



KING COUNTY

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report

October 9, 2001

Motion 11313

Proposed No. 2001-0235.1

Sponsors Phillips

1 A MOTION approving the Regional Wastewater Services
2 Plan Staffing Plan.

3
4

5 WHEREAS, the King County council approved the Regional Wastewater
6 Services Plan (RWSP) in December 1999, and

7 WHEREAS, the RWSP outlines a multi-billion dollar capital improvement
8 program to be implemented during the next thirty years, and

9 WHEREAS, King County's wastewater treatment division is responsible for
10 implementing the RWSP capital program in addition to its on-going capital program,
11 effectively doubling the division's workload, and

12 WHEREAS, the wastewater treatment division needs to add staffing resources to
13 track and deliver the RWSP capital projects consistently and efficiently, and

14 WHEREAS, Ordinance 14018 adopts King County's 2001 annual budget and
15 makes appropriations for the operation of county agencies, and

16 WHEREAS, Ordinance 14018, Section 101, provides that the wastewater
17 treatment division receive \$7,801,057 from an appropriation of \$81,494,441 to be spent
18 only on staffing for the RWSP, and

19 WHEREAS, of that amount only \$5,857,543 shall be expended or encumbered
20 until the council by motion approves a staffing plan submitted by the executive, and

21 WHEREAS, Ordinance 14018, Section 126, provides that not more than
22 \$25,389,563 in total may be expended or encumbered from the wastewater capital
23 appropriation for selected RWSP capital projects until the council adopts a motion that
24 approves a staffing plan and,

25 WHEREAS, the staffing plan is the document that summarizes the body of work
26 that makes up the RWSP and describes the staff needed to manage that work, and

27 WHEREAS, the wastewater treatment division anticipates three phases of staffing
28 for the RWSP: the attached staffing plan describes the first and current phase, which is to
29 develop a program management structure for delivering and tracking the major RWSP
30 projects that will come on line between 2001 and 2016; the second phase of staffing will
31 occur between 2003 through 2005 when these projects enter design and construction; the
32 third phase of staffing, beginning between 2008 and 2010, will involve operating the
33 RWSP facilities after they have been built, and

34 WHEREAS, the RWSP phase one staffing approach was evaluated by a panel of
35 wastewater managers representing large wastewater operations from across the country,
36 including the East Bay Municipal Utility District, the Los Angeles Public Works
37 Department, the San Diego Metropolitan Wastewater Department, the Portland Bureau of
38 Environmental Services, and the Massachusetts Water Resource Authority, and the

39 wastewater managers found that the wastewater treatment division's staffing approach
40 was workable and had all the essential elements for success, and

41 WHEREAS, Ordinance 14018 requires that the staffing plan be submitted by
42 April 1, 2001;

43 NOW, THEREFORE, BE IT MOVED by the Council of King County:

44 The Regional Wastewater Services Plan Staffing Plan dated April 1, 2001,

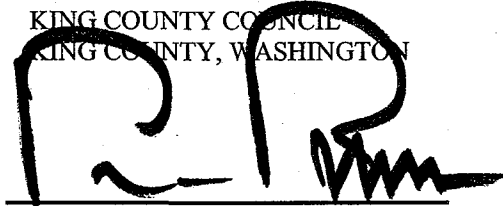
Motion 11313

45 Attachment A to this motion, is approved for the purposes of complying with the
46 direction of Ordinance 14018, Sections 101 and 126.
47

Motion 11313 was introduced on 4/23/01 and passed by the Metropolitan King County Council on 10/8/01, by the following vote:

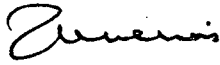
Yes: 11 - Mr. von Reichbauer, Ms. Fimia, Mr. Phillips, Mr. McKenna, Ms. Sullivan, Mr. Nickels, Mr. Pullen, Mr. Gossett, Ms. Hague, Mr. Thomas and Mr. Irons
No: 0
Excused: 2 - Ms. Miller and Mr. Pelz

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON



Pete von Reichbauer, Chair

ATTEST:



Anne Noris, Clerk of the Council

Attachments A. Regional Wastewater Services Plan Staffing Plan, April 2001

11313

2001 235

Regional Wastewater Services Plan

Staffing Plan

April 2001



KING COUNTY

**Department of Natural Resources
Wastewater Treatment Division**

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Introduction

The purpose of the Regional Wastewater Services Plan (RWSP) Staffing Plan is to summarize the body of work that makes up the Regional Wastewater Services Plan and describe the staffing needed for King County's Wastewater Treatment Division to manage RWSP projects consistently and efficiently.

The Wastewater Treatment Division (WTD) anticipates three phases of staffing for the RWSP. The first phase—the subject of this document—outlines a program management structure for developing and tracking the major RWSP projects that will come on line between 2000 and 2016. The second phase of staffing will begin when the major projects enter design and construction between 2003 – 2005. The third phase will involve operating the RWSP facilities after they are built. For example, the new North Treatment Plant will begin startup operations between 2008 and 2010.

Ordinance 14018

This phase I Staffing Plan is also the vehicle for satisfying the requirements of Ordinance 14018, Section 101, which adopted King County's 2001 annual budget. This Ordinance directs the executive to submit a proposed staffing work plan by April 1, 2001, with sufficient substance and specificity to determine whether the staffing proposed for implementing the RWSP conforms with County requirements for staffing with FTEs, TLTs, and contractors.¹

How this report is organized

This Staffing Plan is organized in five sections including this Introduction.

Section 2 – RWSP Work Program. This section provides a general overview of the projects and programs outlined in the Regional Wastewater Services Plan. It provides summary-level information on the Plan's scope, schedule, and cost estimates.

Section 3 – Developing the Staffing Plan. This section describes how WTD developed its phase I Staffing Plan, beginning with an overview of the types of capital projects managed by the Division and describing the factors that were considered in developing a staffing plan.

Section 4 – Elements of the Staffing plan. This section describes how WTD has reorganized its capital program to handle the increased workload from the RWSP and outlines the in-house and consultant staffing needed to implement the RWSP. It also describes the responsibilities of the existing staff working on the plan and identifies the new staff needed in 2001.

¹ Full Time Equivalents (FTE) and Term Limited Temporary (TLT)

Section 5 – RWSP Project Descriptions. The final section provides detailed information for each RWSP capital project as required by the 2001 Budget Proviso, including the project’s scope, schedule, budget, milestones, and staffing status. The projects are organized in tabs according to the major RWSP element as shown in Table 1.

**Table 1
RWSP Capital Projects by Element**

Project	Project Number
Tab 1 - Treatment Improvements	
Marine Outfall Study	423457
North Treatment Plant	423484
Tab 2 - Conveyance Improvements	
RWSP Conveyance System Improvements	423373
E. Side Interceptor Section 1 Repair	423420
North Creek Storage	423519
Tukwila Interceptor/Freeway Crossing	423520
Hidden Lake/Boeing Trunk Upgrade Improvement	423365
Juanita Bay PS Modifications	423406
Pacific Pump Station	423518
Bellevue PS	423521
Tab 3 –Combined Sewer Overflow Controls	
CSO Plan Update	423441
CSO Control & Improvement	423515
Tab 4 –Inflow & Infiltration Reduction	
RSWP Local System I/I Control	423297
Tab 5 - Water Reuse	
Water Reuse Technology Demonstration	423483
RWSP Water/Wastewater Conservation Program	423523

Exclusions

Ordinance 14018 listed six projects that, while related to the RWSP, are not specifically RWSP projects. A brief discussion is provided for each project describing why it is not included in this Staffing Plan.

423478 & 423479 – Lake Washington and Green River Studies

Major studies are now under way for Lake Washington and the Green River to help meet several informational needs in support of efforts such as the Endangered Species Act, the Water Resource Inventory Areas (WRIA), Total Maximum Daily Loads, and the RWSP. However, because the RWSP is only one of the many efforts supported by these studies, they are not included in this Staffing Plan.

423490 – Lab instrumentation

The Environmental Laboratory provides comprehensive field sampling, analysis, and data management services in support of several water quality enhancement programs conducted by King County and other public agencies, including but not limited to the RWSP.

423254 - RWSP Startup

Per King County Motion 10960 (6/12/2000), The County Executive has convened a stakeholder group to research and recommend solutions to the existing wastewater treatment problem in the Fall City business district. The stakeholder group will use the 1990 Fall City Wastewater Facilities Plan as a basis from which to approach their work. The King County Wastewater Treatment Division and Public Health have been asked by the King County Council to undertake this project. Funding in the amount of \$100,000 has been budgeted for the project, of which \$60,000 will go toward consultant facilitation and the remaining amount will be split between WTD and Public Health for staffing.

432407 – Kirkland Pump Station Modifications

This project was mistakenly identified as an RWSP project but it is an asset management project that falls under the oversight of the Design, Construction, and Asset Management Section of WTD.

432494 – Madsen Creek Conveyance Alternatives

This project was mistakenly identified as an RWSP project but it is an asset management project that falls under the oversight of the Design, Construction, and Asset Management Section of WTD.

RWSP work program

The Regional Wastewater Services Plan is a multi-billion dollar capital improvement program that will provide wastewater services to this region for the next 30 years and more. This section will begin with a brief overview of the RWSP and then describe in summary the plan's scope, schedule, and estimated cost of implementation.

Overview

The King County Wastewater system serves 1.3 million residents within a 420 square mile service area. A total of 255 miles of pipes, 39 pump stations and 22 regulator stations transport wastewater to two regional treatment plants and two wet weather treatment facilities. Treated effluent is discharged to Puget Sound and biosolids are recycled for agricultural and forestry purposes.

Significant growth in the region along with the need to maintain the current infrastructure led to the planning process known as the Regional Wastewater Services Plan (RWSP). In November 1999, the Metropolitan King County Council adopted the Regional Wastewater Services Plan (RWSP), a supplement to the King County Comprehensive Water Pollution Abatement Plan (Ordinance 13680). The RWSP is the policy basis for a capital improvement program that will provide wastewater services to this region for the next 30 years.

The goal of the RWSP is to protect public health and the environment. The RWSP will accomplish this by conveying, treating, and reclaiming wastewater by-products for existing and future residents living within the King County wastewater service area, which includes portions of King, Pierce, and Snohomish Counties.

Scope and schedule

This scope of the RWSP includes activities grouped under six main categories, including treatment, conveyance, infiltration and inflow, combined sewer overflows, biosolids, and water reuse. A general overview of each category is provided below.

Treatment improvements

King County will construct a 36 million-gallon per day (mgd) treatment plant in the North Service Area by 2010 or as soon as possible thereafter. This plant will provide secondary treatment and discharge treated effluent to Puget Sound. During implementation of the RWSP, the county will periodically evaluate assumptions used to estimate population growth and development patterns to ensure that the North Treatment Plant is properly sized and has capacity available when needed. In the long term, the County will also increase the capacity of the South Treatment Plant by 20 million gallons per day. The overall schedule for treatment improvements is shown in Table 2.

**Table 2
Treatment Improvements**

Treatment Performance Measures	Completed by
Construct 36 mgd North Treatment Plant	2010
Construct North Treatment Plant Outfall	2010
Increase South Treatment Plant to 135 mgd	2029

Conveyance improvements

To protect the quality of those waters and public health, King County will construct the conveyance system using a 20-year storm design standard and will maximize the use of existing facilities. In the near term (2000 – 2016), there are three major types of conveyance projects.

1. Build and upgrade the pipes and pump stations needed to convey wastewater to the North Treatment Plant
2. Build an effluent transfer system and marine outfall for the North Treatment Plant
3. Build improvements in the north end, including a North Lake Interceptor, which will convey flow from the McAleer/Lyon Trunk to the North Treatment Plant, and adding 6 million gallons (MG) of storage at the North Creek Pump Station

King County will also develop flow diversion facilities in sections of the Auburn Interceptor, construct several minor trunk improvements, and in the longer term, construct 3 - 5 MG of effluent storage at the South Treatment Plant. The overall schedule for conveyance improvements is shown in Table 3.

**Table 3
Conveyance Improvements**

Conveyance Performance Measures	Completed by
Parallel East Side Interceptor Section 1	2002
Construct 6 MG off-line Storage at North Creek	2003
Develop flow diversion facilities in Auburn Interceptor Sections 1, 2, and 3	2004
Construct North Lake Interceptor and pump station	2006
Construct tunnel from North Treatment Plant to outfall	2010
Construct 120-mgd Kenmore Pump Station	2010
Construct forcemain from Kenmore Pump Station to North Plant Tunnel	2010
Modify York Pump Station to pump 35 mgd to North Plant	2016
Construct forcemain to Convey North Creek Flow to Kenmore Pump Station	2016
Increase North Creek Pump Station to 50 mgd	2016
Construct 3-5MG effluent storage at South Treatment Plant	2030

Combined sewer overflows

King County will control CSO discharges to one event per year at each CSO location by the year 2030. King County has already completed or has under construction a number of CSO control projects. As its highest priority for controlling CSO discharges, King County will target discharges that have the greatest potential to impact human health, bathing beaches, and species listed under the Endangered Species Act. CSO Projects along Puget Sound beaches and the East End of the Lake Washington Ship Canal will be constructed first, followed by projects along the Duwamish River and the West End of the Ship Canal.

CSO Plan Update

Every five years, King County DNR will completed a CSO Plan Update as part of the West Point NPDES permit renewal application. This Update will describe the Division's progress on its CSO program to date and identified its program for the next five years. The next Update, which will include a major review from the County Council and RWQC, is due in 2005. The overall schedule for the CSO Program is shown in Table 4.

Table 4
Combined Sewer Overflow Projects

CSO Performance Measures	Completed by
Norfolk 0.8 MG CSO Storage Tank	2009
South Magnolia 1.3 MG CSO Storage Tank	2010
SW Alaska 0.7 MG CSO Storage Tank	2010
Murray 0.8 MG CSO Storage Tank	2010
Barton Pump Station Expansion & Upgrade	2011
North Beach CSO Storage Tank & Pump Station Expansion	2011
University/Montlake 7.5 MG CSO Storage Tank	2015
Hanford #2 3.3 MG CSP Storage/Treatment Tank	2017
West Treatment Plant Primary/Secondary Enhancements due to CSO Projects	2018
Lander 1.5 MG CSP Storage/Treatment Tank at Hanford	2019
Michigan 2.2 MG CSO Storage/Treatment Tank	2022
Brandon 0.8 MG CSO Storage/Treatment Tank	2022
Chelan 4.0 MG CSO Storage Tank	2024
Connecticut 2.1 MG CSO Storage/Treatment Tank	2026
King Street CSP Conveyance to Connecticut for Treatment	2026
Hanford at Rainier 0.6 MG CSO Storage Tank	2026
8 th Ave S 1.0 MG CSO Storage Tank	2027
W Michigan CSO Conveyance Expansion	2027
Terminal 115 0.5 MG CSO Storage Tank	2027
Ballard 1.0 CSO Storage Tank	2029
3 rd Ave W 5.0 MG CSO Storage Tank	2029
11 th Ave NW 2.0 MG CSO Storage Tank	2030

Reducing infiltration and inflow

The overall goal of this program is to reduce peak infiltration and inflow (I/I) in the service area by 30 percent for a peak 20-year storm event. The program will accomplish this using a phased approach. The first phase of the program will assess I/I sources and pilot projects between now and 2004.

- define current levels of I/I for each component agency tributary to the regional system and establish what portion of this I/I is cost effective to remove
- construct pilot projects to demonstrate the cost effectiveness of collection system rehabilitation projects
- develop model design and enforcement standards for use by component agencies to reduce I/I in their systems
- develop a long-term regional I/I control proposal for approval by the council

The second phase, beginning in 2005, will implement long-term measures to control infiltration and inflow. The overall schedule for the Infiltration and Inflow program is shown in Table 5.

**Table 5
Infiltration and Inflow Program**

I/I Performance Measures	Completed by
Executive submits initial list of proposed pilot rehabilitation projects for council review and approval	July 1, 2001
Executive submits additional list of proposed pilot rehabilitation projects to council	July 1, 2002
King County, in coordination with component agencies, develops design, inspection and enforcement standards for use by component agencies	Dec. 31, 2002
Executive submits report to council defining I/I levels in local systems, options for controlling I/I, and the associated costs	Dec. 31, 2003
Executive recommends target I/I levels for local collection systems and long-term measures to meet these targets	Dec. 31, 2004
King County shall consider an I/I surcharge on component agencies which do not meet the the adopted target levels of I/I reduction	June 30, 2005

Biosolids and water reuse

The RWSP includes further development of the biosolids and water reuse programs. King County expects to construct new solids handling facilities and reuse facilities at the North Treatment Plant; however, in the development of the biosolids and water reuse programs, additional new facilities may be constructed between 2000-2010. The overall schedules for the Biosolids and Water Reuse Programs are shown in Tables 6 and 7.

Table 6
Biosolids Program

Biosolids Performance Measures	Completed by
Continue producing Class B biosolids at all treatment plants	ongoing
Evaluate new technologies for biosolids processing	ongoing
Determine feasibility to replace or reduce digestors at the West Treatment Plant	2001
Evaluate solids processing technology and design for the North Treatment plant and select technology	2004

Table 7
Water Reuse Program

Water Reuse Performance Measures	Completed by
Continue producing reclaimed water at all treatment plants	ongoing
Fund pilot-scale and demonstration projects including satellite treatment plants	ongoing
Water reuse program work plan submitted to council	1/2001
Evaluate water reuse opportunities and markets during siting and design of the North Treatment Plant	2001-2004
Assess the economic and environmental feasibility of discharging reclaimed water to the Lake Washington and Sammamish watersheds	Phase 1, 2002

Cost estimates

King County currently spends about \$175 million each year operating and maintaining the existing wastewater system, repaying money borrowed to construct capital projects, and implementing wastewater management programs. The Regional Wastewater Services Plan includes new capital facilities and associated operation and maintenance activities that will add to these ongoing costs.² Table 8 estimates these new costs through the year 2030 both in terms of net present value (1998 dollars) and cumulative capital. The cost estimates include assumptions on population growth, sewered area, and other factors that would affect the size and timing of new facilities.

Table 8
Estimated Costs for the Regional Wastewater Services Plan*

Wastewater Element	Net Present Value 1998	Cumulative Capital 1998	Cumulative Capital 2001**
Treatment	\$277	\$400	\$437
Conveyance	\$582	\$729	\$797
CSO	\$230	\$360	\$393
Biosolids	\$85	\$72	\$79
Water Reuse	\$20	\$24	\$26
Total	\$1,194	\$1,585	\$1,732

*Cost in millions **3 percent inflation rate

² Additional operation and maintenance costs for the RWSP are estimated at \$150 million (1998 dollars) through the year 2030

Developing the plan

This section describes WTD's approach to developing the phase I Staffing Plan. It begins with an overview of the types of capital projects managed by the Division and a summary of the factors that were considered in selecting our approach to staffing.

Background

There are four primary sources of wastewater capital projects. One source is the Wastewater Division's Operations and Maintenance sections, which initiate projects to improve efficiencies and enhance operations. The second source of projects is the "fourth phase" of wastewater system construction that originally began in the 1980s and is nearly complete. Fourth phase projects, identified in the 1985-86 amendments to the county's comprehensive plan, include upgrading the West Point Treatment Plant to secondary, expanding the capacity of the South Treatment Plant in Renton, and constructing several Combined Sewer Overflow (CSO) reduction projects. The third source of projects is from WTD's Capital Asset Management Program, which maintains existing facilities to extend their operational and economic life. The fourth source of projects is the Regional Wastewater Services Plan, as described above.

The Wastewater Division's existing capital budget of approximately \$100 million per year covers the first three sources of projects, and it will double as we begin to implement new projects and programs from the RWSP. This level of effort would quickly overwhelm our existing staff and program management system, so changes were needed to accommodate the substantial increase in project implementation efficiently and cost effectively.

Selecting an approach

As mentioned in the Introduction, The Wastewater Division is now in the program management phase of RWSP implementation to develop and track the major RWSP projects that will come on line between 2000 and 2016. In selecting an approach to program management, the Division investigated several scenarios currently being practiced by other large wastewater utilities nationwide. These scenarios ranged from having a consultant implement the entire RWSP to using just in-house staff to implement the plan. Each end of the spectrum has advantages and disadvantages: for example, using all in-house staff would be less expensive than consultants, but they may not have the experience and expertise needed to quickly redevelop and execute a program management strategy.

In the end, we found that a mix of consultants and existing staff best met our current circumstances and needs. We arrived at this conclusion after considering factors such as cost, existing staff experience, timing, the WTD productivity initiative, and current King County workforce management policies. A brief discussion of how these factors steered our decision is provided below, followed by the results of a peer review of our staffing approach by public and private sector industry experts who have implemented large capital programs.

Cost

Wastewater staff estimated that an all-consultant staffing effort would cost approximately \$3.3 million per year. Over a 10-year contract length, this would cost about \$33 million without inflation, which is comparable to what other large wastewater utilities spent for program management services such as San Diego (\$100 million on program management for a \$2.4 billion upgrade) and Los Angeles (\$89 million on program management for a \$2.5 billion upgrade). Estimates for an in-house effort were \$19 million over 10 years, about two-thirds of what it would cost for consultants only. By hiring a consultant to provide needed short-term expertise (\$6 million) and using in-house staff to handle the remainder of RWSP implementation (\$19 million), our program management costs would be about \$25 million—a savings of roughly \$8 million over a consultant only approach.

Staff experience

We recognize that our existing staff, while very skilled, may not have the expertise necessary to redevelop our project control functions to deliver capital projects more efficiently or to meet standards and procedures required by the RWSP, including new reporting requirements and methods to track and budget projects. We also felt that it would be difficult to hire new staff with this expertise because of the current high demand for these skills in the job market. Once the project control functions are developed, our existing staff will be trained to implement these controls in the long term.

Timing

Timing was a critical factor given that we need to deliver several major capital projects between 2006 and 2010. We found that by supplementing in-house staff with consultants we could immediately benefit from their program management experience while we recruit and train employees to do the work over the long term.

Workforce management practices

As a result of the Clark and Logan settlement agreements, King County has been reviewing its workforce management practices for temporary employees (Logan Settlement), and contract workers (Clark Settlement). The Wastewater Division is in compliance with County codes and Department policies and procedures relating to hiring and tracking temporary employees (Appendix 1). It will also ensure the appropriate use of consultants; namely, by developing contracts that enable the County to easily hold the consultant accountable for work performed, by doing as much work as possible in-house, and by distinguishing work done by consultants from work done by County employees. In addition, King County will use term-limited temporary employees (TLTs) to address limited staffing needs according to the established requirements. At the present time, we do not anticipate using any contract employees for the RWSP.

WTD Productivity Initiative

King County WTD is currently undertaking a productivity program initiative in which staff and consultants are evaluating work procedures to identify ways to improve the overall productivity of the wastewater program, including operations, maintenance, capital project implementation, and related efforts. Because our capital program and staffing levels are at a critical phase, we must proceed with RWSP implementation in tandem with the productivity initiative. This will allow us to better evaluate our organizational strengths and build flexibility into the new program management system to accommodate staffing or programs changes that result from the productivity initiative.

At present, WTD is budgeted for 611 FTEs and 28 TLTs. Of this total, 177 FTEs and 19 TLTs are dedicated to the capital program. Because of the large volume of system improvements and asset management projects, the majority of the existing capital employees are fully utilized even without the RWSP projects. As it now stands, the existing program uses consultants for a large amount of the overall work program. As the productivity initiative is implemented, we will examine potential cost savings from trying to do more design and construction management in house rather than using consultants.

Peer review

The RWSP staffing approach was evaluated by a panel of wastewater managers representing similar sized operations from across the country.

- Dean Marriott, Director of Portland Bureau of Environmental Services
- Tim Haug, Director of Los Angeles Public Works
- Doug MacDonald, Executive Director of the Massachusetts Water Resource Authority (soon to be the Director at WSDOT)
- Dave Williams, Director of Wastewater, East Bay Municipal Utility District
- Dave Schlesinger, Director of San Diego Metropolitan Wastewater Department
- Vic Oblas, Program Manager, Sound Transit

The general result of the peer review was that the proposed approach was workable and had all the essential elements for success. The panel felt that the most significant issue had to do with matrix management, which is a good management technique but requires “good people” to make it work. The Panel felt the major strengths of the proposed approach were the emphasis placed on program management support services and the strong integration of operations and maintenance in the decision making structure through creation of the existing infrastructure/system optimization system.

Elements of the plan

This section describes how WTD has reorganized its capital program to handle the increased workload from the RWSP and outlines the in-house and consultant staffing needed to implement the RWSP. It also describes the responsibilities of the existing staff working on the plan and identifies the new staff needed in 2001.

The Wastewater Treatment Division's original approach to managing capital projects involved a series of "hand offs" for each project. For example, the Planning Section identified a project need and developed a set of functional alternatives to meet that need. A working alternative was then handed off to a Design and Construction Section for pre-design, design, project control, and construction management functions. After the project was built, responsibility for it was transferred to Operations and Maintenance Sections. This approach worked well for our former capital project workload of approximately \$100 million annually. However, to accommodate the increased project workload (another \$100 million annually) of RWSP projects and address other improvements stemming from the Productivity Initiative, it was decided that another approach was warranted.

The Wastewater Division recognized that its first priority was to develop a sound program management structure for implementing all its capital projects.³ After considering all of the available information, the Division developed this Phase I Staffing Plan, which relies primarily on existing staff, deployed in a matrix structure, to administer capital projects using a "cradle to grave" approach for enhanced efficiency and accountability.

The Staffing Plan has two main elements. The first element was to restructure WTD's capital program into two coordinated sections that share design, construction, and program management support services. One section will manage RWSP capital projects and the other will manage "fourth phase" and asset management capital projects. The second element is to retain a consultant for 3-5 years to develop a sound management structure for delivering RWSP and other capital projects and train existing staff to implement the structure. Each element is described in more detail below.

³ As the RWSP transitions into a construction phase and ultimately into operations and maintenance activities, WTD will need to make future changes to the Staffing Plan to reflect these changing conditions.

Restructured capital program

One of two major elements of WTD's Staffing Plan was to reorganize the Capital Program Section into two coordinated groups—the Planning and System Development Section (PSD) and the Design, Construction, and Asset Management Section (DCAM). This split is depicted in Figure 1.

The Planning and System Development Section

The Planning and System Development (PSD) Section is responsible for planning and implementing all Regional Wastewater Services Plan capital projects from 'cradle to grave,' i.e., from project inception to its transfer to operations and maintenance. The PDS Section is also responsible for providing technical and program/project support services for both the Regional Wastewater Services Plan implementation and for many design and construction projects in the DCAM Section, including permitting and right-of-way staff that were previously based in the Water and Land Resources Division. Figure 2 shows the organization of the PSD Section.

Design, Construction, and Asset Management Section

The DCAM Section is responsible for the design, construction, inspection, and maintenance of King County's existing treatment and conveyance facilities. The groups within this section provide project management, facilities inspection, engineering, construction, and administrative support for the "Fourth Phase" capital projects, system improvements and asset management. The DCAM Section also contracts for services in design, construction, and construction management. Staff in the DCAM Section are located in the King Street Center, the West Treatment Plant, the South Treatment Plant, and offices in Bellevue and Ballard. The organization of the DCAM section is shown in Figures 3.

Matrix management

The Wastewater Treatment Division managers realize that employees are their most valuable assets, and matrix management is a tool that can maximize the use of these assets. Using the existing experience and skills currently available in WTD is not only an efficient way of managing projects in the capital program but also continues to build experience and skills among our employees. WTD management is committed to ensuring that there are challenging work opportunities for our employees and believe the combination of some new positions and matrix opportunities can provide growth opportunities for their employees. WTD will conduct a short term and long term evaluation of staffing needs to understand how best to make matrix management work and to know when to cost effectively add new positions vs. the use of consultants.

Figure 1 - Reorganized Wastewater Capital Program

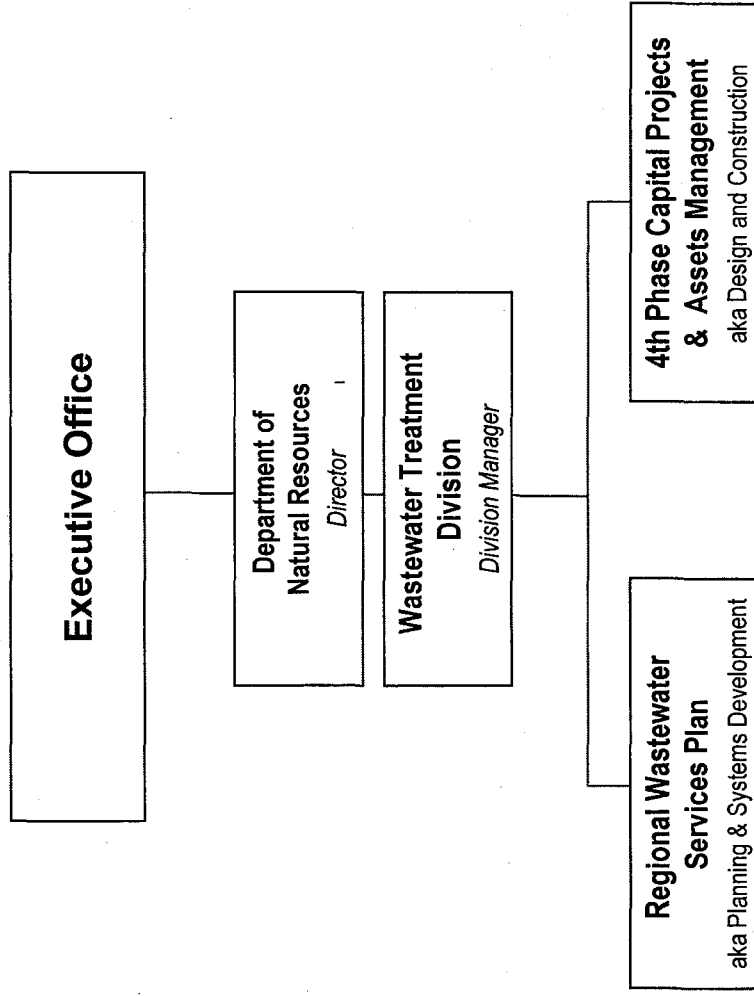


Figure 2 - Planning and System Development Section

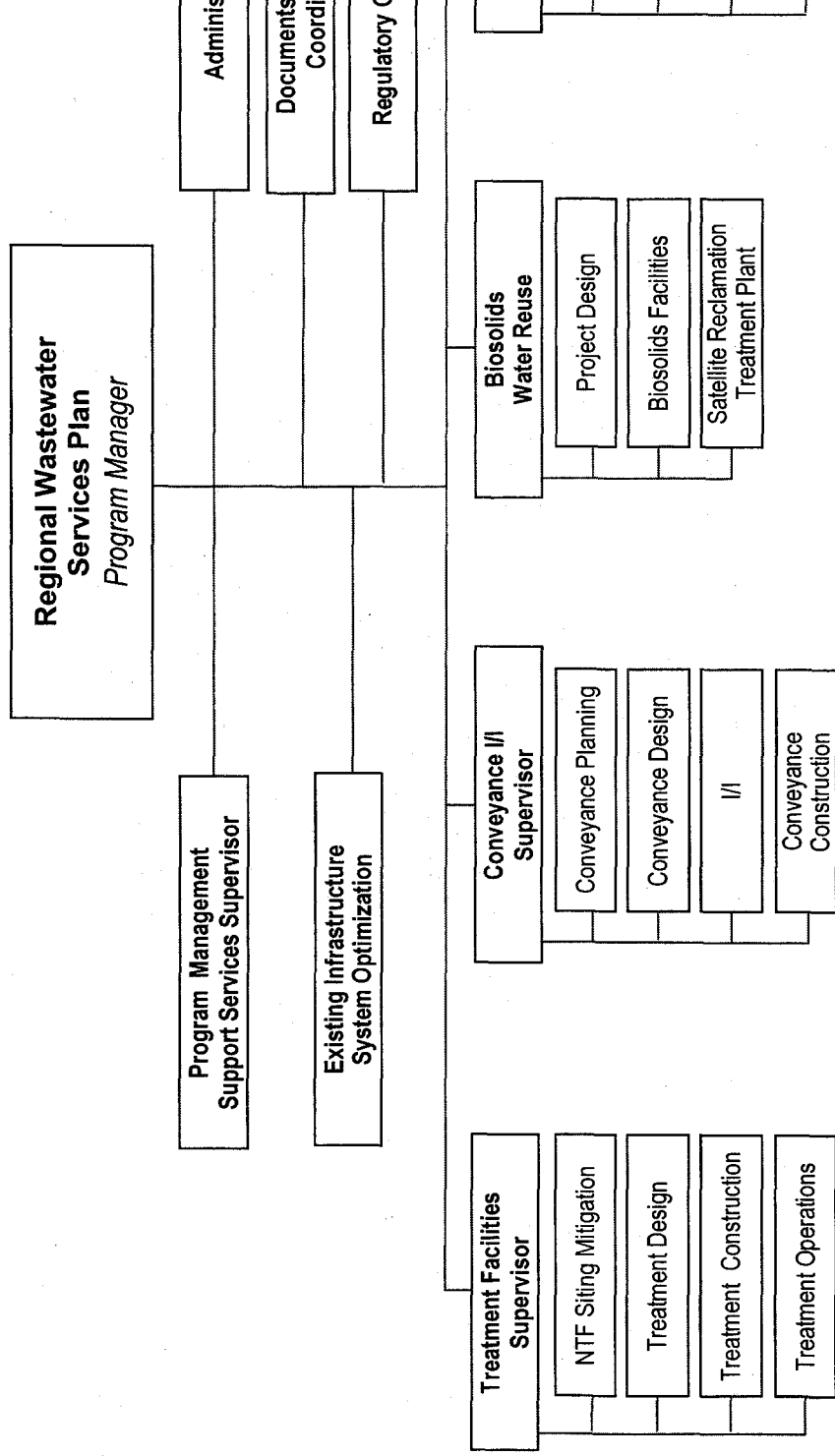


Figure 4 shows how the PSD and DCAM Sections will share program management support services for implementing all capital projects. Of note in this Figure is the position titled "Existing Infrastructure System Optimization." This person will ensure that all new capital projects developed through PSD and DCAM are coordinated with the Operations and Maintenance to maximize the public's investment in the wastewater system. He or she will also ensure that new and replaced facilities minimize impacts to operating facilities.

Program management consultant

The second major element of the RWSP Staffing Plan and early implementation of the RWSP is to do a complete assessment of all program management services such as scheduling, budget and cost estimating, document control, reporting, QA/QC, and contracting. Since it has been more than 10 years since WTD has begun a major expansion effort, it is critical that we evaluate and update all of our program controls to ensure that we meet high standards for accountability. Based on this assessment, a Program Management Services Development (PMSD) Consultant will develop a RWSP Program Management Plan that will translate the program objectives and policies into the necessary procedures and manuals to manage the day to day implementation of the RWSP projects. The consultant will develop new procedures and systems for elements such as scheduling, budget and cost estimating, document control, project delivery, quality assurance, technical support, permitting services, and property acquisition.

Master schedule

The PMSD consultant will develop a detailed master schedule for RWSP projects and establish procedures to maintain and update the master schedule. The schedule information will include the task, the duration of the task, the resources necessary to accomplish the task, and the ability to post and maintain real-time project schedules.

Budget and cost estimates

The consultant will review existing WTD approaches and models for cost estimating, project planning, design, construction, and operations and develop new standardized cost estimating methods and guidelines for all capital projects. To insure consistency in cost estimating, guidelines will include estimating software standards, cost estimating sources and timelines for updates, and standard economic assumptions for all capital projects.

Document control standards and reporting

The consultant will coordinate the development of project control systems with annual reporting requirements including the capital improvement plan, updates to the RWSP Operational Master Plan and other RWSP reports. The consultant will review WTD's document control standards and practices and then develop master document control standards that will standardize scheduling software throughout the division, develop a tracking system for measuring progress through the life of the RWSP program, and implement a document control system. These tasks are critical to ensuring that large amounts of data can be efficiently rolled up to create progress reports for the Executive, Council, the public, and our customers.

Project delivery

The consultant will analyze alternative project delivery systems and develop and recommend improvements such as:

- developing detailed criteria that can be used to assess and make decisions on project delivery methods for different capital projects
- developing the contracting method for the North Treatment Facilities
- developing new guidelines for use of Geotechnical Baseline Reports and other geotechnical documents
- reviewing existing programs and developing and recommending a new program or program enhancements that will encourage competition and use of small contractors and disadvantaged businesses and if approved, develop an implementation plan

Quality assurance

The PMSD consultant will develop and recommend new quality assurance policies and procedures, conduct value-engineering workshops, peer reviews, and constructability reviews as needed.

Permitting and right-of-way services

The PMSD consultant will develop a master permitting approach and a database and tracking method for all permits needed for each RWSP project including permit application requirements, processing, status, comments received, and inspection requirements. It will also develop right-of-way acquisitions for RWSP treatment and conveyance projects consistent with other wastewater capital projects including evaluations, appraisals, acquisitions, and relocation.

Figure 3 - Design, Construction and Asset Management Organization

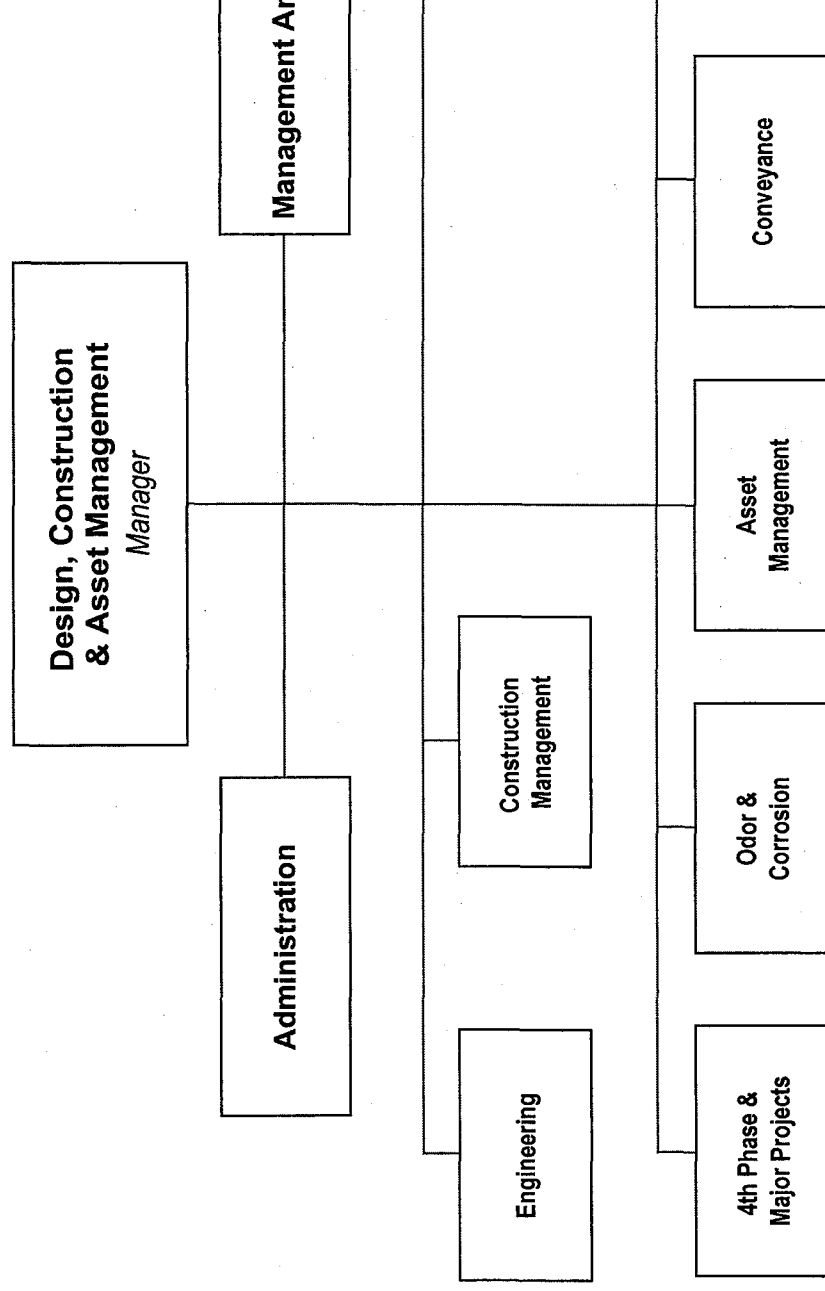
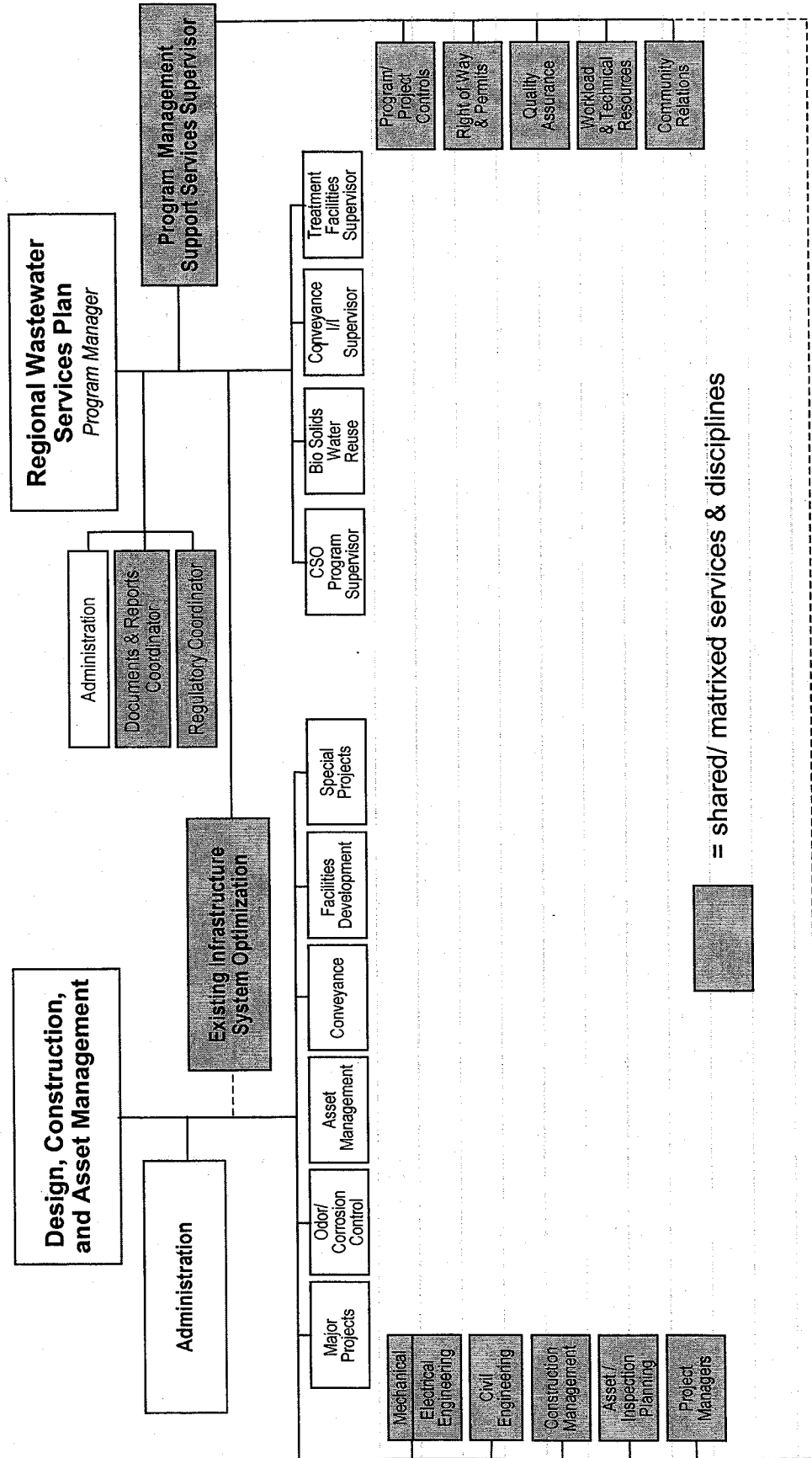


Figure 4 - Matrix Management - Shared Services



Existing staff working on the RWSP

In all, 33 full-time and 8 temporary wastewater employees were working on the RWSP in 2000 and continuing in 2001. Many of these employees were shifted to RWSP work after other capital projects were completed; others were new hires in 1998 – 2000 for projects such as the North Treatment Plant. Because capital projects are continuously beginning and ending, we will continue to shift existing capital program employees to RWSP projects as their projects end. Approximately 20 more existing employees will move to RWSP projects in the next three years as other projects are completed.

The following tables provide a list of existing employees provided for each major element of the RWSP, including program management. The tables provide the position title and status (FTE or TLT), the percent effort on RWSP projects, the position description, and the position's former responsibilities. The majority of the employees are from WTD but the list includes employees from the Water and Land Resources Division as well as employees from the Prosecuting Attorney's Division and the Department of Finance.

Program management

Employees working in RWSP program management will be responsible for the overall management of the RWSP, including assisting the Program Management Consultant in developing improved RWSP management procedures in areas such as contracting, QA/QC, and document control.

Table 9
Existing Personnel - Program Management

Position (status / date filled)	FTE	TLT	% Effort on RWSP	Job Description	Previous responsibilities
Section Manager	X		80%	Overall section management	Position created from reallocation in 2000*
Const Mgt VI (vacant/5-01)	X		80%	Develop and manage program support services	Position created from reallocation in 2000
WQ Planner III (Document & Report Coord) (vacant / 5-01)	X		100%	Document & records management for RWSP/ Capital and other program elements	Position created in 2001 from reallocation
Total	2.6	0.0			

* Reallocation of vacant capital FTEs

Treatment

Brightwater Treatment Facilities. In 2001, employees supporting the Brightwater project will continue the narrowing process for potential sites for the new regional wastewater treatment facility to approximately 2 – 5 systems. They will also begin an EIS in late 2001. The Brightwater work program includes environmental, engineering, technical and community research and analysis required to evaluate and narrow systems under consideration, as well as needed public involvement support and legal review and assistance.

**Table 10
Existing Personnel – Brightwater Treatment Facilities**

Position	FTE	TLT	% Effort on RWSP	Job Description	Previous Responsibilities
Const Mgr V	X		100%	Project management	Reprogrammed from completed capital projects
Project Assistant		X	80%	Project support	New position for siting
WQ Planner III	X		100%	Permitting and land acquisition lead	Reprogrammed from capital planning projects
WQ Planner I		X	80%	Planning and public involvement	New position for siting
WQ Planner II		X	80%	Planning and public involvement	New position for siting
WQ Planner II		X	80%	Planning and public involvement	New position for siting
WQ Planner III	X		100%	Site selection process lead – technical evaluation	Reprogrammed from capital planning projects
WQ Planner III	X		75%	Public involvement lead	Reprogrammed from capital projects
Eng IV	X		35%	Engineering lead	Reprogrammed from completed capital projects
Environ Planner III	X		100%	Environmental process lead (SEPA)	Reprogrammed from completed capital projects
Environ Planning Section Mgr	X		10%	Environmental process oversight	Reprogrammed from completed capital projects
Project Analyst III	X		50%	Project scheduling and contract administration	Reprogrammed from completed capital projects
Eng IV	X		20%	Modeling oversight	Reprogrammed from completed capital projects
Paralegal	X		50%	Legal research and support	New position
Sr. Deputy Prosecuting Atty	X		50%	Legal review and support lead	Reprogrammed from completed cases
Contract Spec	X		7%	Contracting review and support	Reprogrammed from completed cases
Real Property Agent	X		50%	Real estate support	Reprogrammed from capital projects
Graphic Illustrator	X		25%	Graphic design	On-call every year for miscellaneous capital projects
Program Assistant from Cultural Arts Office	X		10%	Art coordination	Reprogrammed from completed capital projects
Total	8.48	3.20			

Marine Outfall Siting Study (MOSS). The Marine Outfall Siting Study (MOSS) is aimed at finding a suitable site for an outfall that will discharge effluent from the Brightwater Treatment Plant. This effort, conducted as part of the Brightwater site selection process, supported the Siting Advisory Committee and related groups in developing the policy siting criteria. The MOSS effort also collected basic environmental information needed for the siting, design, mitigation, and construction of the marine outfall. This information included geological information about portions of the Puget Sound seabed, measurement of currents in Puget Sound, data on populations of marine animals and plants, and measurement of the chemical and bacteriological conditions in the study area. This information gathering effort was lead by the MOSS team with partners from the University of Washington, the King County Environmental Lab, private consulting firms, and the Washington State Departments of Ecology, Fish and Wildlife, and Natural Resources.

**Table 11
Existing Personnel – Marine Outfall Siting Study**

Position	FTE	TLT	% Effort on RWSP	Job Description	Previous Responsibilities
WQ Planner III	X		59%	Risk assessment, public involvement, project management	Reprogrammed from completed capital projects
WQ Planner II	X	X	324% FTE 20% TLT	Data management and analysis Public involvement Laboratory coordination Telemetry systems management	Reprogrammed from completed capital projects
Sr WQ Planner/Project Mgr	X		69%	Project management, oceanographic analysis	Reprogrammed from completed capital projects
Ecologist		X	29%	Data analysis	New for capital projects
Eng II	X		100%	Water quality modeling lead, oceanographic consultant lead	Reprogrammed from capital projects
Laboratory staff (chemists, microbiologists, field sampling)	X	X	198% FTE 253% TLT	Water sample analysis: chemical, microbial, field sampling	Reprogrammed from completed capital projects new TLTs in 2000 for RWSP
Env Planner III	X		11%	Environmental compliance coordination (SEPA)	Reprogrammed from completed capital projects
Program Analyst III	X		10%	Project control	Reprogrammed from completed capital projects
Communications Spec	X		13%	Document control	Reprogrammed from capital projects
ISA III	X		25%	Data management	Reprogrammed from completed projects
Total	8.09	3.02			

Conveyance

Conveyance staff will work on the planning, design, and construction phases of a large number of RWSP projects, including the Kirkland, Juanita, Pacific, Hidden Lake, and Bellevue Pump Station upgrades, the East Side Interceptor Section 1 parallel, the North Creek storage facility, and the North Lake Interceptor. They will implement the Conveyance System Improvement Program and provide other conveyance-related services as well, such as:

- conduct a seismic study directed by the Council (required in RWSP)
- analyze the South 277th emergency Auburn Interceptor connection (may delay timing of capacity upgrades)
- reduce I/I in the Lyon/McAleer drainage area (2000 Budget proviso)
- acquire Alderwood District conveyance facilities (required in RWSP)

Table 12
Existing Personnel – Conveyance

Position	FTE	TLT	% Effort RWSP	Job Description	Previous Responsibilities
WQ Planner III	X		100%	Conveyance System Improvements (CSI) program manager; responsible for project implementation	Has worked on CSI projects since 1998; shifted from other capital planning projects that ended
WQ Planner III	X		50%	CSI assistant project manager; follows lead from PM and is responsible for task elements	Has worked on CSI projects since 1998; shifted from other capital projects that ended
CFM V	X		100%	CSI technical lead; provides system technical direction	Has worked on CSI projects since 1998; shifted from other capital projects that ended
Proj Control Eng III	X		10%	CSI project cost control; responsible for project budget and program payments	Reprogrammed from capital project that is complete
Eng V	X		20%	CSI conveyance manager; responsible for developing design and construction plans	Reprogrammed from capital project that is complete or in construction
Eng VI	X		10%	CSI modeling oversight	Reprogrammed from capital project that is complete or in construction
Eng III	X		100%	CSI modeling	Reprogrammed from capital project that is complete or in construction
Eng IV	X		20%	Tukwila Pump Station project manager	Reprogrammed from capital project that is complete or in construction
Comm Spec II	X		30%	CSI communications specialist; develop and implement a community relations plan for North Creek Storage, ESI 1, Hidden Lake, Kirkland, and Juanita Bay	Reprogrammed from completed capital project that is complete or in construction
Eng V	X		40%	ESI Section I project manager	Reprogrammed from capital project that is complete or in construction
Eng V	X		40%	North Creek Storage	Reprogrammed from capital

Position	FTE	TLT	% Effort RWSP	Job Description	Previous Responsibilities
				conveyance program manager	project that is complete or in construction
Eng V	X		40%	Hidden Lake Pump Station project manager; responsible for overall project implementation	Reprogrammed from capital project that is complete or in construction
Eng III	X		30%	Juanita Bay Pump Station project manager; responsible for overall project implementation	Reprogrammed from capital project that is complete or in construction
Eng IV	X		50%	Kirkland Pump Station project manager; responsible for overall project implementation	Reprogrammed from capital project that is complete or in construction
Sr WQ Eng	X		30%	Bellevue Pump Station project management; responsible for overall project implementation	Reprogrammed from capital project that is complete or in construction
Eng V	X		40%	Pacific Pump Station project management; responsible for overall project implementation	Reprogrammed from capital project that is complete or in construction
Total	7.1	0.0			

Combined sewer overflows

Staff working on Combined Sewer Overflow Program will continue to coordinate CSO flow monitoring, the CSO public information process, and the modeling effort to evaluate the impacts of rooftop disconnection and changes due to proposed Seattle projects

**Table 13
Existing Personnel – Combined Sewer Overflows**

Position	FTE	TLT	% Effort on RWSP	Job Description	Previous Responsibilities
WQ Eng	X		100%	CSO program manager; assist in task coordination and document production	Shifted from completed capital projects
Planner II	X		70%	CSO program planning – coordinate CSO public information process for CSO plan update	Shifted from RWSP planning to implementation
Eng IV	X		5%	CSO program – supervise system modeling; provide guidance and review of modeling work products to staff	Reprogrammed from completed capital projects
Eng III	X		15%	CSO program – model impact of potential rooftop disconnection and changes due to proposed Seattle projects; model development of CSO volume and frequency computer program	Reprogrammed from completed capital projects
WQ Eng	X		10%	CSO program – flow monitoring coordination	
Total	2.0	0.0			

Infiltration and inflow

Staff will continue to oversee the 2001 work program, which will gather and interpret flow monitoring data and begin the modeling and hydraulic analysis to determine the major sources of controllable I/I. The work program includes selecting up to ten pilot projects and beginning their implementation.

Table 14
Existing Personnel – Infiltration and Inflow

Position	FTE	TLT	% Effort on RWSP	Job Description	Previous Responsibilities
Eng III (Program Engineer)	X		100%	Matrixed position 10/01 – 12/04, responsible for implementation of pilot projects associated with the Inflow/Infiltration Program	Reprogrammed from completed capital projects
Project Asst		X	100%	Created 11/99 (3-year position) to provide support administering Inflow/Infiltration Program	New position
WQ Planner III (I/I Prog Coord)	X		70%	This position provides senior level staff support to the Inflow/Infiltration Program in all aspects of its implementation.	Energy Conservation Coordinator position in East Division was eliminated in 1999 following completion of water conservation/chiller projects.
WQ Planner IV (Prog Mgr)	X		100%	New position created in 1998 to oversee implementation of the Inflow/Infiltration Program	New position in 1998; reallocation – no need to backfill
Eng IV I/I	X		20%	Oversight and coordination of I/I modeling	Reprogrammed from completed capital projects
Total	2.90	1.0			

Water reuse

Earlier this year, the Council approved King County's Water Reuse Work Plan, which was required by the RWSP Ordinance. The major elements of the 2001 work program include (1) developing the technical details and comparing costs, benefits and risks of providing reclaimed water for non-potable uses within the Sammamish Valley between a local satellite treatment facility and the North Treatment Plant; and (2) evaluating the costs and feasibility of installing a satellite treatment facility using technologies that could provide near-term water reuse benefits to the Sammamish valley and could be relocated, if appropriate, upon completion of the North Treatment Plant in 2010

The existing water reuse staff are shown in Table 15. By mid-2001, a project team will be formed for continued implementation of the Water Reuse Work Plan. The team will include about 17 staff matrixed from WTD and the Department of Natural Resources representing specialties such as environmental services, legal, public outreach, and operations

**Table 15
Existing Personnel – Water Reuse**

Position	FTE	TLT	% Effort on RWSP	Job Description	Previous Responsibilities
WQ Eng III	X		100%	Coordination and regulatory stakeholder process program management	Position manager planning for new program
Sr. Tech Proj Mgr	X		50%	Develop water reuse projects, conduct engineering feasibility	Reprogrammed existing capital position for planning and implementation
Eng III		X	80%	Manage and operate reuse technology	Reprogrammed from complete AWT capital projects
Total	1.5	0.8			

New Positions in 2000/2001

The Wastewater Division estimates that 12.5 new positions are required in 2000/2001 help implement the RWSP as well as develop new project control systems for the entire capital program. The need for these new positions, which include 12.5 FTEs and 3 TLTs, was based on a preliminary review of the RWSP projects, which assumes increased needs in the areas of program management, project control, permitting, construction management, and administration.

Once the new positions are filled the total FTEs and TLTs in 2001 will be about 57 employees. This total includes staffing for starting up the overall program management effort, siting, design, construction, SEPA, environmental and technical analysis, and legal work. This compares well with other utilities—some of whom have had nearly this number of employees just for their program management efforts in addition to large consultant teams. Table 16 describes the new staff positions needed in 2001, identifies which projects the staff will work on, and estimates the date the positions will be filled.

**Table 16
New Positions in 2001**

Position Title and Description	Project(s)
Full Time Equivalent Positions	
<p>Treatment Program Administrator (1 FTE)</p> <p>Manage the Treatment Facilities Program element of the RWSP, including supervising staff, directing consultants, procurement, and start-up of treatment facilities. Develop and implement project scope, schedule and budget requirements for the North Treatment Plant and manage the project team during preliminary design, design, construction, and start-up. Responsibilities include reevaluating odor control goals and recommending other odor control improvements for all treatment plants.</p> <p>Estimated date position filled: May 1, 2001</p>	North Treatment Facilities
<p>Conveyance Program Administrator (1 FTE)</p> <p>Manage the Conveyance and Inflow and Infiltration Program elements of the RWSP, including supervising staff and directing consultants. Integrate impacts from water reuse planning, water conservation, and the results of the infiltration/inflow assessment into all new conveyance projects. Responsible for developing and implementing project scope, schedule and budget requirements for Conveyance Program and inflow and infiltration projects and establishing project teams for the duration of the projects starting with planning through predesign, design, construction and start-up.</p> <p>Estimated date position filled: May 1, 2001</p>	Conveyance planning Infiltration/inflow Bellevue Pump Station Pacific Pump Station Juanita Pump Station Hidden Lake ESI 1 North Creek Storage Tukwila Crossing
<p>Existing Infrastructure Coordinator (1 FTE)</p> <p>Manage the Existing Infrastructure System Optimization Program to ensure that coordination occurs with Operations and Maintenance and to maximize the public's existing investment in the wastewater system. Responsible for coordinating all capital projects with Operations and Maintenance. Ensure new facility improvements and replacements minimize impacts to operating facilities. Plan and implement start-up and turnover of all new facilities.</p> <p>Estimated date position filled: May 1, 2001</p>	Program Management North Treatment Facilities Conveyance Capital Asset Management Program (CAMP)
<p>Flow Monitoring Data Analyst (1 FTE)</p> <p>Perform quality assurance/quality control (QA/QC) on flow monitoring data and rain data. Assess the accuracy of the data, provide notes/flags to be attached to the data, and provide field crew early warning when flow meters need maintenance. Coordinate and maintain the flow and rain data database. Provide rainfall and flow data to clients. Assist in developing systems and procedures to accommodate new volumes of data resulting from the infiltration/inflow program.</p> <p>Estimated date position filled: May 1, 2001</p>	Infiltration/inflow Conveyance
<p>GIS Technicians (4 FTEs)</p> <p>Provides GIS support for all other capital projects. This work includes the creation of graphic and mapping products and data collection and analysis. Many programs in the Wastewater Treatment Division rely on these services; the GIS work supports every stage of a project from planning to construction to operations and maintenance. These four positions had been provided by Information and Technology Services (ITS) on a TLT basis. The ongoing nature and volume of work warrants that they be FTEs.</p> <p>Positions filled: Jan 1, 2001</p>	Infiltration/inflow North Treatment Facilities Conveyance Misc. capital projects

Position Title and Description	Project(s)
<p>Construction Managers (2 FTEs)</p> <p>Two RWSP projects will begin construction in 2001. In addition, procedures for construction management for RWSP will be developed. These positions will provide field construction inspection, tracking and documentation and offset time for other construction management staff to work on establishing construction management procedures for all RWSP projects.</p> <p>Estimated date position filled: May 1, 2001</p>	<p>ESI 1 North Creek Storage Water Reuse Technology Demonstration Project</p>
<p>Project Control Engineer (2 FTEs)</p> <p>Administer the Project Control function on RWSP projects including preparation of master milestone schedules, review and analysis of engineering and design and related documents to determine if proposed costs and schedules meet project expectations. Implement trend analysis and contingency tracking system; assist in estimation of project budgets, forecasts and cashflow. Administer consultant and construction contracts; prepare pay requests and program and project status reports.</p> <p>Estimated date position filled: June 1, 2001</p>	<p>All RWSP projects</p>
<p>Quality Assurance Engineer (0.5 FTE)</p> <p>Responsible for developing a new quality assurance/quality control (QA/QC) program for all capital projects with emphasis on the RWSP. Will review existing program and compare with industry standards and other best in class utilities to establish a new QA/QC program for all capital projects. Will administer quality assurance policies and procedures for capital projects to ensure that project designs address performance criteria, design standards, permit comments, coordination of such reviews within King County, including technical, operations and maintenance staff, value engineering, peer reviews, constructability and operability reviews.</p> <p>Estimated date position filled: July 1, 2001</p>	<p>North Treatment Facilities Infiltration/inflow Bellevue Pump Station Pacific Pump Station Juanita Pump Station Hidden Lake ESI1 North Creek Storage Tukwila Crossing</p>
Term Limited Temporary Positions	
<p>Project Assistant – RWSP (2 TLTs)</p> <p>The two new project assistants will provide administrative support and coordination to various RWSP projects and programs including:</p> <p>Program management services, which will manage the development of the Wastewater Treatment Division's management program for all aspects of implementing a large number of RWSP projects.</p> <p>Planning and System Development manager and staff. Ensure that coordination occurs among internal and external staff and that all RWSP staff receive necessary support to accomplish their objectives in a timely and cost-effective manner. This person will also assist in the processing of all contract documents.</p> <p>Positions filled: September 2000</p>	<p>Program Management North Treatment Facilities Infiltration/Inflow Reuse Bellevue Pump Station Pacific Pump Station Juanita Pump Station Hidden Lake Eastside Interceptor 1 North Creek Storage Tukwila Crossing</p>
<p>I/I Modeling Engineer (1 TLT)</p> <p>The I/I Modeling Engineer will help determine the benefits of Infiltration/Inflow reduction and perform computer hydrologic/hydraulic modeling and analyses of local and regional wastewater collection/conveyance systems.</p> <p>Position filled: January 2001</p>	<p>Infiltration/Inflow</p>

Vacancies

Table 17 shows the status of the positions budgeted for RWSP staffing. Note that WTD does not plan to use contract employees at this time for implementing the RWSP capital projects. See Tables 9 and 16 to see which positions are vacant and their expected fill date.

Table 17
Budgeted Positions for RWSP Staffing - filled vs. vacant

Full Time Employees		Temporary Employees		Contract Employees	
Filled	Vacant	Filled	Vacant	Filled	Vacant
37	9	11	0	0	0

RWSP project information

This section provides detailed information for each RWSP capital project as required by Ordinance 14018 in the 2001 Budget Proviso such as the project's scope, schedule, budget, milestones, and staffing status. Any anticipated changes to this information for the next six months are described where appropriate. The projects are organized in the following tabs as shown in Table 18.

Table 18
RWSP Capital Projects by Element

Project	Project Number
Tab 1 - Treatment Improvements	
Marine Outfall Study	423457
North Treatment Plant	423484
Tab 2 - Conveyance Improvements	
RWSP Conveyance System Improvements	423373
E. Side Interceptor Section 1 Repair	423420
North Creek Storage	423519
Tukwila Interceptor/Freeway Crossing	423520
Hidden Lake/Boeing Trunk Upgrade Improvement	423365
Juanita Bay PS Modifications	423406
Pacific Pump Station	423518
Bellevue PS	423521
Tab 3 - Combined Sewer Overflow Controls	
CSO Plan Update	423441
CSO Control & Improvement	423515
Tab 4 - Inflow & Infiltration Reduction	
RSWP Local System I/I Control	423297
Tab 5 - Water Reuse	
Water Reuse Technology Demonstration	423483
RWSP Water/Wastewater Conservation Program	423523

North Treatment Plant (423484)

Scope

The planning component of this project is aimed at finding suitable locations for the new North Treatment Plant (Brightwater), and its associated conveyance facilities and marine outfall. This component has three phases. In Phase 1, the Project Team identified a pool of about 95 potential sites that was subsequently narrowed to 38 sites by applying a set of engineering and environmental criteria. This number will be further reduced to about 10 sites by applying a set of site screening criteria that were approved by the County Council in early 2001. In Phase 2, the Team will, with ongoing input from the public, local communities and agencies, conduct final evaluation of the site screening and site selection criteria and more detailed analysis of the remaining sites. At the conclusion of Phase 2, the Executive will recommend to the Council, and the Council will adopt a limited number of final candidate sites (3-5). In Phase III, the Team will prepare an EIS and the Executive will select the preferred system alternative to be constructed. The project team will also issue a request for proposals for design services so that early treatment plant design can begin in the fourth quarter of 2001.

Schedule

Phase I of the site selection process will be complete in May 2001 with the selection of approximately 10 candidate sites. Work will then begin to develop "system packages" for these sites that also include conveyance alignments and outfall locations. By the end of 2001, we expect to narrow the number of system packages to between 2 and 5. Environmental review of these packages will take place during the year 2002. By December 2002, the King County Executive will select a preferred system package consisting of sites and alignments for the treatment plant, its conveyance facilities, and marine outfall. Preliminary design work will continue during the final siting of the treatment plant.

Budget status through Jan 01

Annual budget forecast	
2001 forecast	5,958,271
2001 actual	207,363
Remaining	5,750,908
% spent	3

Milestones

Date	Milestone
4/01	Identify approximately 10 candidate sites for the North Treatment Plant
6/01	Develop "system packages" for the 10 candidate sites
10/01	narrow the number of system packages to between 2 and 5

Staffing status through Jan 01

Position	Status	hours billed
WQ PLANNER I	TLT	180
WQ PLANNER II	TLT	179
CONST/FACILITIES MGMT V	FTE	176
WQ PLANNER II	TLT	168
WQ PLANNER III	FTE	162
PROJECT ASSISTANT	TLT	157
WQ PLANNER III	FTE	148
PROJECT ASSISTANT	TLT	144
ENVIR PLANNER III	FTE	132
WQ PLANNER II	FTE	110
INFO SYSTEMS ANALYST II	FTE	104
PROGRAM ANALYST III	FTE	71
WQ PLANNER III	FTE	46
ENGINEER IV	FTE	32
WQ PLANNER III	FTE	32
WQ PLANNER III	FTE	28
LEAD/SPECIAL DUTY PAY	FTE	14
WQ PLANNER II	FTE	8
ENGINEER V	FTE	2
Total hours for Jan		1893
Total costs for Jan		\$83,026
Estimated costs for Jan		\$102,000
Percent of estimated costs for Jan		81%

Contractors as of 3/1/01

Contract # and title	Vendor	expires	paid to date	Current contract amt.
P93012P Site selection	CH2M-Hill	12/31/02	1,264,474	4,617,000
T01129T Legal support	Foster Pepper	01/01/03	59,753	1,150,000
T01130 Legal support	Preston Gates	01/01/03	32,025	1,150,000

Marine Outfall Study (423457)

Scope

The Marine Outfall Siting Study (MOSS), initiated in 1999, is tasked with investigating the physical and biological conditions of the northern main basin of Puget Sound to identify a suitable site for a new marine outfall for the Brightwater project. The MOSS study area extends from Meadow Point in the south to the town of Mukilteo to the north, and from the shoreline on the east to approximately the middle of Puget Sound on the west.

In Phase 1 the MOSS Team was compiling geographic information obtained from primary research in order to determine potentially suitable outfall zones along the entire shoreline of Puget Sound in the vicinity of the study area. Like the site narrowing process for the North Treatment Plant, the MOSS Team applied a set of Council-approved site screening criteria and identified eight preliminary outfall zones.

Schedule

The MOSS team is conducting three primary tasks during 2001.

- Preparing reports to support the continued screening of Brightwater sites
- Conducting scientific studies, sample collection and analyses, and effluent dilution modeling to support the Brightwater site screening, the Brightwater Environmental Impact Statement, and the Habitat Conservation Plan
- Coordinating activities with the Brightwater siting team, the HCP team, and others within WLRD and WTD

Budget status through Jan 01

Annual budget forecast	
2001 forecast	2,463,746
2001 actual	61,280
Remaining	2,402,466
% spent	2

Milestones

Date	Milestone
4/01	Identify a set of acceptable outfall locations zones
6-10/01	Evaluate outfall zones for Brightwater system packages
10/01	Identify 2-5 outfall sites

Staffing status through Jan 01

Position	Status	hours billed
ENVIR SPEC II	FTE	437
CHEMIST III	FTE	274
WQ PLANNER II	FTE	210
ENGINEER III	FTE	126
CHEMIST II	FTE	94
LABORATORY ASSISTANT I	FTE	86
WQ PLANNER III	FTE	83
CHEMIST I	FTE	72
LEAD/SPECIAL DUTY	FTE	33
LAB CLIENT SERVICES SUPRV	FTE	31
ENVIR SPEC III	FTE	28
LABORATORY CONVENTIONAL S	FTE	24
LABORATORY PROJECT MGR	FTE	15
MICROBIOLOGIST II	FTE	14
ENVIR SPEC I	FTE	12
INFO SYSTEMS ANALYST II	FTE	11
PROGRAM ANALYST III	FTE	8
LAB ASSISTANT II	FTE	4
MICROBIOLOGIST I	FTE	4
ENGINEER V	TLT	3
ENVIR SPEC II	TLT	24
MICROBIOLOGIST I	TLT	27
ENVIR SPEC I	TLT	6
Total hours for Jan		1626
Total costs for Jan		\$55,061
Estimated costs for Jan		\$40,720
% estimated costs spent for Jan		135%

Contractors as of 3/13/01

Contract # and title	Vendor	expires	paid to date	Current contract amt.
P93001P Oceanographic support	Evans Hamilton	12/31/05	586,259	1,363,247
P9300P NTF Marine outfall	Parametrix	12/31/05	384,482	1,534,999

RWSP Conveyance System Improvements (423373)

Scope

King County is responsible for conveying and treating wastewater collected by 34 local sewer agencies in the King County region. The County has a multi-year multidisciplinary effort called the Conveyance System Improvements (CSI) project. This project focuses on upgrading and improving the existing regional conveyance system level of service as well as planning for future conveyance extensions. The County's regional conveyance system consists of interceptor sewers, pump stations, regulators, and tunnels that transport wastewater from local sewer systems to the County's two regional secondary treatment plants. The CSI project integrates with other wastewater programs such as the infiltration and inflow (I/I) control program, the combined sewer overflow (CSO) control program, and the design, construction, and asset management (DCAM) program.

Schedule

Task	Planned start	Planned finish	Actual start	Actual finish
Planning	Jan/00	Dec/04	Jan/00	
Pre-design	Jan/ 01	Dec/04	Jan/01	
Final design	Jan/02	Dec/10		
Construction	May/03	Apr/ 12		
Closeout	Feb/04	May/12		

Budget status through Jan 01

Annual budget forecast	
2001 forecast	12,097,638
2001 actual	289,770
Remaining	11,807,868
% spent	2

Milestones

Date	Milestone
6/01	Complete south Lake Sammamish planning
6/01	Complete north Green River planning & begin design of south Lake Sammamish and Green River projects
9/01	Begin design of north Green River projects
12/01	Complete north Lake Washington planning including North Lake Interceptor

Staffing status through Jan 01

Position	Status	hours billed
WQ PLANNER III	FTE	178
CONST/FACILITIES MGMT V	FTE	168
CONSTRUCTION MGMT III	FTE	154
INFO SYSTEMS ANALYST II	FTE	144
INTERN	FTE	107
ENGINEER III	FTE	69
INFO SYSTEMS ANALYST II	FTE	56
ENVIR PLANNER III	FTE	54
ENGINEER V	FTE	51
CONSTRUCTION MGMT I	TLT	51
PROJECT CONTROL ENGINEER	FTE	48
CONSTRUCTION MGMT III	FTE	30
PROJECT ASSISTANT	TLT	26
ENGINEER III	FTE	24
COMM SPEC III	FTE	21
ENGINEER V	FTE	12
INFO SYSTEMS ANALYST II	FTE	11
ENGINEER II	FTE	9
PROJECT CONTROL ENGINEER	FTE	8
ENGINEER VI	FTE	4
PROJECT CONTROL ENGINEER	FTE	1
Total hours for Jan		1226
Total costs for Jan		\$67,349
Estimated costs for Jan		\$174,021
% estimated costs spent for Jan		39%

Contractors as of 3/13/01

Contract # and title	Vendor	expires	paid to date	Current contract amt.
C93180C West Div. CIP	Seven Sisters	07/29/01	10,408	400,000
E83004E Con. Sys. Imp.	HDR Eng.	12/31/03	1,511,117	3,364,549
E93018E CIP electrical	B & C	8/31/01	503	350,000

East Side Interceptor – Section 1 (423420)

Scope

This project will restore the capacity in a 3525-foot section of the East Side Interceptor (Section 1). This section was damaged during an earthquake that filled the invert and reduced capacity. The project will restore the Eastside Interceptor to its original design capacity of 224-mgd by constructing a 72-inch parallel pipeline around the damaged section of pipe.

Schedule

Final design is proceeding. 50% final design submittal and constructability review occurred on April 17, 2000. The SEPA Notice of Issuance occurred on April 21, 2000. The SEPA comment period closed on May 4, 2000. King County held a community meeting on June 22, 2000 with local stakeholders and the City of Renton. King County has applied for the Conditional Use and Construction permits. The 80% submittal occurred on July 27, 2000. The 90% submittal occurred on February 2, 2001. Review comments were received on February 21, 2001. The construction contract will be ready to advertise in the second quarter of 2001. Construction will be completed in mid-2002. A memorandum of agreement for permitting and mitigation has been negotiated with the City of Renton.

Budget status through Jan 01

Annual budget forecast	
2001 forecast	4,779,933
2001 actual	56,681
Remaining	4,723,252
% spent	1

Milestones

Date	Milestone
4/01	King County and the City of Renton completed the MOA.
4-6/01	Advertise for construction
9/01	Begin construction

Staffing status through Jan 01

Position	Status	hours billed
ENGINEER V	FTE	48
CONST/FACILITIES MGMT VI	FTE	32
PROJECT CONTROL ENGINEER	FTE	24
COMM SPEC III	FTE	20
ENVIR PLANNER III	FTE	9
LEAD/SPECIAL DUTY PAY	FTE	3
Total hours for Jan		136
Total costs for Jan		\$6,973
Estimated costs for Jan		24,141
% estimated costs spent for Jan		29%

Contractors as of 3/01/01

Contract # and title	Vendor	expires	paid to date	Current contract amt.
E83010E ESI Sec 1 upgrade	KCM	12/31/02	736,845	975,651
P93013P On call mgmt	RW Beck Inc.	12/31/02	9,017	1,500,000

North Creek Storage (423519)

Scope

King County is working on several projects in the North-end that will protect against overflows into Lake Washington. The North Creek Storage Facility is a 6 million-gallon underground wastewater storage facility, pump station, and odor control facility that will provide a high level of overflow protection through the year 2010 when the North Treatment Plant becomes operational. The storage facility will be located at the site of the North Creek Pump Station.

Schedule

The Notice to Proceed for predesign was June 19, 2000. The predesign kickoff meeting occurred on July 6, 2000. A design workshop occurred on July 27, 2000. The draft predesign report was completed on August 31, 2000. A workshop discussing the draft predesign report occurred on September 18, 2000. The final predesign report was completed on October 4, 2000. An independent cost estimate/constructability study was performed to validate the predesign report's cost construction estimate of approximately \$30 million. Geotechnical borings and site survey has occurred. The 50% design submittal occurred on November 30, 2000. A SEPA DNS was issued on November 17, 2000. King County applied for permits on December 5, 2000. The 90% submittal occurred on January 16, 2001. The anticipated bid date is May 14, 2001. The anticipated NTP is July 1, 2001. The anticipated end of construction is September 24, 2003.

Budget status through Jan 01

Annual budget forecast	
2001 forecast	6,594,984
2001 actual	490,680
Remaining	6,104,304
% spent	7

Staffing status through Jan 01

Position	Status	hours billed
ENGINEER V	FTE	136
ENVIR PLANNER III	FTE	54
PROJECT CONTROL ENGINEER	FTE	40
CONST/FACILITIES MGMT VI	FTE	32
CONSTRUCTION MGMT III	FTE	22
ENGINEER IV	FTE	22
LEAD/SPECIAL DUTY PAY	FTE	22
COMM SPEC III	FTE	13
CONSTRUCTION MGMT IV	FTE	10
ENGINEER VI	FTE	1.5
CONTRACTS SPEC I	FTE	1
Total hours for Jan		353.5
Total costs for Jan		\$18,428
Estimated costs for Jan		\$38,994
% estimated costs spent for Jan		47%

Contractors as of 3/01/01

Contract # and title	Vendor	expires	paid to date	Current contract amt.
E06017E North Creek Storage	KCM	12/31/01	691,501	2,235,309
P93013P On call management	RW Beck	12/31/02	19,543	1,500,000

Tukwila Interceptor/Freeway Crossing (423520)

Scope

Planning has begun to upgrade the capacity of portions of the Tukwila Interceptor and Tukwila Freeway Crossing under the I-5/I-405 freeway near Tukwila. The remaining issues to be resolved prior to predesign are general routing, capacity needs, and the project's constructability.

Schedule

Task	Planned start	Planned finish	Actual start	Actual finish
Planning	Jan 00	Mar 00	Jan 00	
Predesign	Apr 00	Feb 01		
Final design	Feb 01	Oct 01		
Construction	Oct 01	Dec 02		
Closeout	Jan 06	Dec 06		

Budget status through Jan 01

Annual budget forecast	
2001 forecast	1,622,197
2001 actual	3,416
Remaining	1,618,781
% spent	0

Staffing status through Jan 01

Position	Status	hours billed
ENGINEER IV	FTE	62
Total hours for Jan		62
Total costs for Jan		\$3,416
Estimated costs for Jan		not developed
% estimated costs spent for Jan		N/A

Hidden Lake Pump Station and Boeing Creek Trunk (423365)

Scope

This project will reduce the number of storm related overflows at the Hidden Lake Pump Station and reduce surcharging at the downstream Boeing Creek Trunk, and increase reliability from a pump station that has exceeded its life expectancy. The project includes three elements: (1) retrofitting or replacing the existing Hidden Lake Pump Station; (2) paralleling or replacing approximately 6,400 lineal feet of the Boeing Creek Trunk where restrictions have reduced pipe capacity; and (3) constructing 0.5 MG of storage upstream of the Hidden Lake Pump Station. King County is consulting with the Ronald Wastewater District and the City of Shoreline for predesign and design at the Hidden Lake Pump Station and for sections of the Boeing Creek Trunk.

Anticipated changes

The project scope is larger than originally proposed because it combines replacement of the pump station (asset management) and larger volumes of inflow and infiltration (I/I) than was estimated previously. Some elements of the project may be eliminated if I/I reduction efforts underway by the local agencies and King County are effective. The project has been phased so that if the I/I reduction efforts are effective, new facilities can be delayed or eliminated.

Schedule

Task	Planned start	Planned finish	Actual start	Actual finish
Planning			1/00	3/00
Pre-design	12/8/2000	10/1/2001	12/28/2000	
Final design	10/2/2001	10/1/2002		
Construction	12/1/2003	8/1/2005		
Closeout	8/1/2005	11/1/2005		

Budget status through Jan 01

Annual budget forecast	
2001 forecast	1,176,538
2001 actual	10,274
Remaining	1,166,264
% spent	1

Staffing status through Jan 01

Position	Status	hours billed
ENGINEER V	FTE	80
CHEMIST III	FTE	48
WQ PLANNER II	FTE	46
LABORATORY PROJECT MGR	FTE	9
CHEMIST II	FTE	2
CHEMIST I	FTE	1
Total hours for Jan		186
Total costs for Jan		\$9,302
Estimated costs for Jan		\$8,163
% estimated costs spent for Jan		114%

Juanita Bay Pump Station Modifications (423406)

Scope

This project will upgrade the Juanita Bay Pump Station to meet future flow projections and incorporate short- and long-term needs with the upgrade project. The existing pump station is experiencing significant operational difficulties with the inability to convey existing flows because of the age of the pump station. The working alternative recommended for predesign combines replacing the existing pump station with the RWSP capacity upgrade, resulting in the construction of a new 24-mgd peak capacity pump station in the vicinity of the existing pump station. Notice to proceed on a predesign consultant contract is anticipated in the first quarter of 2001.

Schedule

Task	Planned start	Planned finish	Actual start	Actual finish
Planning			1/00	12/00
Pre-design	09/15/00	7/31/01		
Final design	08/01/01	07/31/03		
Construction	08/01/03	07/31/05		
Closeout	08/01/05	07/31/06		

Budget status through Jan 01

Annual budget forecast	
2001 forecast	1,888,070
2001 actual	9,166
Remaining	1,878,904
% spent	1

Staffing status through Jan 01

Position	Status	hours billed
ENGINEER III	FTE	160
CONSTRUCTION MGMT IV	TLT	8
COMM SPEC III	FTE	2
Total hours for Jan		170
Total costs for Jan		\$9,163
Estimated costs for Jan		\$14,360
% estimated costs spent for Jan		63%

Contractors as of 3/01/01

Contract # and title	Vendor	expires	paid to date	Current contract amt.
P93013P On call management	RW Beck	12/31/02	19,543	1,500,000
N/A - Predesign	B&C	TBD	N/A	TBD

Pacific Pump Station (423518)

Scope

The existing pump station, located in City of Pacific street right-of-way, has insufficient capacity to convey the existing and future peak service flows to the proposed Auburn Interceptor Alternative. The working alternative recommended for predesign consists of construction of a new 6-mgd pump station at an alternative site, possibly a new force main, and a permanent generator to provide dedicated backup power supply.

Schedule

Planning was completed for the Pacific Pump Station in south King County. A predesign consultant was selected in October 2000 and notice to proceed on predesign is expected in the first quarter of 2001.

Task	Planned start	Planned finish	Actual start	Actual finish
Planning	4/29/00	06/12/00	4/29/00	06/12/00
Predesign	06/30/00	06/01/01	08/08/00	
Final design	03/01/01	02/01/03		
Construction	02/01/03	08/01/04		
Closeout				

Budget status through Jan 01

Annual budget forecast	
2001 forecast	213,963
2001 actual	5,027
Remaining	208,935
% spent	2

Staffing status through Jan 01

Position	Status	hours billed
ENGINEER V	FTE	80
Total hours for Jan		80
Total costs for Jan		\$5,027
Estimated costs for Jan		not estimated
% estimated costs spent for Jan		N/A

Contractors as of 3/01/01

Contract # and title	Vendor	expires	paid to date	Current contract amt.
Predesign not awarded yet	Montgomery Watson	N/A	N/A	N/A

Bellevue Pump Station (423521)

Scope

King County is proposing an upgrade to the Bellevue Pump Station and to add a new 5,500 foot-long force main from the pump station to the Eastside Interceptor. This alternative was selected to avoid construction disruption along Bellevue Way SE, a heavily traveled major arterial.

Schedule

Task	Planned start	Planned finish	Actual start	Actual finish
Planning			Jan/00	Mar/00
Predesign	May 00	May 01		
Final design	May 01	Apr 02		
Construction	Jan 02	Sep 06		
Closeout	Sep 0	Oct 06		

Budget status through Jan 01

Annual budget forecast	
2001 forecast	846,558
2001 actual	2,894
Remaining	843,664
% spent	0

Staffing status through Jan 01

Position	Status	hours billed
ENGINEER III	FTE	41
WQ SR. ENGINEER	FTE	10
Total hours for Jan		51
Total costs for Jan		\$2,894
Estimated costs for Jan		not estimated
% estimated costs spent for Jan		N/A

CSO Plan Update (423441)

Scope

The purpose of this project is to provide planning for CSO Control Plan Updates that are required approximately every 5 years by Washington State regulation WAC 173-245 and the West Point National Pollutant Discharge Elimination System (NPDES) permit. These Plans are to review CSO control progress to date and to develop control projects for the next permit period of approximately 5 years. These result in compliance schedules for accomplishing those projects in the next NPDES permit.

Schedule

Work during 2001 focuses on completing remaining details for the Update submitted to the Department of Ecology in June 2000 and to begin developing the scope, schedule and budget for the next 2005 Plan Update and the program review required by Council. The consultant contract for the 2000 Update will be closed out this year and an RFP for consultant services for the 2005 Update will be issued end of year.

Budget status through Jan 01

Annual budget forecast	
2001 forecast	339,549
2001 actual	18,814
Remaining	320,735
% spent	1

Staffing status through Jan 01

Position	Status	hours billed
WQ STAFF ENGINEER	FTE	170
ENGINEER III	FTE	152
WQ PLANNER II	FTE	52
ENGINEER V	FTE	8
LEAD/SPECIAL DUTY	FTE	1
Total hours for Jan		383
Total costs for Jan		\$18,814
Estimated costs for Jan		\$6,368
% estimated costs spent for Jan		295%

Contractors as of 3/01/01

Contract # and title	Vendor	expires	paid to date	Current contract amt.
E83034 CSO Plan Update	B&C	5/31/01	\$343,977	\$963,350

CSO Control & Improvement (423515)

Scope

This project implements the planning, predesign and construction of RWSP CSO Control projects.

Schedule

Planning on the first phase of RWSP CSO Control projects (Puget Sound Beach CSOs) will begin in earnest in 2003, but during 2001 ground work for these projects is being laid through investigations into potential CSO treatment technologies and into the benefits of a roof-top disconnection program to minimize project size. Preliminary discussions are also occurring with the City of Seattle on potential collaborative projects since they have now learned that many of their CSOs are not controlled, as they had believed.

Budget status

Annual budget forecast	
2001 forecast	85,900
2001 actual	0
Remaining	85,900
% spent	0

Budget status through Jan 01

Position	Status	hours billed
no time charged as of Jan 2001		NA
Total hours for Jan		NA
Total costs for Jan		NA
Estimated costs for Jan		NA
% estimated costs spent for Jan		NA

Local System I/I Control (423297)

Scope

The primary goal of this project is to define current levels of I/I for each local agency and determine how much I/I is cost effective to remove. To accomplish this, a primary focus of the I/I team was to build and maintain consensus between King County and the 35 local agencies regarding the proposed I/I Control Program, including its goals, policies, schedule, costs, constraints, engineering specifics, and implementation strategy. A key component of this years work effort was to measure flows in local agency sewer systems and isolate where infiltration and inflow is getting into these systems. This work involved installing over 800 flow meters and collecting precipitation information from over 70 rain gauges. Flow and rainfall data collected this winter will help identify priority areas for implementing pilot projects to help establish the cost effectiveness of removing infiltration and inflow.

Anticipated changes

Delays may be experienced in the I/I program due to the lack of rainfall in 2000-2001, and we may need to repeat our monitoring in 2001 – 2002. The project team is still assessing impacts and alternatives.

Schedule

A preliminary schedule of this year's key I/I Program includes the following events.

- February 2001 - Modeling workshop
- April 2001 - Local Agency Flow Data/ Pilot Project Selection workshop
- May 2001 - Pilot Project Recommendations to RWQC (I/I Policy-2.1)
- June 2001 - Pilot Project - Sewer System Evaluation Survey
- October 2001 - Basin Rehabilitation Report workshop
- December 2001 - New and Rehabilitation Construction Design Standards workshop

Budget status through Jan 01

Annual budget forecast	
2001 forecast	4,789,902
2001 actual	858,059
Remaining	3,931,843
% spent	18%

Staffing status through Jan 01

Position	Status	hours billed
ENGINEER III	FTE	220
ENGINEER II	TLT	175
PROJECT ASSISTANT	TLT	171
WQ PLANNER SUPRV	FTE	168
WPCD ENERGY COORDINATOR	FTE	118
ENGINEER V	FTE	70
PROJECT CONTROL ENGINEER	FTE	48
INFO SYSTEMS ANALYST II	FTE	28
MGMT SVCS ANALYST II	FTE	8
ENGINEER VI	FTE	4
CONSTRUCTION MGMT III	FTE	2
Total hours for Jan		1012
Total costs for Jan		\$44,492
Estimated costs for Jan		\$50,327
% estimated costs spent for Jan		88%

Contractors as of 3/01/01

Contract # and title	Vendor	expires	paid to date	Current contract amt.
E90351E Regional I/I	Earth Tech	12/31/04	7,225,453	19,410,131

Water Reuse Technology Demonstration (423483)

Scope

King County DNR has completed design of a pilot-scale water reuse technology demonstration facility designed to develop information about the effectiveness, operability, and cost of technologies that have the potential to:

- reduce the costs and potential impacts of producing "Class A" reclaimed water at small, upstream "satellite" plants for commercial/irrigation uses
- cost-effectively remove nutrients, pathogens, organics, and other contaminants from wastewater as may be necessary to make reclaimed water suitable for discharge to freshwater to supplement surface water supplies

Schedule

The demonstration facility will combine technologies into small-scale operational process systems to assess the ability to meet process objectives. Construction of the facility and related utilities will be completed in March 2001 and the facility is expected to be operating in April 2001. A nine-month operating period is anticipated.

Budget status through Jan 01

Annual budget forecast	
2001 forecast	506,000
2001 actual	8,290
Remaining	497,709
% spent	2%

Staffing status through Jan 01

Position	Status	hours billed
PROJECT PLANNING ADMIN	FTE	89
ENGINEER III	TLT	47
PROJECT CONTROL ENGINEER	FTE	42
ENVIR SPEC II	FTE	7
LAB CLIENT SERVICES SUPRV	FTE	1
Total hours for Jan		186
Total costs for Jan		\$8,290
Estimated costs for Jan		\$12,674
% estimated costs spent for Jan		65%

Contractors as of 3/01/01

Contract # and title	Vendor	expires	paid to date	Current contract amt.
E83076E water reuse technology demonstration	HDR	08/31/01	\$358,201	\$515,128
C03093L water reuse	Shinn Mech	12/26/01	0	517,089

Water/Wastewater Conservation Program (423523)

Scope

Under the Regional Wastewater Services Plan (RWSP), 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. The following objectives provide more specific direction for the program.

- Promote King County's involvement in water conservation through the reduction of impacts to the wastewater system
- Decrease impacts to the wastewater system and decrease water consumption through a combination of actions including hardware and educational materials
- Educate people on keeping trash related to the solid waste stream out of the wastewater stream Target conservation efforts in the Brightwater siting area
- Examine possible conservation methods that reduce energy costs

Schedule

The primary focus for this project in 2001 will be to partner with other programs in King County, other government agencies, and non-profits to further conservation education and efficiently use wastewater funds by not duplicating conservation efforts already underway.

Budget Status

The budget for this project is \$300,000 per year for the period 2001 – 2005. The large majority of this money will be spent for "hardware," that is, water conservation fixtures, along with some money for marketing materials. There are currently no expenses to report for the project.

OVERVIEW OF HIRE PROCESSES IN WASTEWATER TREATMENT DIVISION

SHORT TERM TEMPORARY	INTERN	TERM LIMITED TEMPORARY (TLT)
<ul style="list-style-type: none"> • PeopleSoft RFP which includes the Justification to Fill memo info (needs signatures) • Speedy PD (info only - no signatures) or attach job description for classification <p>Follow any applicable contract language *</p>	<ul style="list-style-type: none"> • PeopleSoft RFP which includes the Justification to Fill memo info (needs signatures) • Speedy PD (info only - no signatures) <p>Follow any applicable contract language *</p> <p style="text-align: center;">• Maureen approves and routes to WTD HR</p>	<ul style="list-style-type: none"> • PeopleSoft RFP which includes the Justification to Fill memo info (needs signatures) • TLT Request Form (consult with WTD-HR if not help needed) • Speedy PD (needs signatures) <p>Follow any applicable contract language *</p>
<ul style="list-style-type: none"> • Recruitment Process, if needed • Prepare bulletin • WTD-HR posts bulletin (this requires a short req if posted through OHRM) <p>Once selection made, complete following:</p> <ul style="list-style-type: none"> • Supervisor discusses salary with WTD HR & completes salary justification if salary above entry level • WTD Assistant Manager approves request memo for salaries above entry • Offer made • WTD HR completes TempTrack Request form when ready to fill • OHRM approves request <u>before</u> employee starts • WTD HR processes hire documents 	<ul style="list-style-type: none"> • Recruitment Process, if needed • Prepare bulletin • WTD-HR posts bulletin <p>Note: Salary rate determined by Intern salary range based on year in school.</p> <p>Once selection made, complete Request to Hire an Administrative Intern Form</p> <ul style="list-style-type: none"> • Offer made • WTD HR submits Request to Hire an Administrative Intern Form* to OHRM for approval • WTD HR processes hire documents • Supervisor obtains proof of full-time enrollment quarterly and forwards to WTD-HR 	<ul style="list-style-type: none"> • WTD HR finalizes TLT Request Form/Speedy PD & sends to OHRM • OHRM approves the position • Recruitment Process, if needed • Prepare bulletin • WTD-HR sends bulletin to OHRM • OHRM posts the bulletin <p>Once selection made, complete following:</p> <ul style="list-style-type: none"> • Supervisor discusses salary with WTD HR and completes salary justification if salary above entry level • WTD Assistant Manager approves request memo for salaries above entry • Offer made • WTD HR completes TLT Appoint Request Form and sends to OHRM • WTD-HR processes hire documents

* Detailed hire processes may be found in Exchange / Public Folders / Natural Resources / Wastewater Treatment Division / Human Resources / F



Title Policy: Monitoring and Tracking Temporary Employees Positions for the Department of Natural Resources	Document Code No. PER 9-11 (DP)
Department/Issuing Agency <p style="text-align: center;">Department of Natural Resources</p>	Effective Date: 10 days After Approval

Approved

1.0 SUBJECT TITLE: Policy on the monitoring and tracking of Department Employees for Temporary Positions.

- 1.1 Effective Date: 10 days after approval.
- 1.2 Type of Action: New Policy.
- 1.3 Key Words:
 - 1.3.1 Temporary
 - 1.3.2 Term Limited Temporary
 - 1.3.3 Threshold Hours

2.0 PURPOSE: To establish a policy within the Department of Natural Resources (DNR) on monitoring and tracking the hours of temporary employment. The current King County policy states that temporary employees will not exceed 909 hours in a calendar year when working a 35 hour a week position and 1039 hours in a calendar year for a 40 hour a week position as outlined in the May 29, 1997 Personnel Guidelines. This policy establishes lower maximum threshold hours of 840 hours annually for DNR temporary employees working a 35-hour workweek and 960 hours annually for DNR temporary employees working a 40-hour workweek. This policy applies to persons occupying temporary positions.

3.0 ASSIGNMENT: The temporary employee's supervisor and manager are responsible for monitoring and tracking the hours worked by short term temporary employees and for ensuring compliance with this policy.

4.0 ORGANIZATIONS AFFECTED: Applicable to the Department of Natural Resources (DNR).

5.0 REFERENCES:

- 5.1 Personnel Guidelines, May 29, 1997
- 5.2 King County Ordinance 12943
- 5.3 K.C.C. 3.12.0106
- 5.4 The Logan/Knox Settlement Agreement
- 5.5 Department of Natural Resources Temporary Employees Monitoring and Tracking Document

6.0 DEFINITIONS:

- 6.1 "Temporary Employee" means an individual employed in a position that is not established in the County budget whose work will last for a maximum of 909 hours during a calendar year for a 35 hour per week position, or 1039 hours per calendar year for a 40 hour per week position. The employee is not a member of the career service.
- 6.2 "Term Limited Temporary Employee," means a temporary employee who is work related to a specific grant, capital improvement project, information systems technology project, or other non-routine, substantial body of work for a period greater than six months.
- 6.3 "Threshold Hours" means the maximum number of hours a temporary employee can work in a calendar year for DNR.

7.0 POLICIES:

- 7.1 This policy applies to all DNR temporary employees. This policy does not apply to employees selected through a competitive process for appointment to budgeted positions with career service status or to Term Limited Temporary Employees.
- 7.2 DNR threshold hours for temporary employees shall be 840 hours for temporary employees working a 35 hour work week and 960 hours for temporary employees working a 40 hour work week.

8.0 PROCEDURES:

- 8.1 A report of the hours paid to date during the calendar year of all Department temporary employees shall be generated by Internal Services, on the 15th and the last day of each month and sent to Division Managers, Division Human Resources staff and Division Payroll staff, as appropriate.
- 8.2 DNR Internal Services shall notify the employee's supervisor when a temporary employee has been paid for approximately 600 hours worked in a calendar year. A copy of this notification shall be sent to the Division Manager, Section Manager, Division Human Resources staff and Division Payroll staff.
- 8.3 The temporary employee's supervisor will be notified using the King County Department of Natural Resources Temporary Hours Tracking Form and an attached memorandum explaining the use of the form. The form shall be completed by the supervisor and returned to DNR Internal Services within two weeks of notification, and must include a detailed plan for ensuring that the work will be accomplished and that the employee will not exceed the Department threshold hours.
- 8.4 Notification shall be sent to the Division Manager by DNR Internal Services if the completed tracking form has not been received by DNR Internal Services by the time the employee has accumulated either 735 hours for 35 hour work week or 840 hours for employees working a 40 hour work week. A copy of this notification shall be sent to the Director, Division Human Resources staff, the Section Manager and the immediate supervisor. The Division Manager shall instruct the hiring authority to work with Division Human Resources to process the employee's termination by the date the employee is expected to reach the DNR maximum threshold hours.
- 8.5 Any requests to exceed the Department mandated maximum threshold hours shall require advance written approval from the Director of DNR.

9.0 RESPONSIBILITIES:

- 9.1 DNR Division Managers are responsible for informing staff within their divisions about this policy; ensuring each short-term temporary employee receives a copy of this policy; and for policy implementation and compliance.
- 9.2 The Department Director shall evaluate each Division Manager on compliance with this policy in the annual performance review.