

**State of Alaska
FY2009 Governor's Operating Budget**

**Department of Environmental Conservation
Water Quality
Component Budget Summary**

Component: Water Quality

Contribution to Department's Mission

Identify, abate, and control water pollution in a cost effective, accountable manner to protect public health and preserve the many uses of Alaska's waters.

Core Services

- Establish and update water quality standards and criteria for the protection of Alaska waterbodies.
- Reduce non-point sources of pollution in Alaska waterbodies by identifying and implementing Best Management Practices (BMP's).
- Ensure compliance with wastewater discharge authorizations.
- Monitor cruise ship environmental and sanitation practices.
- Ensure cruise vessel compliance with wastewater discharge and air emission standards.
- Provide information about permitted discharges and commercial passenger vessel discharges.
- Conduct ambient water quality and wastewater monitoring.
- Prioritize and clean up polluted waters.
- Award and manage grants for stewardship, protection and restoration needs of waters throughout Alaska.
- Certify and provide technical assistance for domestic wastewater disposal systems.

End Result	Strategies to Achieve End Result
<p>A: Water Quality is protected.</p> <p><u>Target #1:</u> No polluted waters. <u>Measure #1:</u> Number of polluted waters.</p>	<p>A1: Establish protective standards for Water Quality.</p> <p><u>Target #1:</u> Protective standards are established for Water Quality are complete by June 30, 2007. <u>Measure #1:</u> % of revisions to targeted standards for Water Quality are complete by June 30, 2007.</p> <p>A2: Assume control from the EPA of National Pollutant Discharge Elimination System (NPDES) as established in the Clean Water Act.</p> <p><u>Target #1:</u> 100% of EPA information requests are responded to within agreed upon timeframes. <u>Measure #1:</u> % of EPA information requests are submitted on time.</p> <p>A3: Restore polluted waterbodies to their designated uses.</p> <p><u>Target #1:</u> Two waterbody recovery plans per year. <u>Measure #1:</u> Number of polluted waterbody recovery plans completed during the year.</p> <p><u>Target #2:</u> Ten active restoration projects per year. <u>Measure #2:</u> Number of active restoration projects during the year.</p> <p>A4: Issue discharge permits/authorizations.</p> <p><u>Target #1:</u> 100% of known dischargers have current</p>

	permits/authorizations. Measure #1: % of known dischargers have current permits/authorizations. A5: Enforce compliance with permit/authorization conditions. Target #1: Dischargers requiring permits are compliant with permit/authorization terms and conditions. Measure #1: % of permit holders requiring enforcement actions.
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Major Activities to Advance Strategies

- | | |
|---|---|
| <ul style="list-style-type: none"> • Seek state primacy for permitting and compliance activities currently conducted by federal agencies. • Certify that wetlands fill projects authorized by the Corps of Engineers meet Alaska water quality standards. • Establish best management practices to control non-point pollution and protect water quality. • Report to the public on the health of Alaska's waters. • Develop and implement recovery plans for all polluted waters. | <ul style="list-style-type: none"> • Provide pass-through funding and technical assistance to municipalities, local groups, and other state agencies to address water quality issues. • Revise water quality standards to ensure they continue to protect Alaska's water. • Continue to improve a risk-based permitting and inspection program for wastewater discharges. • Implement and improve an on-line permit application, tracking, and reporting system to speed up permit reviews and oversight. • Establish permit by rule authorizations in regulation. |
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FY2009 Resources Allocated to Achieve Results

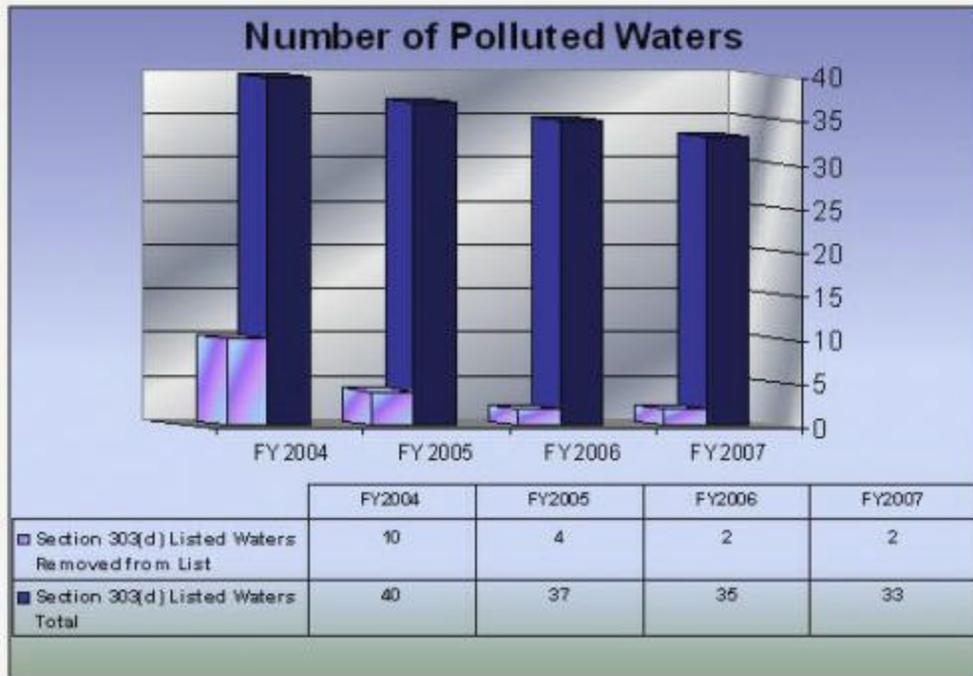
FY2009 Component Budget: \$15,509,400	<table style="width: 100%;"> <tr> <td colspan="2">Personnel:</td> </tr> <tr> <td>Full time</td> <td style="text-align: right;">83</td> </tr> <tr> <td>Part time</td> <td style="text-align: right;">0</td> </tr> <tr> <td>Total</td> <td style="text-align: right;">83</td> </tr> </table>	Personnel:		Full time	83	Part time	0	Total	83
Personnel:									
Full time	83								
Part time	0								
Total	83								

Performance Measure Detail

A: Result - Water Quality is protected.

Target #1: No polluted waters.

Measure #1: Number of polluted waters.



Analysis of results and challenges: Water Quality Standards, found in 18 AAC, designate specific uses for which water quality must be protected (e.g., drinking water, aquatic life) and specifies the pollutant limits, or criteria necessary to protect designated uses. There are seven designated uses for freshwater and seven for marine waters. By default, waterbodies in Alaska are protected for all designated uses. The few waterbodies that have had some uses removed are listed in the water quality standards.

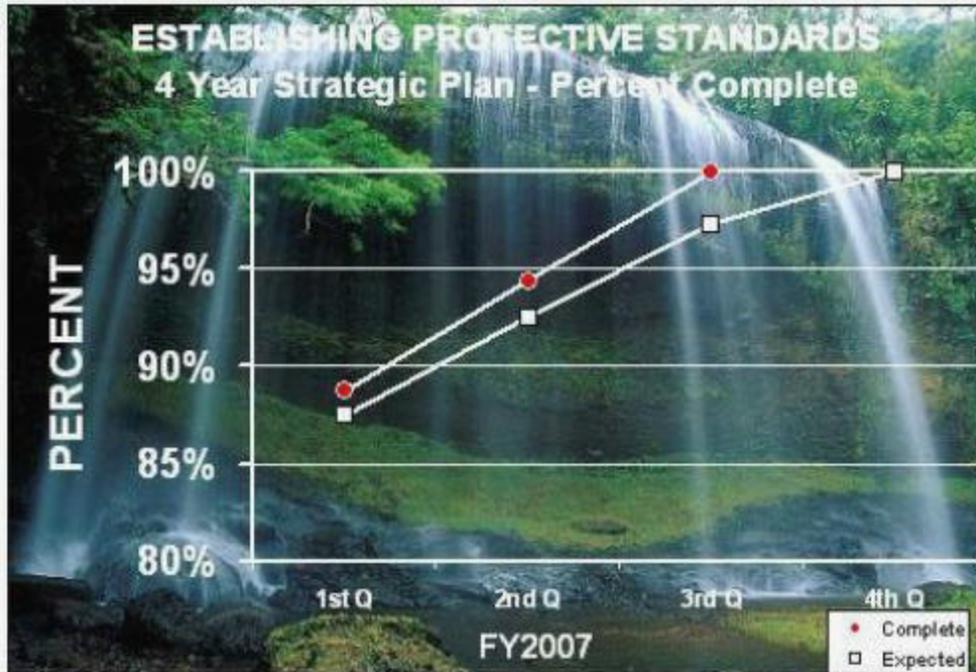
The Department of Environmental Conservation (DEC) uses Water Quality Standards as the criteria to determine if a waterbody is polluted. For example, if waterbody monitoring data consistently shows high concentrations of a substance that is not suitable for aquatic life then that waterbody is considered polluted (or impaired) for that designated use. Alaska formally reports the status and trends of its waters every two years in the Integrated Water Quality Monitoring and Assessment Report. The report includes information on the general health of Alaska's waters, DEC water protection programs and a list of impaired waterbodies, and how the impairment is being addressed or proposed to be addressed. Waterbodies are placed in one of five categories based upon known information. The report meets Alaska's responsibilities under Section 303(d) of the Clean Water Act to identify polluted waters.

As of the end of FY2007, there are 33 waterbodies listed in Category 5 - Impaired and Requiring a Total Maximum Daily Load (TMDL), which is essentially a waterbody corrective action plan. The waterbodies are scheduled for development of a TMDL over a seven-year period. Once a TMDL has been developed, an impaired water is moved into Category 4, which lists those waters which are impaired but for which a TMDL or other recovery plan is in place. In FY2007, 2 TMDLs were completed.

A1: Strategy - Establish protective standards for Water Quality.

Target #1: Protective standards are established for Water Quality are complete by June 30, 2007.

Measure #1: % of revisions to targeted standards for Water Quality are complete by June 30, 2007.



Analysis of results and challenges: The federal Clean Water Act requires DEC to review and update the Alaska Water Quality Standards every three years. These standards describe the chemical, physical and biological condition of state waters (e.g. coastal marine waters, lakes, rivers) necessary to protect human health and the aquatic life living in and using the water. Water Quality Standards are used to determine wastewater permit discharge requirements, to assess whether waterbodies are polluted, and to set cleanup goals for polluted waterbody recovery plans. DEC uses both national and Alaska-specific scientific studies and regulatory policies to ensure the Water Quality Standards are relevant to Alaska's conditions and needs.

DEC has completed adoption of revised standards for mixing zones, residues, dissolved oxygen, analytical testing methods, and natural conditions. DEC is facilitating the U.S. Environmental Protection Agency review and approval of the new state Water Quality Standards, as required by the Clean Water Act. At EPA's request, DEC is developing procedures explaining how the new regulations will be implemented in NPDES wastewater discharge permits. DEC is also consulting with federal agencies on Essential Fish Habitat and the Endangered Species Act review of the new standards.

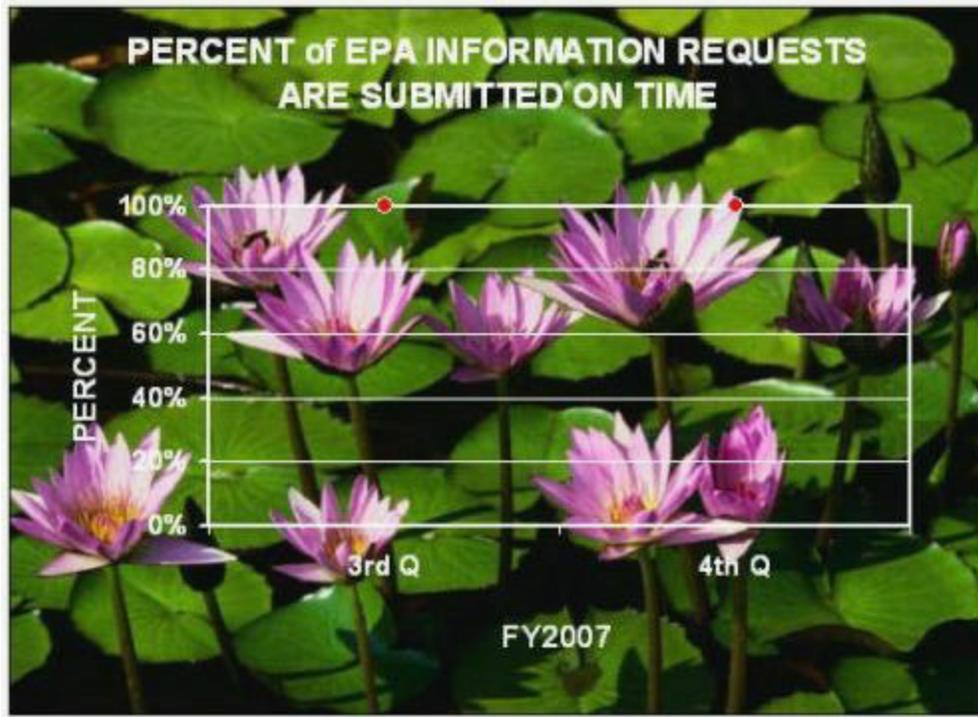
In FY2007, DEC completed the Water Quality Standards review by proposing a new procedure for implementing natural condition-based standards for those waters where water quality is naturally lower than the default statewide standard. DEC assessed options for further revisions to Water Quality Standards and developed a new 3-year workplan.

Further information on the Water Quality Standards may be found at:
<http://www.state.ak.us/dec/water/wqsar/trireview/trireview.htm>.

A2: Strategy - Assume control from the EPA of National Pollutant Discharge Elimination System (NPDES) as established in the Clean Water Act.

Target #1: 100% of EPA information requests are responded to within agreed upon timeframes.

Measure #1: % of EPA information requests are submitted on time.



Analysis of results and challenges: On August 27, 2005 the Governor signed SB110, which directs DEC to seek and assume primacy for the National Pollutant Discharge Elimination System wastewater permit and compliance program. DEC submitted an application to EPA for their approval on the legislatively mandated deadline of June 30, 2006.

EPA will submit a list of comments on the application. DEC will respond to information requests and supplement gaps in the application within agreed upon timeframes. This process will continue until primacy for the NPDES wastewater permit program is approved.

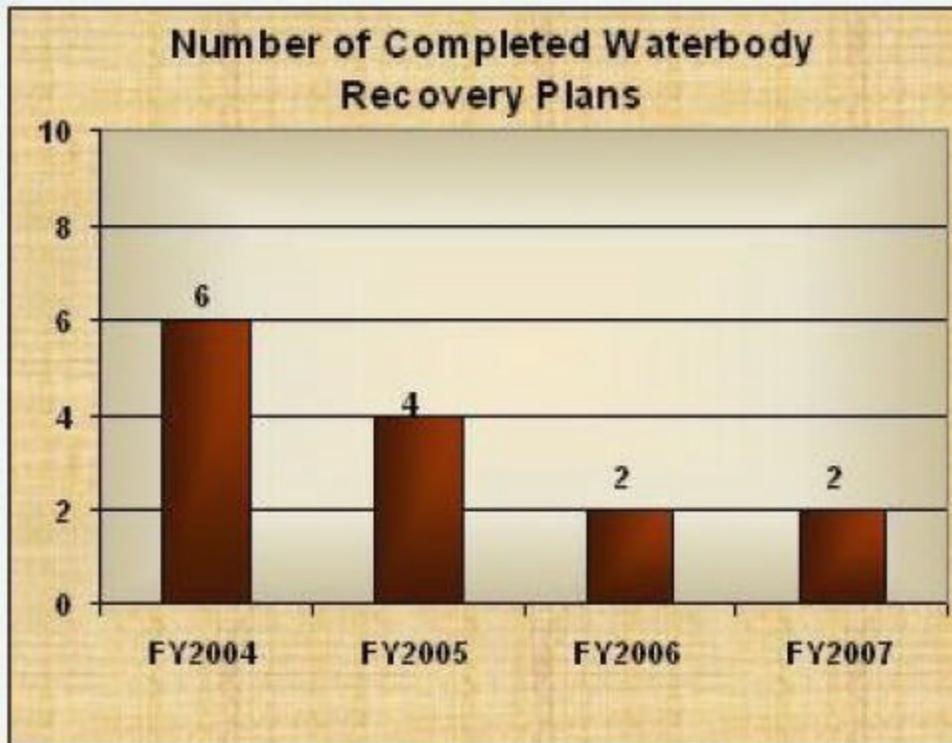
This was a new measure and no data was available until the third quarter of FY2007. During the third and fourth quarter of FY2007, DEC achieved 100% response to all EPA requests within the agreed timeframe.

More information on the state effort to gain control over the National Pollutant Discharge Elimination System program can be found at: <http://www.dec.state.ak.us/water/npdes/npdes.htm>

A3: Strategy - Restore polluted waterbodies to their designated uses.

Target #1: Two waterbody recovery plans per year.

Measure #1: Number of polluted waterbody recovery plans completed during the year.



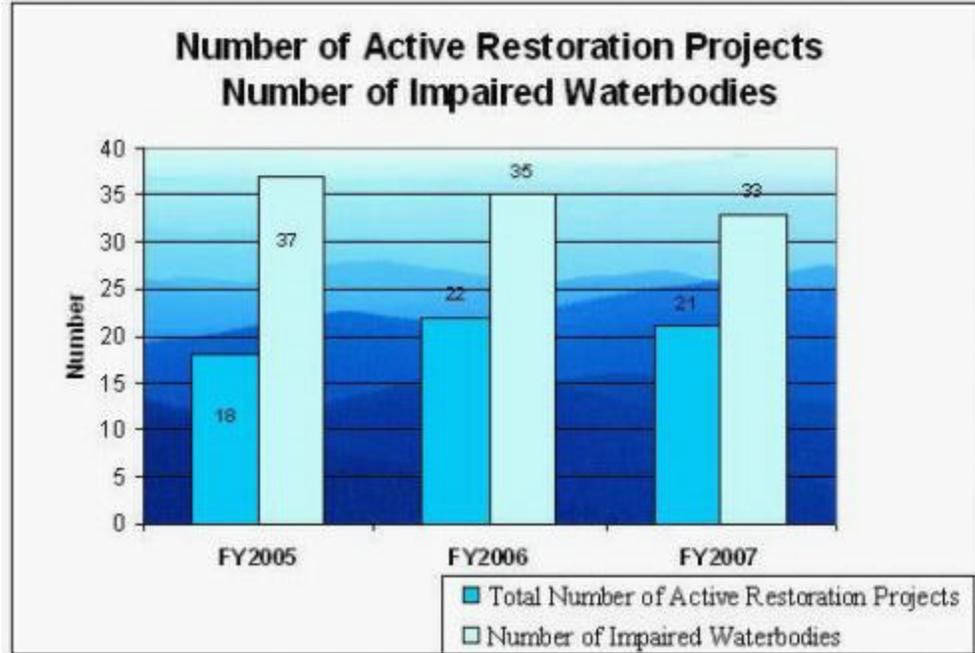
Analysis of results and challenges: When waterbodies are determined to be impaired (when they exceed Water Quality Standards for a particular pollutant), they are added to the Clean Water Act Section 303(d) list of impaired waterbodies submitted to the Environmental Protection Agency (EPA) every two years. It is incumbent upon the State and the EPA to work to restore waterbodies. Restoration is accomplished through the development and implementation of either a Total Maximum Daily Load (TMDL) document, a Waterbody Recovery Plan, or through the implementation of permits or other controls. These plans or permits identify the source of the pollutant and the amount of pollutants that can be introduced to the waterbody while still allowing overall recovery to proceed. With this knowledge, parties who discharge pollutants are given an "allowance," or "total maximum daily load" for that pollutant, and/or prescriptive actions called Best Management Practices (BMPs) that they must follow, to stay within that allowance.

The first step toward the recovery of an impaired waterbody is the development of the TMDL or Waterbody Recovery Plan. The EPA is required, by court order, to complete at least two of these documents in Alaska, each year. TMDLs and Waterbody Recovery Plans developed by DEC, either directly through staff work or indirectly through contract or grant efforts, are approved by the EPA and can be applied to this legal requirement. The EPA may also initiate work on TMDLs or Waterbody Recovery Plans directly, with their staff or contracted efforts.

DEC strongly supports the development and implementation of these plans and has committed to completing a minimum of two per year. In FY2003 two were completed; in FY2004 six were completed; in FY2005 four were completed; in FY2006 and FY2007, two were completed. Implementation is proceeding on all impaired waters.

Target #2: Ten active restoration projects per year.

Measure #2: Number of active restoration projects during the year.



Analysis of results and challenges: Polluted or "impaired" waterbodies are identified in the biennial "Integrated Report" submitted by DEC to the Environmental Protection Agency. The target for restoration of these waterbodies is at least 10 active restoration projects per year.

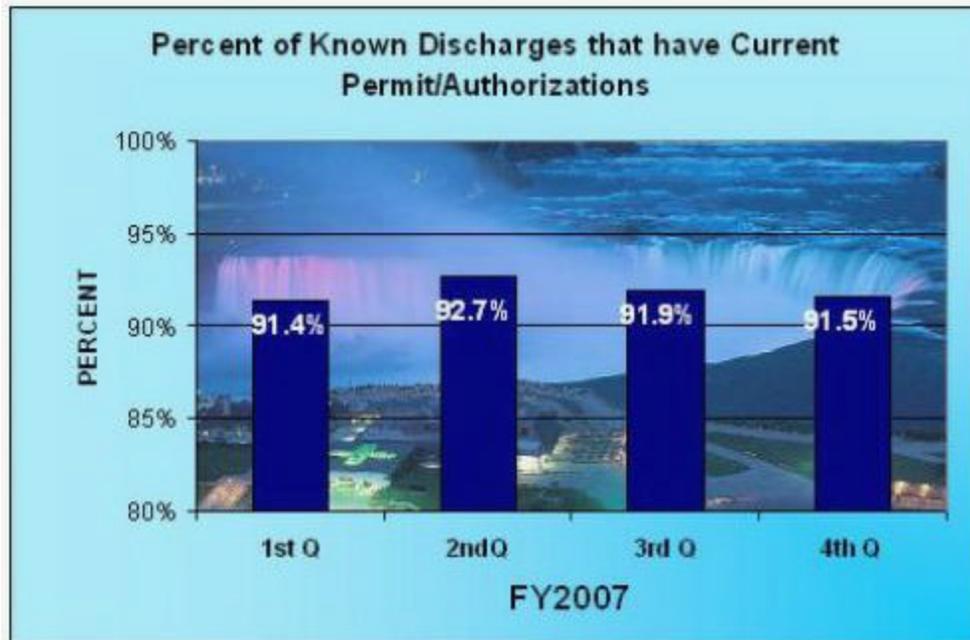
Restoration projects may be conducted by grantees who have received funds through the Alaska's Clean Water Actions (ACWA) grant program, by contractors, by other State agencies, or by DEC personnel.

Reporting began during the 3rd quarter of FY2004. Data will be reported annually at the end of each fiscal year. At the end of FY2005, 18 restoration projects were ongoing, in FY2006, 22 restoration projects were ongoing and at the end of FY2007, 21 restoration projects were ongoing on impaired waterbodies.

A4: Strategy - Issue discharge permits/authorizations.

Target #1: 100% of known dischargers have current permits/authorizations.

Measure #1: % of known dischargers have current permits/authorizations.



Analysis of results and challenges: The Wastewater Discharge Permit program issues three kinds of wastewater discharge approvals:

- 1) State individual permits and authorizations under 18 AAC 72
- 2) State permits and plan approvals of on-site disposal (septic systems) under 18 AAC 72
- 3) Certification that EPA-issued NPDES and Army Corps of Engineers wetland permits meet state water quality standards under 18 AAC 70.

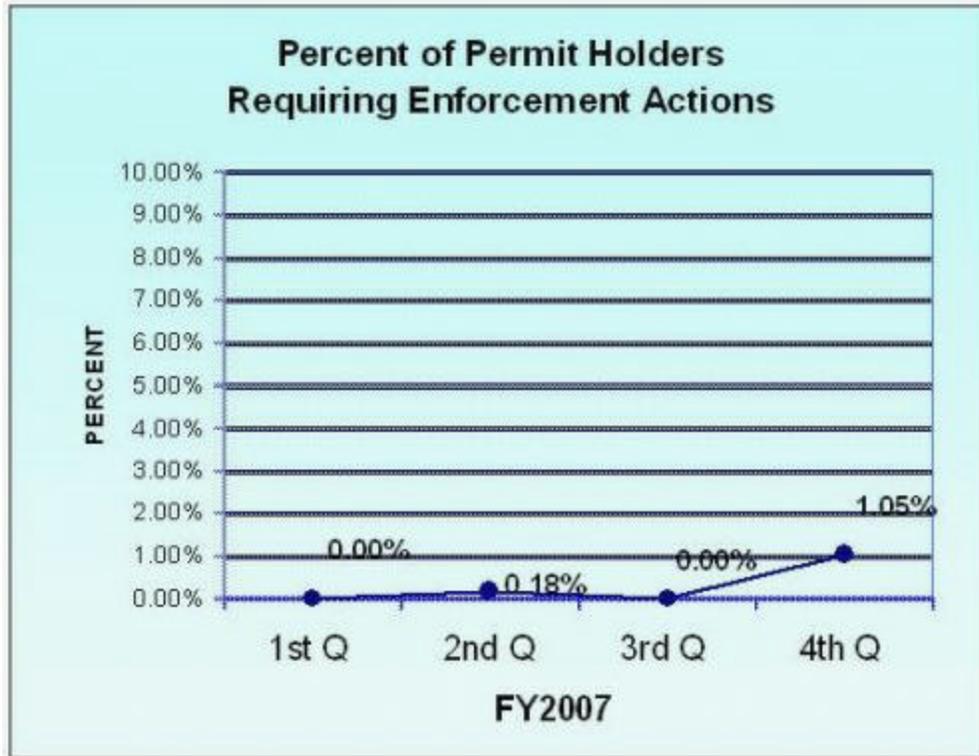
A major tool for tracking and keeping permits current is the new permit database developed in anticipation of NPDES primacy. Achieving the 100% target will be improved with automatic notification of renewals built into the system.

For more information on the Wastewater Discharge Permits program, go to:
<http://www.dec.state.ak.us/water/wwdp/index.htm>

A5: Strategy - Enforce compliance with permit/authorization conditions.

Target #1: Dischargers requiring permits are compliant with permit/authorization terms and conditions.

Measure #1: % of permit holders requiring enforcement actions.



Analysis of results and challenges: DEC can and does enforce wastewater and water quality regulations as follows:

- For failure to obtain a permit for a discharge to surface or ground water for activities requiring a permit;
- For failure to meet end-of-pipe limits or for exceeding water quality standards in the receiving water;
- For failure to comply with other permit requirements such as reporting monitoring results.

Ideally the performance measure should be 0%. Failure to obtain a permit is a clear violation while a case must be built for enforcement based on complaints, inspections, or failure to comply with a permit condition. While DEC gives compliance assistance, enforcement actions are occasionally necessary. In FY07, several DEC inspections were used to build cases for non-compliance that resulted in a EPA enforcement actions with monetary penalties.

A major tool for tracking compliance is the new permit database developed in anticipation of NPDES primacy. Electronic storage and tracking of monitoring results and reports will enable DEC to see trends in compliance for individuals and industry sectors. A new enforcement and compliance unit is planned under state NPDES primacy.

The fourth quarter increase reflects cruise vessels under a compliance order that will be covered by a new general permit now in development.

For more information on DEC's wastewater program, go to:
<http://www.dec.state.ak.us/water/wwdp/index.htm>

Key Component Challenges

The department is continuing to review its water quality programs for the purpose of establishing rational and seamless protective measures for all of Alaska's surface and groundwater. The review critically assesses the structure of DEC

water programs and the use of permitting, field inspections, and best management practices to assure that pollution risks are appropriately and efficiently.

As an outgrowth of this review, the 2005 Legislature authorized DEC to seek and assume primacy for the federal wastewater discharges permitting program, National Pollutant Discharge Elimination System (NPDES). The state program will be the Alaska Pollutant Discharge Elimination System (APDES). The department will increase its expertise in federal wastewater discharge permitting (NPDES program) by drafting federal permits under workshare agreements with the EPA. This will prepare the department for program delegation during FY2008. The Compliance and Enforcement Program will provide the requisite training to staff so that inspections will be conducted in a consistent manner providing the public assurance that an appropriate enforcement response will follow documented noncompliance.

Periodic scientific review and adoption of new or revised water quality standards is necessary to ensure they remain protective of the many uses of Alaska Waters. In FY2009, the department will set a schedule for achieving state priorities identified in FY2008 and begin implementation of a new three-year workplan for amendments and revisions to the water quality standards.

Most sources of water pollution are effectively regulated and controlled through permits. The largest remaining source of water pollution is from non-point sources that are not controlled through permits. This offers the challenge of affecting positive human behavior changes through education, land use controls, regulations and best management practices so that water quality is maintained or restored.

Significant Changes in Results to be Delivered in FY2009

In December of 2006, statutory changes resulting from a citizen's ballot initiative required DEC to develop and maintain a new permit program for Large Commercial Passenger Vessels ("cruise ships") and to develop an on-board Ocean Ranger program. During the 2007 cruise ship season, DEC implemented a transitional program involving on-board vessel observations by a combination of environmental professionals and U.S. Coast Guard licensed marine engineers. For the 2008 cruise ship season, a contract will be in place to implement an Ocean Ranger program that is commensurate with the level of funding provided by the initiative. A new wastewater discharge general permit will also be in place as required by the initiative.

Major Component Accomplishments in 2007

WASTEWATER DISCHARGE PROGRAM

For EPA-issued NPDES Permits with discharge to fresh and marine waters of the state, DEC issued:

- 1 Clean Water Act (CWA) section 401 certification for 100% of EPA-issued NPDES individual permits.
- 7 authorizations under the Trans Alaska Pipeline System (TAPS) line-wide NPDES general permit.
- 16 authorizations under the NPDES Placer Mining general permit.
- 5 authorizations under the NPDES North Slope Oil/Gas general permit.
- 1 authorization under the NPDES General Seafood Processors general permit.
- 29 authorizations under the NPDES Small Domestic wastewater general permit.

Where EPA has not issued NPDES permits (either because it was not scheduled by the EPA or the discharge was to land or groundwater), DEC issued State wastewater disposal permits:

- 15 state individual permits.
- 55 state general permit authorizations.
- 812 engineered wastewater plan reviews (including waivers) were conducted on projects state-wide.

DEC inspected:

- 66 NPDES-permitted facilities.
- 21 NPDES-permitted stormwater sites.
- 43 state-permitted facilities.
- 28 non-permitted wastewater facilities.
- 11 non-permitted stormwater construction sites.

- 9 citizens' complaints.

Other key accomplishments include:

- As part of capacity building for APDES primacy, one EPA Region 8 staff and 2 state (Wisconsin and Minnesota) permitting and inspection staff have assisted the Department with inspections, permit writers guidance, forms, and the APDES application to the EPA.
- Department staff were able to join Washington State and EPA Region 10 inspectors in Washington, Idaho and Alaska to increase compliance and enforcement capacity. These work share agreements helped DEC staff to develop our inspection protocols and forms.

NON POINT SOURCE PROGRAM

- Reviewed 118 stormwater pollution prevention plans ensuring protection of surface water bodies during facility construction; reviewed 59 facility engineering plans for compliance with stormwater requirements; reviewed 292 US Army Corps of Engineer Preconstruction Notices; issued 133 state stormwater certifications; issued 160 water quality certifications of U.S. Army Corps of Engineers permits for dredge and fill projects.
- Reviewed 31 detailed plan of operations for forestry activities on private lands.
- Completed 2 TMDLs (Total Maximum Daily Load plans; also known as waterbody recovery plans) Ward Cove and Thorne Bay.
- Provided 15 grants to communities and other organizations to assist with priority water quality monitoring, watershed planning, and recovery of polluted waters.
- Updated the Non-Point Source Water Pollution Control Strategy, a statewide plan for protecting Alaska's natural resources from polluted runoff also known as nonpoint pollution.

WATER QUALITY ASSESSMENT AND MONITORING PROGRAM

- Adopted changes to natural condition-based Water Quality Standards.
- Gathered public input and set priorities for improving and updating Water Quality standards for the next 3-year workplan.
- Implemented a shared resource agency (DEC, DFG & DNR) online waterbody nomination and ranking system to help target limited resources towards the State's highest waterbody priorities.
- Provided grants to 4 communities to monitor water quality at beaches to protect against pathogen contamination as required under the federal Beach Act.
- Implemented a Water Education Strategy for advancing improvements to water quality by presenting pollution prevention strategies at local and statewide events such as Outdoor Days, Alaska Municipal League Conference, Ocean's Festival and the Alaska Forum on the Environment.
- Completed field work for the Aleutian Islands Environmental Monitoring & Assessment Program (EMAP) survey for water quality, sediment contamination and biological status.
- Completed the final report on Interior Alaska Wadeable Streams EMAP survey for water quality, sediment contamination and biological status.
- Collected nutrient data from 21 lakes in the Cook Inlet basin to support development of regional nutrient criteria.
- Updated the Water Quality Management Plan to cover all water quality information collected and information management for the Water Division. The EPA conducted a Quality Systems Review and found no significant problems with Water Division practices.

Statutory and Regulatory Authority

AS 46.03; AS 46.04; AS 44.19; AS 46.40; AS 44.62; 8 AAC 80; 18 AAC 15; 18 AAC 50; 18 AAC 70; 18 AAC 72; 6 AAC 50; 11 AAC 95; 5 AAC 93; Federal Coastal Zone Management Act Reauthorization of 1990; Federal Clean Water Act; Federal Title XIV - Certain Alaskan Cruise Ship Operations - of H.R. 5666 (PL 106-554); Federal Water Pollution Control Act.

Contact Information

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Water Quality Component Financial Summary

All dollars shown in thousands

	FY2007 Actuals	FY2008 Management Plan	FY2009 Governor
Non-Formula Program:			
Component Expenditures:			
71000 Personal Services	6,080.0	7,015.8	7,325.8
72000 Travel	335.6	385.0	385.0
73000 Services	3,071.1	4,326.7	6,926.7
74000 Commodities	128.1	373.7	373.7
75000 Capital Outlay	0.0	16.8	16.8
77000 Grants, Benefits	433.4	481.4	481.4
78000 Miscellaneous	0.0	0.0	0.0
Expenditure Totals	10,048.2	12,599.4	15,509.4
Funding Sources:			
1002 Federal Receipts	3,842.7	4,843.7	4,907.0
1003 General Fund Match	415.3	419.6	428.5
1004 General Fund Receipts	3,886.0	4,380.9	4,565.3
1005 General Fund/Program Receipts	771.6	795.3	825.6
1007 Inter-Agency Receipts	373.1	226.9	233.2
1061 Capital Improvement Project Receipts	159.0	0.0	0.0
1108 Statutory Designated Program Receipts	0.1	77.4	77.4
1166 Commercial Passenger Vessel Environmental Compliance Fund	600.4	1,855.6	4,472.4
Funding Totals	10,048.2	12,599.4	15,509.4

Estimated Revenue Collections

Description	Master Revenue Account	FY2007 Actuals	FY2008 Management Plan	FY2009 Governor
Unrestricted Revenues				
None.		0.0	0.0	0.0
Unrestricted Total		0.0	0.0	0.0
Restricted Revenues				
Federal Receipts	51010	3,842.7	4,843.7	4,907.0
Interagency Receipts	51015	373.1	226.9	233.2
General Fund Program Receipts	51060	771.6	795.3	825.6
Statutory Designated Program Receipts	51063	0.1	77.4	77.4
Capital Improvement Project Receipts	51200	159.0	0.0	0.0
Restricted Total		5,146.5	5,943.3	6,043.2
Total Estimated Revenues		5,146.5	5,943.3	6,043.2

**Summary of Component Budget Changes
From FY2008 Management Plan to FY2009 Governor**

All dollars shown in thousands

	<u>General Funds</u>	<u>Federal Funds</u>	<u>Other Funds</u>	<u>Total Funds</u>
FY2008 Management Plan	5,595.8	4,843.7	2,159.9	12,599.4
Adjustments which will continue current level of service:				
-FY 09 Bargaining Unit Contract Terms: General Government Unit	223.6	63.3	23.1	310.0
Proposed budget increases:				
-Implementation of the Ocean Ranger Program	0.0	0.0	2,600.0	2,600.0
FY2009 Governor	5,819.4	4,907.0	4,783.0	15,509.4

**Water Quality
Personal Services Information**

Authorized Positions		Personal Services Costs		
<u>FY2008</u>				
<u>Management</u>	<u>Plan</u>	<u>FY2009</u>	<u>Governor</u>	
Full-time	83	83	Annual Salaries	4,801,833
Part-time	0	0	COLA	294,364
Nonpermanent	0	0	Premium Pay	2,250
			Annual Benefits	2,609,080
			<i>Less 4.95% Vacancy Factor</i>	(381,727)
			Lump Sum Premium Pay	0
Totals	83	83	Total Personal Services	7,325,800

Position Classification Summary

Job Class Title	Anchorage	Fairbanks	Juneau	Others	Total
Accountant III	0	0	1	0	1
Accounting Tech III	0	0	1	0	1
Admin Operations Mgr II	0	0	1	0	1
Administrative Clerk II	2	0	1	0	3
Administrative Clerk III	0	1	0	1	2
Administrative Officer I	1	0	0	0	1
Analyst/Programmer IV	1	0	1	0	2
Analyst/Programmer V	0	0	1	0	1
Chemist IV	0	0	1	0	1
Data Processing Mgr I	0	0	1	0	1
Env Eng Associate I	1	2	3	2	8
Env Eng Associate II	1	1	0	0	2
Environ Engineer I	1	0	0	0	1
Environ Engineer II	2	0	1	0	3
Environ Program Manager I	2	1	0	0	3
Environ Program Manager II	1	1	2	0	4
Environ Program Manager III	2	0	0	0	2
Environ Program Spec I	0	1	0	0	1
Environ Program Spec II	5	2	4	0	11
Environ Program Spec III	7	3	7	1	18
Environ Program Spec IV	1	0	8	0	9
Environ Program Technician	0	2	0	2	4
Grants Administrator III	1	0	0	0	1
Project Coord	1	0	0	0	1
Tech Eng II / Architect II	0	0	0	1	1
Totals	29	14	33	7	83