MEASURING FOR RESULTS

KING COUNTY DEPARTMENT OF
NATURAL RESOURCES AND PARKS

Second Annual Performance Measure Report – 2003

June 2004

King County
Department of
Natural Resources and Parks

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King County Department of Natural Resources and Parks
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June 2004

A PDF version of this report is available online at *http://dnr.metrokc.gov/dnrp/performance/*

ACKNOWLEDGEMENTS

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King County

Department of
Natural Resources and Parks

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FROM THE DNRP MANAGEMENT TEAM

This report reflects our determination to improve how we measure our performance and use performance information to improve the environment and quality of life in King County. It is also part of a larger effort to communicate our accomplishments and broaden the dialogue with our elected officials and residents. As part of this process, we have created a set of ambitious and challenging targets to help us determine our progress in achieving our goals.

WHY ARE WE DOING THIS?

Our performance management effort started in response to a request from King County Executive Ron Sims to "create a high performance organization." Performance management relies on measuring our performance relative to our mission and goals and adjusting our management strategies accordingly. Our main reasons to measure performance are to:

- use information to strategically achieve our mission and goals,
- clearly communicate our ambitious targets and desired outcomes,
- increase the value and benefits of our services,
- better understand the results of our work,
- develop ongoing support from elected officials and residents,
- focus our limited resources to achieve maximum benefits,
- communicate our successes and challenges, and
- enhance staff morale and team cohesion.

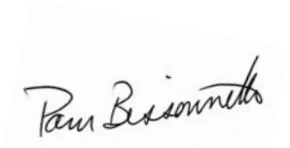
WHAT'S NEXT?

This is the second department-wide report of our ongoing effort to measure and improve our performance. The aggressive targets we have set show our ambition for the future. In some cases our challenge is to continue a high level of performance and in others, as ratings show, we must improve to realize our vision for this region. We have made the conscious decision to really push ourselves because we believe we can achieve significant improvement in all of our goals areas.

Two new things in this report reflect changes in the department. Because the Parks and Recreation Division was merged into the department well into the development of the performance management system, it was not reflected in last year's report, but is now represented. In addition, we have added efficiency and entrepreneurial revenue measures to this year's report to reflect the growing interest in these important financial measures and how they impact the important goal regarding pricing our services.

This report is a guide to help us evaluate how we are allocating our resources and the extent to which we are achieving our mission. For example, we used the measures, targets and baseline data from last year's report in our 2004 business plan and budget development process.

We continue to refine the existing measures and improve our decision-making processes to incorporate performance information. We ask for your suggestions on refinements and to help us find ways to use this information to help us achieve DNRP's goals.



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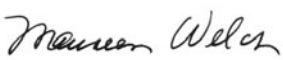
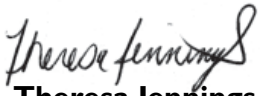


Maureen Welch
Acting Division Director
Parks and Recreation Division



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Division Director
Solid Waste Division

Daryl Grigsby
Division Director
Water and Land Resources Division

Don Theiler
Division Director
Wastewater Treatment Division

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EXECUTIVE SUMMARY

The Department of Natural Resources and Parks (DNRP) is now in its second year of using a results- or outcome-based performance management system to monitor progress towards accomplishing our goals. This system was developed to measure and report the most important information required to understand the condition of King County's natural environment and the results of the department's programs. DNRP will use this information to improve our performance and service delivery through a variety of approaches including programmatic analysis, strategic business planning, and the budget process.

The performance management system was designed by an internal departmental team comprised of the Management Team and experts from each division in response to a directive from King County Executive Ron Sims. The performance management system is designed around a set of seven departmental goals. Based on these goals, specific outcomes were developed. Each outcome is a statement of results of desired condition in people, the organization, the community or the environment. Because outcomes are hard to measure, agency performance measures and environmental indicators were developed as a way to measure our progress toward desired outcomes. **Environmental indicators** describe the condition of the environment and **agency performance measures** describe the results of our programs.

We also developed a rating system to help us understand our progress in accomplishing the desired outcomes. The rating system gives percentage scores for each measure based on how the current results or performance compares with targets or the desired outcome. The rating system is applied uniformly to both agency performance measures and environmental indicators. The rating system uses three key elements to evaluate each measure:

1) level of performance,
2) level of performance relative to the 5-year, or 2007, target and
3) level of performance relative to the long-term desired outcome.

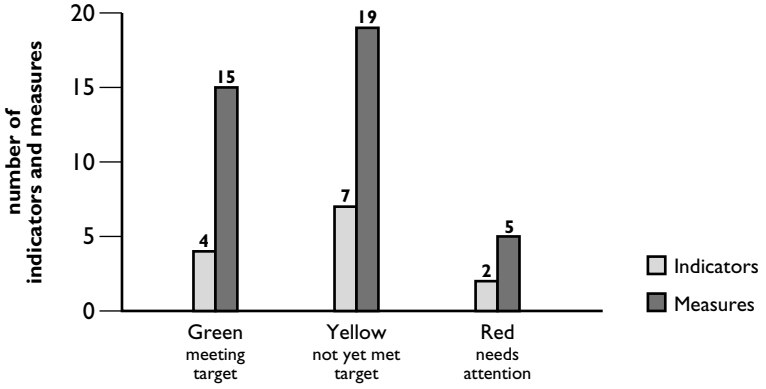
These performance-to-target and performance-to-outcome percentages are then given a color-coded rating:

- **Green** indicates that we are meeting the target or outcome. Green is used only when the performance to target (or outcome) percentage equals 100 percent.
- **Yellow** indicates that we have not yet met the target or outcome but that the performance is above a threshold for concern.
- **Red** indicates that the measure or indicator needs attention. Red is used when the performance to target (or outcome) ratio is below a critical threshold of performance. Because of the diversity of indicators and measures we are measuring, the critical percentage threshold was determined on an indicator-by-indicator basis.

The summary of all indicator and measure ratings can be found on the **inside back cover.**

As the goal of using performance measures is to improve our environment and the effectiveness of our programs, we naturally set the bar higher than where we are right now. So, in this second year of an ongoing process, the number of yellow and red measures and indicators shows how much work still needs to be done. In addition, the yellow and red measures show where resources should be directed to help us achieve success.

INDICATORS AND MEASURES
COMPARED TO 2007 TARGETS



Out of a 39 total rated performance measures, 15 are currently meeting the target, 19 are not yet meeting or are below the target, and five need attention. The 15 performance measures that are already meeting targets will need continued focus to ensure we maintain high performance. The 19 measures that have not yet reached the 2007 target require ongoing attention and the five red measures need significant programmatic and budget attention.

This document is to be used as a tool to assist decision-making. It requires rigorous review, an iterative process to evaluate our progress, make corrections or adjustments, and re-examine our approaches. Over the next few years the department will continue to evaluate the indicators and measures and make adjustments as necessary to maximize our ability to meet or exceed our goals and accomplish the department's mission. Ultimately, DNRP expects this report to form the basis for informed discussion and debate about how we, as an agency, are best able to accomplish our mission and goals and meet the needs of the residents of King County.

INTRODUCTION

King County's Department of Natural Resources and Parks (DNRP) manages a wide variety of programs affecting King County's land, water, air, wildlife, parks and recreational areas. The department is organized into four divisions: Parks and Recreation (Parks), Solid Waste (SWD), Wastewater Treatment (WTD), and Water and Land Resources (WLR). Our 1,650 employees work on programs as diverse as solid waste disposal, wastewater treatment, river levee maintenance, farm and forestland protection, water quality protection, and public recreation.

DNRP has created a results- or outcome-based performance management system to track progress toward accomplishing our goals. This system was developed to better understand the condition of King County's environment and the results of the department's diverse programs.

This introductory section includes:

- background information on performance management in King County,
- a description of the conceptual framework for DNRP's performance management system,
- definitions and a discussion of key terms: *outcomes*, *performance measures* and *indicators*,
- a brief description of departmental and divisional coordination,
- a detailed discussion of the rating system for evaluating our performance, and
- a summary of how performance measures are being used by the department.

The majority of the report is in sections that present indicators and measures for each of the department's seven goals (see page 5). For each goal, specific outcomes are defined and one or more performance measure or indicator describes each outcome. Each measure or indicator explanation provides information on:

- why it is important,
- how it is determined or calculated,
- historical or baseline data (when available),
- the most recent available data,
- 5-year targets (set in 2002 for 2007),
- a long-term, desired outcome based on a benchmark, regulatory standard or percentage,
- relevant observations about the data or other contextual information,
- our strategy to maintain or improve performance,
- this year's (2003) rating, and
- references.

The report concludes with an analysis of our overall performance, an assessment of how well we are attaining our goals, and suggests priorities designed to focus management attention.

Background

PERFORMANCE MEASUREMENT IN KING COUNTY

King County has a long-standing interest in using performance measures to improve county operations and align programs with desired outcomes. As early as 1991, the King County Auditor surveyed all county agencies' use of performance measures. In 1995, the Metropolitan King County Council passed legislation that directed the County Executive to develop and implement a countywide performance measurement system, start the process with three key agencies, and produce annual reports for policy makers and the public.

In 1998, King County Executive Ron Sims defined a vision for the county that included being a "high performance organization." To implement that vision, in 1999 the County Executive created a team whose mission was to develop a consistent process for business planning and performance measurement for county government. The (then) Department of Natural Resources started to develop a performance management framework that would define performance measures for the departmental goals and identify how the measures would be used in a strategic planning, program evaluation, and budgeting context.

Concurrent with the County Executive's initiative, the department's divisions were pursuing their own efforts to improve their organizations, including performance measurement and management: WTD developed the Productivity Initiative, SWD created the Competitiveness Project, and WLR produced a Strategic Plan (see below for more detail). In 2002, the department merged with the Department of Parks and Recreation to create the Department of Natural Resources and Parks (DNRP). The new Parks and Recreation Division (Parks) subsequently created the Parks Business Plan that serves as a strategic guide for the division's new entrepreneurial approach.

Since 1995, the county has produced an annual Benchmark Report under the auspices of the Metropolitan King County Growth Management Planning Council. While the primary focus of the Benchmark Report is to track the impacts of policies related to the Growth Management Act as implemented by all of county government (rather than any specific department) and other local jurisdictions, many of the Benchmark indicators relate to environmental outcomes that are important to DNRP. The Benchmark Report provides a broader look at countywide outcomes than DNRP's department-specific performance measures report. The Benchmark Report is also used to show the broader context of changes occurring in the economic, housing, land use and transportation sectors of the county. The most recent version is available at *www.metrokc.gov/budget/benchmrk*.

The Performance Measurement Framework

DNRP VISION, MISSION, GOALS

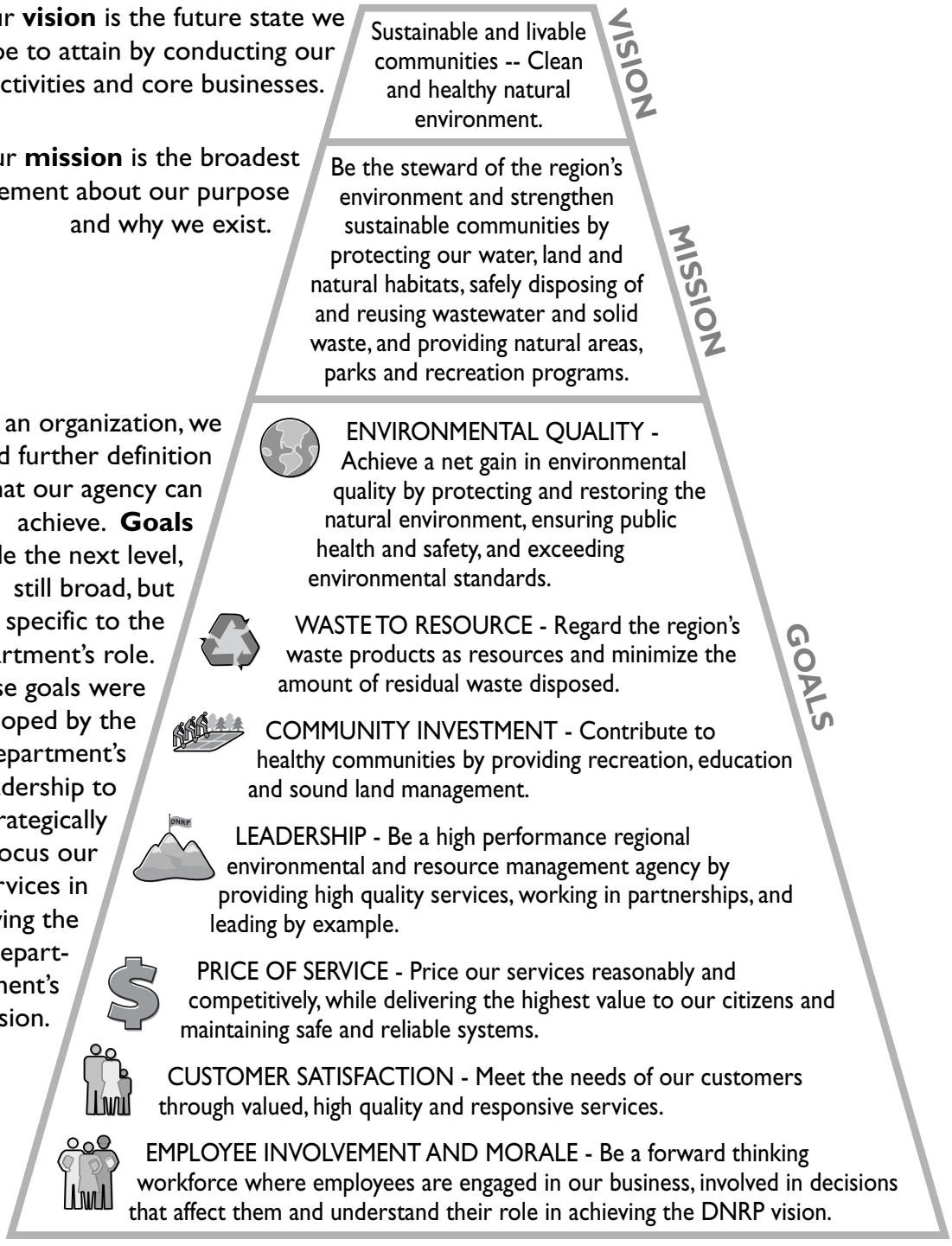
The primary focus of this report is a set of performance measures and environmental indicators. These performance measures and indicators are part of a single conceptual framework that aligns DNRP's vision, mission, and goals with its services.

DNRP VISION, MISSION AND GOALS

Our **vision** is the future state we hope to attain by conducting our activities and core businesses.

Our **mission** is the broadest statement about our purpose and why we exist.

As an organization, we need further definition of what our agency can achieve. **Goals** provide the next level, still broad, but specific to the department's role. These goals were developed by the Department's leadership to strategically focus our services in achieving the Department's mission.



We have organized the **seven goals** to show how they relate to each other, how some goals are likely to take longer to attain, and how we have varying amounts of control over each goal.

Outcomes and Measures

Specific outcomes were developed based on the seven departmental goals. Each outcome is a statement of a desired condition in people, the organization, the community or the environment. Outcomes come in many forms, addressing many levels of change: from individual program outcomes focused on what a single program can achieve, to agency outcomes, and even community outcomes that result from an entire community's efforts. Many of the departmental outcomes in this report are agency-level outcomes, meaning that they require the combined efforts of more than one specific program to be attained. The environmental outcomes, by and large, are focused on community-level change requiring the combined resources of DNRP, other departments within King County, many other jurisdictions, businesses, and individual residents.

Outcomes themselves are difficult to measure, so performance measures and indicators were developed to describe how each outcome is being achieved. Some outcomes have a single measure; others have several measures to better reflect the complexity of elements contributing to a single outcome. We have reserved the use of "indicator" for measures related to environmental conditions, which are influenced by many factors. Because many forces other than DNRP programs influence indicators, they are not truly accurate measures of DNRP's performance. Still, these indicators are important to track in order to determine the overall condition of the environment we help manage. In contrast, the agency performance measures are designed to measure what DNRP is trying to accomplish as an agency (see *What is the Difference between an Indicator and a Performance Measure?* on the next page).

Performance measures present information that helps describe the effects of our work. This information can be used to evaluate potential changes in service delivery. Indeed, in most cases, performance measures help establish an expectation for positive change. These measures can provide insight into how DNRP can work more effectively and efficiently to achieve its mission and goals. The outcomes these measures reflect are critically important to employees, elected officials, the residents we serve, and the environment.

Two indicators that describe complex physical and biological conditions are still under development. A normative flow index for streams is under development and an appropriate salmon indicator will be developed once interjurisdictional salmon plans have finalized salmon recovery targets. Placeholder descriptions are included in the report to explain their relevance and intended use.

This report will continue to be produced annually. Appropriate adjustments to the measures, indicators and targets will be made over time. While we have tried to define measures and indicators so that they can be updated annually, we recognize at the onset that data for every measure or indicator may not be obtained each year, either because change in the measure is not likely to happen over that timeframe or the cost and level of effort required does not warrant annual data collection. Notes within each measure describe the frequency of data collection or other issues affecting changes.

WHAT IS THE DIFFERENCE BETWEEN AN INDICATOR AND A PERFORMANCE MEASURE?

This report distinguishes between indicators and performance measures. Why? Indicators and performance measures are both terms used to describe data associated with desired results or outcomes. However, the main difference between these two terms is the degree of control we have over them. Indicators measure the "state of" something, typically in the natural environment. Performance measures help us assess the effect of our programs.

For example, we measure water quality in Puget Sound. Although other factors, such as ocean conditions, other jurisdictions' or industrial discharges, and natural variability affect water quality, we measure ambient water quality and call it an indicator. However, water quality near the outfall would decline if we did not meet our discharge requirements, and due to the degree of influence we have on water quality at the outfall, we call the water quality near the outfall a performance measure.

Key differences between indicators and performance measures include:

ISSUE	INDICATOR	PERFORMANCE MEASURE
Degree of control	DNRP has less control or can only influence the indicator	DNRP has higher degree of control
Outside influences	More outside influences	Fewer outside influences
Achievement	Due to number of influences and nature of interjurisdictional response, may take longer to achieve	Due to degree of control and fewer influences, may be achieved in a relatively shorter timeframe
Reporting	Reported countywide in county Benchmark Report Reported by urban-rural or incorporated-unincorporated in DNRP report due to limited programmatic reach or impact	Reported only in DNRP report
Use	Ambient sites are used as indicators of the condition of the environment	Outfall sites are used as agency performance measures
Strategy	Requires other jurisdictions and organizations	DNRP may be able to attain by itself, or with limited additional assistance

However, both indicators and performance measures in this report do have some things in common. They both:

- Provide trend data that can be tracked and analyzed over time.
- Are important to DNRP.
- Are related to DNRP's programs.
- Measure desired outcomes, rather than just outputs, and therefore DNRP does not have total control over their attainment.

As an agency, we are interested in the state of the environment and want to improve its condition and achieve specific outcomes. However, this report is not a comprehensive assessment of the King County environment. We are focusing our measurement efforts on indicators that measure conditions where our programs have either a potentially positive or negative influence. Other environmental conditions, such air quality, impervious area, or land uses, are not within our agency's purview. The following reports offer a broader look at environmental quality, indicator, and sustainability issues:

The State of the Nation's Ecosystems: Measuring the Lands, Waters, and Living Resources of the United States. The Heinz Center (*www.us-ecosystems.org/ecosystems/report.html*).

Draft Report on the Environment. U.S. Environmental Protection Agency (*www.epa.gov/indicators/roe/index.htm*).

Cascadia Scorecard: Seven Key Trends Shaping the Northwest. Northwest Environment Watch (*www. northwestwatch.org/scorecard*).

Puget Sound Update 2002: Eighth Report of the Puget Sound Ambient Monitoring Program. Puget Sound Action Team (*www.psat.wa.gov/Publications/update_02/update_02.htm*).

King County Benchmark Report. King County (*www.metrokc.gov/budget/benchmrk*).

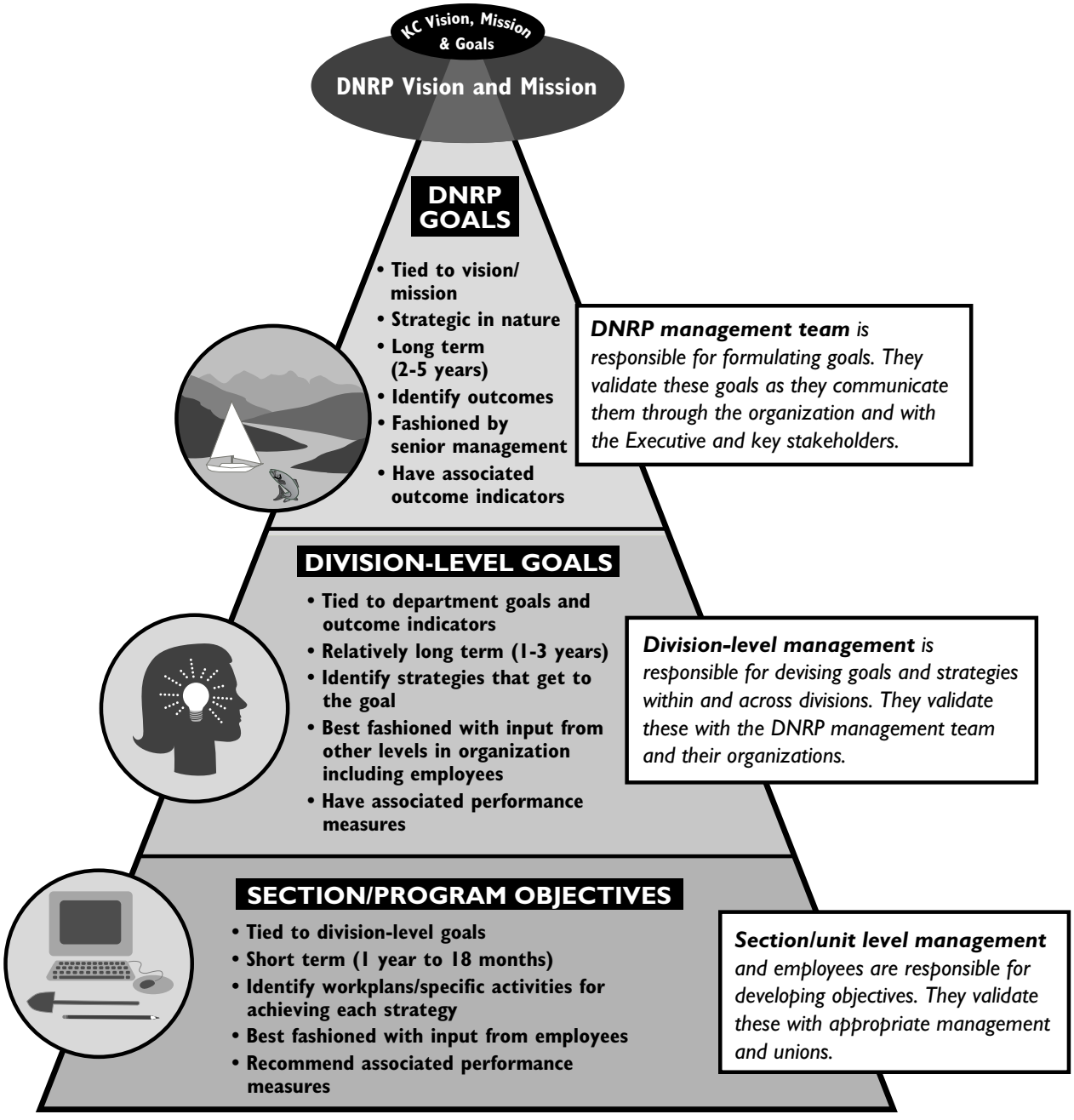
Moving Towards Sustainability 2002: An Annual Progress Report on the City of Seattle's Environmental Action Agenda. City of Seattle (*www.cityofseattle.net/environment/EAAReport2002.pdf*).

1998 Indicators of Sustainable Community Report. Sustainable Seattle (*www.sustainableseattle.org/Publications/40indicators.shtml*).

Department and Division Coordination

Each division within the department has its own business lines, organizational structure, and management objectives. Each division is best qualified to define the strategic approach appropriate for its work. As a result, the divisions have used their initiatives to create performance management systems that fit within the broad departmental approach (see DNRP Performance Management Pyramid figure below). Divisions are using performance measures within their own decision-making, as well as being used as part of the department's decision-making system.

DNRP PERFORMANCE MANAGEMENT PYRAMID



SETTING AN EXAMPLE, DNRP LEADS THE WAY

In addition to the environmental indicators and departmental performance measures in this report, DNRP also tracks our progress on a variety of programs that focus on the internal operations of both our own department and King County government.

Countywide programs

DNRP supports King County's Green Team, which helps county project managers and staff implement green building practices. County offices and departments now have direct access to education and assistance as they incorporate or support Leadership in Energy and Environmental Design (LEED™) methods and techniques in construction, renovation and remodeling of facilities. Several current DNRP capital projects (First NE Transfer Station; Factoria Transfer Station; Brightwater Treatment Facility) and DNRP's main office at King Street Center are seeking LEED™ certification.

DNRP is also in the lead on WasteWise, a U.S. Environmental Protection Agency (EPA) program that promotes internal waste prevention, recycling collection and purchasing of recycled products within county government. DNRP's contributions to the WasteWise program include:

- a $5 million savings within the SWD by renovating 100 solid waste trailers instead of purchasing new ones.
- WTD relined 1,700 feet of concrete pipe on a major sewage line to avoid replacing it.

In recognition of our leadership, EPA selected King County as a "Partner of the Year" for 2003.

DNRP operations

The SWD's Environmental Awareness Program communicates to employees about the division's Environmental Management System, or EMS. The EMS identifies ways for the division to be as "green" as possible in all its operations. There are objectives and measurable targets for a variety of operational areas. Some example objectives relate to efficiency and conservation of energy, water and fuel use; minimizing air emissions; reduce, reuse, recycle; and minimizing use of hazardous materials. As a result of the program, Cedar Hills landfill was award the highest EnviroStars rating (five stars). The EnviroStars program certifies businesses for reducing, recycling, and properly managing hazardous waste. Some accomplishments include:

- reduced air emissions from Division vehicles;
- decreased water and energy usage system-wide; and
- increased recycling.

Parks currently uses a variety of best management practices to minimize the use of water, pesticides and fertilizers in its routine operations. Projects are evaluated to minimize impacts, for example decreasing the amount of impervious surfaces on a project or assessing materials selection near water environments. In addition, a new maintenance facility at Marymoor Park is being designed to be LEED™ certified.

WTD has joined 26 other agencies in a national demonstration project to create a model EMS for its biosolids program. The biosolids EMS is an organized system to document, monitor and optimize the management of wastewater solids and biosolids to meet regulatory requirements and address biosolids-related issues such as public acceptance, odor, noise and biosolids quality. The EMS is also expected to help facilitate continual improvement and help identify cost savings and efficiencies.

HOW WE EVALUATE OUR PERFORMANCE

Our goal is to use our performance management system like a "dashboard" in a car, rather than a "report card." We want to know: are we going in the right direction? how fast are we going? and is the engine overheating? At the same time, we still need a way to determine how fast we are going in comparison to the speed limit, or how close our engine is to overheating.

In order to evaluate our performance, we have developed five-year targets and long-term outcomes. The five-year targets were developed in 2002 and reflect where we want to be in 2007. The five-year targets were derived from staff and management expectations about what could be achieved in five years given expected levels of effort and funding, known program changes, and the impact of external factors such as population growth or changing revenues. These targets were designed based on current expectations with a stretch factor so that they are meant to be "realistic, yet ambitious." After 2007, new targets will be developed for 2012 and so on. Targets may also be adjusted upwards if we achieve the 2007 target early.

The long-term outcomes reflect a very long-term vision of what staff and management thought would represent the department's long-term, ultimate success. These represent extremely ambitious achievements, especially given the impacts from population growth and economic pressures in the region. For example, regulatory compliance or 100 percent attainment are clearly desired outcomes. In many cases, however, the optimal percentage is not 100 percent but a lower figure based on benchmark data, strategic planning documents, a regulatory guideline, or standard.

For each measure or indicator, we have current data, a 2007 target, and a long-term desired outcome. To aid in our measurement, we have created ratios, or percentage, scores for each measure based on how the current results or performance compares with either the target or outcome. These performance-to-target (P/T) and performance-to-outcome (P/O) ratios form the basis for our assessment. In future years, we hope to present additional information that shows performance compared

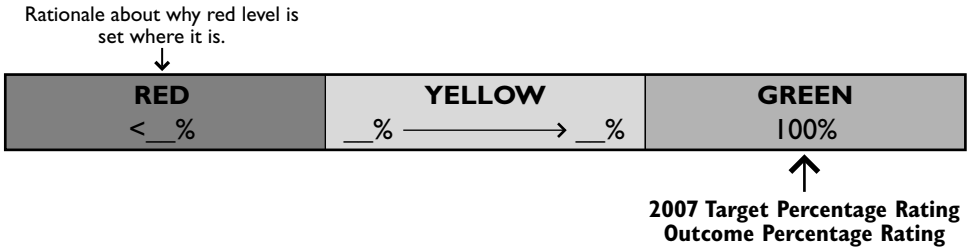
$$\frac{\text{PERFORMANCE}}{\text{2007 TARGET}} \times 100 = \text{2007 TARGET PERCENTAGE} \qquad \frac{\text{PERFORMANCE}}{\text{OUTCOME}} \times 100 = \text{OUTCOME PERCENTAGE}$$

to last year to show relative change using the previous year as the baseline.

Keeping with the driving metaphor, and using a system based on our performance management software, pbviews™, we have assigned colors to these ratios.

- **Green** indicates that we are meeting the target or outcome. Green is used only when the performance to target (or outcome) ratio equals 100 percent.
- **Yellow** indicates that we have not yet met the target or outcome.
- **Red** indicates that the measure or indicator needs attention. Red is used when the performance to target (or outcome) ratio is below a critical percentage or threshold value, determined on a case-by-case basis.

Rating Chart Explanation



An important caveat: although we have baseline data for many measures, in many cases we do not have adequate trend data to draw definitive conclusions. In this first year, these conclusions are meant to put our current performance measures and the targets in an overall context. Given that our approach to performance management is to iteratively re-evaluate our progress and expectations, we may improve our measures, indicators, or targets based on new information, the trends in the indicators, and performance results.

HOW WE USE THE MEASURES

DNRP uses this information to enhance our services and improve our performance by including the results in programmatic analysis, strategic business planning, and the annual budget process. Performance data can assist in management decision-making. They focus attention on where to look to explain issues or problems, help ensure that we successfully implement priority programs; ensure that we are implementing the right programs, and clarify outcomes to assure that these align with departmental goals, County Council priorities and County Executive expectations. Strategically, performance information demonstrates program effectiveness, makes explicit the basis for programmatic change; assists with programmatic and budget prioritization, and helps define areas requiring change.

Performance information is used prospectively in the budget planning process for the upcoming year and to suggest potential mid-course corrections in the current year. Performance information is also used in developing business plans and work plans for the following year. With the exception of division directors, performance measures will not be used in performance appraisals to evaluate individual employees. However, employee-specific work plans are expected to show a relationship to organizational business plans and their related measures.

The department's Management Team, divisions, sections, and unit leaders will regularly review performance information. Our performance management software system is intended to give managers and supervisors ready desktop access to performance data. DNRP staff receive information through emails, the department's intranet site, and through poster displays in work areas. The report is also made available to the County Executive, County Council, and DNRP stakeholders.

ENVIRONMENTAL QUALITY

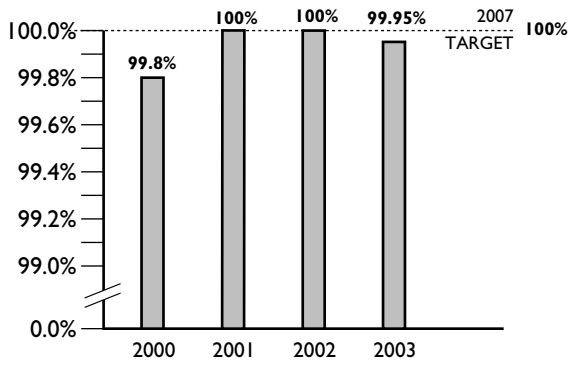
Percent Compliance with Permit Limits for the Major Wastewater Treatment Plants

1

ABOUT THIS PERFORMANCE MEASURE

The National Pollutant Discharge Elimination System (NPDES) requires effluent permit limits for point source discharges. Under this system, King County's major wastewater treatment plants, West Point and South, are required to comply with a variety of effluent limits. This measure tracks violations of NPDES permit limits for biochemical oxygen demand, total suspended solids, fecal coliform counts, total residual chlorine and pH. This measure tracks one of DNRP's major environmental regulatory compliance issues.

PERCENT COMPLIANCE WITH **NPDES** LIMITS
FOR WASTEWATER TREATMENT PLANTS



OBSERVATIONS

The measure includes only major facilities because King County's smallest treatment plant, Vashon, has recently undergone an extensive "makeover" with additional major renovations planned for the future. An interim compliance target for the Vashon facility will be set once there are sufficient data on the improved facility to develop a baseline.

The five-year target is consistent with the Association of Metropolitan Sewer Agencies (AMSA) " Platinum Award," requiring 100 percent compliance for five consecutive years. This is very difficult to achieve due to the amount of equipment involved, weather variations, and the sheer number of opportunities for "failure." For comparison, the AMSA "Gold Award" requires 100 percent compliance for only one year. The AMSA "Silver Award," for five or fewer violations in a year, is the national benchmark. Performance to obtain the Platinum Award is considered to be exceptional.

The 99.95 percent compliance rate for 2003 represents a single violation at the South Treatment Plant. Based on the number, type and frequency of measurements, this is one violation out of 1,103 potential permit violation "possibilities" at that plant. The violation was for an exceedance of the

weekly fecal coliform limit and occurred during the planned switch from chlorine to using hypochlorite as a disinfectant. A greater volume of hypochlorite was required to adequately disinfect than was anticipated.

OUR STRATEGY

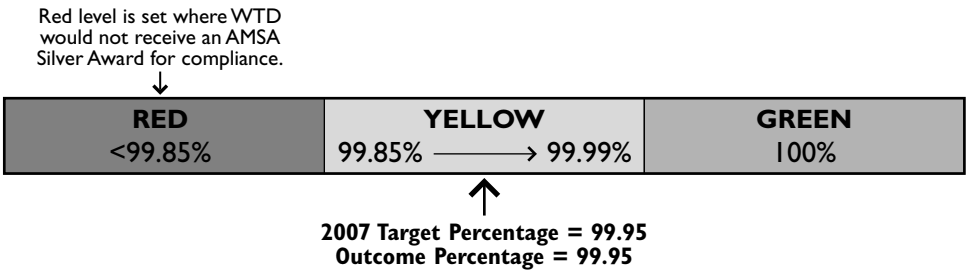
All WTD sections have strategies aimed at ensuring success for their part of NPDES compliance. Specific strategies include a wide range of activities, such as: performing preventive maintenance; providing employees with training and tools; comparing new facility designs with existing facilities; using criteria such as product quality, operations and maintenance and life cycle costs to evaluate plans; developing asset management plans for major equipment maintenance or replacement; providing timely response to project requests that will prevent exceedances; providing a coordinated NPDES program, including a dedicated staff person overseeing NPDES permit negotiations; and, ensuring all staff are up-to-date on requirements.

RATING

Results, Target and Outcome

2003 Results: 99.95 percent
2007 Target: 100 percent
Outcome: 100 percent

The expectation for performance is 100 percent compliance with state and federal regulations.



Performance-to-Target and Performance-to-Outcome Ranges and Ratings

DATA REFERENCE

WTD's Balanced Scorecard Report; reports by Process Control Supervisors.

Percent of Satisfactory Health Inspection Reports for Solid Waste Facilities

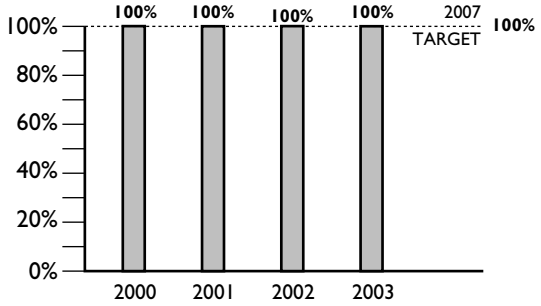
2

ABOUT THIS PERFORMANCE MEASURE

SWD has responsibility for the Cedar Hills Regional Landfill, eight transfer stations, two rural drop box facilities, and 10 closed landfills. Both federal and state regulations govern solid waste handling and disposal, although these regulations delegate authority to local health districts. Public Health - Seattle & King County issues operational permits for the landfill, transfer station and drop box facilities. These permits require monitoring and reporting on numerous emission and discharge performance standards. In addition, the division monitors groundwater, surface water, wastewater and gas at the closed landfills.

Inspections are routinely conducted on a weekly, monthly or quarterly basis for all of the divisions' facilities. Inspections include examinations of the stormwater ponds, leachate collection systems, gas collection systems, and access roads for litter, odors, damage, spills, seagulls and other vectors. This measure reflects an ongoing composite of the monitoring and reporting results.

PERCENT OF SATISFACTORY
PUBLIC HEALTH
INSPECTION REPORTS



OBSERVATIONS

Inspection reports have all been satisfactory. The previously used measure "Percent of discharges meeting permit requirements" has been replaced with this measure to better reflect day-to-day division practices and a more useful indicator for measuring division effectiveness.

OUR STRATEGY

This performance measure has been included in the 2004 Solid Waste Business Plan. Monitoring and maintaining air emissions and water discharges in accordance with local state and federal standards is ongoing work. All programs to ensure compliance will continue and will be fully funded and staffed in 2004.

RATING

Results, Target and Outcome

2003 Results: 100 percent
2007 Target: 100 percent
Outcome: 100 percent

The expectation is 100 percent compliance with Public Health - Seattle & King County regulations.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings

RED	YELLOW	GREEN
<99%	99% ⟶ 99.9%	100%

2007 Target Percentage = 100
Outcome Percentage = 100

DATA REFERENCE

DNRP's Landfill/Environmental Unit.

Total Greenhouse Gas Emissions from DNRP Facilities

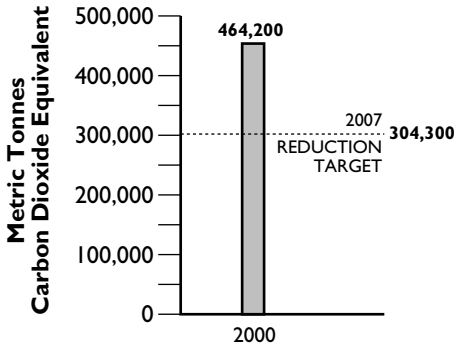
3

ABOUT THIS PERFORMANCE MEASURE

Greenhouse gases are produced from a variety of human activities but primarily come from burning gasoline, diesel, coal, and natural gas. These emissions are presumed to be the source of global warming. Reducing greenhouse gas emissions is a priority in order to limit the potentially catastrophic damage from global warming.

Greenhouse gas emissions from DNRP operations are primarily from municipal solid waste facilities, wastewater treatment plants, and power production required to operate treatment plants and other DNRP facilities. This measure includes both direct emissions, those that are emitted directly from facilities or vehicles, and indirect emissions associated with energy purchases. This measure tracks the ability of DNRP to reduce its Greenhouse gas emissions through the use of new technology, process alterations, or energy sources with lower emissions. In addition, greenhouse gas reduction can also serve as a proxy for energy and fiscal efficiency. Metric Tonnes Carbon Dioxide Equivalent ($MTCO_2E$) is a common unit for quantifying releases of various greenhouse gases.

DNRP GREENHOUSE GAS EMISSIONS



OBSERVATIONS

In 2002, King County government evaluated its total emissions in 2000 and estimated them to be approximately 600,000 $MTCO_2E$. The numbers are a "snapshot" in 2000. While that amount represents only 3.5 percent of the emissions within the geographic boundaries of the county, it makes King County government one of the larger single-entity emitters. In addition, DNRP is responsible for approximately 77 percent of King County government's greenhouse gas emissions, primarily because of the Cedar Hills landfill and from powering the wastewater treatment facilities.

The methodology for the 2000 snapshot will be revised to make the emissions inventory and the target reductions more inclusive and consistent. In the interim, we acknowledge some large gaps in the inventory and some problems with calculating reductions. For example, the inventory does not

include King County government's capital improvement projects. While the size and amount of capital projects vary significantly between years, these activities can be averaged over a number of years to provide a more accurate snapshot. In addition, accounting for credits is complex and constantly evolving. We plan to develop a standardized system so that credits can be tracked, even if the county does not have legal title to them.

OUR STRATEGY

This estimate will be revised in 2005 to reflect constantly improving methods for calculating greenhouse gas emissions. The anticipated reductions will come from the development of the Cedar Hills landfill and the electricity-production upgrades at the wastewater treatment facilities. The Cedar Hills electricity production facility is expected to be operational in 2006, and the wastewater upgrades are expected to be operational in 2005.

The 160,000 $MTCO_2E$ reduction comes from one major source and two smaller sources. The Cedar Hills landfill gas will be captured and turned into electricity. So rather than having two sources of greenhouse gas emissions, the landfill gas and the power plant that would otherwise be needed to provide the electricity, we now have just one source of emissions: the landfill gas that is used to produce power. By collapsing two sources of emissions into one source of emissions, we are obtaining a reduction of 128,000 $MTCO_2E$.

Similar to the Cedar Hills landfill gas to energy production, we will use the methane gas from our two wastewater treatment facilities, West Point and South, to produce electricity. The South Treatment Plant methane-to-electricity facility will be a new cogeneration plant operational by 2005. The West Point facility will be an upgrade of existing operations and be completed by 2007. These two will provide the remainder of $MTCO_2E$ reductions.

RATING

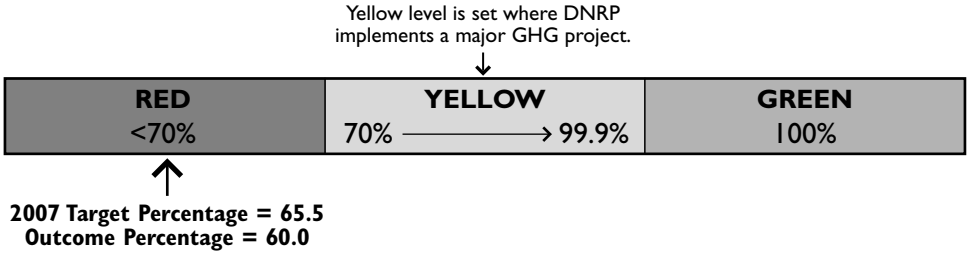
Results, Target and Outcome

2003 Results: 464,000 $MTCO_2E$
2007 Target: 304,000 $MTCO_2E$
Outcome: 278,400 $MTCO_2E$

There is no commonly agreed upon benchmark that can be used as a long-term outcome. For example, no greenhouse gas reduction target has been adopted by Washington State or the United States. The international climate treaty known as the Kyoto Protocol has not been agreed to by the United States, but if it were the United States would be required to reduce seven percent of its emissions by the 2008-2012 time period. This reduction must be below the amount of emissions that the United States generated in 1990. Since 1990, U.S. greenhouse gas emissions have increased approximately 15 percent.

However, most scientists agree that in order to stabilize the climate from current impacts generated by greenhouse gas emissions, then the United States would have to reduce its emissions by 60 to 80 percent. DNRP will base its success upon what is needed to protect the environment from the potential impacts from global warming and therefore the long-term outcome is set at a 60 percent reduction. This number will continue to be evaluated in terms of new scientific findings.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

King County Government Greenhouse Gases and Traditional Pollutant Emissions Inventory-Year 2000; Inventory and Report: Seattle's Greenhouse Gas Emissions, Office of Sustainability and Environment, City of Seattle, 2002.

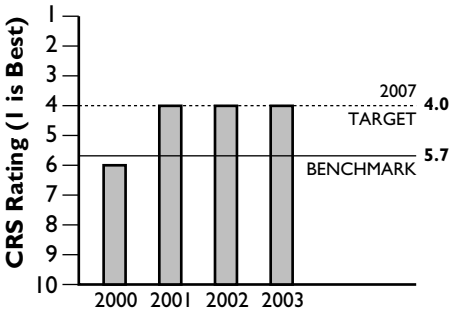
4 King County's Annual Flood Safety Rating Score

ABOUT THIS PERFORMANCE MEASURE

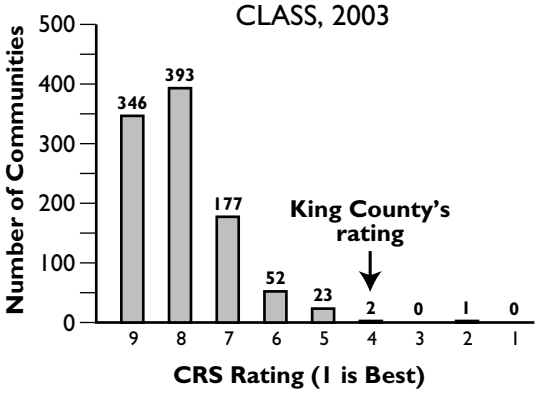
The National Flood Insurance Program's Community Rating System (CRS) is a federal program for recognizing and encouraging community floodplain management activities that exceed minimum national standards. There are 19 activities organized under four main categories (Public Information, Mapping and Regulation, Flood Damage Reduction, and Flood Preparedness) recognized by the CRS as appropriate measures for eliminating exposure to floods. Credit points are assigned to each activity and these points are rolled into an overall score from 1 to 10, with 1 being the highest.

Based on this rating, individual flood insurance premiums are adjusted to reflect the reduced flood risk in the county. The CRS also encourages programs and projects that preserve or restore the natural state of floodplains and protect these functions. The CRS encourages communities to coordinate their flood loss reduction programs with Habitat Conservation Plans and other public and private activities that preserve and protect natural and beneficial floodplain functions.

KING COUNTY'S **CRS** RATING



CRS COMMUNITIES BY CLASS, 2003



OBSERVATIONS

As of Oct. 1, 2003, there were 994 participating CRS communities (both cities and counties). No communities received a class "1" ranking, one community received a class "2" ranking, and two communities, including King County, received a class "4" ranking. This puts King County in the top one percent of all participating communities and the highest rated county in the nation for its floodplain management program and services. The resulting flood insurance premium reduction in Special Flood Hazard Areas is 30 percent annually for policyholders in unincorporated King County.

For a more local comparison, the average score for all participating Washington counties is 5.7 and the average score for all participating Washington counties and cities is 6.6. Since this scale uses "1" as the best, a lower number means a better outcome.

OUR STRATEGY

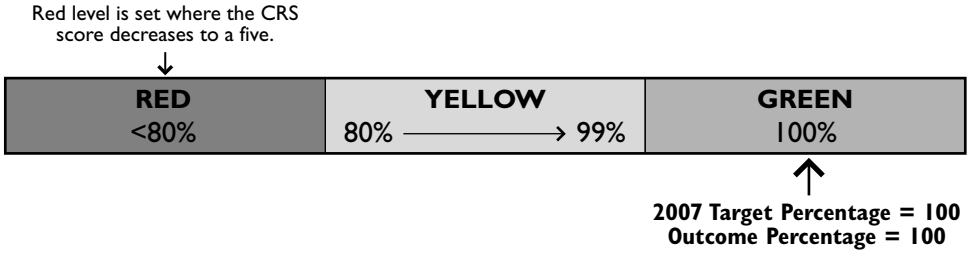
King County will ensure annual CRS certification reviews by the Insurance Services Office and the Federal Emergency Management Agency (FEMA) are comprehensively organized and prepared and will provide prompt and complete follow-up for any outstanding issue identified in the review. King County will work with FEMA Region 10 and CRS task force representatives on CRS credit allowance for flood hazard code implementation, local drainage maintenance standards for streams with Endangered Species Act-listed salmonids, and on the countywide Flood Hazard Plan update. King County will integrate changes to the flood hazard and channel migration hazard codes into the county's CRS certification package subsequent to adoption by the County Council. King County will also coordinate updating the Flood Hazard Plan with the Office of Emergency Management's development of the county All Hazards Plan to ensure these plans will meet the most current policies and standards of the CRS Coordinators Manual which will optimize CRS credit points.

RATING

Results, Target and Outcome

2003 Results: 4 CRS Rating
2007 Target: 4 CRS Rating
Outcome: 4 CRS Rating

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

DNRP's Flood Hazard Reduction Services; *www.fema.gov/nfip/crs.shtm*.

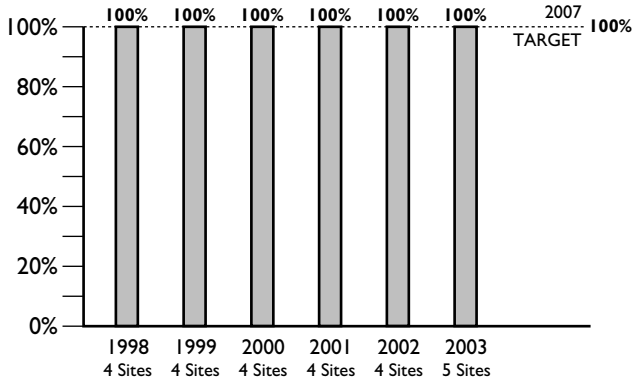
5 Percent of Monitored, Offshore Marine Sites that Meet the State Water Quality Standard for Fecal Coliform Bacteria

ABOUT THIS ENVIRONMENTAL INDICATOR

The presence of fecal coliform bacteria in aquatic environments indicates that the water has been contaminated with the fecal material of humans, birds, or other animals. Fecal coliform bacteria may enter the aquatic environment from household or farm animals, wildlife, stormwater runoff, untreated wastewater effluent and failing septic systems. Although these bacteria themselves are usually not harmful, they often occur with other disease-causing bacteria so their presence indicates the potential for pathogens to be present and be a risk to human health.

This standard addresses water quality requirements for classifying shellfish growing areas and for protecting primary contact recreational uses. A Washington State bacterial standard for secondary contact using Enterococci bacteria has been proposed but has yet to be approved by EPA. For Class AA marine surface waters, the current standard is a geometric mean of 14 cfu/100ml (173-201A WAC). Ambient sites are chosen to reflect general, or ambient, environmental conditions. Outfall sites are located near King County wastewater treatment plant outfalls, combined sewer overflow (CSO) outfalls, and stormwater outfalls owned by King County and the City of Seattle. The term "offshore" in this indicator refers to sites that are not classified as beach sites.

PERCENT OF OFFSHORE SITES THAT MEET
FECAL COLIFORM GEOMETRIC MEAN
STANDARD IN 100 PERCENT OF SAMPLES



5a. Ambient Sites

GOALS

Environmental Quality
Achieve a net gain in environmental quality by protecting and restoring the natural environment, ensuring public health and safety, and exceeding environmental standards

Waste to Resource

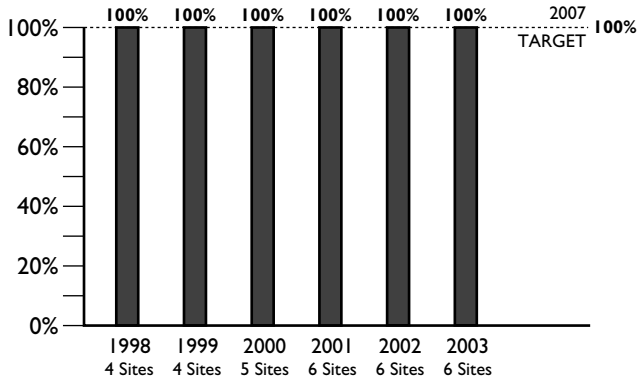
Community Investment

Leadership

Price of Service

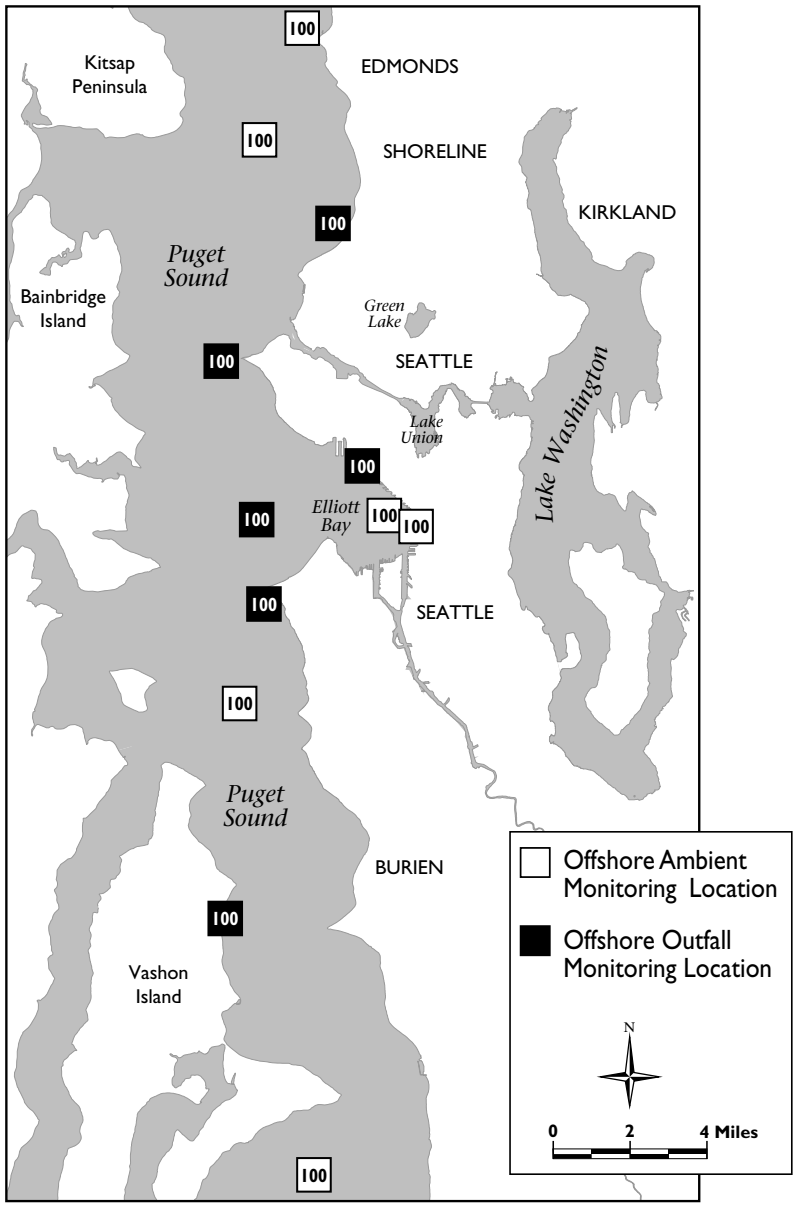
Customer Satisfaction

Employee Involvement and Morale



5b. Outfall Sites

PERCENT OF SAMPLES OF EACH MONITORED SITE THAT MET THE FECAL COLIFORM BACTERIA STANDARD



OBSERVATIONS

Ambient sites can be impacted by nonpoint source pollution, particularly in Elliott Bay. All ambient and outfall sites met the fecal coliform bacteria standard in 2003. Although these standards were met at all sites for the last six years, bacteria levels tend to be higher in Elliott Bay.

OUR STRATEGY

Due to contributions from nonpoint sources, the agency can exert little control on levels of fecal coliform bacteria. However, the outfall site results are being treated as an agency performance measure because if we stopped treating and transporting waste effectively, the levels could increase. DNRP's strategy to prevent any decline in the measure is to continue to operate our wastewater treatment plants and conveyance system effectively.

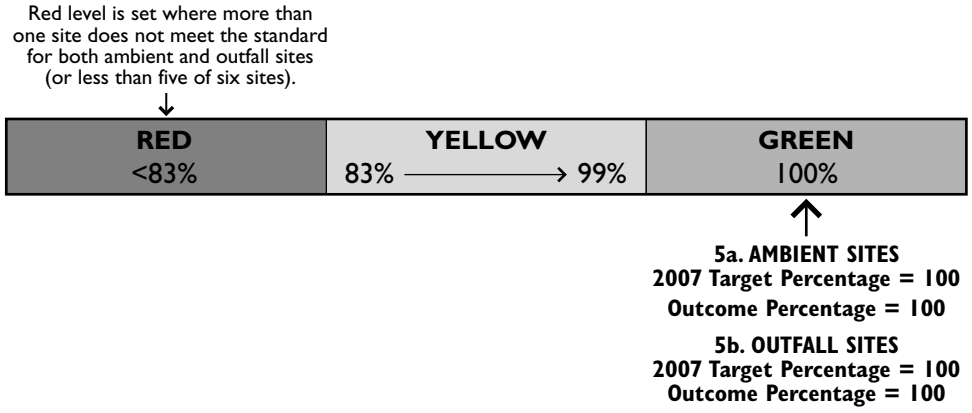
RATING

Results, Target and Outcome

5a. Ambient Sites		5b. Outfall Sites	
Current:	100 percent	2003 Results:	100 percent
2007 Target:	100 percent	2007 Target:	100 percent
Outcome:	100 percent	Outcome:	100 percent

The 2007 target and long-term outcome for both ambient and outfall source sites is that no marine offshore sites exceed the Class AA marine surface water fecal coliform standard. The results for outfall sites are being treated as an agency performance measure due to the degree of control we exert on the outcome.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

DNRP's Science, Monitoring and Data Management Section.

OUTCOME: Marine water and sediments are healthy for humans and aquatic species

Percent of Monitored Marine Beach Sites that Meet the State Standard for Enterococcus Bacteria

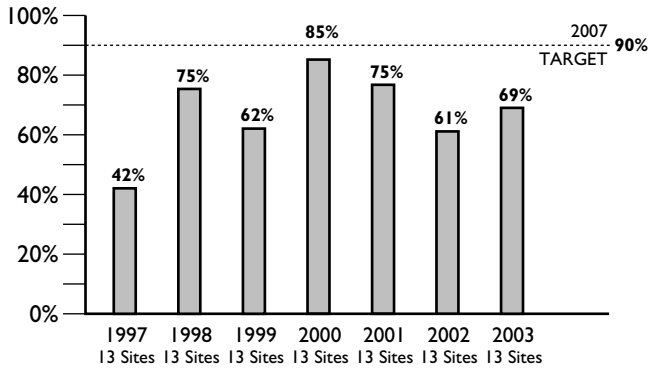
6

ABOUT THIS INDICATOR

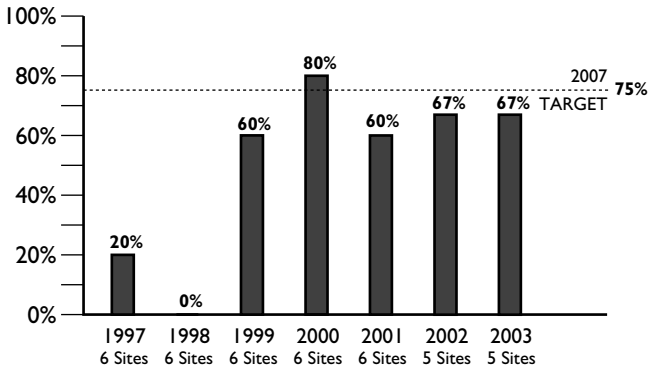
Enterococcus bacteria are an indicator for determining the extent of fecal contamination of recreational surface waters. EPA studies have shown the correlation between swimming-associated gastroenteritis and enterococci appear to be better than correlations between such illnesses and fecal coliforms or E. coli. Although the surface water quality standard for fecal coliform is still used for beaches, King County also plans to implement a proposed statewide guideline for marine recreational beaches that uses enterococcus bacteria to assess marine water quality.

This bacterial standard addresses human health effects from direct contact with the marine waters during activities such as swimming, wading, SCUBA diving, or surfing. The new state bacterial standard is that a single sample should not exceed 104 cfu/100ml. There is also another component to the standard, that the geometric mean of five samples collected within a 30-day period should not exceed 35 cfu/100ml. However, King County will be comparing its sampling results to the single sample standard since samples are collected once within a 30-day period. Outfall sites for the beach monitoring program are located in nearshore areas within close proximity to wastewater treatment plant outfalls and ambient sites are located in areas away from a direct outfall source.

PERCENT OF BEACH SITES THAT
MEET ENTEROCOCCUS STANDARD
IN 100 PERCENT OF SAMPLES

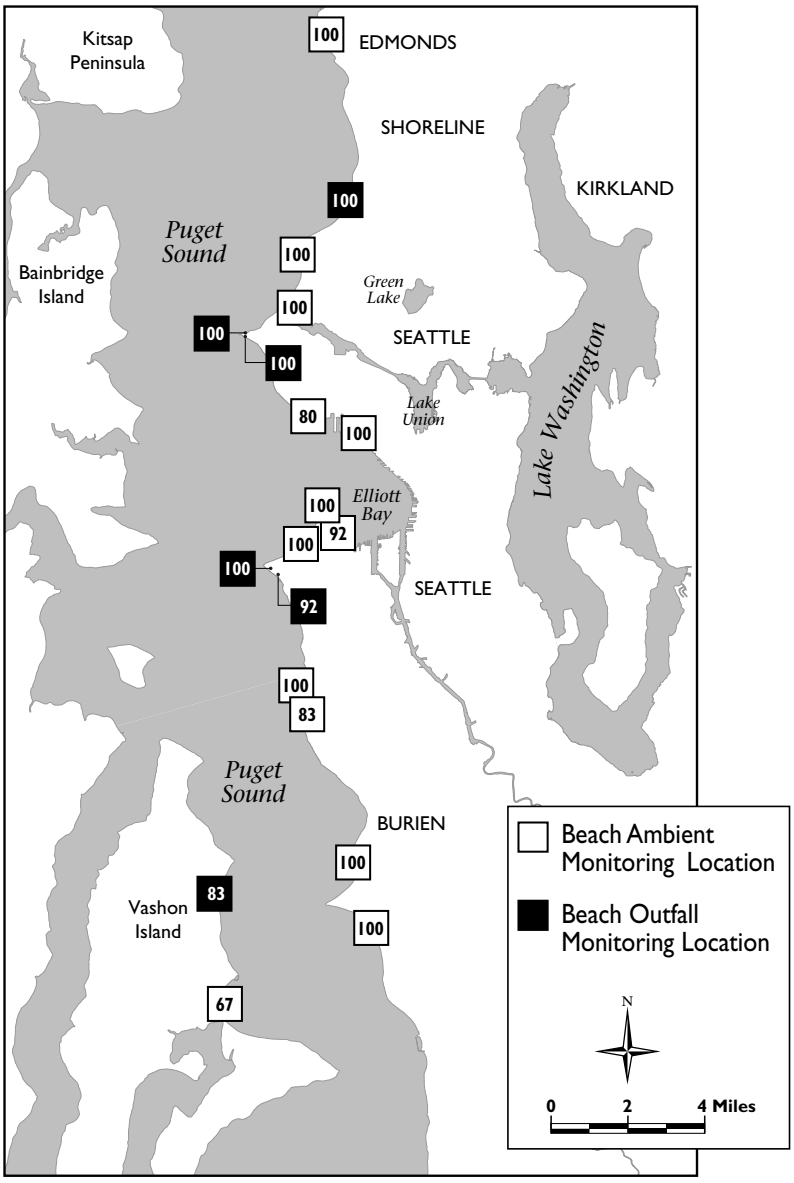


6a. Ambient Sites



6b. Outfall Sites

PERCENT OF SAMPLES AT EACH MONITORING SITE THAT MET THE ENTEROCOCCUS BACTERIA STANDARD



GOALS

Environmental Quality
Achieve a net gain in environmental quality by protecting and restoring the natural environment, ensuring public health and safety, and exceeding environmental standards

Waste to Resource

Community Investment

Leadership

Price of Service

Customer Satisfaction

Employee Involvement and Morale

OBSERVATIONS

The 2007 target is based on recent data and may be optimistic as historical information indicates higher levels of bacteria are likely.

OUR STRATEGY

Past efforts by King County have reduced bacteria from most outfalls to the point that contributions from nonpoint sources in the area are more significant than the outfalls themselves and the agency can exert little control on improving current levels of enterococcus at most outfall sites. An exception to this is the Vashon outfall where recent improved maintenance and operations have reduced bacteria entering the environment and planned upgrades to the outfall itself (including moving it further out into deeper water) should further reduce bacteria on nearby beaches, bringing us closer to our target.

Despite nonpoint contributions, the outfall site results are being treated as an agency performance measure because if we stopped treating and transporting waste effectively, the levels could increase even further. DNRP's strategy to prevent any decline in the measure is to continue to operate our wastewater treatment plants and conveyance system effectively.

RATING

Results, Target and Outcome

6a. Ambient Sites
2003 Results: 69 percent
2007 Target: 90 percent
Outcome: 100 percent
The long-term outcome is that no monitored beach sites exceed the proposed enterococci guideline.

6b. Outfall Sites
2003 Results: 67 percent
2007 Target: 75 percent
Outcome: 100 percent
The long-term outcome is that no monitored beach sites exceed the enterococci standard. The results for outfall sites are being treated as an agency performance measure due to the degree of control we exert on the outcome.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings

DATA REFERENCE

DNRP's Science, Monitoring and Data Management Section.

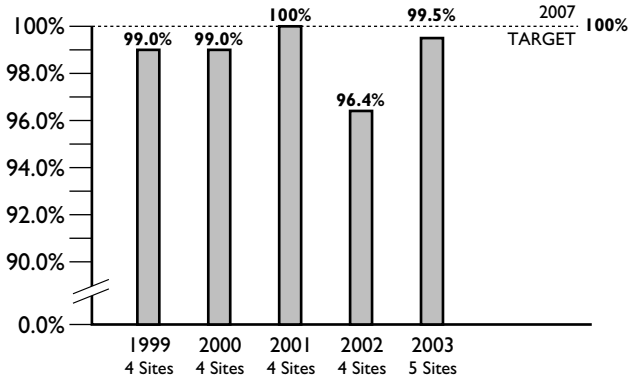
7 Percent of Marine Sites that Meet Standards and Guidelines for Dissolved Oxygen

ABOUT THIS INDICATOR

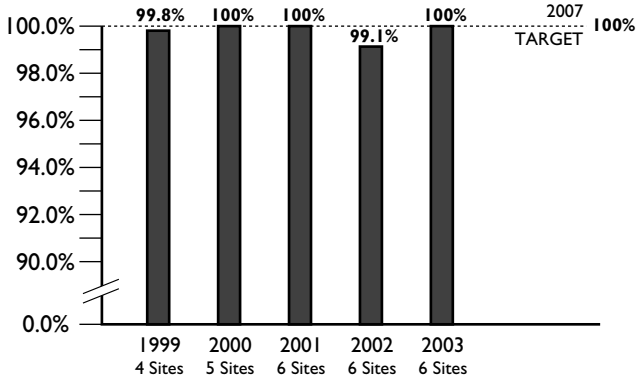
Dissolved oxygen is an important factor for the presence or absence of marine species and overall water quality. Waters that contain consistently high amounts of dissolved oxygen are generally capable of sustaining various aquatic organisms, including sensitive fish and invertebrate species. Many factors influence dissolved oxygen concentrations in marine waters, including natural seasonal variation and temperature. Anthropogenic inputs, such as excess nutrients from stormwater runoff or wastewater discharges, can also influence oxygen levels.

For Class AA marine surface waters the current Washington State Water Quality Standard for dissolved oxygen is 7.0 mg/L. However, this standard of

PERCENT OF KING COUNTY SAMPLES THAT MEET MARINE WATER QUALITY GUIDELINE FOR DISSOLVED OXYGEN (5.0 mg/L)

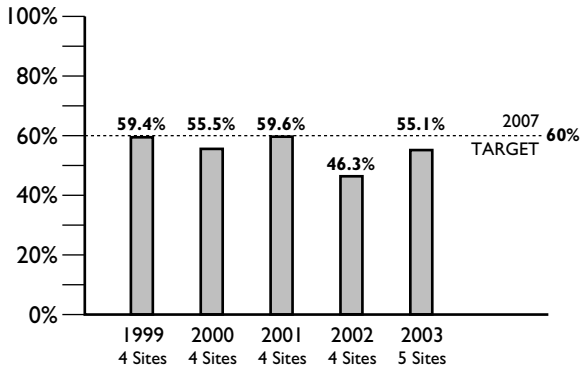


7a. Ambient Sites

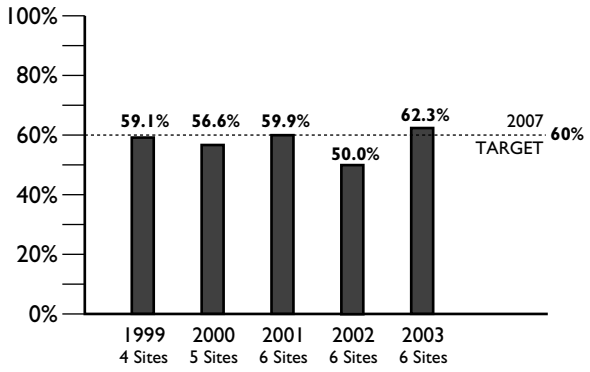


7b. Outfall Sites

PERCENT OF KING COUNTY SAMPLES THAT MEET MARINE WATER QUALITY STANDARD FOR DISSOLVED OXYGEN (7.0 mg/L)



7c. Ambient Sites



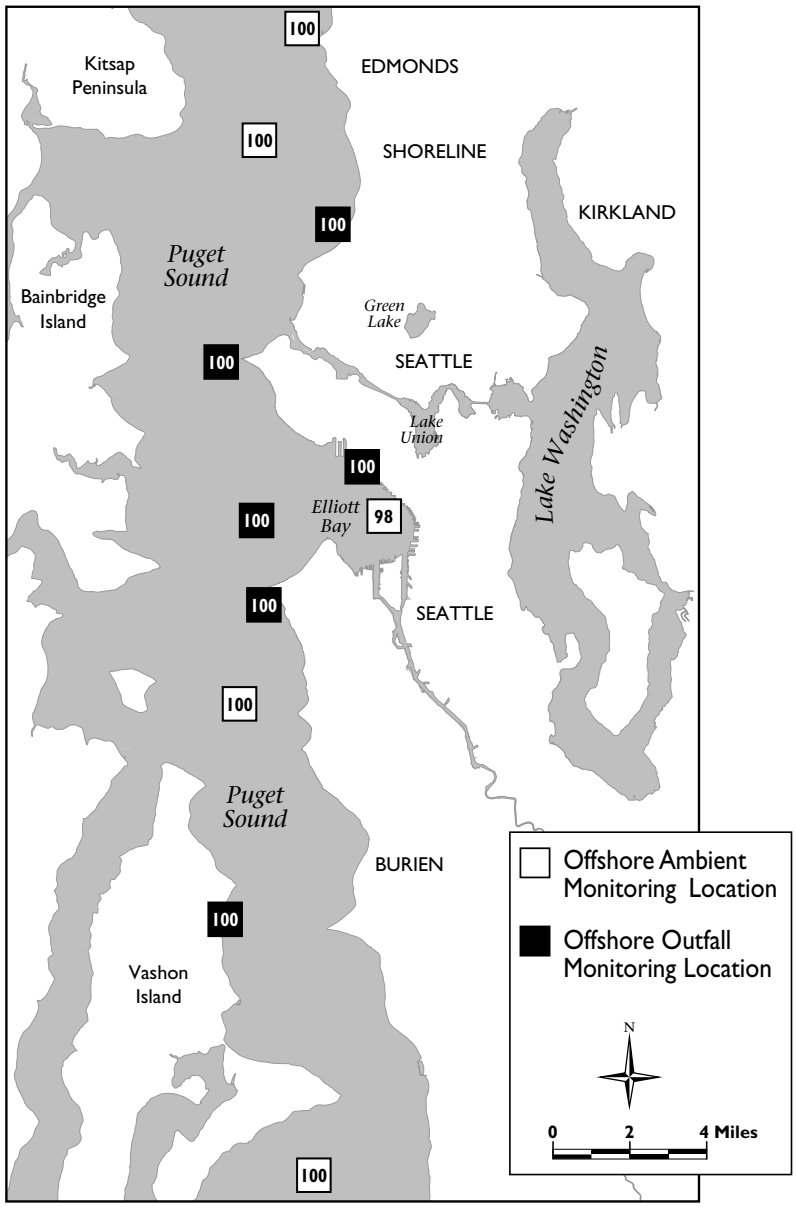
7d. Outfall Sites

7.0 mg/L is not obtained at all times of the year, often due to naturally occurring conditions. Therefore, a guideline of 5.0 mg/L, below which aquatic life may be harmed, is used as a warning limit. Ambient sites are chosen to reflect general, or ambient, environmental conditions. Outfall sites are located near King County wastewater treatment plant outfalls, and combined sewer overflow and stormwater outfalls owned by the county and the City of Seattle.

OBSERVATIONS

These findings indicate that waters at both ambient and outfall sites are almost always meeting the 5.0 mg/L minimum dissolved oxygen guideline. However, waters at both the ambient and outfall sites are not always meeting the 7 mg/L standard. Almost all values below the 5.0 mg/L guideline are seen in Elliott Bay, which is influenced by freshwater runoff from the Duwamish River. There were no values below the guideline for other ambient sites and any of the outfall sites.

PERCENT OF SAMPLES AT EACH MONITORING SITE THAT MET THE MARINE WATER QUALITY GUIDELINE FOR DISSOLVED OXYGEN (5.0 mg/L)



For the 7.0 mg/L standard, there is little difference between ambient and outfall sites indicating that effluent from the outfalls is not affecting dissolved oxygen concentrations. Dissolved oxygen concentrations naturally fall below the standard during the fall and winter months due to ocean waters entering Puget Sound. Dissolved oxygen concentrations in 2003 were higher at outfall sites than seen in previous years, but this is likely due to annual variation.

GOALS

Environmental Quality
Achieve a net gain in environmental quality by protecting and restoring the natural environment, ensuring public health and safety, and exceeding environmental standards

Waste to Resource

Community Investment

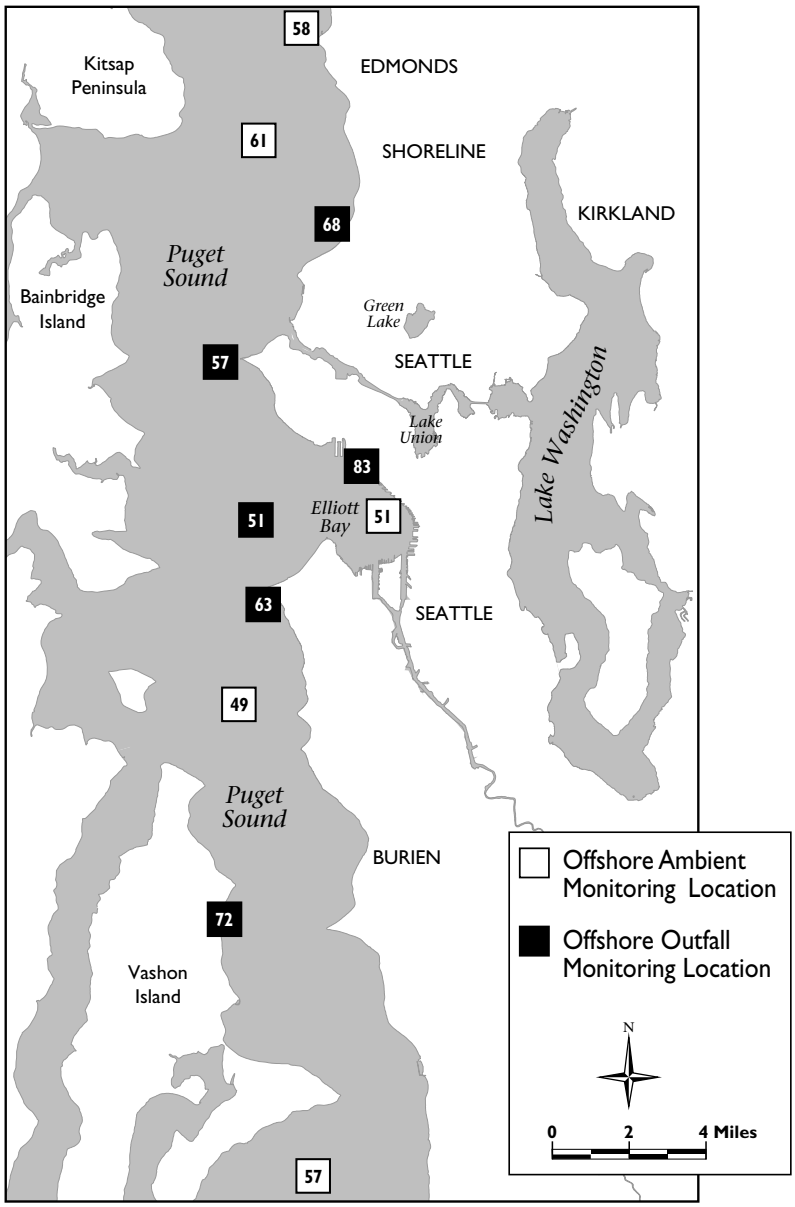
Leadership

Price of Service

Customer Satisfaction

Employee Involvement and Morale

PERCENT OF SAMPLES AT EACH MONITORING SITE THAT MET THE MARINE WATER QUALITY STANDARD FOR DISSOLVED OXYGEN (7.0 mg/L)



OUR STRATEGY

Due to ambient conditions, the agency can exert little control on improving current levels of dissolved oxygen. However, the outfall site results are being treated as an agency performance measure because if we stopped treating and transporting waste effectively, the levels could increase. DNRP's strategy to prevent any decline in the measure is to continue to operate our wastewater treatment plants and conveyance system effectively.

RATING

Results, Target and Outcome

7a. Guideline-Ambient Sites
2003 Results: 99.5 percent
2007 Target: 100 percent
Outcome: 100 percent

7b. Guideline-Outfall Sites
2003 Results: 100 percent
2007 Target: 100 percent
Outcome: 100 percent

The long-term outcome is that no marine water samples exceed, or drop below, the 5.0 mg/L guideline.

7c. Standard-Ambient Sites
2003 Results: 55.1 percent
2007 Target: 60 percent
Outcome: 60 percent
The target and outcome are based on long-term historical dissolved oxygen levels observed at these sites.

7d. Standard-Outfall Sites
2003 Results: 62.3 percent
2007 Target: 60 percent
Outcome: 60 percent
The long-term outcome is that dissolved oxygen levels at outfall sites are comparable to ambient conditions.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings

RED	YELLOW	GREEN
<90%	90% ⟶ 99.9%	100%

7a. GUIDELINE-AMBIENT SITES
2007 Target Percentage = 99.5
Outcome Percentage = 99.5

7b. GUIDELINE-OUTFALL SITES
2007 Target Percentage = 100
Outcome Percentage = 100

7c. STANDARD-AMBIENT SITES
2007 Target Percentage = 92
Outcome Percentage = 92

7d. STANDARD-OUTFALL SITES
2007 Target Percentage = 104
Outcome Percentage = 104

DATA REFERENCE

DNRP's Science, Monitoring and Data Management Section.

OUTCOME: Marine water and sediments are healthy for humans and aquatic species

Percent of Marine Sediment Sites that Meet State Sediment Quality Standards

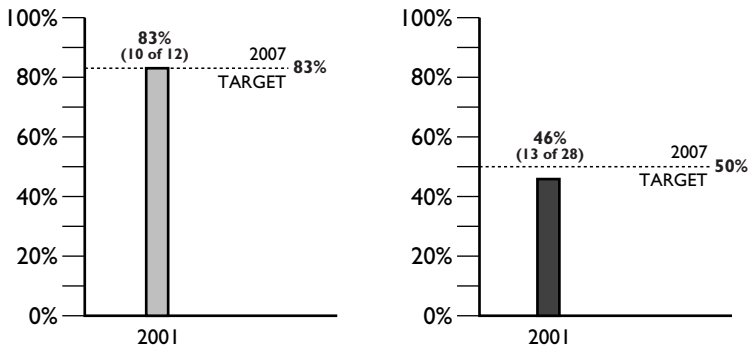
8

ABOUT THIS INDICATOR

Many pollutants found in the environment are not detected in water, but are attached to sediment particles. Once in the sediments, these pollutants can directly harm marine organisms or be reintroduced to the food chain through the organisms found in marine sediments. The purpose of the Washington State Sediment Management Standards is to reduce and ultimately eliminate adverse effects on biological resources and any significant human health risk from surface sediments in marine, low salinity or estuarine, and freshwater environments.

The Sediment Quality Standard (SQS), or "no adverse effects level," is the most protective chemical standard for marine sediments. The Cleanup Screening Level (CSL), or the "minor adverse effects level," helps identify areas of potential concern that may be designated cleanup sites. The SQS chemical criterion is selected as the indicator because it is the more sensitive of the two criteria for environmental protection. Point source stations are located near King County wastewater treatment plant outfalls and combined sewer overflow outfalls.

PERCENT OF MARINE SEDIMENT SITES SAMPLED BY KING COUNTY THAT MEET WASHINGTON STATE SEDIMENT QUALITY STANDARDS

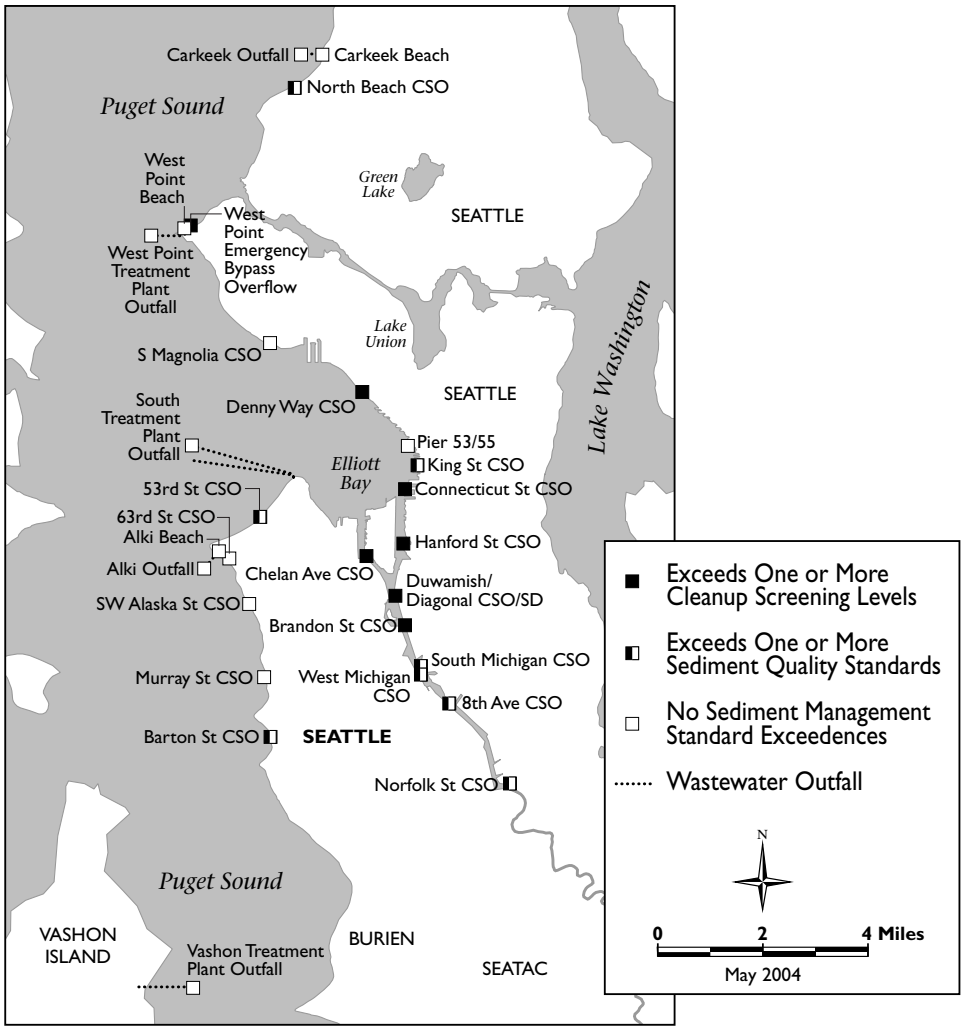


8a. Ambient Sites **8b. Point Source Sites**

OBSERVATIONS

Based on 2001 sampling data, two ambient sites do not meet sediment quality standards, but do not exceed the cleanup screening levels. Although they are located within the Duwamish waterway there are no specific plans to address them at this point in time. As such, the ambient target is considered a "non-degradation" target such that conditions should not get worse.

KING COUNTY POINT SOURCE
SEDIMENT MONITORING STATIONS



Of the 15 point source-related sites that exceed the SQS, eight do not exceed the CSL and do not therefore require clean up or monitoring. Six of the remaining seven point source sites that exceed the SQS are associated with combined sewer overflow outfalls and one is associated with an emergency overflow.

King County is in the process of assessing and redesigning the marine ambient and outfall sediment sampling program, therefore, there are no newer data to assess this performance measure.

OUR STRATEGY

Strategies to achieve the 2007 target focus on collaborating with other organizations, including the City of Seattle, Port of Seattle, and Boeing, with whom King County has joined to form a public-private partnership called the Lower Duwamish Waterway Group. This group will be funding cleanups at "early action sites" as part of the Lower Duwamish Waterway Superfund

process. Cleanup at the first of these sites, the Duwamish/Diagonal Way site, was recently completed. Although final test results are not yet available, the cleanup is expected to enable DNRP to reach the 2007 target.

The cleanup includes a multi-agency source control effort to reduce the potential for future recontamination. In addition to the early action sites, additional sediment site cleanups may be completed later under Superfund or as part of other activities in the Duwamish waterways.

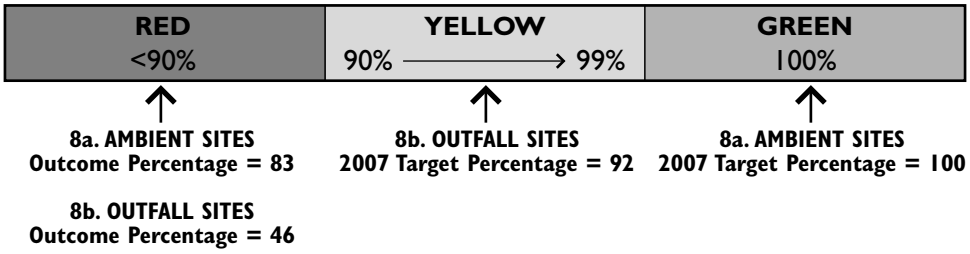
RATING

Results, Target and Outcome

8a. Ambient Sites
2003 Results: 83 percent
2007 Target: 83 percent
Outcome: 100 percent
Two ambient sites do not meet the SQS. The target is a non-degradation approach. The long-term outcome for marine sediments is that no sediment sampling locations exceed SQS.

8b. Outfall Sites
2003 Results: 46 percent
2007 Target: 50 percent
Outcome: 100 percent
Fourteen point source sites will exceed SQS once the target is met. The long-term outcome for marine sediments is that no sediment sampling locations exceed SQS. The results for outfall sites are being treated as agency performance measures due to the degree of control we exert on the outcome.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

DNRP's Science, Monitoring and Data Management Section.

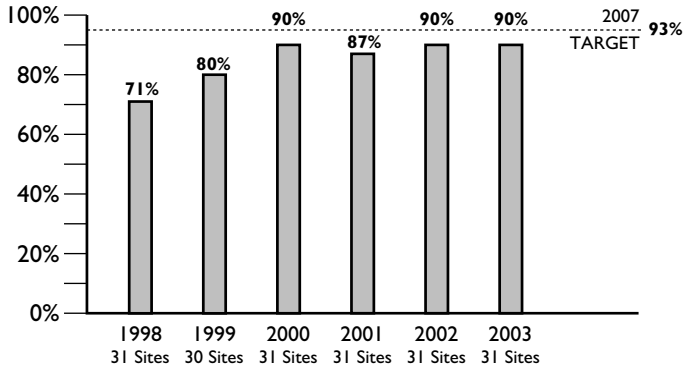
9 Phosphorus concentrations in lakes

ABOUT THIS INDICATOR

Lakes provide numerous environmental benefits in the county, as well as aesthetic and recreational opportunities. However, natural changes, development, and other human activities all affect lake quality. In this region, phosphorus is most often the nutrient that limits algal growth. Thus, if the amount of phosphorus entering lakes is controlled or reduced, the incidence of nuisance algal blooms is likely to decrease. Phosphorus can be managed through well-designed drainage systems, replacing septic tanks with sewers, and changing homeowner behaviors using education and incentives. DNRP's goal is to maintain all current beneficial uses of county lakes. However, current resources can support monitoring or management programs in a limited number of lakes. Using phosphorus concentration as an indicator gives us an inexpensive tool to assess the potential for nuisance or toxic algal blooms that impact the many uses of our lakes and allows us to allocate limited county resources toward assessing the lakes with indications of serious degradation.

This indicator uses summer total phosphorus concentrations converted to Trophic State Indicators (TSI-TP) to assess a lake's condition. Trophic State Indicators relate phosphorus to the amount of algae that the lake can support. Values below 50 have low or moderate potential for nuisance algae blooms; values above 50 have a high potential. While over 50 smaller county lakes are currently monitored for phosphorus content, only 31 lakes have long enough monitoring records to compile a regional picture in county lakes. In addition, only five lakes have approved Lake Management Plans with detailed studies that include recommended management activities in their watersheds to allow a connection between water quality conditions and county actions. Because of the small number of managed lakes, a change in one lake will change the measure significantly. To add context to changes in the percentage of managed lakes meeting the 50 TSI-TP threshold, the individual data for each lake is reported in figure 9c.

PERCENT OF 31 COUNTY LAKES WITH LOW OR MODERATE **TSI-TP** VALUES



9a. Regional Lakes

GOALS

Environmental Quality
Achieve a net gain in environmental quality by protecting and restoring the natural environment, ensuring public health and safety, and exceeding environmental standards

Waste to Resource

Community Investment

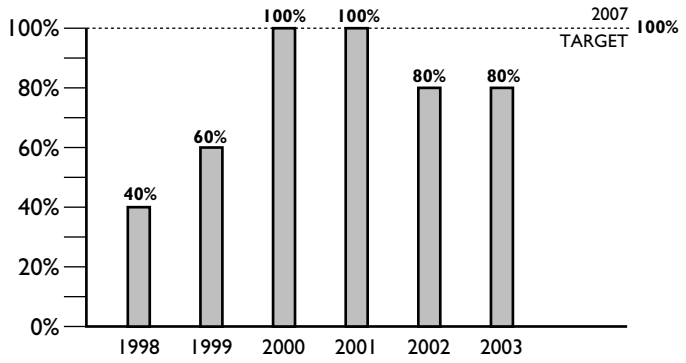
Leadership

Price of Service

Customer Satisfaction

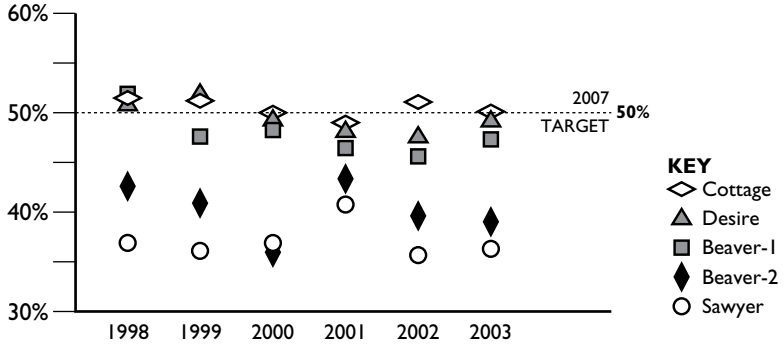
Employee Involvement and Morale

PERCENT OF FIVE COUNTY LAKES WITH LOW OR MODERATE **TSI-TP** VALUES



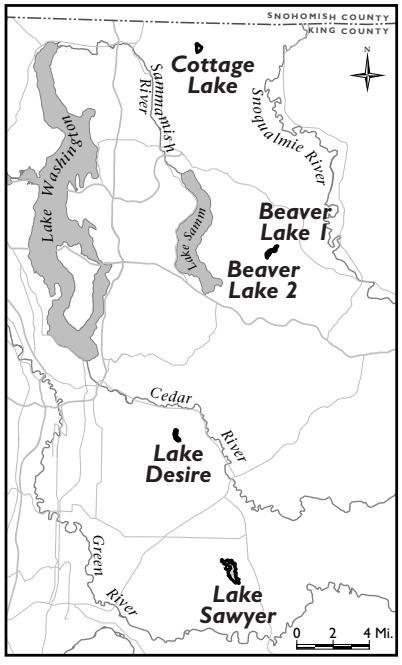
9b. Managed Lakes

TSI-TP FOR MANAGED LAKES



9c. Managed Lakes

LAKES WITH LAKE MANAGEMENT PLANS



OBSERVATIONS

Lakes vary annually, depending on watershed inputs, weather and biological interactions, which combine to create the conditions in each lake. Although high productivity often relates to "bad" conditions, depending on the natural condition of the lake, it may not reduce beneficial uses in all cases. However, a trend in a particular lake towards increased TSI-TP is certainly due to watershed changes and cannot be discounted.

In the group of small managed lakes, the overall percentage of lakes that meet the 50 TSI-TP threshold varies over time, however graph 9c shows that those not meeting the target remain quite close.

OUR STRATEGY

We plan to monitor the managed lakes and implement all elements of the Lake Management Plans, with community support, as funds become available. If any of the other lakes in the county begins to show serious deterioration in terms of beneficial uses, producing and implementing a lake management plan will be considered. Since several of the 31 lakes included in the indicator appear naturally productive, based on differing types of evidence (including TSI-TP values), the goal of 100% for this indicator is not supported, and an alternative goal of 93% is used for this measure, allowing for some naturally high productivity.

RATING

9a. Results, Target and Outcome for the 31 regional lakes

2003 Results: 90 percent
2007 Target: 93 percent
Outcome: 93 percent

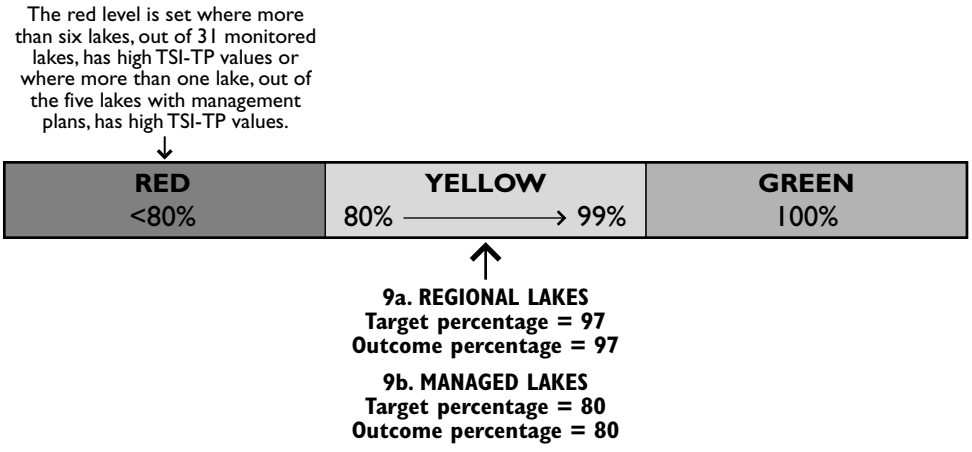
The long-term outcome for the 31 selected lakes is that all but two lakes will have low or moderate TSI-TP values.

9b. Results, Target and Outcome for the five managed lakes

2003 Results: 80 percent
2007 Target: 100 percent
Outcome: 100 percent

The long-term outcome for the five selected lakes is that all of these lakes have low or moderate TSI-TP values. The results for the managed lakes are being treated as an agency performance measure due to the degree of control we exert on the outcome.

Performance/Target and Performance/Outcome Ranges



DATA REFERENCE

King County Lake Monitoring Report, 1996 - 2003.

GOALS

Environmental Quality
Achieve a net gain in environmental quality by protecting and restoring the natural environment, ensuring public health and safety, and exceeding environmental standards

Waste to Resource

Community Investment

Leadership

Price of Service

Customer Satisfaction

Employee Involvement and Morale

OUTCOME: Lakes are healthy for humans and aquatic species

Percent of Monitored Large Lake Samples that Meet Washington State Water Quality Standards for Fecal Coliform Bacteria

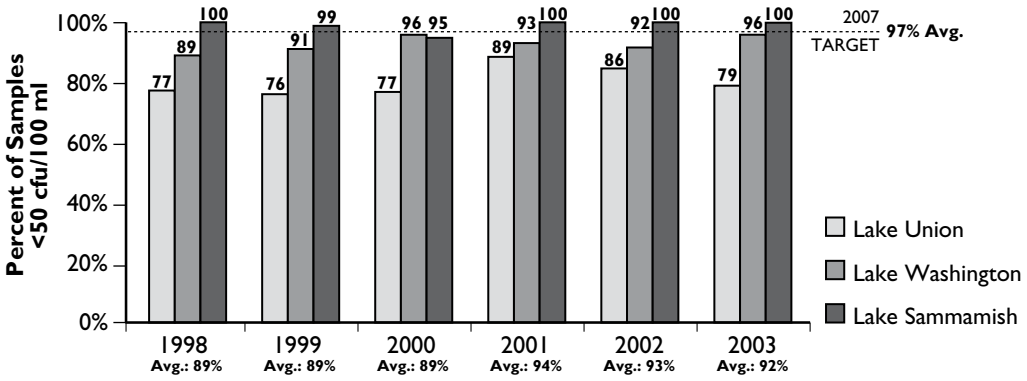
10

ABOUT THIS INDICATOR

The presence of fecal coliform bacteria in aquatic environments indicates that the water has been contaminated with the fecal material of humans, birds or other animals. Fecal coliform bacteria may enter the aquatic environment from household or farm animals, wildlife, stormwater runoff, untreated wastewater, and failing septic systems. Although these bacteria themselves are usually not harmful, they often occur with other disease-causing bacteria so their presence indicates the potential for pathogens to be present and be a risk to human health.

The lake standard for fecal coliform bacteria addresses human safety due to direct contact with the water from activities such as swimming and wading. The standard is a geometric mean value of less than 50 colonies/100 ml and not more than 10 percent of all samples obtained for calculating the geometric mean value shall exceed 100 colonies/100 ml (WAC 173-201A). Sites used for this indicator are located in both mid-lake, or open water, and nearshore locations.

PERCENT OF NON-SWIMMING BEACH SAMPLES THAT MEET FECAL COLIFORM STANDARD



OBSERVATIONS

Even though this measure uses an exceptionally difficult to attain standard, all of the Lake Sammamish samples achieve this high standard and less than five percent of the Lake Washington samples did not meet the standard. In Lake Union, only 79 percent of samples meet the standard, most likely due to the negative influence of the numerous combined sewer overflows and stormwater outfalls into the lake.

OUR STRATEGY

The Henderson/M.L. King project will help eliminate overflows from sewers to Lake Washington during extreme storms. The project, which began in the

fall of 2002, will be completed in late 2005. This project will reduce these overflows by providing improved storage and treatment capacity within the sewer system. Following storms, these stored flows will be routed to the existing King County treatment plants at West Point and Renton. When completed, this project will significantly reduce the level of fecal coliform bacteria in Lake Washington from county combined sewer overflows and contribute to achieving the five-year target.

However, the Henderson/M.L. King combined sewer outfall is only one of many combined sewer outfalls in the same vicinity. The City of Seattle has several uncontrolled combined sewer outfalls in that same area, as well as in the Seward Park/Genesee area, and in the Windermere area further north. The City's combined sewer overflow control plan indicates they will control Windermere by 2006, Genessee by 2012 and Henderson by 2014. Given the cost and complexity of these projects, combined sewer overflows from county and city outfalls will continue to impact the ability to meet the target and outcome.

Upon completion in 2004, the Denny/Lake Union Project, a joint project between the county and City of Seattle, will significantly reduce both the volume and the frequency of untreated combined sewer overflows to Lake Union and Elliott Bay by storing the flows during small and moderate storms and transferring them to the West Point Treatment Plant when capacity is available. As direct result, the number of times bacterial counts exceed standards should be reduced and Lake Union should achieve the five-year goal.

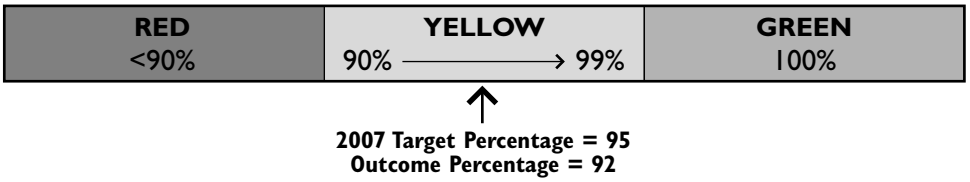
RATING

Results, Target and Outcome

2003 Results: 79, 96, 100 percent: average of 92
2007 Target: 95 percent for lakes Union and Washington, 100 percent for Lake Sammamish: average of 97
Outcome: 100 percent

The long-term outcome for large lakes is to have no samples violate fecal coliform bacteria standards.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

DNRP's Science, Monitoring and Data Management Section; Henderson Project: *dnr.metrokc.gov/wtd/henderson-cso/index.htm*; Denny Way Project: *dnr.metrokc.gov/wtd/dennyway/index.htm*; Seattle's Combined Sewer Overflow Planning: *www.ci.seattle.wa.us/util/CSOPlan/aboutcso.htm#*.

OUTCOME: Lakes are healthy for humans and aquatic species

Percent of Monitored Swimming Beach Sites on Large Lakes that Meet the Target for Fecal Coliform Bacteria

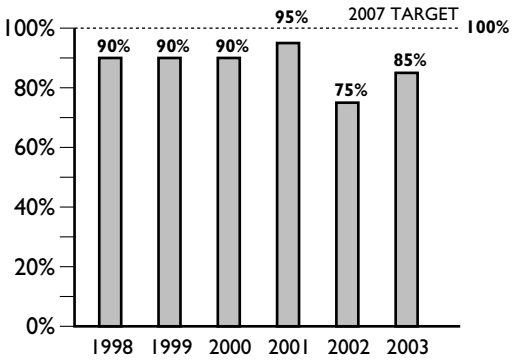
11

ABOUT THIS ENVIRONMENTAL INDICATOR

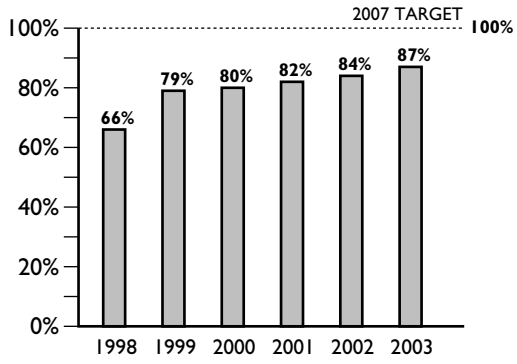
The presence of fecal coliform bacteria in aquatic environments indicates that there is an increased probability that the water has been contaminated with fecal material from humans, birds or other animals. Fecal coliform bacteria may enter the aquatic environment from household or farm animals, wildlife, stormwater runoff, untreated wastewater effluent, or failing septic systems. Although these bacteria themselves are usually not harmful, they often occur with other disease-causing bacteria so their presence indicates the potential for pathogens to be present and a risk to human health.

The target indicator for fecal coliform bacteria is met when there is less than 200 colonies/100ml in any sample. This target is based upon, but more conservative than, the Ten State Standard, which states that the geometric mean is less than 200 colonies/100 ml and that no single sample is greater than 1000 colonies/100ml. Public Health-Seattle & King County and the Washington State Department of Health currently use this standard. When

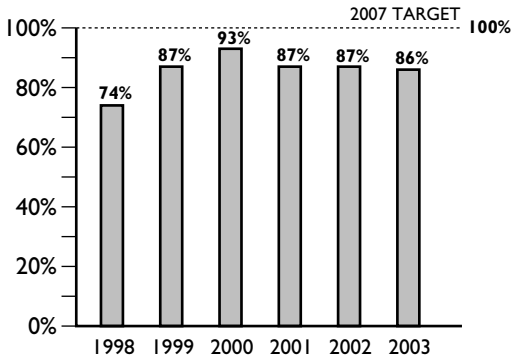
PERCENT OF SWIMMING BEACH SAMPLES
THAT MET THE BACTERIA TARGET
(<200 colonies/100mL)



Green Lake: 1 Site



Lake Washington: 18 Sites



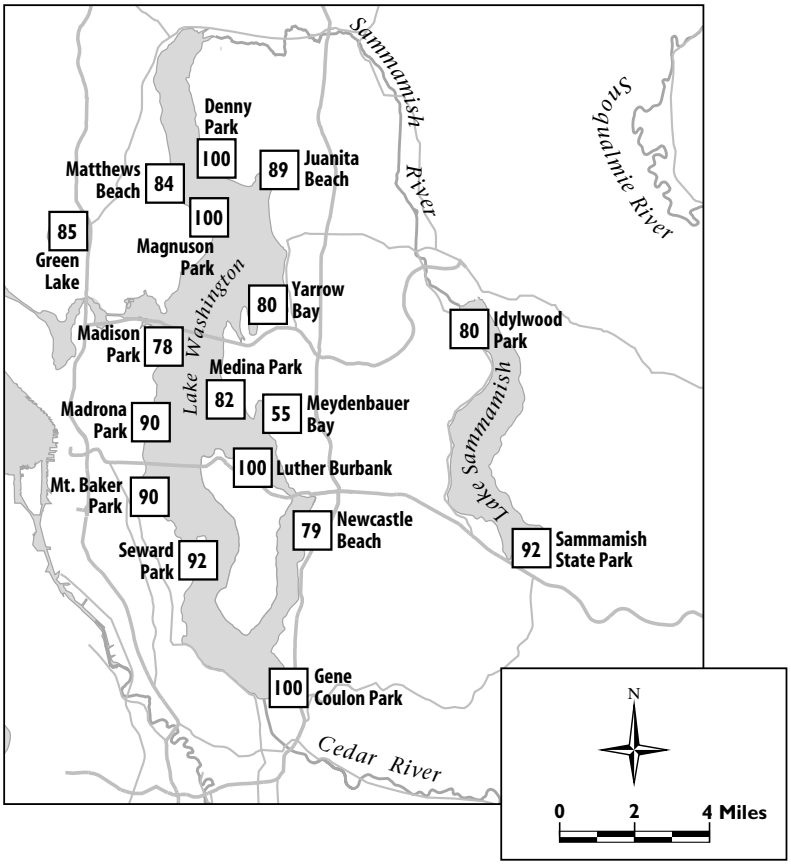
Lake Sammamish: 3 Sites

the swimming beaches achieve the standard, the health departments assume negligible risk to the bathing public from fecal contamination. This standard is less restrictive than the lake bacterial standard (Indicator #10) and may be modified to an *E. coli*-based standard in the future because of regulatory changes by the EPA.

OBSERVATIONS

In recent years, bacteria levels were higher in Green Lake whereas Lake Washington and Lake Sammamish have remained fairly consistent. For lakes Sammamish and Washington, there are a greater number of bacterial exceedances at the swimming beaches than at the ambient monitoring sites (see comparison with data in Indicator #10). This has been observed since the swimming beach monitoring program was imitated in 1996. The consistently lower bacteria counts in the open water of the lakes show that there has not been a general increase in bacterial pollution in the lakes, and the increases at the beaches are a localized phenomena. There is no monitoring conducted by DNRP at Green Lake other than the swimming beach bacterial monitoring.

PERCENT OF SAMPLES AT EACH SWIMMING BEACH THAT MET FECAL COLIFORM BACTERIA TARGET



OUR STRATEGY

When the bacterial counts at the swimming beaches are greater than the target for this indicator (200 colonies/100 ml), the counts are often substantially higher and can result in temporary closures of a few public swimming beaches. Monitoring conducted by King County has identified waterfowl as the primary source of the fecal coliform contamination at many of the beaches during these times. Modifications to park maintenance procedures and control of non-migratory, non-native waterfowl will contribute to meeting the water quality and public health goals at the swimming beaches.

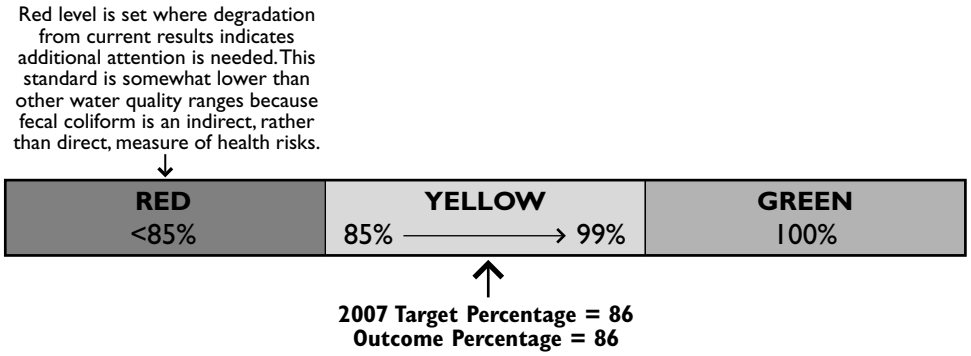
RATING

Results, Target and Outcome

2003 Results: 85, 86, 87 percent: average of 86 percent
2007 Target: 100 percent
Outcome: 100 percent

The 2007 target and long-term outcome for swimming beaches on large lakes is to have no sites violate the fecal coliform bacteria target.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

DNRP's Science, Monitoring and Data Management Section.

12 Percent of Stormwater Control Facilities Maintained by Others that are Functionally Compliant with County Maintenance Standards

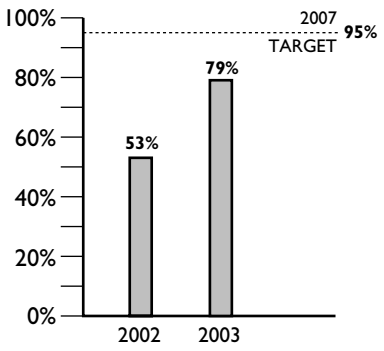
ABOUT THIS PERFORMANCE MEASURE

Increased stormwater flow and degraded water quality from development are significant sources of stream degradation and flooding. In response, DNRP has developed a stormwater design manual that specifies the design and maintenance standards for stormwater control facilities required on new developments and redevelopments to reduce these impacts. DNRP is also responsible for inspecting these stormwater control facilities on a regular basis after each development has been constructed to make sure the facilities comply with maintenance standards. These standards specify the threshold at which cleaning or repair action must be taken to ensure proper function, for example, the specific depth of sediment or presence of physical defects.

The focus of this performance measure is on those facilities for which WLR does not have direct maintenance responsibility. Examples of these facilities include: privately maintained commercial facilities, school district facilities, county Roads Services Division off road drainage facilities, and county Parks division drainage facilities. Since WLR staff inspects and oversees the maintenance of residential drainage facilities, the compliance factor for those facilities is felt to be very close to 100 percent, with the exceptions being facilities that may suffer damage in a year when the facility is not scheduled for inspection. These facilities are not included in the performance measure.

For facilities that are not maintained by DNRP, DNRP's Stormwater Services annually inspects the facilities and determines the maintenance actions needed, if any, for maintenance standards compliance. If maintenance actions are needed, DNRP issues a maintenance correction letter, or MCL, directing the property owner to implement the necessary actions and return a form certifying that the required actions were completed. DNRP does follow-up spot checks on some of the facilities for which a certification form was returned to verify that the required actions were correctly implemented.

PRIVATELY OWNED
STORMWATER FACILITY
COMPLIANCE



The spot checks focus on facilities that require maintenance that would affect their functionality. As an incentive to maintain drainage facilities to accepted standards, owners who return the MCL certifying that they have completed the prescribed maintenance receive a Surface Water Management Fee rate discount.

The percent of functionally compliant facilities in any given year is determined by dividing the number of facilities that are in compliance by the total number of facilities inspected. The number of facilities in compliance is derived from both direct observation and extrapolation of the compliance rate for facilities after spot checks are performed.

OBSERVATIONS

There are approximately 758 stormwater facilities in unincorporated King County affected by this performance measure. MCLs are issued for approximately 450 facilities per year. Spot checks were performed on approximately 55 facilities inspected in 2003 where the MCL was returned with an indication that the required maintenance was completed.

In previous years, the measure considered any incomplete work activity, including such things as missing manhole lid bolts, as an indication that the facility was out of compliance. Unfortunately, this gives the impression that the problem is more severe than it may actually be since something like a missing lid bolt does not affect functionality. In order to clarify this, this revised measure has been developed which only includes facilities with a functional problem, for example, excess sediment that limits the flow in pipes. For 2002, the compliance figure was 53 percent, which included all facilities with any level of maintenance problem. For 2003, given that the compliance rate is limited to functional problems, the rate is closer to 80 percent.

Several variables can affect the compliance rate. One major factor is the turnover in property owners. Frequently new property owners are unaware of the stormwater system or maintenance needs until county staff contact them. Another factor is the cost of maintenance relative to the realized savings in the Surface Water Management fee. In addition, some property owners forget about the maintenance or to return the completed MCL.

OUR STRATEGY

In order to improve the compliance rate for facilities, Stormwater Services has initiated a multi-pronged approach including increased owner education such as educational materials in the MCL letters explaining more about maintenance or reminder flyers; more technical support; and enforcement actions for chronic problem facilities. By focusing on facilities with functional problems we can avoid using staff resources on minor problems. Additional resources will be needed to achieve the five-year target.

RATING

Results, Target and Outcome

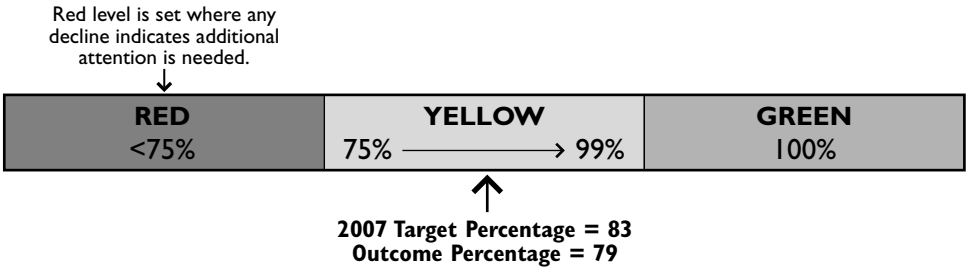
2003 Results: 79 percent

2007 Target: 95 percent

Outcome: 100 percent

The long-term outcome for this measure is that 100 percent of stormwater facilities are in compliance.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

DNRP's Stormwater Section.

OUTCOME: Streams provide high quality habitat for aquatic species.

Percent of Stream Stations with Low or Moderate Water Quality Problems Based on Water Quality Index Values

13

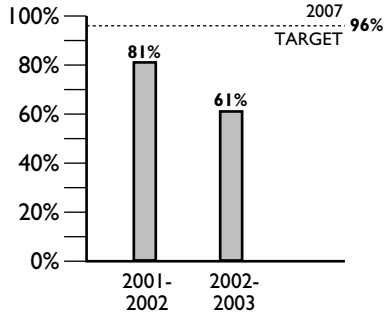
ABOUT THIS ENVIRONMENTAL INDICATOR

Water quality is one essential measure of environmental conditions. The Water Quality Index (WQI) attempts to integrate a series of key water quality factors into a single number that can be used for comparison over time and among locations. The WQI used here is based on a version proposed by the Washington Department of Ecology and originally derived from the Oregon Water Quality Index.

The WQI is a number ranging from 10 to 100 - the higher the number, the better the water quality. For temperature, pH, fecal coliform bacteria and dissolved oxygen, the index expresses results relative to levels required to maintain beneficial uses. For nutrient and sediment measures where the standards are not specific, results are expressed relative to expected conditions in a given ecoregion. Multiple constituents are combined and results aggregated over time to produce a single score for each sample station.

In general, stations scoring 80 and above met expectations and are of "low concern," scores 40 to 80 indicate "moderate concern" and water quality at stations with scores below 40 did not meet expectations and are of "high concern." Fifty-four sites in the Lake Washington and Green-Duwamish drainage basins are sampled monthly for numerous water quality parameters, including those used to determine the WQI.

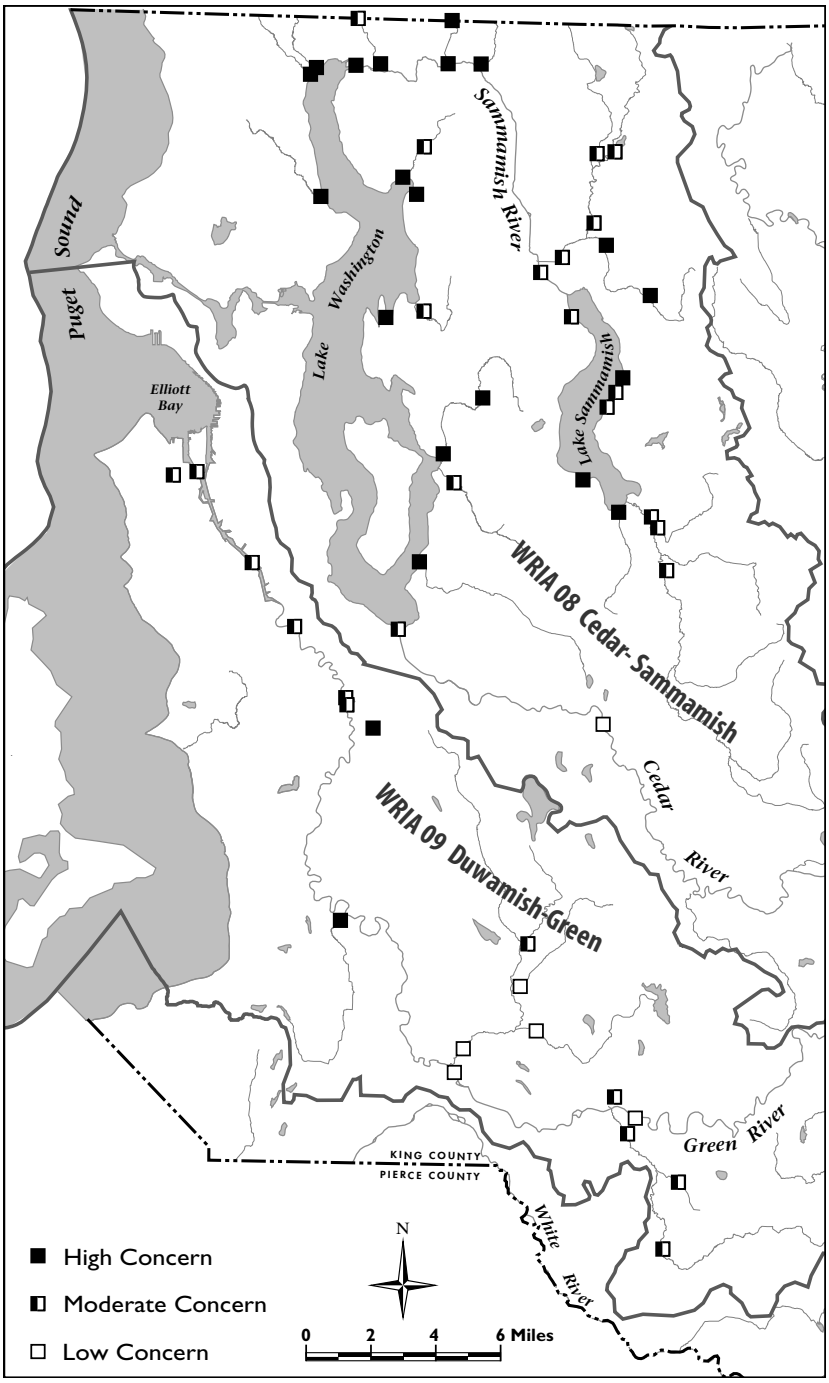
PERCENT OF STREAM STATIONS
WITH LOW OR MODERATE
WATER QUALITY CONCERNS



OBSERVATIONS

Given a population of almost two million residents and the intense urbanization of the area, overall stream water quality in King County is fairly good. Water quality at 33 of the 54 sampled sites, or 61 percent, was considered either "low concern" or "moderate concern," while 21 sites were rated "high concern." However, compared to 2001-2002 results, there was an increase in "high concern," or poor water quality, conditions. Drought conditions, coupled with increased water diversions in years of low precipitation are likely contributors to decreased water quality. Low flows result in high temperatures and low dissolved oxygen levels.

WATER QUALITY INDEX



In the Water Resource Inventory Area (WRIA) 9/Green-Duwamish basin, five of the 17 sites were rated of "low concern," 10 sites were of "moderate concern," and two sites were of "high concern." Likewise, of the 37 sites in the WRIA 8/Lake Washington basin only one site was of "low concern," 17 were of "moderate concern," and 19 were of "high concern."

Overall, "high concern" ratings were caused at least in part by excessive bacteria levels at 18 of the 23 sites. Low dissolved oxygen concentrations were also a problem at 10 "high concern" sites and/or high phosphorus

Environmental Quality
Achieve a net gain in environmental quality by protecting and restoring the natural environment, ensuring public health and safety, and exceeding environmental standards

Waste to Resource

Community Investment

Leadership

Price of Service

Customer Satisfaction

Employee Involvement and Morale

concentrations at nine "high concern" sites. Eight of the sites with high bacteria counts are in urban areas, five are downstream of agricultural activities, and four sites are downstream of wetlands. Pets and failing septic systems are the most likely sources of bacteria in the urban areas. Poor livestock management practices can be a potential source of bacteria in agricultural areas. In wetland areas, wildlife and stagnant water conditions can lead to elevated bacteria counts. High phosphorus concentrations are found in fecal material and elevated concentrations are often linked to similar sources as bacteria. In addition, elevated phosphorus concentrations are linked to areas with high volumes of stormwater runoff and areas undergoing development.

Two sites were rated "high concern" solely due to low dissolved oxygen concentrations. Low dissolved oxygen concentrations can be associated with low flows, high temperatures (colder water holds more oxygen), and high levels of organic matter (bacteria use up oxygen in the process of decomposition). Low flows and high temperatures were a particular problem during the 2002-2003 water year as precipitation levels were well below the historical average. Long-term water withdrawls and global warming impacts may constrain our ability to obtain high stream quality.

OUR STRATEGY

Preventing and repairing damage to King County's waterways is one of the primary goals of WLR. Operating under a combination of federal, state, and local mandates, the division undertakes a wide variety of activities to maintain the function and values of King County streams. This indicator pinpoints "high concern" sites so that Water and Land Division programs and projects can focus efforts in those areas. This may involve a constructed or engineered solution, identifying where or how pollutants are entering the stream, or educating adjacent property owners about the impacts of pesticides and fertilizers on streams.

Depending on the situation, some examples of programs and activities that may be employed:

- Constructing a retention/detention or similar drainage facility to slow the speed at which storm or surface water is released back into the ground.
- Working with businesses to control polluting activities like the harmful disposal of paints, toxic chemicals or even cars. This may include merely engaging in a conversation, conducting a full scale audit of disposal practices, or beginning enforcement proceedings to correct polluting activities and bring offenders into compliance with King County's Water Quality Code.
- Communicating with neighbors about the damaging effects of over-using fertilizers or pesticides. This may include conducting a series of volunteer streamside workshops in the area or sending neighbors information in the mail.

- Working with farmers to manage farms with respect to the creeks, streams, and wetlands around them.
- Referring the problem to other more appropriate government agencies. Often, other agencies within King County such as the Department of Development and Environmental Services, the Department of Transportation – Roads Division or the Seattle-King County Department of Health may play a role in natural resources management. Likewise, an adjacent jurisdiction, the state or even the federal government may have a stake in stream restoration and prevention efforts.

This indicator also highlights the need for more comprehensive and coordinated approaches to resolving problems related to instream flow management. One key area where this need is apparent is water supply planning. King County will continue to advocate for water supply planning at a regional scale, covering all watersheds in King County. Planning at this scale will allow for more consistent understanding of the location, causes, effects, and necessary mitigation. It will also ensure that solutions incorporate an effective mix of solutions across the multiple basins and watersheds in which problems are found. When combined with existing cross-watershed actions for managing land use, stormwater, and flooding, regional water supply planning will complete the necessary foundation for addressing instream flow factors that contribute to improving the status of this indicator.

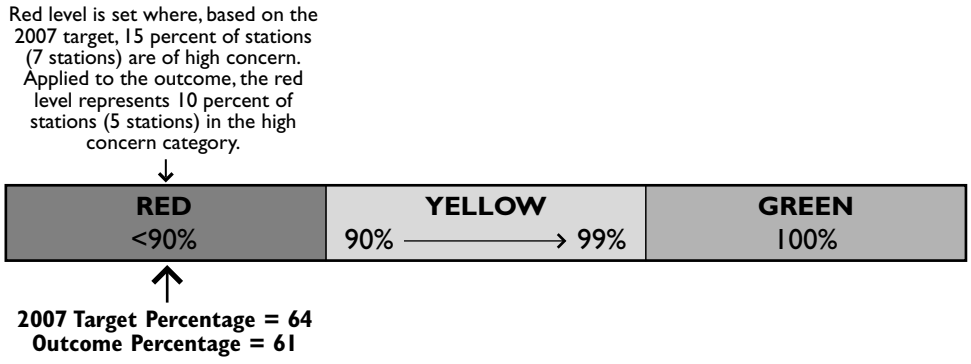
RATING

Results, Target and Outcome

2003 Results: 61 percent
2007 Target: 96 percent
Outcome: 100 percent

The 2007 target represents two out of 54 stations remaining in the "high concern" category. The long-term outcome for streams is that no stream stations are considered "high concern."

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

DNRP's Science, Monitoring and Data Management Section.

OUTCOME: Streams provide high quality habitat for aquatic species.

Percent of streams in good condition or better based on the Benthic Index of Biotic Integrity (B-IBI)

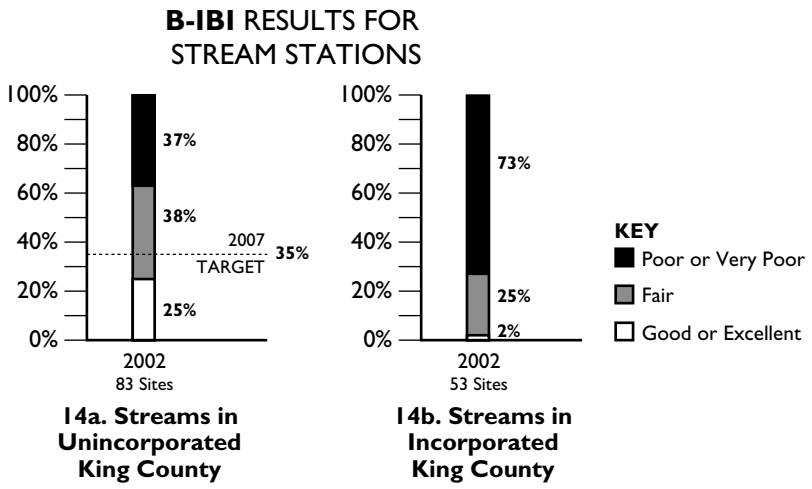
14

ABOUT THIS ENVIRONMENTAL INDICATOR

King County monitors stream health by collecting samples of benthic macroinvertebrates, commonly referred to as "bugs," from selected streams. Scientists use a scorecard system called the Benthic Index of Biotic Integrity (B-IBI) to rank the health of streams. The scores are based on the types of stream bugs living in the stream and the number of different kinds of stream bugs present. By using this scoring system, we can compare very different streams to each other and rank their ecological health.

King County's benthic index is composed of ten metrics that measure different aspects of stream biology, including taxonomic richness and composition, tolerance and intolerance, habit, reproductive strategy, feeding ecology, and population structure. Each metric describes some aspect of the community that responds to degradation. The raw value of each metric is calculated, and from the raw value a score is assigned to the metric. The ten scores are then added to produce the overall B-IBI score that range from 10 to 50 and these are labeled very poor, poor, fair, good or excellent.

10-16	18-26	28-36	38-44	46-50
Very Poor	Poor	Fair	Good	Excellent



14a. Streams in Unincorporated King County

14b. Streams in Incorporated King County

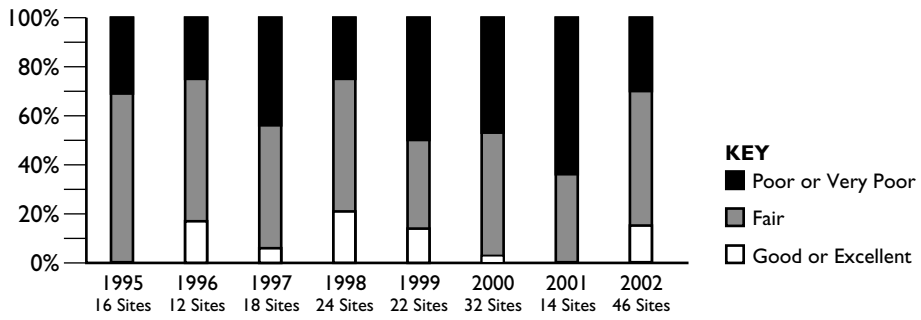
OBSERVATIONS

The 2002 data are the most recent available. Because the 2002 sampling efforts included more data than all previous years combined, these data represent the best available baseline. Sampling for 2002 was conducted using a randomized design for streams in both incorporated and unincorporated King County. A total of 136 stations in 18 streams in both the Lake Washington/Cedar/Sammamish watershed (WRIA 8) and the Green/Duwamish watershed (WRIA 9) were sampled.

Not surprisingly, the results for unincorporated and incorporated areas are dramatically different. While unincorporated areas have 25 percent of the sampled streams with benthic insect communities in good or excellent condition, only 2 percent of incorporated stream stations are rated this high. In addition, both unincorporated and incorporated stations exhibit a high number of stations with poor or very poor ratings, 37 percent versus 73 percent respectively. Because streams are connected, a steam station may reflect conditions that arise from conditions in another adjacent jurisdictional area.

In order to compare the 2002 results with historic data, Figure 14c shows results from areas that were previously sampled (Lower Cedar River tributaries and Soos, Bear and Issaquah creeks) between 1995 and 2001.

14c. B-IBI RATINGS FOR SELECTED STREAM STATIONS IN BEAR, SOOS AND ISSAQUAH CREEKS AND CEDAR RIVER TRIBUTARUES



The following observations are notable:

- The 2002 sampling design was more rigorous and included more samples than in previous years. Changes in historic sample numbers make year-to-year comparisons more difficult.
- More stations are considered "fair" than ever before.
- There are large annual fluctuations in B-IBI metrics.
- Comparisons of 2002 data with data from years without such intensive sampling should be made with caution. High inter-annual variability suggests that large data sets will be required to develop long-term trends.

OUR STRATEGY

WLR has a multi-pronged strategy to address stream health. Major programs focus on minimizing degradation from development, minimizing pollutant runoff from farms, preventing the loss of forest cover and its numerous stormwater benefits, or working with the community on watershed improvement projects. King County's normative flow project (see Indicator # 16) will

provide additional tools to understand the role of stream flow and its potential management applications to B-IBI.

King County's Stormwater Program focuses on flow control to minimize adverse effects from development, providing a surface water design manual, as well as, inspecting and maintaining stormwater control facilities.

The County also acquires and restores streamside parcels that have important benefits as aquatic resources. In addition, King County's Small Habitat Restoration Program builds low-cost projects in rural and urban King County that enhance and restore streams and wetlands. Habitat restoration projects include streamside and wetland planting, livestock fencing, in-stream habitat improvements, removal of barriers to fish migration and removal of invasive and non-native plants.

Basin stewards work with the local community to respond to resident's inquiries for watershed protection, coordinate efforts among diverse public agencies, facilitate watershed improvement projects, provide assistance to monitoring programs and provide public education opportunities. The Agriculture Program works with farmers and livestock owners to prevent agricultural pollutants from running off into streams.

In addition to the above activities, implementation of the county's Critical Areas Ordinance and federal total maximum daily load requirements for impaired water bodies will also support water quality improvements in both the incorporated and unincorporated areas.

RATING

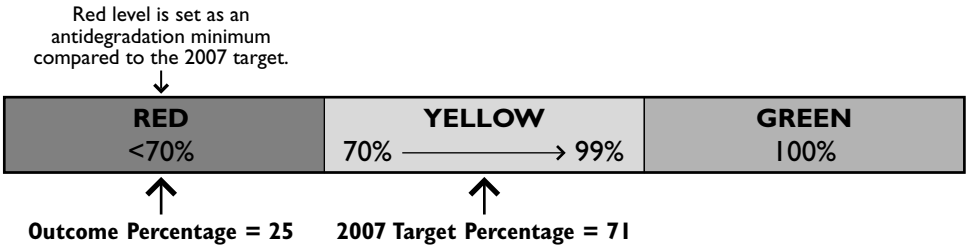
Results, Target and Outcome

2003 Results: 25 percent
2007 Target: 35 percent
Outcome: 100 percent

The 2007 target is to increase the good or excellent rated stream stations in the unincorporated to 35 percent. In addition, DNRP commits to a 2007 target of reducing the number of poor and very poor stations in the unincorporated area from 37 to 30 percent, and the fair stations from 38 to 35 percent. The long-term outcome is to ensure that 100 percent of stream reaches in unincorporated King County are rated as good or excellent.

No target or outcome has been set for the incorporated areas because these are in areas where the county has limited direct control. A potential outcome is that all stream reaches within incorporated cities rate at least fair.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

King County's Stream Bug Monitoring Home Page (*dnr.metrokc.gov/wlr/waterres/Bugs/index.htm*)

OUTCOME: Streams provide high quality habitat for aquatic species.

Percent of Acres in King County with Aquatic Habitat Quality Rated Medium-high or Better

15

ABOUT THIS INDICATOR

Habitat is the physical location or type of environment in which an organism or biological population lives or occurs. It can be measured both in quantity (area, volume, or length) and quality (measures that define usability). Typically, land use doesn't affect aquatic habitat quantity because direct loss of aquatic habitat is rarely allowed through development actions, although historically it occurred through actions that either blocked access to habitats (such as culverts and dams) or that obliterated or filled in habitats (such as development of wetlands or tidal areas). Therefore it is the quality of aquatic habitat, usually as measured by changes in structural conditions (for example reduced amounts of amount of woody debris, pools, or hiding cover; or increases in sediment in salmon spawning gravels) or biological activity (type and amount of species use where pollution intolerant species are replaced by tolerant ones) that tends to be is more informative for tracking conditions.

Aquatic habitat quality also serves as an intermediate indicator of the state of the natural environment because of its' importance in helping to achieve additional environmental results, such as salmonid recovery. Aquatic habitat quality, along with water quality and quantity, provide the core building blocks for a healthy, functioning ecosystem. DNRP measures each of these structural building blocks— aquatic habitat quality, water quality and quantity—as well as key biological elements like benthic invertebrates and salmon to get a comprehensive picture of stream health (see figure 15a below).

CONCEPTUAL MODEL OF RELATIONSHIP BETWEEN STREAM INDICATORS

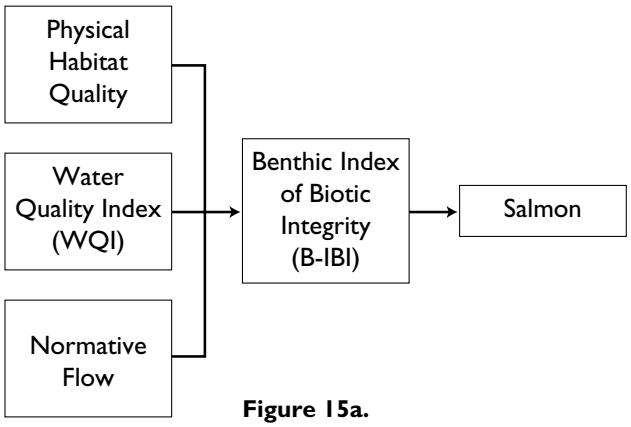
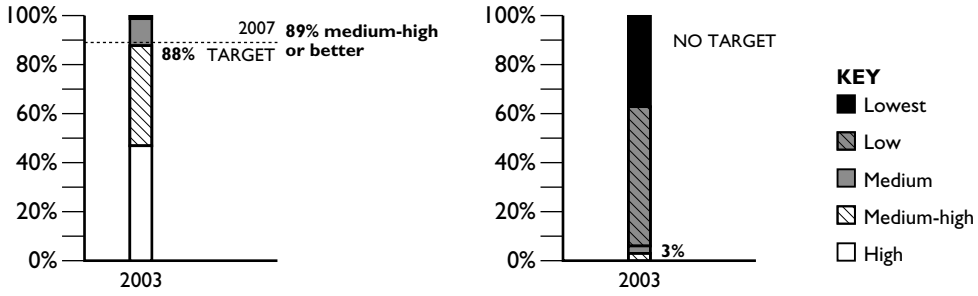


Figure 15a.

However, many aquatic habitat quality measures are difficult and costly to measure directly. DNRP is therefore using a composite score that integrates biological information with landscape conditions as a surrogate indicator of aquatic habitat quality. The relative aquatic habitat quality of all King County sub-basins in rural (between the urban growth and forest production boundaries) and urban (within the urban growth boundary) was evaluated using three sets of environmental data: salmonid usage, road density, and percent of forest cover. Road density is inversely correlated with aquatic habitat quality (the more roads the lower the quality of streams) and forest cover is positively correlated with aquatic habitat quality (the more forest the higher quality of streams). Each of the sub-basins was ranked on a three-point scale for each of the three data sets,

based on a methodology developed for the King County Critical Areas Ordinance. The numerical rankings were then summed to give a composite score for each sub-basin. The composite scores were then divided into five equal intervals, or quintiles, to determine the acres of land within rural and urban-zoned lands that were in catchments or sub-basins of lowest, low, medium, medium-high and high quality. Sub-basins were identified as discrete hydrologic drainage basins draining directly into a mainstem river, marine shoreline, or Lake Washington and Lake Sammamish.

PERCENT OF ACRES IN KING COUNTY
WITH HABITAT QUALITY RATED
MEDIUM-HIGH OR BETTER



15b. Rural King County

15c. Urban King County

OBSERVATIONS

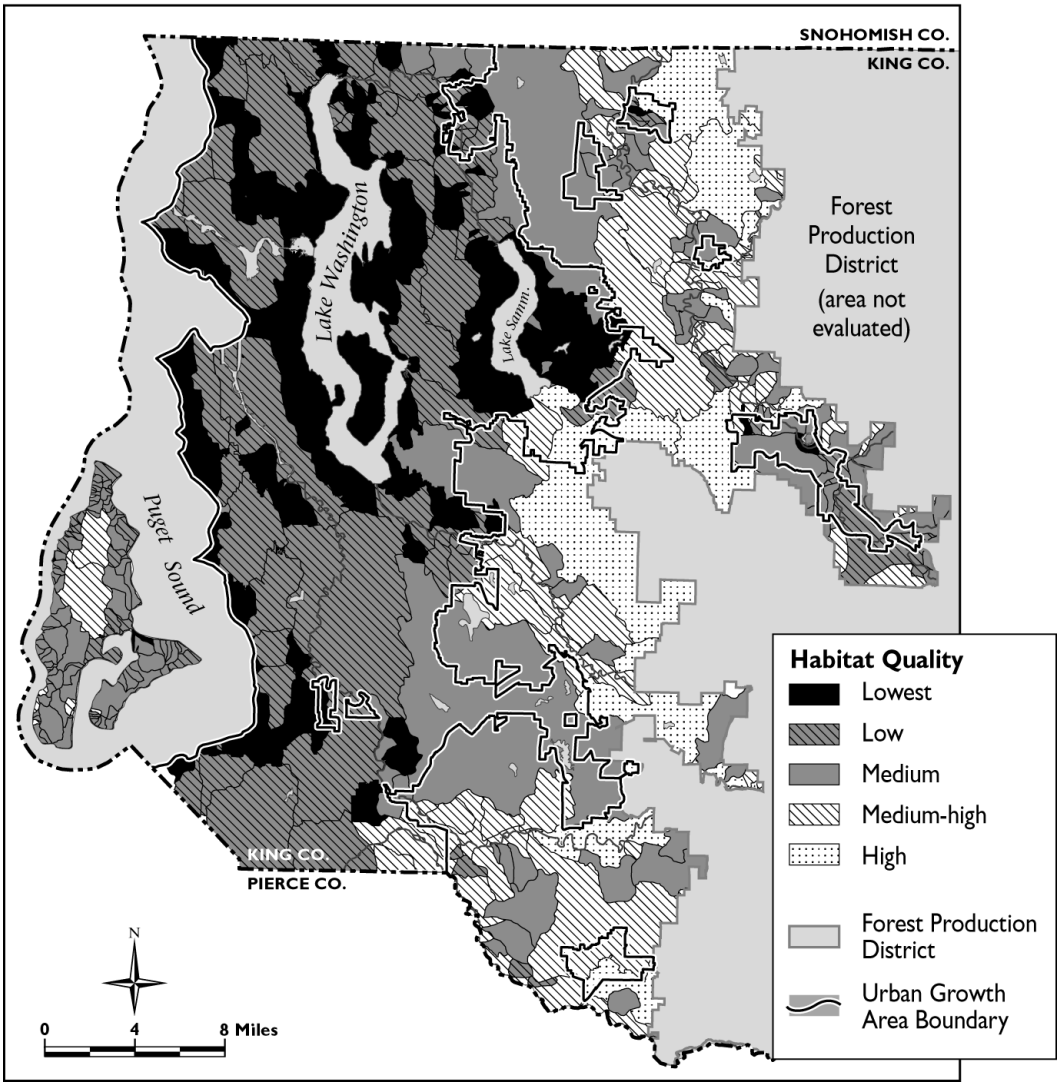
Not surprisingly, aquatic habitat quality in rural areas is dramatically better than in urban areas. In rural sub-basins, 88 percent of the total acreage is in the medium-high or high quality quintiles whereas only three percent of acreage in the urban sub-basins is in the medium-high category and none is in the highest category. The percent of rural acres considered of low quality is equivalent to over 14,000 acres. The percent of acres currently with low or medium quality habitat is equivalent to 110,000 acres.

As shown in Figure 15d, while the absolute acreage of higher quality sub-basins in the urban area is relatively low, there are sub-basins throughout the urban area that have medium to medium-high quality. These sub-basins are likely providing critical open space and salmonid habitat in areas that have high population densities. It is also important to note that the large rural acreage in rural sub-basins occurs in an area where more than 350,000 persons live.

OUR STRATEGY

King County is working in partnership with all jurisdictions in King County to develop and implement three Salmon Conservation Plans. These plans will recommend actions to both protect and, where feasible restore, salmonid habitats throughout the watersheds of King County. The plans, to be completed in 2004 through 2005, will include specific recommendations for landscape, riparian and in-stream habitat protection and restoration including

HABITAT QUALITY FOR SUBBASINS IN KING COUNTY



capital improvement projects, stewardship, and incentive, volunteer, and regulatory options. In addition, the majority of all jurisdictions in King County will be adopting new Critical Area Ordinance standards by December 2004 that will, in many instances, include regulatory standards and best management practices (BMPs) that protect and restore vegetative cover and encourage practices that protect and/or restore salmonid habitat.

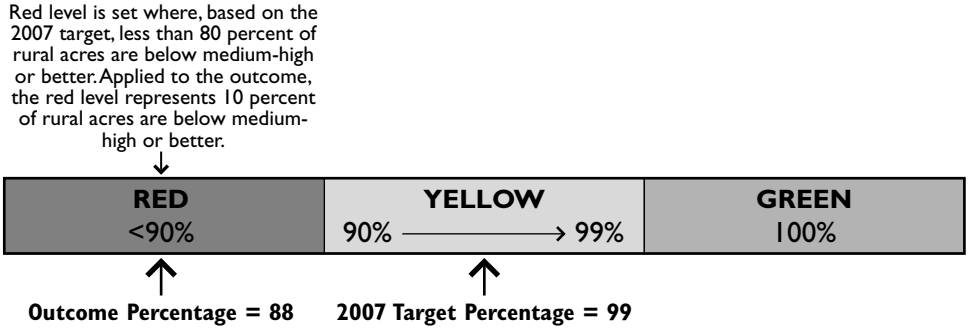
RATING

Results, Target and Outcome

2003 Results: 88 percent in rural King County
2007 Target: 89 percent in rural King County
Outcome: 100 percent in rural King County

No target has been set for the urban areas because these are in incorporated areas where the county has limited direct control. The interjurisdictional Salmon Conservation Plans will address these areas but will require implementation by the respective incorporated areas.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

King County, 2004 Best Available Science Volume II Assessment of Proposed Ordinances; Critical Areas, Stormwater, and Clearing and Grading Proposed Ordinances, King County Department of Natural Resources and Parks, Development and Environmental Services, Department of Transportation; 2003 King County Annual Growth Report.

Environmental Quality
Achieve a net gain in environmental quality by protecting and restoring the natural environment, ensuring public health and safety, and exceeding environmental standards

Waste to Resource

Community Investment

Leadership

Price of Service

Customer Satisfaction

Employee Involvement and Morale

Normative Flows in Rivers and Streams
This indicator is still under development

ABOUT THIS INDICATOR

Healthy streams have a number of key characteristics including sufficient water quantity. However, water quantity needs for streams – and the plants and animals that live in and around them – are often determined in a regulatory context by establishing minimum water flows. Rather than try to protect aquatic life by managing the minimum flows, the concept of "normative flow" provides a more relevant, ecologically based means of understanding water quantity needs. Normative flow refers to a flow regime that resembles the natural flow regime sufficiently to sustain all life stages of a diverse suite of native species, including salmon populations. This approach stresses the importance of pattern and temporal variation in flow attributes - magnitude, frequency, duration, timing, spatial distribution, and rate of change of flows.

DNRP's work to date on normative flow by has focused on the identification of hydrologic metrics that show a consistent pattern of deviation when historical (forested) conditions are compared to current conditions. The hydrologic metrics being evaluated are simulated using field calibrated continuous flow hydrologic models and 50 years (1950 – 2000) of precipitation data collected at SeaTac Airport. The models were developed for six lowland streams covering a range of landscape conditions in King County.

Subsequent evaluation of the relationships between these metrics and biological data from the same streams is expected to assist DNRP and other environmental managers in identifying actions that can help assess potential management actions, potentially including flow management recommendations. Ultimately, it is expected that one or more of the metrics being evaluated that shows strong correlation with positive biological response, for example high salmonid usage or high Benthic Index of Biotic Integrity scores, could be used to track the hydrologic response of streams subjected to management actions intended to improve flow conditions.

OBSERVATIONS

Not applicable because there are no data.

OUR STRATEGY

As described above, the normative flow analytical tools are currently under development. The initial set of tests indicates that rates of hydrograph change show more consistent patterns of deviation and a stronger relationship to biotic response. The project team is in consultation with the project's independent Science Review Team to assess the findings from these tests and identify the need to conduct statistical analyses to verify the findings. These analyses are likely to produce initial results in 2004. These analyses will also suggest technical tasks to implement in late 2004 and 2005 that will further improve our understanding of opportunities to improve biological conditions through our management actions that affect flow.

RATING
No rating this year. A specific target and outcome will be developed for next year's report.

DATA REFERENCE
DNRP Normative Flow Project.

Environmental Quality
Achieve a net gain in environmental quality by protecting and restoring the natural environment, ensuring public health and safety, and exceeding environmental standards

Waste to Resource

Community Investment

Leadership

Price of Service

Customer Satisfaction

Employee Involvement and Morale

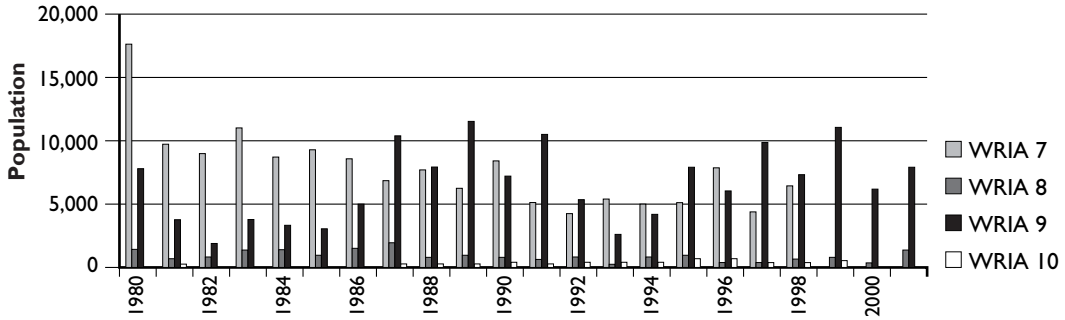
Trend in native salmonid populations

ABOUT THIS ENVIRONMENTAL INDICATOR

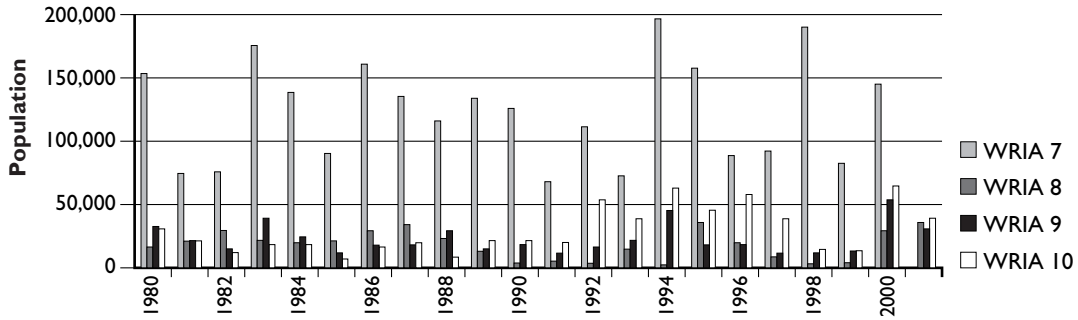
Salmonid fish have major cultural, economic and political roles in the Pacific Northwest. However, current populations of many salmonid species are markedly lower than historical levels. In Washington State, fish populations are co-managed by the Washington Department of Fish and Wildlife and the treaty right tribes. Each salmonid species in the Puget Sound region has a diverse life history and relies upon a range of habitats for spawning, rearing, feeding and migration. King County has jurisdictional responsibility for many activities, including land use regulation, which influences these habitats. Although King County does not manage fish populations directly, this indicator reports the abundance of two salmon species. Fish abundance is an important indicator of the health of the measured species, as well as an indicator of the overall health of marine and freshwater ecosystems.

These estimates were obtained from the Washington Department of Fish and Wildlife for chinook and coho populations in each major King County watershed. Although there are many salmonid species in King County, chinook and coho populations are reported here because together these species cover a broad range of habitats, and population data for these species are available.

ESTIMATED TOTAL CHINOOK POPULATIONS



ESTIMATED TOTAL COHO POPULATIONS



OBSERVATIONS

Qualitative and quantitative data from the last century indicate an overall decline in the abundance of native, naturally spawning salmon in Puget Sound watersheds. There is annual variation in salmon returns due to natural variability unrelated to human influences. However, the decline in natural-spawning chinook and coho stocks in King County basins is greater than would be expected from natural fluctuations. The impacts of habitat degradation, harvest management, ocean conditions, and climatic factors contribute to this fluctuation. It is difficult to determine the relative importance of any single factor that can influence the status of a particular stock. These data show salmon population estimates in King County watersheds without attempting to link them to specific factors of population decline.

OUR STRATEGY

King County includes all or portions of four major watersheds: the Snohomish (WRIA 7), Cedar/Lake Washington (WRIA 8), Green/Duwamish (WRIA 9) and Puyallup/White (WRIA 10) watersheds. Recovery goals for chinook salmon and bull trout that reflect characteristics of a viable salmon population (abundance, geographic distribution, genetic diversity and productivity) were established for some watersheds in the region through the Puget Sound Shared Strategy. Interjurisdictional conservation plans are under development in WRIAs 7, 8, 9 and 10. The plans are expected to be completed in 2005 and include actions for meeting long-term recovery goals. When available, recovery goals will be included in future reports.

The King County Comprehensive Plan (policy E-168) states that the county shall protect salmonid species listed as threatened or endangered by state or federal governments and the habitat of Salmonids of Local Importance, including the following: chinook, bull trout, kokanee, sockeye, chum, coho, pink, cutthroat, steelhead, Dolly Varden and pygmy whitefish. A summary of King County's current actions for salmonid conservation is detailed in *Conserving Salmon: King County Accomplishments and Action Plan* (available at *http://www.metrokc.gov/exec/esa*).

RATING

The gravity of the decline in the abundance of salmon has been confirmed by the listing of chinook salmon and bull trout as threatened under the federal Endangered Species Act. The long-term goal of DNRP and WRIA conservation plan partners is that the species will be "de-listed" within a timeframe of approximately 50 years.

DATA REFERENCE

Personal communications and data transfers from the Washington Department of Fish and Wildlife.

WASTE TO RESOURCE

OUTCOME: The amount of waste requiring disposal is reduced

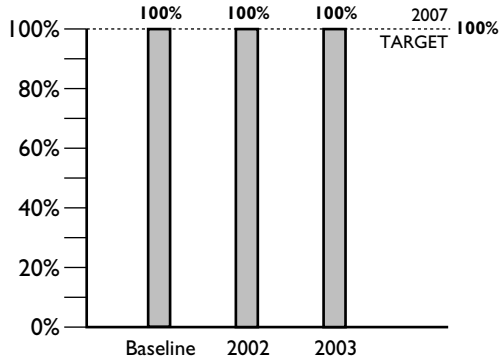
Percent of Biosolids Recycled and Used

18

ABOUT THIS PERFORMANCE MEASURE

Biosolids are the nutrient-rich organic material produced by treating wastewater solids. As permitted under federal and state regulation, biosolids in King County are recycled to improve soils and enhance the growth of forests and agricultural crops. This measure represents DNRP's ability to maintain regulatory acceptable biosolids material and to address public perception issues to maintain sufficient contracts for the material.

PERCENT OF BIOSOLIDS RECYCLED AND USED



OBSERVATIONS

The Regional Wastewater Service Plan (Policy BP-1) states "King County shall strive to achieve beneficial use of wastewater solids." Several projects are underway at the treatment plants to improve biosolids quality and reduce digester problems that will help us maintain this target. Although 100 percent of available biosolids were reused, the measure requires ongoing attention to ensure this high rate (see the Our Strategy section below).

OUR STRATEGY

The amount of biosolids produced will be decreasing because more efficient dewatering technology at Renton is being installed. High-solids centrifuges being put in place this year will bring annual production from 129,000 tons down to about 125,000 tons in 2004 and 107,000 tons in 2005. Reducing biosolids tonnage should lower hauling costs, but still provide the same amount of dry solids to our markets.

WTD's strategy for continuing to meet the target of 100 percent biosolids reuse has several components:

- Maintaining public and customer confidence in biosolids quality though certification of its Biosolids Environmental Management System.
- Maintaining contracts to provide reuse opportunity for 120 percent of its biosolids production.

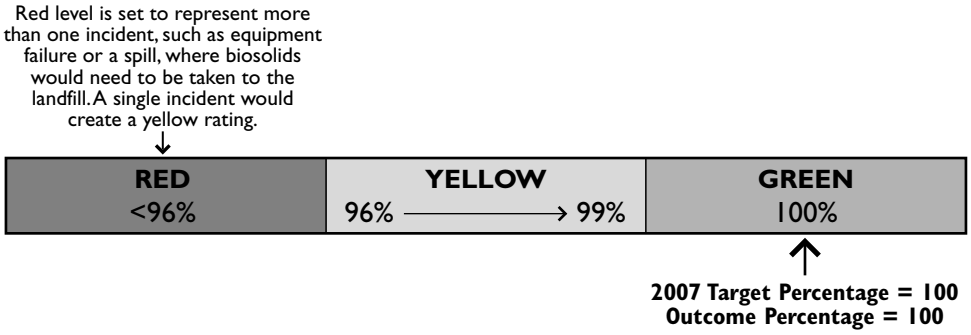
- Continuing an aggressive industrial pretreatment program to maintain current low metals levels.
- Installing a new influent screening system at West Point to improve capture of debris and to keep undesirable plastics and other materials out of the digesters and the biosolids.
- Investigating Class A technologies and determining which ones would be most appropriate and cost-effective for West Point and South Plant.

RATING

Results, Target and Outcome

2003 Results: 100 percent
2007 Target: 100 percent
Outcome: 100 percent

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

WTD's Balanced Scorecard Report; reports by Supervisor of Technology and Resource Recovery.

OUTCOME: The amount of waste requiring disposal is reduced

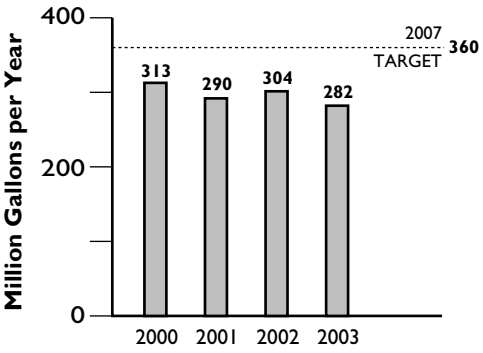
Volume of Water Reclaimed from Wastewater System

19

ABOUT THIS PERFORMANCE MEASURE

Despite our gray and rainy image, King County's surface and groundwater supplies are under severe pressure. One approach to increase the amount of water resources available is to use, rather than discharge, treated wastewater for a variety of purposes, such as industrial uses. This in turn can reduce pressure on surface and groundwater supplies so that they can be used for other important beneficial uses such as drinking water or salmon protection. This measure tracks the amount of wastewater that DNRP converts into a resource.

WATER RECLAIMED FROM WASTEWATER SYSTEM



OBSERVATIONS

The Regional Wastewater Service Plan (Policy WRP-1) states, "any reclaimed water reintroduced into the environment will protect the water quality of the receiving water body and the aquatic environment." Assumptions used in determining the target are that the water reuse program will have customers for reclaimed water and that new treatment plants will increase the supply of reclaimed water.

OUR STRATEGY

Over the long term, DNRP is interested in increasing the amount of reclaimed water that is available. DNRP is currently planning to develop a Sammamish Valley water reclamation plant capable of producing 500,000 gallons per day, or 75 million gallons per year, by 2007. At the policy level, DNRP is seeking to develop a regional water supply plan to address the role of reclaimed water in meeting the regions diverse water supply needs.

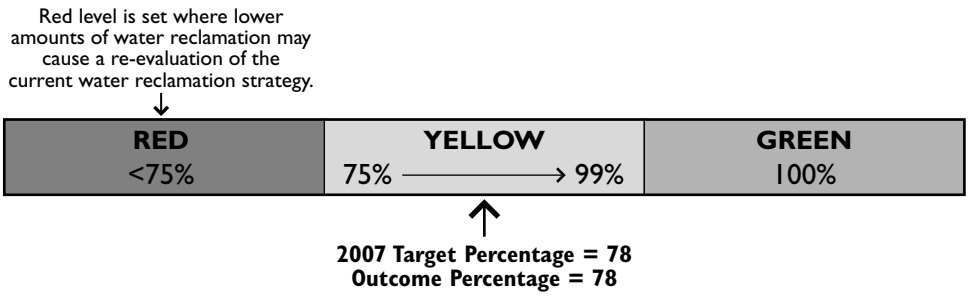
RATING

Results, Target and Outcome

2003 Results: 282 mg/yr
2007 Target: 360 mg/yr
Outcome: 360 mg/yr

The outcome includes water reclamation from existing wastewater plants and the Sammamish Valley reclamation plant. The number and location of existing facilities able to produce recycled water and the number of customers willing to use and pay for reclaimed water limits the target and outcome for this measure.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

WTD's Balanced Scorecard Report; reports by Process Control Supervisors.

OUTCOME: The amount of waste requiring disposal is reduced

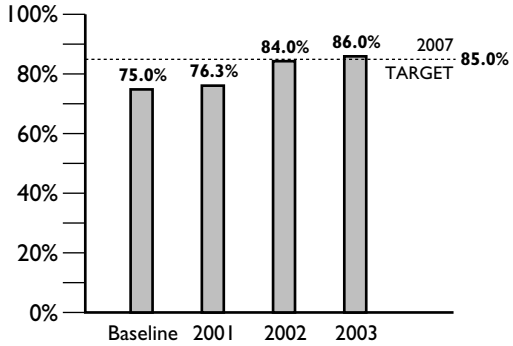
Percent of Biogas Recycled and Used from Wastewater Treatment Facilities

20

ABOUT THIS PERFORMANCE MEASURE

Biogas is a natural byproduct of the wastewater treatment process. Biogas generated at the wastewater treatment plants consists of methane, a significant source of DNRP-generated greenhouse gases (see Measure #3 on greenhouse gas emissions). Instead of viewing biogas as a waste or pollutant, it can be captured, processed and burned as a renewable energy resource. This measure ensures that available biogas resources are being efficiently utilized. This measure presents the average amount of biogas captured from the West Point and South wastewater treatment plants.

PERCENT OF BIOGAS RECYCLED AND USED FROM WASTEWATER TREATMENT FACILITIES



Note: Average of the combined rate of the West Point and South plants.

OBSERVATIONS

In 2003, 86 percent of the biogas from the county's two major wastewater treatment plants was recycled. This compares very favorably with an 84 percent recovery in 2002 and a 2007 target of 85 percent. For comparison purposes, California plants often have higher recycling percentages, but stricter air permits and higher electricity costs make recycling more cost effective there.

OUR STRATEGY

WTD's strategy to maintain current performance and meet the 2007 target is to construct new cogeneration facilities to replace the existing ones at West Point while maintaining existing ones at South Plant. The new West Point facilities are scheduled for startup in 2007. In the near term, West Point staff will strive to maintain the existing facility, which is nearing the end of its useful life.

RATING

Results, Target and Outcome

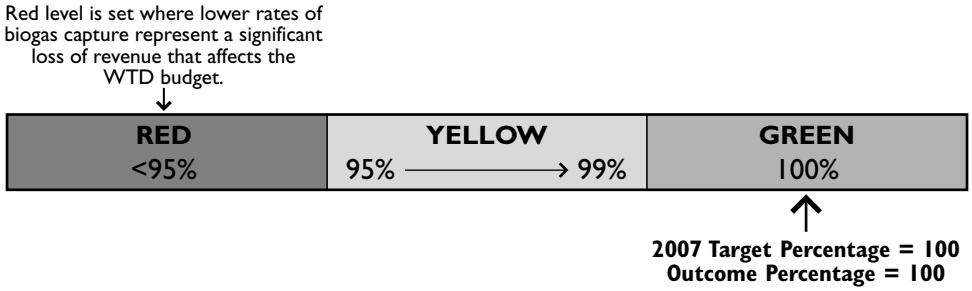
2003 Results: 86 percent

2007 Target: 85 percent

Outcome: 85 percent

The 2007 target and outcome are based on the maximum, cost effective amount of biogas obtainable.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

WTD's Balanced Scorecard Report; reports by Process Control Supervisors.

OUTCOME: The amount of waste requiring disposal is reduced

Percent of Methane Produced by Cedar Hills Landfill that is Converted to Usable Energy

21

ABOUT THIS PERFORMANCE MEASURE

In the natural decay process of landfill material, gases such as methane and carbon dioxide are produced. About 52 percent of landfill gas is made up of methane, which can be turned into a usable energy source. In an effort to capture existing "wastes" and use them as resources, DNRP plans to develop a methane capture and energy conversion process.

OBSERVATIONS

Current practice at Cedar Hills is to burn-off the accumulated gases; therefore zero percent of the methane produced at the Cedar Hills Landfill is being converted to usable energy. The current goal is to begin energy production in late 2005 or early 2006, which is anticipated to bring the methane conversion rate to 90 percent.

OUR STRATEGY

The contract to develop and operate this project has been awarded to Energy Developments Inc. (EDI) of Houston. There are two main tasks required by the division in 2004 to facilitate the project: assist EDI with permitting their facility, and move the current north flare station close to the future power plant site.

RATING

This measure will not be rated until the required infrastructure is installed.

Results, Target and Outcome

2003 Results: not applicable
2007 Target: 90 percent
Outcome: 90 percent

The target and outcome for this measure, both at 90 percent, are based on expected recovery rates once the energy-producing gas turbine goes online. The target includes equipment down time for expected maintenance; gases will be burned-off during these projected down times.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings

Red level is set where there are any exceedances from the existing design standard.

RED	YELLOW	GREEN
<99%	99%	100%

DATA REFERENCE

SWD

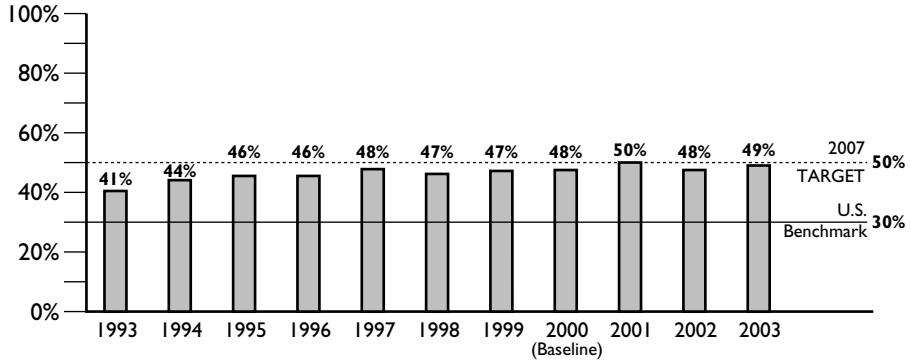
22 Percent of Single-family Curbside Solid Waste Stream that is Recycled

ABOUT THIS PERFORMANCE MEASURE

Recycling programs are important because they encourage residents to generate less waste and maximize the beneficial use of materials. In King County, recyclable materials collected are glass, tin, aluminum, plastics, newspaper, mixed paper and corrugated cardboard. Yard waste is also collected and considered as recycled material in this measure.

This measure focused on the single-family recycling rate is calculated by taking the annual tonnage of recyclables (including yard waste) collected from single-family households through curbside programs divided by total curbside tonnage collected from all single-family households receiving curbside service which includes recyclables, yard waste and solid waste.

PERCENT OF SOLID WASTE STREAM RECYCLED



Single-family Curbside Recycling Rate

OBSERVATIONS

In the past several years, there has been very little fluctuation in single family recycling rates. The 2003 rate appears to have increased by about one percent from 2002, but is still down compared to 2001. Recycling rate fluctuations are influenced by a number of factors including how wet or dry the year was because it affects both the amount and weight of yard waste put out at the curb. Economic growth and jobs can also affect the rate. Therefore, a recycling rate could fall (as it did in 2002) or remain the same as a prior year and yet recycled material as a whole significantly increases.

Despite these slight fluctuations, King County's recycling rate is very high. The national residential recycling average rate in the United States is about 30 percent. For comparison, the Seattle's 2001 residential recycling rate was 57 percent, but also includes multi-family and back yard composting. King County's overall recycling rate is not estimated because reliable data on multi-family and non-residential recycling are not available.

Additional information related to this measure is discussed in the "Waste Reduction, Recycling, and Market Development" chapter of the 2001 King County Comprehensive Solid Waste Management Plan.

GOALS

Environmental Quality

Waste to Resource
Regard the region's waste products as resources and minimize the amount of residual waste disposed.

Community Investment

Leadership

Price of Service

Customer Satisfaction

Employee Involvement and Morale

OUR STRATEGY

To improve data collection for multi-family and non-residential recycling, starting in spring 2004, the Division will develop an ongoing program to improve current and predictive estimates of the quantities of key materials that are recycled from commercial sources in King County. Additional information may be gained by sharing information with cities that already track multi-family recycling and by seeking additional sources of data on commercial recycling.

A "Zero Waste of Resources by 2030" goal has been developed as part of the 2004 Solid Waste Business Plan. This puts a greater focus on eliminating certain high value materials, such as food waste and paper, from the waste stream.

In 2002, the division sponsored pilot programs in four cities to collect food along with yard waste. As a result of these pilot projects, a few programs have expanded and will become permanent services. Several cities have negotiated citywide curbside food with yard waste collection starting in 2004.

The division negotiated agreements with the waste haulers to increase materials (metals, polycoated paper, all plastic tubs and bottles, and food waste with yard waste) accepted in curbside programs in Washington Utilities and Transportation Commission (WUTC)-regulated areas. The Division continues to promote availability of recycling services for new materials.

In 2004, the Division proposes to:

- Initiate a pilot program with the haulers and WUTC to provide food/yard waste collection as a base level service available to all single-family garbage customers.
- Investigate options for reducing disposal of commercial paper, including a phased-in disposal ban.
- Implement commercial food waste collection pilot programs.
- Increase promotion of all solid waste collection services to increase the number of subscribers.

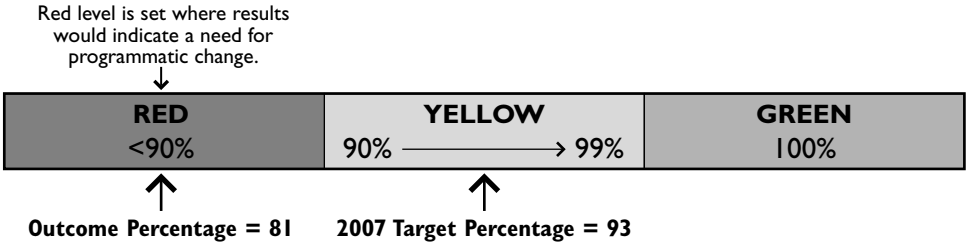
RATING

Results, Target and Outcome

2003 Results: 49 percent
2007 Target: 53 percent
Outcome: 60 percent

With changes in the collection system (single-stream recycling) and additional materials starting to be recycled (food and soiled paper), the division adjusted the 5-year target. The outcome was adjusted to better reflect the "Zero Waste of Resources 2030" guiding principle that is a part of the 2004 Solid Waste Business Plan.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

Private hauling companies' collection activity reports; 2001 King County Comprehensive Solid Waste Management Plan; Department of Ecology's annual recycling survey; SWD Waste Monitoring Program surveys; SWD's tonnage records.

OUTCOME: The amount of waste requiring disposal is reduced

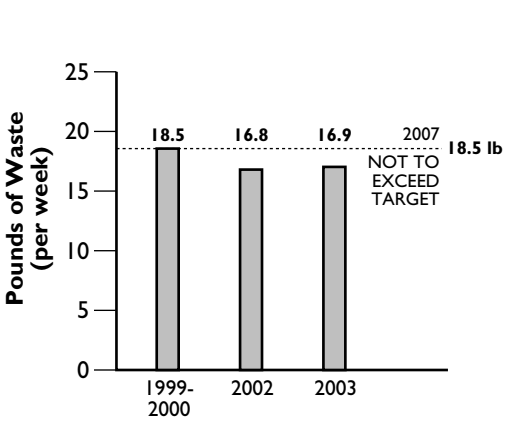
Amount of Solid Waste Being Disposed per Resident or Employee

23

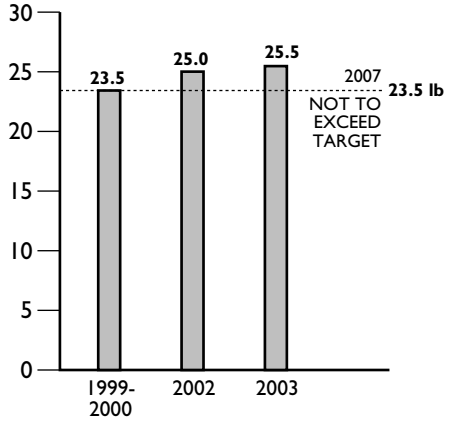
ABOUT THIS PERFORMANCE MEASURE

This measure focuses on waste disposal practices by residents and employees. The measure integrates waste reduction and recycling efforts by tracking the impact of both desired behaviors on the amount of waste that actually goes into the garbage can. By contrast, the recycling rate (Measure #22) only measures progress in recycling, not waste reduction. This measure tracks residential and non-residential waste disposal activity separately; this is important because factors affecting residential disposal can differ from those affecting non-residential disposal. In addition, strategies to address each of these segments are different. In contrast to most other measures in the report, these targets are considered "not to exceed" targets where we want to be under, rather than over, the targets.

WASTE DISPOSED PER RESIDENT OR EMPLOYEE



23a. Resident



23b. Employee

OBSERVATIONS

Data for 2003 indicate a positive trend with residential disposal going down, however, this may be due to the recent economic slowdown rather than an increase in recycling. A slow economy leads generally to decreased consumption and amount of waste requiring disposal. Note that the single-family recycling rate described in Measure #22 shows no major increases in residential recycling. However, the trend in per capita employee disposal appears to be going up. This may also be related to recent economic conditions because fewer employees mean the per capita employee disposal rate would increase.

In 2000, for the United States as a whole the average amount of waste disposed was 22.4 pounds per capita per week. This per capita number, which is currently used as a benchmark for this performance measure, is not strictly comparable because it assigns all disposed waste – both residential and commercial – to residents. This methodology makes no allowance for

the vast differences in waste disposal between commercial centers such as the Puget Sound area and rural areas with little commercial waste. And as noted above, different strategies are needed to encourage reduced waste disposal for residents and for businesses.

Waste generation increases with population, economic growth, and employment due to increases in production and consumption. Maintaining existing waste disposal levels will require a significant level of effort. Reducing the amount of waste hinges on aggressive waste reduction and recycling practices such as expanded education, promotion, incentives, regulatory changes, technical assistance programs, and expanded promotion of existing material exchanges and reuse centers.

OUR STRATEGY

Several programs focus on waste reduction strategies to reduce the amount of waste. Programs such as "Waste Free Holidays" encourages purchasing gifts with little or no packaging, "Backyard Composting" limits the need for off-site yard waste management, and various school education programs teach youth about reducing waste and reusing materials.

Starting in the spring 2004, the division will develop an ongoing program to improve current and predictive estimates of the quantities of key materials that are recycled every year from commercial sources in King County. In addition, next year's report will include a more closely related benchmark that may focus on using urban West Coast areas or the amount of waste per dollar of Gross National Product.

RATING

Results, Target and Outcome

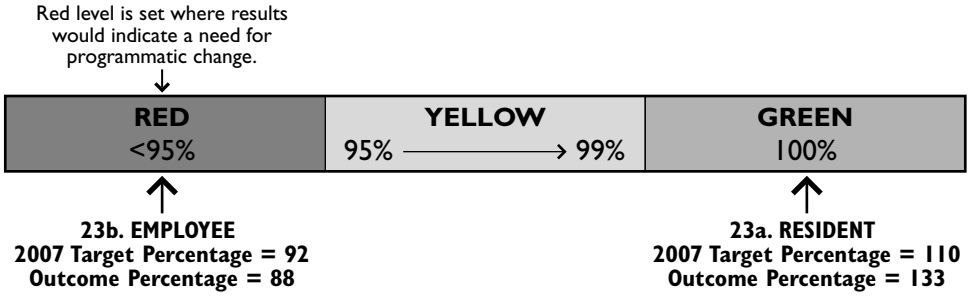
23a. Resident
2003 Results: 16.9 lbs of waste/week
2007 Target: 18.5 lbs/week
Outcome: 22.4 lbs/week national average = Benchmark

23b. Employee
2003 Results: 25.5 lbs of waste/week
2007 Target: 23.5 lbs/week
Outcome: 22.4 lbs/week national average = Benchmark

The targets are based on the 2001 Solid Waste Comprehensive Plan. The targets are meant to ensure that the amount of waste does not increase. The targets assign waste generated by residents to residents, and waste generated by businesses to employees. The benchmark is not directly comparable with the targets because the benchmark assigns all waste generated to residents.

The target and outcome for these measures will be revised as the division begins a new comprehensive plan in 2005.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

King County Monitoring Program: 2002/2003 Comprehensive Waste Stream Characterization and Transfer Station Customer Surveys – Final Report, April 2004; Office of Financial Management: April 1 Population of Cities, Towns, and Counties Used for Allocation of Selected State Revenues State of Washington; Washington Sate Employment Security: Nonagricultural Wage and Salary Workers Employed in King County; Municipal Solid Waste in the United States: 2000 Facts and Figures, EPA.

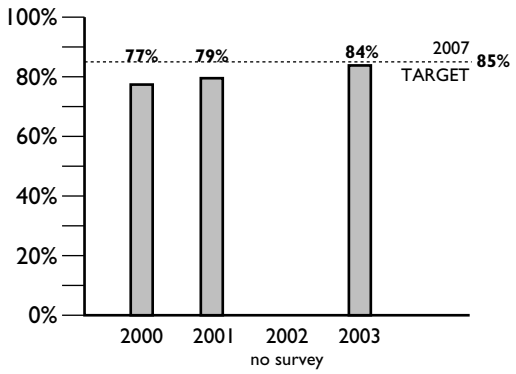
24 Percent of Single-family Households in King County (Excluding Seattle) Participating in Curbside Recycling

ABOUT THIS PERFORMANCE MEASURE

This measure, in conjunction with the waste disposal measure (#23), assists us in understanding the impacts of recycling education programs, recycling availability, and rate incentives for solid waste collection that encourage participation in recycling programs. Maximizing participation in curbside recycling programs makes efficient use of the existing collection system and reduces the use of self-haul facilities at King County transfer stations. Increased participation in recycling programs also will reduce the amount of solid waste disposed.

"Single-family households" include single-family homes and buildings with four units or less. Seattle is not included because it is not part of the King County service area.

SINGLE-FAMILY HOUSEHOLDS PARTICIPATING IN CURBSIDE RECYCLING



OBSERVATIONS

The percent of single-family households participating in curbside recycling increased from 79 percent in 2001 to 84 percent. This large increase can in part be attributed to new collection contracts being implemented in several cities. These new contracts often received media coverage, and included promotional campaigns to inform residents about enhancements in recycling services, such as accepting additional recyclable materials.

Curbside recycling service is available at no additional charge to single family households that subscribe to garbage collection service in all of King County except the cities of Pacific and Skykomish, Snoqualmie Pass, and Vashon Island.

GOALS

Environmental Quality

Waste to Resource
Regard the region's waste products as resources and minimize the amount of residual waste disposed.

Community Investment

Leadership

Price of Service

Customer Satisfaction

Employee Involvement and Morale

OUR STRATEGY

The 5-year target has been adjusted to reflect changes in state law that provide incentives to increase residential recycling rates and county regulations that require haulers to provide bins to all customers. Previously, some haulers required customers to request recycling bins. SWD continues to coordinate with haulers to provide information to households on how to recycle.

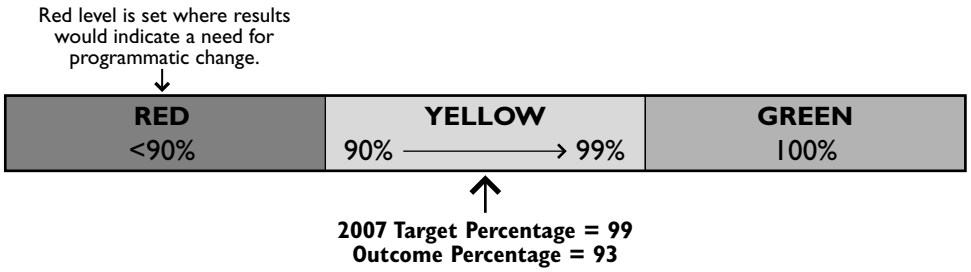
RATING

Results, Target and Outcome

2003 Results: 84 percent
2007 Target: 85 percent
Outcome: 90 percent

The long-term outcome is based on SWD's goal of 90 percent participation.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

"Waste Reduction, Recycling, and Market Development" chapter of the 2001 King County Comprehensive Solid Waste Management Plan; King County Solid Waste Division Residential Waste Reduction and Recycling Survey 2003.

COMMUNITY INVESTMENT

OUTCOME: Residents are more involved in their communities and in protecting the environment

Percent of County Residents Engaged in Positive Activities Related to Household Hazardous Waste

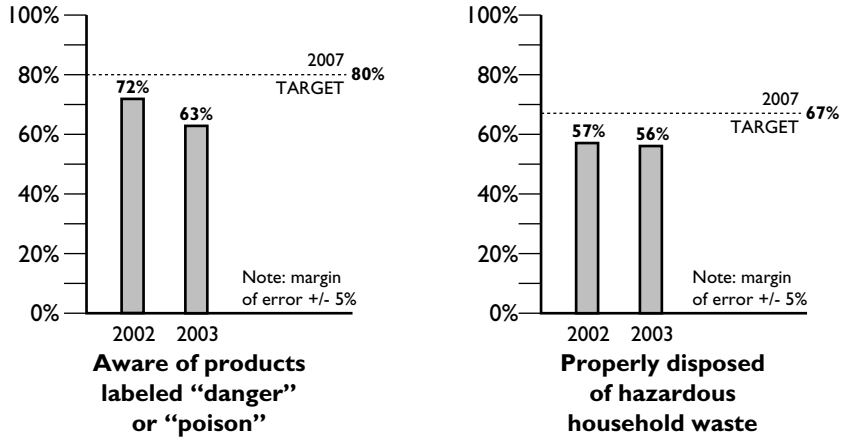
25

ABOUT THIS PERFORMANCE MEASURE

Collectively, we as individuals can have a major impact on the environment. Nonpoint sources of pollution, small contributions of pollution from multiple sources, such as runoff from urban areas, are currently thought to be the primary cause of water quality degradation in the Puget Sound region. Household hazardous waste can have significant impacts on surface, marine, and groundwater quality. DNRP is an active participant in the multi-agency Local Hazardous Waste Management Program in King County. The program has conducted numerous public information campaigns to raise awareness of the problem and encourage appropriate behaviors. Collection services, such as the department-operated Wastemobile, accept household hazardous wastes rather than have them be improperly disposed of in landfills, the sewer system or storm drains.

There are two resident activities that are of primary interest because they represent the "front end" educational efforts and "back end" collection effort related to household hazardous waste: 1) awareness about products labeled with danger or poison and 2) properly disposing of household hazardous waste at a collection center. This measure is meant to track the degree to which public information and education efforts are having an impact on resident behaviors related to household hazardous waste disposal.

PERCENT OF COUNTY RESIDENTS ENGAGED IN POSITIVE ACTIVITES RELATED TO HOUSEHOLD HAZARDOUS WASTE



OBSERVATIONS

The proper behaviors for both label awareness and household hazardous waste disposal are widely accepted and practiced by many residents. However, even limited amounts of these products dumped into storm drains or improperly disposed of can have serious environmental impacts. The increase in both measures reflects ambitious targets. A change in one percent-

age point, as represented by these surveys, equals 47,000 residents. In addition, 80 percent acceptance of a specific behavior is considered an upper-limit bracket.

Although a high percentage of survey respondents reported going to household waste collection centers, a respondent who answered that they did not go to such a center is not necessarily doing anything wrong as they may not have had any hazardous waste requiring disposal.

OUR STRATEGY

As part of the Local Hazardous Waste Management Program, a wide variety of activities help to raise awareness about hazardous products and services to safely handle them. One of the main pages on the program's new website (govlink.org/hazwaste/house/products/index.html) highlights the "read the label" message. Similar label-reading and signal-word messages are communicated in the school classrooms, reaching more than 5,000 students throughout King County each year, and in the Wastemobile customer-greeters/educators program, which has brief, direct contact with approximately 15,000 customers.

Program participants are focusing on mercury-containing products for special attention. Activities include a pilot retail-based collection program for household fluorescent lamps, increased publicity around mercury-containing thermostats and vehicle switches, and public and business efforts to recycle fluorescent lamps. All of these projects should increase the general public's awareness that certain household products contain mercury, a high priority hazardous chemical.

In addition, program participants are gearing up a new emphasis on children's environmental health issues, including public service announcements on Mariners' baseball games, direct contacts with daycare centers, training parents of new or young children, and other ways to get the message out regarding hazardous products, safety, signal-words and reading the label. All of these efforts should reinforce our basic message and result in increased awareness, even in a time of reduced public education and outreach budgets.

SWD has concluded a two-year Household Hazardous Waste collection pilot at the Factoria Transfer Station. The results of the pilot indicate that a permanent facility is more cost effective, more convenient to residents, and provides greater safety than the Wastemobile for the eastside of the county. Therefore the division will be providing permanent household waste collection service at Factoria in the summer of 2004.

In addition to the above strategies, DNRP plans to develop a more definitive survey approach in 2004 that will more clearly define different behaviors and the percentage of the population that are doing the desired activities.

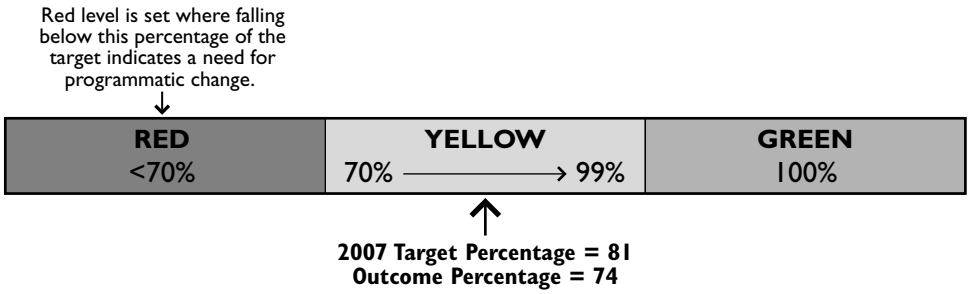
RATING

Results, Target and Outcome

2003 Results: 63 and 56 percent of residents: average of 60 percent
2007 Target: 80 and 67 percent of residents: average of 74 percent
Outcome: 80 and 80 percent of residents: average of 80 percent

The targets are based on continued public information campaigns, incentive programs, and other services to increase the percentage of the population adopting the positive activities. The ultimate outcome is that a large majority of residents, 80 percent, will practice these positive behaviors. The nature of this measure, focusing on changing resident behaviors, requires a long time to attain desired outcomes.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

King County Natural Yard Care and Associated Environmental Practices: Annual Polling Data and Behavioral Trends Analysis, 1997-2003.

OUTCOME: Residents are more involved in their communities and in protecting the environment

26 County Residents Engaged in Positive Activities Related to Yard Care

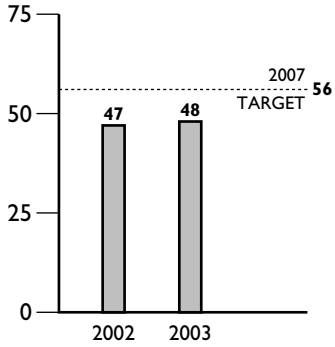
ABOUT THIS PERFORMANCE MEASURE

Products used by residents in their yards can have either a positive or negative impact on human health and the environment. Residents can have a positive impact on the environment by practicing natural yard care. This includes improving soil, planting native and/or pest-resistant plants, reducing use of pesticides and chemical fertilizers, and using water conscientiously. Pesticides (including herbicides) and fertilizer all pose risks to environmental quality, particularly streams and salmon populations.

Recent research findings show the negative human health and environmental impacts from yard care practices. Studies conducted by the National Institutes of Health show increased health risks in families that regularly use lawn and garden pesticides. Homeowners often use five to ten times more chemicals per acre on their lawns than farmers use on agricultural land. Compacted soil leads to run-off from yards carrying water and garden pesticides into the regions waterways through storm sewers and groundwater percolation. The U.S. Geological Survey found evidence of 23 pesticides used by homeowners in urban streams.

Because we want to assess a variety of actual yard practices, this measure is designed as an index. The index takes the average percentage for six desired yard care practices and one belief statement from a survey of King County residents. The index includes the percent of King County residents who: watered their lawn for 30 minutes or less, if they watered; did not use weed and feed-type products; leave grass clippings on the lawn most of the time; do plantings to attract beneficial insects or to reduce water or chemical use; use compost; and are concerned about the impact of their lawn care practices on the environment.

YARD CARE INDEX



OBSERVATIONS

Overall, the index stayed approximately the same between 2002 and 2003. However, when looking at individual index elements there were some notable increases and decreases. Most dramatically, there was a significant increase in the percentage of the population who left their grass clippings on

the lawn (up from 33 percent in 2002 to 48 percent in 2003). Counterbalancing that one major increase however, appropriate water use and concern about lawn care practices both declined. Given the margin of error for each individual survey question, these last two questions did not have statistically significant differences but should be watched over time.

A separate 2003 survey that asked King County residents questions about soils showed that there is increasing use of compost, drought tolerant plants, and organic fertilizer, while there has also been a net decrease in water use, weed killers and weed and feed-type products. Appropriate use of compost and avoidance of weed and feed-type products are practices already widely accepted by half of the population or more. However, we have also discovered that people do not generally recognize that weed and feed products contain a pesticide.

OUR STRATEGY

There are a wide variety of strategies the department uses to educate the public about yard care practices. The department participates in two specific programs that educate residents about the positive actions they can take as well as the negative environmental impacts from certain yard care practices. Both programs encourage following a five-step plan for healthy gardening:

1. Build healthy soil with compost and mulch
2. Plant right for your site
3. Practice smart watering
4. Think twice before using pesticides
5. Practice natural lawn care.

The individual elements in the yard care index reflect each of the five steps. The five-step approach was developed collaboratively with other jurisdictions and adopted for use in all educational outreach.

In it's first five years, what was called the Natural Lawn Care approach used expensive media advertising to spread the message about key behaviors. Awareness about the behaviors grew exponentially but behavior change did not. For the last three years, the Natural Yard Care Neighborhoods program has been using a community-based social marketing approach to target individual communities, train them in the techniques of natural yard care, and let them spread the word. It has been very successful at a fraction of the previous cost and is holding awareness levels high while changing the behaviors of nearly everyone who takes the training. Sixteen neighborhoods have already been trained and from 10 to 13 are planned for every year.

The second program, Northwest Natural Yard Days, is a public/private partnership between regional public agencies and retailers to discount natural yard care products accompanied by strong educational messages. The program began in King, Pierce and Snohomish counties in 1998 as a discounted mulch mower sales campaign at special events and has transitioned into an all-retail program with discounts on mowers and other products such as organic fertilizer, compost, hand weed pullers and soaker hoses. There has been between 33 and 40 participating retailers. In 2004,

retailers in Whatcom, Kitsap, Skagit, and Thurston counties joined the partnership.

Other outreach has included participation in the annual Northwest Flower & Garden show and providing information to local garden writers who produce news articles, garden columns, and radio and TV programs. For example, Ciscoe Morris, a popular gardening expert, promotes natural yard care and has been a spokesperson for healthy gardening.

Lastly, a recent Federal District court ruling prohibits use of some pesticides near salmon-bearing water and requires labeling these products at the point of purchase. This may have a future dampening effect on residential purchases.

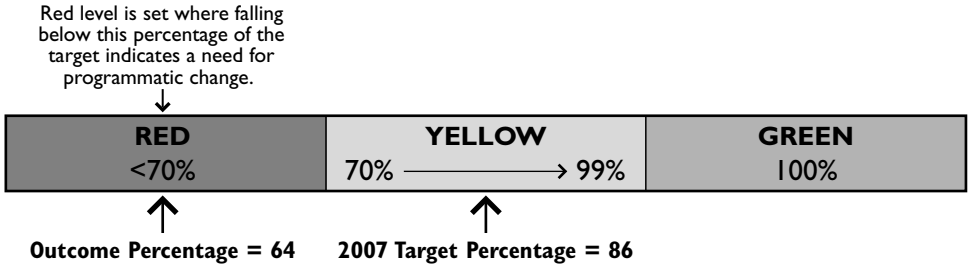
RATING

Results, Target and Outcome

2003 Results: 48
2007 Target: 56
Outcome: 75

The overall yard care target and long-term outcome were derived by setting targets for each of the seven component questions and then taking the overall average score. Where multiple programs across the department have similar desired outcomes, the target and long-term outcomes were higher. However, there are a number of factors as to why the long-term desired outcome of the yard care index is not 100. For example, the compost outcome was set at 75 percent because that is sufficient to sustain the compost creation process. Similarly, although leaving grass clippings on the lawn is a desired behavior, the outcome was set at 75 percent because some residents may also do alternative appropriate behaviors, such as using yard waste collection and doing their own composting. The nature of this measure, by focusing on changing resident behaviors, requires a long time to attain desired outcomes.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

King County Natural Yard Care and Associated Environmental Practices: Annual Polling Data and Behavioral Trends Analysis, 1997-2003. Healthy Soil Survey 2003: Final Survey Results. King County Solid Waste Division Waste Prevention & Recycling: Evaluation of the Residential Education & Promotion Program, 1997 – 2003.

OUTCOME: Residents are more involved in their communities and in protecting the environment

Number of Volunteer Hours Invested in Parks Division Projects

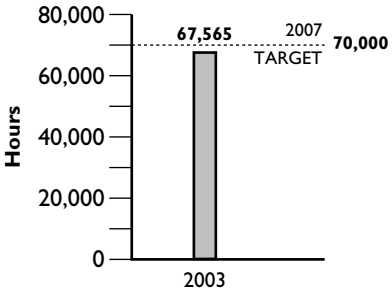
27

ABOUT THIS MEASURE

Parks and recreation is one area of government that generates significant volunteerism. People volunteer on King County parks' projects as a way to invest in the community, educate park visitors, and provide basic enhancements to the park system and the environment. The degree of community involvement with the King County parks system is an important measure of how engaged the community is with this important public asset.

Volunteer hours were tracked for planting and restoration projects, trail maintenance and construction, 4-H activities at the King County Fair, Olympic trials at the aquatic center, the greenhouse/nursery, Adopt-A-Park and Park Ambassador Programs, and other King County Parks events. Many of the volunteer efforts augment existing on-going staff efforts, while others create new opportunities that would not occur without volunteer participation.

TOTAL VOLUNTEER HOURS



OBSERVATIONS

King County Parks has a strong volunteer base built over many years. Given the division's reorganization, recent transfers of parks and pools to cities, and the elimination of numerous recreation programs, the 2003 total volunteer hours is considered the new baseline level of involvement.

Another way to assess the value of volunteer contributions is to identify an in-kind value for each volunteer hour. Although expert volunteers can be valued at their market rate, for simplicity, using a standard estimate of $17.19 per hour yields a volunteer community investment equivalent of over $1 million.

OUR STRATEGY

The division believes it is important to continue enhancing the volunteer program. There is one staff member committed to creatively increasing volunteer opportunities and our volunteer base. A system-wide volunteer database will be updated and used to efficiently track volunteer hours, produce reports, and archive valuable information on user groups and park investment.

Parks anticipates that over the long term the volunteer base will continue to increase each year through environmental stewardship opportunities on natural and active park lands, new opportunities for volunteerism in aquatics and recreation programs and the King County Fairgrounds. With the increase in volunteers, there is a recognized need for corresponding staff support to supervise complex projects.

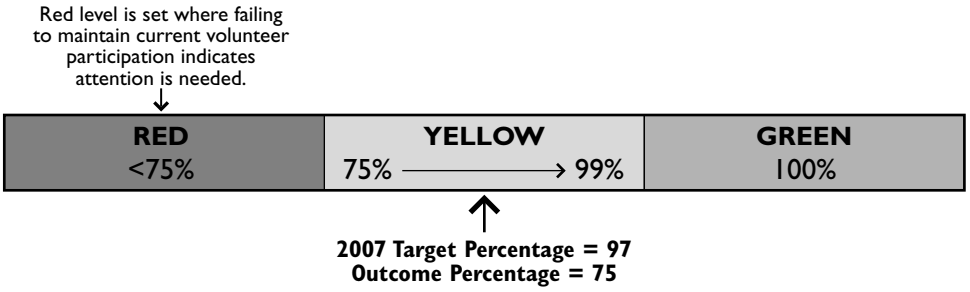
Future evolution of this measure may include a more comprehensive measure of volunteer contributions across the entire department. For example, additional volunteer efforts support Water and Land Resource Division programs related to native plant salvage, noxious weed removal, lake monitoring, salmon monitoring, storm drain stenciling, and naturalists for beaches and the Cedar River.

RATING

Results, Target and Outcome

2003 Results: 67,565 hours
2007 Target: 70,000 hours
Outcome: 90,000 hours

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

Independent Sector Value of Volunteer Time (*www.independentsector.org/programs/research/volunteer_time.html*)

GOALS

Environmental Quality

Waste to Resource

Community Investment
Contribute to healthy communities by providing recreation, education, and sound land management.

Leadership

Price of Service

Customer Satisfaction

Employee Involvement and Morale

OUTCOME: Productive farms and forests are maintained

Acreage of Agricultural Land in King County

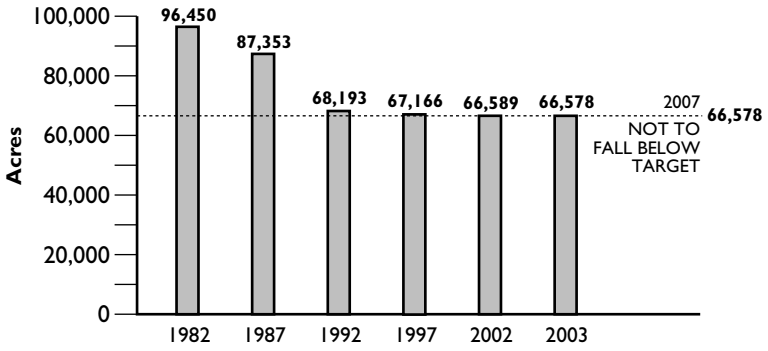
28

ABOUT THIS INDICATOR

DNRP has an interest in preserving farmlands primarily for the environmental benefits they provide compared with developed land. Open farmland contributes significantly less runoff than developed impervious surfaces, it provides surface water storage during the wet season, and facilitates groundwater recharge. However, due to a number of socio-economic forces, such as the economic viability of small farms and rising land values for development, there has been a dramatic loss of agricultural land in the county over the last 50 years.

This measure relies on a baseline of agricultural properties established in 2002. DNRP has identified 66,589 acres used for agriculture within the county. This includes 41,295 acres within the county designated agricultural production districts and 25,294 acres in the remaining rural area. These properties are used for either horticulture or livestock, and include small hobby farms. DNRP will monitor development permits at the King County Department of Development and Environmental Services to know whether any of these parcels are being developed for non-agricultural use.

ACRES OF AGRICULTURAL LAND
IN KING COUNTY



OBSERVATIONS

In 2003, no acreage was lost to development and only a few acres were lost to road construction. Historical data were generated using U.S. Department of Agriculture data for properties filing farm profit/loss statements. Since this is a smaller subset of properties than is being tracked by DNRP, the historical data was extrapolated for previous years. This is considered a conservative estimate by program staff and probably underestimates the loss of agricultural land in past years. An update of the Department of Agriculture data in 2004 will improve the accuracy of this estimate.

OUR STRATEGY

Maintain the comprehensive plan "no net loss of farmland" policy. Provide marketing assistance to farmers through the "Puget Sound Fresh" farm

products marketing program to maintain the economic viability of small farm operations. Continue to work toward a regulatory environment that fosters agriculture and agribusiness in King County.

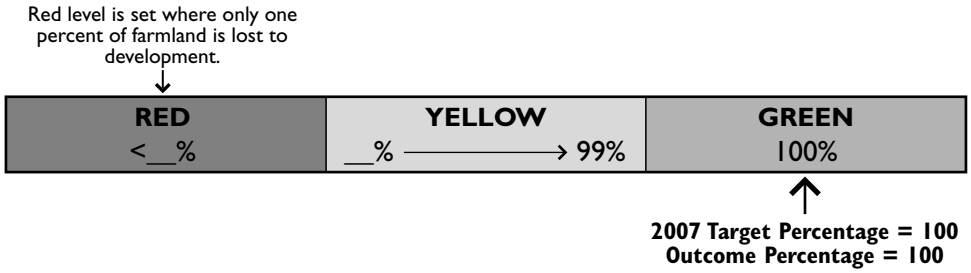
RATING

Results, Target and Outcome

2003 Results: 66,578 acres
2007 Target: 66,578 acres
Outcome: 66,578 acres

The 5-year target and long term outcome is zero loss of acreage to development.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

DNRP's Office of Rural and Resource Programs; USDA Natural Resources Conservation Service; King County Department of Development and Environmental Services.

Acreage of Forestlands in Public Ownership or in the Current Use Taxation Program

29

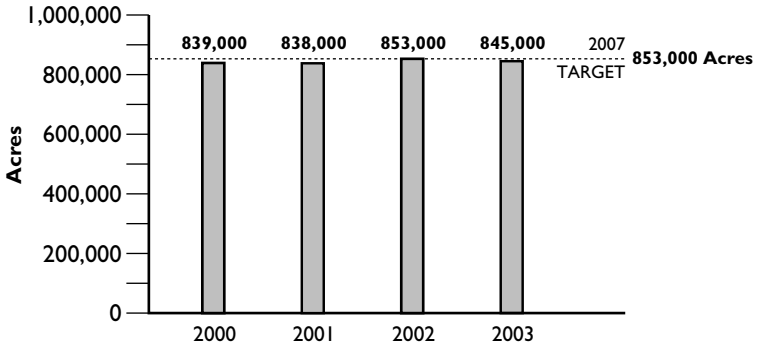
ABOUT THIS INDICATOR

Forestlands, including those actively managed for timber, provide a variety of environmental benefits including maintaining the natural water cycle and providing wildlife habitat. As development pressure increases the value of forestlands, these lands are often converted to other, primarily residential, uses. Once the forest is fragmented into home sites, many of the environmental benefits, as well as the ability to manage the land for forest production, are lost.

Through the Timberland and Forestland property tax programs, actively managed forestlands are taxed at the current use, keeping property taxes relatively low. DNRP promotes these programs because they serve as incentives to encourage private landowners to voluntarily conserve and manage their forestland rather than convert it to another use. In addition, DNRP is actively involved in the acquisition of forestland and development rights by pursuing select properties and supporting the efforts of non-profit groups.

This indicator is intended to track the amount of land that is conserved as forest through public acquisition (including development rights) and enrollment in Current Use Taxation (CUT). Note that when land is brought into public ownership, it is removed from the current use taxation program, so an increase in publicly owned land will result in a decrease in current use taxation enrollment.

FORESTLANDS IN PUBLIC OWNERSHIP
OR CURRENT USE TAXATION



OBSERVATIONS

The 2003 King County Annual Growth Report states that between 1972 and 1996 there was a 33 percent decrease in forest cover within the county. County efforts have slowed the conversion of forestland in the past decade, but there continues to be tremendous development pressure throughout the region. The amount of forestland in public ownership and in the CUT program has remained relatively constant since 2000.

OUR STRATEGY

The King County Assessor's Office administers the Forestland current use taxation program for large lots, greater than 20 acres. WLR administers the Public Benefit Rating System and Timberland current use taxation programs. The WLR Forestry Program provides technical assistance and education to small forest landowners to encourage them to maintain their land in forest and manage it responsibly. DNRP is also involved in the acquisition of forestlands and development rights.

The 2007 target is to maintain the existing amount of forestland in public ownership or enrolled in the current use taxation program. DNRP hopes to achieve this goal through acquisition, education, conservation easements, and incentive programs such as current use taxation. Meeting this target will likely require additional resources.

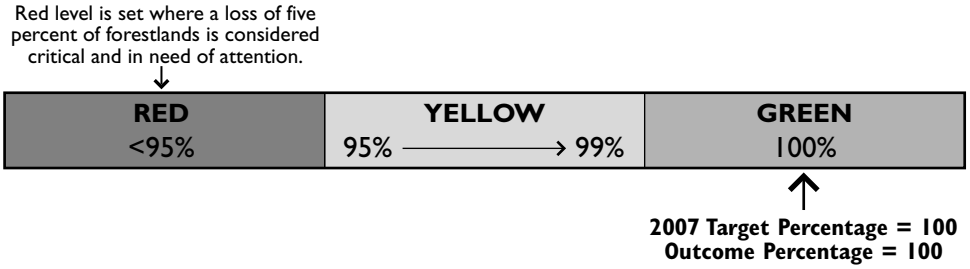
RATING

Results, Target and Outcome

2003 Results: 569,000 acre in public ownership + 284,000 acres in CUT = 853,000 acres
2007 Target: 853,000 acres
Outcome: 853,000 acres

The target and long-term outcome are to maintain existing amounts of forestland acreage either in public ownership or in the Current Use Taxation Program.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

Assessor's Office, DNRP's Office of Rural and Resource Programs.

OUTCOME: Farms and forests are managed in a sustainable manner

Percent of Forest Acres Where Landowners are Demonstrating Stewardship

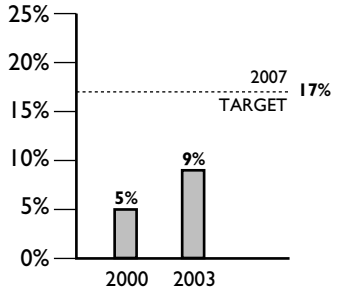
30

ABOUT THIS PERFORMANCE MEASURE

Forestlands, including those actively managed for timber, provide a variety of environmental benefits, including maintaining the natural water cycle and providing wildlife habitat. A major focus of the Forestry Program is to provide technical assistance to forest landowners to encourage them to steward their forests responsibly. Staff accomplishes this by assisting with forest stewardship plans, providing on-site technical assistance, and offering forest stewardship classes. It is assumed that a landowner who writes a plan, seeks technical assistance, or takes a class has a commitment to retaining the property in forestry for some time. This measure serves as a proxy for best management practice implementation and appropriate forest stewardship.

The acres considered for this measure are forested lands in the Rural Forest Focus Areas and Vashon Forest Focus Area. Rural Forest Focus Areas are a King County Comprehensive Plan designation of 13 areas within rural King County that are comprised of predominately large forested lots. Land showing proper stewardship is being defined as forested lands: 1) with an existing forest stewardship plan; 2) where technical assistance has been provided by the DNRP Forestry Program, or; 3) whose landowners have taken a forest stewardship class offered by the DNRP Forestry Program in cooperation with Washington State University Extension.

PERCENT OF FOREST AREAS WITH DEMONSTRATED STEWARDSHIP



OBSERVATIONS:

There are a total of 39,500 privately owned forested acres in the Rural Forest Focus Areas and 11,500 privately owned forested acres on Vashon for a total of 51,000 acres. From 1997 through 2002, the Forestry Program has affected a total of 4592 acres in these areas through planning, technical assistance and stewardship classes, an average of 765 acres per year.

OUR STRATEGY

Since the program is relatively new, many of the early participants were eager to be involved. It is anticipated that attaining the same level of participation

will be challenging. The strategy is to sustain the current rate of 765 acres per year to achieve the 2007 target.

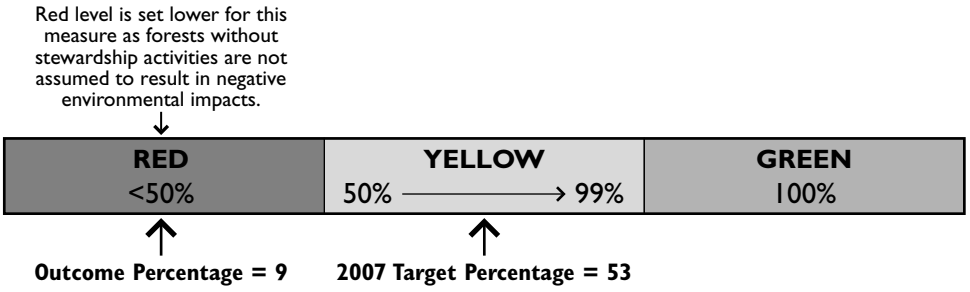
RATING

Results, Target and Outcome

2003 Results: 9 percent
2007 Target: 17 percent
Outcome: 100 percent

The 2007 target is based on the historical number of acres impacted per year. With current staffing levels able to impact approximately 765 acres per year, this would total 8400 acres by the end of 2007. The long-term outcome is to eventually affect all of the 51,000 acres in the Rural Forest Focus Areas and in the Vashon Forest Focus Area.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

DNRP's Office of Rural and Resource Programs.

OUTCOME: Farms and forests are managed in a sustainable manner

Acreage of Agricultural Lands Using Agricultural Best Management Practices

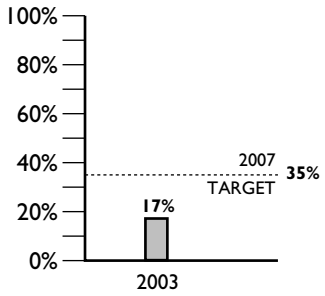
31

ABOUT THIS PERFORMANCE MEASURE

Unmanaged stormwater run-off from farms can contribute excess nutrients to streams and other waterbodies, promoting the growth of aquatic weeds. These weeds choke stream channels, inhibiting fish passage, while also depleting dissolved oxygen that fish need to survive. This run-off can also contain pathogens or excess nutrients harmful to humans. Livestock can also directly impact streams by trampling riparian vegetation and stream channels.

King County has a Livestock Management Ordinance whose primary purpose is to support livestock operations in a manner that minimizes their adverse impacts on the environment - particularly water quality and salmonid fisheries habitat. The ordinance calls for implementation of BMPs that protect environmental features from livestock impacts. Examples of these BMPs are stream and wetlands buffer fencing, manure storage structures, and runoff management facilities such as gutters and downspouts. This measure is intended to track the degree to which farms are implementing these BMPs. Implementing at least one BMP is required to be included in the measure.

PERCENT OF AGRICULTURAL LANDS USING BEST MANAGEMENT PRACTICES



OBSERVATIONS

BMPs are encouraged for all livestock owners and horticultural farmers in order to minimize the environmental impacts of farm practices and maximize the environmental benefits of farmland in King County. In most instances these practices are not required, but are done voluntarily by property owners to be good stewards of the land. In order to encourage the use of BMPs, WLR offers cost-share grant funding to landowners.

Since the use of BMPs is voluntary, many landowners do so without county knowledge. The data for this measure show only the known acreage of farmland on which BMPs are actively used—10,800 acres out of a total of 65,000 farm acres. In 2004, staff plans to statistically sample the remaining farms to obtain a comprehensive estimate on the use of agriculture BMPs.

OUR STRATEGY

Provide education and technical assistance to landowners on the value of farm planning, including the installation of BMPs, to their farm operations and for the environment. Provide cost share assistance to landowners who agree to implement water quality BMPs listed in their farm plans. Provide manure management and composting technical assistance to farmers.

Begin work to quantify the number of landowners and acreage affected by landowners implementing BMPs outside of the farm planning process.

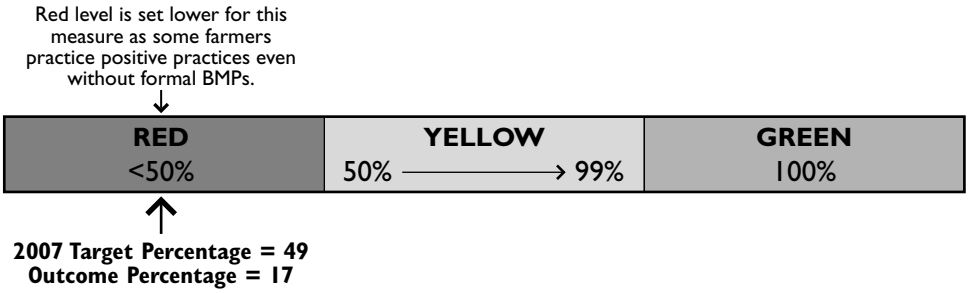
RATING

Results, Target and Outcome

2003 Results: 17 percent
2007 Target: 35 percent
Outcome: 100 percent

The long-term outcome is that all King County parcels with livestock or horticultural farming install the appropriate BMPs.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

DNRP's Office of Rural and Resource Programs, King Conservation District.

LEADERSHIP

OUTCOME: The department is recognized as a resource and a leader in environmental issues in the region

Percent of Local Jurisdictions that Rate their Relationship with DNRP as Positive

32

ABOUT THIS PERFORMANCE MEASURE

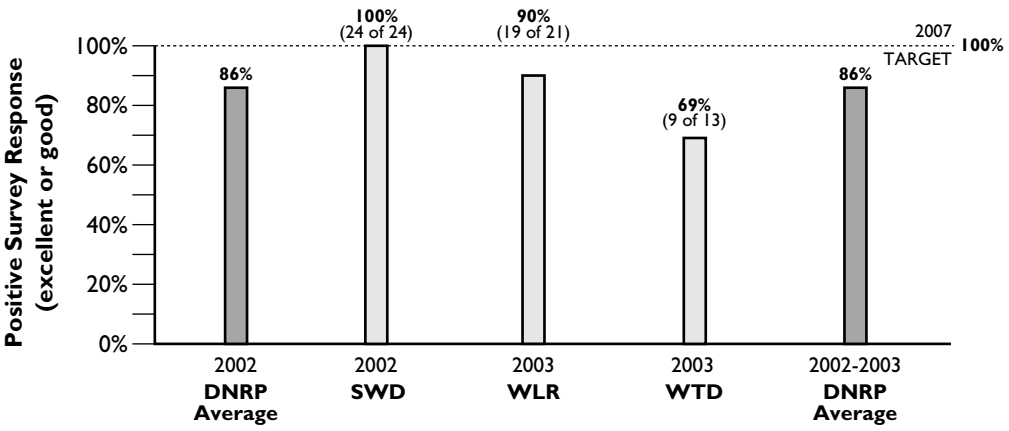
One element of leadership is to have positive relationships with others with whom you work. Environmental outcomes in particular require sustained, coordinated actions by a wide variety of organizations in order to be accomplished. In addition, DNRP has a goal of being a regional service provider. Therefore, DNRP views a positive relationship with local jurisdictions as a critical element in our overall success as an organization.

Local jurisdictions were asked to rate their opinion using a five-point scale: excellent, good, adequate, fair and poor. The percent of "positive" ratings includes excellent and good responses.

The data collection approach for this measure has been modified due to the level of effort associated with the process. As a result, divisions are expected, at a minimum, to collect information every other year. Averages are calculated using the last available data for each division, either the previous year or the year before that. The result is a biannual rolling average, updated annually as new data become available. In order to value each division and to acknowledge the different number of potential respondents for each divisional survey, the DNRP average is based on the average of the divisional scores.

WTD and WLR collected data on this measure in 2003. WTD collected information for this measure in a larger survey mailed to 31 cities and special districts that have sewage disposal agreements with the division. Although the response rate was only 42 percent, respondent agencies represent 76 percent of the division's customer base. WLRD collected data for this measure as part of a larger survey that asked questions regarding different aspects of jurisdictional relationship with the division. WLR used written surveys and focus groups to survey 21 jurisdictions in King County that have

PERCENT OF LOCAL JURISDICTIONS THAT VIEW THEIR RELATIONSHIP WITH **DNRP** AS POSITIVE



contracts (interlocal agreements) with the county to provide regional services for the development of watershed-based salmon recovery plans.

OBSERVATIONS

The overall DNRP rating remained the same as in 2002. However, WTD's positive rating went down 20 percent, while WLRD's went up by a similar amount. WTD's drop may be due to widely discussed increases in cost estimates for the Brightwater wastewater treatment plant. The increase in WLR's rating may be partly attributable to changing the survey methodology. The 2003 methodology used by WLR for this measure focused on a single regional service, as opposed to the 2002 methodology that focused on regional and local contracted services.

Although SWD did not formally survey local jurisdictions in 2003, given the level of policy, programmatic, and budget changes in the solid waste program, it is clear that many local jurisdictions were not pleased with the direction the county took in the division's business plan.

OUR STRATEGY

DNRP needs to improve its communication to foster a more positive relationship with local jurisdictions. Many of the issues that DNRP faces, such as moving towards being a regional service provider or ongoing budget pressures, have direct impacts on local jurisdictions. Cities, sewer districts, and other governmental bodies all work collaboratively with DNRP on a wide variety of issues. However, as DNRP's business environment changes due to broader issues affecting King County, the department needs to make sure that these local jurisdictions are appropriately involved in decision-making, and have a say in the desired outcomes and programmatic impacts.

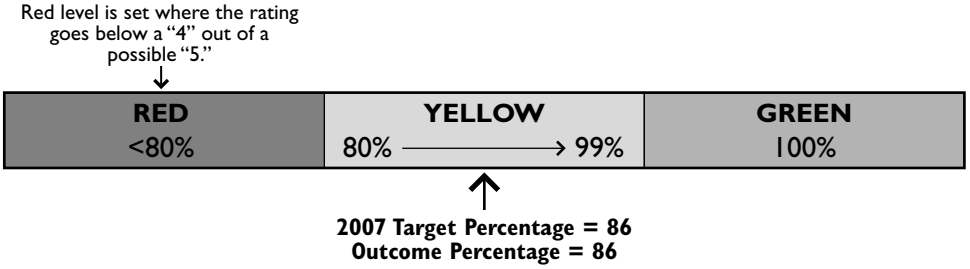
RATING

Results, Target and Outcome

2003 Results: 86 percent
2007 Target: 100 percent
Outcome: 100 percent

The target and long-term outcome is to have all jurisdictions view their relationship with DNRP as positive.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

Division surveys of local jurisdictions.

OUTCOME: The department is recognized as a resource and a leader in environmental issues in the region

Percent of Local Jurisdictions that View DNRP as a Resource in Addressing Environmental Issues in the Region

33

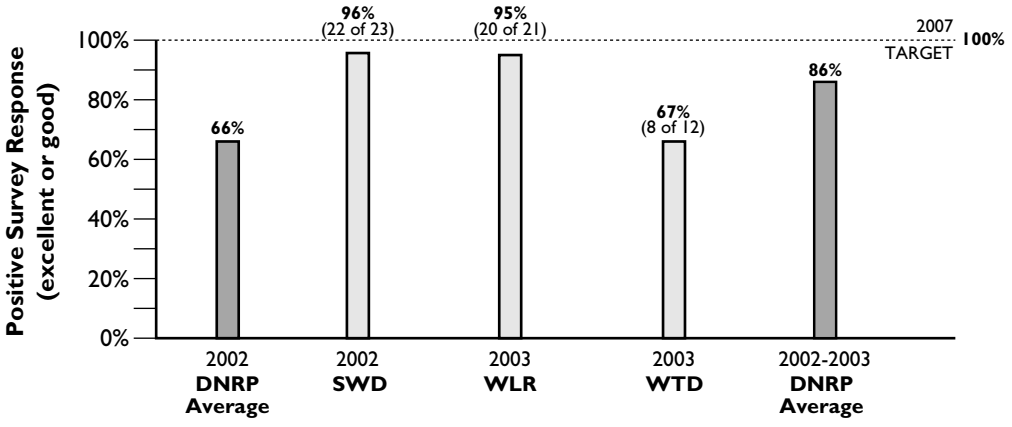
ABOUT THIS PERFORMANCE MEASURE

DNRP serves numerous roles with local jurisdictions. One important role is that of a regional resource for jurisdictions that do not have the technical or financial resources to independently address environmental or resource management issues. DNRP's role as a resource to local jurisdictions comes in several forms as: an information source, technical assistance provider, or a direct service provider. Local jurisdictions were asked to rate their opinion using a five-point scale: excellent, good, adequate, fair and poor. The percent of "positive" ratings includes excellent and good responses. This measure tracks the perception local jurisdictions have of DNRP as a resource to their agencies.

The data collection approach for this measure has been modified due to the level of effort associated with the process. As a result, divisions are expected, at a minimum, to collect information every other year. Averages are calculated using the last available data for each division, either the previous year or the year before that. The result is a biannual rolling average, updated annually as new data become available. In order to value each division and to acknowledge the different number of potential respondents for each divisional survey, the DNRP average is based on the average of the divisional scores.

WTD and WLR collected data on this measure in 2003. WTD collected information for this measure in a larger survey mailed to 31 cities and special districts that have sewage disposal agreements with the division. Although the response rate was only 42 percent, respondent agencies represent 76 percent of the division's customer base. WLR collected data for this measure as part of a larger survey that asked questions regarding different aspects of jurisdictional relationship with the division. WLR used written surveys and focus groups to survey 21 jurisdictions in King County that have

PERCENT OF LOCAL JURISDICTIONS
THAT VIEW **DNRP** AS A RESOURCE



contracts (interlocal agreements) with the county to provide regional services for the development of watershed-based salmon recovery plans.

OBSERVATIONS

The DNRP average rating went up, due mostly to the higher rating received by WLR. The increase in WLR's rating may be partly attributable to changing the survey methodology. The 2003 methodology used by WLR for this measure focused on a single regional service, as opposed to the 2002 methodology that focused on regional and local contracted services. The difference in methodologies used by each division—interviews and focus groups vs. mail-in surveys—and the number of responses received allow for future improvements in this measure.

OUR STRATEGY

As part of the divisions' business planning processes, DNRP has been taking a much closer look at:

- what role we should have in terms of service provision,
- are the services we are providing important to the cities, and
- how are we performing those services.

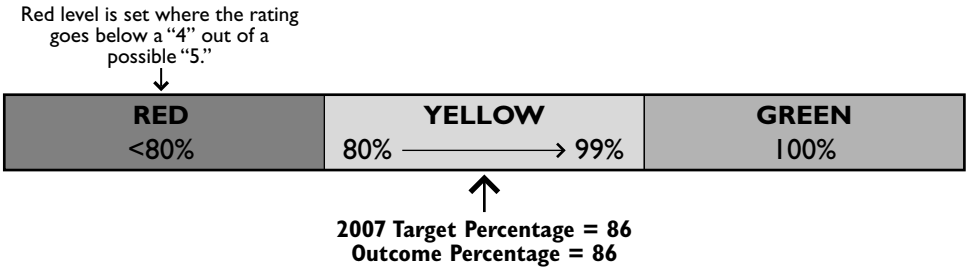
DNRP plans to continue to use business planning, jurisdictional surveys, and interlocal forums to gather information about local jurisdictions' ideas for DNRP's role in serving as a technical or administrative resource and regional service provider. As an example, WLR conducted a detailed evaluation of its role as the service provider for the salmon recovery planning process being used by local jurisdictions to assess its contribution to the process.

RATING

Results, Target and Outcome
2003 Results: 86 percent
2007 Target: 100 percent
Outcome: 100 percent

The target and long-term outcome is to have all jurisdictions view DNRP as a resource in addressing environmental issues in the region.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

DNRP division surveys of local jurisdictions.

OUTCOME: The department is recognized as a resource and a leader in environmental issues in the region

Percent of Local Jurisdictions that View DNRP as Providing Leadership in Addressing Environmental Issues in the Region

34

ABOUT THIS PERFORMANCE MEASURE

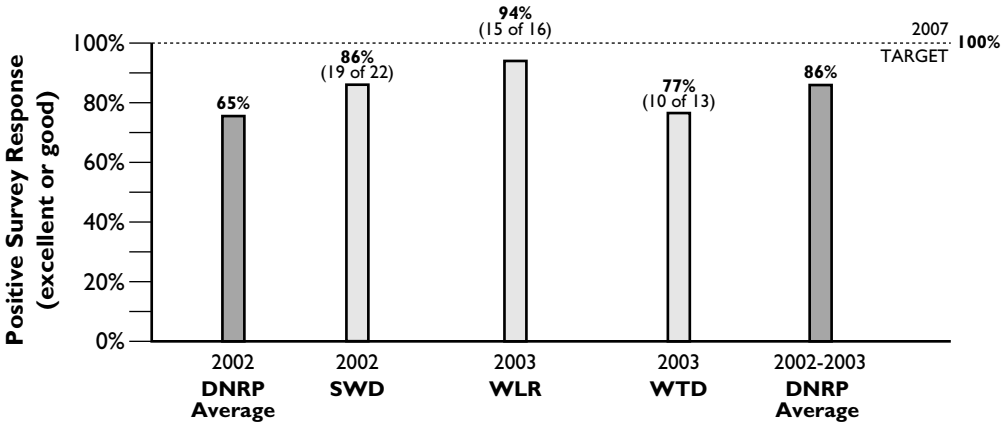
Many of the important environmental issues facing the region are technically complex, have significant costs, and include elements of uncertainty and risk. In its effort to be a high performance organization, DNRP seeks to provide leadership on these challenging environmental and resource management issues. Leadership can be shown through serving as a lead entity in a planning effort, providing unique technical resources, or developing an innovative program or policy solution. This measure tracks the perception local jurisdictions have of DNRP as a leader on regional environmental issues.

Local jurisdictions were asked to rate their opinion using a five-point scale: excellent, good, adequate, fair and poor. The percent of "positive" ratings includes excellent and good responses.

The data collection approach for this measure has been modified due to the level of effort associated with the process. As a result, divisions are expected, at a minimum, to collect information every other year. Averages are calculated using the last available data for each division, either the previous year or the year before that. The result is a biannual rolling average, updated annually as new data become available. In order to value each division and to acknowledge the different number of potential respondents for each divisional survey, the DNRP average is based on the average of the divisional scores.

WTD and WLR collected data on this measure in 2003. WTD collected information for this measure in a larger survey mailed to 31 cities and special districts that have sewage disposal agreements with the division. Although the response rate was only 42 percent, respondent agencies represent 76 percent of the division's customer base. WLR collected data for this measure as part of a larger survey that asked questions regarding different aspects of jurisdictional relationship with the division. WLR used written

PERCENT OF LOCAL JURISDICTIONS THAT VIEW **DNRP** AS AN ENVIRONMENTAL LEADER



surveys and focus groups to survey 21 jurisdictions in King County that have contracts (interlocal agreements) with the county to provide regional services for the development of watershed-based salmon recovery plans.

OBSERVATIONS

Overall, DNRP is seen by local jurisdictions as serving a leadership role. The DNRP average rating went up, due to the higher rating received by WLR. The increase in WLR's rating may be partly attributable to changing the survey methodology. The 2003 methodology used by WLR for this measure focused on a single regional service, as opposed to the 2002 methodology that focused on regional and local contracted services.

OUR STRATEGY

Leadership often requires making difficult decisions around controversial topics. Siting the Brightwater wastewater treatment plant, transferring county parks, or changing solid waste transfer station operating hours all required informing local jurisdictions and the affected communities to develop an acceptable approach that addresses key policy, operational, or programmatic needs.

There are a number of important regional issues, such as land management, salmon restoration, and water policy, where DNRP hopes to have a leadership role. DNRP plans to better understand what local jurisdictions expect from the county, develop specific strategies to respond to those needs, and where possible address those needs and implement the strategies. When the county cannot meet expectations, DNRP will work with the affected jurisdictions on alternate strategies.

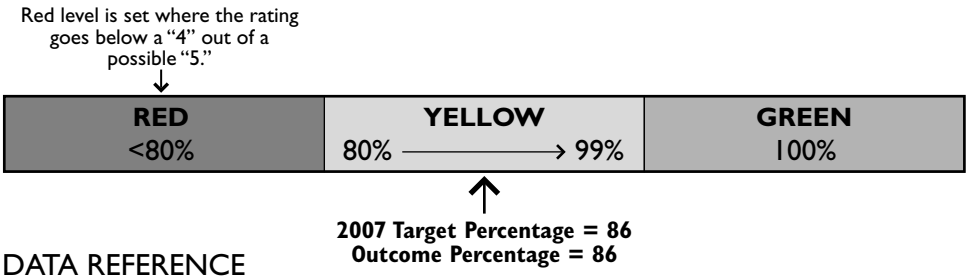
RATING

Results, Target and Outcome

2003 Results: 86 percent
2007 Target: 100 percent
Outcome: 100 percent

The target and long-term outcome is to have all jurisdictions view DNRP as providing leadership in addressing environmental issues in the region.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

DNRP Division surveys of local jurisdictions.

GOALS

Environmental Quality

Waste to Resource

Community Investment

Leadership
Be a high performance regional environmental and resource management agency by providing high quality services, working in pertnerships, and leading by example.

Price of Service

Customer Satisfaction

Employee Involvement and Morale

PRICE OF SERVICE

OUTCOME: Department utility rates are reasonable and competitive

Comparison of Fees and Rates with Other Agencies that Provide Comparable Services

35

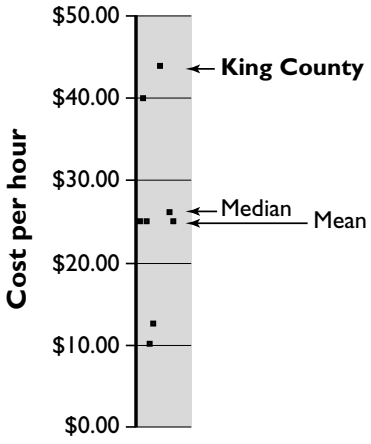
ABOUT THIS PERFORMANCE MEASURE

This measure is of interest because DNRP desires to minimize fees and rates while maximizing the value of services provided to King County residents. There is an expectation that public agencies provide a desired or mandated service in a competitive manner. One way to ensure that our prices for services remain reasonable is to compare them with other jurisdictions - often called "benchmarking."

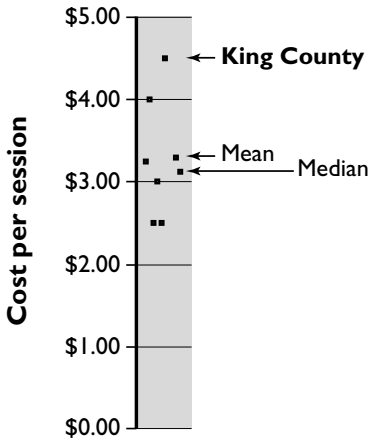
Fee and rate comparisons across jurisdictions need to be viewed with great care for several reasons: the range of service is often not comparable; the level of service provided may differ; fees and rates are often structured differently; and fee and rate revenues may cover different proportions of program costs. Because these factors are not readily quantifiable, no target is being defined for this measure, although it will be tracked over time to identify trends.

The charts below provide a range of fees or rates for a defined set of jurisdictions that were believed to provide roughly similar services to King County DNRP. The graphs also indicate where King County falls within this range. The following description includes the set of jurisdictions used for comparison and key factors affecting rates for each service.

BALL FIELD FEES (2003)



LAP SWIM FEES (2003)



Parks

Comparison group: Five jurisdictions that are large metropolitan parks and recreation providers in the Northwest. Fees for adult ball games and adult swim/lap swim were determined to be representative and commonly available, and therefore easiest to compare with other jurisdictions.

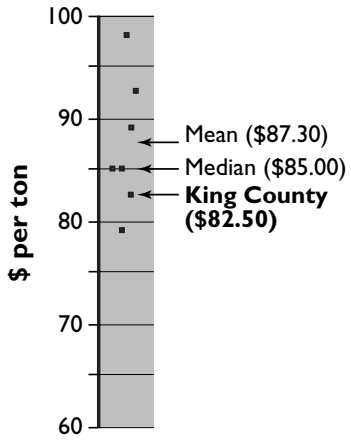
Factors affecting rates: Level of service, quality of facility, level of subsidy or general fund support.

SWD

Comparison group: Seven large jurisdictions in Washington having solid waste programs (includes those counties serving > 300,000 people and cities serving > 150,000 people). This group was chosen because tip fees are primary source of revenues, and the level and range of services appear to be generally comparable.

Factors affecting rates: Range of services provided (and funded through fees); level of services; disposal method; differences in rate structure; other sources of revenues; and regulatory requirements.

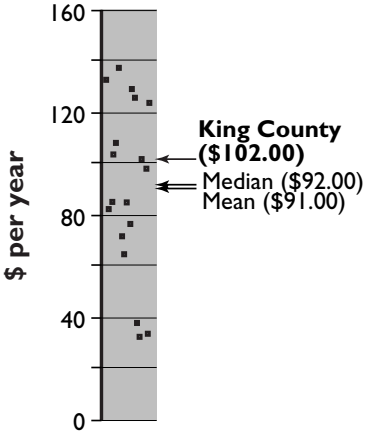
SOLID WASTE TIP FEES (2002)



WLR

Comparison group: Thirteen jurisdictions in King County (population > 20,000) with a storm or surface water fee, plus the five other jurisdictions in Western Washington large enough to require a NPDES Phase I stormwater permit. National comparisons are less justifiable due to differences in permit requirements, environmental and climatic conditions and government structure.

SINGLE FAMILY STORMWATER RATE (2002)

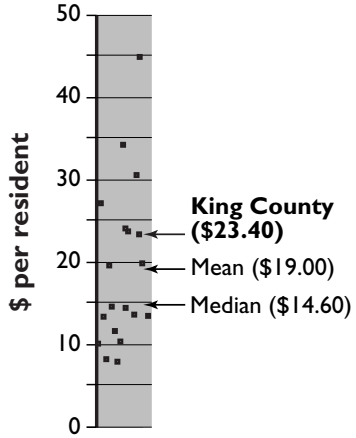


Factors affecting rates: Extent of services provided (such as, street sweeping, facility construction and maintenance, regulatory development, etc.); levels of services provided (such as, some jurisdictions provide more extensive education and outreach, regulatory development, facility maintenance); type/extent of stormwater problems (such as, some jurisdictions have more significant water quality/drainage issues than others); extent of facility construction (such as, the proportion of jurisdictions' operating budgets to capital budgets varies significantly across jurisdictions); and financial differences (such as, rate structure, proportion of revenues from residential charges vs. other sources, amount of debt financing).

WTD
Comparison group: Nineteen wastewater utilities providing interceptor and treatment services (i.e., no collection) that responded to the national 2002 AMSA financial survey.

Factors affecting rates: History of capital construction/degree of federal grant funding; range of services provided; permit limits/ environmental considerations; treatment technology used; labor rates (varies by geographic location); major capital projects in progress; non-rate revenue available; organizational structure (whether the utility is a stand alone utility district versus part of general purpose government); and financing strategy and rate setting policies (desire for rate stability).

AVERAGE MONTHY RESIDENTIAL WASTEWATER SERVICE RATE (2002)



OBSERVATIONS

Ball Field and Swim Fees
Parks currently charges $66 per ball game, so the $44 an hour rate assumes a game lasting one and one half hours. In addition, fees for ball games are for the entire team, not per person. Consequently, King County ball game fees are approximately $2.20 per person per game. Some jurisdictions rent entire facilities with multiple fields for tournament play instead of on an hourly or per game basis. Others differentiate fees depending on the type of facility. Consequently, it is very difficult to accurately compare user fees between jurisdictions. King County's fees are higher than other jurisdictions primarily because of a County Council mandated effort to recover more operating costs through fees. This developed due to budget cuts, annexations resulting in a decrease in revenue, and an effort to become a more self-sustaining agency.

DNRP conducted a limited analysis of several other jurisdictions in how they set fees and used general fund subsidies. Based on the analysis, there was no conclusive relationship between fees charged and the amount of general fund support for parks and recreation. Although it was initially assumed that high general fund subsidies would allow lower fees, some jurisdictions with low general fund subsidies also had low fees.

Solid Waste Tip Fees
King County's solid waste tip fee (the basic fee charged per ton of waste delivered to county transfer stations) is below the mean (average) and median for the comparison group. This is particularly noteworthy because the county provides a broad range of high-level solid waste services, including extensive recycling programs. The lower cost of using an in-county landfill compared to other disposal methods (such as waste export) is a primary reason for the relatively low rates.

Surface/Stormwater Fees
King County's single-family surface water fee is within the range for the comparison group, but slightly above the mean (average) and median. King County will continue to strive to minimize costs and rates, and the county's rates are believed to be justifiable given the range and extent of services provided. Services provided by King County appear to be more extensive than those provided by some other jurisdictions. For example, King County appears to provide a high level of educational and outreach services relative to other jurisdictions. In addition, King County provides services that some jurisdictions do not. For example, many other jurisdictions use the county's surface water design manual and King County must manage and adhere to an NPDES Phase I stormwater permit that is only applicable to a handful of jurisdictions in the region.

Wastewater Service Charges
King County's residential wastewater service charge is within the range, but above the mean and median of the comparison group. There are significant differences among these utilities in the extent and level of services they provide. Some may not provide full secondary treatment or recycle biosolids as extensively as King County, for example.

That the Division's rates are in the same general range as other utilities reinforces the Division's deliberate efforts in recent years to become more efficient while continuing to provide a high level of service.

OUR STRATEGY

Parks
Under the 2003 Parks Business Plan, Parks is relying more heavily on user fees. It is important that fees do not increase to the point that users cannot afford to participate in recreation programs, or that the parks system is not competitive with other providers that results in a reduced user base or loss of revenue. The division will continue to monitor other public agency user fees, maintain the existing dialogue with user groups, and increase our other revenue streams in order to become more self-reliant.

SWD
The 2004 SWD Business Plan has an explicit business strategy that states, "rate increase for consumers for the next 20 years are not higher or earlier than projected in the 2001 Solid Waste Plan." The business plan outlines a wide variety of measures to increase efficiencies within the division to keep rates low and ensure this strategy is met.

WLR
Maximizing ratepayer value is a key component of WLR's 2004 Business Plan. Although the Business Plan is still being developed, an increase in surface water management fees is not anticipated.

WTD
The Division launched a "Productivity Initiative" in 2001 that has already resulted in reduced operating costs and increased savings to ratepayers. The Division will continue to put significant effort into controlling costs and keeping rates as low as possible.

RATING
Information on rates was compiled to allow a qualitative comparison and there are no explicit targets or outcomes for this measure.

Parks ball field and pool fees > other jurisdictions
Solid waste tip fee < other jurisdictions
Surface/stormwater rate > other jurisdictions
Wastewater service rate > other jurisdictions

DATA REFERENCE
Parks and SWD: Contacts with program representatives from various jurisdictions; Internet research. Surface Water: Contacts with program representatives from various jurisdictions; rate compilations prepared by King County and other jurisdictions. Wastewater: 2002 AMSA Financial Survey.

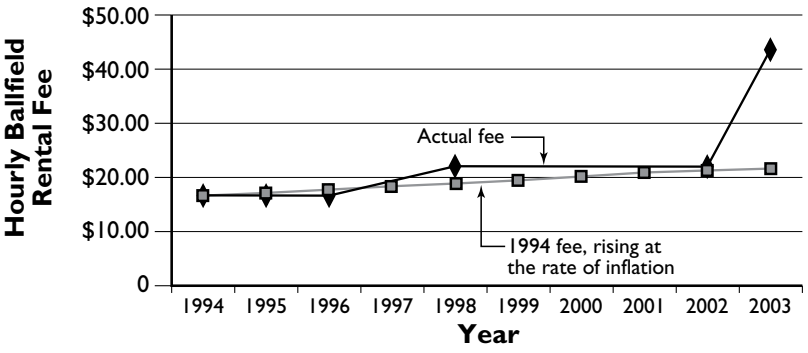
36 Growth in DNRP Rates and Fees Relative to the Consumer Price Index

ABOUT THIS PERFORMANCE MEASURE

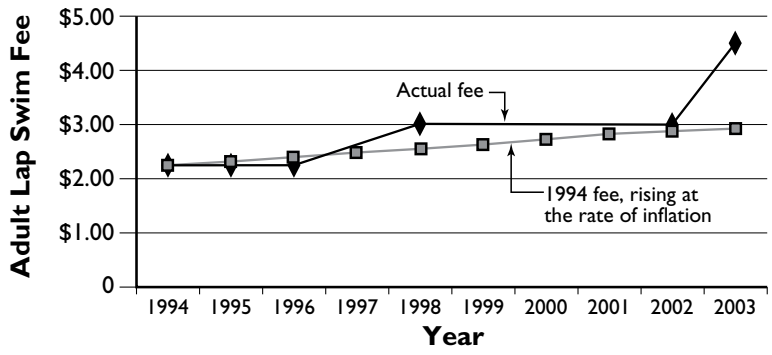
One indicator of how reasonable DNRP's prices of services are is to compare how rates and fees have changed relative to the rate of inflation. The Consumer Price Index is the most widely accepted measure of inflation. This measure is being used as one type of benchmark to assess our price of service and ensure that the department is providing cost-effective services to our customers.

It is important to compare rates and fees to inflation over a several year period, since rate adjustments are often step-wise in nature. The time period must be set so that services and legal or programmatic requirements are generally comparable across the period. For park user fees, surface water fees, and solid waste rates, a ten-year period was chosen (1994-2003). For wastewater, a slightly different ten-year period was chosen (1995-2004) for several reasons. First, the division has only been part of the department since

PARKS:
HOURLY BALLFIELD RENTAL FEE
COMPARED TO RATE OF INFLATION

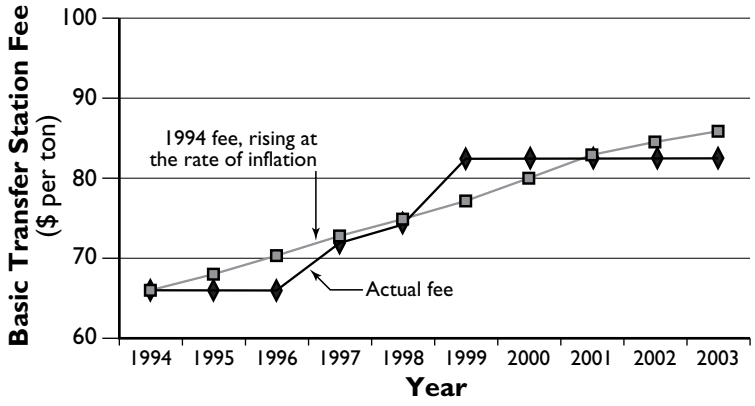


PARKS:
ADULT LAP SWIM FEE
COMPARED TO RATE OF INFLATION

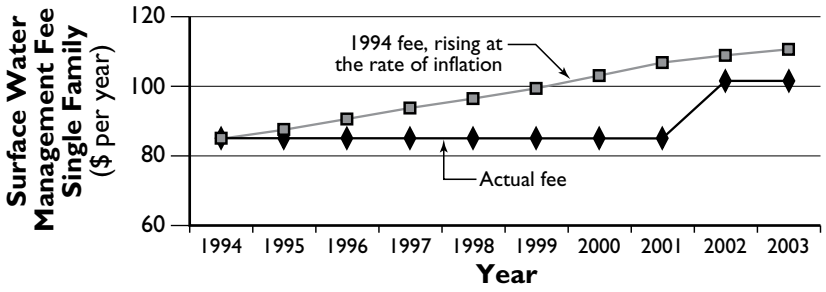


1995. Second, a significant upgrade of the West Point Treatment Plant to full secondary treatment was accomplished in the mid-1990s and this increased service level makes prior comparisons less valid. Finally, 2002 was the first year of a three-year projected stable rate, allowing rate projections to be made out to 2004.

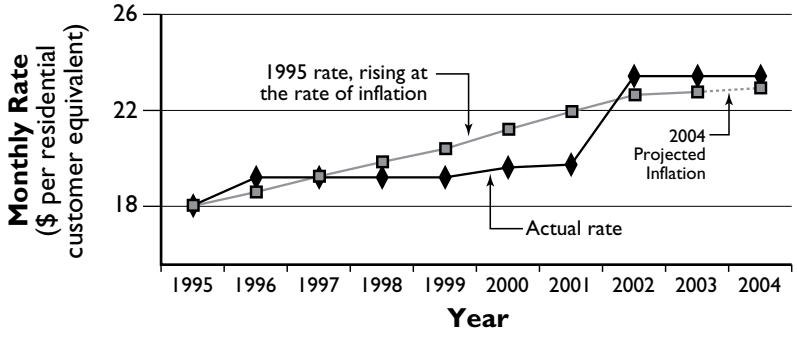
SWD:
TIP FEES COMPARED TO RATE OF INFLATION



WLR:
SURFACE WATER MANAGEMENT FEES
COMPARED TO RATE OF INFLATION



WTD:
SERVICE CHARGE
COMPARED TO RATE OF INFLATION



OBSERVATIONS

Parks

Parks user fees were set very low in 1993, with some services free, reflecting the long-standing practice of subsidizing parks and recreation facilities with general fund, also known as current expense fund, tax revenues. Fees were established in ordinance each year through 2002. There was a fee increase in 2002 in response to the county current expense budget crisis and a significant increase in 2003 in direct response to the County Council mandate to increase fees in order to improve cost recovery for the agency. Youth fees continue to be set at a low rate. After 2003, DNRP was given fee setting authority.

DNRP conducted a limited analysis of several other jurisdictions in how they set fees and used general fund subsidies. Based on the analysis, there was no conclusive relationship between fees charged and the amount of general fund support for parks and recreation. Although it was initially assumed that high general fund subsidies would allow lower fees, some jurisdictions with low general fund subsidies also had low fees.

Rates for fee-based park facilities need to be comparable with other jurisdictions, respond to inflation, not be fully subsidized by non-users, and address cost recovery, yet be priced low enough so that the public is provided an important and desired service. In contrast with utility rates in the other divisions, Parks' rates are not expected to stay below CPI because it must make up for historical subsidies by general fund revenues. Under county ordinance, Parks must increase its fees in order to recover a higher percentage of its operating expenses. In contrast, utility fees are generally set to fully recover operating costs. Despite the increase in fees, the Parks division met or exceeded projected fee revenues in 2003 while simultaneously maintaining a high user base.

SWD and WLR

Solid waste rates and surface water management fees are lower than if they had simply risen at the rate of inflation over the past ten years. Many factors drive the level of utility rates, including changes in the economy, demand for services, floods and other natural disasters, and changes to the rate base.

WTD

Although the 2002 wastewater rate is slightly higher than the 1995 rate if it rose at the level of inflation, the wastewater rate is projected to remain stable and by 2004, rates are projected to be just below the inflation-adjusted 1995 rate. Wastewater rate increases over the past few years were due to growth in the capital and operating expenditures to accommodate enhancements at West Point treatment plant, increased energy costs incurred in 2001, and to allow for a stable three-year rate. Such Council approved actions were needed to meet current regulatory requirements and maintain the financial viability of the utility, and will help to minimize long-term rate increases.

OUR STRATEGY

Parks

All ball field fees will be set at an hourly rate instead of per game rate. This will increase accuracy and efficiency in scheduling, billing, and reporting. Under the 2003 Parks omnibus ordinance, Parks has been authorized to recommend fees for the Department Director's approval, which provides Parks staff the ability to more quickly establish market driven fees. Because fees are not the only revenue source expected to grow, Parks will enhance marketing, partnerships, and public outreach efforts in order to increase revenue streams and the user base.

SWD

The 2004 SWD Business Plan has an explicit business strategy that states, "rate increase for consumers for the next 20 years are not higher or earlier than projected in the 2001 Solid Waste Plan." The business plan outlines a wide variety of measures to increase efficiencies within the division to keep rate pressure low and ensure this strategy is met.

WLR

Maximizing ratepayer value is a key component of WLR's 2004 Business Plan. Although the Business Plan is still being developed, an increase in surface water management fees is not anticipated.

WTD

WTD has been implementing a Productivity Initiative to reduce operating costs and reduce future rate pressure. The division's capital improvement program will require a rate increase in 2005. There will be continuing upward pressure on the rate over the next several years as the Regional Wastewater Services Plan is implemented and investments are made in maintaining and upgrading the utility's system of treatment plants, wastewater conveyance facilities, pump stations, and combined sewer overflows improvements.

RATING

Information on rates was compiled to allow a qualitative comparison and there are no explicit targets or outcomes for this measure.

Parks fees > Consumer Price Index
Solid waste tip fee < Consumer Price Index
Surface/stormwater rate < Consumer Price Index
Wastewater service rate > Consumer Price Index

DATA REFERENCE

DNRP records; Bureau of Labor Statistics (Consumer Price Index data for all urban consumers, Seattle-Tacoma-Bremerton, WA, 1992-2002).

37 Percent of Planned Savings Realized by Efficiencies

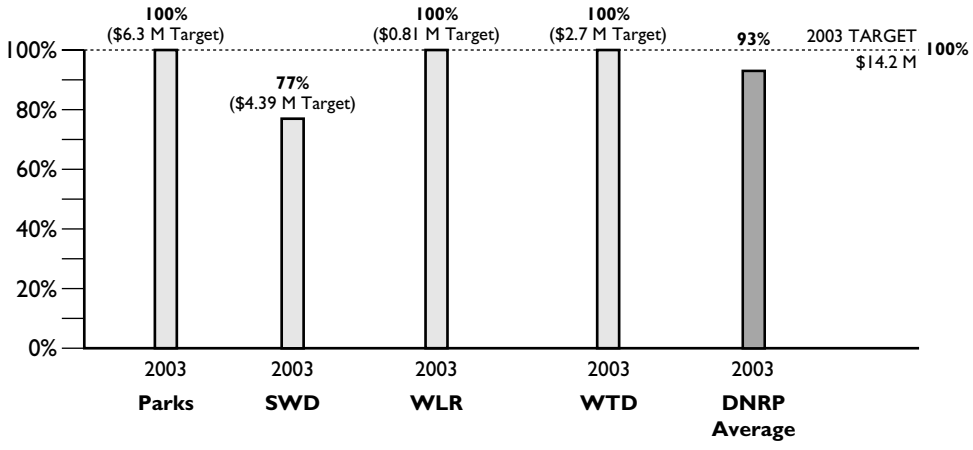
ABOUT THIS PERFORMANCE MEASURE

As budget and privatization pressures increase in counties throughout the country, DNRP has been at the forefront of keeping our operations as efficient as possible. Wanting to ensure a continued role for government in key activities, DNRP divisions have carefully examined operations to identify how to improve our overall efficiency. King County's own recent budget shortfalls have also prompted DNRP's divisions to re-evaluate existing programmatic and operational assumptions, such as what programs were financially sustainable.

"Efficiency" is often defined as the cost per unit of work or service, or the staff per unit of work or service. Because there is no common type of service offered by all of DNRP's divisions, we are using as an interim definition, where efficiency is being defined as the specific saving targets that are defined in strategic planning documents created by DNRP divisions within the past few years. For example, as part of WTD's Productivity Initiative process, the division projected annual savings from 2000 through 2010. The *2002 Parks Business Plan* identified specific cost saving strategies. SWD identified planned savings from operational efficiencies in its *2004Business Plan.* We are using the business planning process to reduce costs, which in turn reduces the pressure on the price of service. Cost reductions are the first step in creating the expectation that specific efficiencies must be identified and implemented.

This measure tracks the overall ratio of savings achieved from operational and capital efficiencies compared with anticipated savings. The basis for determining anticipated savings is a "status quo" budget projection compared to last year's budget. Savings are presented as annual incremental amounts so that annual targets can be developed. In addition, some savings are considered one-time only savings.

DNRP EFFICIENCIES



OBSERVATIONS

Parks

For Parks, the single most important strategy for securing budget savings in 2003 was the transfer or mothballing of in-city facilities. This strategy proved successful and generated the full $6.3 million target in operating reductions for 2003 as compared to the 2002 budget.

SWD

SWD achieved 77 percent of its anticipated savings in the 2003 operating budget. The target savings of $4,388,000 was generated following adoption of the 2003 budget, for the purpose of supporting the new business plan which was initiated early in 2003, following the County Executive's decisions to: 1) charge the division rent for the use of the land under the Cedar Hills Landfill, starting in 2004; and 2) support the acquisition of land on Harbor Island as a potential site for new intermodal capacity for the eventual export of the county's waste, once the landfill reaches capacity. The target savings were intended to help finance the acquisition of the Harbor Island property and to anticipate the ongoing operating savings that would need to be realized in order to pay rent on Cedar Hills without triggering a general tip fee increase.

The Capital Asset Maintenance Program savings were not realized in 2003 because the division chose to accelerate completion of some projects early and those anticipated savings may occur in future years. A rock recycling project at the landfill generated savings, but because of a recalculation in the value of airspace (the space not filled with garbage) the savings were not as great as initially estimated. Significant recycling program savings resulted from reductions in consultant contracts and reduced spending in education programs where audiences are considered saturated with the messages. A number of unanticipated staffing needs required the division fill positions that were greater than the target level of staffing for 2003. The estimated savings target did not include a potential $1 million dollar savings in Capital Equipment Replacement Program. However, the savings where realized and the division reduced the 2003 Capital Equipment Replacement Program transfer by $1 million.

WLR

For 2003, WLR's target savings were identified through the annual budget process, similar to Parks. The 2003 budget for WLR identified a total of 12.7 full time equivalent positions for elimination, with three basic "drivers:" 1) reprioritizing limited resources by cutting some services for the sake of funding higher priority work, such as the need to maintain natural lands acquired by the county; 2) reductions in available funds for capital projects and programs; and 3) true "efficiency" savings, where duties were reallocated to other staff to minimize any reduction in services levels. The total salaries and benefits represented by these targeted staff reductions were $809,564, all of which were achieved through the Council's approval of the 2003 budget.

WTD
WTD's Productivity Initiative for the annual operating budget has two parts: 1) annual targeted budget reductions totaling 12 percent to be achieved between 2000 and 2005, and 2) additional savings, which if documented as resulting from new ways of doing business, are divided equally between the ratepayers and employees (through contributions to an "incentive fund"). In 2001, 2002, and 2003, WTD achieved the targeted reductions as well as additional savings. Additional documented savings were $1.38 million in 2001 and $0.84 million in 2002 for total accumulated savings from both parts through 2002 of $7.48 million. Additional documented savings above the target are not yet available for 2003 but the division did achieve its targeted savings of $2.76 million. WTD's savings in 2003 resulted from a wide variety of activities such as: use of high solids centrifuges at the treatment plants, improved energy management at South Plant, replacement of potable water with reclaimed water, negotiated reductions in biosolids hauling contract cost, staffing reductions, increased revenues from new fees for chemical toilet haulers, energy cogeneration at West Point, and improved capacity charge collection.

OUR STRATEGY
Overall, DNRP will continue to develop efficiency measures for each of its core businesses using national industry information and internal efficiency targets. As an example, SWD has measures such as "System-wide average transfer cost per ton" and "Annual per capita recycling program expenditures compared to per capita disposal" as ways to track the efficiency of its operations.

Parks
Parks will continue to explore utilizing community partnerships as a way to complement our existing services. No specific targets are being set for further cost reductions or efficiencies, although Parks is tracking cost recovery at each if its facilities to ensure revenues are sufficient for existing operating costs.

SWD
SWD's 2004 Business Plan details a wide variety of ways that the division will obtain operational efficiencies. Major areas include: staff reductions, reducing consultants, revising hours of operation to better match customer demand, reducing contributions for equipment replacement, refocusing waste reduction and recycling programs, and eliminating the regional direct subsidy for commercial haulers (currently the subject of litigation, Rabanco v. King County). These and additional efforts are expected to produce average annual savings of $10.2 million between 2004 and 2012.

WLR
WLR is developing a strategic business plan in 2004 that will identify specific organizational efficiencies for the 2005 budget.

GOALS


Environmental Quality


Waste to Resource


Community Investment

Leadership


Price of Service
Price our services reasonably and competitively, while delivering the highest value to our citizens and maintaining safe and reliable systems.


Customer Satisfaction

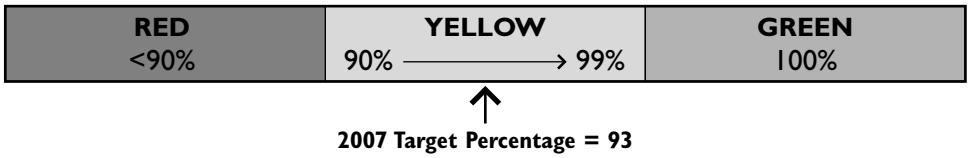

Employee Involvement and Morale

WTD
WTD's key strategy for achieving savings is the Productivity Initiative. Savings are achieved through motivating employees with a productivity incentive fund, a Balanced Scorecard performance management system to focus efforts on strategic areas, and an annual business plan to identify savings. A regular employee newsletter, the *Productivity Pipeline*, keeps employees informed of productivity efforts.

RATING
Results and Target
2003 Results: 93 percent of target met
2003 Target: 100 percent
Efficiency targets are for the current year only.

2004 target:
Parks: none
SWD: $9.43 million
WLR: none
WTD: $1.5 million
Total for 2004: $10.93 million, 100 percent target

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE
Solid Waste Division 2004 Business Plan; Parks and Recreation Division, Business Transition Plan: Phase II Report; Wastewater Treatment Division Productivity Initiative Annual Report (2001, 2002).

38 Percent of Anticipated Revenue Earned from Entrepreneurial Activities

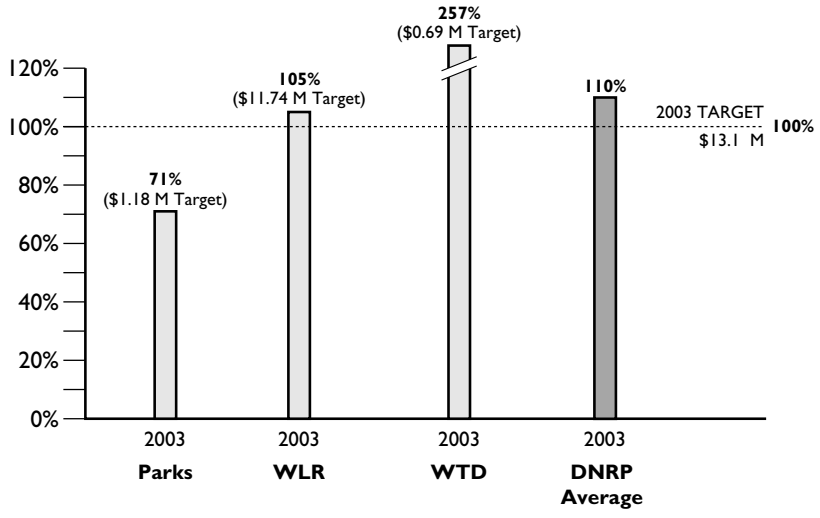
ABOUT THIS PERFORMANCE MEASURE

General fund revenues and specific fees have long been the mainstay of many county operations. However, the ongoing King County budget crisis has made DNRP divisions look carefully at finding and increasing non-fee revenues. A major focus of the strategic business planning that has been occurring in DNRP's divisions over the last several years has been to identify specific opportunities for new sources of revenue. This has meant new ways of doing business, including increasing the marketing of our services and capital assets. New revenues, coupled with increasing efficiencies (see Measure #37), are expected to allow DNRP to maintain existing service levels into the future while keeping its utility rates stable.

Revenue considered for this performance measure must meet one or more of the following criteria (and not contradict any of the others): leverages other funds; furthers our mission; is entrepreneurial in nature (including by providing services for external customers); or maximizes revenue from existing capital assets.

Each division has its own strategies for generating entrepreneurial, non-fee revenues. Parks' Business Plan focuses on obtaining new revenue from entrepreneurial approaches including: concession agreements, operating partnership agreements, advertising, corporate sponsorships, naming rights, grants and foundation donations. SWD's Business Plan encourages maximizing revenue from capital assets, such as rent from cell towers and advertising on SWD's truck trailers, selling landfill gas, obtaining rent from currently unutilized land and grants. Given all the other changes, SWD decided not to focus on this area till 2005. WTD produces revenue methane production at South Plant, its cogeneration facilities at West Point and from cell towers. WLR has a diverse mix of non-fee revenue streams including: King Conservation District grants, stormwater services for cities, interlocal watershed

ENTREPRENEURIAL REVENUE



services, maps & publications, and surface water monitoring impact fees. Examples of revenue not included in this measure because they do not meet the above criteria include: pass through funds, Conservation Futures levy funds, and Federal Emergency Management Agency cleanup finds.

OBSERVATIONS

Parks

The 2003 Parks Budget assumed $1,177,107 in revenue from implementing "new ways of doing business." The primary components of the 2003 entrepreneurial activities were the implementation of a parking fee and concert series at Marymoor Park. The parking fee, concert series, and new concession programs generated $837,051 in revenue. In addition, the division received approximately $110,000 in revenues from events that occurred in 2002, but the money was received after the 2002 books were closed. Therefore, the revenue is included in the 2003 budget. Parks had never before conducted such an extensive effort to increase revenue and was pleased to have attained the amount of revenue it did in its first year.

WTD

WTD entrepreneurial activities primarily focus on using waste material as resources wherever possible. Although WTD originally planned that most of the methane gas produced at South Plant in 2003 would be diverted to the fuel cell and the boiler projects under construction, both of these projects experienced delays in construction. The division took advantage of these delays to generate more revenue from methane sales for the year than was planned. No revenue was planned or received from cell towers for 2003, but we should start receiving revenue in 2004

WLRD

WLRD's entrepreneurial revenues include both operating and capital projects and are roughly equivalent between these two categories. Although not depicted on the graph, the amount of entrepreneurial revenue has been increasing since 2000 from $7.5 to $11.7 million. The future level of these revenues will likely decrease over time, due primarily to decreased federal funding availability. However, once WRIA recovery plans are completed, WLRD believes it will be very competitive for federal and state funds that may become available for restoration projects.

OUR STRATEGY

Developing new sources of revenue will continue to be an integral part of how the department does business for the foreseeable future. Given the unique and diverse business lines within the department, each division will continue to develop their own revenue goals to meet their business needs.

Parks

Parks will continue to implement its Revenue Enhancement Strategic Plan. The plan positions King County Parks as an advertising partner, program and event facilitator, media partner and entrepreneur. The division continues to

pursue revenue-generating opportunities by continuing to meet with and coordinate revenue based proposals with corporate entities; continuing exploratory meetings with media partners for event and program promotion, sponsorship and revenue based initiatives; completing the creation and printing of the "Partnership for Parks" brochure; completing the request for information and proposals to generate new concessions and revenue generating programs; continued meetings with regional and national advertising agencies to solidify the parks system as a value-added amenity in major marketing campaigns.

SWD
SWD anticipates generating entrepreneurial revenue by maximizing revenue from existing capital assets. Examples include revenue from cell tower rentals and advertising on the division's transfer trailers used to haul solid waste to the landfill.

WLR
Under its new business plan, WLR will focus on receiving full cost recovery under contracts and providing services that are not available from other providers.

WTD
WTD's entrepreneurial activities focus on using waste material as resources wherever possible and on seeking cell tower tenants.

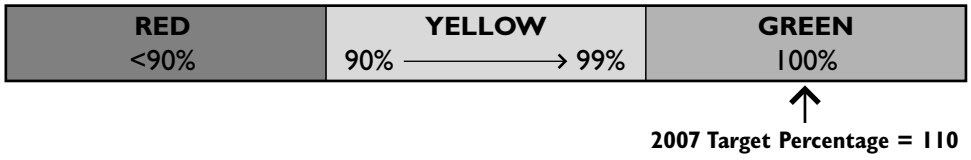
RATING
Results and Target

2003 Results: 110 percent of target
2003 Target: 100 percent
Entrepreneurial revenue targets are for the current year only.

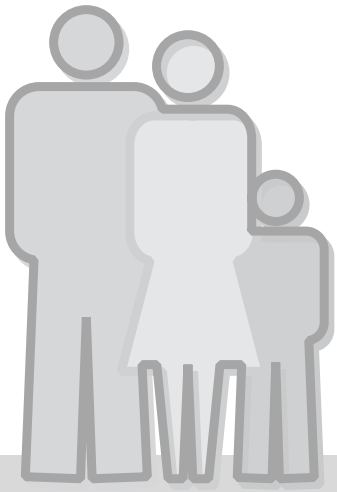
2004 Targets:

Parks:	$1,235,962
SWD:	$80,000
WLR:	$9,715,565
WTD:	$1,227,365
DNRP Total:	100% of $12,258,892

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE:
Solid Waste Division 2004 Business Plan; Parks and Recreation Division, Business Transition Plan: Phase II Report; Wastewater Treatment Division Productivity Initiative Annual Report (2001, 2002).



CUSTOMER SATISFACTION

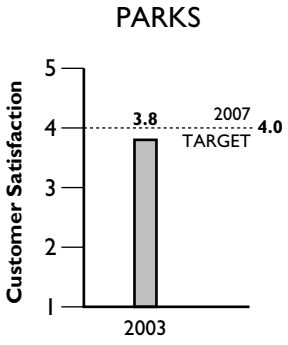
Customer Satisfaction Ratings for DNRP Services and Programs

39

ABOUT THIS PERFORMANCE MEASURE

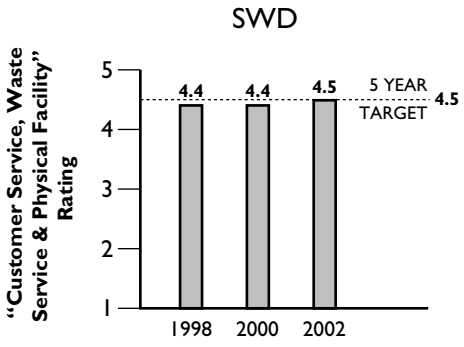
Customer service is a cornerstone of good performance. The challenge for a large, complex organization is to determine what specific aspects of its operations merit customer feedback. Rather than ask a generic, broad-based customer satisfaction question to residents, each Division has chosen specific groups of customers on which programs have a direct impact. In most cases, "customer" refers to targeted segments of the public who have requested services or participated in a DNRP program; in one case, customers are municipalities who directly use our services (e.g., wastewater treatment) rather than individual residents.

Parks conducted its first customer service survey in 2003. The on-line survey was publicized through newspaper stories and regional user groups. More than 1,100 people took the survey to provide feedback on a number of subjects. The customer satisfaction rating includes questions related to the cleanliness, safety, and attractiveness of parks, as well as staff helpfulness, friendliness, and reservation procedures.



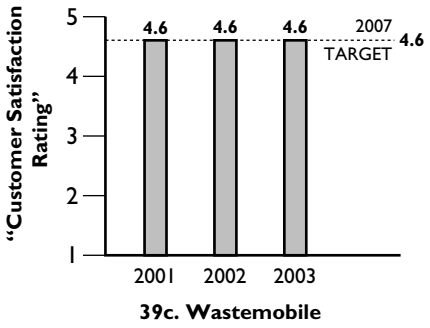
39a. Parks Customers

For **SWD**, customer surveys were done with transfer station and Wastemobile customers as well as participants in secondary schools education programs. Transfer station survey is conducted every two years. The Wastemobile Education Program informs King County residents about waste reduction, proper management and recycling opportunities related to household hazardous waste. SWD provides educational programs on recycling, waste reduction, and resource conservation to students in grades 1 through 12, and on household hazardous waste to teachers of grades 4 through 12 and their students. A variety of educational approaches are used including workshops, classroom presentations, interactive assembly shows, and classroom and community projects.

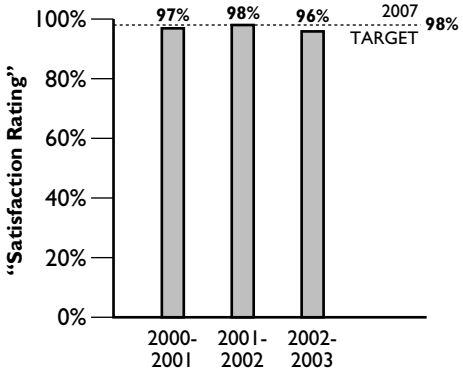


39b. Transfer Station Customers

SWD (continued)



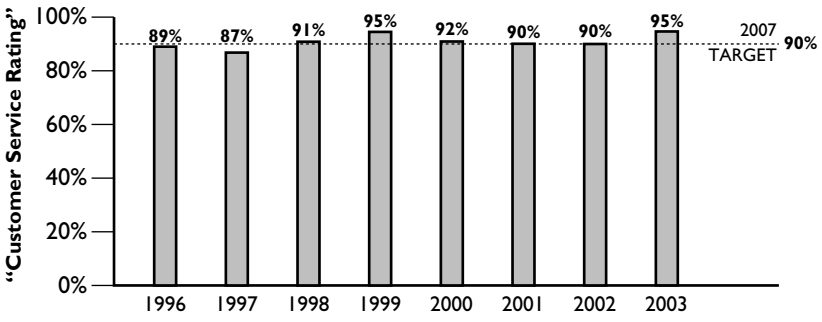
39c. Wastemobile



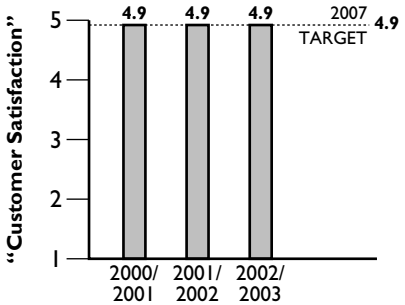
39d. Solid Waste Education Programs

WLR used customer feedback related to their drainage complaint services and public education and involvement activities. The drainage services section of the Division distributes survey cards to residents that have registered a drainage complaint. The public outreach section offers educational programs for elementary, junior and senior high school classes on water quality issues. Teachers assess their satisfaction with the courses via an evaluation form and combining course relevance and instruction quality produces the customer service rating. An additional program to train volunteers in "Naturescaping" has gathered data on the usefulness and value of the program.

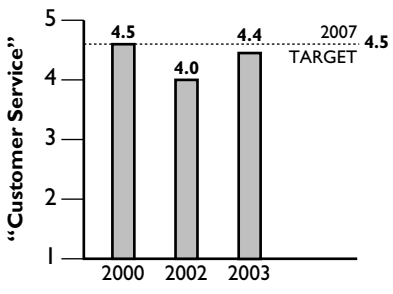
WLR



39e. Drainage Services



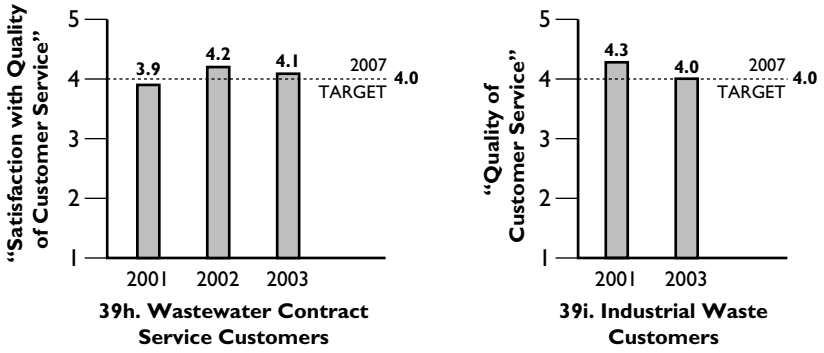
39f. Water Quality Education Programs



39g. Naturescaping Event Evaluation

WTD used data from their Wastewater Contract Services survey, which assesses the attitudes of component agencies that have sewer service agreements with WTD. WTD also receives customer satisfaction information from industrial discharge permit holders, via a survey conducted every two years.

WTD



39h. Wastewater Contract Service Customers

39i. Industrial Waste Customers

OBSERVATIONS

Parks

This is the first survey since park transfers, budget cuts, and the reorganization. These results serve as a baseline for future comparison and the survey may be revised in 2004 to meet future performance measure objectives. In light of so many challenges and changes, customer satisfaction remains a key factor to Parks' success. In the overall 3.8 rating, facilities questions received higher ratings than those related to staff and reservations, indicating areas for future improvement.

SWD

Customer satisfaction with transfer station service improved slightly in 2002. The large sample size and the repetition of the survey increases the confidence that these results show meaningful improvement since 2000. Customer satisfaction with Wastemobile education specialists is very high. Wastemobile survey results not included as part of the customer satisfaction measure show that days and hours of operation and distance to the Wastemobile from their home time are areas for future program improvement. Based on this feedback and the results of the two-year pilot, the division will provide permanent household hazardous waste collection service at Factoria Transfer Station starting in the summer of 2004.

WLR

The drainage services section has been collecting customer feedback for eight years to track, modify and improve how engineers and technicians treat and respond to customer needs. The number of residents that respond to the Drainage Services customer complaint cards correlates with rain events so that during rain events more survey responses are received. Drainage Services used responses to track attitudes and levels of customer service. Training and education were offered to staff when performance measures fell

below goals. This degree of effort is reflected in the very high ratings. The school education program and the Naturescaping course both have high ratings that reflect the quality of instruction and the material presented.

WTD

Municipal wastewater service contract customers provided an overall good customer satisfaction rating. This rating has remained above the target level for the past two years. Four jurisdictions provided "adequate" ratings indicating opportunities for future improvement. The Industrial Waste Program received a very high score for a regulatory program; part of the reason may be that the program attempts to be responsive to customer needs and that the customers feel comfortable calling Industrial Waste Program staff with questions and issues. Although the 2003 score was down slightly from 2001, the change was not statistically significant.

OUR STRATEGY

Parks

Areas receiving lower ratings will be examined and addressed. Staff helpfulness and friendliness along with reservation procedures are areas for potential future improvement. In order to better capture the public's opinion about our services and facilities, a new survey strategy will be developed and may include changing the content and survey methodology.

SWD

Based on the 2004 SWD Business Plan, the division is changing operating hours at many transfer stations to be more efficient. The Division will be surveying transfer station customers again in the fall of 2004 to gauge reactions to and monitor the impacts of changes in operating hours. Surveys will continue to be conducted every two years after that.

Educational programs are evaluated for teacher satisfaction using written surveys, and for student learning using pre- and post-tests. Evaluation results are used to make adjustments to programs to ensure that teacher and student needs are being met. Since teacher satisfaction with the programs has been consistently high over the years, most of the program modifications have come as a result of student pre and post-test scores. When scores indicate that students already have a high awareness of a particular concept, the program is modified to incorporate new, more complex material. The pre- and post-test scores indicate significant increases in student knowledge over the years.

WLRD

During 2004, the division is preparing a business plan to guide future staffing and service provisions. The plan is expected to update the division's performance measures, including those related to customer service. It is anticipated that additional measures would be developed that represent division-wide levels of customer service, as opposed to specific programs as in the present measure.

WTD

The Metropolitan Water Pollution Abatement Advisory Committee, made up of wastewater service contract customers, has moved from quarterly to monthly meetings. In addition, WTD and the committee have agreed to examine wastewater program issues of greatest concern to local jurisdictions. These developments should move us closer to the five-year target on customer satisfaction.

The Industrial Waste Program is working to maintain its high customer service rating by continuing its policy of being responsive to customer needs. The 2003 survey identified technical assistance as being a high priority for the customers. The program plans to focus its outreach efforts on technical assistance in 2004.

RATING

Results, Target and Outcome

39a. Parks Customers
2003 Results: 3.8 out of 5
2007 Target: 4.0
Outcome: 4.0

39b. Transfer Station Customers
2003 Results: 4.5 out of 5
2007 Target: 4.5
Outcome: 4.5

39c. Wastemobile Customers
2003 Results: 4.6 out of 5
2007 Target: 4.6
Outcome: 4.6

39d. Solid Waste Education Programs
2003 Results: 96 percent
2007 Target: 98 percent
Outcome: 98 percent

39e. Drainage Services
2003 Results: 95 percent
2007 Target: 90 percent
Outcome: 90 percent

39f. Water Quality Education Programs
2003 Results: 4.9 out of 5
2007 Target: 4.9
Outcome: 4.9

39g. Naturescaping Program
2003 Results: 4.4 out of 5
2007 Target: 4.5
Outcome: 4.5

39h. Wastewater Customers
2003 Results: 4.1 out of 5
2007 Target: 4.0
Outcome: 4.0

39i. Industrial Waste Customers
2003 Results: 4 out of 5
2007 Target: 4
Outcome: 4

The long-term outcome is a high degree of customer satisfaction (scores of 4 to 4.5 on a 5-point scale or 90 percent or higher) based on a variety of customer satisfaction surveys.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings

Red level for almost all customer satisfaction scores is set where a lower score would require immediate attention or is considered critical.

39a. PARKS CUSTOMERS
2007 Target Percentage = 95
Outcome Percentage = 95

39d. SOLID WASTE EDUCATION PROGRAMS
2007 Target Percentage = 98
Outcome Percentage = 98

39g. NATURESCAPING PROGRAM
2007 Target Percentage = 98
Outcome Percentage = 98

39b. TRANSFER STATION CUSTOMERS
2007 Target Percentage = 100
Outcome Percentage = 100

39c. WASTEMOBILE CUSTOMERS
2007 Target Percentage = 100
Outcome Percentage = 100

39e. DRAINAGE SERVICES
2007 Target Percentage = 106
Outcome Percentage = 106

39f. WATER QUALITY EDUCATION PROGRAMS
2007 Target Percentage = 100
Outcome Percentage = 100

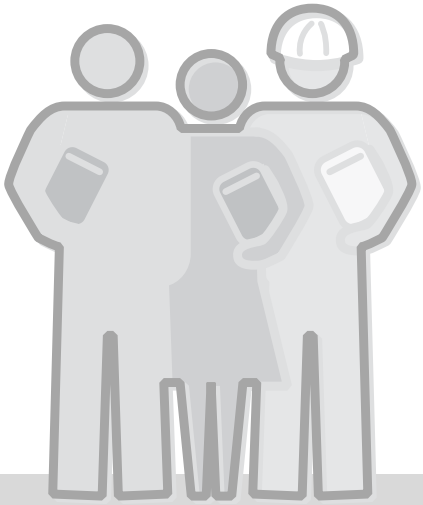
For the two WTD customer measures with outcomes set at 4, the red level represents a score below 3.5 out of 5. This level is somewhat lower due in part because a higher score for the Industrial Waste program may mean that the regulatory program is being too lenient.

39h. WASTEWATER CUSTOMERS
2007 Target Percentage = 103
Outcome Percentage = 103

39i. INDUSTRIAL WASTE CUSTOMERS
2007 Target Percentage = 100
Outcome Percentage = 100

DATA REFERENCE

WLR, SWD, and WTD; Wastemobile Visitor Satisfaction – On-Site Survey; King County-Solid Waste Division Evaluation of the KC-SWD Elementary, Middle, and High School Waste Reduction and Recycling Education Programs; Industrial Waste Program Customer Survey Research Report, 2003.



EMPLOYEE INVOLVEMENT AND MORALE

OUTCOME: DNRP consists of a forward thinking workforce where employees are engaged in our business, involved in decisions that affect them, and understand their role in achieving the DNRP vision

40

Employee Rating of Workplace Practices

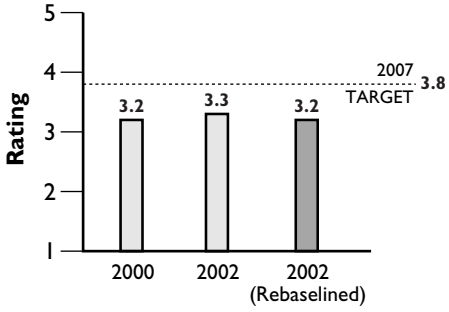
ABOUT THIS PERFORMANCE MEASURE

One important aspect of employee involvement and morale is the degree to which employees believe their workplace is a positive working environment. Effective organizations require a culture that promotes excellence, innovation, customer orientation and accountability. This measure, on workplace practices, focuses on employees' ratings of a variety of management practices, leadership and decision-making issues.

Ten separate questions from the DNRP employee survey are clustered together to derive a composite score for this performance measure. The score is on a one to five scale, with five being the highest. Questions in this measure cover a wide range of issues including: employee accountability; management behavior and responsiveness; openness to new ideas; the effectiveness of teams; the degree of cooperation between management and unions; and providing quality services to customers.

The first two bars in the graph reflect scores from the initial 2000/2001 survey compared with the 2002 survey using identical questions. The last bar reflects a new baseline in which some of the questions in the 2002 survey differ from the items included in the 2000/2001 survey and therefore the previous scores are not strictly comparable. The next department-wide employee survey will be conducted in 2004.

EMPLOYEE RATING OF WORKPLACE PRACTICES



OBSERVATIONS

The scale for questions included in this measure is: strongly disagree, disagree, neither agree nor disagree, agree and strongly agree. A three out of four rating equates to a "neither agree nor disagree" answer. This measure had the lowest score of the four employee-related measures, only slightly above the midpoint on the 5-point scale, although there was a slight improvement over the 2000 results.

OUR STRATEGY

The DNRP management team is evaluating issues of organizational accountability that arose from questions associated with this measure. Divisional focus groups identified areas of common concerns and strategies for improving accountability are being developed and implemented at both the division and department level.

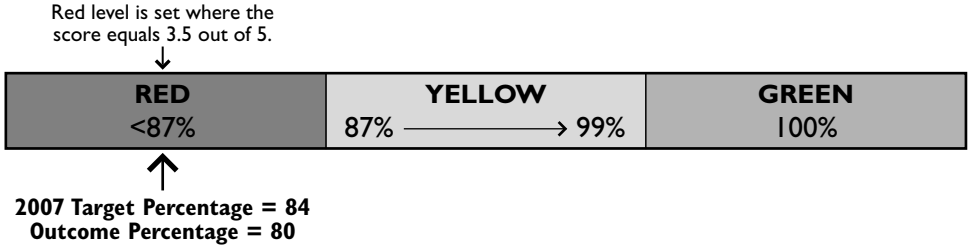
RATING

Results, Target and Outcome

2003 Results: 3.2 out of 5
2007 Target: 3.8
Outcome: 4.0

The long-term outcome for this measure is a 4.0 rating.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

Employee Survey Analysis for Performance Measures: Summary Report on Factor Analysis, prepared for DNRP by Mary V. McGuire, 2001; Factor Analysis of 2002 Employee Survey Results – Revised Report, prepared by Mary V. McGuire for DNRP, 2003.

Employee Involvement and Morale

Be a forward thinking workforce where employees are engaged in our business, involved in decisions that affect them, and understand their role in acheiving DNRP vision.

OUTCOME: DNRP consists of a forward thinking workforce where employees are engaged in our business, involved in decisions that affect them, and understand their role in achieving the DNRP vision

41

Employee Rating of the Availability of Resources

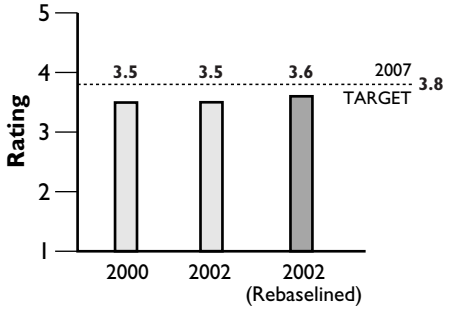
ABOUT THIS PERFORMANCE MEASURE

One aspect of employee morale is that employees have the necessary resources required to do their jobs. Resources in this context are considered broadly and include information, equipment, tools and supplies. This measure focuses on employees' ratings of the availability of those critical resources.

Four separate questions from the DNRP employee survey are clustered together to derive a composite score for the performance measure. The score is on a one to five scale, with five being the highest. Questions included in this measure included: access to equipment, tools and supplies; receiving information in a timely manner; clear understanding of job expectations; and investments in improving employee skills.

The first two bars in the graph reflect scores from the initial 2000/2001 survey compared with the 2002 survey using identical questions. The last bar reflects a new baseline in which some of the questions in the 2002 survey differ from the items included in the 2000/2001 survey and therefore the previous scores are not strictly comparable. The next department-wide employee survey will be conducted in 2004.

EMPLOYEE RATING OF AVAILABLE RESOURCES



OBSERVATIONS

The scale for questions included in this measure is: strongly disagree, disagree, neither agree nor disagree, agree and strongly agree. A four out of five rating equates to an "agree" answer. The score for this measure indicates that the department can go further in improving the availability of resources for employees.

OUR STRATEGY

In response to the initial 2000 employee survey and division initiatives, training to meet business needs and access to equipment and information has been targeted. Each division regards training and staff development as key factors to achieve their business objectives. DNRP has a 100 percent target for all supervisors and managers to complete four training modules on "Managing Individual Performance," which includes clearly communicating job expectations.

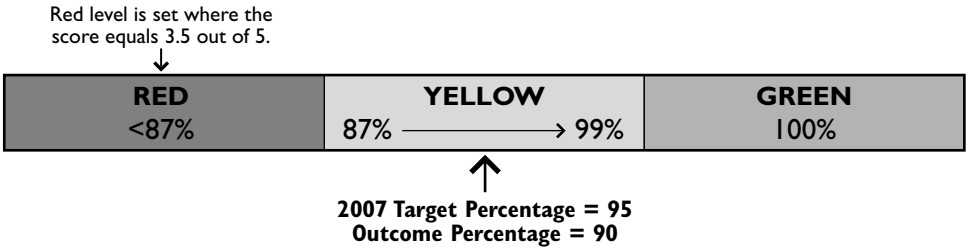
RATING

Results, Target and Outcome

2003 Results: 3.6 out of 5
2007 Target: 3.8
Outcome: 4.0

The 2007 target for this measure is set below the 4.0 outcome due to expected impacts from the county's ongoing budget issues. The long-term outcome for this measure is a 4.0 rating.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

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OUTCOME: DNRP consists of a forward thinking workforce where employees are engaged in our business, involved in decisions that affect them, and understand their role in achieving the DNRP vision

42

Employee Rating of Job Satisfaction

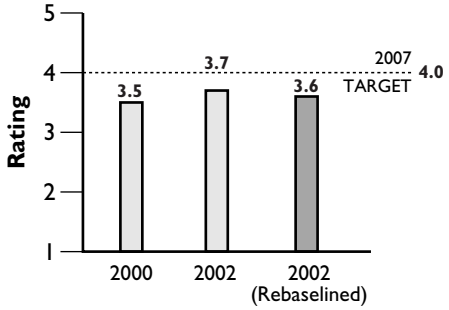
ABOUT THIS PERFORMANCE MEASURE

Job satisfaction is one of the most important features of employee morale. Satisfied employees contribute to higher quality service and productivity for the organization. This measure focuses on employees' ratings of their satisfaction, their value to the organization, and communication between employees and their supervisors.

Ten separate questions from the DNRP employee survey are clustered together to derive a composite score for this performance measure on a one to five scale, with five being the highest. Questions included in this measure included: overall job satisfaction; satisfaction with involvement in decision-making; feeling valued for work done by the employee; a spirit of teamwork and cooperation; and supervisory-employee communications.

The first two bars in the graph reflect scores from the initial 2000/2001 survey compared with the 2002 survey using identical questions. The last bar reflects a new baseline in which some of the questions in the 2002 survey differ from the items included in the 2000/2001 survey and therefore the previous scores are not strictly comparable. The next department-wide employee survey will be conducted in 2004.

EMPLOYEE RATING OF JOB SATISFACTION



OBSERVATIONS

The scale for questions included in this measure is: strongly disagree, disagree, neither agree nor disagree, agree and strongly agree. A four out of five rating equates to an "agree" answer. The score for this measure shows that employees have slightly increased job satisfaction and that the Department has opportunities to increase this score in the future. Potential external factors that influence this measure include the general state of the economy and diminishing continuing county budget resources.

OUR STRATEGY

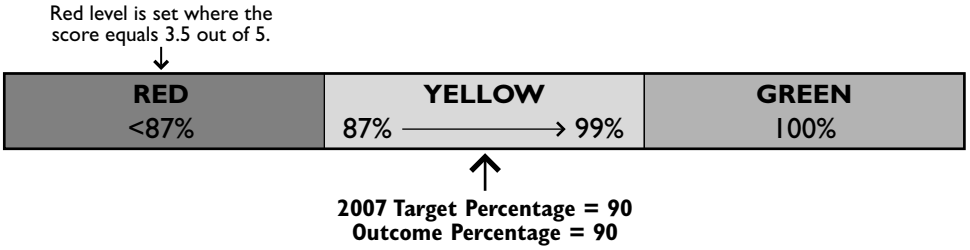
Employee job satisfaction remains an important issue at DNRP. Despite programmatic efficiencies that impact every aspect of the department, including staffing levels, DNRP strives to create a positive work environment. For example, all DNRP supervisors and managers are expected to complete a series of 22 trainings that include team leadership skills and coaching individuals for improved performance.

RATING

Results, Target and Outcome

2003 Results: 3.6 out of 5
2007 Target: 4.0
Outcome: 4.0
The long-term outcome for this measure is a 4.0 rating.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



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OUTCOME: DNRP consists of a forward thinking workforce where employees are engaged in our business, involved in decisions that affect them, and understand their role in achieving the DNRP vision

43

Employee Rating of Their Role

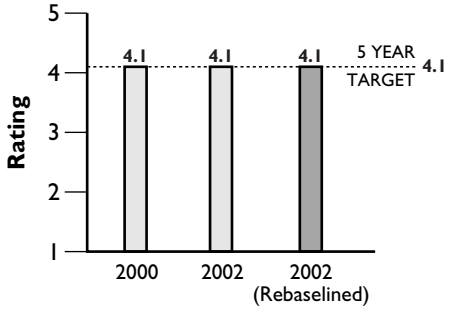
ABOUT THIS PERFORMANCE MEASURE

Employees need to see the connection between their specific contribution and the overall success of their organization. This is an important element to instill a sense of personal accomplishment. This measure focuses on employees' ratings of their own role in the organization.

Three separate questions from the DNRP employee survey are clustered together to derive a composite score for this measure. The score is on a one to five scale, with five being the highest. Questions included in this measure included: employees' contribution to the success of the Department; comfort in making day-to-day decisions about work; and the importance of holding people accountable.

The first two bars in the graph reflect scores from the initial 2000/2001 survey compared with the 2002 survey using identical questions. The last bar reflects a new baseline in which some of the questions in the 2002 survey differ from the items included in the 2000/2001 survey and therefore the previous scores are not strictly comparable. The next department-wide employee survey will be conducted in 2004.

EMPLOYEE RATING OF THEIR ROLE



OBSERVATIONS

The score for this measure was the highest of the four employee survey-related measures. A 4 out of 5 rating equates to an "agree" answer.

OUR STRATEGY

The department has maintained a long-term commitment to employee involvement and valuing our employee contributions. This rating shows that our efforts have resulted in a very positive view of the employee's role in the agency.

RATING

Results, Target and Outcome

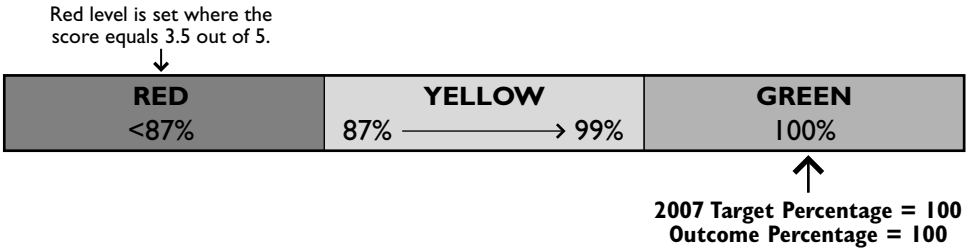
2003 Results: 4.1 out of 5

2007 Target: 4.1

Outcome: 4.1

The target and long-term outcome for this measure is to maintain the 4.1 rating.

Performance-to-Target and Performance-to-Outcome Ranges and Ratings



DATA REFERENCE

Employee Survey Analysis for Performance Measures: Summary Report on Factor Analysis, prepared for DNRP by Mary V. McGuire, 2001; Factor Analysis of 2002 Employee Survey Results – Revised Report, prepared by Mary V. McGuire for DNRP, 2003.

CONCLUSIONS

The annual performance measure report portrays the diversity and complexity of the issues DNRP addresses. Its publication is expected to generate thoughtful debate on the agency's performance and the condition of the environment. Using the information in this report, we hope to answer some key questions:

- Are we progressing in meeting our desired outcomes and goals?
- What programs require new strategies or additional, focused attention?
- How can we best prioritize our services with reduced financial resources?

There are several key ways to look at our performance information. The first level of analysis is to group each of the measures by the seven departmental goals. The highest level of analysis is to look at all of the indicators and measures to assess overall performance. Lastly, by discussing the issues associated with each performance category (green, yellow, red) we hope to assist managers and decision-makers focus attention, and resources, on areas that have not yet met targets or need additional attention. The summary of all indicator and measure ratings can be found on the inside back cover,

ARE WE ACHIEVING OUR GOALS?

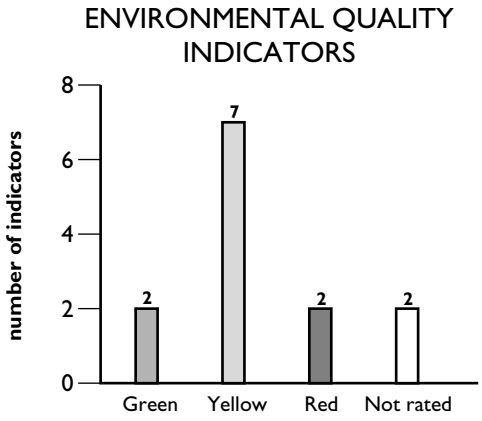
This section describes the measures and indicators in context of how we are meeting our departmental goals. By breaking out the data by individual goal, we can see areas that require more attention or those that are doing relatively well. Because we are relatively early in our measurement process, we are focusing on the performance compared to targets. Upon reaching our 5-year target year in 2007, we will also assess how we are doing relative to our outcomes in more detail.

Environmental Quality

In the environmental quality goal area, we have a combination of 11 environmental indicators and 11 agency measures. Within several indicators, there are multiple ratings due to the differentiation between sampling near outfalls and ambient locations. We are treating each of these ratings as individual ratings and therefore have, this year, a total of 22 environmental quality ratings. The two indicators still being developed are not rated.

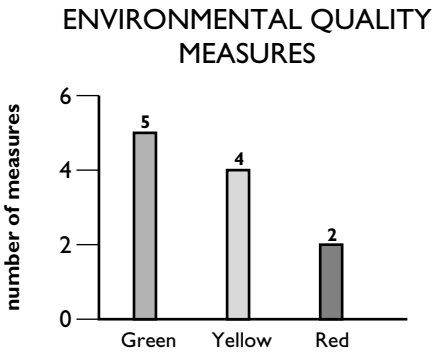
Indicators

Only two of 11 indicators are attaining the target, while seven are below the target, and two are dramatically below the target. Both the marine beach bacteria indicator and the water quality index need attention and are lower than in the past, but may be within normal variability exhibited by natural systems. Each of these areas below the target may require additional levels of effort, combined with interjurisdictional collaboration, and in many cases additional resources, to address these issues.



Measures

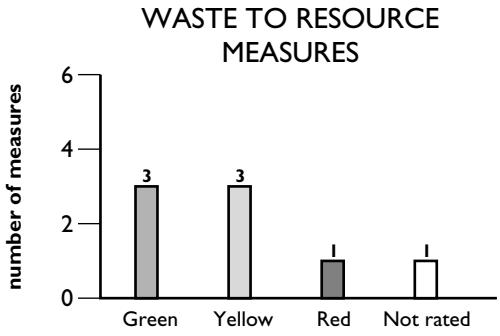
Five of 11 measures are already attaining targets and four are not yet attaining targets but appear to be on track. However, the current results for the greenhouse gas measure indicate that this area still needs attention. To improve performance in this measure DNRP is making critical investments. In addition, the marine bacteria measure indicates that for some areas we have reached the point at which infrastructure investments alone cannot improve the environment.



One conclusion to be drawn from the differences between agency performance measures and environmental indicators is that despite relatively strong agency performance the environment is showing strong negative impacts due to patterns of development and activities within the county. Although this is not entirely surprising, given that the indicators are intended to show environmental conditions beyond the control of DNRP and even county government, it does highlight the need to work collaboratively with other jurisdictions, residents and businesses to address these ongoing issues.

Waste to Resource

Three measures are meeting 2007 targets, three are just below targets, and one measure is red and needs attention. The two measures below the target, waste stream recycled and curbside recycling participation, have very high performance levels compared with national benchmark data but we have used even higher targets and long-term outcomes based on strategic planning projections. Using the lower national benchmark data would have yielded a more positive rating. These two solid waste measures are dependent on resident education and participation to be successful. The waste stream per employee currently exceeds the national benchmark, but this may be a result of issues with the statewide non-residential data collection system or the decreased number of employees due to recent economic conditions, which in turn impacts the "per employee" rate.



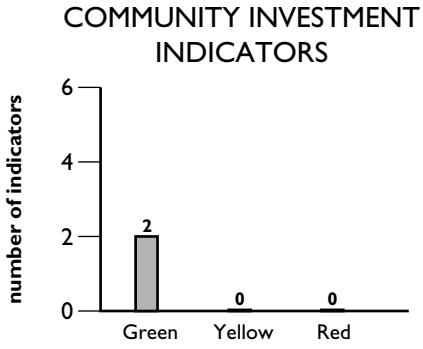
Community Investment

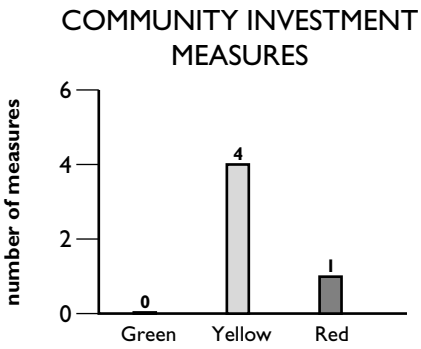
Indicators

Agricultural and forestlands are both "achieving" the 2007 target, although the targets have just been set and are based on current acreages. Although the amount of both agricultural and forested lands is more stable than in the past, there has been decline in both of these land types from 20 years ago.

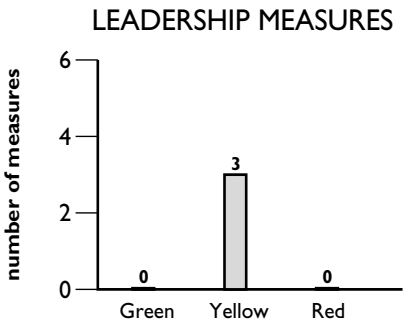
Measures

The community investment goal area has all measures either not yet achieving targets or needing attention. Every measure that was rated not yet achieving targets in this goal area has a very ambitious 5-year target. Clearly, there is significantly more work to be accomplished to meet our goals in this area.





Leadership



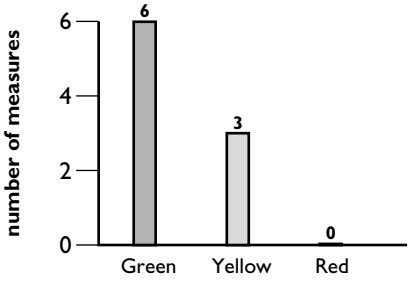
DNRP collected information to assess local jurisdictions' perspectives on DNRP and our leadership role on environmental issues. Although the measures represent averages of responses given to each Division (rather than responses given about the Department *per se*), the overall assessment of three good performance ratings implies that local jurisdictions view DNRP favorably, see DNRP as a resource and view DNRP as providing leadership. Despite these positive ratings, there is still room for improvement in the number of jurisdictions that provide us feedback and their overall assessment of the agency. In addition, obtaining high ratings will require additional levels of effort and potentially new strategies.

Price of Service

The two non-rated price of service measures developed to qualitatively compare our rates with other jurisdictions and inflation show that our rates are generally in line with these two important benchmark references. Parks is the clear exception due to recent changes in business practices and adjusted fees. The efficiency and entrepreneurial revenue measures show that DNRP did well in the two measures that assessed how effectively we met planned reduction targets and increased entrepreneurial revenue sources.

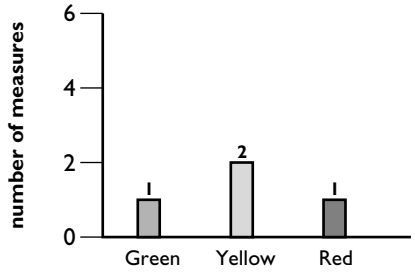
Customer Satisfaction
Customer satisfaction levels are quite high for a variety of DNRP customer groups. The customer satisfaction measure has nine submeasures, six of which are meeting 2007 targets and three of which are below 2007 targets. Many measures are rated 4.5 or above on a 5-point scale or above 90 percent satisfaction. Two of the three yellow-rated customer satisfaction submeasures are already at very high performance levels but are not yet meeting even more ambitious 207 targets.

CUSTOMER SATISFACTION MEASURES



Employee Involvement and Morale
One employee measure is meeting 2007 targets, two are below 2007 targets, and one needs attention. The workplace practices measure, which encompasses workplace accountability, is the only measure that rates below a 3.5 on a 5-point scale and is considered red.

EMPLOYEE INVOLVEMENT AND MORALE MEASURES

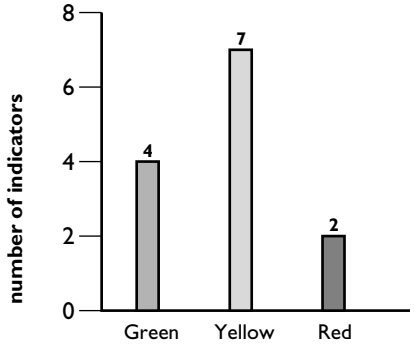


OVERALL PERFORMANCE

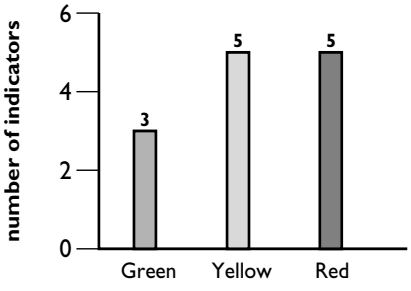
Indicators
There are 11 environmental quality indicators and two community investment indicators (agricultural and forest lands). Out of a total of 13 indicators, four are currently meeting the target, seven are not yet meeting or are below the target, and two need attention. This partial assessment of environmental condition appears to be in line with other sources of environmental indicator data concerning regional environmental quality.

In comparison to the long-term outcomes, three are currently meeting the outcome, five are not yet meeting the outcome, and five need attention. Given and their inherent long-term nature, the complexity in improving these broad indicators, and

INDICATORS COMPARED TO 2007 TARGETS



INDICATORS COMPARED TO LONG TERM OUTCOMES



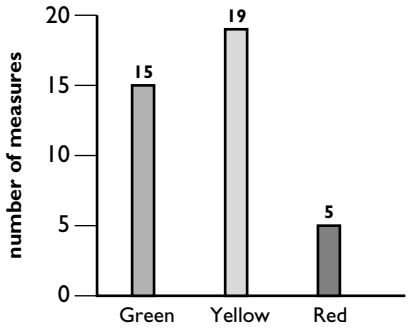
the high level of the desired result that has been set to attain the outcome, it is not surprising that a greater proportion of the indicators are in the yellow and red categories.

Performance Measures

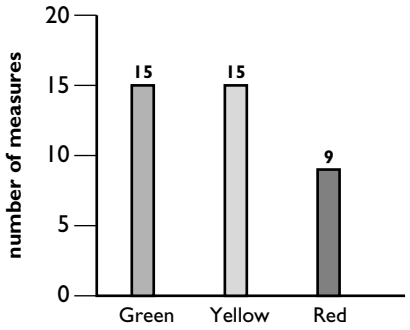
Out of a total of 39 rated performance measures, 15 are currently meeting the target, 19 are not yet meeting or are below the target, and five need attention. The five measures needing attention already have specific programs to ensure their performance improves (see individual measure "Our Strategy" sections for more detail). This helps to show in part that although some measures are already at desired targets, by design, the targets are set aggressively and will require time to attain.

In comparison to the long-term outcomes, 15 measures are currently meeting the outcome, 15 are not yet meeting the outcome, and nine need attention. On the positive side, this shows that a significant number of measures are already at the long-term desired outcome. In addition, given that the long-term desired outcomes are set very ambitiously, it is not surprising that 60 percent of all of the measures are not in the green category. However, it shows that we clearly need to make significant progress to achieve our desired organizational outcomes.

PERFORMANCE MEASURES COMPARED TO 2007 TARGETS



PERFORMANCE MEASURES COMPARED TO LONG TERM OUTCOMES



WHERE DO WE NEED TO FOCUS SPECIAL ATTENTION?

Although every measure requires some degree of continued attention to meet its performance target (for example, "maintaining" a baseline of 100 percent compliance for NPDES permits is still a significant effort), this section highlights measures where either:

1. continued, improved performance is needed, or
2. specific attention is needed to get performance on track towards meeting a target or outcome.

One of our Departmental goals is to be a "high performance regional environmental and resource management agency." Rather than be content with our existing performance, we have decided to establish ambitious 5-year targets and long-term desired outcomes. This puts many measures into the yellow or red categories. In fact, many of the measures with a yellow rating already have quite strong performance but the stretch targets and outcomes indicate that we have not yet met our goals. Although it is likely to take many years, ultimately, we would like to have all of our agency performance measures in the green category.

The 15 performance measures that are already meeting targets still require attention to ensure that high performance is being maintained. The 19 measures that have not yet reached the 2007 target require ongoing attention since these measures need to show continued positive changes over the next five years to meet their targets. Measures in this group often require special attention as performance nears an anticipated target it may be increasingly difficult to get the last incremental performance improvement due to diminishing returns.

Given that there are five measure that are designated red compared to the 2007 targets and nine measures designated red compared to the outcomes, there is a need for significant assessment of these measures. Measures designated as red require a broad examination of the:

- existing methods and strategies (are there alternative approaches?) and
- staff and budget resources (are we allocating and applying sufficient resources to meet the desired outcomes?).

Without specific, focused attention the performance of these measures will not improve to the point where we will meet our 2007 targets much less the even more ambitious outcomes.

WHERE DO WE GO FROM HERE?

There are many ideas, issues and topics for discussion raised by this report. Some of these issues are more technical in nature relating to the indicators and measures themselves:

- Are these the right, or best, measures?
- Do the measures tell us what we need to better manage our services and programs?
- Do we need to refine these measures?
- Are there other measures that might be more useful?
- Are we directing our resources properly?

However, there are also significant questions about how we use these measures that need further exploration and definition:

- How can we better institutionalize the performance measurement process?
- How do we promote and encourage more extensive use of performance data in decision-making by the divisions, the department, and the county?
- What additional steps do we need to take to ensure that performance information is enhancing our operations, programmatic strategies, policy deliberations, and budget preparation?

This document is to be used as a tool to assist decision-making. It requires rigorous review and an iterative process to evaluate our progress, make course corrections or adjustments, and re-examine our approaches. Over the next few years the department will continue to evaluate the indicators and measures and make adjustments as necessary to maximize our ability to meet or exceed our goals and accomplish the department's mission.

ACRONYMS

AMSA	Association of Metropolitan Sewer Agencies
B-IBI	Benthic Index of Biotic Integrity
BMPs	best management practices
CRS	National Flood Insurance Program's Community Rating System
CSL	Cleanup Screening Level (or "minor adverse effects level")
CSO	combined sewer overflow
CUT	Current Use Taxation program
DNRP	King County Department of Natural Resources and Parks
EDI	Energy Developments Inc.
EMS	Environmental Management System
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
LEED™	Leadership in Energy and Environmental Design Green Building Rating System™
MCL	maintenance correction letter
$MTCO_2E$	metric tonnes carbon dioxide equivalent
NPDES	National Pollutant Discharge Elimination System
P/O	performance-to-outcome ratio
P/T	performance-to-target ratio
Parks	Parks and Recreation Division
SQS	Sediment Quality Standard (or "no adverse effects level")
SWD	Solid Waste Division
TSI-TP	Trophic State Indicator-Total Phosphorus
WLR	Water and Land Resources Division
WQI	Water Quality Index
WRIA	Water Resource Inventory Area
WTD	Wastewater Treatment Division
WUTC	Washington Utilities and Transportation Commission

GLOSSARY

Ambient (measurement) – A measurement of the concentration of a substance or pollutant from a site not located near known sources of pollution. Used in contrast to outfall or point source sites.

Aquatic – Of or related to water; can refer to both freshwater and marine environments.

Bacteria – Microscopic living organisms; when present in soil, water or air can cause human, animal, and plant health problems. Bacteria can also aid in pollution control by metabolizing organic matter in sewage, oil spills, or other pollutants.

Balanced Scorecard – A performance measurement system used to track strategic objectives by looking beyond financial performance to include customer services, internal processes and people management. DNRP's Wastewater Treatment Division uses the Balanced Scorecard system.

Baseline (data) – Initial collection of data to establish a basis for comparison, evaluation, and target setting.

Benchmark – 1) an outcome with a specific target for achievement. Benchmarks are often time-bound (for example, achieve 100% compliance within two years); 2) a standard based on the performance of another organization or group of organizations (comparison typically made with organizations having similar characteristics and/or demographics); 3) The title of a series of reports reporting on status and trends of indicators in King County: *King County Benchmarks*.

Benchmarking – The process of continuously comparing and measuring a private and/or public organization against recognized leaders and similar organizations to gain information that will help the organization take action to improve its performance.

Benthic – Of or related to the bottom under a body of water. Can be used to describe environments or organisms.

Benthic Index of Biotic Integrity – A stream monitoring "report card" for measuring the health of the benthic community and for the stream ecosystem as a whole. The index is composed of ten metrics that measure different aspects of stream biology, including the diversity of macroinvertebrate species, number of macroinvertebrates, presence of macroinvertebrates that are tolerant and intolerant to pollution, reproductive strategy, feeding ecology, and population structure.

Biochemical oxygen demand (BOD) – A measure of the amount of oxygen consumed in the biological processes that break down organic matter in water. The greater the BOD, the greater the degree of pollution.

Biogas – A natural byproduct from the wastewater treatment process containing primarily methane gas.

Biosolids – Nutrient-rich organic material produced by treating wastewater solids.

Chlorine – an elemental gas commonly used for disinfecting drinking water and wastewater.

Combined sewer overflow – Discharge of a mixture of storm water and domestic waste when the flow capacity of a sewer system is exceeded during rainstorms.

Consumer Price Index – An index of prices used to measure the change in the cost of basic goods and services in comparison with a fixed base period. Also called cost-of-living index.

Dissolved oxygen (DO) – The oxygen freely available in water, vital to fish and other aquatic life, and for the prevention of odors. DO levels are considered a most important indicator of a water body's ability to support desirable aquatic life.

Drop box – A King County-owned and operated solid waste disposal facility. Drop box facilities normally serve the general public with loose loads and receive waste from off-site. DNRP's Solid Waste Division operates two drop box facilities: Skykomish and Cedar Falls.

E. coli bacteria – A bacillus *(Escherichia coli)* normally found in the human gastrointestinal tract and existing as numerous strains, some of which are responsible for diarrheal diseases.

Enterococcus bacteria –Refers to a subgroup of the fecal streptococci that includes *S. faecalis, S. faecium, S. gallinarum,* and *S. avium.*

Fecal coliform bacteria – Bacteria found in the intestinal tracts of mammals. Their presence in water or sludge is an indicator of pollution and possible contamination by pathogens.

Floodplain – The flat or nearly flat land along a river or stream or in a tidal area that is covered by water during a flood.

Goal – Broad statements describing desired outcomes, but more specific than an agency's mission. Goals support the mission and identify specific themes or opportunities for an organization to accomplish in order to achieve its mission. Goals translate the mission of the organization into performance and help create the organization's identity.

Greenhouse gas – A gas, such as carbon dioxide or methane, which contributes to climate change.

Household Hazardous Waste – Hazardous products used and disposed of by residential, as opposed to industrial, consumers. Includes paints, stains, varnishes, solvents, pesticides, and other materials or products containing volatile chemicals that can catch fire, react or explode, or that are corrosive or toxic.

Hypochlorite – A salt or ester of hypochlorous acid; used in the wastewater treatment process.

Indicator – A measure that focuses on the condition of the environment.

Invertebrate – Animals without backbones.

Landfill gas – Gas produced by the microbial decomposition of municipal solid waste in a landfill. It is comprised of 50 to 50 percent methane, 40 to 50 percent carbon monoxide, and less than one percent hydrogen, oxygen, nitrogen, and other trace gases.

Macroinvertebrate - Animals that you can see with the naked eye that don't have backbones. Some examples include insects, crustaceans, worms, snails, and clams. Macroinvertebrates are often referred to by biologists with the colloquial term of "bugs."

Mean – The average value of a set of numbers.

Median – Relating to or constituting the middle value of an ordered set of values (or the average of the middle two in an even-numbered set).

Methane – A colorless, nonpoisonous, flammable gas created by anaerobic decomposition of organic compounds. A major component of natural gas used in the home.

Mission – Provides a summary of the organization's purpose and answers the questions, "why do we exist?" The mission provides the basis for aligning goals, core businesses and programs. The mission does not answer "how" the purpose will be achieved.

National Pollutant Discharge Elimination System (NPDES) – A provision of the federal Clean Water Act which prohibits discharge of pollutants into waters of the United States unless a special permit is issued by EPA or a state.

Nonpoint source – Diffuse pollution sources (without a single point of origin or not introduced into a receiving stream from a specific outlet). The pollutants are generally carried off the land by storm water. Common non-point sources are agriculture, forestry, construction, and city streets. Used on contrast to "point sources" which refers to any single identifiable source of pollution such as a pipe or outfall.

Normative flow – A flow regime in streams and rivers that resembles the natural flow regime sufficiently to sustain all stages of a diverse set of native species.

Outcome – A type of measure that looks at customer satisfaction with services, program results, or impact on clients or society. Also called effectiveness measures.

Outfall – The place where effluent is discharged into receiving waters.

Performance measure – A measure that is used to track the performance of a program or an organization. Performance measures can be related to inputs, processes, efficiency, or effectiveness (outcomes). *See* indicators.

pH – An expression of the intensity of the basic or acid condition of a liquid; may range from 0 to 14, where 0 is the most acid and 7 is neutral. Natural waters usually have a pH between 6.5 and 8.5.

Phosphorus – An essential chemical food element that can contribute to the eutrophication of lakes and other water bodies. Increased phosphorus levels result from discharge of phosphorus-containing materials into surface waters.
Riparian – Areas adjacent to rivers and streams with a high density, diversity, and productivity of plant and animal species relative to nearby uplands.

Solid waste – Non-liquid, non-soluble materials ranging from municipal garbage to industrial wastes that contain complex and sometimes hazardous substances. Solid wastes also include sewage sludge, agricultural refuse, demolition wastes, and mining residues.

Superfund – The program operated under the federal legislative authority that funds and carries out EPA solid waste emergency and long-term removal and remedial activities. These activities include establishing the National Priorities List, investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising cleanup and other remedial actions.

Target –Targets are used to denote the degree of improvement desired or an attainable goal.

Total residual chlorine – Amount of chlorine remaining after the wastewater treatment process has taken place.

Total suspended solids – A measure of the suspended solids in wastewater, effluent, or water bodies, determined by tests for "total suspended non-filterable solids."

Transfer station – A permanent fixed supplemental collection and transportation facility, used by persons and route collection vehicles to deposit collected solid waste from off-site to a larger transfer vehicle for transport to a solid waste handling facility. Transfer stations may also include recycling facilities and compaction/balancing systems.

Trophic State Indicators – Environmental calculations that help to define the trophic state of lakes. Lakes can be divided into three trophic categories - oligotrophic, mesotrophic, and eutrophic. These categories are based on potential algae production. Characteristics used to calculate trophic state indicators include: total phosphorus concentration (necessary for algae growth); chlorophyll a concentration (a direct measure of the amount of algae present); and Secchi disc readings (an indicator of water clarity).

Vision – An organization's vision provides a picture of a preferred future that provides long-term direction, guidance and inspiration for the organization.

Water Quality Index (WQI) – A index of water quality that analyzes a defined set of water quality parameters and produces a score describing general water quality. The water quality parameters included in the WQI are temperature, dissolved oxygen (percent saturation and concentration), biochemical oxygen demand, pH, total solids, ammonia and nitrate nitrogens, total phosphorous, and fecal coliforms. WQI scores range from 10 (worst case) to 100 (ideal water quality).

Water Quality Standards – State-adopted and EPA-approved ambient standards for water bodies. The standards prescribe the use of the water body and establish the water quality criteria that must be met to protect designated uses.

Water Resource Inventory Areas (WRIA) – A way to organize Washington State's watershed basins as created under the Washington State's Watershed Planning Act (RCW 90.82). The Department of Ecology and other state resource agencies frequently use the WRIAs to refer to the state's 62 major watershed basins. King County includes, in whole or in part, four WRIAs: 7, 8, 9, and 10.

Watershed – The land area that drains water to a particular stream, river, lake, estuary, or coastal zone. It is a land feature that can be identified by tracing a line along the highest elevations between two areas on a map, often a ridge. Large watersheds, like the Mississippi River basin contain thousands of smaller watersheds.

Note:
Many of these definitions come from U.S. EPA's Terms of Environment (*www.epa.gov/OCEPAterms/*) and King County's Performance Measurement Website (*http://apps01.metrokc.gov/www/exec/perform/index.cfm*).

DNRP PERFORMANCE COMPARED TO 2007 TARGETS AND LONG-TERM OUTCOMES

DNRP OVERALL PERFORMANCE

GOAL

ENVIRONMENTAL QUALITY

WASTE TO RESOURCE

COMMUNITY INVESTMENT

LEADERSHIP

PRICE OF SERVICE

CUSTOMER SATISFACTION

EMPLOYEE INVOLVEMENT AND MORALE

OUTCOME

DNRP Operations
Public Safety
Marine Water Quality
Stream Water Quality
Salmon Populations
Lake Water Quality
Reduced Waste
Productive Farms/ Forests
Sustainable Farms/ Forests
Residents involved
DNRP as Regional Leader
Rates are Reasonable/ Competitive
Satisfied Customers
Employee Morale

MEASURE/ INDICATOR

1. Wastewater Plant permit compliance
2. Solid Waste health inspection
3. Greenhouse gases
4. Flood safety
5a. Marine water: Ambient
5b. Marine water: Outfall
6a. Marine beach: Ambient
6b. Marine beach: Outfall
7a. Dissolved oxygen: Ambient (guideline)
7b. Dissolved oxygen:Outfall (guideline)
7c. Dissolved oxygen: Ambient (standard)
7d. Dissolved oxygen: Outfall (standard)
8a. Marine sediment: Ambient
8b. Marine sediment: Outfall
9a. Phosphorus in regional lakes
9b. Phosphorus in managed lakes
10. Lakes – Open water
11. Lakes – Swimming beaches
12. Stormwater facility compliance
13. Water quality index
14. Benthic Index of Biotic Integrity
15. Aquatic Habitat Quality
16. Normative flow in rivers and streams
17. Salmon
18. Biosolids
19. Water reclaimed
20. Biogas recycled
21. Methane to usable energy
22. Waste stream recycled
23a. Waste disposed per resident
23b. Waste disposed per employee
24. Curbside recycling participation
25. Hazardous waste
26. Yard care
27. Volunteer hours
28. Agricultural land
29. Forestlands
30. Forest stewardship
31. Ag. lands with BMPs
32. Relationship with DNRP
33. DNRP as a resource
34. DNRP as a leader
35. Rates and fees compared to other agencies
36. Rates and fees compared to CPI
37.* Efficiencies
38.* Entre-preneurial revenue
39a. Parks Customers
39b. Transfer Station Customers
39c. Wastemobile Customers
39d. Solid Waste Education
39e. Drainage Services
39f. Water Quality Education
39g. Naturescaping Program
39h. Wastewater Customers
39i. Industrial Waste Customers
40. Workplace practices
41. Availability of resources
42. Job satisfaction
43. Role of the employee

* Based on 2003 Target only.

KEY

2007 TARGET
- Meeting Goal
- Not yet Acheived
- Needs Attention

LONG-TERM OUTCOME
- Meeting Goal
- Not yet Acheived
- Needs Attention

Not rated

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DNRP RATINGS SUMMARY CHART