

Wastewater Treatment Division
Productivity Initiative
Internal Comprehensive Review Report



February 2011

For comments or questions, contact:

Dave White
King County Wastewater Treatment Division
201 South Jackson Street
KSC-NR-0501
Seattle, WA 98104-3856
(206) 263-0467
Dave.White@kingcounty.gov

This information is available in
alternative formats on request at
206-684-1280 (voice) or 711 (TTY).

Table of Contents

Executive Summary	v
What Is the Productivity Initiative?.....	v
Was the Program Successful?	vii
Recommendations.....	x
1.0. Introduction	1
1.1 Background	1
1.2 Internal Comprehensive Productivity Initiative Review	2
1.3 Content and Organization of this Report.....	2
1.4 Supporting Documentation and Websites.....	3
2.0. Program Development and Implementation.....	5
2.1 Starting with the Operating Budget	5
2.1.1 Creating Savings Goals, Business Plans, and Targets	5
2.1.2 Defining Incentive Fund Savings.....	8
2.1.3 Making Service Commitments	8
2.1.4 Tracking Performance.....	9
2.1.5 King County Support and Enabling Legislation.....	9
2.2 Extending the Initiative to Capital and Asset Management Programs.....	10
2.2.1 Challenges in Adding Capital and Asset Management.....	10
2.2.2 Key Functions of Ordinance 14941	10
2.2.3 Features of the Capital Pilot Programs	11
3.0. Evaluation of Program Success.....	13
3.1 Meeting Productivity Initiative Objectives.....	13
3.2 Meeting Balanced Scorecard Measures	17
3.2.1 Financial Performance Quadrant	18
3.2.2 Business Practices Quadrant.....	20
3.2.3 Customer Focus Quadrant.....	22
3.2.4 Employee Management Quadrant	24
4.0. Feedback and Lessons Learned.....	27
4.1 Review Methods.....	27
4.2 Summary of Findings	28
4.3 Narrative of Findings	29
4.3.1 Meeting Program Goals	29
4.3.2 Identifying Savings	29
4.3.3 Including Capital Projects in Productivity Savings	30
4.3.4 Communication and Employee Engagement.....	30
4.3.5 Accounting and Documentation	31
5.0. Recommendations	33
6.0. References.....	37
Acknowledgements.....	39
Glossary.....	41

Tables

Table 1. Summary of Productivity Initiative Savings and Distributions (2001–2009)25

Figures

Figure 1. Productivity Initiative Process for the Operating Budget 6
Figure 2. Example Computation of Productivity Savings 7
Figure 3. Actual and Projected Wastewater Rates (2002–2010)19

EXECUTIVE SUMMARY

The King County Wastewater Treatment Division's (WTD) Productivity Initiative is a 10-year program that was conceived as an opportunity for a traditional utility to be managed and operated more like a private business. In the first nine years of the program, WTD successfully initiated new approaches adapted from the private sector and saved King County ratepayers close to \$73 million. Preliminary calculations for 2010 indicate that the program will meet its overall savings goal of \$75.9 million.

The Productivity Initiative's last full year of implementation was 2010; it is scheduled to officially sunset in April 2011. Starting in 2009, WTD undertook a comprehensive review of the first nine years of the program. The King County Executive and Council will decide whether to approve development and implementation of a new program. The results of the comprehensive review are intended to assist in this decision.

All key Productivity Initiative objectives were met. Ratepayers benefitted from a savings of almost \$73 million so far while WTD took on a significant amount of new work and new facilities without increasing staff.

Balanced scorecard and other measures show that service levels, as measured by factors such as compliance with regulations, effluent Performance Guarantees, and customer and employee satisfaction, have been maintained or improved over the life of the Productivity Initiative.

In addition to the division's internal review, King County Ordinance 14941, which codified the initiative, requires review of the Productivity Initiative by an independent third party hired and supervised by the County Auditor and with input from WTD. The purpose of the independent review is to determine the effectiveness of the initiative in achieving its goals and objectives.

The efforts of WTD and Environmental Lab employees were instrumental in successfully meeting program objectives.

Employees have demonstrated their ability to deliver outstanding service that benefits ratepayers and makes the entire organization run more efficiently. Furthermore, objectives could not have been met without the continued support of elected officials, labor organizations, the King County Department of Natural Resources and Parks, and the King County Office of Performance Strategy and Budget.

This summary of the internal comprehensive review report describes the components of the Productivity Initiative, discusses whether and how the program met with success, and outlines recommendations for how to move forward once the program ends.

What Is the Productivity Initiative?

In 1999, labor, management, and employees began design of the Productivity Initiative. The outcome of this planning effort—the *Productivity Initiative Pilot Program Plan*—was issued in February 2001. The program plan outlines how the wastewater program would apply private business practices to improve efficiency and reduce costs of doing business. The plan focused on WTD's operating budget with a commitment to add the capital budget later. Former King County Executive Ron Sims considered the initiative as a commitment to "pilot" some aspects of a private-sector approach, learn from the experience, and apply it across the County.

The pilot program plan identifies specific levels of service, cost reductions, and efficiencies over the period 2001 to 2011 that would result in an estimated \$75.9 million savings for ratepayers, while maintaining or improving levels of service to these same customers. Savings were to be achieved by undertaking an intensive review of current business practices, identifying and implementing cost saving practices, working to increase employee involvement, and ensuring that the wastewater program receives the best possible services from its partner agencies inside and outside the County.

Components, Successes and Challenges of the Productivity Initiative

The Productivity Initiative is a 10-year program (2001–2011) implemented to demonstrate that King County's Wastewater Treatment Division (WTD) could adopt private business practices in order to run more efficiently and bring returns to ratepayers in the form of cost savings.

Key Components

- Set annual operating budget targets to reduce expenses by 12 percent in the first five years and to maintain this level in the final five years.
- Implemented private sector practices, such as business plans and balanced scorecard performance measures, while drawing on the strengths of public utility practices and employees.
- Added the capital and asset management programs in 2004 to pilot test their ability to achieve productivity savings.
- Committed to maintaining year 2000 staffing levels throughout the life of the initiative.

Successes

- Saved ratepayers almost \$73 million in nine years (2001–2009) through operating budget savings, asset management savings, and employee-generated savings.
- Met operating budget targets in all but two of these years.
- Created incentives for employees to identify cost savings (over \$10 million in savings to date).
- Kept staff levels constant while adding three new major facilities, planning and constructing a new regional wastewater system (Brightwater), and making substantial improvements to the existing system.
- Maintained or improved service levels, as indicated by achieving the high standards set through balanced scorecard performance measures in four areas—financial performance, business practices, customer focus, and employee management.
- Implemented new initiatives, including improved best maintenance practices and standardized capital project management practices, that will create long-term efficiencies beyond the term of the Productivity Initiative.
- Fostered labor-management cooperation and collaboration by working with unions to develop and implement the initiative and to produce WTD Behavior Guidelines for greater productivity.

Challenges

- Financial calculations, especially related to the operating budget targets, are difficult for financial analysts to implement and can be confusing to employees; processes for documenting and counting employee-generated savings create barriers for some employee participation.
- Applying the Productivity Initiative to capital projects proved difficult. The projects selected to pilot the capital program under the Productivity Initiative did not meet established targets.
- Employee understanding of the program and engagement waned in the later years.
- Agreements to streamline processes and reduce costs were sought with King County agencies that provide support services to WTD. Only one agreement was successfully implemented.

The Productivity Initiative requires that management and labor cooperate to identify new ways of getting business done, meet the bottom line, protect public health and safety, and allow employees to share in the financial rewards and risks of operating more like a private business.

The four components of the Productivity Initiative are as follows:

- **Operating program (active since 2001).** Annual targets for each year in the 10-year program were established using the 2000 wastewater operating budget as a baseline. The program also includes a mechanism for adjusting yearly targets for factors beyond the control of the division, such as inflation. If operating expenses are below the target, any additional allowable savings are shared equally between ratepayers and employees. Half of the savings are returned to ratepayers in the form of decreased capital and operating costs to mitigate future rate increases. The other half is placed in an employee Incentive Fund for both financial (payouts) and employee recognition, including training and a rainy day fund.
- **Major capital projects pilot (active since 2005).** A target budget (cost at completion) is set by an external, independent third party for each eligible project. The goal is to deliver a capital project at a lower cost than the target established for the total project budget. Savings (if realized) are calculated by subtracting the final project cost from the target budget. The savings are split between ratepayers (83 percent) and employees (17 percent).
- **Small in-house capital construction projects pilot (active since 2005).** The goal is to provide an incentive for staff to save money by doing work in-house at a lower cost than if done by outside contractors. An independent estimate must be completed as part of any proposal to do the work in-house. If staff delivers the project at a lower cost than the estimate, the difference is distributed along with employee-generated operating budget savings to ratepayers (50 percent) and the employee Incentive Fund (50 percent). If the cost of the project is greater than the independent estimate, the difference is paid to the wastewater operating budget from the Incentive Fund.
- **Asset management pilot (active since 2006).** The goal is to maximize the operability of assets in order to defer rebuilding or replacing them. Savings can occur only when staff successfully extends the useful life of equipment beyond the anticipated rebuild or replacement date. The savings are determined by calculating the reduction in debt service associated with the deferred capital expenditures. Savings generated are distributed along with employee-generated operating budget savings to ratepayers (50 percent) and the employee Incentive Fund (50 percent).

Was the Program Successful?

The short answer to this question is “yes.”

WTD relies on the balanced scorecard, a proven long-term strategic management tool, to help chart its progress in meeting Productivity Initiative vision, goals, objectives, and commitments. At the outset of the Productivity Initiative, WTD identified performance measures in each of the four balanced scorecard quadrants—financial performance, business practices, customer focus, and employee management—and began collecting data for making year-to-year comparisons. Targets for each measure are set high in order to foster excellence.



The following sections discuss savings, other program results, and employee, stakeholder, and management feedback regarding the program.

Savings and Other Program Results

The balanced scorecard and other measures show that service levels have been maintained and, in some areas, improved since 2001. Over the course of the Productivity Initiative, WTD has won numerous awards for treatment plant performance, innovation in project design and execution, energy savings, incorporating green features in facilities, technological advances, and other achievements.

True to commitments made early on, these service levels have been achieved while saving ratepayers almost \$73 million through 2009 in the form of decreased operating and capital costs and stable sewer rates.¹ Staffing levels have remained the same as in 2000, even through the process of planning and constructing Brightwater, a major new treatment and conveyance system. Most of the savings came from the operating program, with some savings from the asset management pilot. Operating budget targets were met in all but two years; employees generated an additional \$10 million in savings for ratepayers and the Incentive Fund (included in the total program savings). Wastewater rates through 2010, except in 2009, have remained at or below those projected in 1998 for the Regional Wastewater Services Plan.

The major capital and small in-house construction capital pilots have not generated savings. Design and implementation of the pilots were challenging, and restrictions such as procurement laws, changes in commodity prices, and other factors outside WTD's control contributed to the inability of these pilots to demonstrate their effectiveness. The former Executive, in proposing these pilots for approval by Council, recognized the difficulties in extending the Productivity Initiative to the capital side of WTD and allowed for dissolution of the pilots should they not prove to be effective.

According to a National Association of Clean Water Agencies survey of its members conducted every three years, operation and maintenance expenses of similar water quality agencies increased by an average of 33.5 percent in 2000–2007. WTD's operation and maintenance expenses increased by an average of only 8.8 percent during the same period.

About 28 percent of WTD's budget pays for support services performed by other agencies in King County. Greater productivity savings may have been achieved had these agencies participated in a productivity program or WTD had been able to reach service agreements with them. Such agreements were viewed at the inception of the Productivity Initiative as a means to potentially streamline business processes, remove barriers to efficiencies, and reduce costs for these services. The Productivity

Initiative, however, did demonstrate that other types of partnerships, such as including the Environmental Lab in the initiative, can achieve similar results as those proposed for service agreements. Since 2001, WTD has brought some services in-house—including the Industrial Waste Program and capacity charge, residential customer equivalent, industrial waste, and septage billings—and is managing them at lower costs and/or higher levels of service.

In addition to implementing strategies that help meet Productivity Initiative goals, WTD has undertaken initiatives that help achieve long-term efficiencies beyond the life of the program and support business decisions for the future of the utility. In 2007, the division launched an improved maintenance best practices program. Also in 2007, WTD implemented a new organizational structure and new capital project management standards (based on Project Management Institute standards), which are helping achieve more predictable project results.

Finally, the Productivity Initiative has paved the way for greater management and union cooperation. An example of this cooperation is the 2005 Assessment Committee. All unions were represented on this

¹ Savings from 2010 have not yet been calculated. They will be reported in the 2010 annual report for the Productivity Initiative.

committee, as were the division director and assistant division director. The committee identified core issues and barriers to a productive work environment and then developed the WTD Behavior Guidelines, which help to clarify work expectations and, in so doing, enhance productivity. Improved labor-management relationships have led to problem-resolution outside of the formal grievance process and collaboration on job progressions, job specifications, and more effective performance evaluations.

Feedback from Employees, Stakeholders, and Management

As a part of the internal comprehensive review of the program, a survey was administered to employees, followed by focus groups with all existing employees and interviews with people who were instrumental in program development, administration, and oversight. The review team met regularly with WTD management to analyze and validate findings.

Through this extensive process, the majority of employees voiced support for continuation of the Productivity Initiative, either as currently configured or in a new configuration. The interviews and management workshops corroborated this finding. Employees were also asked what they did and did not like about the Productivity Initiative and how the program could be improved if it were to continue. Interviewees and WTD management also weighed in on these questions. Next to the monetary rewards and job security, what employees reported to like best about the program is that it has made them more aware of how WTD does business and has actively involved them in helping to find ways to innovate and do their jobs more efficiently. Some said that even though employee involvement has diminished over time, the program has created a persisting culture of cost-consciousness.

The following are some of the most common themes on program improvement heard from employees, interviewees, and management:

- Employees, in general, want ongoing information, direction, and motivation to keep them actively involved, and they need a better understanding of how the Productivity Initiative works. Suggestions for addressing these needs include making the Productivity Initiative part of new employee orientation, having more regular updates, and holding brainstorming sessions in regular staff meetings.
- Program documentation and communication could be improved.
- The method for adjusting targets and determining how much of employee-generated savings is eligible for the Incentive Fund should be simplified.
- It is difficult and time consuming to document the savings generated from implemented ideas. This difficulty tends to discourage employees from documenting the savings, especially if the savings are relatively small.
- There is a desire to continue to develop ways to successfully include capital project work in productivity savings.
- Productivity savings ideas need to be tracked better and results need to be better communicated. Employees often do not know what happens after they submit ideas—who makes the decisions, whether or not they are accepted, why they are accepted or rejected, and what ideas others have submitted. A program started in 2007 called “Bright Ideas!” is helping to address some of these concerns.
- Types of savings eligible for the Incentive Fund should be reconsidered. Managers and many employees, for example, dislike counting salary savings from temporarily vacant positions funded by the operating budget.
- Ways to provide more recognition and to reward successes should be considered.
- The program would benefit from a “point person” and renewed attention throughout the program.

Recommendations

WTD is recommending that a new productivity program with a five-year lifespan be developed and implemented:

- **Design and implement a new program in 2011.** The third-party review along with feedback from the King County Executive and Council on both the third-party review and WTD's internal comprehensive review will serve as the basis for the next program design. While designing the program in 2011, WTD will maintain many of the components of the Productivity Initiative, such as the balanced scorecard and collecting employee-generated savings ideas. These components have become integral to WTD's business and will remain in place during the interim period.
- **Begin the new program in 2012.** If approved by the Executive and Council, the new program could begin in 2012.

1.0. INTRODUCTION

This report documents the findings and recommendations of an internal comprehensive review of the first 9 years of the King County Wastewater Treatment Division's (WTD) 10-year Productivity Initiative. The initiative is scheduled to sunset in April 2011. The King County Executive and Council will decide whether and how it will continue. The results of the comprehensive review are intended to assist in this decision.

In addition to the division's internal review, King County Ordinance 14941 requires review of the Productivity Initiative by an independent third party hired and supervised by the County Auditor and with input from WTD. The purpose of the independent review is to determine the effectiveness of the initiative in achieving its goals and objectives.

The following sections provide background on the Productivity Initiative, summarize the internal comprehensive program review process, present a roadmap of the rest of the report, and list documents and websites where more information can be found. Chapter 6 gives reference information for all citations in this report.

1.1 Background

In 1999, labor, management, and employees began design of the Productivity Initiative. The outcome of this planning effort—the *Productivity Initiative Pilot Program Plan*—was issued in February 2001. The program plan outlined how the wastewater program, which at the time was defined as comprising WTD and portions of the Water and Land Resources Division (WLRD) of King County's Department of Natural Resources and Parks, would apply business practices to improve efficiency and reduce costs of doing business.² The plan focused on WTD's operating budget with a commitment to add the capital budget later. Former King County Executive Ron Sims considered the initiative as a commitment to "pilot" some aspects of a private-sector approach to management of the wastewater system, learn from the experience, and apply it across the County (Sims, 2001).

When Productivity Initiative planning began in 1999, King County had owned and operated the regional wastewater system for three years, following the dissolution of the Municipality of Metropolitan Seattle (Metro). The County developed a Regional Wastewater Services Plan (RWSP), approved by the King County Council in 1999, to plan for capital and other improvements for the next 30 years. Many of the improvements, such as the Brightwater regional treatment and conveyance system, were driven by the need for increased capacity to meet projected growth in population; others such as combined sewer overflow control were driven by regulatory requirements.

A major challenge then, as it is now, was to make sure that wastewater rates cover system operation, fund capital programs, increase at acceptable rates, and stay within the range of other similar agencies. In addition, a strong and growing pressure in 1999 to privatize wastewater systems throughout the country to achieve cost savings gave WTD further reason to increase efficiency and document savings.

To address these challenges, the Productivity Initiative set out to do the following:

- Use private-sector management and operational techniques to reduce costs, be more efficient, and improve WTD's services.

² The Department of Natural Resources and Parks was called the Department of Natural Resources when the Productivity Initiative began. The WLRD functions included in the Productivity Initiative were the Environmental Lab and the Industrial Waste Program. Since then, the Industrial Waste Program has moved to WTD. For the remainder of this document, "WTD" is used to refer to the wastewater program, including the Environmental Lab.

- Demonstrate King County’s willingness to respond to increasing public demand for evidence that government services are being delivered as cost-effectively as possible.
- Allow for additional opportunity for labor and management to work together.
- Maintain year 2000 staffing levels, even while adding new facilities.
- Create an incentive program for employees to make process improvements and meet management’s challenge to become the best publicly run wastewater utility in the nation in 5 years and be competitive with a privately operated utility in 10 years.

The King County Council endorsed these objectives and established the 10-year Productivity Initiative on April 27, 2001, through Motion 11156. The program has been in effect since that time. Although WTD has met these objectives, no benchmarking was done to assess competitiveness with the private sector because of the limited number of privately run wastewater utilities similar in size to WTD.

1.2 Internal Comprehensive Productivity Initiative Review

In 2009, WTD assembled a Comprehensive Review (CR) Team, comprising senior WTD staff from a variety of organizational units, to lead and advise the internal comprehensive review of the Productivity Initiative. The team gathered information from a variety of sources. Everyone in the division and several people outside the division were given an opportunity to provide input. Types and sources of information include the following:

- **Information on program history, design, and implementation.** Gathered through review of documents, formal and informal interviews with individuals involved in program development and implementation, and discussions with WTD management.
- **Information on performance in meeting Productivity Initiative objectives.** Gathered through review of Productivity Initiative annual reports and other documentation and through discussions with management and employees.
- **Opinions and recommendations.** Gathered through a survey of all WTD and Environmental Lab employees, follow-up focus groups with all employee work teams, discussions with management, and formal and informal interviews with individuals involved in program development and implementation.

In 2010, preliminary results were presented to WTD management, unions, and the King County Executive and Deputy Executive for review and comment.

1.3 Content and Organization of this Report

This report presents the successes and challenges of the Productivity Initiative, lessons learned from participation in the program, and ideas for a future program:

- Chapter 2 describes the development and implementation of the Productivity Initiative.
- Chapter 3 reports on how well WTD has met Productivity Initiative objectives and other measures of success between 2001 and 2009.
- Chapter 4 discusses lessons learned from the program based on feedback from employees, key participants in the program, and management on what worked well and what could be improved in Productivity Initiative program design and implementation, management and administration, communication, and employee engagement.

- Chapter 5 presents the CR Team’s recommendations regarding continuation of the program and how a new program could be structured, based on the findings described in Chapters 3 and 4.

1.4 Supporting Documentation and Websites

The following supporting documentation is available on request:

Productivity Initiative Pilot Program Plan

Letter to Council from Executive Sims requesting establishment of the Productivity Initiative (February 2001)

Method for Adjusting Productivity Initiative Operating Budget Targets

Productivity Initiative Legislation

WTD Through the Years of the Productivity Initiative

WTD Balanced Scorecard 2000–2009

Financial Survey Summary—2008 National Association of Clean Water Agencies

Summary of Result—Employee Survey and Focus Group

The following websites provide additional information:

General information on the Productivity Initiative:

<http://www.kingcounty.gov/environment/wtd/About/Finances/PI.aspx>.

Productivity Initiative annual reports:

<http://www.kingcounty.gov/environment/wtd/About/Finances/PI/Library.aspx>.

WTD’s vision, mission, and the balanced scorecard:

<http://www.kingcounty.gov/environment/wtd/About/Vision.aspx>.

Bond ratings and wastewater rates:

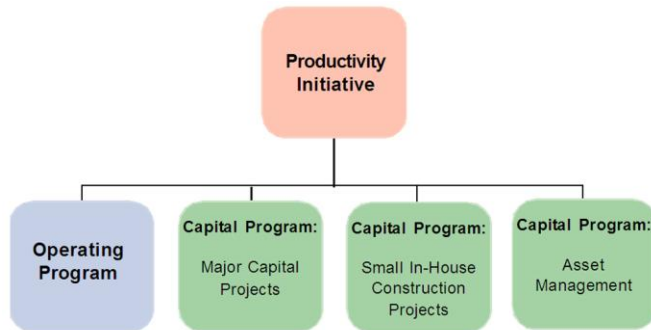
<http://www.kingcounty.gov/environment/wtd/About/Finances.aspx>.

Near Neighbor survey reports:

<http://www.kingcounty.gov/environment/wtd/About/System/NearNeighborSurvey.aspx>.

2.0. PROGRAM DEVELOPMENT AND IMPLEMENTATION

This chapter describes how the Productivity Initiative was developed and implemented to achieve savings in the operating budget and then later extended to the capital and asset management programs.



2.1 Starting with the Operating Budget

King County used a consultant with knowledge of private-sector practices to help prepare the *Productivity Initiative Pilot Program Plan* (King County, 2001). The first step was to evaluate available data, determine opportunities for organizational change, and identify significant issues. The assessment found,

among other things, that WTD had gathered much valuable data through benchmarking that could be used in developing the program and that division employees, particularly in operation and maintenance programs, were highly skilled.

In May 1999, an interim committee composed of employees from 16 work groups in WTD defined Productivity Initiative vision, goals, and guiding principles, which were adopted by the Productivity Steering Team in 2000. The Productivity Steering Team consisted of 17 representatives from management, staff, and labor who were elected by staff for 18-month terms. The team served as the main channel for communicating guidance to management and facilitating employee feedback.

2.1.1 Creating Savings Goals, Business Plans, and Targets

WTD worked with the consultant to set a savings goal for the 10-year period. The goal was to reduce operating costs by 12 percent over the first five years (2001–2005) and to sustain this level of savings with allowance for inflation during the remaining years of the initiative (2006–2010). The commitment to reduce costs applied to the core elements of WTD’s operating budget.

To achieve the savings goal, WTD adopted a business planning approach similar to approaches used in well-run private companies. Using WTD’s approved operating budget for 2000 as a baseline, employee teams in each of five key functional areas—treatment, conveyance, administration, capital systems, and laboratories—produced a draft “business plan” (list of actions). The consultant confirmed that the actions and estimated savings were consistent with many private-sector operations.

Specific measures were selected from these business plans for implementation, and estimates were prepared on the savings to be realized from each measure over the life of the 10-year program. These “planned business savings” enabled WTD to set a target operating budget for each year. The plan included a provision for adjusting annual targets to account for changes in assumed costs for factors beyond WTD’s control. Such factors include chemical and electricity prices, rate of inflation, and new laws and policies. The targets can also be adjusted to include costs for “new work” beyond the scope of services in the pilot plan and required by changes in policy, procedures, laws, permits, or other directives (for example, preparing for possible failure of the Howard Hanson Dam, subsequent flooding of the Green River Valley, and its impact on WTD facilities). Figure 1 depicts the overall process used to analyze budgets, adjust targets, and calculate savings. Figure 2 gives an example of how methods were applied to adjust targets, calculate savings, and make Incentive Fund deposits and employee payouts.

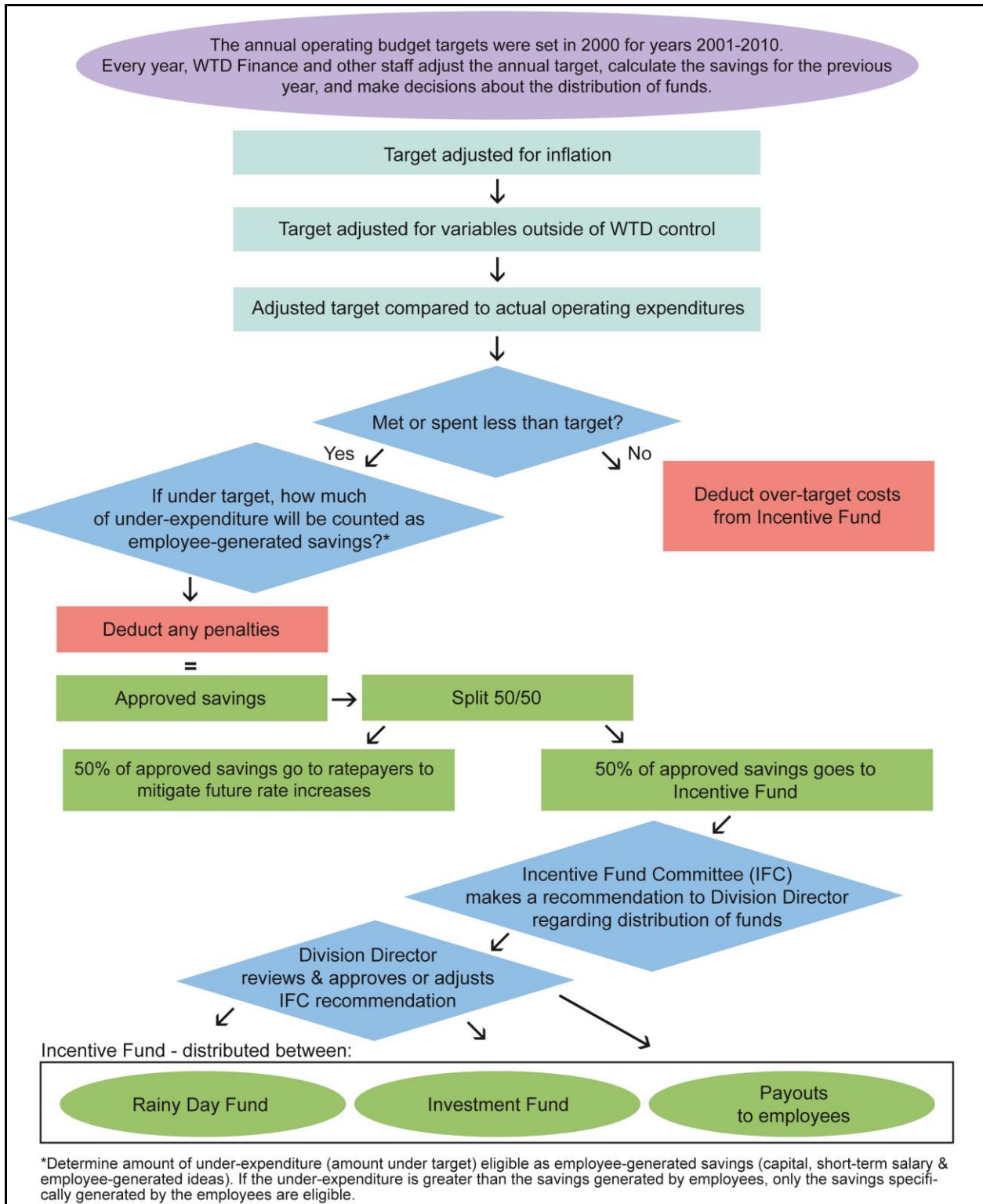


Figure 1. Productivity Initiative Process for the Operating Budget

Target and adjustments in 2009

Unadjusted target	\$77,721,583
Adjusted target	\$86,185,745
Actual expenditures	\$84,549,365
Under expenditure	\$1,636,380

In 2009, total employee-generated savings resulted in over \$2.5 million in savings.

Eligible savings from employee savings actions	\$562,554
Short-term salary savings	\$1,752,688
Capital program savings (asset management pilots)	\$208,369
Total employee-generated savings:	\$2,523,611

Although the employee-generated savings are greater than the under expenditure, no more than the amount of the under expenditure can be counted toward employee-generated savings.

Total employee-generated savings:	\$2,523,611
Under-expenditure	\$1,636,380
Maximum eligible savings for Incentive Fund	\$1,636,380

In 2009, for the first time in the history of the Productivity Initiative Pilot Program, employee-generated savings exceeded the difference between the productivity annual target and actual expenditures.

The employee-generated savings must be adjusted by any penalties that apply. The approved savings are shared equally between ratepayers and employees.

Maximum eligible savings for Incentive Fund	\$1,636,380
Penalty deduction – permit violation	(136,365)
Penalty deduction - safety 5%	\$0 (goal met)
Approved savings	\$1,500,015
Ratepayer share (50%)	\$750,008
Employee share (50%) (Incentive Fund)	\$750,008

As of 2009 (and since 2001), ratepayers have enjoyed \$67,591,391 in planned savings through the Productivity Initiative. In addition, ratepayers also received \$5,057,787 of the \$10,115,574 in employee-generated savings (50 percent of the eligible implemented employee savings ideas, salary savings, and capital program savings). This means division employees have saved more than \$72.6 million for ratepayers to date.

Figure 2. Example Computation of Productivity Savings

The King County Office of Performance Strategy and Budget audits the program. The audits are focused on adjustments to targets, the reasonableness of the targets, and actual expenditure totals.

2.1.2 Defining Incentive Fund Savings

If actual expenditures are below the target in a given year, 50 percent of any additional savings attributable to employee actions beyond the planned business savings is to be placed in an Incentive Fund for employees and 50 percent is to be retained by King County as a savings to wastewater ratepayers by offsetting future rate increases. These additional savings can come from two sources: (1) employees suggest ideas and document the savings in operating expenses accrued from implementing the ideas, and (2) WTD delays filling temporarily vacant positions. Eligibility of savings is to be determined by supervisors, the Incentive Fund Committee, and the division director. Contributions to the Incentive Fund are subject to independent audits.

Operating Planned Business Savings 2001–2010)	
2001	\$2.5 Million
2002	\$4.6 Million
2003	\$6.4 Million
2004	\$7.7 Million
2005	\$8.4 Million
2006	\$8.6 Million
2007	\$8.9 Million
2008	\$9.3 Million
2009	\$9.6 Million
2010	\$9.9 Million
Total	\$75.9 Million

In years when the target is met and there are approved employee savings beyond the target, at least 25 percent of the money in the Incentive Fund is to be distributed to employees as a “payout”; the remaining 75 percent can be paid out or used to benefit employees in other ways, such as training, awards and recognition, and a reserve fund to cover possible future shortfalls in meeting the budget target. This “payout” plan includes all WTD and Environmental Lab employees (except the division director and assistant director). The goals of the Incentive Fund are to provide financial incentives to employees, to achieve higher than projected savings to ratepayers, and to encourage teamwork, employee involvement, and employee ownership of the business.

Program design assumed that the GainSharing program that was in place at the time would be discontinued. The GainSharing program, begun in 1993 under Metro, was a performance-based program for WTD operation and maintenance staff that linked compensation with business improvements made through employee involvement. Between 1993 and 2000, this program saved \$7.9 million for ratepayers and paid out \$4.6 million to employees.

2.1.3 Making Service Commitments

In addition to committing to meeting its yearly operating budget targets, WTD committed to maintaining or improving its levels of service on many fronts. These commitments include complying with all applicable state and federal regulations and permits and also meeting system expansion needs as planned in the RWSP. The commitments also include three Performance Guarantees for effluent limits and employee safety: (1) meeting permit-imposed treatment plant effluent limits, (2) meeting WTD-imposed effluent limits (“non-degradation guarantee”); and (3) setting a target of no more than 22 time-loss accidents per rolling three-year average. The amount contributed to the Incentive Fund is to be reduced in a year where any of the Performance Guarantees are not met. For example, for any year that one of the non-degradation effluent limits is exceeded, WTD forfeits 33 percent from any contribution to the Incentive Fund.

2.1.4 Tracking Performance

At the beginning of the Productivity Initiative, WTD adopted the balanced scorecard, a standard business practice to assess how well it is meeting Productivity Initiative commitments and how well it is performing in general. The balanced scorecard was developed in the 1990s as a tool for businesses and organizations to evaluate performance beyond just financial measurements. Historically, public utilities focused their measurement system and strategies on regulatory compliance and customer service. Responding to demands for privatization and increased public scrutiny, utilities shifted their primary focus to costs or the measurement of financial results and impacts. In contrast to either of these measurement preferences, the balanced scorecard defines WTD's future success by setting targets and measuring performance from four distinct perspectives: finances, business, customers, and employees.³

2.1.5 King County Support and Enabling Legislation

Implementation of the Productivity Initiative officially began on April 27, 2001, through adoption of three King County Council motions and ordinances:

- **Motion 11156** established and endorsed the Productivity Initiative as described in the *Productivity Initiative Pilot Program Plan*. Through the motion, the County pledged that throughout the 10-year initiative, WTD could continue as a public utility and could achieve cost savings through the initiative without involuntary layoffs. The motion acknowledged the increasing public demand for demonstration that wastewater rates are being held as low as possible, reiterated the Executive's intention that the program serve as a model for similar initiatives for other county programs, and asked the Executive to submit amendments to county ordinances and code necessary to further the goals of the initiative.
- **Ordinances 14082 and 14083** approved the labor contracts with Teamsters Local 117 and SEIU Local 6 (now Local 925), which contained provisions in support of the Productivity Initiative.
- **Ordinance 14084** repealed provisions of WTD's GainSharing program and extended the "productivity incentive program" as defined in the collective bargaining agreements with Teamsters Local 117 and SEIU Local 6 to non-represented wastewater employees.

Key Productivity Initiative Service Commitments in the 2001 Productivity Initiative Pilot Program Plan

- Comply with laws, regulations, permits, policies, code, and labor agreements.
- Treat both represented and non-represented employees equitably.
- Operate and manage the wastewater system 24/7 in accordance with "good industry practice."
- Not reduce level of treatment or odor control to decrease operating expenses.
- Meet Performance Guarantees: (1) treatment plant permit effluent limits, (2) WTD-imposed effluent limits ("non-degradation guarantee"), and (3) no more than 22 time-loss accidents per rolling three-year average.
- Maintain assets in good working order, condition, and repair including aesthetics.
- Construct and operate planned capital improvement; evaluate opportunities to combine or optimize projects.
- Meet the combined sewer overflow compliance schedule defined in King County Ordinance 13680, Section 18.
- Meet expansion needs projected in the Regional Wastewater Services Plan; update growth assumptions and revise schedules, if warranted.
- Comply with pretreatment regulations, standards, permits, and King County Code.
- Perform sampling, laboratory testing and analyses, and other procedures required by law and for maintaining Washington State Department of Ecology accreditation of the laboratories.
- Work with the Executive and Council to make any needed changes to the Productivity Initiative.
- Work in good faith with county support service agencies to reach service agreements.

³ The names of the quadrants have changed over the course of the Productivity Initiative, but the categories have remained the same. Annual Productivity Initiative reports document balanced scorecard performance.

2.2 Extending the Initiative to Capital and Asset Management Programs

In June 2003, the Executive submitted two pieces of proposed legislation to Council: (1) a motion endorsing the extension of the Productivity Initiative to capital improvement and asset management programs and (2) an ordinance that would remove some restrictions and allow WTD to use negotiated procurement for alternative methods of contracting, such as design-build and general contractor construction manager contracting.

Productivity Initiative Legislation

Motion 11156. Establishes and endorses the Productivity Initiative. (April 27, 2001)

Ordinance 14084. Repeals the GainSharing program and extends the productivity incentive program to all wastewater program employees. (April 27, 2001)

Ordinance 14082. Approves the labor contracts with Teamsters Local 117. (April 27, 2001)

Ordinance 14083. Approves the labor contract with SEIU Local 925 (formerly Local 6). (April 27, 2001)

Motion 11893. Endorses extension of Productivity Initiative to wastewater capital improvement and asset management programs. (March 15, 2004)

Ordinance 14941. Clarifies participation of represented bargaining units in WTD; codifies the Productivity Initiative; and extends the initiative to major capital projects and the asset management program. (July 12, 2004)

Motion 11893 to extend the Productivity Initiative on a pilot basis to wastewater capital and asset management programs was passed on March 15, 2004. Within a few months after passage of Motion 11893, the Council approved Ordinance 14941 to codify and clarify existing Productivity Initiative practices, including the extension to capital and asset management programs, and to add other provisions. The Council deferred action on the proposed ordinance to lift certain restrictions on contracting.

2.2.1 Challenges in Adding Capital and Asset Management

The extension of the Productivity Initiative to capital and asset management programs was considered as “pilot” because of the untested nature and complexity of applying productivity concepts to the programs. These pilots were thought to have the potential to provide a valuable

opportunity to test different approaches to contracting and to test a risk analysis approach to asset management, rather than a traditional approach of scheduled maintenance and routine replacement.

Development of a program for major capital projects proved to be more complex than for asset management. The difficulties of setting realistic targets, the multi-year duration of projects, and the potential for several different consultants, contractors, and contracts pose significant challenges. WTD worked collaboratively with staff and members of the design consulting and construction contractor communities to develop strategies for defining target budgets and accountability measures for those targets, garnering cost efficiencies, and realizing savings for the public.

Motion 11893 recognized that the extension was “a new initiative that may need to be modified or terminated if it proves ineffective or infeasible” and that labor contracts should reflect this uncertainty.

2.2.2 Key Functions of Ordinance 14941

Ordinance 14941 to codify the Productivity Initiative was passed on July 12, 2004. Key functions of the ordinance are as follows:

- Details the goals of the Productivity Initiative
- Codifies the productivity incentive program, including the Productivity Incentive Fund (a reserve subaccount) and the fund’s oversight committee to determine distribution and use of the fund
- Defines criteria, based on best practices outlined by the Government Accounting Office and Office of Performance Strategy and Budget, to determine whether major capital projects are eligible for the Productivity Initiative and requires that target cost estimates for such projects be determined by an independent third party

- Limits the asset management pilot to categories of assets for which detailed historical maintenance costs, current replacement costs, and a determination of useful life have been developed
- Requires the Executive to report annually on implementation of the initiative; submit an interim report in 2006 with recommendations for modifying the program, if needed; and facilitate a thorough third-party review in 2010 of the entire program, supervised by the County Auditor.

2.2.3 Features of the Capital Pilot Programs

The major capital projects (over \$1 million), small in-house capital construction projects, and the asset management pilot programs became active in 2005 and 2006. Features are as follows:

- **Major capital projects.** A target budget (cost at completion) is set by an external, independent, third party for each eligible project. The goal is to deliver a capital project at a lower cost than the target established for the total project budget. Project managers can include incentives to contractors or consultants. Savings (if realized) are calculated by subtracting the final project cost from the target budget. The savings are split between ratepayers (83 percent) and employees (17 percent). If the target is not met, no adjustments are made to the Incentive Fund.
- **Small in-house capital construction projects.** The goal is to provide an incentive for staff to save money by doing work in-house at a lower cost than if done by outside contractors. An independent estimate must be completed as part of any proposal to do the work in-house. If staff delivers the project at a lower cost than the estimate, the difference is distributed along with employee-generated operating budget savings to ratepayers (50 percent) and the employee Incentive Fund (50 percent). If the cost of the project is greater than the independent estimate, the difference is paid to the wastewater operating budget from the Incentive Fund.
- **Asset management program.** The goal is to maximize the operability of assets in order to defer rebuilding or replacing them. Savings can occur only when staff successfully extends the useful life of equipment beyond the anticipated rebuild or replacement date. Actions are deferred only if the deferrals do not impede the reliability and functional performance necessary to meet regulatory requirements and other service levels and do not unduly increase operation and maintenance costs. The savings are determined by calculating the reduction in debt service associated with the deferred capital expenditures. Savings generated are distributed along with employee-generated operating budget savings to ratepayers (50 percent) and the employee Incentive Fund (50 percent).

3.0. EVALUATION OF PROGRAM SUCCESS

In the first nine years of the program, WTD and Environmental Lab employees have saved almost \$73 million for ratepayers. Preliminary calculations for 2010 indicate that the program will meet its overall savings goal of \$75.9 million.

All key Productivity Initiative objectives were met. Ratepayers benefitted from a savings of almost \$73 million so far while WTD took on a significant amount of new work and new facilities without increasing staff.

Balanced scorecard and other measures show that service levels, as measured by factors such as compliance with regulations, effluent Performance Guarantees, and customer and employee satisfaction, have been maintained or improved over the life of the Productivity Initiative.

The 5-year and 10-year visions for the Productivity Initiative—to be the best public wastewater program in the nation and to be competitive with the best of the private service providers—were set in 2001. WTD updated this vision in 2006 to “Creating Resources from Wastewater” and put reclaiming, reusing, and recycling the byproducts of wastewater treatment in the forefront of WTD’s goals and activities without losing sight of its core mission to protect human health and enhance the environment.

At the outset of the Productivity Initiative, the former Executive and subsequent enabling legislation set objectives for the program. WTD then identified performance measures and targets in each of four balanced scorecard quadrants—financial performance, business practices, customer focus, and employee management—to track its progress in meeting the objectives. Targets for each measure were set high in order to foster excellence.

This chapter describes WTD performance during 2001–2009 with respect to meeting key Productivity Initiative objectives and the targets in the four balanced scorecard quadrants. Table 1 at the end of the chapter summarizes program savings, the costs that would have incurred without program savings, and distributions from the Incentive Fund through 2009. This table demonstrates the total savings to ratepayers of almost \$73 million the first nine years of the program.

3.1 Meeting Productivity Initiative Objectives

The five key objectives set forth at the start of the Productivity Initiative have been fully or substantially met. The following sections describe the successes and challenges under each objective.

Use private-sector management and operational techniques to reduce costs, be more efficient, and improve WTD’s services.

This objective was met. The approaches WTD took to meet the objective were varied and robust. The division adopted private-sector business practices for increased efficiency and cost savings while drawing on its strengths as a public utility and on the experience and knowledge of its employees. WTD set aggressive annual operating budget targets and then adopted balanced scorecard and business planning practices to track progress in meeting the targets and other performance measures.

WTD implemented strategies that are helping achieve long-term efficiencies beyond the life of the program and support the best business decisions for the future of the utility:

- A strategic asset management program is being implemented that better manages the entire lifecycle of capital assets so as to minimize the costs of owning, maintaining, and operating them; delivers a level of service that meets regulatory requirements and ratepayer expectations; and fulfills WTD’s mission.

- WTD made a number of organizational changes such as hiring assistant managers for its East and West Sections to focus on optimizing operation and maintenance practices, hiring reliability engineers, and reorganizing the capital program.
- In a parallel effort, WTD began standardizing its project management process by incorporating Project Management Institute standards into its business practices.
- WTD launched an improved Maintenance Best Practices program. Better repair and replacement decisions are now being made with more accessible information, and long-term repair and replacement forecasts are ensuring that limited resources are being spent on the most critical assets.
- WTD has been working to capture and document knowledge of maintenance activities performed by seasoned employees to ensure that specific equipment and plant knowledge is retained for training future employees.

As of April 2010, staff can easily access information on over 98 percent of WTD's assets, and the number of preventive maintenance work orders completed on time has increased from 5.4 percent in 2007 to 62.9 percent in 2009.

Over the course of the Productivity Initiative, levels of service, as evidenced by balanced scorecard measures, were maintained or improved. WTD has won numerous awards during the past 10 years for treatment plant performance, innovation in project design and execution, energy savings, incorporation of green features in facilities, technological advances, and other achievements.

Demonstrate King County's willingness to respond to increasing public demand for evidence that government services are being delivered as cost-effectively as possible.

WTD has met this objective. Through its documented savings and increased efficiencies, the Productivity Initiative has demonstrated that a public utility can operate in a cost-effective manner without being privatized and can serve as a model for other county divisions and agencies. Since inception of the Productivity Initiative, there has been a decline in the trend to privatize wastewater utilities. As a matter of fact, some utilities have reversed privatization and gone back to running as public utilities (Warner, 2009). In addition, contracts awarded to private firms often have not resulted in the cost savings that were originally projected (AMSA/AMWA, 2003).

A summary of Productivity Initiative savings is as follows:

- Operating savings: \$67,591,391
- Asset management pilot program savings: \$395,759
- Capital pilot program savings: \$0
- Employee-generated savings: \$10,115,574 (half to ratepayers; half to employees)

Annual Productivity Initiative operating budget targets were met in all but two years. (See the discussion on Balanced Scorecard results that follows.) According to a National Association of Clean Water Agencies survey of its members conducted every three years, operation and maintenance expenses of similar water quality agencies increased by an average of 33.5 percent in 2000–2007 (NACWA, 2008). WTD's operation and maintenance expenses increased by an average of only 8.8 percent during the same period. Additional savings were achieved through employee ideas and by deferring replacement or rebuilding of identified assets through the asset management pilot program.

Savings from the Productivity Initiative's asset management pilot began in 2006. A total of 275 assets are now included in the pilot.

Savings targets were not met for the major and small in-house capital projects selected for participation as pilots in the program. The results of the two pilot programs confirm the difficulties, recognized at the start of the pilots, in extending the Productivity Initiative to capital projects:

- **Small In-House Capital Projects Pilot.** Employees identified a few projects that qualified for delivery of small capital construction projects in-house. Two of the projects were completed in 2005. One did not generate savings; the other was disqualified when it exceeded the \$70,000 ceiling for the total cost of labor, equipment, and supplies set by state procurement laws. Since 2005, no other projects have been added to the pilot. Difficulties in implementing the pilot include the (1) added cost for in-house staff to prepare and document a bid, (2) added cost for an independent third party to prepare a construction estimate, and (3) restrictive state procurement laws.
- **Major Capital Projects Pilot.** In 2005, WTD attempted to include three major capital projects in the program. In addition to not being able to adjust targets to reflect conditions beyond WTD's control, the division experienced other barriers to meeting productivity goals for major capital projects. Tens of thousands of dollars were spent on target-setting before any savings were achieved and without the guarantee of any savings being achieved. Additionally, the consultants hired to set the targets found it difficult to do so. The standard of "a well run wastewater utility" is hard to define, and in two of the three projects, the independent estimate was higher than the division's initial project estimate. The three projects and their status are as follows:
 - Current projections indicate that the target budget for the **Brightwater Treatment Plant and Conveyance System** will be exceeded because of rises in commodity costs and delay of construction of two sections of the conveyance line.
 - After a target budget was set for the **Carnation Treatment Plant**, WTD opted to discharge the effluent to a nearby wetland instead of the Snoqualmie River. As a result, project costs exceeded the target budget. The reclaimed water from the plant enhances wetland hydrology, provides habitat for a variety of aquatic and wildlife species, and eliminates the direct discharge of treated wastewater to the river.
 - The target budget for the **Bellevue Pump Station and Force Main Project** was set in 2006 when the bidding climate was highly volatile. Contract bids received exceeded the initial target by over 100 percent.

WTD sought, without much success, to reach agreements with support services provided by other agencies in King County as a potential means to streamline business processes, remove barriers to efficiencies, and reduce costs for WTD ratepayers.⁴ Approximately 28 percent of WTD's operating budget pays for these services from other King County agencies. Only one agreement was implemented, allowing the Treasury Section to make investments on WTD's behalf. To lower costs and/or allow higher levels of service, WTD has brought some services in-house, including the Industrial Waste Program, which had been in the Water and Land Resources Division, and capacity charge and septage billings from Central Finance. The Productivity Initiative, however, did

⁴ Services that WTD uses include fleet services for vehicles; parking services for vehicle storage; Water and Land Resources for Environmental Lab services and other environmental services; Industrial Insurance for workers compensation; telecommunications for phone services; Office of Information Resource Management for computer services; Prosecuting Attorney's Office for legal services; Finance and Business Operations for procurement, payroll, accounts, retirement and benefits; Local Hazardous Waste services for education and outreach regarding environmental practices; General Government Overhead and DNRP Overhead for Council, Executive, and DNRP support services; and Insurance and Office Space Rental as their titles suggest.

demonstrate that other types of partnerships, such as including the Environmental Lab in the initiative, can achieve similar results as those proposed for service agreements.

Allow for additional opportunities for labor and management to work together.

This objective was met. The Productivity Initiative has paved the way for greater management and union cooperation. WTD worked with its labor partners to develop the Productivity Initiative and incorporate provisions into labor contracts. Another example of this cooperation is the 2005 Assessment Committee. All unions were represented on this committee, as were the division director and assistant division director. The committee identified core issues and barriers to a productive work environment. One of the main results was the WTD Behavior Guidelines, which help to clarify work expectations and, in so doing, improve productivity.

Improved labor-management relationships have led to problem resolution outside of the formal grievance process and collaboration on job progressions, job specifications, and performance evaluations.

One place where WTD can improve is in employee job satisfaction ratings. Ratings from employee surveys have been consistently good but have not met the assigned balance scorecard targets.

Maintain year 2000 staffing levels, even while adding new facilities.

WTD successfully met this objective. It has built new facilities, made major improvements, implemented new initiatives, and taken on unplanned work without increasing staff:

- **New Facilities.** During the years of the Productivity Initiative, three large facilities were constructed—the Carnation Treatment Plant and the Mercer/Elliott West and Henderson/Norfolk combined sewer overflow control facilities—and the

Vashon Treatment Plant was substantially upgraded. Without the commitment to expand services while keeping staffing levels constant, new staff would likely have been hired to operate and maintain these facilities. Moreover, staff levels remained the same during siting, design, and construction of the new regional Brightwater system. The division is preparing to run the Brightwater treatment plant, starting in 2011, without increasing the workforce above year 2000 levels.

New Facilities

Vashon Treatment Plant – Major upgrade completed in 2006.

Carnation Treatment Plant – New treatment plant completed in 2008 to serve the City of Carnation. The plant uses membrane bioreactor technology to produce reclaimed water for discharge to a nearby wetland.

Brightwater Treatment Plant – New treatment plant to start operating in 2011. Brightwater will treat with membrane bioreactor technology, producing a high quality effluent.

West Point Treatment Plant – Disinfection upgrades to allow WTD to use sodium hypochlorite instead of chlorine gas. Expected to be complete in 2011.

South Treatment Plant – During the life of the Productivity Initiative, completed a major plant expansion and built a new administration building.

Henderson/Norfolk Combined Sewer Overflow (CSO) Control Project – Completed in 2005. The project reduces CSOs into Lake Washington.

Mercer/Elliott West CSO Control Project – Completed in 2005. This is WTD's largest CSO system, controlling CSOs into Lake Union.

Conveyance system improvements – Adding storage capacity, improving interceptors, and building and updating pump stations.

New Initiatives

Project Information Systems Management (PRISM) – Data management improvement efforts began in 2003, PRISM is a database that contains all of WTD's capital projects and contracts.

Maintenance Best Practices program – WTD is continuing to standardize and improve the way maintenance is performed. The program incorporates predictive maintenance practices.

Ovation control system – WTD is phasing in a new control system that allows remote monitoring of all facilities.

Project Management Institute (PMI) standards – Standardization of capital project management practices began in 2007. PMI standards are leading to more predictable project results.

- **System Improvements.** Improvements to the wastewater system during this period include improvements at both West Point and South plants, completion of over 25 conveyance system improvement projects, and phased replacement of the control systems for all WTD facilities.
- **New Work.** On occasion, WTD also took on “new work” not expected when the Productivity Initiative was developed. The annual operating budget targets were adjusted to accommodate the costs of the new work, yet WTD completed this work without additional staff. Two examples of new work are the conversion from chlorine gas to sodium hypochlorite at South plant in 2003 and preparation for the potential flooding of the Green River Valley in 2009.

Create an incentive program for employees to make process improvements and meet management’s challenge to become the best publicly run wastewater utility in the nation in 5 years and be competitive with a privately operated utility in 10 years.

WTD created an incentive program and engaged employees in making process improvements. To date, WTD and Environmental Lab employees have generated and documented over \$10 million in savings beyond the annual operating targets. Employees have been rewarded through payouts and other recognition.

Whether WTD is the best publicly run wastewater utility or comparable with private utilities is difficult to demonstrate. However, the significant savings achieved by the Productivity Initiative and its success in meeting other objective measures demonstrate WTD’s leadership in the industry.

Some Employee-Generated Cost Savings

- Tens of thousands of dollars on energy costs were saved after a mechanic at **West Point** suggested running two secondary aeration blowers at a higher rate rather than running three blowers at reduced capacity.
- **East Section** employees created an innovative “fishing pole” to retrieve submerged pumps. The tool increases safety and saves employee time. Before this innovation, retrieving the pumps required an intensive process of draining the sump and then implementing confined space safety procedures.
- **South plant** dramatically reduced the amount of sodium hypochlorite it uses to disinfect effluent by installing a mixer, reconfiguring the contact channel, and optimizing residual chlorine analyzer locations.
- The **Vashon plant** uses ultraviolet light to disinfect its effluent. The system as designed did not provide a means for identifying which bulbs were faulty. One employee discovered that a bulb tester could determine faulty bulbs, saving the cost of replacing all bulbs when the system indicated the need.
- The **Facilities Inspection** unit used the Environmental Lab’s underwater camera attached to a remotely operated vehicle to inspect several outfalls, resulting in substantial savings by reducing the use of contract divers and allowing access to areas previously unavailable to them.

3.2 Meeting Balanced Scorecard Measures

The following sections describe how WTD has met Productivity Initiative–related targets for measures in the four quadrants of the balanced scorecard: financial performance, business practices, customer focus, and employee management. The discussion focuses on measures most directly related to reporting on Productivity Initiative objectives.



3.2.1 Financial Performance Quadrant



The financial performance quadrant of the balanced scorecard includes targets that measure the overall financial health of WTD and how well it is keeping rates within acceptable ranges. Included in the measures are annual Productivity Initiative operating budget targets.

Meeting Operating Budget Targets

Table 1 at the end of this chapter summarizes Productivity Initiative savings and distributions for 2001–2009. As shown in Line 5 of the table, annual operating targets were met in all years except 2004 and 2007. When targets were not met, the over-expenditures were split equally between ratepayers and the Incentive Fund (Lines 9 and 10 in Table 1). In the years when the targets were met, employees generated additional savings that were distributed to both ratepayers and employees. (See Figure 2

in Chapter 2 for a detailed example of the calculation methods.)

Projections made in 2000 indicated that 2004 and 2005 would present the greatest challenges to meeting operating budget targets. It was assumed that to meet the goal of reducing the operating budget by 12 percent by 2005, the more easy to implement improvements with the greatest savings would most likely be implemented in the earlier years. Nonetheless, to continue to meet and exceed targets, WTD reviewed other agencies' practices and solicited ideas from employees. It then hired a consultant in 2006 to provide operating program staffing plans and other recommendations for 2007–2010. Specifically, the consultants were charged with determining whether it would be possible to operate and maintain the new Carnation and Brightwater plants using the same number of WTD employees as in 2000. Similarly, an internal review of the capital side of WTD was launched in 2007, which led to reorganizing the division and adopting standardized project management procedures.

Managing Sewer Rates and Bond Ratings

In response to financial challenges that occurred during the life of the Productivity Initiative, the division has used a variety of financial strategies in addition to the Productivity Initiative to maintain reasonable sewer rates and support smoother future rate increases. Adaptive strategies include developing rate plans that cover investments in infrastructure; ensuring the utility has enough revenue to maintain its good credit rating; pursuing tax and permitting exemptions where possible; and pursuing federal and state funding in the form of low-interest loans, grants, and stimulus monies.

From 2000 to 2010, WTD was recognized for its sound financial management with favorable credit ratings by Moody's Investors Service (Moody's) and Standard & Poor (S&P). WTD's Moody's rating was strong in early years, was maintained for many years, and increased in 2008. S&P's rating of WTD was also strong in early years, increased in 2006, and increased again in 2008. These bond rating increases and subsequent reduced interest rates are expected to result in millions of dollars worth of savings over the life of the bonds. This is particularly important for WTD because of the size of its debt service and capital program.

As part of the balanced scorecard, WTD has set a target for its debt-service coverage ratio. This ratio gauges the division's ability to produce enough cash to cover its debt payments. The higher the ratio, the easier it is to obtain a loan. So far, WTD's ratio has exceeded the target each year. However, the turmoil in the credit markets and the municipal bond market in 2008 and 2009 adversely affected access to credit for all borrowers and increased the division's borrowing costs. While bond markets have gradually recovered, WTD continues to be flexible and investigate ways to provide necessary capital funds, including reprioritizing capital projects and proceeding only with those that are most crucial.

In 2008, WTD added targets to the balanced scorecard to compare its sewer rates to those of other agencies and its rate increases to the rate of inflation. WTD’s rate was 40 and 49.5 percent of the highest comparable rate of other agencies in 2008 and 2009—much less than the target of no more than 75 percent. The target of keeping the rate increase below the rate of inflation was met in 2008 but not in 2009. A good indicator of rate stability is to compare rates to those projected in 1998 for the RWSP and in 2004 for the RWSP update. As shown in Figure 3, actual rates through 2010, except in 2009, have remained at or below those projected in 1998.

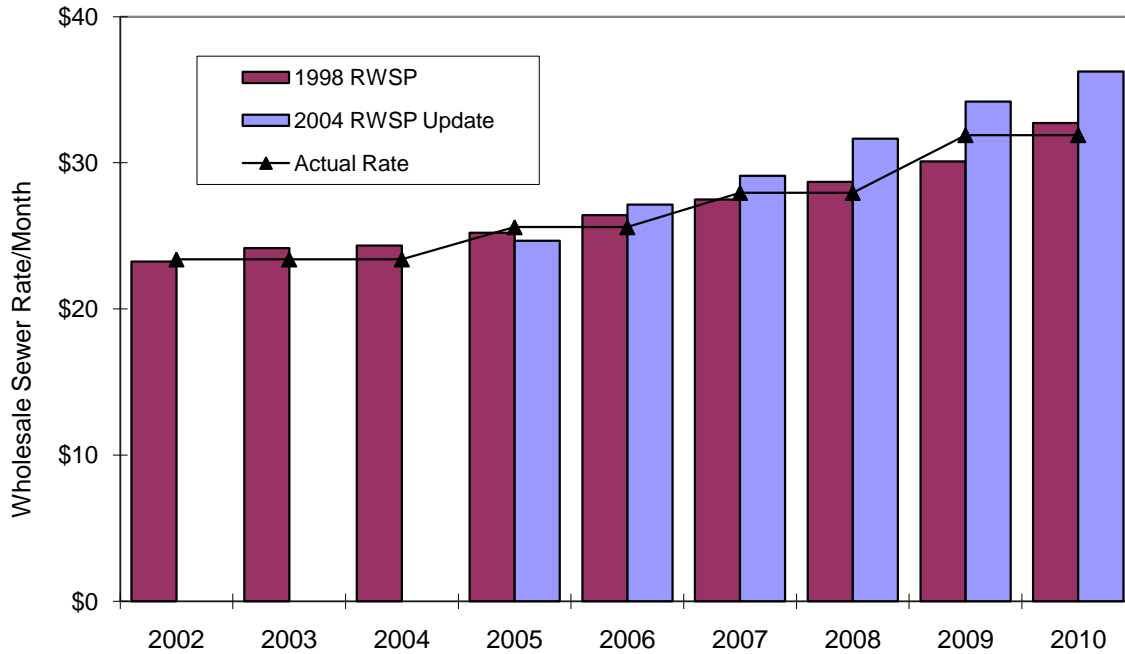


Figure 3. Actual and Projected Wastewater Rates (2002–2010)

3.2.2 Business Practices Quadrant



The business practices quadrant of the balanced scorecard measures how well WTD's critical internal processes are meeting levels of service set both externally and internally. Measures include WTD's compliance with National Pollutant Discharge Elimination System (NPDES) and other permits, stewardship of public health and water quality by minimizing sewer overflows and conducting sediment cleanups, resource reclamation efforts, and Performance Guarantees to ensure that efforts to keep costs down do not degrade environmental quality.

The following text describes these and other actions WTD has taken to improve the way it does business.

Meeting Environmental Regulations

WTD sets targets for (1) compliance with NPDES effluent limits for its treatment plants, (2) number of NPDES permit enforcement actions (treatment and conveyance), (3) number of notices of violations of construction stormwater permits (on balanced scorecard starting in 2008), (4) percent compliance with the air quality permit, and (5) percent compliance with reclaimed water permits (since 2008). All targets were met or met within 90 to 99 percent of target.

Meeting the NPDES effluent permit limits was one of the Performance Guarantees that WTD committed to as a part of the Productivity Initiative. Fines associated with permit violations (related to either treatment plants or conveyance) are paid from the operating budget, and the Incentive Fund contribution is reduced by one-twelfth for each violation in any year in which violations occur. A violation is defined as a Notice of Penalty or Administrative Order issued by the Washington State Department of Ecology (Ecology). Penalties were deducted from employee-generated savings in 2006 because of a fine for disinfection system shortcomings at West Point, in 2008 because of a Notice of Penalty for the Ravenna Creek spill, and 2009 because of a Notice of Penalty for an overflow at West Point. These penalties are shown in Line 7 of Table 1 at the end of the chapter.

Meeting Resource Recovery and Energy Conservation Targets

Targets for recycling biosolids, effluent (reclaimed water), and digester gas were met with very few exceptions over the nine-year period:

- WTD has recycled 100 percent of its biosolids every year.
- The volume of reclaimed water produced has consistently exceeded the target, especially in 2009 after the Carnation Treatment Plant began using its reclaimed-water quality effluent to enhance a nearby wetland. In 2008, King County began developing a reclaimed water comprehensive plan to determine if, how, when, and where its reclaimed water program should expand over the next 30 years.
- The South and West Point plants continue to use digester gas, an energy-rich methane gas naturally produced as a byproduct of solids treatment, to generate heat, electricity, and natural gas. The division fell below the target for recovery of digester gas for reuse in the past few years, because the cogeneration system at West Point had reached the end of its useful life in 2008 and was taken out of service. A new waste-to-energy project is under construction that will install a new cogeneration facility that uses digester gas to generate electricity at the plant. The amount of digester gas used at the plant will increase significantly once the facility starts producing power in 2012, after which WTD expects to resume meeting the annual target for digester gas recovery.

Energy usage represents a large portion of WTD's expenses. A target for reducing energy consumption by greater than 2 percent each year was added to the balanced scorecard in 2008. This target was exceeded in both 2008 and 2009. Energy teams at the plants meet regularly to plan ways to reduce energy usage, and energy audits are in progress or planned for high energy consuming facilities (South and West Point Treatment Plants and various pump stations). The division continually applies for grants to conduct audits and implement energy efficiency and recovery projects. For example, in 2008, WTD received a grant from Puget Sound Energy to replace an aging pre-aeration blower system at South plant. Replacing three centrifugal blowers in the pre-aeration process with two energy efficient turbo blowers is expected to reduce energy costs by \$23,312 each year and additionally save on operation and maintenance costs.

Meeting Overflow Targets

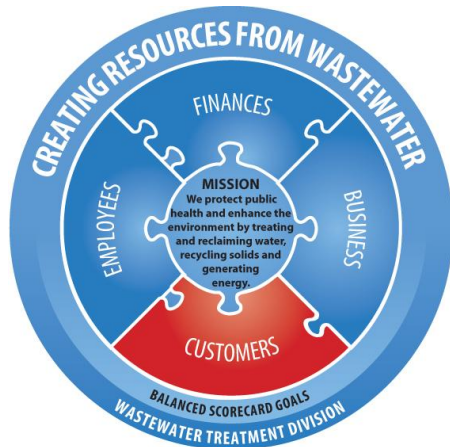
WTD has set targets for the number of sanitary sewer overflows (SSOs) and for the volume of combined sewer overflows (CSOs). Although WTD's operating permits do not allow SSOs, all sewer systems are designed with relief points to protect public health under emergency conditions. For purposes of the balanced scorecard, WTD set an annual limit on the number of avoidable SSOs based on past history and performance expectations. The number of SSOs was slightly below the target in four of the years and above the limit in five of the years. In 2009, for example, there were 12 SSOs (five more than the target of seven). With the exception of a spill from West Point in 2009, the SSOs that year were relatively small volume, short duration spills mostly from the conveyance system.

WTD has set a goal, approved by Ecology, to control all its 38 CSO locations by 2030 to the Washington State Standard of no more than one overflow event per year at each location. Two major CSO control systems, Mercer/Elliott West and Henderson/Norfolk, were constructed and went online since the start of the Productivity Initiative. These technically complex facilities were added to WTD's responsibility without the addition of any new staff. Until all CSO locations are controlled, the balanced scorecard target for CSOs is a not-to-exceed volume as a percentage of total system flow. WTD has managed CSO volumes to levels consistently lower than the target throughout this period.

Meeting Effluent Non-Degradation Performance Guarantees

The *Productivity Initiative Pilot Program Plan* listed three parameters for measuring the quality of effluent from West Point and South Treatment Plants. For any year that one parameter is exceeded, 33 percent is to be deducted from the calculated Incentive Fund contribution. All parameters were met every year of the initiative to date.

3.2.3 Customer Focus Quadrant



The customer focus quadrant of the balanced scorecard includes measures of how local agencies view the quality and value of their contract services with WTD. The quadrant also examines how residences and businesses near WTD facilities view WTD as a neighbor.

Perceptions of People Who Live Near Treatment Plants

Since 2002, WTD has commissioned the Near Neighbor Survey—a survey of businesses and residents near the West Point and South Treatment Plants. The 24-question survey is conducted by an independent research firm that randomly polls 35 businesses and 100 residents in each community. Through 2007, the survey was conducted annually. Now it is conducted every two years.

Survey questions enable respondents to describe their perceptions of the plants and to share both positive and negative opinions about their operation. People also have an opportunity to rank the County's priorities and offer suggestions on how the County can improve. Survey results are used to plan and implement areas of improvement in WTD processes and management systems.

If over 75 percent of respondents view the treatment plants as good neighbors, the balanced scorecard goal has been met. Results over the years range from 64 to 78 percent. The highest percentages occurred in the first three years of the Productivity Initiative (2001–2003). Results in 2009 show that almost 68 percent of respondents feel the treatment plants were good neighbors. Nearly 83 percent of respondents said they did not experience any negative impacts that could be related to the operation of a nearby treatment plant. Among those who did, the most common complaint was odor. These percentages give only one part of the picture. They need to be reviewed against the number of respondents who know there is a treatment plant nearby. For example, only 29 percent of businesses surveyed in 2009 near South plant knew there was a treatment plant in the area.

Over the years, controlling odor and providing more public information continue to be the top suggestions for how WTD can become a better neighbor. People also want the County to continue maintaining landscaping around the plants, offer public tours, reduce truck traffic, and respond to issues and inquiries within 24 hours.

In 2005, WTD set a goal of responding to odor complaints within two hours after receiving them. There has been only one late response to date. WTD also made significant upgrades to its odor control systems in recent years, investing \$7.9 million at South plant and \$1.4 million at West Point since 2004, to prevent nuisance odors from impacting neighbors. Since these improvements were put into place, odor complaints originating from the plants have decreased significantly. In 2009, the treatment plants had only three odor complaints combined.

Perceptions of Local Sewer Agencies

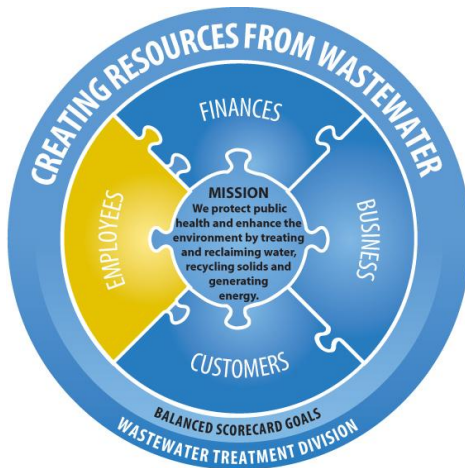
Each year, WTD surveys local agencies to measure how these agencies view the quality and value of their contract services with WTD. These agencies are collectively known as the Metropolitan Water Pollution Abatement Advisory Committee (MWPAAC). MWPAAC consists of representatives from cities and local sewer utilities that operate sewer systems in King County. Its purpose is to advise the Executive and Council on matters related to wastewater service in King County's wastewater service area.

The survey response rate, in general, has improved in the past two years. The target of greater than or equal to 50 percent was reached in 2005, 2008, and 2009. The average response rate for the other six

years was 35 percent. The target was met or nearly met in seven of the nine years for the local agency ratings of the quality of contract services and customer satisfaction. Ratings for these measures were quite low in 2006, most likely because the agencies were dissatisfied with the contract extension negotiations that were taking place with the County at the time.

In 2007, WTD added a question to the survey to gauge local agency satisfaction with the MWPAAC process. The WTD director met with individual MWPAAC members that year to better understand issues affecting their agencies and customers and to hear about their experience as MWPAAC members. Based on these interviews, the director recommended and implemented changes to the MWPAAC process. Although ratings have been below the target in the three years the measure has been in effect, the ratings have been steadily improving from 86 percent of the target in 2007 to almost 99 percent in 2009. Another outcome of the recommendations was to seek and obtain approval from the Executive to develop a reclaimed water comprehensive plan, now in progress.

3.2.4 Employee Management Quadrant



The employee management quadrant of the balanced scorecard includes measures tied to results from an employee survey conducted every year through 2008 (except 2003). As of 2009, the survey is now conducted every other year (no survey in 2009). Measures from the survey include overall satisfaction with jobs, perception of respectfulness in the workplace, and satisfaction with workplace safety. The quadrant also includes measures of employee retention rate, percentage of employees with professional certifications or licenses, and employee accidents.

The 2001–2009 results for the employee management quadrant are as follows:

- **Safety.** The *Productivity Initiative Pilot Program Plan* committed WTD to a Performance Guarantee of fewer than 22 time-loss accidents per rolling three-year period. If not met, WTD forfeits 5 percent from any contribution to the Incentive Fund in the year the average is exceeded. The Performance Guarantee was exceeded once (in 2006–2008), which resulted in an Incentive Fund penalty in 2008 of \$78,490. In 2008, the balanced scorecard started measuring the number of time-loss injuries in which employees are able to return to transitional duty or regular duty within three days of medical release. All time-loss injuries in 2008 and 2009 met the three-day criterion.
- **Employee perception of workplace and jobs.** The balanced scorecard targets for employee perceptions are greater than or equal to 4 on a scale of 1 to 5. Although the targets were not met, ratings were generally good:
 - Satisfaction with workplace safety was consistently close to the target (average rating was 3.84)
 - The average rating for overall satisfaction with their jobs was 3.69, with the lowest ratings occurring in 2001 and 2008.
 - The ratings for respectful workplace for 2008 and 2009 (not included on balanced scorecard before 2008) were 3.99 and 3.85, respectively.
- **Employee retention.** The target of greater than or equal to 91 percent employee retention was exceeded in all nine years
- **Employee certifications and licenses.** The percentage of employees with certifications and licenses was about 34 and 36 percent in 2008 and 2009, respectively (the only years measured on the balanced scorecard). Both years were over the target of 33 percent.

Three other survey items that relate to how the Productivity Initiative affected employees were tracked on the balanced scorecard through 2007: (1) rating of innovation (measured only in 2004–2007), (2) spirit of teamwork, and (3) satisfaction with participation in decision-making. All three consistently met targets, with only one exception in 2005 (participation in decision-making). Other survey items that are not as closely tied to the initiative were also tracked through 2007: satisfaction (1) with supervisor communication and support, (2) with leadership and management, and (3) with training and development. These three items were consistently below targets, but ratings for all three steadily rose from the 2001 ratings to a peak in 2005 and then dipped slightly in 2006 and 2007.

Table 1. Summary of Productivity Initiative Savings and Distributions (2001–2009)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	Ratepayer Savings
1. Operating expenditures without productivity	\$80,590,030	\$70,425,072	\$67,891,407	\$72,763,115	\$76,779,813	\$82,131,582	\$84,292,176	\$88,811,364	\$96,142,914	
2. Less: operating business plan savings	\$2,560,030	\$4,639,072	\$6,263,407	\$7,659,049	\$8,797,620	\$8,983,589	\$9,207,761	\$9,523,695	\$9,957,169	\$67,591,391
3. Productivity operating expenditure target	\$78,030,000	\$65,786,000	\$61,628,000	\$65,104,066	\$67,982,193	\$73,147,993	\$75,084,414	\$79,287,669	\$86,185,745	
4. Less: actual operating expenditures	\$68,898,000	\$60,431,000	\$60,687,000	\$65,697,769	\$65,233,984	\$71,449,761	\$75,666,677	77,498,207	\$84,549,365	
5. Under (over) expenditure target	\$9,132,000	\$5,355,000	\$941,889	(\$593,704)	\$2,748,209	\$1,698,232	(\$582,263)	\$1,789,462	\$1,636,380	
6. Documented operating savings	\$2,762,000	\$1,670,956	\$941,889	\$0	\$1,445,306	\$1,644,352	\$0	\$1,485,970	\$2,315,242	
7. Minus: penalties	\$0	\$0	\$0	\$0	\$0	\$137,029	\$0	\$209,306	\$136,365	
8. Plus: capital savings (asset management)	\$0	\$0	\$0	\$0	\$0	\$37,600	\$65,964	\$83,826	\$208,369	
9. Ratepayer share (50%)	\$1,381,000	\$835,478	\$470,944	(\$296,852)	\$722,653	\$772,461	(\$258,150)	\$680,245	\$750,008	\$5,057,787
10. Employee share (50 %)	\$1,381,000	\$835,478	\$470,944	(\$296,852)	\$722,653	\$772,461	(\$258,150)	\$680,245	\$750,008	
11. Employee share:										
12. Payroll taxes	\$67,336	\$68,594	\$38,765	\$0	\$55,370	\$82,769	\$0	\$27,142	\$89,776	
13. To Rainy Day Fund	\$400,000	\$0	\$0	(\$296,852)	\$100,000	\$0	\$0	\$265,585	\$187,502	
14. To Investment Fund	\$162,979	\$0	\$0	\$0	(\$50,000)	\$0	\$0	\$244,599	\$0	
15. Paid to employees	\$750,685	\$766,884	\$432,178	\$0	\$617,283	\$689,692	\$0	\$142,919	\$472,730	
16. Incentive Fund balance	\$562,979	\$587,048	\$603,839	\$319,749	\$369,104	\$356,404	(\$194,599)	\$315,585	\$503,087	
17. Total ratepayer savings										\$72,649,178

NOTES:

- Operating expenditures without productivity is the amount that was estimated to be actual expenditures if WTD had not implemented the Productivity Initiative. Reduced expenditures based on operating business plan savings were estimated to establish the productivity operating expenditure target.
- Although employees generated savings in 2004 and 2007, the savings were not considered as documented operating savings because WTD did not meet the Productivity operating expenditure target.
- The contribution to the Incentive Fund in 2008 was \$244,599, but after the negative balance from 2007 (\$194,599) was eliminated, the balance in the Investment Fund was \$50,000.
- In 2008, Executive Audit Services and WTD staff identified two formula errors that affected prior reported target expenditure amounts and actual expenditures. This table includes previously reported amounts for the years of 2005 and 2006. It does not include corrected amounts; these corrections are detailed in the 2007 annual report.
- **Penalties.** Incentive Fund eligibility guidelines require that any contributions be reduced by one-twelfth for each month in any given year in which an National Pollutant Discharge Elimination System (NPDES) permit violation occurs as evidenced by issuance of a Notice of Penalty or Administrative Order by the Washington State Department of Ecology (Ecology). Eligibility guidelines also require that contributions should be reduced by 5 percent if WTD exceeds an average of 22 time-loss accidents per rolling 3-year period.

4.0. FEEDBACK AND LESSONS LEARNED

As discussed in Chapter 3, the Productivity Initiative met its objectives, as measured by balanced scorecard targets and the priorities set at the beginning of the program. WTD has maintained the same staffing level as in 2000 while adding new facilities, improving existing facilities, and starting new initiatives to promote long-term efficiencies. All this was done while saving ratepayers almost \$73 million. These efforts will continue to benefit ratepayers well into the future.

In addition to examining the program's success in meeting objective targets and measures, the internal comprehensive review included a qualitative component in which employees, management, and others were asked for their feedback on what elements of the Productivity Initiative worked and what elements did not work as well. The various perspectives were interpreted, analyzed, and then brought to WTD management for comment and validation.

This chapter describes the methods used to solicit and analyze feedback, summarizes the findings, and then describes the findings in more detail.

4.1 Review Methods

Feedback from employees, key individuals, and management was helpful in analyzing program successes and challenges. The following methods were used to gain insight into Productivity Initiative design and implementation:

- **Employee survey and focus groups.** In July 2009, the Comprehensive Review (CR) Team administered a survey to all WTD and Environmental Lab employees. The survey measured employee opinions and levels of satisfaction regarding the Productivity Initiative. Of the approximately 650 employees in the program, 241 responded to the survey (37 percent response rate). The CR team also facilitated focus group discussions with all 41 work teams from October through December 2009 to engage every employee in conversations about the Productivity Initiative. The discussions captured more in-depth responses than in the survey and, in fact, verified that employee survey responses represented those of the wider WTD and Environmental Lab population. The discussions focused on two large questions: (1) What worked well? and (2) What were the problems/obstacles/issues in the Productivity Initiative? While these questions center around the current program, employee recommendations for a future program were noted. All comments were analyzed for content and frequency.
- **Interviews with key individuals.** From March through May 2010, the CR Team interviewed individuals in county government who were instrumental in program development and implementation. Interviewees included Council staff, Department of Natural Resources and Parks management, representatives from the King County Office of Performance Strategy and Budget, and the former WTD director, assistant director, and Productivity Initiative program manager.
- **Data analysis meetings.** The CR Team and the Technical Review Committee met regularly through the first half of 2010 to analyze employee feedback and suggest ideas for a new program.
- **Management team workshop.** In June 2010, the CR Team and WTD management team gathered to analyze and validate findings and develop recommendations from the review. Workshop results served as the basis for the findings presented in this chapter.
- **Union and Executive updates.** The CR Team updated union representatives in July 2010 and the Executive and Deputy Executive in August 2010 on findings and recommendations to date.

4.2 Summary of Findings

Analysis of feedback revealed that the majority of WTD and Environmental Lab employees want to continue the Productivity Initiative, either as is or with a new design. Key individuals interviewed and WTD management agree that a program should continue. Many who support a new program expressed that such a program should be based on “lessons learned” over the course of the last 10 years. Others said that the program should be simplified, that program goals need to be reevaluated to reflect changes in drivers and constraints since program inception, and that flexibility be built into the program to adjust to changing internal and external factors.

Next to the monetary rewards and job security, what employees expressed liking best about the program is that it has made them more aware of how WTD does business, actively involves them in helping find ways to innovate, and inspires them to do their jobs more efficiently. Some said that even though employee involvement has diminished over time, the program has created a persisting culture of cost-consciousness. Others said they feel proud to be part of the program—that it makes them as WTD and Environmental Lab employees feel “different.” It gives them the opportunity to be leaders in the industry and to show ratepayers that WTD is continually working to save money or reduce costs. The employees who did not want to continue the program cited current economic conditions (layoffs and budget cuts throughout the County) as a reason to end the program.

WTD management feels the program demonstrated that the division could involve employees in running the business more efficiently and saving millions of dollars. Additionally, they appreciated the vote of confidence from county leadership in choosing WTD to implement such an important program.

The following are some of the most common themes on program improvement heard from employees, interviewees, and management:

- Employees, in general, want ongoing information, direction, and motivation to keep them actively involved, and they need a better understanding of how the Productivity Initiative works. Suggestions for addressing these needs include making the Productivity Initiative part of new employee orientation, having more regular updates, and holding brainstorming sessions in regular staff meetings.
- Program documentation and communication could be improved.
- The method for adjusting targets and determining how much of employee-generated savings is eligible for the Incentive Fund should be simplified.
- It is difficult and time consuming to document the savings generated from implemented ideas. This difficulty tends to discourage employees from documenting the savings, especially if the savings are relatively small.
- There is a desire to continue to develop ways to successfully include capital project work in productivity savings.
- Productivity savings ideas need to be tracked better and results need to be better communicated. Employees often do not know what happens after they submit ideas—who makes the decisions, whether or not they are accepted, why they are accepted or rejected, and what ideas others have submitted. A program started in 2007 called “Bright Ideas!” is helping to address some of these concerns.
- Types of savings eligible for the Incentive Fund should be reconsidered. Managers and many employees, for example, dislike counting salary savings from temporarily vacant positions funded by the operating budget.
- Ways to provide more recognition and to reward successes should be considered.

- The program would benefit from a “point person” and renewed attention throughout the program.

4.3 Narrative of Findings

The following sections describe results of the analysis of employee, WTD management, and interviewee feedback. The survey, focus groups, interviews, and workshops revealed a diversity of opinions and a variety of perspectives. However, several broad themes emerged frequently and consistently throughout the analysis.

4.3.1 Meeting Program Goals

A number of goals were established for the Productivity Initiative. The majority of employees who engaged in the survey and focus groups acknowledged that the goals of generating savings and encouraging innovation have been met. Employees and managers understood that WTD accomplished the goals of running more like a private business; however, there was uncertainty about becoming the best publicly operated utility in the country. Some focus group participants suggested that WTD resume its benchmarking with other agencies in the country to gauge how it compares. King County Council staff who were interviewed also suggested that WTD benchmark more often and more publicly.

Management and employees feel a strong commitment to public health and the environment. Many expressed that they were not willing to fully adopt a business model if it meant sacrificing the level of service to achieve “savings.” Management and employees also frequently said that operating more like a private entity was complicated by the division’s dependence on other groups in King County for support services. Internal King County agencies do not have productivity programs and have little incentive to enter into service agreements with WTD.

Employees appreciated the ability to have a voice and take ownership in savings, that the initiative helped them become more conscious of costs and of their work. They also appreciated the invitation to generate creative ideas. A sense of pride emerged because the Executive and Council had enough faith in WTD to approve the program and that the program provided them the opportunity to be leaders in the industry and the community. The program creates an “employee ownership mentality,” an avenue for innovation and improvement, and a common goal for labor, employees, county leadership, and WTD management. As one employee said, “We’re in this together.”

4.3.2 Identifying Savings

Employees, both in the survey and focus groups, consistently said many small savings could add up to large savings, but the program does not have an easy method to document and track savings. Numerous people stated that the program could have saved much more money if the process for submitting ideas and documenting savings had been easier and the results better communicated. One employee said “...many, many small savings, which would have added up substantially, were left behind due to people daunted by the process.”

Evidence and opinions suggest that “Bright Ideas!” is helping to address some of these concerns. This program, started in 2007, encourages employees to submit workplace improvement suggestions (both savings and non-savings suggestions) via boxes at each worksite. A log at the site documents each suggestion and its response. For example, West Point has logged 83 ideas since implementation of “Bright Ideas!” The person in charge of the log sends the suggestions to the appropriate people for answers and decisions. If an idea is implemented and cost savings are achieved, the supervisor works with the employee to complete the Productivity Savings Form for submission to the Incentive Fund Committee.

Short-Term Savings vs. Long-Term Process Improvements

Employees and interviewees stressed that because many savings have been achieved, the “low hanging fruit” or easy-to-implement ideas have already been implemented. They suggested that a future program focus on ongoing efficiencies and process improvements and that staff be given support and time to put these process improvements into place. It was also suggested that WTD track improvements through non-financial targets such as green building, energy program implementation, and sustainability.

Including Vacancies and Revenues in Savings

In addition to savings generated from employee ideas, savings from temporary vacancies funded by the operating budget are included in the amount to be split between employees and ratepayers each year. Savings are justified because employees temporarily cover the workload created by the vacancies without additional overtime. If a work group is able to temporarily accomplish the scheduled work of the vacant position, the supervisor may complete an Operating Productivity Initiative Savings Worksheet that documents how they accomplished the work. Not all vacancies are eligible for inclusion, and many eligible vacancies are reduced by a percentage of the work accomplished. The Incentive Fund Committee reviews savings from each vacant position during the year before approving them for inclusion in the savings calculations.

Unfilled vacancies accounted for over 60 percent of the additional savings over the past nine years. Many employees and auditors from the Executive’s Office of Performance Strategy and Budget have questioned the consideration of unfilled vacancies as productivity savings.

4.3.3 Including Capital Projects in Productivity Savings

Suggestions emerged on how to modify Productivity Initiative design in order to capture capital productivity savings and better integrate capital and operating programs:

- Find ways to count the innovative solutions in a capital infrastructure project that save money.
- Identify productivity savings via existing capital processes already in place (for example, the Capital Systems Team and the Servoy project management software).
- Adopt a better way to capture savings overlaps between capital and operations and to identify where costs and investments are made on one side and payoffs and savings are realized on the other.

4.3.4 Communication and Employee Engagement

Although payouts are considered by many employees as a strong incentive, others believe they are motivated to do their best to be efficient with or without the Productivity Initiative. In addition, there is a feeling from some that public servants should not receive individual payouts.

Many also noted that overall enthusiasm and involvement in the program waned over time. The program “ramped up” well through staff exposure and management presentations, but over time, it seemed to be emphasized less and to move out of the “spotlight.” There was no overarching committee to guide the program through its lifetime and no program manager after 2002. Employees who were hired after the initial stages of the initiative said that they know very little about it. A greater understanding of how Productivity Initiative decisions are made, who makes them, why they are made, and what outcomes ensued would go a long way in increasing employee engagement. A few employees said that 10 years was just too long to sustain involvement. Brainstorming in work teams and continued and vigorous management support would be helpful for sustained employee buy-in.

One interviewee who was instrumental in setting up the Productivity Initiative said that continuation of the program in any form needs to include strong efforts to obtain and maintain employee buy-in through emphasizing that the employees *are* the program. Without them, it cannot succeed.

4.3.5 Accounting and Documentation

The productivity initiative was a complex program that required extensive effort to set up and implement. Both employees and budget analysts found the systems used for target setting, adjusting, and tracking to be complicated. Audits of the program found the process to be overly complex, although consistently applied.

It took a large effort to get the Productivity Initiative off the ground; costs of administering the program were also substantial. Several staff spent time adjusting targets, comparing actual expenditures to targets, writing reports, tracking implementation, and sitting on committees. In addition, considerable time was spent in developing the capital pilot programs. Much of the work was done through task forces. Program costs were not counted against program payouts and targets. In any event, the setup and other identified costs were orders of magnitude less than the almost \$73 million in savings passed on to ratepayers through the Productivity Initiative.

Management's analysis of the Productivity Initiative found that although there has been extensive documentation on the program, more documentation is needed for some program elements. For example, the implementation of the small capital pilots (which did not generate savings) was not adequately tracked and documented. Employee productivity savings ideas were not tracked well, nor were employees given information on how the ideas progressed through the system (before "Bright Ideas!" was implemented). Further, some documentation was compiled in work sections or business teams but WTD did not have one central location for Productivity Initiative data.

5.0. RECOMMENDATIONS

The overall success of the Productivity Initiative demonstrates the creativity, dedication, and flexibility of WTD and Environmental Lab employees and the support and direction of WTD management. It validates the King County Executive and Council's vote of confidence in allowing WTD to undertake such a massive, long-term, and cutting-edge program to serve as a possible model for the rest of the County. Because of this success and the ongoing need to use ratepayer dollars wisely, WTD is recommending that a new productivity program be developed based on lessons learned from the current program. This chapter presents WTD's recommendations for developing the new program.

If the Executive recommends going forward with a new program, WTD will seek comments from the Council and Executive and then will work with the Executive to develop the program. Contracts with labor unions that incorporate major provisions of the program will be sent to the Executive and Council for approval in 2011. Details of the program will be developed and sent to the Executive in late 2011 for approval and recommendation to Council for adoption through a motion or ordinance.

Recommendation 1—Devise new program goals and measurable objectives that emphasize WTD's vision and mission.

For a new program, WTD plans to revise division-level and section-level goals and objectives to reinforce the vision "creating resources from wastewater" and mission "to protect public health and enhance the environment by treating and reclaiming water, recycling solids, and generating energy." The goals and objectives will reflect WTD's commitment to continuous improvement while maintaining high levels of service that meet or exceed regulatory requirements and maintain customer and employee satisfaction. Goals and objectives will translate into metrics for sections, business units, and individuals that employ SMART (specific, measurable, attainable, realistic, and time-bound) or similar principles generally accepted as robust measures of success.

In the second or third year of the new program, WTD will consider engaging in benchmarking activities to gather new ideas from similar utilities and verify that it is implementing industry best practices. It will also consider partnering with other jurisdictions through the National Association of Clean Water Agencies or other national groups, to perform objective assessments.

Recommendation 2—Emphasize continuous process improvements while meeting financial targets.

The goals and objectives of a new program will emphasize implementation of continuous process improvements that will realize financial savings over time. WTD is currently reviewing its systems and identifying opportunities to improve its performance and better correlate the goals and objectives of the King County strategic plan with WTD's business plan and section work plans. Eventually, the balanced scorecard may be revised and other performance measures developed to serve as the mechanism for linking these plans and for measuring improved performance on all levels.

New operating budget targets will be simpler to understand, easier to track, and aimed at process improvements that achieve performance measures and long-term efficiencies and savings. The program will move away from incentives for making short-term budget cuts to meet target budgets.

Capital project programs will share the same goals as those for the operating program and will incorporate measures such as the following:

- Project management and delivery targets, such as reducing allied costs and overall timeframes for project delivery. Historical capital project data can inform development of appropriate measures and targets.
- Cost savings from improved asset repair and replacement schedules. The savings will be undertaken only if they do not conflict with other objectives, such as containing maintenance costs and conserving energy.

Renewed energy will be directed toward reaching service agreements with King County support agencies such as procurement, fleet services, parking services, and Water and Land Resources Division. The countywide strategic plan and the Executive's "Be the Difference" program should prove helpful in finding opportunities for collaboration with other county departments.

Recommendation 3—Provide consistent leadership and administration.

WTD recommends that a new program include the following to provide consistent leadership and administration:

- Strong program commitment and leadership from the division director, assistant division director, section managers, and supervisors. The division director has made continuous improvement a high priority and is committed to using the productivity program to support this priority.
- A program manager position to lead the program and maintain employee engagement. This position will likely be a dedicated portion of one or more employees' workloads rather than a full-time assignment.
- Process improvements and involvement of technical experts in evaluating employee-generated savings ideas.
- A small employee-run steering committee. This committee will guide program implementation, secure broad-based support, and give long-term direction.

Opportunities to improve administrative efficiency, such as streamlining annual reports, will be sought. All program administration costs will be tracked, deducted from program savings, and evaluated annually for consistency with program goals and objectives.

Recommendation 4—Engage employees.

The following are recommendations for encouraging employees to participate throughout the life of the new productivity program:

- Members of the small employee-run steering committee may facilitate regular brainstorming and communication sessions in their work groups, foster enthusiasm, and assist in explaining program mechanics.
- Work will be done to determine how best to provide employee incentives and recognition. If payouts are part of a new program, a simpler method will be instituted, such as a fixed payment amount for employees based on meeting specific performance metrics and substantial financial achievements, rather than calculating exact savings and adjusting targets regularly. Financial savings will need to be large enough to support the full cost of administering the program and to justify employee payouts.
- The process for employee submission and documentation of savings ideas will be improved by providing additional support and feedback, similar to current practices under the "Bright Ideas!" program.

- A non-cash recognition and rewards program will be further developed and connected to meeting productivity targets. Emphasis could be placed on recognizing individual staff and work team participation.
- As with the existing program, close collaboration with labor unions will be essential. A no-layoffs provision, if included, will need to be clearly written and consistent across all union contracts.

Recommendation 5—Begin the new program in 2012.

If approved by the Executive and Council, the new program would be scheduled to begin in 2012. WTD will work diligently through 2011 to set up the program. While doing so, WTD will maintain many of the components of the Productivity Initiative, such as the balanced scorecard and collecting employee-generated savings ideas. These components have become integral to WTD's business and will remain in place during the interim period.

Recommendation 6—Set up the new program with a five-year lifespan and structured annual internal reviews.

A five-year program duration will allow more flexibility in assessing program design and developing new goals and objectives, as needed, to adapt to changing conditions. A shorter program lifespan will also align better with the division, department, and county strategic planning processes.

6.0. REFERENCES

AMSA/AMWA. 2003. *Public vs. Private: Comparing the Costs*. The Association of Metropolitan Sewerage Agencies and the Association of Metropolitan Water Agencies. Washington, D.C.

King County. 2001. *Productivity Initiative Pilot Program Plan*. Department of Natural Resources, Wastewater Treatment Division, Wastewater Program. Seattle, WA.

NACWA. 2008. *Highlighting Challenges in Utility Financing and Management, 2008 NACWA Financial Survey Summary*. National Association of Clean Water Agencies.

Sims. 2001. Letter to the Honorable Pete von Reichbauer, Chair of the King County Council, presenting a request for a motion to establish the Productivity Initiative Pilot Program. Written by King County Executive Ron Sims. February 8, 2001. Seattle, WA.

Warner, M.E. 2009. *Local Government Infrastructure and the False Promise of Privatization*. Part of the Century Foundation's Building a Stronger America series. Washington, D.C.

ACKNOWLEDGEMENTS

Special thanks to all King County Wastewater Treatment Division staff for their dedicated service and the information they provided to help evaluate the division's Productivity Initiative Pilot Program. Also, thanks to the following people who not only helped with the formulation of this report and the internal comprehensive review process, but also provided their expertise and knowledge over the years.

Comprehensive Review Team

Tim Aratani
Rachael Dillman
Pam Elardo
Kate Leone
Maryann Ness
Lorraine Patterson
Darcia Thurman
Debi Walker
Dave White

Incentive Fund Committee

Al Brooks
Rick Butler
Brian Duncan
Rob Emery
Mike Fischer
Jim Laremore
Mark Lucas
Leon Maday
Diane McElhany
John McMillin
Richard Meeks
Lorraine Patterson
Peggy Rice
Chris Tinnin

Management Team

Norm Alberg
Tim Aratani
Greg Bush
Pam Elardo
Mike Fischer
Dan Grenet
Sharman Herrin
Jessie Israel
Kate Leone
Kathy Loland
Elizabeth Milestone
Gunars Sreibers
Christie True
Dave White

Stakeholder Interviews

John Bodoia
Shelley De Wys
Cynthia Hickey
Mike Huddleston
Mark Isaacson
Dan Lawson
Beth Mountsier
Don Theiler
Maureen Welch

Technical Review Committee

Terry Fiber
Paul Galeno
Arnaud Girard
Peggy Leonard
Richard Meeks
Cheryl Read
Nancy Robbins
Curtis Steinke

Other Staff Experts

Joe Barnett
Brent Bills
Cindy Burch
Nancy Ettele
James Foulk
Ade Franklin
Valerie Garza
Carl Grodnik
Erica Jacobs
Dave Jurgens
Ron Kohler
Tom Lienesch
Shirley Marroquin
Susan Peterson
Debra Ross
Cathie Scott
Dave Stark
Helen Sturm
Lisa Taylor
Marissa Tsaniff
Steve Tull
Don Wickens

GLOSSARY

Adjustments	Operating budgets are adjusted yearly for factors outside the control of WTD (such as chemical costs and electricity rates).
Asset Management Pilot	Started in 2006, this pilot can realize savings when staff successfully extends the useful life of equipment beyond the anticipated rebuild or replacement date. The savings are determined by calculating the reduction in interest associated with the deferred expenditures. Employee-generated savings go into the Incentive Fund.
Bright Ideas!	A program, started in 2007, that encourages employees to submit workplace improvement suggestions (both savings and non-savings suggestions) via boxes at each WTD worksite. A log at the site documents each suggestion and its response.
Comprehensive Review Team (CR Team)	Formed in 2009, a team of employees (primarily managers and supervisors) from WTD and the Environmental Lab assisting in the internal review of the Productivity Initiative.-
Employee-generated savings ideas	Ideas generated by division employees to reduce operating expenditures. Savings are either one time or ongoing, continuing to yield savings for numerous years.
Incentive Fund	A fund established to provide financial incentive to employees for generating savings in addition to meeting operating budget targets and to cover over-target costs (if the wastewater program does not meet its annual adjusted budget target the difference must be made up from funds taken out of the Incentive Fund). In the years the target is met, at least 25 percent of the funds must be distributed in a minimum annual payout to employees.
Incentive Fund Committee (IFC)	An employee team that approves employee savings submissions for the Incentive Fund. The IFC makes recommendations to the WTD Division Director.
Maintenance best practices (MBP) program	A program to improve maintenance practices in WTD and to move closer to a desired best practices standard. Five areas are being improved: leadership, maintenance work processes and practices, computerized maintenance management system, stores management, and documentation.
Major capital projects pilot	Capital projects with budgets over \$1 million are eligible to participate in the pilot. A project target budget (cost at completion) is set by an external independent third party. WTD works to deliver the project for less than the target budget. Once set, the only allowable adjustment to the project budget target is for inflation.
Operating budget targets	Annual budget goals for 2001–2010 were developed in 2000 and based on the year 2000 operating budget. Operating budget targets are adjusted yearly for factors outside of WTD's control.

Payouts	Financial incentive payments to employees for their work generating savings. Payouts are made from money in the Incentive Fund and given only in years that WTD meets the operating budget target.
Planned business savings	The primary strategy for achieving annual productivity targets. Planned business savings are actions WTD takes to reduce operating costs, intended to reduce operating costs by 12 percent through the life of the program. Actual savings from planned actions are totaled every year.
Regional Wastewater Services Plan (RWSP)	A 30-year comprehensive plan to ensure the continuation of high quality regional wastewater treatment services in King County. The RWSP was adopted by the King County Council in November 1999 via Ordinance 13680.
Short-term salary savings	When a work group is able to temporarily accomplish the work of a vacant employee, this can be documented and included as an employee-generated savings. Supervisors and section managers complete a worksheet detailing what percentage of work was completed following an employee's departure and before the position was filled. Inclusion of these savings is voted on by the IFC.
Small In-House Capital Construction Projects Pilot	Construction project work can be bid on by WTD staff as long as it complies with state procurement laws. If WTD staff can complete the work for less than an independent estimate of construction work than the savings (difference between expenses and estimate) would be eligible for the Incentive Fund.
Technical Review Committee (TRC)	WTD employees who represent all labor groups and unrepresented employees of WTD. Formed in 2005, the TRC reviews and makes Productivity Initiative improvement recommendations to WTD Management Team.
Unadjusted target	Operating budget targets set in 2000 are adjusted yearly for inflationary figures for that year to provide an unadjusted target. This target is then adjusted for variables outside of WTD control.