



Office of
Financial Management
STATE OF WASHINGTON

Activity Inventory Performance Measure Assessment

Department of Ecology
Environmental Assessment Program

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Office of Financial Management Assessor:

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Based on a review of the following: The agency strategic plan, the budget activity inventory, internal performance measure reports, and an interview with the agency contacts

Current Strengths and Good Practices

- There is a strong relationship between the agency strategic plan and the budget activities and measures of this program.
- Data was available for the most recently completed quarter, and in some instances, data from the previous biennium was also available.
- The measures are well thought out and cover most of data quality control purposes of the program.

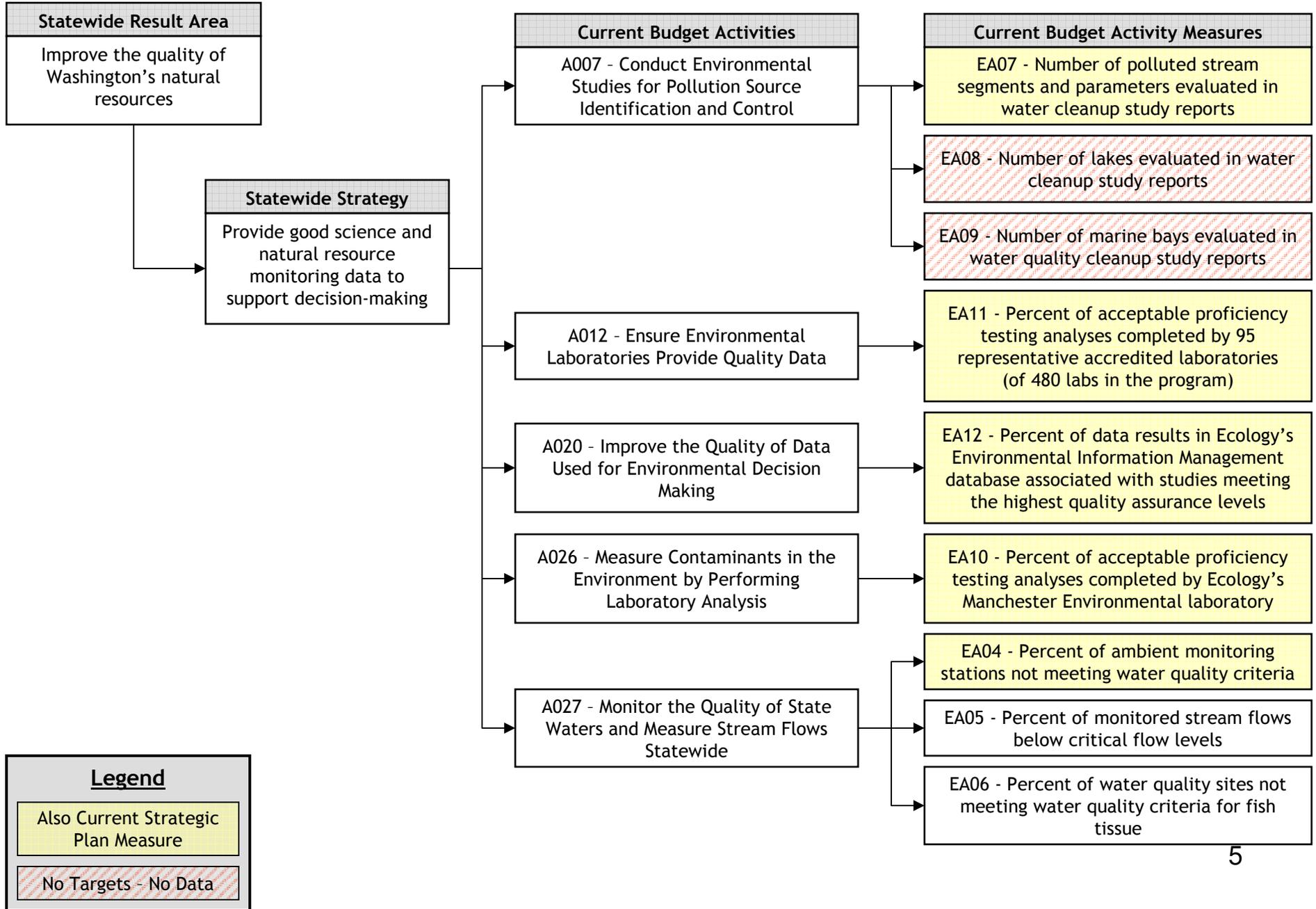
Activity Measure Comments and Potential Improvements

- The immediate outcomes of this program relate to the quality of the data and research the other agency programs use to make improvements in the environment. Some process-level measures and output measures are appropriate since this program has no control over the methods of enacting these environmental improvements.
- The titles of the performance measures would benefit from some “plain talk” work to simplify the wording, and remove scientific/agency jargon.
- The data in some of the aggregated measures will need to be broken out and further analyzed if improving processes and performance is the program’s goal.

Analysis of Current Activity Measure Data

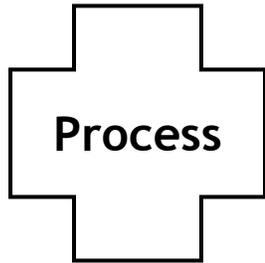
- Slides 9 and 11 measure the quality of the results coming from external and internal laboratories.
 - The non-ecology labs demonstrate stable and predictable results that do not indicate change. Unfortunately, the labs are not regularly achieving and sustaining the 98% target. Since this data is an aggregated average of 95 different labs, finding which labs need the most improvement attention, is not apparent at this level.

Budget Activity & Performance Measure Linkages



Budget Activity Measure Perspectives

⑤ Process characteristics the customers/stakeholders want



⑥ Process characteristics the agency wants

EA11 - Percent of acceptable proficiency testing analyses completed by 95 representative accredited laboratories (of 480 labs in the program)

⑥

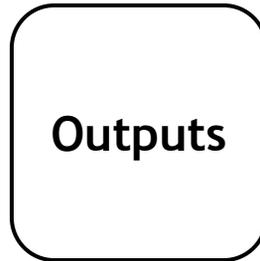
EA12 - Percent of data results in Ecology's Environmental Information Management database associated with studies meeting the highest quality assurance levels

⑥

EA10 - Percent of acceptable proficiency testing analyses completed by Ecology's Manchester Environmental laboratory

⑥

③ Product/service attributes customers/stakeholders want



④ Product/service attributes the agency wants

EA07 - Number of polluted stream segments and parameters evaluated in water cleanup study reports

④

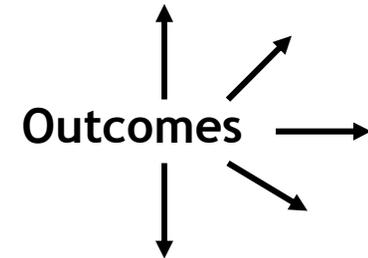
EA08 - Number of lakes evaluated in water cleanup study reports

④

EA09 - Number of marine bays evaluated in water quality cleanup study reports

④

① Customer/stakeholder desired outcomes



② Agency desired outcomes

EA04 - Percent of ambient monitoring stations not meeting water quality criteria (Undesirable)

①

EA05 - Percent of monitored stream flows below critical flow levels (Undesirable)

①

EA06 - Percent of water quality sites not meeting water quality criteria for fish tissue (Undesirable)

①

Legend

Strategic Plan and Budget Activity Measure

Activity Measure Assessment - Evaluation of Stream Segments

Performance Measure Description: Segments indicating problems will be handed over to other programs for appropriate mitigation activities.

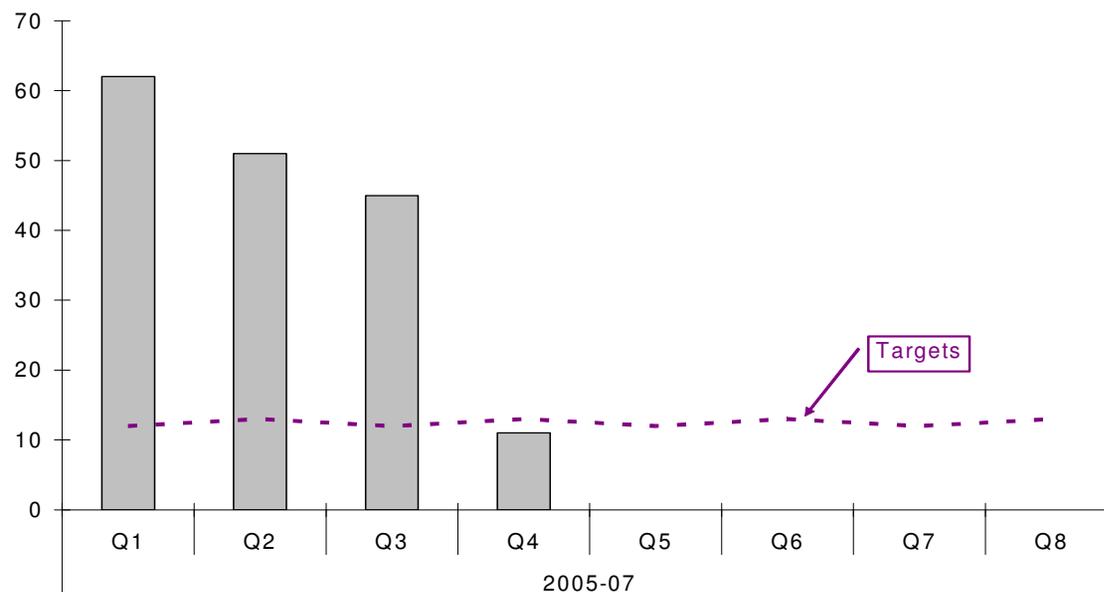
Budget Activity Links: A007 - Conduct environmental studies for pollution source identification and control.

Category of Measure: The number of segments tested is an output measure

Analysis of Variation: Not enough data for much analysis.

Analysis of Targeted vs. Actual Performance: The target is to conduct 50 segment/parameter tests per year. The actual number of tested segments and parameters reported for the first year of the biennium totals 169, with zero reported in 2006-07.

EA07 - Number of Polluted Stream Segments and Parameters Evaluated in Water Cleanup Study Reports



Comments About Desirable Characteristics

Relevance: Good - As an output measure, more segments tested is desirable and indicates better resource management.

Understandability: The issue of segments and parameters is a little confusing, but well explained in the notes in PMT.

Comparability: Unknown

Timeliness: Despite the appearance, data for the last complete quarter in the biennium was available at the time of the assessment. (The last three actual values = 0)

Reliability: Should be good, since the agency controls the sampling methodology.

Cost Effectiveness: Also a strategic plan measure that is regularly reviewed internally.

General Comments & Explanations:

Activity Measure Assessment - External Environmental Lab Quality

<p>Performance Measure Description: Quality control sampling of non-Department of Ecology accredited environmental laboratory work.</p>	<p>EA11 - Percent of Acceptable Proficiency Testing Analyses Completed by 95 Representative Accredited Laboratories (of 480 Labs in the Program)</p> <table border="1"> <caption>Data for EA11 - Percent of Acceptable Proficiency Testing Analyses</caption> <thead> <tr> <th>Year</th> <th>Q1</th> <th>Q2</th> <th>Q3</th> <th>Q4</th> <th>Q5</th> <th>Q6</th> <th>Q7</th> <th>Q8</th> </tr> </thead> <tbody> <tr> <td>2003-05</td> <td>97.1%</td> <td>97.3%</td> <td>97.9%</td> <td>98.4%</td> <td>97.6%</td> <td>97.1%</td> <td>97.9%</td> <td>97.1%</td> </tr> <tr> <td>2005-07</td> <td>97.3%</td> <td>97.0%</td> <td>96.4%</td> <td>98.1%</td> <td>98.3%</td> <td>97.4%</td> <td>96.2%</td> <td>97.4%</td> </tr> </tbody> </table>	Year	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	2003-05	97.1%	97.3%	97.9%	98.4%	97.6%	97.1%	97.9%	97.1%	2005-07	97.3%	97.0%	96.4%	98.1%	98.3%	97.4%	96.2%	97.4%
Year		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8																			
2003-05		97.1%	97.3%	97.9%	98.4%	97.6%	97.1%	97.9%	97.1%																			
2005-07		97.3%	97.0%	96.4%	98.1%	98.3%	97.4%	96.2%	97.4%																			
<p>Budget Activity Links: A012 - Ensure environmental laboratories provide quality data</p>																												
<p>Category of Measure: Quality assurance is a process-level measure.</p>																												
<p>Analysis of Variation: The data patterns are stable and predictable without showing any signs of change.*</p>																												
<p>Analysis of Targeted vs. Actual Performance: Even though the quality standard has only been met or exceeded in 3 out of the 15 quarters reported, the worst performance (Q7) is only 2% below the target.*</p>																												

<p>Comments About Desirable Characteristics</p>		<p>General Comments & Explanations:</p>
<p>Relevance: Monitoring the quality of data used by Ecology programs is a major purpose for this unit.**</p>	<p>Timeliness: Data for the last complete quarter in the biennium was available at the time of the assessment.</p>	<p>* Significant changes to the system elements (People, Equipment, Methods, Rules, Budget, etc.) will need to be made if the agency wants to shift and sustain all the actual results above the 98% target.</p> <p>**Since this is a roll up of 95 sample labs, it would be difficult to use the data at this level to identify any opportunities for improvement.</p>
<p>Understandability: The reference to the sample size, “95 representative ...out of 480 labs...” should be moved to the performance measure notes in PMT.</p>	<p>Reliability: Should be good, since the agency controls the sampling methodology.</p>	
<p>Comparability: Good - Especially with the data from the Manchester lab (slide 11), since the evaluation forms and methods are almost identical.</p>	<p>Cost Effectiveness: Also a strategic plan measure that is regularly reviewed internally.</p>	

Activity Measure Assessment - Database Quality Control

Performance Measure Description: A rating of the quality of data in the agency's information management database.

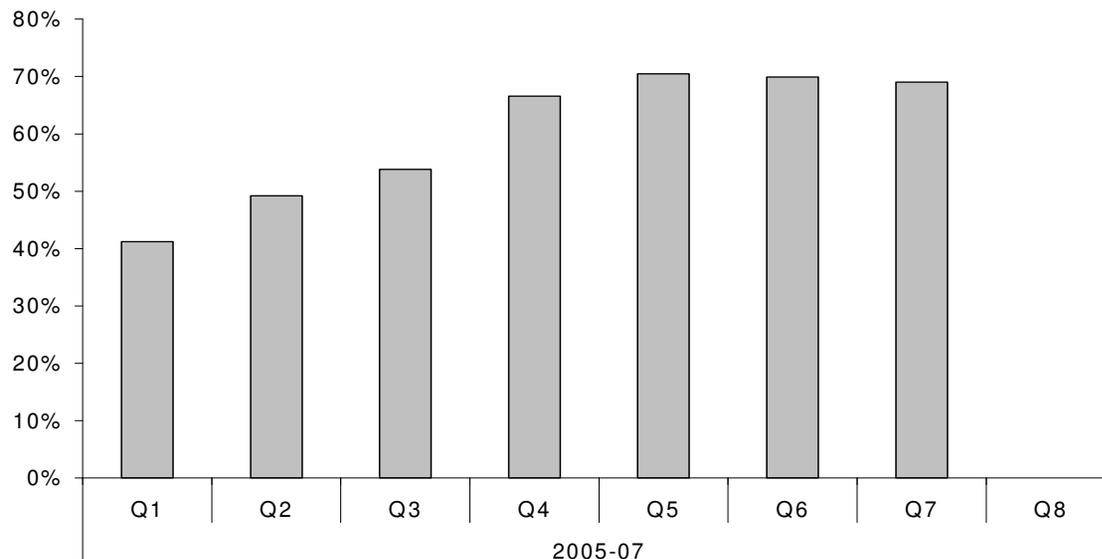
Budget Activity Links: A020 - Improve the quality of the data used for environmental decision making

Category of Measure: Quality assurance is a process-level measure.

Analysis of Variation: Not enough data for much analysis, but a gradual improvement is evident since the fourth quarter.

Analysis of Targeted vs. Actual Performance: There are no targets in PMT for 2005-07. If the 50% target for 2007-09 (Not shown on the chart) is applied to this data, the agency has met or exceeded its target since the 3rd quarter.

EA12 - Percent of Data Results in Ecology's Environmental Information Management Database Associated With Studies Meeting the Highest Quality Assurance Levels



Comments About Desirable Characteristics

Relevance: Good, but archiving old or non-Ecology data that do not meet quality standards is also an important function of this database.

Timeliness: Data for the last completed quarter in the biennium was available at the time of the assessment.

Understandability: The term "meeting the highest quality assurance standards" should be defined in the notes section of the performance measure in PMT.

Reliability: Should be good, since the agency controls the sampling methodology.

Comparability: The quality of data is probably not comparable because of the lack of standardized definitions for quality.

Cost Effectiveness: Also a strategic plan measure that is regularly reviewed internally.

General Comments & Explanations:

- The agency is proposing to drop this measure because it has the potential to drive an unintended consequence of not archiving important data because it does not meet current quality standards.

Activity Measure Assessment - Ecology Lab Quality

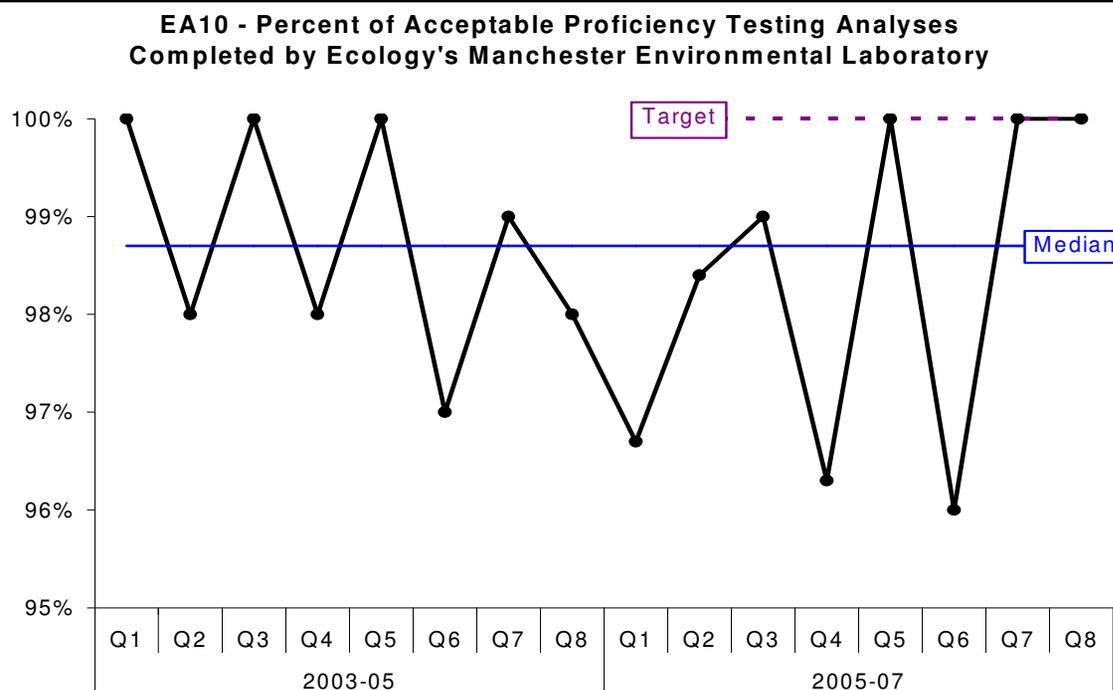
Performance Measure Description: The quality of test samples from a laboratory jointly run by the agency and the federal EPA.

Budget Activity Links: A026 - Measure contaminants in the Environment by performing laboratory analysis.

Category of Measure: Quality assurance is a process-level measure.

Analysis of Variation: The data patterns are stable and predictable without showing any signs of change.*

Analysis of Targeted vs. Actual Performance: A 100% target is difficult to achieve, but the lab has achieved it in 6 of the 16 quarters reported.



Comments About Desirable Characteristics

Relevance: Monitoring the quality of data used by Ecology programs is a major purpose for this unit.

Timeliness: Data for the last completed quarter in the biennium was available at the time of the assessment.

Understandability: The term "acceptable proficiency testing analyses" means little to the casual reader.

Reliability: Should be good, since the agency controls the sampling methodology.

Comparability: Good - Especially with the data from the outside labs (slide 9), since the evaluation forms and methods are almost identical.

Cost Effectiveness: Also a strategic plan measure that is regularly reviewed internally.

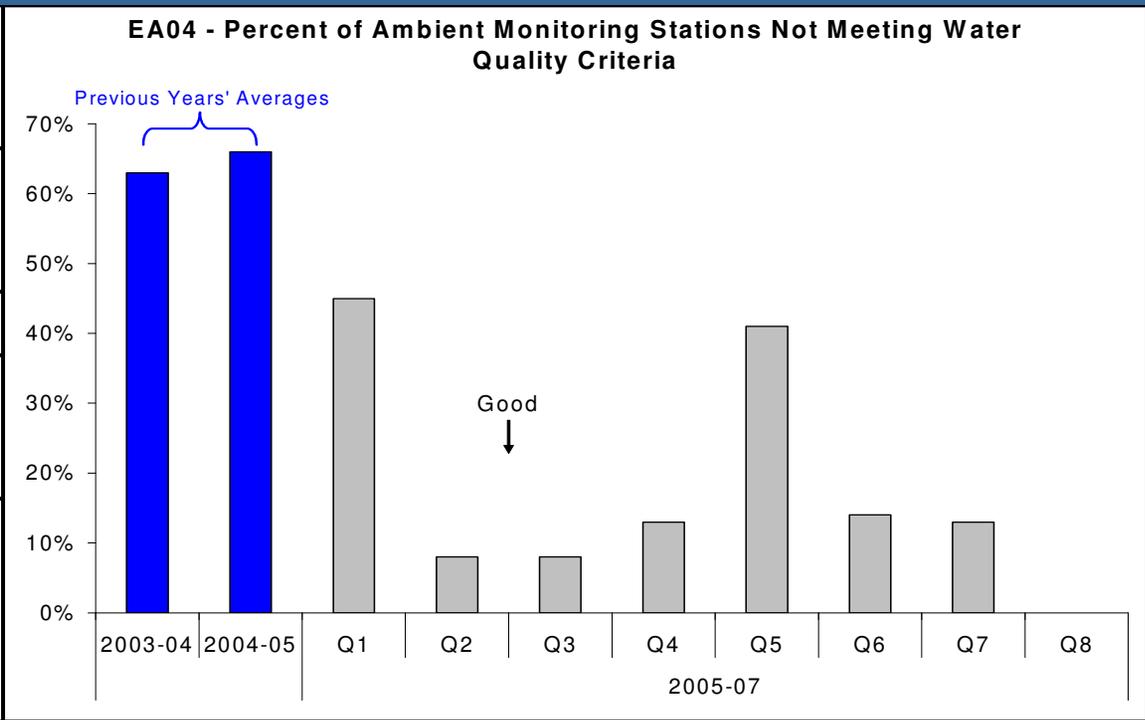
General Comments & Explanations:

Agency Comments:

The results that do not meet criteria vary by method across the period. We do not perform the same number of analyses each quarter, so a miss in one quarter may register as .5% among 200 results or 1% among 100.

Activity Measure Assessment - Ambient Water Quality Testing

Performance Measure Description: Stations measure changes in water temperature and pollution levels.
Budget Activity Links: A027 - Monitor the quality of state waters and measure stream flows statewide.
Category of Measure: An undesirable outcome
Analysis of Variation: Not enough data for much analysis, but there appears to be an explainable summer quarter cycle.
Analysis of Targeted vs. Actual Performance: The actual results in the 1 st and 5 th quarters mirror stream flow data (next slide). There appears to be a significant improvement in 2005-07 compared to the two previous years' averages.



Comments About Desirable Characteristics	
Relevance: Since fresh water and marine data are combined in this measure, it is difficult to determine where improvement is occurring.	Timeliness: Data for the last complete quarter in the biennium was available at the time of the assessment.
Understandability: The term "Ambient" needs to be explained better.	Reliability: Should be good, since the agency controls the sampling methodology.
Comparability: Unknown	Cost Effectiveness: Also a strategic plan measure that is regularly reviewed internally.

General Comments & Explanations:

Agency Comments:
 Water quality stations that violate standards are reported and trigger a water cleanup study. However, some violations are due to weather and seasonal climate fluctuations. Seasonal changes are not unusual or unexpected.

Activity Measure Assessment - Stream Critical Flow Levels

<p>Performance Measure Description: Data from 62 critical salmon basins and 75 other sites. The actual flow level depends on the stream.</p>	<p style="text-align: center;">EA05 - Percent of Monitored Stream Flows Below Critical Flow Levels</p> <table border="1" style="margin-top: 10px;"> <caption>Data for EA05 - Percent of Monitored Stream Flows Below Critical Flow Levels</caption> <thead> <tr> <th>Quarter</th> <th>Percent Below Critical Flow Levels</th> </tr> </thead> <tbody> <tr> <td>Q1</td> <td>44%</td> </tr> <tr> <td>Q2</td> <td>26%</td> </tr> <tr> <td>Q3</td> <td>9%</td> </tr> <tr> <td>Q4</td> <td>10%</td> </tr> <tr> <td>Q5</td> <td>33%</td> </tr> <tr> <td>Q6</td> <td>6%</td> </tr> <tr> <td>Q7</td> <td>9%</td> </tr> <tr> <td>Q8</td> <td>0%</td> </tr> </tbody> </table>	Quarter	Percent Below Critical Flow Levels	Q1	44%	Q2	26%	Q3	9%	Q4	10%	Q5	33%	Q6	6%	Q7	9%	Q8	0%
Quarter		Percent Below Critical Flow Levels																	
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<p>Budget Activity Links: A027 - Monitor the quality of state waters and measure stream flows statewide.</p>																			
<p>Category of Measure: Undesirable outcome</p>																			
<p>Analysis of Variation: Not enough data for much analysis, but there appears to be an explainable summer quarter cycle.</p>																			
<p>Analysis of Targeted vs. Actual Performance: There is no target in PMT for 2005-07. The 2007-09 target is 25%. The internal baseline is 12.5%. The summer quarter actual data exceeds these thresholds.</p>																			

Comments About Desirable Characteristics		General Comments & Explanations:
<p>Relevance: Good, as it relates to the budget activity, but program influence over this variable is questionable.</p>	<p>Timeliness: Data for the most recently completed quarter was available at the time of the assessment.</p>	
<p>Understandability: Good, but would be better with targets to show the reader what good performance should look like.</p>	<p>Reliability: Should be good, since the agency controls the sampling methodology.</p>	
<p>Comparability: Unknown</p>	<p>Cost Effectiveness: This measure is also tracked as a part of the regular internal agency performance review.</p>	

Activity Measure Assessment - Fish Tissue Water Quality Testing

<p>Performance Measure Description: Samples from 75 randomly selected freshwater sites, and 40 marine sites.</p>	<p style="text-align: center;">EA06 - Percent of Monitored Sites Not Meeting Water Quality Criteria for Fish Tissue</p> <table border="1"> <caption>Data for EA06 - Percent of Monitored Sites Not Meeting Water Quality Criteria for Fish Tissue</caption> <thead> <tr> <th>Fiscal Year</th> <th>Percent of Sites Not Meeting Criteria</th> </tr> </thead> <tbody> <tr> <td>2003-04</td> <td>~70%</td> </tr> <tr> <td>2004-05</td> <td>~90%</td> </tr> <tr> <td>2005-06</td> <td>~95%</td> </tr> <tr> <td>2006-07</td> <td>Not Available</td> </tr> <tr> <td>2007-08</td> <td>~75%</td> </tr> <tr> <td>2008-09</td> <td>~75%</td> </tr> </tbody> </table>	Fiscal Year	Percent of Sites Not Meeting Criteria	2003-04	~70%	2004-05	~90%	2005-06	~95%	2006-07	Not Available	2007-08	~75%	2008-09	~75%
Fiscal Year		Percent of Sites Not Meeting Criteria													
2003-04		~70%													
2004-05		~90%													
2005-06		~95%													
2006-07	Not Available														
2007-08	~75%														
2008-09	~75%														
<p>Budget Activity Links: A027 - Monitor the quality of state waters and measure stream flows statewide.</p>															
<p>Category of Measure: Undesirable outcome</p>															
<p>Analysis of Variation: Not enough data recorded in PMT for much analysis.</p>															
<p>Analysis of Targeted vs. Actual Performance: Using the targets for 2007-09 as a reference point, the actual results for the last two reported years have been greater than the 75% target. Since down is good on this chart, exceeding the target is undesirable.</p>															

Comments About Desirable Characteristics		General Comments & Explanations:
<p>Relevance: Good, but this is a distant outcome, that will take many years to change, and this program's ability to influence the outcome is debatable.</p>	<p>Timeliness: Data for 2006-07 was not available at the time of this assessment.</p>	
<p>Understandability: Good - The notes and desired results in PMT explain the concept of monitored sites.</p>	<p>Reliability: As long as the criteria is applied evenly, the data should be fairly reliable.</p>	
<p>Comparability: Should be comparable to other states and Canadian provinces.</p>	<p>Cost Effectiveness: Unknown</p>	