KING COUNTY

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report

April 10, 2001

Motion 11156

Proposed No. 2001-0149.2 **Sponsors** Pullen, Nickels and Phillips

A MOTION endorsing the wastewater program's productivity initiative for the purpose of saving ratepayers money while ensuring continuing high-quality operation of the county's wastewater utility.

WHEREAS, King County is committed to working with its employees and labor unions to identify the most efficient manner to successfully deliver services to its customers and clients, and

WHEREAS, King County is responsible for providing wastewater conveyance and treatment services in the region and owns and operates certain wastewater treatment facilities, and

WHEREAS, the county's wastewater program (WWP), a program of certain sections from within the wastewater treatment division and water and land resources division of the department of natural resources, providing of design/construction, maintenance and operations, planning, finance and administration, technology assessment, environmental laboratory, and industrial waste program services, has the

responsibility to manage and directly operate the wastewater conveyance and treatment system, and

WHEREAS, the WWP seeks to respond to increasing public demand for demonstration that sewer rates paid for wastewater conveyance and treatment services are being held as low as possible, and

WHEREAS, in the past the WWP gainsharing program successfully identified savings and operational efficiencies in the WWP by offering incentives to eligible employees to save money, and

WHEREAS, in 1999 the WWP developed a vision of becoming the best public wastewater program in the nation in five years, with a balanced combination of the best service, best employer, best employees, and cost effectiveness, and to be competitive with the best of the private service providers in ten years, and

WHEREAS, the goals of this vision are to use private sector models to improve management of a public sector utility, improve cost efficiencies; provide savings to the public; define target budgets and accountability measures for meeting those targets; continue working collaboratively with labor; and allow employees to be creative in meeting the vision of becoming the best wastewater program, and

WHEREAS, in accordance with those goals, the WWP has developed a ten-year productivity initiative, described in Attachments A and B to this motion, in partnership with labor, management and employees, to apply certain business practices to the operation of a public utility, and

WHEREAS, the WWP intends to perform all of the functions that it has historically performed and comply with all applicable local, state and federal regulations as described in Attachment C to this motion, and

WHEREAS, the WWP will implement the productivity initiative in a manner that does not lower or compromise effluent quality or employee safety, and

WHEREAS, one of the goals of the productivity initiative is to reduce the cost of managing, operating and maintaining wastewater treatment system, and

WHEREAS, the productivity initiative will be implemented consistent with relevant negotiated labor agreements, and

WHEREAS, cost savings generated through the productivity initiative are to be achieved without the use of involuntary layoffs, and

WHEREAS, the productivity initiative establishes the potential for both cost savings for the WWP and productivity incentives for the WWP employees, and

WHEREAS, the productivity initiative is intended to serve as a model for similar initiatives for other King County programs and services;

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

1. The county executive is hereby authorized to proceed with a productivity initiative for the WWP that would include implementing business plans, meeting annual budget targets, creating an incentive fund, continuing to work collaboratively with labor, developing service agreements with county support agencies, and modifying certain internal WWP administrative policies.

2. King County's wastewater treatment system will continue to be maintained as a public facility and will be managed and operated by public employees for so long as the productivity initiative is in effect.

3. The county executive is requested to submit for council consideration certain amendments to county ordinances and code necessary to further the goals of the productivity initiative, so that the WWP may operate more efficiently.

Motion 11156 was introduced on 2/26/01 and passed by the Metropolitan King County Council on 4/9/01, by the following vote:

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

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

Pete von Reichbauer, Chair

ATTEST:

Anne Noris, Clerk of the Council

Attachments A. Background Information, B. Productivity Initiative Pilot Program Plan, C. Appendices

Attachment A: Background Information
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Attachment A-1
Executive Summary

The Productivity Initiative

The Productivity Initiative is a program for the King County Wastewater Program (WWP) to more efficiently manage and operate the wastewater utility, meet its key customer and regulatory commitments, and reduce costs. Implementing the Pilot Program Plan for the Productivity Initiative will:

- Use private sector management and operational techniques to reduce costs, increase efficiency, and improve the services of the WWP.
- Increase accountability and define how the WWP uses public wastewater rate funds.
- Allow for additional opportunities for labor and management to work together.
- Create an incentive program for employees to make process improvements and increase efficiencies.
- Demonstrate King County's willingness to respond to increasing public demand for government services to be delivered as cost-effectively as possible.

The Vision

Productivity Initiative Five-Year Vision: Be the best public wastewater program in the nation—a balanced combination of the best service, best employer, best employees, and cost effectiveness.
Productivity Initiative 10-Year Vision: Be competitive with the best of the private service providers.

The Productivity Initiative poses this question: *Would ratepayers benefit from a public utility that was operated more like a private business?* WWP employees and management believe that the answer to this question is "yes," and have developed this Pilot Program Plan to demonstrate how WWP is proposing to deliver those benefits to the public.

Pilot Program Goals

The Pilot Program is a plan to apply business practices to the WWP using tools and measurements developed during 2000. It represents a commitment by the Executive to "pilot" some aspects of a private-sector approach to management of the WWP, learn from the experience, and apply it to other County functions. The

Pilot Program is built upon the wastewater program business plans developed as part of the Productivity Initiative and will:

- Demonstrate how private sector models may improve management of a public sector utility, and provide "lessons learned" that can be applied to other County functions over time.
- Help the WWP improve cost efficiencies, identify expenditures and major cost centers, and allow the WWP to respond to any future proposals to privatize the utility.
- Provide savings to the public by minimizing increases in the wastewater rate while also meeting growth demands outlined in the Regional Wastewater Services Plan.
- Clearly outline where the WWP is accountable for costs, define target budgets, and hold management accountable for meeting the targets.
- Allow employees to meet senior management's challenge to become recognized as the best publicly run wastewater utility in the nation in five years and be competitive with a privately run utility in 10.

Applying Private Sector Techniques

The overall mandate of the Pilot Program is to demonstrate what can be accomplished when flexibility is given to use the best business techniques, employee involvement, and performance incentives. Minimum expectations are that the WWP will continue to produce quality products and deliver a high level of service at a cost comparable to the private sector. The program will vest employees by sharing the results (both positive and negative) of applying private sector practices, and by fully utilizing the efforts, skills, knowledge, and flexibility of workers employed by the utility.

Initially, the WWP focused on a joint labor/management business planning process. This planning effort identified five key areas within WWP's direct control—wastewater treatment, conveyance, administration, capital systems, and laboratories. Five technical business plans were prepared by teams of management, employees, and supervisory staff, and included specific strategies that outlined estimated costs savings, time frames, and persons accountable for action. This planning effort does not take the place of existing collective bargaining agreements, but rather creates an opportunity for labor and management to join forces, develop plan execution strategies designed to emphasize continuous improvement, and link results to the work force.

This Pilot Program Plan envisions good-faith work efforts on service agreements with support agencies. Should the WWP and support agencies be unable to negotiate such consistent agreements, the WWP would pursue opportunities to

self-perform these services, where appropriate, with an agreed-upon commensurate reduction in charges to the WWP.

The Pilot Program also encourages adopting employee ownership philosophies in the WWP's operating model that reflect private industry. Subsequently, strategies may include the expansion of services provided by WWP employees, such as services that have historically been contracted to outside firms. Expanding services would have to demonstrate a positive impact on the costs of doing business before being implemented.

Attachment A-2
Wastewater Program Drivers

Local, regional, and national trends all provide key drivers for undertaking the Productivity Initiative and preparing the Pilot Program Plan. The purpose of defining these major factors that influence the scope of the WWP is to establish 2000 as the benchmark year against which to measure future budget savings.

In general, regulatory requirements and future expansion needs of the regional system all drive the scope of the WWP. The Productivity Initiative focuses on developing a business plan so that the work can be done more efficiently. National trends and general public expectations also play a role in the development of the Productivity Initiative and will influence the Pilot Program. These factors, and how the WWP will measure success of the Productivity Initiative, are outlined in Attachment A-1.

Scope of the Wastewater Program

The WWP, part of the King County Department of Natural Resources, provides wholesale wastewater transport, treatment, and disposal service to 17 cities and 18 local sewer and water districts (component agencies). The County owns and operates the major sewer interceptors and pump stations that carry wastewater to its treatment plants. Component agencies individually own, operate, and maintain the pipelines and other conveyance facilities that carry wastewater to the interceptors.

Most of the WWP is located within the Wastewater Treatment Division, which includes these sections:

- Capital Improvement Program
- West Operations
- Planning and System Development
- Maintenance
- Finance and Administrative Services
- South Operations
- Technology Assessment and Resource Recovery
- Division Manager's Office

The WWP also includes two sections of the Water and Land Resources Division (WLRD)—the Environmental Laboratory and the Industrial Waste Program.

Attachment C-2 generally describes the WWP's services, assets, and service area. Detailed descriptions of the scope of its services are provided in the

individual business plans that employees and management prepared in November 2000 for five functional areas of the Wastewater Program (wastewater treatment, conveyance, laboratories, capital facilities, and administrative services). Budget estimates and future savings estimates are based on the existing scope of services. Changes to the scope, such as expansion of the existing service area, would require an amendment to the future estimated budget targets included in this Pilot Program Plan.

The facilities, physical assets, and service area boundaries that influence WWP's costs are described in Attachment C-2. Other notable factors that serve as a baseline for WWP's costs include the biosolids program, employee salaries and benefits, regulatory requirements imposed by state and federal agencies, and policies adopted by King County. The baseline description of current conditions is provided in Attachments C-3, C-4, and C-5.

Trends and Public Perception

Ratepayers reasonably expect government utilities to deliver services more like service providers in the private sector where many functions are not specific to the general governmental role of regulatory control. Public utilities are increasingly being challenged by public demand for lower cost and higher performance. This trend has motivated a basic reassessment of how the public sector provides services and a focus on reinventing and reengineering public sector service delivery.

Nationally some public utilities are turning to the private sector to run the operations and maintenance component of their wastewater treatment plants and conveyance systems. The number of private operating and maintenance contracts for water and wastewater services increased from about 150 in the late 1980s to almost 1,000 in 1997. A review of the literature indicates about 90 utilities have recently privatized at least a portion of their wastewater operations.

In some cases, existing management systems were inefficient and privatization was the best option for the ratepayer. Privatization may lead to immediate cost savings for the public while the scope of services, maintenance levels, and permit requirements are adjusted at the expense of longer term environmental and public policy objectives. For example, a private-sector firm's costs may be lower in the area of odor control that is not legally required, with the firm choosing to assume the risk of future legal action. Through the Productivity Initiative, it is demonstrated that King County's wastewater employees know the system and operations better than any privately run operation and can achieve cost efficiencies while delivering high quality public service.

The Balanced Scorecard

Historically, public utilities focused their measurement system and associated strategies on regulatory compliance and customer service. Most recently privatization and other factors, such as the public's demand for more accountable government, have shifted the primary focus to measuring costs and financial impact. The Balanced Scorecard defines the organization's future success by setting objectives and measuring performance from four distinct perspectives which are key drivers for WWP.

1. The *People Management* (Learning and Growth) perspective directs attention to the basis of all future success —the organization's people and those systems and management practices that impact employee growth and satisfaction. A sound investment in these areas is critical to long-term success. WWP's adopted People Management performance indicators are:
   - *Employee satisfaction*
   - *Employee retention*
   - *Employee development*

2. The *Key Internal Processes* perspective focuses on the performance of core internal processes that drive the organization. Immediate and continuous improvement in key internal processes is a critical lead indicator of financial success in the future. WWP's adopted Internal Process performance indicators are:
   - *Regulatory compliance*
   - *Safety*
   - *Infrastructure management*
   - *Innovative strategies*

3. To convert key internal processes into financial success, public utilities must also meet their customers' and stakeholders' expectations. The *Customer Focus* perspective considers the organization through the eyes of the customer, so that the organization retains a careful focus on customer needs and satisfaction. WWP's adopted Customer Focus performance indicators are:
   - *Customer and stakeholder satisfaction*
   - *Environmental excellence (measurements not defined yet)*

4. Finally, the *Financial* perspective measures the ultimate financial results that the organization provides to its customers and stakeholders. WWP's adopted Financial performance indicators are:
   - *Rate stability for WWP portion of the budget*
   - *Budget variance*
   - *Debt service coverage*
   - *Cost per million gallons per day of wastewater treated*

The Balanced Scorecard integrates critical performance measures into a few manageable metrics so that management has the necessary data to quickly assess the health of the organization on four critical fronts. For the past seven years, many companies have used the Balanced Scorecard to align objectives with the long-term strategy and mission of the organization.

A performance measurement system such as the Balanced Scorecard allows a public utility to align its activities with a strategic plan, which results in operational and financial efficiencies. It permits real deployment and implementation of strategy on a continuous basis. With it, a utility can get feedback needed to guide the planning efforts. Details on the adopted performance indicators and measurements are located in Attachment B-1, Outcomes of Change.

Attachment A-3
Wastewater Program Process for Change

The WWP did a complete assessment of the organization before developing the Pilot Program Plan. A consultant was brought on board to help review the organization, develop a strategy, and craft an approach to the Pilot Program Plan. Attachment A-3 briefly outlines that process.

Organizational Assessment

The consultant's first tasks were to conduct an organizational assessment, evaluate the data available, determine opportunities for organizational change, and identify significant issues. The consultant's full report, entitled *Phase I: Planning for Productivity* was issued in January 2000. The following is a summary of the consultant's initial findings:

- A great deal of valuable data is available to the WWP through the Multi-Agency Benchmarking Study (an ongoing benchmarking effort with other West Coast wastewater utilities).
- The WWP has an unusually high skill level among the trades in operations and maintenance. This is not the case in some utilities. The quality of staff throughout the organization, especially in operations and maintenance, should be recognized.
- The WWP has a long record of undertaking organizational change projects, in some cases dating back 20 years. However, WWP management also has a poor track record for implementing recommendations for change.
- Past organizational efforts have tended to focus on operations and maintenance, generating cynicism, aggravation, and resentment among the work force about new initiatives from "downtown."
- Staff expressed a high level of frustration with the perceived level of service from King County support agencies.
- While staff takes great pride in what they do, they also express a lack of ownership for outcomes that affect the entire WWP.
- Specific expectations are not made clear to staff and work units.

The WWP worked with the consultant to identify a programwide approach that could, when implemented over time, begin to address these problems. The following strategy was developed to begin exploring how process improvements could be identified and implemented.

Use a balanced approach to organization change. The WWP should develop an approach to organizational change that does not focus solely on financial

targets. Staff and management need to understand that WWP places equal value on sustaining and improving key treatment plant processes, measuring financial performance, investing in staff resources, and maintaining customer satisfaction. The Balanced Scorecard was developed to ensure that each of these four quadrants is considered in decision making.

Clearly define scope and costs. One key element of the Productivity Initiative, and the fundamental purpose of the Pilot Program, is to define the WWP's scope of services, anticipate work to be accomplished, and allocate costs. Negotiating intergovernmental service agreements between the WWP and King County support agencies is critical to achieving a clear definition of WWP's scope and costs.

Link rewards and security to performance. Once WWP's targets are in place, employees should be rewarded for performance that exceeds those targets. Identifying those targets is part of the WWP's business planning effort.

Productivity Steering Team

The Productivity Initiative needed to have a way for employees to participate directly in developing the strategies and plans for how to improve the organization. A Productivity Steering Team (PST) was created with members elected by staff to provide guidance and an avenue for reflecting employee comments and attitudes about the Initiative. The current PST members are chartered to serve an 18-month term (February 2000 to July 2001).

The PST consists of 17 representatives from management, staff, and labor. This includes nonsupervisory employees (one representative from each of the following: West Point Operations; South Plant Operations; Maintenance; Capital Improvement Program; Technology Assessment and Resource Recovery; Finance and Administrative Services; Planning and System Development; and Water and Land Resources Division's Environmental Laboratory and Industrial Waste Pretreatment Program). It also includes three supervisory employees from West Operations, South Operations, Maintenance, and the Capital Improvement Program, and one from the remaining WWP. Each of the three recognized labor unions is represented on the PST, as well as one unrepresented employee and two representatives of the WWP Management Team.

In general, the PST:

- Provides a mechanism for involving WWP employees in the Productivity Initiative.
- Integrates the existing management and work group structure into the Productivity Initiative.
- Develops recommendations for long-range planning and implementation measures.

- Reports to the WWP managers in WTD and WLRD.
- Communicates with the groups they represent in the organization.

The PST was instrumental in pulling together ideas for consideration in the business planning efforts, participating on the business planning teams, communicating progress (or lack thereof) to employees, and developing parameters for the Balanced Scorecard.

Other avenues for staff involvement and communication included holding "all hands" and individual group meetings, establishing a Hot Line, and publishing a regular newsletter. The PST, however, was identified as the primary channel for communicating guidance to management and facilitating employee feedback about progress of the Productivity Initiative.

Identification of Wastewater Program Business Lines

The WWP's core business is to transport, treat, and dispose wastewater and its byproducts. Business lines were established to begin defining the program's scope of services and costs for which direct responsibility and accountability could be established. Those business lines are:

- ***Operations***. Operate safe and reliable conveyance and treatment facilities.
- ***Maintenance***. Maintain the equipment to ensure that it is safe and reliable.
- ***Capital Program***. Improve, upgrade, and replace facilities for safe and reliable operations.
- ***Combined Sewer Overflow***. Add facilities to meet legal permit requirements of regulators.
- ***Regional Wastewater Services Plan***. Add capacity to meet projected growth.
- ***Inflow and Infiltration***. Identify and reduce sources of inflow and infiltration.
- ***Resource Recovery***. Reclaim and apply waste products into usable resources.

In support of these core functions are Industrial Waste, NPDES compliance, environmental planning, Environmental Lab, marine monitoring, and administration. Analyzing business lines provided the focus needed to define areas in the budget under direct control of the WWP and identify where the WWP could develop strategies to reduce costs.

Estimating Future Budget Targets

Initial target savings identified by the consultant was 20 percent of the WWP operating costs. The WWP management was challenged to develop strategies to reduce costs by 20 percent over the next five years. This target was not based on a review of the WWP itself, but on the consultant's assessment of the cost savings a private sector firm would typically assert it could achieve by privatizing

the operation. The consultant's assessment was used in the business planning process as a target to test whether a 20-percent reduction for WWP would be achievable, and at what cost to WWP's customers, neighbors, employees, and King County government.

The strategies outlined in detail in the five business plans for the WWP underwent rigorous review to determine the likelihood of attaining the initial 20-percent target reduction over five years. The consultant determined that the WWP business plan strategies are reasonable, that the program already operates more efficiently than a typical wastewater utility, and has achieved cost efficiencies through the Gainsharing program and other efficiency efforts. Findings of the consultant specific to each of the five business plans and their strategies were documented in a report presented to the PST and WWP management team in December 2000. After significant evaluation of the strategies, and taking into consideration the parts of the budget over which the WWP has no control, the initial reduction target was revised. The PST, WTD Management Team, and consultants determined that a target reduction of about 12 percent for the operating budget over the next five years was a solid business planning target for the WWP.

Business Planning Along Functional Lines

For the purposes of business planning, WWP was divided into five key functional areas: wastewater treatment, conveyance, administration, capital systems, and laboratories. Teams of staff and management developed specific action steps to reduce costs over the next five years. Each of the five teams produced plans over a four-month period, including a description of the functional area, a mission statement, and a work plan. The work plans identified objectives, the person(s) responsible for taking actions, strategies, and a description of how success (or failure) could be measured. Each of the strategies was categorized by the target date for implementation: immediately, 2005, or 2010. In some cases, issues were identified that required more strategic development before identifying a specific time frame for implementation.

These five business plans were accepted by the WWP in November 2000. They describe the full scope of the WWP and include the most complete set of strategies to consider pursuing. The five business plans will be consolidated into one overall strategy for the WWP by June 2001 (see Attachment B-1 for a description). The consolidated effort will be used to track compliance with commitments made for investing in change and ensuring that efficiencies are forthcoming.

Attachment B: Productivity Initiative Pilot Program Plan Table of Contents

Attachment B-1
Outcomes of Change

Attachment B-1 describes the goals, vision, and guiding principles for the Productivity Initiative. The outcome of the Productivity Initiative is a commitment to high quality service within reasonable budget constraints while not sacrificing commitments to employees and customers.

Attachment B-1 also describes the specific commitments of the WWP and the support King County government will provide to help meet the desired outcome. One outcome described here is a set of goals for future budget targets. Should these goals be attained beyond those budget targets, one-half of any permanent savings would be set aside for a Productivity Incentive Fund and the other half would be returned to the wastewater fund. Financial targets are not the only measurement of success in this plan; the goals established for the Balanced Scorecard to date are also provided.

Goals, Vision, and Guiding Principles

In May 1999, an interim committee made up of employees representing 16 different work groups within the program defined the Productivity Initiative's goals, vision, and guiding principles. The Productivity Steering Team adopted the goals, vision, and guiding principles as the program's policy statement in early 2000. The policy statement has provided staff direction for developing the program elements.

The ***Goal*** of the Productivity Initiative is:

> *"To become recognized as the most efficient and productive publicly owned wastewater utility in the country by 2005, and to be competitive with any privately operated wastewater utility by 2010."*

The ***Five-Year Vision*** for the Productivity Initiative is:

- ***Productivity.*** We are nationally recognized for our productivity and actively share our experience with others in our industry.
- ***Quality***. We maintain and improve treatment, effluent, and biosolids quality. We have no violations and no unpermitted overflows or bypasses.
- ***Efficiency***. We hold the portion of the sewer rate dedicated to ongoing operations to less than or equal to current levels (after adjusting for inflation). We use the most efficient contracting techniques and management systems to minimize capital improvement costs. We continually improve the way we use resources and eliminate barriers to efficiency.
- ***Safety***. We operate the safest wastewater treatment system in the nation.

- ***Collaboration***. We work efficiently across all functional areas in the division and department. We have excellent support systems, and work collaboratively with support services from other King County departments.
- ***Clarity of purpose***. We have clearly established our goals and how to achieve them. We are clear about roles and responsibilities to achieve our goals.
- ***Customer service.*** Customers value the service we provide. We are responsive to customer concerns and needs.
- ***Work place.*** Business teams have clear work plans and are actively pursuing those plans. Staff is knowledgeable about the "big picture" and our customers' interests. Creativity is encouraged. Turnover is minimal. Management works collaboratively with unions and nonrepresented employees.
- ***Employee satisfaction***. We have a high level of employee involvement in all areas of our operation. Employees feel they are doing productive work and are rewarded and recognized. Employees take pride and ownership in a job well done. Everyone is heard and no one fears retribution for speaking openly.

These ***Guiding Principles*** provide direction for our actions in striving for the goal and achieving this vision:

- Accept no compromises in our commitment to protect the environment.
- Recognize that job responsibilities may change and provide necessary training so there are no involuntary layoffs.
- Identify two-way communication as essential.
- Promote humor and have fun.
- Listen and respond to one another and our customers with respect, focusing on business and not personality.
- Speak out without fear of retribution.
- Clearly define roles and responsibilities.
- Integrate all parts of the wastewater treatment program into the whole.
- Involve stakeholders and staff in decisions that will affect them.
- Clearly define areas that are not included in the Productivity Initiative's scope.
- Identify and track services that are not core wastewater business activities.
- Establish measurable and independently verifiable goals.
- Seek partnerships with groups affected by our actions.
- Establish a good working relationship with the Executive's Office and the County Council on the Productivity Initiative.
- Be willing to take risks and think differently.
- Be willing to admit mistakes and change course if needed.
- Practice continuous process improvement.

- Build on existing strengths within the organization.
- Look for and make ongoing productivity improvements.
- Seek early successes in Productivity Initiative activities.
- Uphold commitment to safety without compromise.
- Exercise patience; recognize that improving productivity will take time and effort.
- Ensure management is visibly committed to the productivity project.
- Share savings with employees and ratepayers.
- Respect union agreements.
- Celebrate our successes.

The Wastewater Program Objectives

The WWP proposes to meet three types of objectives described in this attachment to reach the goals of the Productivity Initiative—commitments, future budget targets, and establishing a Productivity Incentive Fund. A description of 16 specific commitments follows, which should be viewed as a statement to continue providing high-quality regional wastewater services. The second part of the program objectives in this Pilot Program is to hold the WWP accountable for costs over which it has direct control. The ability to meet proposed future budget targets has both positive and negative consequences the WWP in meeting the third objective—establishing an incentive fund.

Commitments and Performance Guarantees

The WWP will:

1. Operate in compliance with all applicable state and federal laws, regulatory requirements, and permits.

2. Comply with applicable County policy directives and ordinances, except as modified by changes the County Council in future implementing ordinances for the Pilot Program.

3. Comply with all applicable labor agreements and treat represented and nonrepresented employees equitably.

4. Operate and manage the regional wastewater system (referred to as "managed assets" and defined in Attachment C-1) on a 24-hour-per-day, 7-day-per-week basis. The WWP shall convey, receive and treat influent; discharge effluent and reclaim water consistent with facilities described in Attachment C-2; and transport and dispose of grit, screenings, and biosolids. Biosolids will be managed in accordance with Attachment C-3. The WWP will also continue to provide odor control and otherwise manage and

operate the regional wastewater system in accordance with "good industry practice" (see definitions in Attachment C-1).

5. Use the capacity of the managed assets to their maximum reasonable extent to reduce effluent pollution discharged and control odor emitted from the regional wastewater system (i.e., managed assets). The WWP shall not intentionally reduce the level of wastewater treatment or odor control capable of being achieved by the wastewater system in an effort to reduce its operating and maintenance expenses.

6. Operate and maintain the regional wastewater system such that the following *Performance Guarantees* are met:

   - *Permit Effluent Standards.* The WWP guarantees it will achieve the effluent standards established in the NPDES permits for the South Treatment Plant, West Point Treatment Plant, Carkeek Combined Sewer Overflow Treatment Plant, and Alki Wet Weather Treatment Plant. In the case of the Vashon Treatment Plant, the WWP will operate and maintain the plant to the best of its ability; however, no Performance Guarantees are provided until capital improvements are completed by the WWP (estimated date: 2005). The West Point and South Treatment Plants treat wastewater to meet NPDES permit effluent standards:
     - Weekly Average Suspended Solids: 45mg/l
     - Monthly Average Suspended Solids: 30 mg/l
     - Weekly Average BOD: 45 mg/l
     - Monthly Average BOD: 30 mg/l
     - Weekly Geometric Mean Fecal Coliform: 400 colonies/100 mls
     - Monthly Geometric Mean Fecal Coliform: 200 colonies/100 mls

     The WWP will pay for any fines related to NPDES permit violations at these plants, as evidenced by issuance of a Notice of Penalty by the Washington Department of Ecology (Ecology) from the operating budget. In addition, any Productivity Incentive Fund contribution established by this Pilot Program shall be reduced by one-twelfth for each month in any given year in which a violation occurred as evidenced by issuance of a Notice of Penalty or Administrative Order by Ecology due to an effluent exceedance. This would not apply if the violation is a direct result of an uncontrollable circumstance.

   - *Performance Nondegradation Guarantee.* The WWP further guarantees to achieve specific effluent limits for the South Treatment and West Point Treatment Plants. For any year that one of these limits

is exceeded, the WWP will forfeit 33 percent from any contribution to the Productivity Incentive Fund. These specific performance parameters may be reviewed annually as information is collected over time.

- Annual Average Suspended Solids: 24mg/l
- Annual Average BOD: 24 mg/l
- Annual Geometric Mean Fecal Coliform: 175 colonies/100 mls

- *Safety.* The WWP guarantees that maintaining the safety of WWP employees will remain a primary concern in how it conducts its business. The WWP will not exceed an average of 22 time-loss accidents (an average based on the last five years, from 1996 to 2000) per rolling three-year period, based on the current number of employees and facilities in service. For any year that this rolling three-year average limit is exceeded, the WWP will forfeit five percent from any contribution to the Productivity Incentive Fund.

7. Maintain the managed assets in good working order, condition, and repair, in a neat and orderly condition, and maintain the aesthetic quality of the managed assets as originally constructed. The WWP shall also conduct predictive, preventive, and corrective maintenance of the managed assets in accordance with good industry practice.

8. Construct and operate the capital improvements listed in Attachment C-6 (Planned System Improvements), allowing for each facility to be reevaluated in design stages with efforts made to combine and/or optimize projects to achieve the same result.

9. Meet the system expansion needs as projected in the adopted Regional Wastewater Services Plan using the regional growth assumptions therein, allowing for updated growth assumptions that may delay beyond the timeframe of this Pilot Program or advance individual projects to construction sooner than planned.

10. Meet the current CSO compliance schedule, as defined in King County Ordinance 13680, Section 18.

11. Operate the pretreatment program to assure compliance with federal pretreatment regulations, categorical standards, and state regulations as required by the NPDES permit for the West Point Treatment Plant.

12. Undertake no substantial modifications to the pretreatment program that result in either significant increase in pollutant loading at the treatment plants or less stringent discharge requirements being imposed on industrial

users. The WWP may make modifications, including reductions in resources devoted to pretreatment, if approved by Ecology, according to procedures in 40 CFR part 403.18.

13. Operate the industrial cost recovery program in accordance with King County Code 28.84.060 M.

14. Perform and provide all sampling, laboratory testing and analyses, quality assurance and quality control procedures, and programs required by applicable law (see definitions in Attachment C-1 for a description of applicable law). The WWP shall also operate the laboratories to meet a certain standard of reliability for test results to ensure that they maintain accreditation with Ecology. The laboratories will also continue to provide data of known quality and reliability for programmatic policy decisions in the King County Department of Natural Resources.

15. Work with the King County Executive and County Council to make changes to this Pilot Program in the event of "uncontrollable circumstances" or upon the need for changes in the scope of services provided.

16. Work in good faith with support services agencies toward mutual agreement of a service agreement to define the scope and cost of services. In some cases, cost reductions in staffing are anticipated due to increased service levels.

Future Budget Targets

The WWP intends to perform the services that it directly controls for a fixed cost. The fixed cost is based on expenditures approved for the 2000 budget. The 2000 budget for the Wastewater Treatment Division is $80.2 million. Costs directly attributable to the WWP are estimated at $60.76 million, or about 76 percent of the total budget. The remaining budget is comprised of funds for support services such as Fleet Administration, other CX overhead charges (14 percent), and other policy-driven costs (10 percent, such as for Culver funds).

A critical objective of this Plan is that the WWP perform its services without exceeding the adjusted annual guaranteed costs defined in Attachment C-7. Assumptions (such as estimates for operations and maintenance of future facilities over the next 10 years) are factored into the adjusted annual guaranteed costs. The budget targets in Attachment C-7 are based upon 2000 budget conditions and an assumed inflation rate of 3 percent.

Meeting estimated annual budget targets depends on the ability of the WWP to implement the business plans for wastewater treatment, conveyance, administration, capital systems, and laboratories. Consultants have affirmed that,

in their opinion, the cost efficiencies outlined in the business plans are achievable, but will require internal changes as to how the program delivers services.

It is proposed that costs beyond the control of the WWP, but integral to how well the WWP performs, should be subject to an annual adjustment. Attachment C-7 lists the assumptions and conditions that will form the basis for annual adjustments to the annual budget targets. Factors beyond the WWP's control that may result in adjustments to the estimated cost are:

- Influent quantity (as represented by residential customer equivalents)
- Septage quantity treated
- High-strength industrial waste quantity treated
- Chemical unit prices
- Electricity unit prices
- Changes to fiscal policy
- Inflation beyond the estimated 3 percent used to prepare budget targets
- Uncontrollable circumstances (as defined in Attachment C-1)

Some factors outside WWP's control may also affect meeting annual budget targets and therefore require amendment. Changes to the scope of services could be reviewed annually as adjustments are made to the estimated costs and performance guarantees. Other factors include changes in assumed applicable laws and policies (as defined in Attachment C-5), King County salary schedules and benefit packages beyond the scope of those agreed to by the WWP as part of labor contract negotiations (Attachment C-4), or other countywide personnel costs absorbed by the WWP (such as lawsuit settlements).

Any costs associated with the payment of fines shall be considered one of the costs included within the guaranteed cost, provided the fines are not a result of any "uncontrollable circumstances." Attachment C-1 defines areas in which changes beyond WWP's control affect the ability to deliver quality service at the estimated costs. Examples include changes in laws, storm events beyond design capacity, illegal discharges, or the loss of power provided by another utility.

While the WWP should not be held accountable for its failure to meet the commitments outlined in this Plan due to uncontrollable circumstances, the WWP shall provide prompt notice if they do occur. The WWP will notify the Executive's Office and County Council as appropriate when circumstances outside WWP's control affect operations, estimated duration, or potential cost impacts, and make reasonable efforts to undertake efficiencies to reduce future costs.

Productivity Incentive Fund

The WWP and labor representatives expect to perform wastewater services at a cost even lower than the annual budget target for the operating budget. Additional savings will be split between the ratepayers (as returned to the wastewater fund) and the Productivity Incentive Fund. As an incentive to achieve cost savings beyond those currently predicted, 50 percent of the difference between the actual annual cost of service and the adjusted guaranteed cost shall be credited to the Fund.

Creating the Productivity Incentive Fund addresses two primary objectives. The first is to create a pool of money that can be drawn upon to fund over budget costs that are the responsibility of the WWP. If the WWP does not meet its annual adjusted budget target, the difference will be made up from funds taken out of the Productivity Incentive Fund. The second objective is to create an incentive for WWP employees to reduce costs below the annual budget target costs.

The Productivity Incentive Fund will be an account created to track the additional savings that result from actual costs lower than guaranteed cost. Contributions to the Fund shall be subject to an independent audit and will be as a result of actions taken by the WWP to incur savings. Under expenditure of contingency funds will not contribute to the Fund, nor should savings created by not taking appropriate actions that sustain the goals of the Productivity Initiative (such as preventative maintenance). The management and use of this fund will be governed in accordance with Attachment C-8.

An oversight committee will be responsible for how funds would be allocated to the Fund, subject to approval by the manager of the Wastewater Treatment Division. Membership will include representatives from Service Employees International Union, Local 6; Teamsters, Local 117; Washington State Council of County and City Employees, Council 2; WWP management and non represented employees. Representatives from the Office of the Executive and the Department of Finance would participate as ex-officio members. In addition to the minimum annual payouts to employees of 25 percent of the funds assigned, distribution of the funds may include:

- Investment in employees through training and other employee development programs
- Award and Recognition Program
- Reserve Fund (the basic premise is to use it as a "rainy day fund" that addresses possible shortfall in meeting budget targets)
- Other activities consistent with achieving the goals of the Productivity Pilot Program

To provide WWP with an incentive to implement capital-funded projects in ways that reduce the financial impact on ratepayers, a similar incentive fund should be

established for the WWP capital program. A draft of ideas for the Capital Program Incentive Fund is included in Attachment C-9. The WWP intends to return to the County Council and propose such a fund in 2001.

The Role of King County Government

King County government will play a very important role in helping the WWP achieve the goals, vision, and objectives outlined in this plan. The role of King County government is summarized as follows:

1 Maintain the WWP as a publicly operated utility for the duration of this Pilot Program Plan.

2 Implement all negotiated labor agreements between the affected labor unions and the WWP. Affected labor unions currently include Service Employees International Union Local 6, International Brotherhood of Teamsters Local 117, and the Washington State Council of County and City Employees Local 1652-R.

3 Support a strategy to reduce staffing through attrition and separation incentives (such as financial packages, benefits, and early retirement incentives) that could allow a staff person to retire earlier than is currently possible or provide financial incentive to voluntarily separate from WWP. Staff will be reduced to the extent possible while ensuring that the WWP is able to perform its services at the current or higher level. This Pilot Program Plan does not use involuntary layoffs to achieve staff reductions, but possibly use incentives to achieve voluntary reductions in force.

4 Support the WWP in efforts to compensate nonrepresented employees in a fair and equitable manner, consistent with represented employees in the WWP.

5 Work with the WWP on changes to the this Pilot Program Plan as appropriate and reasonable in the event of uncontrollable circumstances or upon the need for changes in scope of services.

Service Agreements with Support Services

The WWP relies on other departments in King County government for support services. This Pilot Program Plan will use service agreements to clarify the scope of services, expectations, and costs. It is expected that County agencies work in good faith with the WWP toward mutual acceptance of a service agreement where the WWP relies on services. The service agreements, which have an objective of being completed in 2001, define the scope responsibilities of both parties, and cost of services received. In some cases, cost reductions in staffing are anticipated due to increased service levels. Departments for which service agreements are sought include:

- Department of Finance
- Fleet Division, Department of Transportation
- Office of Human Resources Management
- Information & Telecommunications Services, Department of Information Administrative Services
- Prosecuting Attorney's Office
- Director's Office, King County Department of Natural Resources
- Water and Land Resources Division, King County Department of Natural Resources

This Pilot Program Plan may be amended if good-faith work efforts do not result in service agreements consistent with Attachment C-10. Should the WWP and support agencies be unable to negotiate such consistent agreements, the WWP could pursue opportunities to self-perform these services, where appropriate, with an agreed-upon commensurate reduction in charges to the WWP.

King County Policy Changes

Three specific policy changes are requested to implement this Pilot Program Plan. Proposed legislation in form of draft ordinances will be forwarded to the County Council after approval of the Pilot Program Plan. These policy changes are summarized below:

1. King County Council Ordinance 12224, Section 2, related to construction management practices, as adopted in April 1996. This ordinance requires a mandatory construction-management service contract with a private firm for all construction projects greater than $10 million. To ensure that WWP employees have the greatest opportunity to reduce consultant and administration costs this work should remain in-house. This Plan requests that approval for the decision making on whether to retain a construction management firm be discretionary at the WWP management level.

2. King County Council Motion 10262, relating to the establishment of new compensation plan for employees of the executive branch of the newly consolidated government. The WWP requests exemption from section B.3, which states: "Classifications should be assigned to salary ranges so that compensation falls no more than five percent above or below the market average." Salary ranges should be set based on the WWP's ability to meet financial targets outlined in this plan.

3. King County Code 3.12.364—Gainsharing. Request a change to this section of the Code to allow non-represented employees to receive benefits of the Productivity Incentive Fund.

The WWP will work with other King County agencies to improve how some policies are administered. Two examples include:

- The "Design-Build" requirements in RCW 39.10 and 70.150 may allow for a more streamlined approval process with the Council and Executive. Possible streamlining of this process will be pursued with the Prosecuting Attorney's Office as this Pilot Program is implemented.

- Further delegation of authority (as established in 3.12.330), from the Director of OHRM to the Wastewater Program Division Manager so the WWP could develop and administer a personnel system that would include an employment program and contract administration for the employees. The WWP employment program would be established in compliance with King County Charter, Title III of the King County Code, and other legal requirements. This delegation of authority would not diminish employee programs or benefits, but rather create efficiencies in the administration of internal business processes and allow faster response to an evolving business environment. There would remain centralized OHRM authority for activities with county–wide impact such as compensation/classification plans, preferential referral programs, and overall labor policy. The WWP could assume responsibility for hiring, employee relations and the administration of labor contracts and personnel guidelines. Specific delegations of services would be outlined in the service agreement process. In the event that this delegation would require changes to Title 3, modifications to the ordinance would be proposed at a later time.

Attachment B-2
Implementing the Pilot Program Plan

Implementation is the key to all planning efforts. Attachment B-2 describes some early implementation tasks for the WWP and an approach and plan to internally monitoring the success of commitments made in the Pilot Program Plan. Like all plans, this one should be mutually reviewed by affected parties and amended as implementation takes place.

Implementing the WWP Business Plan Strategies

WWP Business Plan

The five business plans developed for the functional areas of the WWP will be combined into one integrated business plan for the organization by June 2001. The five business teams created five different action plans. Although called business plans, the draft products completed in November 2000 became a list of actions (or "action plans"). Now, the WWP must resolve any overlaps, consolidate, and prioritize these actions with timeframes and identified people for implementation.

The following draft outline provides the framework for Wastewater Program Business Plan. This effort to consolidate the wastewater treatment, conveyance, administration, capital systems, and laboratories business plans requires significant oversight and involvement of the Productivity Steering Team (PST) and the WWP Management Team. An outline of the business plan includes:

Management Philosophy and Strategic Direction

- Define role of the WWP Management Team in implementing the Business Plan, and the possible role of the PST for the future.
- Acknowledge the value of decisiveness and effective communication, and assess existing organizational barriers.
- Define the Balanced Scorecard as one tool for the Management Team to monitor wastewater program performance and make adjustments and proactively change the organization over time.
- Define shared interests and "merge" the operating and capital systems into one effort pulling for common goals, such as reduced life cycle costs, meet environmental standards, stable contribution to the rate, and well-run and efficient plants as measured by performance goals.
- Advise King County Executive and Council of Pilot Program activities and progress, and provide ongoing program monitoring.

Human Resources

- Focus on people, including making training and morale investments in WWP staff. Recognize that people are our key resource.
- Define the commitment for long-term monitoring to ensure continuous process improvements that enable staff to meet high expectations, including using best industry practices and benchmarking.

Organizational Structure

- Define the functions of the WWP in terms of core and support activities, and reach agreement on key drivers for how we are to operate as a utility/business. Use 2001 to define an appropriate organizational structure.
- Develop principles for how we organize ourselves and define specific rules to be used within the organization to make future decisions.

Technical Aspects

- Use all the information from the existing "actions plans" and set priorities. To some extent, this prioritization of technical action steps was undertaken to develop the Pilot Program Plan future budget targets. The PST will provide key input in making a recommendation to the WTD management team on prioritizing actions.
- Categorize the full set of actions with a responsible person and timeframe for implementation (or reporting back to the WWP Management Team). Identify what actions the WWP can do right away; which require a significant change, but may be worth doing; which require a cost investment with an expected return; and which have potential, but need long-term development.

Just Do It!

There are a number of strategies that yield cost savings and were agreed upon prior to development of a final business plan. WWP management has directed that staff begin implementing the identified "early wins." Regular check-in with the PST and Management Team is expected. For each of the five teams, the following early action items were identified and implementation has begun.

Laboratories

- Standardize procedures, optimize batch sizes, and evaluate outsourcing.
- Coordinate Environmental Lab with process labs.
- Implement environmental data management improvements.
- Establish joint contracts for supplies or services.

Conveyance

- Improve purchasing and inventory processes. Leverage spares across the system. Evaluate and address the consultant's recommendations

- Assemble a team with wastewater treatment staff to determine a staffing and training plan for how best to achieve targeted staff reduction by 2006.

Wastewater Treatment

- Complete high solids centrifuges at West Point Treatment Plant.
- Improve grit handling by recycling.
- Implement the energy management recommendations at the treatment plants.

Capital Program

- Improve systemwide prioritization of capital improvements.
- Streamline delivery of "small" projects.
- Implement a strategic approach to individual projects.
- Consider alternative capital improvement project delivery methods.
- Improve Quality Assurance/Quality Control and Value Engineering.
- Review the newly revised Procurement Manual and coordinate a workshop with the PAO, procurement staff, and project managers and others interested in changes to the procurement process.

Administrative Services

- Implement activity-based cost accounting
- Complete the review of accounts payable and receivable processes and implement recommendations.
- Implement position reductions in administration.

The Balanced Scorecard

Over the long term, the WWP will measure its own performance through the use of the Balanced Scorecard developed by the PST and first described in Part Two. Performance indicators have been identified for each of the four quadrants of the scorecard. These indicators of success (and failure) will be monitored by the WWP Management Team to determine how well we are doing and are expected to evolve overtime with experience. The performance indicators and anticipated measurements are listed below. Specific baseline measurements for the year 2001, and future target goals for 2005 and 2010 have not be identified. These goals will be forwarded to the Executive and Council once they are adopted early in 2001.

People Management (Learning & Growth)

- *Employee satisfaction.* To be measured by survey methods once a year. Recommended areas include:
  1) overall satisfaction with the WWP,
  2) training and development,
  3) participation and involvement,

4) management practices,
5) benefits and compensation, and
6) workplace environment.

- *Employee retention.* Measure the rate of voluntary turnover in staff.
- *Employee development.* Computed as an index of two factors:
  1) average number of training hours per employee, and
  2) data from the employee survey.

Key Internal Processes

- Regulatory compliance
  The Association of Metropolitan Sewerage Agencies Platinum Award
  Development of a Compliance index that reflects adherence to all environmental standards (air, odor, biosolids, OSHA, etc)
- Safety
  Development of a Safety Index composed of the number of lost time accidents and the workers compensation claims volume (in cost) per employee
- Infrastructure management
  The measure of infrastructure asset value based on CIP data. The objective is to preserve the WWP infrastructure as a long-term investment through prudent capital programs planning and execution.
- Innovative strategies
  The recommended measure is the dollar value received from implementing innovative and competitive change strategies.

Customer Focus

- Customer and stakeholder satisfaction
  Measured by survey of elected officials, Metropolitan Water Pollution Abatement Advisory Committee, and to the extent possible ratepayers to determine the degree of satisfaction that their interests are being met.
- Environmental excellence
  Measurements are not defined yet and use as a performance indicator depends on identifying a reliable measurement.

Financial

- Rate stability for WWP portion of the budget
  Stability as compared to other nearby communities serving as a regional service provider and the rate of inflation.
- Budget variance
  Percentage that actual expenditures are below a realistic budget (exclude debt service coverage).
- Debt service coverage
  Maintain the required debt service ratio.

- Cost per million gallons per day of wastewater treated
  Based on the best in class (competitive) standards established in the West Coast Benchmarking Study.

The key to using the Balanced Scorecard is to have measurable data to establish current performance, relevant benchmarks (such as national standards), and 2001, 2005, and 2010 targets. Initial data sources and measurements have been identified for these performance indicators. For example, the people management indicators will be measured through an employee survey implemented once a year. The first one will be administered in the first quarter of 2001.

The WTD Management Team will approve targets and finalize the scorecard by April 2001. It will be used as a management tool to monitor how well the programs and strategies developed as part of the Productivity Initiative are working.

Monitoring Commitments

An approach to monitoring the Pilot Program is necessary to ensure success. The WWP must ensure that internal commitments and strategies are followed through in a timely manner to ensure that cost savings are fulfilled in the future. The Management Team and PST (in a different role) will play roles in that effort, but enforcement of commitments will fall directly to the division manager.

The County Executive must also hold the WWP accountable for meeting the annual budget targets. In addition, Executive staff must review any adjustments to the WWP's targets prior to the targets being set.

Every year the WWP shall prepare a report summarizing the WWP's performance regarding this Pilot Program. Where variances from expected performance occur, the reports will include the WWP's planned strategy for correction, linked to schedule and future performance reviews. As appropriate, the reports shall include any information necessary and relevant for the County Executive to assess the WWP performance. It is expected that the report will contain a summary of the following:

- Operational performance of the treatment facilities
- Accomplishments of the capital improvement program
- Evaluation of the WWP's financial performance
- Accounting of the Productivity Incentive Fund contributions resulting from the WWP's performance

Annual reports should be independently audited and reviewed by staff from the Department of Natural Resources, King County Council, and County Executive's Office.

Program Managers

The program managers for the WWP and County Executive's Office should be the contact persons for communications regarding the performance of this Pilot Program. The program manager for the Wastewater Program is the manager of the Wastewater Treatment Division. The program manager for the King County Executive is the deputy county executive.

This Pilot Program Plan is different from any other program prepared for King County. It essentially guarantees cost reductions for a program based on future changes in the way business is conducted. Implementing the Plan may not be as smooth as currently anticipated.

When necessary, program managers shall discuss nonperformance of the goals, objectives, and commitments in this plan. Program managers shall identify and agree upon the issues, develop options for compliance, and recommend a schedule for complying with the terms of the Pilot Program to the County Executive.

Attachment C: Appendices
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Attachment C-1
Definitions

Applicable Law means any statute, law, charter, regulation, ordinance, rule, judgment, order, decree, permit, license, requirement, approval or restriction of an appropriate Governmental Authority, or any interpretation or administration of any of the foregoing by the appropriate Governmental Authority charged with the responsibility for the foregoing, applicable from time to time to the ownership, possession, operation, improvement, expansion, equipping, design or financing of the Managed Assets or the Conveyance System or the performance of obligations under this Pilot Program, whether now or hereafter in effect; provided, however, that any such statute, law, charter, regulation, ordinance, rule, judgment, order, decree, permit, license, requirement, approval, restriction, interpretation or administration is lawful and binding. Applicable Law includes, without limitation, Environmental Laws.

Abnormal Substance means a substance, material or object present in the Influent which cannot be removed or treated by the Managed Assets, including but not limited to those substances, materials or objects which are not susceptible of treatment at the Managed Assets or materially interfere with or obstruct the operations of the Managed Assets.

Biosolids are the nutrient-rich organic material produced by treating wastewater solids at the Facility; they can be beneficially recycled as a fertilizer and soil amendment.

Biochemical Oxygen Demand (BOD) means the amount of oxygen required by bacteria while stabilizing decomposable organic matter, the analysis of which shall conform to the provisions of 40 CFR 136, *Test Procedures for the Analysis of Pollutants*, unless other test procedures have been specified in the NPDES Permit.

Capital Improvements means any addition, alteration, improvement, or other change to the Managed Assets which is capitalized under generally accepted accounting principles.

Capital Improvement Program means the activities of the WWP to plan, design, construct and otherwise implement expansions or improvements to the Managed Assets.

Change in Law means any of the following, which shall occur after adoption of the Pilot Program Plan:

a) the lawful enactment, adoption, promulgation, modification, repeal, or change in interpretation by the appropriate Governmental Authority charged with responsibility therefore of any Applicable Law, including future regulations and new species listed under the Endangered Species Act, imposition of Total Maximum Daily Loads under the Clean Water Act, and other such changes as may be imposed over time, provided that Change in Law shall also include the requirements of any Permit that has not been issued as of January 1, 2001 which is required under Applicable Law;
b) the issuance of a binding order, decree, or judgment of any Governmental Authority, if such order, decree, or judgment is not also the result of negligent or willful action or failure to act of the party relying thereon, or a breach by such party hereunder, provided that the contesting in good faith of any such order, decree, or judgment shall not constitute or be construed as a willful or negligent action of such party;
c) the suspension, termination, interruption, denial, failure to issue, or failure to renew or be renewed any Permit essential to the administration, operation or maintenance of the Managed Assets, if such act or event is not also the result of negligent or willful action or failure to act of the party relying thereon or a breach by such party hereunder, provided that the contesting in good faith of any such order shall not be construed as a negligent or willful action of such party;
d) the imposition of any material conditions on the issuance or renewal of any Permit which establishes requirements making the administration, operation or maintenance costs of the Managed Assets greater than the costs relating to the most stringent requirement in effect on the Effective Date (including, without limitation, the imposition of any such material conditions based upon or relating to Applicable Law in effect prior to the Effective Date);
e) the Managed Assets cease being regulated for all purposes under Applicable Law as the Managed Assets and the industrial dischargers thereto shall no longer be eligible for the Domestic Sewage Exclusion, set forth at 42 USC Section 6903 (27) and regulations related thereto at 40 CFR Section 261.4(a)(1), as may be amended; or,
f) the enactment, adoption, modification, repeal, or change in interpretation of any Applicable Law affecting the Managed Assets or the management, ownership, lease, operation, or maintenance thereof; or,
g) implementation of agreements, such as the Habitat Conservation Plan under the Endangered Species Act or consent agreements under other environmental laws, developed for the purposes of complying with existing, changed or new laws or regulations.

County means King County, a political subdivision of Washington State.

Clean Water Act means Title 33 of the United States Code, Sections 1251-1387, as amended from time to time.

Conveyance System means the sewage conveyance system located in the Service Area and connected to the Managed Assets, including, without limitation, all interceptors, pumping stations, metering stations and treatment facilities owned by the County.

Effluent means treated wastewater discharged from the South Treatment Plant, West Treatment Plant, Vashon Treatment Plant, Carkeek Combined Sewer Overflow Treatment Plant and Alki Combined Sewer Treatment Plant.

Environmental Laws means any and all federal, state and local statutory or common laws, regulations, rules, ordinances, permits, authorizations, approvals, registrations and licenses, administrative orders, judicial decrees, judgments or requirements, relating to pollution or protection of the environment, natural resources or human health.

Fecal Coliform means a bacterial organism commonly found in the feces of warm blooded animals, the analysis of which conforms to the provisions of 40 CFR 136, *Test Procedures for the Analysis of Pollutants*, unless other test procedures have been specified in the NPDES Permit, which is used as an indicator of fecal contamination.

Grit dense inorganic and organic materials such as sand, seeds and other generally non-degradable materials which are removed during the treatment process to protect downstream equipment and improve digester operation and biosolids quality.

Good Industry Practices means the methods, techniques, standards, and practices which, at the time they are employed and in light of the circumstances known or reasonably believed to exist at such time, are generally recognized and accepted as good operation, maintenance, repair, replacement, and management practices in the municipal wastewater treatment industry as observed in the northwest region of the United States.

Governmental Authority means any federal, state, or local government and any political subdivision or any governmental, quasi-governmental, judicial, public or statutory instrumentality, administrative agency, authority, body, or entity.

Hazardous Substance means any chemical, pollutant, contaminant, toxic substance, hazardous or extremely hazardous material or substance, waste, radioactive material, or oil and petroleum product, as such terms or any similar terms are used under any applicable Environmental Laws.

Influent means domestic, commercial, institutional, industrial, and other wastewater, and inflow and infiltration of stormwater into the pipes, interceptors and other facilities that collect and transport such wastewater.

Industrial Pretreatment Program means the program as more fully described in 40 CFR Part 403, originally developed by the Municipality of Metropolitan Seattle in 1969, as amended from time to time.

Managed Assets means the South Treatment Plant, the West Point Treatment Plant, Carkeek Combined Sewer Overflow Treatment Plant, Alki Combined Sewer Treatment Plant, the Conveyance System, and all appurtenant capital inventory, permanent equipment, fleet, office space, office equipment, processes, and improvements situated at the sites, and existing and operating on the effective date.

NPDES Permits means the National Pollutant Discharge Elimination System wastewater discharge permits Number 002918-1 issued on January 1, 1996, for West Point as amended to include Carkeek Park CSO Treatment Plant and Alki CSO Treatment Plant and Number WA-002958-1 for the South Plant, issued on July 15, 1997.

Nonspecification Influent means any influent received at the facility other than specification influent.

Permit violations means the issuance of a Notice of Penalty by the Department of Ecology.

Planned System Improvements means the capital improvements, as listed in Attachment C-6, which are not yet in operation and the development of which will be managed by WWP.

Pre-existing Environmental Condition means the presence on the sites or properties of the Wastewater Treatment Program of any hazardous substances, contained or uncontained, on or prior to the effective date, including (without limitation) any underground storage tanks that exist on the sites on or prior to the effective date and are regulated under environmental laws and any condition of the managed assets on the effective date substantially likely to result in the release of any hazardous substance.

Productivity Incentive Fund is an account established to provide an incentive for the WWP to exceed its performance expectations, and to provide backing for the WWP obligations in the Pilot Program, as further defined in Attachment C-8.

Productivity Initiative means the initiative undertaken by the WWP to identify process efficiencies and improvements in how it manages human resources so that continued and improved cost-effective services may be provided to the public with the overall goal of being the best publicly run facility in five years and competitive with the privately run facilities in ten.

Screenings means any debris such as rags and plastics that adversely affect treatment plant operation and/or residuals quality which are removed by a screening process.

Septage means the liquid and solid material pumped from a septic tank or cesspool during cleaning.

Service Area means that urban area of Snohomish, King and Pierce Counties, as identified in the adopted Regional Wastewater Services Plan, that is serviced by King County's wastewater treatment facilities.

Sites means the various sites of the Managed Assets described in Attachment C-2.

South Treatment Plant means the wastewater treatment plant situated on approximately 90 acres located at 1200 Monster Road Southwest, Renton, Washington.

Specification Influent means influent containing no hazardous substance or abnormal substance in concentrations that exceed those allowed under applicable law.

Total Suspended Solids (TSS) means solid matter that can be separated during the treatment process, the analysis of which conforms to the provisions of 40 CFR 136, *Test Procedures for the Analysis of Pollutants*, unless other test procedures have been specified in the NPDES Permit.

Uncontrollable Circumstances means any act, event or condition beyond the reasonable control of the WWP and not the result of willful action or lack of reasonable diligence of the WWP. Uncontrollable circumstances shall include, but not be limited to, any of the following:

a) an act of God (except reasonably anticipated weather conditions normal for the geographic area of the service area and within the 20-year storm event), landslide, lightning, earthquake, windstorm, volcano, flood, acts of a public enemy, war, blockade, insurrection, riot, civil disturbance or similar occurrence; or
b) a change in law; or
c) labor disputes other than labor disputes involving only employees of the WWP; or
d) the loss of or inability to obtain any utility services, including water, fuels and electric power necessary for operation of the facility or the managed assets; or

e) receipt of unauthorized or illegal discharges which adversely affect the collection system, plant facilities or process stability; or
f) the failure or refusal of the County employees, contractors, representatives or officials outside of the WWP to perform any obligation under this Pilot Program; or
g) a change in conditions outside of the control of the WWP which result in an inability to utilize the existing biosolids application sites; or
h) the destruction of all or any part of the managed assets except where such destruction resulted from routine wear and tear or the negligence or willful misconduct of the WWP; or
i) the existence of a pre-existing environmental condition; or
j) contamination of the managed assets from groundwater, soil or airborne hazardous material migrating from presently known or unknown sources on site or outside the managed assets and not caused by WWP fault; or
k) the failure of any contractor or supplier to furnish services, materials, chemicals or equipment on the dates agreed to, but only if such failure is the result of an event which would constitute an uncontrollable circumstance if it affected WWP directly, and WWP is not able after exercising all reasonable efforts to timely obtain substitutes; or
l) a violation of applicable law by a person or organization other than the WWP; or
m) receipt of nonspecification influent; or
n) a storm greater than the 20-year storm event.

West Point Treatment Plant means the wastewater treatment plant situated on approximately 32 acres located at 1400 Utah Street West, Seattle, Washington.

Wastewater Program (WWP) means the activities of the King County Department of Natural Resources Wastewater Treatment Division's Capital Improvement Program, West Operations, Planning and System Development, Maintenance, Finance and Administrative Services, South Operations, Technology Assessment and Resource Recovery, the Division Manager's Office, and the activities of the King County Department of Natural Resources Water and Land Resources Division's Environmental Laboratory and Industrial Waste Program.

Attachment C-2
Existing System and Scope of Wastewater Services

Attachment C-2 describes in general terms the services, service area, and major physical assets of the current WWP. The information in this attachment serves as a baseline so that if added services are requested of the WWP, future budgets and cost assumptions may be revised accordingly.

Service Area

The Wastewater Service Area is defined in King County Ordinance Nos. 11034 and 13680 (Regional Wastewater Services Plan), now codified as King County Codes 28.81, 28.82, 28.84, and 28.86, and includes most of the urbanized areas within King County and part of southwest Snohomish County. Wastewater services are provided to about 1.3 million people (including commercial and industrial employment) in the 420-square-mile wastewater service area. Approximately 1.9 percent of the average daily influent is industrial flow, reflecting the large residential makeup of the service area.

Treatment Facilities

The WWP facilities treated about 216 million gallons per day of wastewater at the South Treatment Plant (located in Renton), West Point Treatment Plant (Seattle), Alki Combined Sewer Overflow Treatment Plant (Seattle), Carkeek Combined Sewer Overflow Treatment Plant (Seattle), and the Vashon Treatment Plant (Vashon Island) in 2000. The complete scope of the wastewater treatment facilities, for which estimated budget targets are estimated, is described in the Wastewater Treatment Business Plan. In summary, these facilities:

1. The West Point and South Treatment Plants treat wastewater to meet NPDES permit requirements of 30 mg/L monthly average of Biological Oxygen Demand and 30 mg/l monthly average of Total Suspended Solids, and 200 Fecal Colonies/100 ml monthly geographic mean.

2. Provide septage services at South Treatment Plant.

3. Meet Class B biosolids quality as defined by the federal 503 regulations for pathogens and exceptional quality for metals, and shall be recycled in accordance with all applicable permits.

4. Operate a system to develop up to 2 million gallons per day of reclaimed water in accordance with all applicable permits at South Treatment Plant and West Point Treatment Plant.

5. Perform sampling and conventional chemistry and microbiology analyses in support of plant process optimization and NPDES requirements. The process laboratories also provide support to capital projects such as effluent reuse and the advanced wastewater technology program.

6. Provide a number of administrative functions that influence the cost of services.

7. Undertake maintenance of haul trucks, application vehicles, and other heavy equipment at the plants.

8. Operate and monitor odor control systems for wastewater treatment plants, pump stations, and conveyance lines.

9. Conduct ongoing equipment and process testing to improve treatment performance and efficiency.

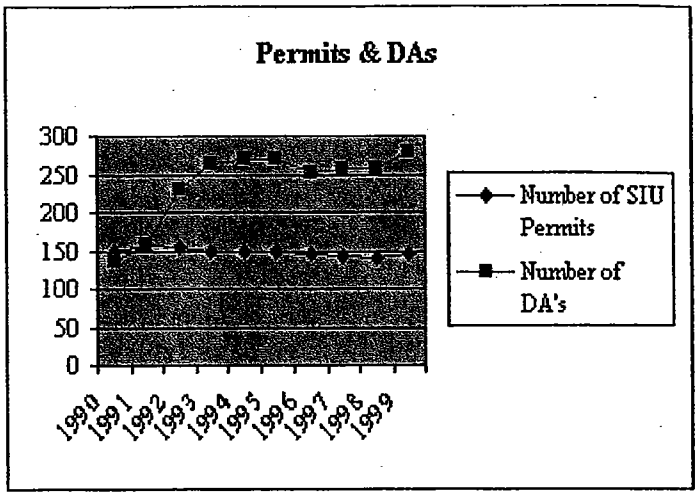
Conveyance System

The conveyance system includes about 275 miles of underground transmission lines and tunnels, 41 pump stations, 18 regulator stations, and 37 permitted CSO (regulator and pump station facilities) and two CSO treatment facilities. Major assets of the offsite conveyance system, not located at the plants, include the Jameson Building offices and mechanical shops (located at 2501 West Jameson Street, Seattle) and warehouses for spare parts inventory. The complete scope of the conveyance facilities, for which estimated budget targets are estimated, is described in the Conveyance Business Plan.

Industrial Pretreatment Program

King County's Industrial Waste Program is located in leased office space at 130 Nickerson Street, Seattle. It is a fully delegated EPA pretreatment program that administers local and federal pretreatment regulations as required by the County's NPDES permit and 40 CFR 403. The Industrial Waste Program also administers industrial cost recovery programs based on the pollutants discharged and the volume of discharge. The complete scope of the Industrial Waste Program, for which estimated budget targets are estimated, is described in the Wastewater Treatment Business Plan.

Traditional workload indicators for the Industrial Waste Program are the number of permits and Discharge Authorizations (DAs) in force (which indicates the number of companies in the system). Permits are issued to major dischargers, those who discharge volumes greater than 25,000 gallons of wastewater per day, or those who are federally regulated. Starting in 1990, DAs have also been issued to smaller dischargers who are not federally regulated. Changes in these numbers have resulted from decisions to shift permitted companies to DAs, a trend away from traditional "smokestack industries," and economic growth.



Residuals Management

The WWP manages the beneficial use of wastewater process residuals in an environmentally sound and publicly acceptable manner. Costs are incurred for transportation, land application, research, public outreach, monitoring, permit compliance, and market development. About 145,000 wet tons of biosolids and two million gallons per day of reclaimed water are produced annually at the two regional plants. Digester gas is used at the West Point Treatment Plant to power four 450-hp raw sewage pumps. All of the raw sewage pumping demand is met by with digester gas and excess gas used to generate electricity is sold to Seattle City Light. Digester gas is scrubbed and sold to Puget Sound Energy at the South Treatment Plant.

Managing residuals also includes disposal of nonmaterials, such as secondary effluent discharge, grit, screenings, hazardous materials, and CSO effluent discharge.

Internal Support Functions

- The *Environmental Laboratory* (located at 322 West Ewing Street, Seattle) employs about 80 staff, including chemists, biologists, microbiologists, environmental specialists, laboratory project managers, information systems analysts, and support positions such as sample manager, QA officer, laboratory assistants, administrative staff, and an operating engineer for the physical plant. The Environmental Laboratory provides environmental field sampling and data collection, chemical and biological analyses, and

environmental data management and reporting services to the WWP and wastewater-funded programs within the Water and Land Resources Division. Services are provided to nonwastewater funded groups in King County, or other public jurisdictions on a reimbursable basis based on laboratory capacity. The complete scope of the environmental lab, for which estimated budget targets are estimated, is described in the Laboratory Business Plan.

- *Capital Improvement Program* includes comprehensive long-range planning (e.g., the Regional Wastewater Services Plan), right-of-way and permit acquisition, individual project level planning, Geographic Information System analyses, flow monitoring and modeling, project control, managing design and construction, undertaking in-house design, and implementing the Capital Asset Management Plan.

- *Administrative services* are housed at the King Street Center in leased-to-own office space (located at 201 South Jackson Street, Seattle). Services include a safety office, environmental planning for compliance with the state and national Environmental Protection Agency, response to the Endangered Species Act and Habitat Conservation Plan development, human resources, budget, information technology and technical publications, and division management. See the Administrative Business Plan for a complete list of the scope of services.

Attachment C-3
Biosolids Management Baseline

The King County Department of Natural Resources Wastewater Program (WWP) produces and recycles biosolids consistent with the federal Standards for the Use of Sewage Sludge (Biosolids), 40 CFR Part 503, promulgated under Sections 405 and 406 of the Clean Water Act, as administered by the Washington Department of Ecology under RCW Chapter 70.95J, Municipal Sewage Sludge, and WAC 173-308, Biosolids Management. In addition, the WWP implements the best management practices outlined in the Biosolids Management Guidelines for Washington State (Washington Department of Ecology, July 2000) and is in the process of implementing an Environmental Management System based on the ISO 14001 standard.

Both the West Point and the South Treatment plants produce a Class B biosolids by anaerobic digestion. Class B biosolids have significantly reduced amounts of pathogens and can be safely applied to land with limited public access. A small percentage of biosolids is composted by a private firm into a Class A product (virtually pathogen free) called GroCo. Trace metals in all King County's biosolids meet the exceptional quality levels as defined by the federal and state regulations.

After dewatering at the treatment plants, the biosolids are transported by truck to sites where they are recycled to improve soils and enhance the growth of forests and agricultural crops. Each project has a site-specific land application plan that includes public involvement and environmental monitoring. The current program consists of the following projects:

- **Green Valley** – land application to privately owned hops, corn, orchards, and rangeland in Yakima County;
- **Boulder Park** – land application to privately owned dryland wheat and other grains in Douglas County;
- **GroCo** – composting of biosolids and sawdust by a private firm to make a Class A product that is used throughout the region for landscaping;
- **Mountains to Sound Greenway** – fertilization of private and public forests in eastern King County. This program also includes an environmental education program and the Compost Re-Greening project, which uses GroCo compost to eliminate logging roads and restore natural slopes and vegetation. A small amount of biosolids is also used annually in research and demonstration projects.

The biosolids program operates under policies BP-1 through BP-10 as outlined in the Regional Wastewater Services Plan adopted by the King County Council in

November, 1999. Consistent with these policies, the biosolids program maximizes reliability and cost-effectiveness by maintaining reserve capacity at reuse sites, evaluating diverse technologies and end uses, and pursuing interlocal agreements. King County works cooperatively with statewide organizations such as the Northwest Biosolids Management Association (NBMA) to ensure continued public acceptance, reasonable regulations, and environmentally sound, economic management of biosolids. Through the NBMA, King County and other agencies fund university research and demonstration that provide the technical basis for King County projects and for development of new markets.

Attachment C-4
Salary and Benefit Baseline

SALARY				
Benefit	**Eligibility**	**Authority**	**Current Cost**	**Comments**
Local 6 Wage Rates	Employees represented by SEIU Local 6 – Wastewater	Agreement between KC and SEIU Local 6 – Wastewater	2000 Local 6 Salary Schedule	Contract effective November 1, 1997 through October 31, 2000
Local 117 Wage Rates	Employees represented by Teamsters Local 117 – Wastewater	Agreement between KC and Teamsters Local 117 representing professional - technical and supervisory bargaining units in WTD	2000 Local 117 Salary Schedules	Contract effective April 9, 1999 through October 31, 2000
	Employees represented by Teamsters Local 117 – Professional and Technical	Agreement between KC and Teamsters Local 117 – Professional and Technical	2000 Local 117 Salary Schedules	Contract effective January 1, 1999 through December 31, 2001
Council 2 Wage Rates	Employees represented by Washington State Council of County and City Employees, Local 1652R – Ind. and Haz. Waste	Agreement between KC and Washington State Council of County and City Employees, Local 1652R, Council 2	2000 Local 1652R, Council 2 Salary Schedules	Contract effective January 1, 1999 through December 31, 2001
Non-Represented Employee Wage Rates	Employees in "metro classifications" not represented by union	KCC 3.15.020	2000 Metro Non-Rep Salary Schedule	Annual ordinance allows for cost of living increase tied to all cities CPI
	Employees in "King County" classifications not represented by unions	KCC 3.15.020	2000 Ten-Step Salary Schedule	Annual ordinance allows for cost of living increase tied to all cities CPI
	Employees who have been implemented into new class and comp allocations who are not represented by unions	KCC 3.15.020	2000 Squared Ten-step Salary Schedule	Annual ordinance allows for cost of living increase tied to all cities CPI

INSURED BENFITS				
Benefit	**Eligibility**	**Authority**	**Current Cost**	**Comments**
Insured Benefits: • **Medical** • **Dental** • **Life** • **Disability** • **Vision**	Full-time regular, part-time regular, provisional, probationary and term-limited temporary employees and spouse or domestic partner, each of their dependent children, and each of the dependent children of their spouse or domestic partner (Domestic Partner coverage KCC 3.12.044) (Part-time and temporary employees who exceed the calendar year working hours threshold KCC 3.12.040 C.)	KCC 3.12.040 Benefits The director shall establish specific provisions governing eligibility for these benefits as part of the personnel guidelines and consistent with budget requirements.	Flexible Bens. = $654/emp/mon Group Health = $343/emp/mon. Pacificare HMO = $592/emp/mon Regence = $594/emp/mon WDS Dental = 114.05/emp/mon	Medical benefit costs are projected to rise at 12 – 15% per year starting in 2002. Rising medical and other benefit costs contribute to the total cost increases. See attached provided by OHRM Benefits section. Non-mandatory benefits are a subject of bargaining, and currently KC negotiates with voluntary coalition of unions to establish benefit package.

MANDATORY BENEFITS				
Benefit	**Eligibility**	**Authority**	**Current Cost**	**Comments**
Worker's Compensation	All Employees, as established by Federal Law and RCW title 51	RCW title 51 RCW 51.14 Self Insurers WAC 296-14, 15 KCC 2.92 Safety and Worker's Compensation Program	An annual lump sum amount is calculated by Safety and Worker's compensation based on actuarial projection of hours worked and claims - $332,102 for 2001	King County is self-insured for Workers Compensation Insurance and includes responsibility to... "Administer the county self-insured worker's compensation insurance system within the rules, regulations and procedures as established by the Legislature and the Department of Labor and Industries of the state of Washington"

Retirement	As established by RCW 41.40	RCW 41.40 KCC 3.12.230	PERS I – 4.67% of gross earnings PERS II – 4.67% of gross earnings	These rates are subject to change pursuant to RCW 41.40.048
Social Security/OASI	All Employees	Federal Mandated Social Security Act of 1935	7.65% of first $76,200 of taxable compensation 1.45% of remainder	
Federal Family and Medical Leave	Employees with 12 months of service and 1250 hours worked in last 12 months	Family and Medical Leave Act of 1993 Title 29, Part 825 of the Code of Federal Regulations	Twelve weeks of job protected leave in a 12-month period. Medical benefit coverage for period of leave	Provides for 12 weeks of job protected leave for certain personal and family instances.
Washington State Family Leave	Employee other than an independent contractor employed on a continuous basis for the previous fifty-two weeks for at least thirty-five hours per week	RCW 49.78 WAC 296-130	Twelve weeks of job protected leave in a 24-month period	Provides 12 weeks of job protected leave for certain personal and family instances, not to include temporary disability because of pregnancy or childbirth

OTHER BENEFITS PROVIDED BY KING COUNTY

Benefit	Eligibility	Authority	Current Cost	Comments
King County Family and Medical Leave	Employees with 12 months of service and 910/1040 hours worked in last 12 months	KCC 3.12.220	18 Weeks of job protected leave (may run concurrent or sequential to Federal and State provided leave) Medical benefit coverage for period of leave.	Leave is to care for self, child, spouse, domestic partner, parent who has a serious health condition or after birth or placement for adoption
Deferred Compensation	Full-time regular, part-time regular, provisional, probationary and term-limited temporary employees	KCC 2.16.025 D. 2. A.	None other than administrative	Some administrative costs borne by participants. Admin. Costs included in CX transfer?
Dependent Care Assistance	Full-time regular, part-time regular, provisional, probationary and term-limited temporary	KCC 2.16.025 D. 2. A.	None other than administrative	Costs included in CX transfer?

	employees			

Wellness and Work/Family Life Programs	All employees	KCC 2.16.025 D. 2. A.	None other than administrative	Costs included in CX transfer?
Transit Pass	Full-time regular, part-time regular, provisional, probationary and term-limited temporary employees	KCC 3.12.188	$45/emp/month?? ?	Costs included in CX transfer?
Vacation Leave Payoff	Benefit eligible employee separating from employment in good standing	KCC 3.12.190	Maximum accrual amount (60 days) X hourly rate at time of separation King County must pay the current retirement value of compensation in excess of state allowed to DRS.	Union contracts may provide for greater or lesser vacation payout amounts
Sick Leave Payoff	Benefits eligible employees who have successfully completed at least 5 years of county service and who retire as a result of length of service, or terminate by reason of death.	KCC 3.12.220	Sick leave balance X hourly rate at time of separation X 35% King County must pay the current retirement value of compensation in excess of state allowed to DRS.	Union contracts may provide for greater or lesser sick leave payout amounts

Attachment C-5
Existing Permits and Other Controlling Documents

There are many laws and other requirements affecting the management of the wastewater system that are too extensive to include in this document. The following list includes the key legislation, regulations, contracts, permits, and agreements that the WWP and King County are obliged to follow in management of the wastewater system. Some of the references include further references to other requirements affecting management of the wastewater system.

Regulatory and Planning Documents
Facility Asset Management Program, King County Department of Natural Resources—Wastewater Treatment Division. April 30, 1997. (includes references to other relevant regulations).

City of Seattle Permit Project Conditions for West Point issued in 1991: Project No. 8804596

King County West Point Sewage Treatment Plant National Pollutant Discharge Elimination System Waste Discharge Permit No. 002918-1, January 1, 1996. Note: As of 1995, Carkeek Park CSO Treatment Plant is included under the West Point permit. Alki CSO Treatment Plant is included under West Point permit as of Oct. 25, 1999.

King County East Section Reclamation Plant at Renton National Pollutant Discharge Elimination System Waste Discharge Permit No. WA-002958-1, July 15, 1997.

Vashon Sewer District, Vashon Plant National Pollutant Discharge Elimination System Waste Discharge Permit No. WA—002252-7.

National Pollutant Discharge Elimination System Municipal General Permit for Discharges from municipal separate storm sewers for the Cedar/Green Water Quality Management Area, issued July 5, 1995.

King County Ordinance Nos. 11034 and 13680 (Regional Wastewater Services Plan), now codified as King County Codes 28.81, 28.82, 28.84, 28.86

King County Ordinance Nos. 11032 and 12074, now codified in King County Code Chapter 28, water pollution abatement.

Codification of Metro's Comprehensive Sewerage Plan: Compendium of Amendments to Metro's Comprehensive Sewerage Plan 1961 to 1989.

November 1989. This includes Metro Resolution No. 23 as amended (comprehensive plan).

Puget Sound Clean Air Agency annual registration certificates (renewed each year):

- No. 28503 for the King County treatment plant in Renton
- No. 28504 for the Alki CSO Treatment Plant
- No. 15189 for various pump stations operated by the treatment plant in Renton
- No. 15190 for various pump and regulator stations, NW King County operated by the West Point Treatment Plant
- No. 28505 for Richmond Beach (may now be under No. 15190)
- No. 28506 for Carkeek Park CSO Treatment Plant (may now be under No. 15190)
- West Point submitted an Air Operating Permit application with PSCAA in May 1998, but still hasn't received the permit yet.

Odor Control equipment and waste gas flare operation is mandated by Notice of Construction (NOC) No. 4785 for the treatment plant in Renton. West Point also operates its equipment under various NOCs.

PL 100-4 Water Quality Act of 1987

Municipality of Metropolitan Seattle Enabling Legislation, Chapter 35.58 RCW

Washington State Environmental Policy Act, RCW Chapter 43.21

Washington Clean Air Act, Chapter 70.94 RCW

Washington Clean Water Act, Chapter 90.48 RCW

Washington Industrial Safety and Health Act, Chapter 49 RCW

29 Code of Federal Regulation (CFR) Parts 1910 and 1926 -- Occupational Safety and Health Act

40 CFR Parts 51through 93--Federal Clean Air Act Regulations

40 CFR Part 403--General Pretreatment Regulations

40 CFR Parts 410 through 471 -- Categorical Pretreatment Regulations

40 CFR, Section 503 -- Federal Rules for use of Biosolids

40 CFR Parts 1500-1508 (NEPA rules)

50 CFR Chapter 1, Part 17 -- Endangered Species Act

Washington Administrative Code (WAC) 133-303-802 Permit By Rule Section of the Dangerous Waste Regulations

WAC 173-216 State Waste Discharge Permit Program

WAC 173-240 Submission of Plans and Reports for Construction of Wastewater Facilities

WAC 173-50 Accreditation of Environmental Laboratories- rules specifying the nature of data to be submitted in compliance with state waste discharge permits

WAC 173-208 Grant of Authority Sewerage Systems-Rules to be followed by local systems granted authority to issue state waste discharge permits

WAC 173-308 State Biosolids Management Rule

WAC 197-11 SEPA Guidelines

WAC 296-24-020 General Health & Safety Standards - Management's Responsibility for Workplace Safety

WAC 296-27 Recordkeeping and Reporting - Employee Health & Safety Requirements

WAC 296-62 Occupational Health & Industrial Hygiene Standards

WAC 296-155 Construction Safety Standards

WAC 296-67 Process Safety Management of Highly Hazardous Chemicals

WAC 296-307 Safety Standards for Agriculture

WAC 296-65 Asbestos Removal and Encapsulation

Grants

Federal EPA Grants
- 40 CFR Part 31
- Clean Water Act. Section 201
- Special Appropriations Act—applicable years, e.g., 1995

Public Works Trust Fund Loans
- WAC 399

Chapter 36.70A RCW—Growth Management Act

State Revolving Fund (SRF)

Agreements
Agreements for Sewerage Disposal with 34 component agencies (most expire in 2036)

Agreement for Sewage Treatment with City of Edmonds (with flow transfer to King County beginning in 2012; agreement expires in 2036)

Docket No. DE 76-9, as amended, Delegation of Authority for Municipality of Metropolitan Seattle to Administer A Permit Program For Industrial and Commercial Discharges Into Its Sewerage System. (1976)

Agreement for Sewage Treatment with City of Edmonds (with flow transfer to King County beginning in 2012; agreement expires in 2036)

Environmental Protection Agency Letter, date April 27, 1981, Approving Metro's Pretreatment Program

Memorandum of Agreement By and Between the City of Renton and the Municipality of Metropolitan Seattle (June 1991). Amendment No. 1 to the MOA for implementation of the Phase III Enlargement of the Treatment Plant in the City of Renton between King County and the City of Renton (August 1996)

Memorandum of Agreement for Stormwater Management By and Between The City of Seattle and King County, dated 1994.

West Point Settlement Agreement between Metro and Puget Sound Water Quality Defense Fund; Friends of Discovery Park; Legal Advocates for Washington; Washington Environmental Council; Magnolia Community Club. February 19, 1991.

Financial
1999 Sewer Revenue Bond Official Statement

King County Water Quality Enterprise Financial Statements and Supplemental Schedule for the Years Ended December 31, 1999 and 1998, and Independent Auditors' Report, Deloitte & Touche LLP

Other
Uniform/Local Fire Safety Codes and National Fire Protection Agency codes, American National Safety Institute, Chlorine Institute, National Institute of Safety and Health

Attachment C-6
Planned System Improvements

Attachment C-6 identifies the planned capital improvements the WWP will construct based on current regional growth assumptions and regulatory requirements. The projects are presented in two categories. Category 1 includes capital projects that are currently budgeted for design and construction in the current 2001-2006 capital budget, while Category 2 includes capital projects that are planned for the future but have not yet been budgeted. The information presented in this attachment comes from four primary sources:

1. The Regional Wastewater Services Plan and the list of system improvements identified to prepare the 10-year capital investment costs and future operating costs
2. Known capital projects from the Capital Asset Management Plan
3. Planned capital investments that are system improvements to enhance operations or comply with new regulations and requirements
4. Planned capital investments that were approved as part of the 1985-86 wastewater comprehensive plan (Water Pollution Abatement Plan) update

Category 1 Projects

This category includes all projects that are identified in the Wastewater Treatment Division's Capital Improvement Plan budget for the years 2001 – 2006. Projects are organized according to their primary functional in the wastewater system. There are 12 functional groupings in all.

- Biosolids recycling
- Central functions
- Combined Sewer Overflow (CSO) control
- Conveyance pipes/ storage
- Conveyance pump stations
- Environmental Laboratory
- Inflow and infiltration (I/I) control
- Brightwater Treatment Plan
- South Treatment Plant
- Vashon Treatment Plant
- Water reuse
- West Point Treatment Plant

Within each functional category, projects are grouped in subcategories that further define the project type. For example, asset management projects have their own grouping, as do projects that manage power or control odors. The Category 1 capital projects are presented in table located at the end of this attachment. The table includes the project name, total cost, operating cost (for some projects), and status based on available information. The timing and cost of some of these planned capital projects may change as we gain new knowledge and information.[1]

Category 2 Projects

Projects in this category have been identified through planning efforts such as the Regional Wastewater Services Plan or through capital asset replacement programs (CAMP). However, these projects have not yet been budgeted because the needs identified are beyond the six-year budget period. The following Category 2 projects are listed for the years 2007 – 2010, the time period between the end of the current budget request and the end of the Productivity Initiative Pilot Program.

- Regional Wastewater Services Plan Projects
  The RWSP, adopted by the King County Council in December 1999, identifies a range of capital projects necessary to manage wastewater and protect water quality in the Puget Sound region for the next 30 years and beyond. Many of the earlier RWSP projects are related to the new 36-mgd North Treatment Plant expected to be operational in 2010. Several combined sewer overflow (CSO) projects are scheduled as well. The table below identifies these projects, the year they should be completed, and their capital cost in 1998 dollars.

Project Name	Year Completed	Cost (1998 dollars)
36-mgd North Treatment Plant (NTP)	**2010**	**306,200,000**
Tunnel from the NTP to marine outfall in Puget Sound	**2010**	**158,000,000**
Marine outfall for NTP	**2010**	**7,500,000**
Pump station at Kenmore to pump flow to NTP	**2010**	**67,200,000**
Force main from Kenmore Pump Station to NTP	**2010**	**56,300,000**
1.3 MG CSO Storage Tank at South Magnolia	**2010**	**6,800,000**
0.7 MG CSO Storage Tank at SW Alaska	**2010**	**4,300,000**

[1] Cost estimates vary as a percentage of the actual project cost depending on the stage of project implementation.

Planning:	+50% to –30%
Predesign (beginning):	+40% to –20%
Predesign (end):	+30% to –15%
Design (beginning):	+20% to –10%
Design (end)	+10% to –10%

0.8 MG CSO Storage Tank at Murray	**2010**	**5,100,000**

- Asset Management Projects
  Asset management projects are intended to extend and optimize the useful life of assets, including facilities, structures, pipelines, and equipment by repairing them or replacing them with "like-in-kind" equipment or structures. This type of scheduled maintenance is always more cost effective than an emergency repair or replacement task required because of a critical failure.

  In general, all functional categories include asset management projects, but the majority of asset management costs are spent at the treatment plants and offsite facilities such as pump stations and regulatory stations. For example, the estimated service life of mechanical systems (e.g., pumps and fans) within the offsite facilities is approximately 20 years. Currently, about 36 of the 62 existing facilities are over 20 years old, so WWP has scheduled the repair or replacement of equipment at these facilities. Typically, asset management projects are not scheduled beyond the 6-year budget cycle; however, based on historical expenditures the WWP anticipates asset management costs of between $20 and $30 million per year for the years 2007 to 2010.

  *

Table A3
Planned Capital Projects

11156

South Treatment Plant

Project Name		Project Cost*^ 2000 - 2006	Annual OM cost*	Planning finish	Predesign finish	Final design finish	Construction finish
South Treatment Plant - Asset Mgmt (A20010)							
423009	STP CAMP	5,027					Dec-06
423196	STP Misc. Coatings & Sealant	1,145					Dec-06
423291	STP - E. & W. Primary Roof Replacement	353			Oct-99	May-00	Sep-00
423301	STP MTCE Annex Roof Replacement	72					Jun-01
423424	STP Minor Capital Improvements - EWRs	6,629					Dec-06
423482	STP LARS2	581			Dec-00	Dec-01	Dec-02
423485	STP Treatment Plant Landscape Upgrade	200					Dec-01
423487	STP E. Div. Secondary Tank Coating	291		Jan-99	Feb-99	Sep-99	Nov-00
423495	STP Microvax & Ethernet Replacement	170					Dec-00
423496	STP Septage Scale	150					Dec-00
423502	STP Bowker Building Lift Station	175			Jun-00	Aug-00	Jan-01
423503	STP Satellite Engr/CM Office	1,073		Feb-00	Aug-00	Jun-01	May-02
423509	STP Study Chemical Storage Facility Upgrade	100			Aug-00	Dec-00	Dec-01
423510	STP ASWTP Clarifier Bldg Roof Repl.	385		May-00	Jun-00	Feb-01	Aug-01
423511	STP Balker Building Pave. Repl.	143			Aug-01	Dec-01	Jun-02
423514	STP East Division Corrosion Repairs.	498				Jun-00	Nov-01
Total	Asset Management	16,993					
South Treatment Plant - New Facilities - Renton III (A2002z)							
423133	STP Renton III	45,399	4,300			Dec-00	Dec-06
South Treatment Plant - New Facilities - Dewatering (A2002z)							
423232	STP Centrifuge - Renton Dewatering	11,236			Dec-00	Jun-02	Dec-03
South Treatment Plant - New Facilities - Fuel Cell (A2002z)							
423408	STP Fuel Cell Demonstration	17,500				Jun-02	Dec-03
South Treatment Plant - Other New Facilities & Improvement (A20020)							
423501	STP Admin. Facility Expansion	2,000		Dec-00	May-01	Jun-02	Dec-03
Total	STP New Facilities & Improvement	93,128					

* Costs are in Year 2000 dollars
^ Costs in thousands of dollars

Table A3
Planned Capital Projects

South Treatment Plant - Odor Control (A20030)							
	423497	STP Alternate Disinfection Sytems (RPT Study)	945		Jun-01	Nov-01	Jun-02	Jun-03
	423498	STP Ferric Chloride System	300			Jun-01	Nov-01	Aug-02
Total		Odor Control	1,245					
South Treatment Plant - Power Mgmt (A20040)							
	423234	STP EDRP - Power Equipment Replacement	1,087			Jul-00	Mar-01	Feb-03
South Treatment Plant - Total			$95,460					

West Treatment Plant

Project Name			Project Cost*^ 2000 - 2006	Annual OM cost*	Planning finish	Predesign finish	Final design finish	Construction finish
West Treatment Plant - Asset Management - Grit System Modifications (A2011z)								
	423417	WTP Grit System Modifications	11,422			Jan-01	Dec-01	Apr-04
West Treatment Plant - Asset Management - PCL/SMI (A2011z)								
	423351	WTP Community-One Time Mitigation for PCL/SMI	3,000					Dec-03
	423352	WTP Regional-One Time Mitigation for PCL/SMI	500					Dec-03
Total		Asset Management PCL/SMI	3,500					
West Treatment Plant - Other Asset Management (A20110)								
	423033	WTP CAMP	6,491					Dec-06
	423315	WTP - Develop Routine Test Procedures	10				Dec-00	
	423323	WTP - Process Safety & Risk Management	609			Jul-00		
	423325	WTP - Expansion Tank Alarm Switches	65			Jun-98	Nov-99	Dec-01
	423327	WTP - Division Channel Stop Log	100		Aug-98	Mar-00	May-00	Oct-00
	423328	WTP - Digester Cleaning System	236			Nov-98	Mar-00	Nov-01
	423333	WTP - ICS Gate Modifications	217		Feb-98	Feb-99	Dec-99	Dec-01
	423334	WTP - Sump Pump Wiring Modifications	164			Feb-98	May-00	Jul-01
	423337	WTP - SCS/PLC Plant Enhancements	18				Dec-97	Sep-00
	423342	WTP - Post Construction Monitoring	147			Dec-98	Dec-99	Feb-01
	423375	WTP - Waste Gas Burner	15					
	423376	WTP Dryer Engineering/Training/Startup	148	none		Feb-98	Jul-00	
	423377	WTP Centrifuge Relocation/Improvements	290	none		Feb-97	Dec-99	Dec-01
	423379	WTP High-Solids Centrifuge	814	200,000		Feb-98	Jul-99	Dec-01
	423388	WTP - Digester Roof Anti-Rotation Device	99		Feb-98	Sep-98	Nov-00	Nov-00
	423389	WTP - Ferric/Caustic Containment Piping	12				Mar-00	Jun-00
	423411	WTP Health/Safety/Fire/ Dryer Mods	629	none		Mar-99	Oct-99	Nov-00

* Costs are in Year 2000 dollars
^ Costs in thousands of dollars

Table A3
Planned Capital Projects

	423413	WTP Dryer System Improvements	701	none		Feb-00	Jul-00	Dec-01
	423425	WTP Other Facilities Improvements - EWRs	6,043					Dec-06
	423447	WTP SIF Closeout - KC Const. Dist. Marra	7					
	423461	WTP Clarifier Painting	518				Mar-99	Oct-01
	423472	WTP Owl Creek Drainage Improvements	194			Feb-01	Mar-01	Oct-01
	423513	WTP West Division Corrosion Repairs.	521			Jan-00	Mar-00	Dec-01
Total		Other Asset Management	18,047					
Total		WTP Asset Management	32,969					
West Treatment Plant - New Facilities & Improvements (A20120)								
	200012	WTP Westpoint SCS Upgrade	1,000		Jun-01	Oct-01	Sep-02	Sep-02
	200014	WTP Raw Sewage Pump Engine	350					Dec-00
	423403	WTP Jameson Building - Bulk Oil Storage	476			May-00	Aug-00	Aug-01
	423517	WTP West Section Warehouse	312		Nov-00	Jul-01	Jan-02	Oct-02
Total		New Facilties and Improvements	2,138					
West Treatment Plant - Demonstration Projects (A20112)								
	200010	WTP Thermophillic Full Scale Demo	3,067	unknown	Sep-01	Dec-01	Dec-02	Feb-06
	200011	WTP Anoxic Gas Flotation Demo	2,625	none		Dec-01	Dec-03	Aug-05
	423163	WTP Demo and Dev. Project	4,527	none				Jan-06
Total		Demonstration Projects	10,219					
West Treatment Plant - Odor Control (A20130)								
	423321	WTP Digester Foam Removal/Odor Control	186			Jun-99	Apr-03	Jul-04
	423324	WTP Process Cleanings w/ Odor Control	1,414			Nov-00	Oct-01	Jun-02
	423378	WTP West Point Odor Improvements	244	50,000		Aug-98	Sep-00	Dec-00
	423410	WTP Thermophilic Digestion Design	237	none			Sep-00	Dec-00
Total		Odor Control	2,081					
West Treatment Plant - Other Power Management (A20140)								
	423246	WTP West Division Power Reliability Study	82		Nov-97	Aug-98	Jul-00	Sep-01
	423304	WTP Misc Utility System Monitoring	92			Aug-99	Jun-00	Dec-00
	423305	WTP Stepping Power Factor Filter/Cap	87			Jul-98	Aug-00	Dec-00
	423306	WTP Plant Electrical Power Management. Sys.	151			Jun-00	Sep-00	Dec-01
	423307	WTP Incinerator Enhancements	90			Aug-99	Jan-99	Dec-00
	423314	WTP UPS Monitoring System	19			Aug-99	May-00	Dec-01
	423332	WTP 480V Breaker Trip Indication	35			Aug-99	Mar-00	Dec-00
	423385	WTP Emergency Electrical Issues	172			Dec-99	Dec-01	Dec-01
Total		Other Power Management	726					
West Treatment Plant - Power Management - Cogen (A20140)								

* Costs are in Year 2000 dollars
^ Costs in thousands of dollars

Table A3
Planned Capital Projects

423474	WTP West Point Cogen Upgrade	10,134			Dec-97	Sep-02	Jun-04
Total	Power Management	10,860					
West Treatment Plant - Total		$58,266					

North Treatment Plant

Project Name		Project Cost*^ 2000 - 2006	Annual OM cost*	Planning finish	Predesign finish	Final design finish	Construction finish
North Treatment Plant - New Facilities & Improvements							
423457	NTP Marine Outfall Study	7,153		Dec-06			
423477	NTP Wetlands Mitigation Banking	179		Dec-00			Jan-01
423484	NTP North Treatment Plant	127,172		Dec-02	Jul-04	Sep-05	Jul-09
North Treatment Plant - Total		$134,504					

Vashon Treatment Plant

Project Name		Project Cost*^ 2000 - 2006	Annual OM cost*	Planning finish	Predesign finish	Final design finish	Construction finish
Vashon Treatment Plant - New Facilities & Improvements (A20320)							
423460	VTP Vashon Facility Improvement	10,088		Feb-00	Jan-01	Jan-03	
Vashon Treatment Plant - Total		$10,088					

* Costs are in Year 2000 dollars
^ Costs in thousands of dollars

Table A3
Planned Capital Projects

Conveyance Pipelines and Storage

Project Name		Project Cost*^ 2000 - 2006	Annual OM cost*	Planning finish	Predesign finish	Final design finish	Construction finish
Conveyance Pipelines and Storage - Asset Management (A20410)							
200005	CP&S S.W Lk. WA. Int. Rehabilitation	1,075		Jun-00	Dec-00	May-01	Aug-01
423121	CP&S Madsen Creek Sewer Stabilization	1,080			Jun-00	Apr-01	Jul-02
423161	CP&S Brick Sewer Access Improvements	492					Jun-01
423194	CP&S CAMP	8,900					Dec-06
423274	CP&S Holmes Point Rock Box	139			Jun-98	Sep-00	Dec-00
423299	CP&S No. Creek Interceptor Repair	154			Dec-00		Dec-05
423363	CP&S Auburn Facilities Assess & Repair	5,259			Nov-99	Oct-00	Dec-02
423432	CP&S E. Channel Siphon Cathodic Protection	735		Jun-98	Mar-00	Aug-00	Oct-00
Total	Asset Management	17,833					
Conveyance Pipelines and Storage - New Facilities - Conveyance System Improvements (A204yy)							
423373	RWSP Conveyance Sys. Improvements	271,590	6	12/1/04	Dec-04	Dec-10	Apr-12
Conveyance Pipelines and Storage - New Facilities - Eastside Interceptor (A20420)							
423420	CP&S E. Side Interceptor Section 1 Repair	5,577		Jan-98	Mar-99	Sep-00	Dec-01
Conveyance Pipelines and Storage - New Facilities - Future Interceptors (A20420)							
423270	CP&S Future Interceptors Ext.	26,220				Dec-02	Dec-06
Conveyance Pipelines and Storage - New Facilities - Mill Creek (A20420)							
423107	CP&S Mill Creek Relief Sewer	8,524	2		Apr-98	Jun-98	Jun-01
Conveyance Pipelines and Storage - New Facilities - North Creek Storage (A20420)							
423519	CP&S North Creek Storage	30,000		Dec-00	Sep-00	Mar-01	Dec-03
Conveyance Pipelines and Storage - New Facilities - South Interceptor (A204xx)							
423122	South Interceptor	51,103	3		Jan-96	Dec-00	Dec-02
Conveyance Pipelines and Storage - New Facilities - Swamp Creek (A20420)							
423272	CP&S Swamp Creek Sewer Trunk	11,662		Jan-98	Mar-01	Nov-01	Jan-03

* Costs are in Year 2000 dollars
^ Costs in thousands of dollars

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Planned Capital Projects

Conveyance Pipelines and Storage - New Facilities - Tukwila Interceptor (A20420)							
	423520	CP&S Tukwila Interceptor/Freeway Crossing	3,015		Mar-00	Feb-01	Oct-01	Dec-02
Conveyance Pipelines and Storage - New Facilities - Wilburton Siphon (A20420)							
	423345	CP&S Wilburton Siphon Expansion	5,171	60		Feb-98	Jul-99	Dec-01
Conveyance Pipelines and Storage - Other New Facilities & Improvements (A20420)							
	423114	CP&S Cascade Siphon/Footbridge	11				Mar-98	Dec-98
	423117	CP&S Byrn Mawr Lk Ridge Siphon	1,852				Jan-98	Apr-99
	423346	CP&S Auburn Facilities Acquisition	797					Dec-04
	423507	CP&S Bear Creek Interceptor Extension	100		Dec-04			
Total		Other New Facilties and Improvements	2,760					
Total		New Facilties and Improvements	415,621					
Conveyance Pipelines and Storage - Odor Control (A20430)							
	200008	CP&S EBI Odor Study	100			Nov-01		
	423096	CP&S Lk City Tunnel Corrosion Wrk	16			Nov-96	Apr-97	Dec-97
	423172	CP&S Tukwila Frwy Crossing Relocation & Rehab.	29					
	423269	CP&S ESI Lining Program H2S Repair	7,403					Dec-05
	423286	CP&S McAleer Odor Control Improvements	113			Aug-98	Feb-99	Nov-99
	423354	CP&S Juanita Bay FM Replacement	80					
	423430	CP&S 2000 ESI Lining Program	1,350			Jan-00	Oct-00	Dec-05
	423431	CP&S Enatai Interceptor H2S Repair Phase II	18					Dec-06
	423433	CP&S S. Magnolia Outfall Replacement	172			Feb-99	Apr-99	Oct-99
	423439	CP&S Fremont Siphon Odor Control	504			Dec-98	May-99	Dec-02
	423468	CP&S ESI Chemical Injection	1,744			Jun-00	Dec-02	Dec-04
	423473	CP&S Boeing Creek Trunk H2S Repair	399			Jun-99	Jun-01	Sep-01
Total		Odor Control	11,927					
Conveyance Pipelines and Storage - Total			$445,381					

* Costs are in Year 2000 dollars
^ Costs in thousands of dollars

Table A3
Planned Capital Projects

Conveyance Pump Station

Project Name		Project Cost*^ 2000 - 2006	Annual OM cost*	Planning finish	Predesign finish	Final design finish	Construction finish
Conveyance Pump Station - Capital Asset Management - Sweyolocken (A2051z)							
423303	Sweyolocken PS - Pumps, Motors & Drives	7,764			Nov-99	Dec-01	Nov-02
Conveyance Pump Station - Asset Management - Interbay Pump Station (A2051z)							
423135	Interbay Pump Station	8,351			May-01	Oct-02	May-04
Conveyance Pump Station - Other Asset Management (A2051O)							
423192	Yarrow Bay PS - Pump & Drive Replacement	550			Sep-98	Jun-99	Mar-01
423218	Acoustic Upgrades	708			Apr-98	Mar-00	Nov-00
423237	Sunset/Heathfield PS - Drive Replacement	49			Jan-98	Jan-99	Dec-99
423242	Misc. Facilities Improvement	17,800					Dec-06
423276	Future Other Transmission	10,211					Dec-06
423302	Offsite CAMP	12,824					Dec-06
423320	Matthews Pk PS - Variable Speed Drives	472			Jun-98	Oct-98	Jun-01
423341	PLC Replacements	1,018			Nov-98	Jul-00	Feb-01
423435	Swey/WMich RS Pavement Replace.	18				Jun-98	Feb-00
423481	Misc. Paving Replacement	2,350					Dec-06
423500	Off-site Septage Facility Study	100		Aug-00	Nov-00	Feb-01	Dec-01
Total	Other Asset Management	46,100					
Total	Asset Management	62,215					
Conveyance Pump Station - New Facilities - Hidden Lake (A2052z)							
423365	Hidden Lake/Boeing Trunk Upgrade Improvement	28,074	78	Dec-00	Jun-01	Jun-02	Apr-05
Conveyance Pump Station - New Facilities - Kirkland (A2052z)							
423407	Kirkland PS Modifications	3,072	78	Jun-00	Dec-01	Jun-03	Nov-04
Conveyance Pump Station - New Facilities - Madsen Creek (A2052z)							
423494	Madsen Creek Conveyance Alts	6,617			Oct-00	Dec-01	Apr-04

* Costs are in Year 2000 dollars
^ Costs in thousands of dollars

Table A3
Planned Capital Projects

Conveyance Pump Station - New Facilities - Pacific (A2052z)								
	423518	Pacific Pump Station	4,467			Mar-01	Dec-01	Dec-03
Conveyance Pump Station - New Facilities - Bellevue (A20520)								
	423521	Bellevue PS	21,019		Mar-00	May-01	Apr-02	Sep-06
Conveyance Pump Station - New Facilities - Juanita Bay (A2052z)								
	423406	Juanita Bay PS Modifications	18,387	121	Feb-00	Jul-01	Jan-03	Jul-05
Conveyance Pump Station - New Facilities - North Creek (A2052z)								
	423123	N Creek Expansion	945	300			Apr-97	Jan-00
Total		New Facilties and Improvements	82,581					
Conveyance Pump Station - Odor control (A20530)								
	200006	Matthews Beach Odor Upgrades	1,658		Dec-00	Mar-01	Jun-01	Apr-02
	200007	Hidden Lake PS & Siphon	775			Jul-00	Mar-01	Jul-01
	423219	H2S Odor Control E/W Division	1,040					Dec-05
	423227	Lake City RS Permanent Odor Control Unit	1,903			Jan-98	Aug-98	Aug-00
	423228	Misc. Odor Control/H2S	9,500					Dec-06
	423438	Mathews Ventilation	12					
	423455	Univ. Reg. Station Odor Control	527				Jan-01	Oct-01
	423467	Kenmore Chemical Injection	417				Mar-00	Dec-02
	423469	Sweylocken Discharge Odor Upgrade	1,101					Dec-02
	423470	Mobil Odor Control Units	1,122				Apr-00	May-01
	423471	North Portal Odor Control	1,333				Dec-01	Dec-04
Total		Odor Control	19,388					
Conveyance Pump Station - Power Management (A20540)								
	423154	South Mercer PS - Emergency Generator	346			Jun-00	Dec-00	Dec-01
	423155	Sunset/Heathfield PS - Emergency Gen.	170			Jul-98	Oct-98	Oct-00
	423236	York PS - Upgrade & Power Reliability	3,477			Jan-97	May-98	Jun-01
	423247	Lk Ballinger PS - Emergency Generator	372			Apr-00	Jan-00	Dec-01
	423251	Wilburton PS - Emergency Generator	294		Jun-97	Dec-00	Jul-01	Dec-01
	423396	Standby Generator Loadbanks	125		Jun-98	Sep-98	Apr-99	Jan-01
	423397	Matthews Pk PS - Emergency Generator	891			Jun-98	Aug-00	Nov-01
	423454	Kenmore PS Emergency Generator	765			Sep-98	Aug-00	Sep-01
	423506	Emergency Generator Program	2,260		Jan-01	Aug-02	Oct-03	Aug-04
Total		Power Management	8,701					
Conveyance Pump Station - Total			$172,885					

* Costs are in Year 2000 dollars
^ Costs in thousands of dollars

Table A3
Planned Capital Projects

Combined Sewer Overflow Control

Project Name		Project Cost*^ 2000 - 2006	Annual OM cost*	Planning finish	Predesign finish	Final design finish	Construction finish
Combined Sewer Overflow Control - New Facilities - Denny Way (A20622)							
423001	Denny Way CSO	116,266	550		Dec-97	Aug-01	Dec-04
Combined Sewer Overflow Control - New Facilities - Henderson/M.L.K (A20622)							
423179	S. Henderson/M.L. King CSO	73,267	45		Apr-98	Nov-00	Dec-05
Combined Sewer Overflow Control - Other New Facilities & Improvements (A20620)							
423003	Ravenna Creek Daylighting	1,597			Mar-99	Dec-02	Dec-03
423129	Alki	500					
423167	Univ. Reg. Post Discharge Study	246					
423350	WCC / Ravenna Creek	1,700					Dec-03
423441	CSO Plan Update	2,374		Dec-05			
423479	Green/Duwamish River Study	5,079		Dec-03			
423489	Carkeek Overflow Reduction	4,374			Aug-00	Jun-01	Apr-04
423515	CSO Control & Improvement	7,146			Dec-01		Dec-06
Total	New Facilties and Improvements	23,016					
Total	New Facilties and Improvements	212,549					
Combined Sewer Overflow Control - Remediation - NOAA (A20652)							
423056	NOAA Misc. Sediment Remediation	9,126		Oct-00	Apr-01	Sep-02	May-04
423061	NOAA Real Property Site	544					Jun-00
423062	Non-Project Specific - NOAA	261		Dec-05			Dec-06
Total	Remediation - NOAA	9,931					

* Costs are in Year 2000 dollars
^ Costs in thousands of dollars

Table A3
Planned Capital Projects

Combined Sewer Overflow Control - Other Remediation (A20650)						
	423055	Habitat Development	1,578	May-00		Mar-01
	423059	Source Control (In-Kind)	971			Dec-01
	423368	Sediment Management Plan	14,440	Dec-06		
Total		Other 'Remediation	16,989			
Total		Remediation	26,920			
Combined Sewer Overflow Control - Total			$239,469			

Inflow and Infiltration

Project Name			Project Cost*^ 2000 - 2006	Annual OM cost*	Planning finish	Predesign finish	Final design finish	Construction finish
Inflow & Infiltration (A20700)								
	423297	RSWP Local System I/I Control	27,885		Dec-04			
Inflow & Infiltration - Total			$27,885					

Biosolids

Project Name			Project Cost*^ 2000 - 2006	Annual OM cost*	Planning finish	Predesign finish	Final design finish	Construction finish
Biosolids - Asset Management (A20810)								
	423141	Biosolids Forestry Equipment	1,992				Dec-06	Dec-06
	423142	Biosolids Agricultural Equipment	1,760					Dec-06
	423143	WP Biosolids Equipment	4,982					
	423202	Mountains to Sound Greenway	600					Dec-06
Total		Asset Management	9,334					
Biosolids - New Facilities & Improvements (A20820)								
	423140	Biosolids Site Development	1,594					Dec-06
	423326	WPTP - Sludge Process Improvements	836			Jul-00	Nov-00	Sep-01
Total		New Facilties and Improvements	2,430					
Biosolids - Total			$11,764					

* Costs are in Year 2000 dollars
^ Costs in thousands of dollars

Table A3
Planned Capital Projects

Water Reuse

Project Name		Project Cost*^ 2000 - 2006	Annual OM cost*	Planning finish	Predesign finish	Final design finish	Construction finish
Water Reuse - New Facilities - Satellite Facility (A2092z)							
200009	Water Reuse Satellite Facility	32,508		Jul-01	Aug-02	Aug-03	Sep-05
Water Reuse - New Facilities - Demonstrations (A2092z)							
423483	Water Reuse Technology Demonstration	1,103		Sep-99	Nov-99	Feb-00	Dec-01
Water Reuse - New Facilities - Conservation Program (A2092z)							
423523	RWSP Water/Wastewater Conservation Program	1,500		Dec-05			
Water Reuse - Other New Facilities (A20920)							
200016	Water Resources Project	300		Dec-01			
423258	Future Water Reuse	6,264					Dec-03
423462	Mill Creek Habitat Restoration	450		Dec-00			
423463	Sammamish River Habitat Restoration	650			Mar-00	Jun-00	Dec-00
423512	Greenhouse Aquatic Center	637			Oct-00	Feb-01	Mar-02
Total	Other New Facilties and Improvements	8,301					
Water Reuse - Total		$43,411					

Environmental Laboratory

Project Name		Project Cost*^ 2000 - 2006	Annual OM cost*	Planning finish	Predesign finish	Final design finish	Construction finish
Environmental Laboratory - Asset Management (A21010)							
423034	Lab CAMP	2,571					Dec-06
423250	Misc. Power Reliability	2,500					Dec-06
423285	Lab Facilities Improvements	1,701		Mar-98	Sep-98	Jun-99	Dec-00
Total	Asset Management	6,772					
Environmental Laboratory - New Facilities & Improvements (A21020)							
423459	Environmental Laboratory Expansion	3,092		Dec-98	Feb-01	Dec-00	Dec-01
423490	RWSP Instrumentation	49					Dec-00
Total	New Facilties and Improvements	3,141					
Environmental Laboratory - Total		$9,913					

* Costs are in Year 2000 dollars
^ Costs in thousands of dollars

Table A3
Planned Capital Projects

Central Functions

Project Name		Project Cost*^ 2000 - 2006	Annual OM cost*	Planning finish	Predesign finish	Final design finish	Construction finish
Central Functions (A21100)							
200013	Space Imaging and Land Classification	165		Dec-01			
200015	ESA Data Management	645					Dec-01
200017	IBIS Upgrade - 2001	250		Jun-02			
423020	WQ - Equip. Repl Itemized < $50K	8,300					Dec-06
423082	Lake Hills Remediation	259					Dec-96
423086	Water Quality Capital Outlay	7,200					Dec-06
423175	MMIS Implementation	250					Dec-00
423254	RWSP Startup	14		Dec-00			
423300	Flow Monitoring/Modeling Improvement	191			Dec-98	Dec-99	Dec-00
423310	Industrial Waste Info System (IWIS)	16				Nov-00	
423311	WPCD Misc. Computer Systems	8,426					Dec-06
423475	King Street Relocation	569				Jun-99	Dec-00
423478	Lakes Study	7,559		Dec-04			
423493	Information Systems	350		Feb-99	Aug-00	Dec-00	
423522	Clark Settlement	7,413					
Total	New Facilties and Improvements	41,607					
Central Functions - HCP (A2110y)							
423458	Habitat Conservation Program	6,948		Dec-06			
Central Functions - Total		$48,554					

* Costs are in Year 2000 dollars
^ Costs in thousands of dollars

Attachment C-7
Annual Budget Targets and Adjustment Methods

The WWP intends to perform the services that it directly controls for a fixed cost (as adjusted for inflation) for the term of this Pilot Program. Costs that are beyond the control of the WWP shall be subject to an annual adjustment. Table C-7.1 contains the WWP's annual budget targets. The WWP's annual budget targets in the table are based upon Year 2000 budget conditions and an assumed inflation rate of 3 percent. Table C-7.2 lists the assumptions and conditions that will form the basis for annual adjustments to the WWP's annual budget targets. Factors beyond the WWP's control that may result in adjustments to the estimated cost are:

- Influent quantity (represented by RCEs)
- Septage quantity treated
- High strength industrial waste quantity treated
- Chemical unit prices
- Electricity unit prices
- Inflation
- Changes in contracts for which services are purchased
- Changes in fiscal policy
- Uncontrollable circumstances or changes in the WWP scope of services

Actions of the WWP also impact the level of revenue generated from non-rate sources. For example, the WWP operates a co-generation facility that produces electricity from digester gas and then sells the electricity to the local utility. The revenues are used to reduce the rates. Other similar revenue generating activities include the sale of biogas and biosolids program revenues.

The costs associated with the generation of these additional revenues are included in the WWP's annual budget targets. To assure that these revenues are maximized, and that operational cost savings are not achieved to the detriment of revenues, an annual adjustment will be made to WWP's annual budget targets to reflect changes in these revenues as compared to the level of revenues in the base year. This adjustment provides the incentive to the WWP to increase operating costs if the increase can be justified by the increased revenues. Conversely, if the WWP reduces its operating costs to the detriment of revenues the WWP will not recognize a benefit because the adjustment will reduce the adjusted annual budget targets.

During the term of this Pilot Program the WWP will perform its services at a cost that does not exceed the adjusted annual budget targets as determined in accordance with this attachment. Once annual performance and financial data is available to the WWP such data shall be used to calculate the adjusted annual guaranteed cost for the previous year in accordance with the following formula:

- Adjusted Annual Costs = Year 2000 Budget for the Wastewater Program (per Table C-7.1) plus each of the following adjustment factors
- Inflation Adjustment = (Current Year Guaranteed Cost – CYIF*(Sum of Year 2000 costs for power, chlorine, bisulfite and polymer))* (CPI_x /CPI_{2000} – CYIF) Where: CYIF = the Cumulative Current Year Inflation Factor estimated at 3 percent per year.
- Power adjustment* = ($Year_x$ Power $/2000 power $) * (Unit Power $Cost_x$ /Unit Power $Cost_{2000}$ –1)
- Chlorine adjustment* = ($Year_x$ Chlorine $/2000 chlorine $) * (Unit Chlorine $Cost_x$ /Unit Chlorine $Cost_{2000}$ –1)
- Bisulfite adjustment* = ($Year_x$ Bisulfite $/2000 bisulfite $) * (Unit bisulfite $Cost_x$ /Unit bisulfite $Cost_{2000}$ –1)
- Polymer adjustment* = ($Year_x$ Polymer $/2000 polymer $) * (Unit Polymer $Cost_x$ /Unit Polymer $Cost_{2000}$ –1)
- Load adjustment for power for $Year_x$= (2000 power) * (RCE_x /RCE_{2000} – 1)
- $Year_x$ Polymer $= (2000 polymer $) * (RCE_x /RCE_{2000} – 1)
- $Year_x$ Chlorine $ = (2000 Chlorine $) * (RCE_x /RCE_{2000} – 1)
- $Year_x$ bisulfite $ = (2000 bisulfite $) * (RCE_x /RCE_{2000} – 1)
- $Year_x$ Variable Biosolids Management Costs = (2000 Variable Biosolids Management Costs) * (RCE_x /RCE_{2000} – 1)
- Revenue adjustment = Year X revenue - year 2000 revenue
- Odor Control Adjustment = Year X Odor Control Budget – Year 2000 Odor Control Cost

*Note: These equations will be repeated for each category (eg. West Plant Power, East Plant Power, West Thickening Polymer, East Dewatering Polymer, etc.) as shown in table C-7.2

CPI_x = CPI for year being adjusted
CPI_{2000} = CPI in year 2000
RCE_x = RCE for year being adjusted
RCE_{2000} = RCE's for year 2000

Table C-7.1
WWP Annual Budget Targets*
(expressed in millions of dollars)

	2000	2001	2002	2003	2004
Budget Target	60.76	61.47	62.10	61.56	61.64
2005	**2006**	**2007**	**2008**	**2009**	**2010**
63.56	66.30	68.13	70.02	72.04	74.14

*This estimate is for the WWP as defined in the Pilot Program Plan. It includes an assumed 3 percent annual inflation factor and estimates of operating costs for future facilities outlined in Table G-3 and odor chemical control costs. The actual figure for annual targets will be based on adjustments realized each year.

Table C-7.2
Assumptions and Conditions for Annual Adjustments to the Annual Budget Targets

Year 2000 RCE's	697,750
Year 2000 High Strength Surcharge Revenue	$1,682,058
Yeqr 2000 Septage Revenue	$1,560,523
Year 2000 Industrial Waste Fee Revenue (monitoring & permitting)	$1,449,114
Year 2000 Cogeneration Revenue $	$238,015
Year 2000 Methane Revenue $	$331,032
Year 2000 Biosolids Revenue $	$130,533
Year 2000 Variable Biosolids Management $	$122,094
Year 2000 Biosolids haul/application rate	$22.84/ton haul cost, 9.32/ton application rate
Year 2000 West Chlorine Unit Cost $/ton budget assumptions	$442.58 plus 8.4% tax.
Year 2000 West Chlorine Adopted Budget $	$322,393
Year 2000 West Bisulfite Unit Cost $/ton	$1.09224 per gallon, includes sales & hazardous materials tax
Year 2000 West Bisulfite Adopted Budget $	$247,769
Year 2000 South Chlorine Unit Cost $	$375.15/ton
Year 2000 South Chlorine Adopted Budget $	$202,580
Year 2000 West Dewatering Polymer Unit Cost $/lb active	$0.491/lb. of neat polymer, plus tax 8.6%. approx. 31% active. (new contract 1/1/01)
Year 2000 West Dewatering Polymer Adopted Budget $	$1,369,693
Year 2000 South Dewatering Polymer Unit Cost $/lb active	$1.35/lb active, plus tax 8.6%
Year 2000 South Dewatering Polymer Adopted	$328,643 budgeted by mistake,

Budget $	($425,500 actual)
Year 2000 West Thickening Polymer Unit Cost $/lb active	Assumed $1.49 per pound, active, plus 8.6% tax until 9/22/00. Contract can then be allowed to expire or extended. Assumed an extension at a 5% increase.
Year 2000 West Thickening Polymer Adopted Budget $	$274,699
Year 2000 South Thickening Polymer Unit Cost $/lb active	$1.35/lb active, plus tax 8.6%
Year 2000 South Thickening Polymer Adopted Budget $	$167, 942
Year 2000 Adopted Labor Budget $	West Operations, adopted budget labor & benefits = $5,501,018 South Operations, adopted budget labor & benefits = $6,531,791 Maintenance, adopted labor and benefits = $8,380,337 Environmental Lab, adopted labor & benefits = $4,847,609 Industrial Waste, adopted labor & benefits = $1,282,556 Remaining WWP, adopted labor & budget = $6,981,510
Year 2000 Odor Control Chemical Adopted Budget $	West Point & West Offsite: $323,511 ($331,814 actual) East Operations: $179,000
Year 2000 Total O & M Adopted Budget $	West Point Operating = $12,486,407 South Operations = $13,238,379 (does not include the $8 million 12/00 energy supplemental) Maintenance = $13,113,845
Year 2000 West Plant Power Rate $/kwh	Assumed $0.035
Year 2000 West Plant Power Adopted Budget $	$2,045,737
Year 2000 South Plant Power Rate $/kwh	Assumed $0.040
Year 2000 South Plant Power Adopted Budget $	$2,847,812 (does not include the $8 million 12/00 energy supplemental)
Year 2000 West offsite Power Rate $/kwh	$0.042
Year 2000 West offsite Power Adopted Budget $	$854,592
Year 2000 South Offsite Power Rate $/kwh	$0.0643
Year 2000 South Offsite Power Adopted Budget $	Pump crew: $1,100,977 Alki: $21,226

Table C-7.3
Assumptions for Additional Operating Costs of New Facilities*
2001 - 2009

	2001	2002	2003	2004	2005
Estimated Increased O & M cost	$68,740	$557,950	$706,280	$779,020	$1,439,488
	2006	**2007**	**2008**	**2009**	**2010**
	$1,482,670	$1,527,150	$1,572,970	$1,620,160	Not estimated

*These estimates include an increase for inflation of 3 percent and are based new facilities planned in the RWSP. Periodic review of actual labor costs may be needed to serve new facilities as they are brought into production.

Attachment C-8
Productivity Incentive Fund Management Principles

In this Pilot Program, WWP has committed to manage, operate and maintain specific systems and programs to specific performance levels at annual budget target cost. If the cost is lower than the current budget for the same scope of service, it represents a saving to the ratepayer. It is expected, although not guaranteed, that WWP will perform its services at a cost even lower than the annual budget cost. The parameters of the Productivity Incentive Fund shall be consistent with the annual wastewater service-level requirements as set forth in the Wastewater Productivity Pilot Program.

Goals and Parameters

The goals of the Productivity Incentive Fund are as follows:

- Provide financial incentives to employees to achieve higher than projected savings to the sewer ratepayers,
- Encourage teamwork, and
- Encourage employee involvement in the business.

Productivity Incentive Fund for Wastewater Operating Fund

Henceforth, the Productivity Incentive Fund, as defined herein, shall be established each calendar year after the baseline annual operating target savings identified in the aforementioned Productivity Pilot Program are met and verified through an independent review. King County Wastewater Treatment Division shall retain 50 percent of those additional savings and 50 percent shall be assigned to a Productivity Incentive Fund. A minimum of 25 percent of the funds assigned to the Productivity Incentive Fund shall be designated for distribution to all employees participating in the Productivity Initiative. The division manager, assistant division manager and the senior project administrator (who was the Productivity Initiative Project Manager) shall not be eligible for any financial distributions from the Productivity Incentive Fund.

Productivity Incentive Fund for Wastewater Capital Fund

During the term of the labor contract with SEIU Local 6 and Teamsters Local 117, the Productivity Pilot Program will develop a Productivity Incentive Fund for savings associated with the wastewater capital program. The county may not enter into any agreement, memorandum of understanding or any other document with any other party which would preclude the Union from participating in the Productivity Incentive Program for the wastewater capital program.

Productivity Incentive Program Oversight Committee

The Oversight Committee shall be responsible for oversight of funds allocated to the Fund. Membership shall be as follows:

- 4 representatives from SEIU, Local 6
- 2 representatives from Teamsters, Local 117
- 1 representative from AFSME
- 2 management representatives
- 4 nonrepresented representatives

Ex-officio membership may include, but shall not be limited to, the Office of the Executive and the Department of Finance.

The Productivity Incentive Program Oversight Committee shall have the authority and responsibility to determine the distribution and use of the Fund, subject to approval by the Manager of the Wastewater Treatment Division. The Productivity Incentive Program Oversight Committee shall prepare an annual report on the management of the fund. The fund shall be audited on an annual basis. In addition to the minimum 25 percent of the contribution to the Fund annual payouts to employees, distribution of the funds may include, but not be limited to:

- Investment in employees through training and other employee development programs
- Award and Recognition Program
- Reserve Fund (the basic premise is to use it as a "rainy day fund" that addresses possible shortfall in meeting budget targets)
- Other activities consistent with achieving the goals of the Productivity Pilot Plan

Attachment C-9
Capital Program Incentive Plan

A plan to propose a Capital Program Incentive Fund is being developed now. Proposed language for Council review is anticipated by October 2001. The WWP will work with employees, the Department of Natural Resources Director's Office, and Executive's Office staff during the next six months to develop an acceptable approach to the fund. An overview, objectives, and approaches to establishing baseline measurements for savings are outlined below.

Overview

One of the WWP's primary duties is to manage the Capital Improvement Program (CIP). Most of the costs of this activity are capitalized and therefore reflected in the rate as debt service. The WWP can minimize the effects of both operating costs and debt service on rate increases by effectively implementing the CIP. The Capital Program Incentive Fund is an incentive program to recognize performance that exceeds established cost targets for WTD's capital program.

Objectives

- Establish a process to measure WWP's performance in achieving its goal to minimize the rate impact of capital improvements.
- Establish an incentive system in which capital program savings are shared and a contribution is made to an assurance fund.
- Encourage the capital programs and operating groups to work cooperatively and produce the lowest possible rate impact. Accomplishing capital or operational savings to the detriment of other cost areas must not be rewarded.

Establishing the baseline from which to measure potential and actual savings is probably the most significant issue in developing a plan for the Capital Program Incentive Fund. Several possible approaches, including their advantages and disadvantages, are outlined below, and include:

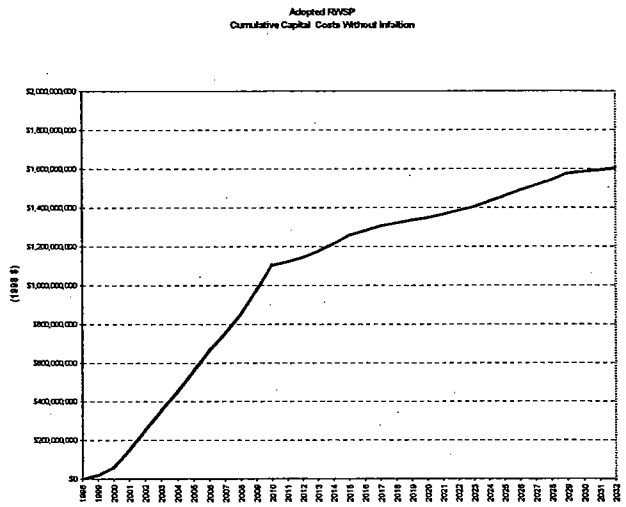
1. Cumulative Capital
2. Rates
3. Debt
4. Allied Costs
5. Compare Unit Costs
6. Time to Complete Projects
7. Life Cycle Costs

1. Cumulative Capital

Measure description: This is a long-term measure of the direct (without financing) capital costs of RWSP projects over time. We have 1998 projections extending to 2030, with and without inflation, that we can use as a benchmark to compare actual expenditures.

Efficiency or cost saving activity measured: This is an aggregate measure of RWSP project costs that demonstrate any savings in capital costs and/or savings from timing of projects relative to the benchmark.

How measured/implemented: Annual RWSP actual capital costs are tracked against benchmark estimates. Must be viewed as a long-term measurement of performance, not year to year.



Advantages

- Shows how we are doing compared to original RWSP decision
- Easy to quantify and understand
- Data is available

Disadvantages

- Subject to lots of changes
- Facilities change
- This measure may be difficult to interpret at any point in time; accelerating or decelerating a project can move the curve of actual expenditures above or below the benchmark curve without necessarily indicating a positive or negative situation. It may be impossible to distinguish the difference between

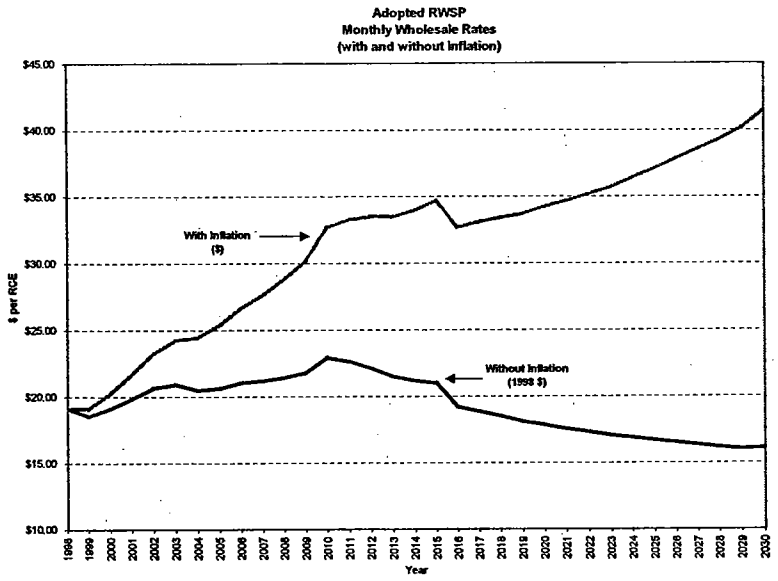
actual performance and the benchmark that is due to a true decrease in the construction cost or a change in timing.

2. Rates

Measure description: Comprehensive measure that reflects capital costs, operating and maintenance costs, capital financing costs and changes in revenues.

Efficiency or cost saving activity measured: It provides a single comprehensive measure that is easily understood by a wide audience.

How measured/implemented: At a minimum, this is calculated annually for the rate and budget process, plus it can be estimated for long-term periods.



Advantages

- Comprehensive
- Meaningful and easily understood
- Done annually
- Can do long-term projections

Disadvantages

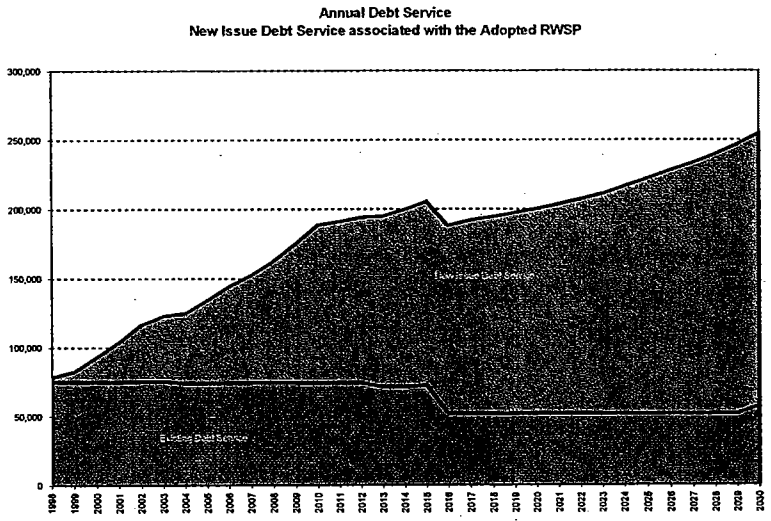
- Affected by many variables so can be difficult to distinguish cause and effect. Simultaneous factors may strongly affect the estimates.

3. Debt

Measure description: Debt service payments in support of the capital program are a significant cost, so measuring both existing debt and the accumulation of new debt highlights how the capital program affects overall division costs and the rate. It can also track and highlight the cumulative debt burden.

Efficiency or cost saving activity measured: Measures how changes in the capital program can reduce or increase debt burden for the ratepayer over the long term. It also reflects results and savings from refinancing, seeking lower interest loans, etc.

How measured/implemented: Existing debt service levels are closely tracked; debt service associated with new capital borrowing is calculated in the rate model. Given assumptions about interest rates, bond terms, and issue costs, we can project future increases to the WTD debt burden.



Advantages

- Huge cost component being measured
- Global

Disadvantages

- Cause/effect is not always clear
- Future debt service levels, in addition to the level of capital spending, is influenced by exogenous variables such as interest rates and market conditions.

4. Allied Costs (Capital)

Measure description: This measures all capital costs except construction and land acquisition, such as design, labor, procurement, project management, and so on. It can be measured both by project and by rolled-up categories.

Efficiency or cost saving activity measured: Measures our performance most directly. It includes many different cost components, some of which are in our control and some of which are not. It could be used to establish the amount to invest in the assurance fund. It measures our capital program business practices and many of the Productivity Initiative ideas would be captured here.

How measured/implemented: We have a lot of historical data being summarized for use as a benchmark to compare ourselves with others and with ourselves. We are able to do projections by project and category and then measure actuals against the projections. It can be used to compare us to other utilities, public and private. We will look at historical records, compare, and establish targets by project or by categories of projects.

Advantages

- Can compare to others by benchmarking
- Meaningful measures for employees and project managers
- Cause and effect is readily identified
- Can show both long term and short term

Disadvantages

- Potential to save allied costs could create motivations that would result in cost impacts to construction or O&M. Requires check and balance.

5. Compare Unit Costs

Measure description: Measures both allied and construction costs to compare against public and private utilities. We would need to be able to find comparable data to compare our costs to others. We could use it to compare materials costs, and to compare across different construction methods.

Efficiency or cost saving activity measured: Measurement would provide indicators for moving to better materials or construction methods.

How measured/implemented: We would have to standardize some unit costs, create the estimates, and measure actuals. We could also purchase national or outside standards. We would also want to measure several construction methods for comparison purposes.

Advantages

- Can be very specific
- Can focus on construction

Disadvantages

- May be hard to measure and produce meaningful results for the Productivity Initiative effort
- May not have the option to choose methods

6. Time to Complete Projects

Measure description: We often say that "time is money." In measuring the time it takes to complete projects and by establishing benchmarks and targets, we could better quantify and drive cost savings. The more time it takes to complete a project, the more likely the costs will rise (e.g., construction inflation).

Efficiency or cost saving activity measured: We have historical data to compare projections to actuals. Measuring the time required to complete projects would include increases due to inflation. By establishing targets and tracking inflationary costs, particularly by cost component, we may prioritize projects (or components of projects) to achieve lower costs because those projects (or components) are most subject to inflation and market conditions.

How measured/implemented: We need to analyze and assess affected cost components by the time it took to complete them. Then we must track inflation costs and incorporate information into project decisions.

Advantages:

Disadvantages:

7. Life Cycle Costs

Measure description: Measures both the direct capital cost, financing, and O&M over the long term, and enables capital vs. O&M to be optimized. It is also used to compare alternatives.

Efficiency or cost saving activity measured: Will significantly affect decisions during planning and design phases for long-term cost optimizing. It also factors key cost components into the decision process, such as energy, automation, and so on.

How measured/implemented: We need to establish a basic methodology that can be used consistently, then create specific methodology for types of facilities and equipment that includes assumptions and standards. We also need to establish our ability to use and update the methodology. Part of the implementation should include establishing points in project timelines to update lifetime costs comprehensively, such as planning, design (at 30 percent, 60 percent, and 90 percent), construction, and startup.

Advantages

- Optimize early on for entire project
- Better design making
- Compares capital vs. O&M savings
- Early warning about rate impacts

Disadvantages

- We do not have a history of lifetime costs to use
- Assumptions have to be updated
- More work for project managers and project teams

Attachment C-10
Service Agreement Principles & Outline

The WWP relies upon services from other County departments to conduct its business. The quality of these services have been identified as one of the key elements of productivity for the WWP. Service Agreements will be developed to clarify expectations between the WWP and the departments listed below. Attachment C-10 proposes the general principles for developing the service agreements, a draft template Service Agreement, and the specific County Departments for which the level of service need to be defined in order for the WWP to "be the best."

Principles of Service Agreements

- Mutually developed by WWP and county agencies
- Agreed to by both parties
- Contains specific details on scope of services and responsibilities of both parties
- Allows for differences between different county agencies
- Benefits both parties
- No adverse impacts on other county agencies

Proposed Service Agreement Content

1. Objective/Purpose: A brief statement describing what this service agreement accomplishes.

2. Scope of Services
   2.1. Service Agency Responsibilities
   A detailed description of the services and products this agency will provide to the wastewater treatment program. Includes the processes that are to be followed by both parties.

   2.2. Customer Responsibilities
   A detailed description of the responsibilities of the WTD program with respect to the service agency responsibilities. Defines the tasks or information that the service agency is relying on from WTP in order to meet its responsibilities. May include investment in support agency.

   2.3. Schedule/Timelines
   These may be addressed here or as part of the responsibilities described above.

2.4. Communications
Frequency and description of any written materials expected from either party. Purpose and schedule of any meetings.

3. Modification Process
Describes what triggers a need for a modification or a mid-course correction. Specifies what elements are beyond the control of the WWP or the support agency.

4. Performance Measures/Quality of Service Standards
What needs to be measured and how. Describes the resolution process to be used when measures or standards are not being met by either party.

5. Accountability/Dispute Resolution
Ideally a tiered approach with the goal of resolving problems at the staff level, moving up through each agency as necessary.

6. Key Contacts

7. Relevant Documents/Resources

8. Value of Services
Describes the cost, quality and customer service elements to be reached with the service agreement.

9. Effective Dates and Renewal Process

10. Concurrence Statement
Includes successor language to keep agreement in place even as people change positions.

The Wastewater Program has identified the following support agencies for which Service Agreements are necessary in order to "be the best."

Department of Finance
- General Accounting
- Treasury
- Procurement and Contract Services
- Financial Management (Payroll, A/P, A/R)
- Business Development & Contract Compliance

Prosecuting Attorney's Office
- Civil Division

Office of Human Resources Management

Department of Information and Administrative Services
- Emergency Management (Radio Communications)
- Information and Telecommunication Services
- Risk Management

Fleet Management

Department of Natural Resources
- Manager's Office
- Water and Land Resources
- Local Hazardous Waste Program/ WLRD