

**CAPACITY DEVELOPMENT  
RISK LEVEL ASSESSMENT  
BASED ON RISK TYPES  
FOR  
CLASS A PUBLIC WATER SYSTEMS**

REVISED 10/23/00



*Alaska Department of Environmental Conservation*

## Technical (T) Capacity Assessment

Assessment Type	High 5 Points	Medium 3 Points	Low 1 Point	G. Relative Weighting Factors	Total Points
A.  Monitoring and Reporting				4	
B.  Operation & Maintenance Program				2	
C.  Sanitary Survey Results				3	
D.  Operator Certification				2	
E.  Operation Approval				2	
F.  Water Rights				1	
				<b>Subtotal (T)</b>	

PWS Name: \_\_\_\_\_

PWS Number: \_\_\_\_\_

## Field Guide for Technical Capacity Assessment

### A. Monitoring and Reporting

*(Relative Weighting Factor = 4)*

#### Low:

- The water system is on the State Significant Non-Compliance (SNC) List for total coliform bacteria and/or nitrates, and/or;
- The water system has submitted less than 50 percent of the required operator reports over the last three(3) years.

#### Medium:

- The water system has submitted more than 50 percent, but less than 90 percent of the required operator reports over the last three years, and/or;
- The water system has not sampled for Volatile Organic Compounds, Synthetic Organic Compounds, Inorganic Compounds, radionuclides, copper, or lead.
- The water system is on the SNC for failure to sample for one of the above noted contaminants.

#### High:

- The water system is in compliance with State monitoring and reporting requirements.
- The water system has submitted over 90 percent of the required reports for the last three (3) years.

### B. Operation & Maintenance Program

*(Relative Weighting Factor = 2)*

#### Low:

- No operation & maintenance plan has been incorporated into the daily operation of the water system. Less than adequate supply of tools, and/or spare parts are available to operate vital system components.

#### Medium:

- An operation & maintenance plan does exist, but is not used. Maintenance logs are not kept; equipment failures due to a lack of adequate maintenance.

#### High:

- The existing operation & maintenance plan has been incorporated into the daily operation of the water system. Sufficient supplies, tools, and spare parts are available to operate vital system components.

### C. Sanitary Survey Results

*(Relative Weighting Factor = 3)*

#### Low:

- The owner of the water system has not scheduled the required sanitary survey.

#### Medium:

- The owner of the water system has had the required sanitary survey completed. However, there is no written record of deficiencies found during the last sanitary survey being addressed.

#### High:

- The owner of the water system has had the required sanitary survey completed. There is written record of the deficiencies found during the last sanitary survey being addressed.

## **D. Operator Certification**

*(Relative Weighting Factor = 2)*

### **Low:**

- The operator is not certified. The number of operators is not sufficient to operate the existing water system.

### **Medium:**

- The operator is certified but not at the level required by the existing water system. The number of operators is not sufficient to operate the existing water system.

### **High:**

- The operator is certified at the level required by the existing water system. The number of operators is sufficient to operate the existing water system.

## **E. Operation Approval**

*(Relative Weighting Factor = 2)*

### **Low:**

- Water system was installed without obtaining written approval of construction drawings from ADEC.
- Water system was installed and is currently being operated without obtaining construction approval and final operation approval from ADEC.

### **Medium:**

- Water system was installed after obtaining written approval of construction drawings and specifications. However, is operating without obtaining final operation approval from ADEC.

### **High:**

- Water system was installed after obtaining written approval of construction drawings and specifications. Final operation approval has been issued from ADEC.

## **F. Water Rights**

*(Relative Weighting Factor = 1)*

### **Low:**

- Water rights are either non-existent (owner has not applied for water rights) or they have been invalidated.

### **Medium:**

- The owner of the water system has applied for water rights and they are in the process of being granted.

### **High:**

- Water rights have been granted.

## **G. Relative Weighting Factors**

A relative weight factor was created to compare the severity of risk types. For example, the relative risk of *Monitoring and Reporting* is significantly greater than *Water Rights* issues. Therefore, a point scale was developed to achieve that balance.

## Managerial (M) Capacity Assessment

Assessment Type	High 5 Points	Medium 3 Points	Low 1 Point	F. Relative Weighting Factors	Total Points
A.  By-laws, Ordinances, or Tariffs				3	
B. Organization (includes identification of owner and operator)				2	
C.  Staffing (does not include operator)				2	
D.  Policies				2	
E.  Effective Linkages				1	
				<b>Subtotal (M)</b>	

PWS Name: \_\_\_\_\_

PWSID Number: \_\_\_\_\_

# Field Guide for Managerial Capacity Assessment

## **A. By-laws, Ordinances, or Tariffs**

*(Relative Weighting Factor = 3)*

### **Low:**

- By-laws and ordinances have not been reviewed or updated since the Class A public water system was formed. No formally adopted tariff or rate schedule exists for the existing Class A public water system.

### **Medium:**

- By-laws, ordinances, tariffs, or rate schedules have not been reviewed or updated in the last three (3) years.

### **High:**

- By-laws, ordinances, tariffs, or rate schedules are used and are regularly reviewed or updated.

## **B. Organization (includes identification of owner and operator)**

*(Relative Weighting Factor = 2)*

### **Low:**

- No documentation of organization structure exists.
- No clear identification of owner, operator, and all other water system staff. There is no clear and legal record defining who is responsible for the management and operation/ maintenance of the Class A public water system.

### **Medium:**

- Organization structure exists, but is unclear.
- Identification of water system owner and other personnel is unclear. Some legal records exist but are not complete.

### **High:**

- A clear organization structure exists.
- Clear identification of owner, operator, and all other water system staff has been provided.
- There is a very clear and legal record defining who is responsible for the management and operation/ maintenance of the existing Class A public water system.

## **C. Staffing (does not include operator)**

*(Relative Weighting Factor = 2)*

### **Low:**

- There are no clearly defined and written job descriptions for staff.
- No training has been provided to water system staff.

### **Medium:**

- Although there are clearly defined and written job descriptions for each staff member, they are not being used. Limited training has been made available for water system staff.

### **High:**

- There are clearly defined and written job descriptions for each staff member and they are being followed. There is a training schedule for all water system staff.

## **D. Policies**

*(Relative Weighting Factor = 2)*

### **Low:**

- No written policies covering personnel, customer service, safety, and risk management.

### **Medium:**

- Written policies covering personnel, customer service, safety, and risk management do exist, but are not being used.

### **High:**

- Written policies covering personnel, customer service, safety, and risk management do exist and are actively used and modified.

## **E. Effective linkages**

*(Relative Weighting Factor = 1)*

### **Low:**

- No one knows which agencies and private sector firms provide assistance or regulate Class A public water systems.

### **Medium:**

- Although different staff know which agencies and private sector firms provide assistance and regulate Class A public water systems, this knowledge cannot be shared.

### **High:**

- There is a written policy covering which agencies and private sector firms provide assistance and regulate Class A public water systems.

## **F. Relative Weighting Factors**

A relative weight factor was created to compare the severity of risk types. For example, the relative risk of *By-laws, Ordinances, or Tariffs* is significantly greater than *Effective Linkages* issues, therefore a point scale was developed to achieve that balance.



## Financial (F) Capacity Assessment

Assessment Type	High 5 Points	Medium 3 Points	Low 1 Point	F. Relative Weighting Factors	Total Points
A.  Accounting Practices				3	
B. Annual Budget: Completed, Approved, and Filed				3	
C.  Water System Rates				3	
D. Accounts Payable and/or Receivable				2	
E.  Periodic Budget Reports / Balance Sheets				2	
				<b>Subtotal (F)</b>	

PWS Name: \_\_\_\_\_

PWSID Number: \_\_\_\_\_

# Field Guide for Financial Capacity Assessment

## A. Water System Accounting Practices

*(Relative Weighting Factor = 3)*

### Low:

- Standard accounting principles are not being used to account for and identify water system revenue and expenses. Additionally, either no financial audit of the water system has been performed, or if an audit was performed, an adverse opinion was issued.

### Medium:

- Some type of standard accounting practice is being used, however, the owner cannot accurately track revenue and expenses. There has been a financial audit within the last five (5) years, but it resulted in a qualified auditor's opinion or a management letter noting some exceptions.

### High:

- The water system is using the Universal System of Accounts and is regulated by RCA. Financial audits have been conducted in the past five (5) years resulting in an unqualified audit opinion.

## B. Water System Annual Budget

*(Relative Weighting Factor = 3)*

### Low:

- No annual budget.

### Medium:

- Annual budget completed, but does not meet the demands of operation and maintenance requirements.

### High:

- Annual budget is completed, approved, and filed as required by the water system ordinances/tariffs/by-laws and meets the demands of operation and maintenance.

## C. Water System Rates

*(Relative Weighting Factor = 3)*

### Low:

- Water system rates were set and adopted in writing, but did not include all types of users (residential and commercial users).

### Medium:

- Water system rates were set and adopted in writing, but did not examine the sustainability and viability to all users groups, or;
- Water system rates have not been reviewed within the past three (3) years.

### High:

- Water system rates were set and adopted in writing assuring sustainability and viability to all users while under direct oversight from a regulatory agency or through public comments.

#### **D. Water System Accounts Payable and/or Receivable**

*(Relative Weighting Factor = 2)*

##### **Low:**

- Greater than 50 percent of accounts payable and/or receivable of any type are delinquent.
- A lien on assets is present.

##### **Medium:**

- No more than 50 percent of accounts payable and/or receivable of any type are more than three (3) months behind.

##### **High:**

- No more than 20 percent of accounts payable and/or receivable of any type are more than three (3) months behind..

#### **E. Water System Periodic Budget Reports/Balance Sheets**

*(Relative Weighting Factor = 2)*

##### **Low:**

- Periodic budget reports/balance sheets are neither produced nor approved by the council or board.

##### **Medium:**

- Informal periodic budget reports/balance sheets are produced but are not approved by the council or board.

##### **High:**

- Periodic budget reports/balance sheets are produced and approved by the council or board.

#### **F. Relative Weighting Factors**

A relative weight factor was created to compare the severity of risk types. For example, the relative risk of *Accounting Practices* is significantly greater than *Accounts Payable* issues. Therefore, a point scale was developed to achieve that balance.

## Capacity Development Risk Matrix Criteria

<b>Capacity</b>	<b>Subtotal</b>
Technical	
Managerial	
Financial	
<b>Total</b>	

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