing 1,800 feet of 72-inch pipeline around the earthquake-damaged section. The construction used a tunnel-boring machine, placing the new pipe approximately 30 feet underground. Construction began in November 2001 and was completed in February 2003. Final close-out and commissioning will be completed by the end of 2004.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------------------|-----------------|-----------|------------|----------------------------|------------------------|------------------------|
| | | | | Type of Project Cost | Year to Date MAY-04 | Life to Date MAY-04 |
| 1 Planning | | 1/1/1998 | 2/28/1998 | CONSTRUCTION | \$0 | \$5,418,555 |
| 2 Predesign | | 3/1/1998 | 2/28/1999 | ENGINEERING CONTRACTS | \$17,624 | \$1,633,648 |
| 3 Final Design | | 3/1/1999 | 9/30/2001 | OTHER COSTS | \$0 | \$582,026 |
| 4 Implementation | | 10/1/2001 | 3/31/2003 | PERMITS & ROW | \$0 | \$114,392 |
| 5 Closeout | | 4/1/2004 | 12/31/2004 | STAFF LABOR COSTS | \$643 | \$685,184 |
| 6 Land Aquisition | | 3/1/1999 | 9/30/2001 | Staff Labor LTD Hours | 12,571 | |
| | | | | Total Project Cost: | \$18,267 | \$8,433,804 |

Current Contract Information

Contract Number and Title

Total Paid Contract Amt
by Project

| | | |
|--|-------------|-------------|
| C03070C/EASTSIDE INTERCEPTOR SECTION 1-CAPACITY RESTORATION PROJECT | \$5,557,367 | \$5,486,886 |
| E83010E EASTSIDE INTERCEPTOR, SEC.#1, UPGRADE PREDESIGN | \$1,062,072 | \$1,118,151 |
| P03008P/CM SVCS FOR EASTSIDE INTERCEPTOR SECT 1 CAPACITY RESTORATION | \$584,256 | \$862,288 |
| P93013P ON-CALL MANAGEMENT, PROFESSIONAL AND TECHNICAL SERVICES FOR | \$18,863 | \$1,600,000 |
| T01006T DRAFTING SERVICES - DNR -KC | \$284 | \$150,000 |

Project No. and Title

423519 North Creek Storage Facility

Council District: 01

Project Manager: Dittmar, David

2004 Adopted Budget: \$2,741,944

Phase: Construction (CM Support)

Appropriation:

A20420 Conveyance Pipelines and Storage - New Facilities & Improvements

Percent Spent: 20%

Project Scope

This project is a 6 million gallon underground wastewater storage facility adjacent to the North Creek Pump Station. This project will help prevent sewage backups and overflows in the north Lake Washington area by providing additional wastewater capacity until the Brightwater Treatment Plant is constructed in 2010. The storage facility will also include an odor control facility, above ground electrical building, access stair ways, and miscellaneous piping. The project will be constructed by excavating a large hole, constructing the storage facility, then burying the facility. The storage facility will take sewage flows from the Bothell-Woodinville and North Creek Interceptors during large storm events and store the flow until the storm event is over. The stored flow will then be pumped back into the Interceptors. Construction for this project was completed in late 2003; close out will continue through 2004. This project is a part of the Regional Wastewater Services Plan.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------------------|-----------------|-----------|------------|----------------------------|------------------------|---------------------|
| | | | | Year to Date MAY-04 | Life to Date MAY-04 | |
| 1 Planning | | | | CONSTRUCTION | \$248,253 | \$20,128,688 |
| 2 Predesign | | 6/5/2000 | 9/1/2000 | ENGINEERING CONTRACTS | \$99,779 | \$4,108,335 |
| 3 Final Design | | 9/2/2000 | 11/1/2001 | OTHER COSTS | \$10,701 | \$2,417,294 |
| 4 Implementation | | 11/2/2001 | 12/31/2004 | PERMITS & ROW | \$4,234 | \$206,965 |
| 5 Closeout | | 1/1/2005 | 7/1/2005 | STAFF LABOR COSTS | \$107,713 | \$1,218,786 |
| 6 Land Aquisition | | | | Staff Labor LTD Hours | 20,515 | |
| | | | | Total Project Cost: | \$470,680 | \$28,080,068 |

Current Contract Information

Contract Number and Title

| | Total Paid by Project | Contract Amt |
|---|----------------------------------|---------------------|
| C13008C/NORTH CREEK STORAGE FACILITY PROJECT | \$23,052,157 | \$1,869,673 |
| E06017E NORTH CREEK STORAGE FACILITY PROJECT | \$2,426,711 | \$2,501,717 |
| P03013P/CM SVCS FOR THE NORTH CREEK STORAGE FACILITY PROJECT | \$1,221,389 | \$1,902,819 |
| P93013P ON-CALL MANAGEMENT. PROFESSIONAL AND TECHNICAL SERVICES FOR | \$31.692 | \$1.600.000 |

Project No. and Title

423520 Tukwila Interceptor/Freeway Crossing

Council District: 05

Project Manager: Peterson, Bob

2004 Adopted Budget:

Phase: Planning

Appropriation:

A20420 Conveyance Pipelines and Storage - New Facilities & Improvements

Project Scope

King County DNRP is evaluating alternatives to upgrade portions of the Tukwila Interceptor and Tukwila Freeway Crossing under the I-5/I-405 freeway near Tukwila. The working alternative will initially parallel or replace portions of the Tukwila Freeway Crossing, but before the project is ready for predesign we will assess the impacts of the Port of Seattle SeaTac airport industrial waste discharges and development proposals in the Southcenter area of Tukwila. The schedule for this project is under consideration, as indications are that capacity is available and flows from the Port of Seattle flows will likely not be a factor in accelerating the schedule for this project.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------|-----------------|-----------|------------|----------------------------|------------------------|------------------------|
| | | | | Type of Project Cost | Year to Date MAY-04 | Life to Date MAY-04 |
| 1 | Planning | | | OTHER COSTS | \$0 | \$4,096 |
| 2 | Predesign | 1/1/2004 | 9/30/2004 | STAFF LABOR COSTS | \$0 | \$55,315 |
| 3 | Final Design | 10/1/2004 | 9/30/2005 | Staff Labor LTD Hours | 972 | |
| 4 | Implementation | 10/1/2005 | 6/30/2009 | | | |
| 5 | Closeout | 9/30/2010 | 12/31/2010 | | | |
| 6 | Land Aquisition | 1/1/2004 | 12/31/2005 | | | |
| | | | | Total Project Cost: | \$0 | \$59,411 |

Current Contract Information

Contract Number and Title

**Total Paid
by Project**

Contract Amt

Project No. and Title

423365 HIDDEN LAKE PS/BOEING CREEK TRUNK

Council District: 01

Project Manager: Dittmar, David

2004 Adopted Budget: \$3,949,568

Phase: Final Design 60%

Appropriation:

A20520 Conveyance Pump Station - New Facilities & Improvements

Percent Spent: 11%

Project Scope

The 40-year old Hidden Lake Pump station does not have capacity to handle existing or future peak storm flows, nor does it meet current design standards of odor control, instrumentation, space, and equipment handling. Further, the pump station discharges to the Boeing Creek Trunk, which has a history of capacity, odor, and corrosion problems. This project will address these problems through phased system improvements to control overflows and increase the capacity of the Boeing Creek Trunk to handle the 20-year storm. The capacity increases include a new Hidden Lake Pump station with a capacity of 5.5 mgd and a future peak capacity of 6.8 mgd built on the existing site; a 0.5 million gallon storage facility constructed upstream of the pump station; and approximately 12,000 linear feet of pipeline replacement. Future needs in the area will depend on whether a reduction of inflow and infiltration will enable us to reduce the size or need for additional facilities. Predesign was completed in February 2003 and the project is currently at the 60 percent design level.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------------------|-----------------|------------|-----------|----------------------------|------------------|--------------------|
| | | | | Year to Date | Life to Date | |
| | | | | MAY-04 | MAY-04 | |
| 1 Planning | | 6/1/1998 | 6/13/2000 | CONSTRUCTION | \$9,490 | \$92,904 |
| 2 Predesign | | 6/13/2000 | 2/1/2002 | ENGINEERING CONTRACTS | \$301,367 | \$2,601,042 |
| 3 Final Design | | 6/1/2002 | 6/1/2003 | OTHER COSTS | \$1,144 | \$93,041 |
| 4 Implementation | | 12/15/2004 | 6/1/2006 | PERMITS & ROW | \$5,686 | \$8,469 |
| 5 Closeout | | 6/1/2006 | 12/1/2007 | STAFF LABOR COSTS | \$107,200 | \$485,832 |
| 6 Land Aquisition | | 8/1/2003 | 9/1/2003 | Staff Labor LTD Hours | 7,229 | |
| | | | | Total Project Cost: | \$424,886 | \$3,281,289 |

Current Contract Information

Contract Number and Title

C33004C/EAST AND WEST CIVIL/STRUCTURAL 2003
C33060C/WW MISC. PIPE REPAIR AND RESTORATION
C83161C/MISCELANEOUS PIPE REPAIRS
E03036E/HIDDEN LAKE PUMP STATION

Total Paid by Project

Contract Amt

\$571 \$500,000
\$43,646 \$500,000
\$3,585 \$750,000
\$2,599.836 \$2,944.625

Project No. and Title

423406 JUANITA BAY PS - MODIFICATIONS

Council District: 11

Project Manager: Okuda, Chris

2004 Adopted Budget: \$5,292,263

Phase: Final Design 60%

Appropriation:

A20520 Conveyance Pump Station - New Facilities & Improvements

Percent Spent: 10%

Project Scope

The Juanita Bay Pump Station is an aging facility that is experiencing significant operational difficulties in conveying existing flows and has insufficient capacity to convey future flows. A new pump station is being designed to replace the existing 14.2-mgd pump station. A site for the new pump station was purchased across the street from the existing station. The environmental review and 90 percent design are complete. Construction permits and easements are being obtained. Demolition of an existing maintenance building is scheduled in late Summer 2004 to clear the site in preparation for the pump station construction, which is targeted to begin in Spring 2005.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------------------|-----------------|-----------|------------|------------------------------|------------------------|------------------------|
| | | | | Type of Project Cost | Year to Date MAY-04 | Life to Date MAY-04 |
| 1 Planning | | 1/1/1999 | 1/3/2000 | CONSTRUCTION | \$104,392 | \$6,073 |
| 2 Predesign | | 1/1/2001 | 12/31/2001 | ENGINEERING CONTRACTS | \$324,349 | \$3,471,366 |
| 3 Final Design | | 1/1/2002 | 3/31/2004 | OTHER COSTS | \$7,406 | \$71,322 |
| 4 Implementation | | 3/31/2004 | 9/30/2006 | PERMITS & ROW | \$1,123 | \$1,502,073 |
| 5 Closeout | | 10/1/2006 | 12/31/2006 | STAFF LABOR COSTS | \$91,148 | \$739,726 |
| 6 Land Aquisition | | 3/1/2002 | 12/31/2004 | Staff Labor LTD Hours 12,822 | | |
| | | | | Total Project Cost: | \$528,419 | \$5,790,560 |

Current Contract Information

Contract Number and Title

**Total Paid
by Project**

Contract Amt

| | | |
|---|-------------|-------------|
| E03037E/JUANITA BAY PUMP STATION AND FORCE MAINS UPGRADE | \$3,689,136 | \$6,575,152 |
| E83040E PROFESSIONAL SERVICES FOR CORROSION ENGINEERING | \$8,353 | \$300,000 |
| P83003P AGREEMENT FOR PROFESSIONAL CONSULTANT SERVICES | \$8,982 | \$100,000 |
| P93013P ON-CALL MANAGEMENT. PROFESSIONAL AND TECHNICAL SERVICES FOR | \$33,138 | \$1,600,000 |

Project No. and Title

423518 Pacific Pump Station

Council District: 07

Project Manager: Locke, Calvin

2004 Adopted Budget: \$530,187

Phase: Construction Bid & Award

Appropriation:

A20520 Conveyance Pump Station - New Facilities & Improvements

Percent Spent: 13%

Project Scope

The existing 1.6-mgd Pacific Pump Station, located in City of Pacific right-of-way, has insufficient capacity to convey existing and estimated future peak flows. This project will construct a new 3.3-mgd pump station in an industrial zoned site suggested by the City two blocks to the west of the existing station, which will then be abandoned. The new pump station will have features that the existing pump station does not, such as standby power, odor control, improved access, and equipment lifting devices. A new forcemain will not be required, as recommended by the earlier planning study, since the flow projections have been revised. Predesign for the project was completed in June 2002 and the 90 percent design was completed in April 2003. Construction bids will be advertised in January 2004. Construction Notice to Proceed (NTP) was issued in June. Note: LTD Construction costs show \$0 for May 2004 due to an accrual that was posted in December 03 and reversed in March 04.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------------------|-----------------|-----------|-----------|----------------------------|------------------------|------------------------|
| | | | | Type of Project Cost | Year to Date MAY-04 | Life to Date MAY-04 |
| 1 Planning | | | | CONSTRUCTION | \$13,522 | \$0 |
| 2 Predesign | | 4/29/2001 | 7/1/2002 | ENGINEERING CONTRACTS | \$13,833 | \$1,240,914 |
| 3 Final Design | | 7/1/2002 | 12/1/2003 | OTHER COSTS | (\$2,811) | \$4,627 |
| 4 Implementation | | 3/1/2004 | 9/1/2005 | PERMITS & ROW | \$0 | \$33,192 |
| 5 Closeout | | 9/1/2005 | 12/1/2005 | STAFF LABOR COSTS | \$22,024 | \$312,038 |
| 6 Land Aquisition | | 12/1/2005 | 1/1/2005 | Staff Labor LTD Hours | 4,226 | |
| | | | | Total Project Cost: | \$46,568 | \$1,590,771 |

Current Contract Information

Contract Number and Title

E03006E/ENGINEERING SERVICES FOR PACIFIC PUMP STATION
E83040E PROFESSIONAL SERVICES FOR CORROSION ENGINEERING

**Total Paid
by Project**

\$1,265,229
\$254

Contract Amt

\$1,351,537
\$300.000

Project No. and Title

423521 Bellevue Pump Station

Council District: 06

Project Manager: Namini, Shahrzad

2004 Adopted Budget: \$770,440

Phase: Planning

Appropriation:

A20520 Conveyance Pump Station - New Facilities & Improvements

Percent Spent: 2%

Project Scope

This project will upgrade the hydraulic capacity, electrical systems, and control systems for the Bellevue Pump Station. It will also construct a new 5,500 ft long, 24-inch diameter forcemain from the Bellevue Pump Station to the Eastside Interceptor (ESI), thereby reducing the hydraulic load on the Sweyolocken Pump Station. The new forcemain will require a new discharge structure at the ESI just upstream of the Wilburton Siphon inlet structure. The project provides needed capacity to avoid raw sewage overflows downstream at the Sweyolocken Pump Station. A planning assessment of the alternatives to "off-load" flow from Sweyolocken was conducted during 2000. Seven possible alternatives were evaluated; two alternatives were carried forward for further evaluation. A preferred alternative was selected to divert excess flows from the Sweyolocken Pump Station by upgrading the Bellevue Pump Station and constructing a new 5,500 foot-long, 24-inch diameter force main from the pump station to the East Side Interceptor. This project is part of the Council-approved Regional Wastewater Services Plan.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------------------|-----------------|-----------|-----------|----------------------------|------------------------|------------------------|
| | | | | Type of Project Cost | Year to Date MAY-04 | Life to Date MAY-04 |
| 1 Planning | | 1/1/2001 | 6/30/2001 | ENGINEERING CONTRACTS | \$0 | \$181 |
| 2 Predesign | | 7/1/2001 | 9/20/2002 | OTHER COSTS | \$315 | \$1,755 |
| 3 Final Design | | 9/21/2001 | 1/31/2004 | STAFF LABOR COSTS | \$16,531 | \$175,452 |
| 4 Implementation | | 2/1/2004 | 7/31/2007 | Staff Labor LTD Hours | 2,282 | |
| 5 Closeout | | 8/1/2007 | 2/1/2008 | | | |
| 6 Land Aquisition | | | 2/1/2006 | Total Project Cost: | \$16,846 | \$177,388 |

Current Contract Information

Contract Number and Title

**Total Paid
by Project**

Contract Amt

Project No. and Title

423583 Soos Creek Pump Station D and Pipeline D

Council District:

Project Manager: Dittmar, David

2004 Adopted Budget: \$1,490,747

Phase: Planning

Appropriation:

Percent Spent: 10%

Project Scope

The Soos Creek Pump Station D project will provide needed conveyance capacity in the South Green River planning area. The project includes a new 19 mgd pump station and conveyance (16,200 feet of forcemain and 5,400 feet of gravity sewer) connected to the South 277th Interceptor. Predesign for the project is underway and will be completed in October 2004; final design will continue through August 2005. Other activities in 2004 include acquisition of the pump station site and conveyance easements.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------------------|-----------------|----------|------------|----------------------------|------------------------|------------------------|
| | | | | Type of Project Cost | Year to Date MAY-04 | Life to Date MAY-04 |
| 1 Planning | | 5/2/2001 | 5/2/2002 | ENGINEERING CONTRACTS | \$132,120 | \$132,120 |
| 2 Predesign | | 6/1/2002 | 10/31/2004 | OTHER COSTS | \$1,374 | \$1,374 |
| 3 Final Design | | 6/1/0034 | 6/1/2006 | STAFF LABOR COSTS | \$20,335 | \$20,335 |
| 4 Implementation | | 6/1/2005 | | Staff Labor LTD Hours | 338 | |
| 5 Closeout | | 7/1/2009 | 7/31/2011 | | | |
| 6 Land Aquisition | | 8/1/2002 | 12/31/2003 | Total Project Cost: | \$153,829 | \$153,829 |

Current Contract Information

Contract Number and Title

E23033E/SOOS CREEK AREA PUMP STATION D AND PIPELINE 3

**Total Paid
by Project**

\$152.212

Contract Amt

\$1.810.263

Project No. and Title

423297 RWSP Local System I/I Control

Council District: All

Project Manager: Sturgill, Dan

2004 Adopted Budget: \$4,755,018

Phase: Construction (CM Support)

Appropriation:

A20700 Inflow & Infiltration

Percent Spent: 53%

Project Scope

This project is a five-year regional program to reduce infiltration and inflow (I/I) into the County's wastewater system from local component agency sewers. This program, part of the Council-approved Regional Wastewater Services Plan, is based on a cooperative partnership between King County and its 33 local component agencies. The program is designed to (1) meter and identify I/I sources in local sewer systems; (2) conduct pilot I/I rehabilitation projects in order to identify cost effective I/I removal techniques for this region; (3) regionally evaluate control solutions and their benefit; and (4) ultimately design a long-term enforceable control program to reduce I/I coming from local sewer systems. King County's wastewater system is running out of capacity not only because of new flows generated from population growth, but also because of excessive infiltration and inflow. I/I is the water that enters the sewer system during storms from sources such as leaky sewer pipes, roof drain connections, storm drains and leaking manholes.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------|-----------------|-----------|------------|-----------------------------|---------------|---------------|
| | | | | Year to Date | Life to Date | |
| | | | | <u>Type of Project Cost</u> | <u>MAY-04</u> | <u>MAY-04</u> |
| 1 | Planning | 1/1/2000 | 12/31/2005 | CONSTRUCTION | \$1,086,994 | \$5,433,100 |
| 2 | Predesign | 4/1/2002 | 10/1/2002 | ENGINEERING CONTRACTS | \$673,322 | \$22,139,388 |
| 3 | Final Design | 10/1/2002 | 4/1/2003 | OTHER COSTS | \$84,756 | \$2,658,590 |
| 4 | Implementation | 4/1/2003 | 11/1/2008 | PERMITS & ROW | \$0 | \$1,518 |
| 5 | Closeout | 1/1/2006 | 12/1/2006 | STAFF LABOR COSTS | \$407,043 | \$3,522,699 |
| 6 | Land Aquisition | | | Staff Labor LTD Hours | 67,467 | |
| | | | | Total Project Cost: | \$2,252,115 | \$33,755,295 |

Current Contract Information

Contract Number and Title

Total Paid by Project

Contract Amt

| | | |
|--|--------------|-------------|
| C33042C/AUBURN I/I PILOT PROJECT | \$384,737 | \$353,618 |
| C33043C/BRIER I/I PILOT PROJECT | \$372,684 | \$425,359 |
| C33044C/KENT I/I PILOT PROJECT | \$1,077,931 | \$1,099,544 |
| C33045C/KIRKLAND I/I PROJECT | \$838,189 | \$794,618 |
| C33046C/LAKE FOREST PARK I/PILOT PROJECT | \$790,420 | \$801,893 |
| C33047C/I/I PILOT PROJECT | \$805,726 | \$740,556 |
| C33048C/REDMOND I/I PILOT PROJECT | \$840,108 | \$916,284 |
| C33060C/WW MISC. PIPE REPAIR AND RESTORATION | \$1,210 | \$500,000 |
| C33120C/MANHOLE I/I PILOT PROJECT | \$200,823 | \$231,990 |
| E83043E ENG'N SUPPORT FOR REGIONAL I/I CONTROL PROGRAM | \$149,935 | \$149,935 |
| E93051E REGIONAL INFILTRATION / INFLOW CONTROL PROJECT | \$22,218,800 | \$2,785,607 |
| P32001P/AUDIT SERVICES FOR KC CONTRACT E93051E | \$24.582 | \$25.000 |

Project No. and Title

423441 Year 2000 - CSO Update

Council District: 4,5,8,10

Project Manager: Houck, Doug

2004 Adopted Budget: \$938,171

Phase: Planning

Appropriation:

A20620 Combined Sewer Overflow
Control - New Facilities & Improvements

Percent Spent: 13%

Project Scope

This project will review the CSO Control Program and adjust the program as needed through the 2005 Plan Update process. The objective of this council-mandated review process is to meet on-going regulatory requirements and county business needs in performing a review & update of the county's CSO Control Plan. The review will provide formal opportunities to assess the impact of new regulations & initiatives impacting the Plan such as TMDLs, ESA and proposed Superfund listings. The 5-year CSO Update is required by the Department of Ecology and the NPDES permit for West Point. This Update assesses progress to date, status of current projects, and description & schedule for future projects. Enforceable commitment to complete the projects listed for the next permit period are made, and they are made an enforceable compliance schedule in the NPDES permit. This project is part of the Council-approved Regional Wastewater Services Plan.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------------------|-----------------|-----------|-----------|----------------------------|------------------------|------------------------|
| | | | | Type of Project Cost | Year to Date MAY-04 | Life to Date MAY-04 |
| 1 Planning | | 6/1/2003 | 6/30/2003 | CONSTRUCTION | \$0 | \$9,333 |
| 2 Predesign | | 7/1/2003 | 5/25/2004 | ENGINEERING CONTRACTS | \$6,343 | \$564,498 |
| 3 Final Design | | 5/26/2004 | 12/1/2006 | OTHER COSTS | \$8,532 | \$46,089 |
| 4 Implementation | | | | STAFF LABOR COSTS | \$100,329 | \$1,015,692 |
| 5 Closeout | | | | Staff Labor LTD Hours | 20,622 | |
| 6 Land Aquisition | | | | Total Project Cost: | \$115,204 | \$1,635,611 |

Current Contract Information

Contract Number and Title

13320-1937-0180 LAKE WASHINGTON CHINOOK RESEARCH
E83034E YEAR 2000 CSO PLAN UPDATE

**Total Paid
by Project**

\$47,747
\$372.135

Contract Amt

\$371,335
\$963.350

Project No. and Title

423368 Sediment Management Plan

Council District: 4,5,8,10

Project Manager: Stern, Jeff

2004 Adopted Budget: \$2,947,557

Phase: Planning

Appropriation:

A20650 Combined Sewer Overflow
Control - Remediation

Percent Spent: 17%

Project Scope

This project addresses sediment contamination cleanups required under federal CERCLA and state MTCA regulations. The overall objectives of the SMP are to repair potential environmental damage in a timely, efficient and economical process, to prevent harm to public health, and to limit future liability. This project will implement the County's participation in the Lower Duwamish Waterway site MOA and Administrative Order on Consent and clean up the other contaminated sites under MTCA voluntary cleanup authority. This project is part of the Council-approved Regional Wastewater Services Plan.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------------------|-----------------|------------|------------|----------------------------|------------------------|------------------------|
| | | | | Type of Project Cost | Year to Date MAY-04 | Life to Date MAY-04 |
| 1 Planning | | 12/19/2000 | 12/31/2008 | CONSTRUCTION | \$0 | \$5,412 |
| 2 Predesign | | 6/1/2002 | 12/31/2008 | ENGINEERING CONTRACTS | \$22,736 | \$1,208,443 |
| 3 Final Design | | 1/1/2003 | 12/31/2008 | OTHER COSTS | \$172,826 | \$893,879 |
| 4 Implementation | | 3/1/2004 | 12/31/2008 | STAFF LABOR COSTS | \$242,403 | \$1,287,674 |
| 5 Closeout | | 1/1/2005 | 12/31/2008 | Staff Labor LTD Hours | 23,573 | |
| 6 Land Aquisition | | | | Total Project Cost: | \$437,966 | \$3,395,408 |

Current Contract Information

Contract Number and Title

Total Paid **Contract Amt**
by Project

| | | |
|--|-----------|-------------|
| 33090009 LAKE WASH STUDIES RESEARCH AGREEMENT | \$419,656 | \$1,549,735 |
| D27460D LAKE WASHINGTON ECOSYSTEM RESTORATION AND FLOOD DAMAGE | \$20,000 | \$103,000 |
| E83034E YEAR 2000 CSO PLAN UPDATE | \$289,495 | \$963,350 |
| MOA/TEACH ASSISTANCE FOR LOWER DUWAMISH WATERWAY REMEDIAL | \$5,000 | \$5,000 |
| MOA/TECH ASSIST./LOWER DUWAMISH WATERWAY REMEDIAL | \$5,000 | \$5,000 |
| P03014P/DISCHARGE MODELING FOR CONTAMINATED SEDIMENT CLEANUP | \$63,383 | \$63,828 |
| P23009P/SEDIMENT MANAGEMENT TECHNICAL SERVICES | \$74,718 | |

Project No. and Title

423528 Water Reuse Satellite Facility

Council District: 03

Project Manager: Hsu, Terry

2004 Adopted Budget:

Phase: Predesign 30%

Appropriation:

A20920 Water Reuse - New Facilities

Percent Spent:

Project Scope

The original Sammamish Valley Water Reuse Facility was planned to produce approximately 1.5 million gallons of reclaimed water throughout the summer irrigation season to irrigate nearby farms and recreational venues. Following planning and environmental review, predesign work began on the Sammamish facility in early 2002. As the project permits were nearing approval and design was nearing completion, concerns were raised about possible conflicts with other parkland users and the overall project costs. As part of the subsequent project review, DNRP found that it would be more cost-effective to deliver reclaimed water to the Sammamish Valley from the Brightwater Treatment Plant. However, because Brightwater will not be online until 2010, the DNRP proposed an interim facility to provide 0.5 mgd of reclaimed water to the Sammamish Valley beginning in 2007. This facility would produce reclaimed water using membrane bioreactor (MBR) technology, the same technology that will be employed at the Brightwater treatment Plant.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------|-----------------|-----------|------------|----------------------------|------------------------|------------------------|
| | | | | Type of Project Cost | Year to Date MAY-04 | Life to Date MAY-04 |
| 1 | Planning | 1/1/2002 | 10/28/2001 | CONSTRUCTION | \$0 | \$50,692 |
| 2 | Predesign | 11/1/2001 | 5/30/0022 | ENGINEERING CONTRACTS | \$28,359 | \$3,619,947 |
| 3 | Final Design | 6/1/2002 | 12/1/2004 | OTHER COSTS | \$240 | \$197,001 |
| 4 | Implementation | 6/30/2005 | 8/30/2006 | PERMITS & ROW | (\$1,792) | \$34,748 |
| 5 | Closeout | 9/30/2006 | 12/30/2006 | STAFF LABOR COSTS | \$62,717 | \$550,082 |
| 6 | Land Aquisition | | | Staff Labor LTD Hours | 7,554 | |
| | | | | Total Project Cost: | \$89,523 | \$4,452,470 |

Current Contract Information

Contract Number and Title

| | Total Paid by Project | Contract Amt |
|--|----------------------------------|---------------------|
| C03067C/EAST DIVISION MECHANICAL CONSTRUCTION 2000-2001 | \$45,611 | \$400,000 |
| E03016E/ON-CALL ENGINEERING SUPPORT FOR THE WASTEWATER TREATMENT | \$36,105 | \$500,000 |
| E13030E/ENGRG SVCS FOR SAMMAMISH VALLEY RECLAIMED WATER PRODUCTION | \$3,576,376 | \$5,083,821 |
| P83003P AGREEMENT FOR PROFESSIONAL CONSULTANT SERVICES | \$8.014 | \$100.000 |

Project No. and Title

423523 RWSP Water/Wastewater Conservation Program

Council District: All

Project Manager: Sullivan, Jo

2004 Adopted Budget: \$309,000

Phase: Planning

Appropriation:

Percent Spent: 18%

A20920 Water Reuse - New Facilities

Project Scope

Under the Regional Wastewater Services Plan (RWSP), the King County Council implemented a water conservation program in 2001 to provide a holistic approach in water resource management and to reduce impacts to the wastewater system. \$300,000 per year was earmarked to fund the program for five years, beginning in 2001. The current components of the program include a partnership with the King County Housing Authority to maximize water conservation in low-income residences by retrofitting their laundry facilities with water conserving washing machines and retrofitting approximately 400 multi-family units with low-flow toilets. A second partnership has been established with the King County Department of Health and Human Services Housing Rehabilitation Program to retrofit approximately 60 of their qualified homes undergoing rehabilitation with low-flow toilets. This will save water and establish an interagency cooperative agreement. Program staff are also participating in the Water Conservation Coalition of Puget Sound in order to bring King County into the regional water conservation community and network with water districts that are interested in partnerships.

| Phase | <u>Schedule</u> | Start | Finish | <u>Project Cost</u> | | |
|-------------------|-----------------|----------|------------|----------------------------|------------------------|------------------------|
| | | | | Type of Project Cost | Year to Date MAY-04 | Life to Date MAY-04 |
| 1 Planning | | 1/1/2001 | 12/31/2005 | CONSTRUCTION | \$0 | \$20,562 |
| 2 Predesign | | | | ENGINEERING CONTRACTS | \$0 | \$231,132 |
| 3 Final Design | | | | OTHER COSTS | \$30,326 | \$754,610 |
| 4 Implementation | | | | PERMITS & ROW | \$0 | \$0 |
| 5 Closeout | | | | STAFF LABOR COSTS | \$390 | (\$139,592) |
| 6 Land Aquisition | | | | Staff Labor LTD Hours | 45 | |
| | | | | Total Project Cost: | \$30,716 | \$866,711 |

Current Contract Information

Contract Number and Title

**Total Paid
by Project**

Contract Amt