

# **State of Alaska FY2002 Governor's Operating Budget**

Department of Environmental Conservation  
Facility Construction and Operations  
BRU/Component

## **Component: Facility Construction and Operations**

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### **Component Mission**

Assist communities in improving sanitation conditions.

### **Component Services Provided**

- Provide grants, loans and engineering assistance for water, sewerage, and solid waste facilities.
- Develop training programs for and certify water and sewerage system operators.
- Provide over-the-shoulder and emergency assistance to system operators in remote communities.

### **Component Goals and Strategies**

#### **REDUCE THE NUMBER OF HOUSEHOLDS WITHOUT ACCESS TO ADEQUATE SANITATION FACILITIES.**

- Secure approximately \$52 million in federal grant funds on behalf of the communities.
- Solicit applications and make approximately \$68 million in grants to communities for more than 70 sanitation facility projects in rural communities on a priority public health need basis.
- Work directly with communities to plan systems that can be operated and maintained locally.
- As agent for communities, manage private companies developing designs and supervising construction.
- Approve and track the expenditure of state and federal grant funds.

#### **ASSIST COMMUNITIES IN CONSTRUCTING WATER, SEWERAGE AND SOLID WASTE FACILITIES.**

- Secure approximately \$16 million in federal grant funds and deposit into accounts for loan to communities.
- Solicit applications and make low-interest loans to community- and certain privately-owned utilities for drinking water and wastewater projects.
- Make approximately \$20 million in grants (requiring a local match) and \$19 million in loans to communities on a priority public health need basis.
- Approve and track the expenditure of state and federal grant and loan funds.

#### **PROVIDE ASSISTANCE TO COMMUNITY WATER AND SEWERAGE SYSTEM OPERATORS.**

- Secure approximately \$1.3 million in federal grant funding for this program.
- Extend, for the first time, Remote Maintenance Worker service to Alaska Peninsula and Aleutian and Pribilof Island communities.
- Provide, via contracts with regional Native health corporations, 13 Remote Maintenance Workers to travel routinely to and assist water and sewer operators in 150 small communities across the state.
- Provide direct Remote Maintenance Worker assistance to 10 additional communities where services cannot be provided through regional Native health corporations.
- Prevent catastrophic failure and loss of any water and sewerage systems.

#### **TRAIN AND CERTIFY WATER AND WASTEWATER SYSTEM OPERATORS.**

- Begin to train and certify operators of 650 small drinking water systems as required by changes in federal law.
- Develop operator training curricula for use by private companies and the university system.
- Maintain a lending library of training materials.
- Administer 800 operator certification examinations.
- Receive and evaluate applications for certification, issue certificates, and maintain a database of 1,100 certified operators.
- Staff the Water and Wastewater Works Advisory Board which adjudicates certification decisions and develops recommendations on policy matters.

## Key Component Issues for FY2001 – 2002

RURAL SANITATION. Progress towards developing basic, but safe, water and sewerage systems in rural communities - "putting the honey bucket in the museum" - will remain a top priority. Availability of an additional \$5 million in federal funds in FY2002 will allow funding of additional projects and result in a small, but real, increase in construction pace and progress.

STATEWIDE REMOTE MAINTENANCE WORKER PROGRAM COVERAGE. Filling in the last gap in Remote Maintenance Worker program coverage will be an objective for FY2002. The program provides over-the-shoulder and emergency assistance to water and sewerage system operators in remote communities throughout the State -- with the exception of the Alaska Peninsula and Aleutian and Pribilof Island communities. Delivering this much needed assistance to these communities will help guard against premature system failure, extend the useful lives of these systems through preventive maintenance, and improve system operations. New federal funds will be available in FY2002 to extend the program into that area.

SMALL DRINKING WATER SYSTEM OPERATOR TRAINING AND CERTIFICATION. Changes in federal law require that operators of small drinking water systems meet minimum performance requirements and be certified by the State. The requirement means training and certifying operators of 650 small drinking water systems. Delivering the training and certifying operators in an effective, but least intrusive, manner will be an objective for FY2002. Federal funds are available to help offset costs of this substantial effort.

## Major Component Accomplishments for FY2000

### MUNICIPAL WATER, SEWERAGE AND SOLID WASTE MATCHING GRANTS PROGRAM

- Awarded a total of \$18.0 million in state-funded matching grants to 22 communities for 38 water, wastewater and solid waste projects. The total local contribution was \$7.8 million.

### MUNICIPAL LOANS PROGRAM

- Awarded \$52.4 million in new, low-interest loans to 7 communities for 11 water, wastewater and solid waste projects.
- Secured \$15.5 million in federal funding to add to loan account capital.
- Collected \$4.4 million in loan principal and interest for deposit into the loan funds.

### VILLAGE SAFE WATER PROGRAM

- Secured \$43.7 million in federal Environmental Protection Agency and US Department of Agriculture-Rural Development grant funding for the program.
- Awarded \$42.1 million in grants for 70 water, wastewater and solid waste projects.
- Continued to work toward the goal of providing access to adequate sanitation services to rural communities. As of FY 2000 sixty-six percent of all rural Alaskan households had access to running water and sewer.

### REMOTE MAINTENANCE WORKER PROGRAM

- Due, in part, to remote maintenance worker assistance, there have been no catastrophic system failures since 1989.
- Provided regular over-the-shoulder operator assistance to 160 communities.

### OPERATOR CERTIFICATION PROGRAM

- Administered two statewide operator certification examinations to over 340 applicants where approximately 220 examinees attained certification or upgraded their existing certifications.
- Administered 24 special entry-level operator certification training courses and examinations with approximately 170 village operators receiving training, 94 of which achieved entry-level certifications.

## Statutory and Regulatory Authority

AS 46.03.030, AS 46.03.032, AS 46.03.036, AS 46.07, AS 46.30, 18 AAC 73, 18 AAC 74, 18 AAC 76, 18 AAC 77

## Key Performance Measures for FY2002

### **Measure: Division operating costs as a percentage of project funding.** *(Revised from Legislature's FY2001 version.)*

#### **Current Status:**

In FY 2001, the Village Safe Water agency operating costs are 3.5% of the project funding.

#### **Historical Data:**

For fiscal years 1998 through 2001, funding for operating costs for Village Safe Water sanitation projects varied between 3.0 and 3.9% of project funding.

#### **Benchmark:**

The goal of the Division of Facility Construction and Operation is to manage operating costs at 4 percent, or less, of project funding.

#### **Background and Strategies:**

This measure is a revision to the measure specified in SB 281: "The agency operating costs per sanitation project." The revised measure looks at operating costs relative to project funding instead of operating costs relative to number of projects. This provides a more stable and meaningful picture of operating cost efficiency. The number of projects can vary substantially from year-to-year with some years having a large number of small projects and other years having a smaller number of larger projects. Project funding, on the other hand, is not subject to these random swings in project number and size.

At this time, the performance measure is confined to the Village Safe Water program (our largest program) where data are readily available. The measure will be expanded next year to include all division grant and loan programs.

The goal is to manage operating costs through efficiencies in how the Division manages water, sewer and solid waste grant projects. The primary strategies for improving efficiency are:

- to increase the use and role of private companies in managing projects; and
- to streamline internal operations by improving data systems and administrative procedures.

### **Measure: Project funding per division engineer.** *(Revised from Legislature's FY2001 version.)*

#### **Current Status:**

Village Safe Water project funding per engineer is currently \$4.4 million (FY 2001).

#### **Historical Data:**

Between fiscal years 1995 and 2000, Village Safe Water project funding per engineer tripled - increasing from \$1.7 million per engineer to \$5.2 million per engineer.

#### **Benchmark:**

The goal of the Division of Facility Construction and Operation is to manage workload at, or above, \$4 million per engineer.

#### **Background and Strategies:**

This measure is a revision to the measure specified in SB 281: "The number and cost of sanitation projects per division engineer." The revised measure looks exclusively at project funding per engineer and excludes number of projects per engineer. The workload associated with a number of projects can vary substantially depending on project size and, consequently, the number of projects is not a good workload indicator. Project funding, on the other hand, incorporates project size and is a better workload indicator.

At this time, the performance measure is confined to the Village Safe Water program (our largest program) where data are readily available. The measure will be expanded next year to include all division grant and loan programs.

The goal is project management efficiency as indicated by a project funding per engineer ratio of \$4 million or more. The primary strategies for improving efficiency are:

- to increase the use and role of private companies in managing projects;
- to streamline internal operations by improving data systems and administrative procedures; and
- to develop our engineers' project management skills through training and experience.

**Measure: The cost per household served.**

*(Added by Legislature in FY2001 version.)*

**Current Status:**

As of this point in FY 2001, there have been no comparable projects completed and, consequently, no new data to indicate a change in this measure from the historic benchmark.

**Historical Data:**

To benchmark this measure, we examined the total state and federal investment in 11 projects completed between 1983 and 2000 that reflected total system development costs starting with water source development and ending with in-home running water and sewer. The average capital cost to develop a water source; provide treatment and distribution systems; and to provide wastewater collection, treatment and discharge on a per household basis was \$67,627.

**Benchmark:**

The goal of the Division of Facility Construction and Operation is to manage capital costs to produce a declining trend in the cost of water and sewer facilities.

**Background and Strategies:**

This measure examines the full capital cost of providing water and sewer service primarily to rural Alaskans. The measure reflects the high costs of construction in remote locations as well as the diseconomies of scale associated with developing utilities for relatively small numbers of customers. For these reasons, high costs are inevitable though the Division actively manages costs.

The primary strategies for managing per household costs for water and sewer systems are:

- to increase use of enclosed haul and other innovative systems where piped utilities are exceedingly expensive; and
- to assert cost control and value engineering as a primary objective throughout project planning and development.

**Measure: Percentage of rural households with access to running water and sewer.**

*(Revised from Legislature's FY2001 version.)*

**Current Status:**

By the end of calendar year 2000 approximately 69 percent of rural households will have access to running water and sewer. This is an increase of 3 percent over last year.

**Historical Data:**

The percentage of rural households with access to running water and sewer systems increased from 54% in 1996 to 66% in 1999.

**Benchmark:**

The Division of Facility Construction and Operation's goal is an average 4 percent annual increase in the number of rural households with access to running water and sewer systems.

**Background and Strategies:**

This measure is revised to focus exclusively on the specific goal of bringing running water and sewer to rural households. While the division's programs also improve sanitation systems in urban communities, the percent of households that benefit from improved sanitation systems in those communities is largely a random function of the nature of the projects underway at any given time. As such, it is not a targetable goal or particularly meaningful measure.

The primary strategies for accomplishing the goal of bringing running water and sewer to rural households are:

- to secure federal grant funds for rural sanitation projects;
- to make grants to rural communities with capacity to operate and maintain sanitation utilities for design and construction of water and sewer systems; and
- to work directly with rural communities to plan and construct water and sewer systems that can be operated and maintained locally.

**Measure: Age of sanitation projects at time of replacement or major renovation.**

*(Revised from Legislature's FY2001 version.)*

**Current Status:**

Data is being compiled on the historic and current status of this measure. No data is currently available, but anecdotal evidence for older systems suggests that operational life often exceeds design life.

- Historical Data

The Division has no historical data for this measure at this time.

**Benchmark:**

The goal of the Division of Facility Construction and Operation is that projects meet or exceed a 20-year life expectancy.

**Background and Strategies:**

The revised measure is suggested to replace the original, very complex measure that sought to examine whether sanitation systems being constructed with the Division's assistance are reaching their design life, and whether annualized capital and operating costs are falling within predictions. The Division does not have, and does not anticipate having, the data - particularly on operating costs which are a local responsibility- that would be required by the original measure. The revised measure seeks to answer the more basic question of whether systems are meeting their 20-year life expectancy before requiring replacement or major renovation.

The primary strategies for managing system useful lives are:

- to continue to use the Remote Maintenance Worker program to assist communities with preventive maintenance and thereby extending the lives of existing systems; and
- to assert the Division's remote maintenance workers' and engineers' arctic experience and expertise throughout project planning and development of new projects to optimize the life expectancy under what are often severe operating conditions.

**Measure: Loan program fund growth, repayment delinquency and default rates.**

*(Not yet addressed by Legislature.)*

**Current Status:**

The Division of Facility Construction and Operation continues to maintain a zero loan repayment delinquency and default rate. Anticipated growth in the Drinking Water Loan Fund for fiscal year 2001 is 17.9% and the Clean Water Loan Fund is expected to grow 9.0%.

- Historical Data

Both the Drinking Water and Clean Water loan funds have experienced healthy growth since inception due largely to federal capitalization grants. Loan repayment delinquency and default rates are both zero.

**Benchmark:**

The goal of the Division of Facility Construction and Operation is positive inflation-adjusted growth in both loan funds and zero repayment delinquency and default rates.

**Background and Strategies:**

This new measure is intended to gauge the performance of the division in protecting the financial health of the loan funds so that they can be a perpetual source of assistance to utilities in meeting wastewater and drinking water capital needs.

The primary strategies for protecting the financial health of the loan Funds are:

- to capture federal grant funds for deposit into the loan funds using bonding mechanisms to defray the cost of state match requirements;
- to establish loan terms that provide for healthy growth of the Funds;
- to carefully evaluate the credit worthiness and repayment ability of applicants in deciding whether to advance loans; and
- to include conditions in loan agreements that protect the State's investment and provide recourse to recover loan amounts should that be necessary.

**Status of FY2001 Performance Measures**

|  | <i>Achieved</i> | <i>On track</i> | <i>Too soon to tell</i> | <i>Not likely to achieve</i> | <i>Needs modification</i> |
|--|-----------------|-----------------|-------------------------|------------------------------|---------------------------|
| • Division operating costs as a percentage of project funding.           |                 | X               |                         |                              |                           |
| • Project funding per division engineer.                                 |                 | X               |                         |                              |                           |
| • The cost per household served.   |                 |                 | X                       |                              |                           |
| • Percentage of rural households with access to running water and sewer. |                 |                 | X                       |                              |                           |
| • Age of sanitation projects at time of replacement or major renovation. |                 |                 | X                       |                              |                           |

## Facility Construction and Operations

### Component Financial Summary

*All dollars in thousands*

|  | FY2000 Actuals | FY2001 Authorized | FY2002 Governor |
|--|----------------|-------------------|-----------------|
| <b>Non-Formula Program:</b>                |                |                   |                 |
| <b>Component Expenditures:</b>             |                |                   |                 |
| 71000 Personal Services                    | 2,336.7        | 2,470.5           | 2,615.1         |
| 72000 Travel                               | 240.1          | 298.4             | 314.4           |
| 73000 Contractual                          | 767.9          | 1,201.5           | 1,211.5         |
| 74000 Supplies                             | 39.9           | 68.6              | 70.6            |
| 75000 Equipment                            | 30.9           | 47.5              | 51.5            |
| 76000 Land/Buildings                       | 0.0            | 0.0               | 0.0             |
| 77000 Grants, Claims                       | 1,123.3        | 1,123.3           | 1,523.3         |
| 78000 Miscellaneous                        | 0.0            | 0.0               | 0.0             |
| <b>Expenditure Totals</b>                  | <b>4,538.8</b> | <b>5,209.8</b>    | <b>5,786.4</b>  |
| <b>Funding Sources:</b>                    |                |                   |                 |
| 1002 Federal Receipts                      | 1,033.6        | 1,258.4           | 1,658.5         |
| 1003 General Fund Match                    | 689.2          | 620.0             | 620.1           |
| 1004 General Fund Receipts                 | 345.1          | 351.1             | 355.6           |
| 1005 General Fund/Program Receipts         | 51.4           | 57.2              | 57.2            |
| 1053 Investment Loss Trust Fund            | 0.0            | 2.8               | 0.0             |
| 1061 Capital Improvement Project Receipts  | 1,641.1        | 1,932.5           | 2,105.0         |
| 1075 Alaska Clean Water Loan Fund          | 371.0          | 461.5             | 462.8           |
| 1100 Alaska Drinking Water Fund            | 407.4          | 525.5             | 527.2           |
| 1108 Statutory Designated Program Receipts | 0.0            | 0.8               | 0.0             |
| <b>Funding Totals</b>                      | <b>4,538.8</b> | <b>5,209.8</b>    | <b>5,786.4</b>  |

### Estimated Revenue Collections

| Description                           | Master Revenue Account | FY2000 Actuals | FY2001 Authorized | FY2001 Cash Estimate | FY2002 Governor | FY2003 Forecast |
|---------------------------------------|------------------------|----------------|-------------------|----------------------|-----------------|-----------------|
| <b>Unrestricted Revenues</b>          |                        |                |                   |                      |                 |                 |
| None.                                 |                        | 0.0            | 0.0               | 0.0                  | 0.0             | 0.0             |
| <b>Unrestricted Total</b>             |                        | <b>0.0</b>     | <b>0.0</b>        | <b>0.0</b>           | <b>0.0</b>      | <b>0.0</b>      |
| <b>Restricted Revenues</b>            |                        |                |                   |                      |                 |                 |
| Federal Receipts                      | 51010                  | 1,033.6        | 1,258.4           | 1,258.4              | 1,658.5         | 1,658.5         |
| General Fund Program Receipts         | 51060                  | 51.4           | 57.2              | 57.2                 | 57.2            | 57.2            |
| Statutory Designated Program Receipts | 51063                  | 0.0            | 0.8               | 0.8                  | 0.0             | 0.0             |
| Capital Improvement Project Receipts  | 51200                  | 1,641.1        | 1,932.5           | 1,932.5              | 2,105.0         | 2,105.0         |
| <b>Restricted Total</b>               |                        | <b>2,726.1</b> | <b>3,248.9</b>    | <b>3,248.9</b>       | <b>3,820.7</b>  | <b>3,820.7</b>  |
| <b>Total Estimated Revenues</b>       |                        | <b>2,726.1</b> | <b>3,248.9</b>    | <b>3,248.9</b>       | <b>3,820.7</b>  | <b>3,820.7</b>  |



## Facility Construction and Operations

### Proposed Changes in Levels of Service for FY2002

Extend the Remote Maintenance Worker program to the Aleutian and Pribilof Islands--the only portion of the State not currently covered by the program.

Expand the operator training and certification program to include the 650 small public drinking water system operators not currently participating in the program as required by changes in federal law.

### Summary of Component Budget Changes

#### From FY2001 Authorized to FY2002 Governor

*All dollars in thousands*

|  | <u>General Funds</u> | <u>Federal Funds</u> | <u>Other Funds</u> | <u>Total Funds</u> |
|--|----------------------|----------------------|--------------------|--------------------|
| <b>FY2001 Authorized</b>   | <b>1,031.1</b>       | <b>1,258.4</b>       | <b>2,920.3</b>     | <b>5,209.8</b>     |
| <b>Adjustments which will continue current level of service:</b> |                      |                      |                    |                    |
| -Convert Special FY2001 Labor Cost Fund Sources to GF            | 0.8                  | 0.0                  | -0.8               | 0.0                |
| -Year 2 Labor Costs - Net Change from FY2001                     | 1.0                  | 0.1                  | 10.4               | 11.5               |
| <b>Proposed budget increases:</b>                                |                      |                      |                    |                    |
| -Small Drinking Water System Operator Training and Certification | 0.0                  | 0.0                  | 165.1              | 165.1              |
| -Aleutian/Pribilof Remote Maintenance Worker                     | 0.0                  | 400.0                | 0.0                | 400.0              |
| <b>FY2002 Governor</b>   | <b>1,032.9</b>       | <b>1,658.5</b>       | <b>3,095.0</b>     | <b>5,786.4</b>     |

## Facility Construction and Operations

### Personal Services Information

| Authorized Positions |                      |                    | Personal Services Costs          |                  |
|----------------------|----------------------|--------------------|----------------------------------|------------------|
|                      | FY2001<br>Authorized | FY2002<br>Governor |                                  |                  |
| Full-time            | 34                   | 36                 | Annual Salaries                  | 2,063,446        |
| Part-time            | 0                    | 0                  | COLA                             | 34,751           |
| Nonpermanent         | 4                    | 4                  | Premium Pay                      | 21,971           |
|                      |                      |                    | Annual Benefits                  | 657,654          |
|                      |                      |                    | <i>Less 5.86% Vacancy Factor</i> | <i>(162,722)</i> |
|                      |                      |                    | Lump Sum Premium Pay             | 0                |
| <b>Totals</b>        | <b>38</b>            | <b>40</b>          | <b>Total Personal Services</b>   | <b>2,615,100</b> |

### Position Classification Summary

| Job Class Title             | Anchorage | Fairbanks | Juneau    | Others   | Total     |
|-----------------------------|-----------|-----------|-----------|----------|-----------|
| Administrative Clerk II     | 2         | 0         | 1         | 0        | 3         |
| Analyst/Programmer III      | 0         | 0         | 1         | 0        | 1         |
| Division Director           | 0         | 0         | 1         | 0        | 1         |
| Env Eng Associate           | 2         | 0         | 0         | 0        | 2         |
| Environ Conserv Mgr I       | 0         | 0         | 1         | 0        | 1         |
| Environ Conserv Mgr II      | 1         | 0         | 0         | 0        | 1         |
| Environ Conserv Mgr III     | 0         | 0         | 1         | 0        | 1         |
| Environ Engineer II         | 1         | 0         | 1         | 0        | 2         |
| Environmental Spec III      | 0         | 0         | 1         | 0        | 1         |
| Environmental Spec IV       | 0         | 0         | 1         | 0        | 1         |
| Graduate Intern I           | 3         | 0         | 0         | 0        | 3         |
| Grants Administrator I      | 1         | 0         | 0         | 0        | 1         |
| Grants Administrator II     | 0         | 0         | 1         | 0        | 1         |
| Internal Auditor III        | 0         | 0         | 1         | 0        | 1         |
| Maint Spec Bfc Foreman      | 1         | 0         | 0         | 0        | 1         |
| Maint Spec Bfc Jrny II/Lead | 2         | 0         | 1         | 0        | 3         |
| Planner III                 | 0         | 0         | 1         | 0        | 1         |
| Project Asst                | 0         | 0         | 1         | 0        | 1         |
| Secretary                   | 0         | 0         | 1         | 0        | 1         |
| Student Intern I            | 1         | 0         | 0         | 0        | 1         |
| VSW Engineer I              | 4         | 0         | 0         | 0        | 4         |
| VSW Engineer II             | 3         | 0         | 0         | 0        | 3         |
| VSW Engineer III            | 1         | 0         | 0         | 0        | 1         |
| VSW Engineering Assoc       | 4         | 0         | 0         | 0        | 4         |
| <b>Totals</b>               | <b>26</b> | <b>0</b>  | <b>14</b> | <b>0</b> | <b>40</b> |