

**State of Alaska**  
**FY2007 Governor's Operating Budget**

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

**Component: Drinking Water**

**Contribution to Department's Mission**

Verify safe drinking water.

**Core Services**

- Maintain state primacy for regulating public drinking water systems.
- Enforce public water system (PWS) monitoring requirements for drinking water contaminants and develop acceptable alternatives.
- Review construction, installation, and operation plans for PWS to protect public health.
- Assist PWS owners in identifying the sources of their drinking water and help them develop strategies to effectively protect those sources from contamination.
- Provide technical and compliance assistance to PWS and the public.

End Results	Strategies to Achieve Results
<p><b>A: Drinking water is safe.</b></p> <p><u>Target #1:</u> Increase the % of drinking water engineering plans that can be approved within 30 days from initial receipt.</p> <p><u>Measure #1:</u> Change in the % of plans that can be approved within 30 days from initial receipt.</p> <p><u>Target #2:</u> 100% of the population served by public water systems (PWS) in compliance with health-based standards.</p> <p><u>Measure #2:</u> % of the population served by public water systems (PWS) in compliance with health-based standards.</p>	<p><b>A1: Timely review of all complete drinking water engineering plans submitted.</b></p> <p><u>Target #1:</u> Review all complete submissions of drinking water engineering plans within a 30 day time frame.</p> <p><u>Measure #1:</u> % of all complete plans reviewed within 30 days of receipt.</p> <p><b>A2: Implement sanitary survey requirements for all federally regulated public water systems.</b></p> <p><u>Target #1:</u> 100% of public water systems file required sanitary surveys according to schedule.</p> <p><u>Measure #1:</u> % of public water systems in compliance with their sanitary survey schedule.</p> <p><b>A3: Train and certify third party sanitary survey inspectors.</b></p> <p><u>Target #1:</u> 100% of the sanitary survey inspectors are trained and certified.</p> <p><u>Measure #1:</u> % of the sanitary survey inspectors trained and certified.</p>

**Major Activities to Advance Strategies**

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Conduct engineering reviews for construction, operation, and separation distance waivers.</li> <li>• Review reports provided to consumers by PWS about sampling results.</li> <li>• Process variances and exemptions to reduce the number of PWS significantly out of compliance.</li> <li>• Respond to PWS noncompliance with enforcement actions and make referrals to EPA when appropriate.</li> </ul> | <ul style="list-style-type: none"> <li>• Conduct sanitary surveys of PWS and certify third party sanitary survey inspectors.</li> <li>• Adopt and implement federal drinking water rules.</li> <li>• Submit timely primacy applications to EPA for all federal rules adopted.</li> <li>• Distribute information and provide technical assistance about wellhead protection to communities.</li> <li>• Review PWS sampling, monitoring, and reporting</li> </ul> |
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**Major Activities to Advance Strategies**

- Help PWS owners prepare Emergency Response Plans and perform security audits on their water systems. activities for all regulated drinking water contaminants.

**FY2007 Resources Allocated to Achieve Results**

**FY2007 Component Budget: \$5,682,300**

**Personnel:**

Full time	59
Part time	0
<b>Total</b>	<b>59</b>

**Performance Measure Detail**

**A: Result - Drinking water is safe.**

**Target #1:** Increase the % of drinking water engineering plans that can be approved within 30 days from initial receipt.

**Measure #1:** Change in the % of plans that can be approved within 30 days from initial receipt.

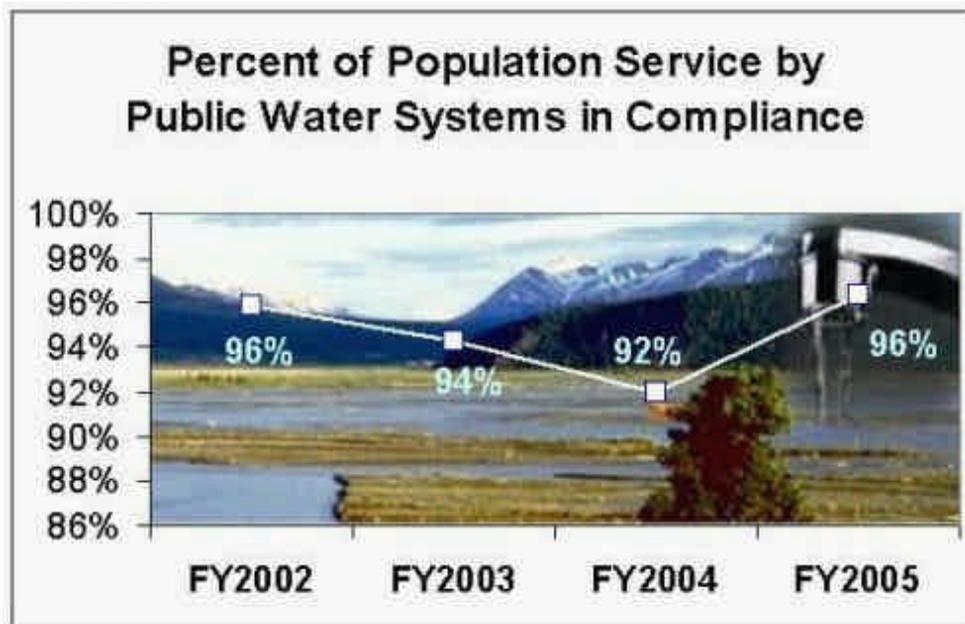


**Analysis of results and challenges:** To provide for the protection of public health, Drinking Water regulations (18 AAC 80) require that any time a public water system (PWS) is constructed or modified, engineering plans be submitted to the Drinking Water Program for review by department engineering staff. During the engineering review process, the engineer will determine if specifications and materials used in the construction or modification of a PWS meet the criteria of the Drinking Water Regulations. These criteria address many items that, taken together, best protect public health and provide safe drinking water. In order to make sure that public water systems are being constructed and operated in a safe manner and are protective of public health, department engineers are required to review complete engineering plan submittals within 30 days of receipt.

Most public water systems by design are complex, with many individual components, including the treatment plant and distribution system that must be reviewed and approved by DEC. Due to the complexity of the systems and the importance of protecting people from waterborne disease, the engineering plan review process is also complex. Many engineering plan submittals do not contain required information, needed by department engineers in order to begin the review process. Submitting incomplete engineered plans increases the review process timeline. ADEC anticipates conducting an Advanced Sanitary Survey class and other outreach sessions on new and upcoming rule implementation, as well as implementation of new engineered plan submittal checklists to assist in reducing the time necessary for clarification and technical assistance.

**Target #2:** 100% of the population served by public water systems (PWS) in compliance with health-based standards.

**Measure #2:** % of the population served by public water systems (PWS) in compliance with health-based standards.



**Analysis of results and challenges:** To address the threat of waterborne disease and provide for the protection of public health, the State of Alaska has adopted the Safe Drinking Water Act (SDWA) requirements and the Drinking Water Program is responsible for the implementation of the SDWA within the State. All federally regulated public water systems are required to be in compliance with the SDWA. Various health-based standards contained within the SDWA are designed to protect people from consuming unsafe drinking water. Health-based standards are EPA established limits for many chemical and radiological contaminants, called Maximum Contaminant Levels (MCL's), as well as, microbiological contaminants. The MCL is an enforceable standard that all public water systems must meet in order to serve drinking water to the public. There are also various Treatment Technique criteria that public water systems must meet. Treatment Techniques have to do with the way water is treated to make it potable and safe for human consumption. All of these criteria make up the health-based standards.

In the fourth quarter of FY2005, 96% of the population of Alaska was served by public water systems that meet all health based standards.

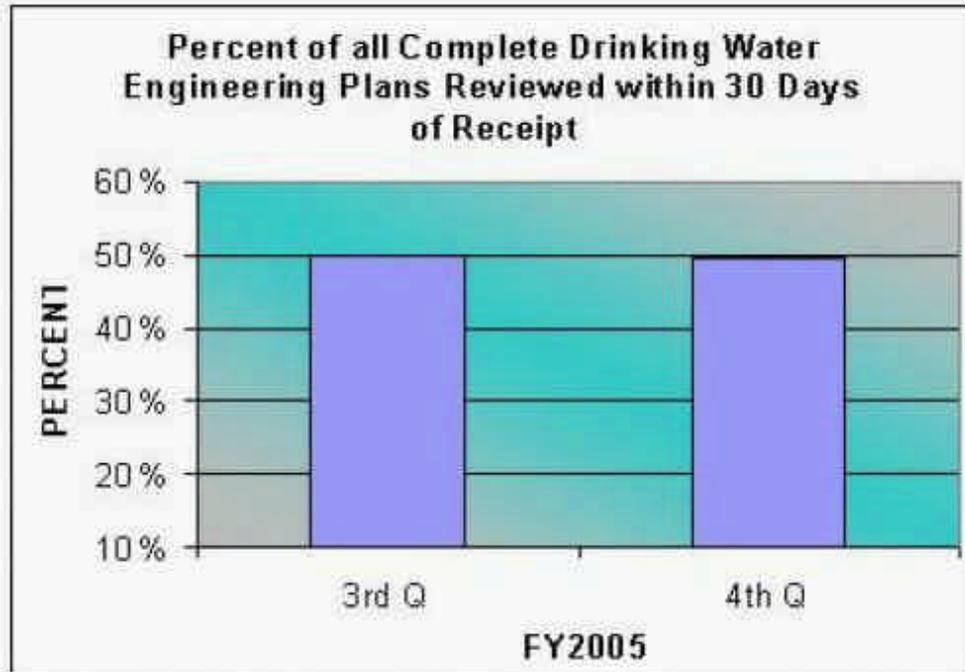
While a 96% compliance rate with health based standards is excellent, it does fall below our goal of having 100% of the population being served by public water systems in compliance with all of the health-based standards. The Drinking Water Program continues to meet this challenge in several different ways. We continue to offer compliance and technical assistance to all public water system operators and owners to help them to remain in compliance with all of the health-based standards that apply to their systems. The drinking water program also has various enforcement strategies in place to require that public water systems remain in compliance with the health-based standards. This two-pronged approach to compliance assistance and

enforcement allows us to ensure that as many people as possible are being served with safe drinking water.

**A1: Strategy - Timely review of all complete drinking water engineering plans submitted.**

**Target #1:** Review all complete submissions of drinking water engineering plans within a 30 day time frame.

**Measure #1:** % of all complete plans reviewed within 30 days of receipt.

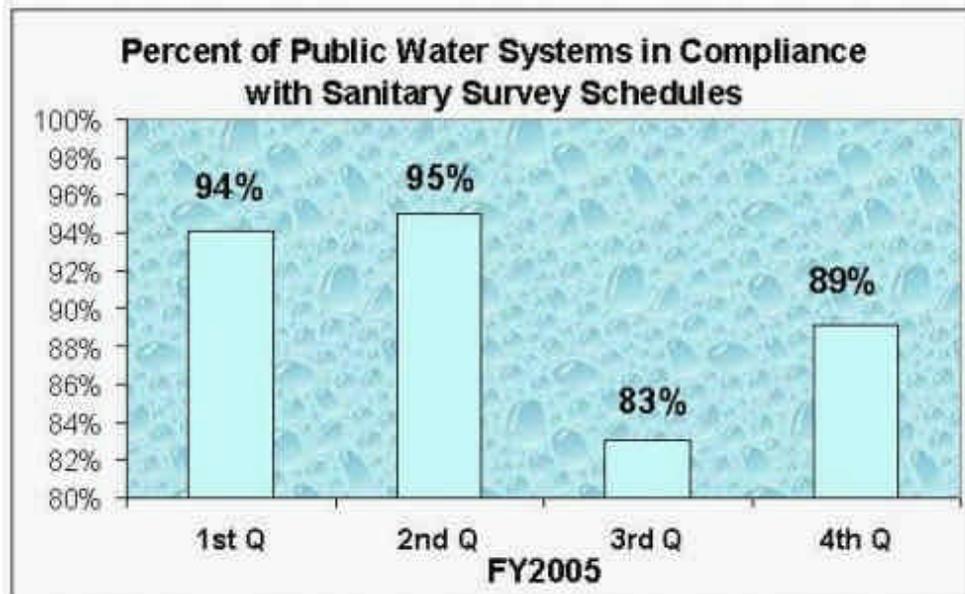


**Analysis of results and challenges:** To provide for the protection of public health, Drinking Water Regulations (18 AAC 80) require that any time a public water system (PWS) is constructed or modified that engineering plans be submitted to the Drinking Water Program for review by department engineering staff. During the engineering review process, the department engineer will determine if specifications and materials used in the construction or modification of a PWS meet criteria of the Drinking Water Regulations. These criteria address many items that, taken together, ensure that the public is being served safe drinking water. In order to make sure that public water systems are being constructed and operated in a safe manner and are protective of public health, department engineers are required to review complete engineering plan submittals within 30 days of receipt.

**A2: Strategy - Implement sanitary survey requirements for all federally regulated public water systems.**

**Target #1:** 100% of public water systems file required sanitary surveys according to schedule.

**Measure #1:** % of public water systems in compliance with their sanitary survey schedule.



**Analysis of results and challenges:** As part of the 1986 Amendments to the Safe Drinking Water Act, the EPA promulgated the Total Coliform Rule (TCR) which was adopted by the State in 1993. The TCR is the primary health-based regulation used to require all public water systems to routinely monitor for bacteriological contamination in the drinking water they serve to the public. Since most waterborne disease outbreaks are caused by bacteria or other microorganisms, routinely testing for bacteriological contaminants is one of the best ways we have of making sure that drinking water is safe to drink. Another very important part of the TCR is the requirement that all federally regulated public water systems have a periodic sanitary survey completed for their entire water system. A sanitary survey is an onsite review of the water source, treatment facilities and equipment, and the operations and maintenance procedures of a public water system. The sanitary survey process is used to evaluate the adequacy of a system and helps to determine if they are producing and distributing safe drinking water. Systems using groundwater as a source are required to have a sanitary survey every five years. Systems using surface water as a source are required to have a sanitary survey every three years.

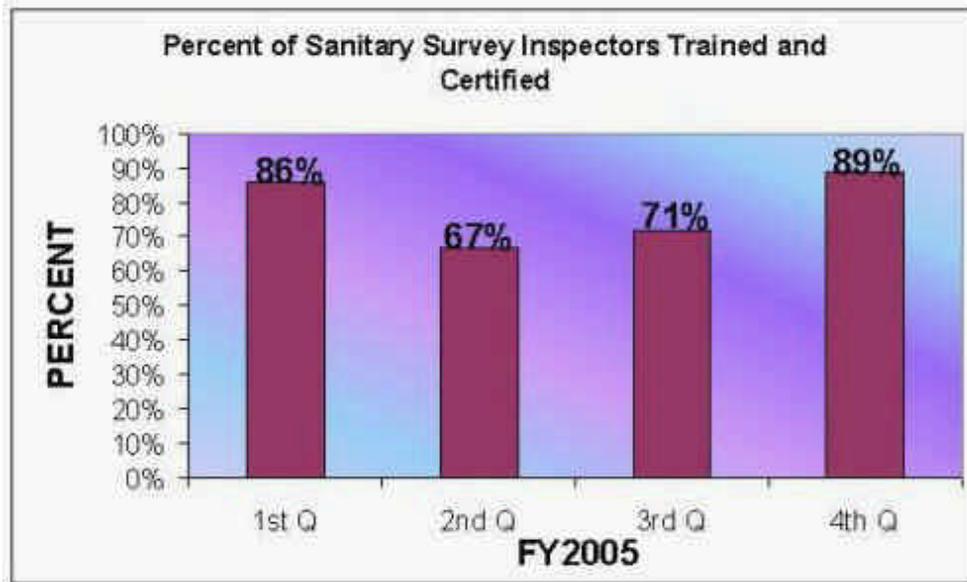
In the fourth quarter of FY2005 a total of 1,620 public water systems had a sanitary survey scheduled requirement. Of that total, 1,444 public water systems had their scheduled sanitary survey completed. This number reflects an 89% compliance rate with the sanitary survey requirement for FY2005.

While an 89% compliance rate with the sanitary survey scheduled requirement is good, it does fall below the target rate of 100% of the population being served by a public water system in compliance with health-based standards. Since the sanitary survey scheduled requirement is one of the most important health-based standards, conducting timely sanitary surveys is one of the priority goals of the Drinking Water Program. Some of the challenges we face in meeting this goal are; remote location and difficulty getting to some of the public water systems, cost to the system of conducting the sanitary survey, and the lack of sufficient and timely enforcement actions to establish/confirm the high priority of sanitary surveys. The Drinking Water Program continues to address these challenges by having the Program's Environmental Specialists and Environmental Engineers trained and certified, as well as ADEC-approved third party sanitary survey inspectors to conduct sanitary surveys and by scheduling and conducting sanitary survey inspections for public water systems.

### **A3: Strategy - Train and certify third party sanitary survey inspectors.**

**Target #1:** 100% of the sanitary survey inspectors are trained and certified.

**Measure #1:** % of the sanitary survey inspectors trained and certified.



**Analysis of results and challenges:** All federally regulated public water systems are required to have a periodic sanitary survey completed for their entire water system. A sanitary survey is an onsite review of the water source, treatment facilities and equipment, and operation and maintenance procedures of a public water system. The sanitary survey is used to evaluate the adequacy of the system and helps to determine if they can produce and distribute safe drinking water. Sanitary surveys are required every five years for public water systems using a groundwater source and every three years for public water systems using a surface water source. Most public water systems are very complex, with many individual components that must be inspected during the sanitary survey. The complexity of inspecting the public water system and the protection of public health requires that a person conducting a sanitary survey be knowledgeable in all aspects of drinking water treatment and distribution. This requires extensive and specialized training. There are approximately 1,600 federally regulated public water systems in Alaska that must meet the sanitary survey requirement. Not all sanitary surveys can be conducted by department staff, so the Drinking Water Program has contracted with the University of Alaska Southeast, the Alaska Training/Technical Assistance Center (ATTAC) to provide training sessions for both department staff and other third party individuals who have prior experience with public water system treatment and distribution process. ATTAC currently offers at least three training sessions per year, that includes two Basic Sanitary Survey classes and one Advanced Sanitary Survey class. The Drinking Water Program also plans to offer one Advanced Sanitary Survey class annually.

## Key Component Challenges

Meeting the requirements of the Safe Drinking Water Act Amendments of 1996 continues to be a challenge for the Drinking Water (DW) Program. The challenges will continue as new requirements are adopted over the next couple of years. These new requirements establish significant expectations and new deadlines for compliance that will be difficult for PWS to meet. Adopting and implementing the new rules is a requirement for state primacy, which is the prerequisite for receiving the Public Water System Supervision grant, Bioterrorism and Homeland Security grant, and the Drinking Water State Revolving Loan Fund capitalization grant (approximately 11.0 million dollars in federal funds annually). The new requirements are complex and require more DEC involvement to help PWS comply in order to provide safe drinking water.

In FY2006, DEC is adopting the Arsenic Rule which will impact approximately 100 PWS by requiring them to remove much more Arsenic from drinking water than previously required. Additional rules include; the Radionuclide Rule, the Variances and Exemptions Rule (which will allow DEC to offer flexibility to PWS unable to comply with certain requirements), the Filter Backwash and Recycling Rule, and the Long Term 1 Enhanced Surface Water Treatment Rule, which will impact approximately 290 PWS by requiring them to control *Cryptosporidium* (a parasitic protozoan) and other pathogenic organisms not previously required.

Protecting ground water, used as a source of drinking water by public water systems, from contamination is becoming more difficult. As residential populations grow and increased industrial and agricultural development occurs, demand

for ground water increases. Competing needs of sustained economic development and public health protection will require clarity in the development of regional resource management plans. Industrial and economic enhancement activities such as precious metals mining, gas or oil pipeline expansion projects, forestry, subdivision development, and sand and gravel pit mining, will continue to require effective long term planning and timely follow-up with enforcement for noncompliance, to achieve long term protection of drinking water resources.

### **Significant Changes in Results to be Delivered in FY2007**

The Alaska Drinking Water Program is an EPA delegated primacy program, receiving an annual Public Water System Supervision (PWSS) federal grant as the primary source of funding. For the past several years, grant funding has not kept pace with increasing costs required to implement the program. To cope with insufficient funding, needed staff positions have been held vacant causing the program to fall behind in implementing currently adopted federal rules.

As the program works to implement rules with fewer staff, the adoption of new rules is delayed. When this happens, the EPA retains partial primacy and enforces the new rules until the State can catch up. Traditionally, EPA enforcement is swift, strict and does not include technical assistance - making it difficult for PWS to attain and maintain compliance. If the State does not catch up, primacy may be lost altogether.

Additional staff and resources are being requested, to obtain and maintain full primacy - keeping pace with new federal drinking water requirements by adopting and implementing new federal rules in a timely manner. Additional federal funds are available through the Drinking Water State Revolving Fund set-asides, requiring a 50% match.

The additional funding will be used to ensure that Alaska's public water systems (PWS) will be regulated by Alaska's Drinking Water Program not the EPA. In addition to providing needed technical and compliance assistance support, full State primacy allows:

- Issuance of monitoring waivers to reduce the cost of routine monitoring. EPA does not.
- Issuance of variances or exemptions that allow PWS to achieve compliance over time while still providing public health protection. EPA does not.
- Issuance of construction and operation approvals that reflect local knowledge, experience and an understanding of arctic engineering principles. Experience EPA does not have.
- Sample holding time variance for remote PWS for coliform bacteria monitoring – the only holding variance in the nation. EPA would not issue this variance.

### **Major Component Accomplishments in 2005**

Reduced the number of Alaska PWS on the U.S. EPA Significant Noncompliers (SNC) List from 183 systems (July 1, 2004) to 88 systems (June 30, 2005). This is a reduction of 95 systems, or 52%. Reducing Alaska's PWS SNC List was a significant compliance achievement. It was achieved through technical assistance and issuing 1,276 enforcement actions.

Finalized program restructuring to reflect the increasing complexity of the work and demand on staff to help systems comply. Added a statewide Engineering Coordinator position to focus on Capacity Development needs of new and existing PWS.

Completed the public review process for the adoption of regulations to implement the Arsenic Rule, Radionuclides Rule, Variances and Exemptions Rule, Filter Backwash and Recycling Rule, and new Analytical Methods.

In a joint technical assistance contracted project with NANA Training Systems, Inc., completed 10 public water system (PWS) emergency response planning (ERP) workshops from February 14, 2005 – June 7, 2005. Training workshops were held in Anchorage (2), Soldotna, Bethel, Fairbanks (2), Kodiak, Juneau, Wasilla, and Nome.

Completed comprehensive performance evaluation (CPE) workshops of the PWS for the City of Petersburg (November 2004) and the City of Kotzebue (May 2005).

### **Statutory and Regulatory Authority**

AS 44.46.020, AS 44.46.025, AS 46.03.020, AS 46.03.024, AS 46.03.050, AS 46.03.070, AS 46.03.080, AS

46.03.090, AS 46.03.100, AS 46.03.710, AS 46.03.720, AS 46.03.761, AS 46.03.900, 18 AAC 15, 18 AAC 72, 18 AAC 80

**Contact Information**

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### Drinking Water Component Financial Summary

*All dollars shown in thousands*

	FY2005 Actuals	FY2006 Management Plan	FY2007 Governor
<b>Non-Formula Program:</b>			
<b>Component Expenditures:</b>			
71000 Personal Services	2,453.5	3,065.8	4,458.4
72000 Travel	65.9	115.3	231.3
73000 Services	357.8	511.2	758.1
74000 Commodities	30.9	52.6	101.6
75000 Capital Outlay	8.7	64.3	132.9
77000 Grants, Benefits	0.0	0.0	0.0
78000 Miscellaneous	0.0	0.0	0.0
<b>Expenditure Totals</b>	<b>2,916.8</b>	<b>3,809.2</b>	<b>5,682.3</b>
<b>Funding Sources:</b>			
1002 Federal Receipts	2,062.9	2,989.4	3,836.6
1003 General Fund Match	585.9	622.7	1,504.1
1004 General Fund Receipts	154.7	0.3	140.2
1005 General Fund/Program Receipts	110.8	196.8	201.4
1061 Capital Improvement Project Receipts	2.5	0.0	0.0
<b>Funding Totals</b>	<b>2,916.8</b>	<b>3,809.2</b>	<b>5,682.3</b>

### Estimated Revenue Collections

Description	Master Revenue Account	FY2005 Actuals	FY2006 Management Plan	FY2007 Governor
<b>Unrestricted Revenues</b>				
None.		0.0	0.0	0.0
<b>Unrestricted Total</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Restricted Revenues</b>				
Federal Receipts	51010	2,062.9	2,989.4	3,836.6
General Fund Program Receipts	51060	110.8	196.8	201.4
Capital Improvement Project Receipts	51200	2.5	0.0	0.0
<b>Restricted Total</b>		<b>2,176.2</b>	<b>3,186.2</b>	<b>4,038.0</b>
<b>Total Estimated Revenues</b>		<b>2,176.2</b>	<b>3,186.2</b>	<b>4,038.0</b>

**Summary of Component Budget Changes  
From FY2006 Management Plan to FY2007 Governor**

*All dollars shown in thousands*

	<u>General Funds</u>	<u>Federal Funds</u>	<u>Other Funds</u>	<u>Total Funds</u>
<b>FY2006 Management Plan</b>	<b>819.8</b>	<b>2,989.4</b>	<b>0.0</b>	<b>3,809.2</b>
<b>Adjustments which will continue current level of service:</b>				
-FY 07 Wage Increases for Bargaining Units and Non-Covered Employees	56.9	0.0	0.0	56.9
-FY 07 Health Insurance Cost Increases for Bargaining Units and Non-Covered Employees	7.2	0.0	0.0	7.2
-FY 07 Retirement Systems Cost Increase	107.5	0.0	0.0	107.5
<b>Proposed budget increases:</b>				
-Risk Management Self-Insurance Funding Increase	7.1	0.0	0.0	7.1
-Obtain and Implement Primacy for New Public Drinking Water System Federal Rules	847.2	847.2	0.0	1,694.4
<b>FY2007 Governor</b>	<b>1,845.7</b>	<b>3,836.6</b>	<b>0.0</b>	<b>5,682.3</b>

**Drinking Water  
Personal Services Information**

Authorized Positions		Personal Services Costs		
	<u>FY2006</u> <u>Management</u> <u>Plan</u>	<u>FY2007</u> <u>Governor</u>		
Full-time	45	59	Annual Salaries	2,939,268
Part-time	0	0	COLA	79,505
Nonpermanent	0	0	Premium Pay	0
			Annual Benefits	1,649,939
			<i>Less 4.50% Vacancy Factor</i>	(210,312)
			Lump Sum Premium Pay	0
<b>Totals</b>	<b>45</b>	<b>59</b>	<b>Total Personal Services</b>	<b>4,458,400</b>

**Position Classification Summary**

Job Class Title	Anchorage	Fairbanks	Juneau	Others	Total
Administrative Clerk II	1	0	0	0	1
Administrative Clerk III	3	2	0	2	7
Analyst/Programmer III	1	0	0	0	1
Analyst/Programmer IV	1	0	0	0	1
Environ Eng Asst II	3	1	0	2	6
Environ Engineer I	3	1	1	2	7
Environ Engineer II	1	0	0	0	1
Environ Program Manager I	2	1	0	2	5
Environ Program Manager II	0	1	0	0	1
Environ Program Manager III	1	0	0	0	1
Environ Program Spec I	2	0	0	0	2
Environ Program Spec II	6	2	0	4	12
Environ Program Spec III	3	1	1	1	6
Environ Program Spec IV	1	0	0	0	1
Environ Program Technician	2	0	1	1	4
Hydrologist I	1	0	0	0	1
Regulations Spec I	1	0	0	0	1
Regulations Spec II	1	0	0	0	1
<b>Totals</b>	<b>33</b>	<b>9</b>	<b>3</b>	<b>14</b>	<b>59</b>