

## 8.3 Drinking Water Facilities Funding Application Instructions

The application form for Drinking Water Facilities Funding is in section 7.3. This application is for Consolidated Water Facilities Construction Program and Drinking Water State Revolving Fund Program funding. This application is for drinking water projects.

### 8.3.1 Applicant Form

*Applicant.* Name and mailing address of the entity sponsoring the project.

*Sub Applicant.* Organization on whose behalf the application is being submitted.

*Proposed Funding Package.* Include the amount and type of funds requested, the amount of local funds being provided, including direct public or private contributions, loans, federal funds, and water development district grants. Enter the total amount on the last line. Multi-year or phased projects should enter only the costs associated with activities for which assistance is being requested.

*Project Title/Description.* Provide a one line title for the project and a brief narrative describing the project. Be specific, providing the feet or miles of pipe, treatment process being utilized, capacity of the storage tanks, and so forth. Include the current monthly drinking water rate. If the rate is not a flat rate, compute the monthly rate at 5,000 gallons for municipalities or sanitary districts and at 7,000 gallons for all other water systems. Additionally, indicate whether a reserve fund has been established for the drinking water utility.

*Certification.* An official of the sponsoring entity, who has been authorized by resolution of the governing body to submit the application, must read and sign the application.

#### Professional Consultants

*Application Prepared By:* Identify the entity, the individual that helped prepare the application, and the other contact information requested in case questions arise about the application.

*Consulting Engineering Firm:* Identify the engineering firm retained by the sponsor, the engineer's name, and the other contact information requested in case questions arise about the application.

*Legal Counsel's Firm:* Identify the law firm retained by the sponsor, the attorney's name, and the other contact information requested in case questions arise about the application.

*Bond Counsel's Firm:* **This section is required only if the applicant is a political subdivision.** Identify the bond counsel firm retained by the sponsor,

the attorney's name, and the other contact information requested in case questions arise about the application.

### **8.3.2 Budget Sheets**

*Note: Multi-year projects should enter only budget costs associated with activities for which financial assistance is being requested.*

Line 1.A - Amount needed for personal services related to loan management and clerical duties.

Line 1.B - Amount needed for travel including vehicle rental.

Line 1.C - All legal fees associated with this project including bond counsel fees.

Line 1.D - Amount needed for other administration expenses, including an independent financial audit, publishing, meetings, and any other expenses expected for project administration, including planning district contracts.

Line 2 - Amounts directly associated with the acquisition of land, existing structures, and related rights-of-way.

Line 3.A - Fees for engineering bidding and design services.

Line 3.B - Fees for engineering construction inspection and audit of construction and related programs.

Line 3.C - Amounts for other technical services, such as surveys, O&M manual preparation, tests, and borings not included in Line 3.A or 3.B.

Line 4 - Amounts for the actual construction of, addition to, or restoration of a facility. Also include in this category the amounts of project improvements, such as roads, access restrictions, new trenches, landscaping, and run-off control measures.

Line 5 - Amount needed for purchase or rent equipment required for the project.

Line 6 - Amount of contracts (excluding legal, engineering, and construction) associated with the project, including sampling and laboratory services.

Lines 7 & 8 – Identify amounts for items not specifically mentioned above.

Line 9 - Sum of Lines 1 through 8.

Line 10 - Estimated amount for contingencies. Contingencies may not exceed 10% of the amount on Line 9.

Line 11 - Sum of Lines 9 and 10.

Line 12 - Percentage that column total is of total project costs.

### **8.3.3 Method of Financing**

Indicate the source of the secured/unsecured share of funding. If funds have been secured, indicate the amount in the "secured" column. If funds are unsecured at time of application, indicate the amount of the unsecured funds and the date funds are anticipated to be secured in the "unsecured" column. Include any remarks regarding funding in a separate narrative. Total the secured and unsecured funding amounts at the bottom of the table.

### **8.3.4 Repayment Information**

Identify the specific rate and term of the loan for which the sponsor is applying. If the applicant is a political subdivision, specify the security pledged to repay the loan.

### **8.3.5 Documents To Be Submitted With Application**

**The application will not be reviewed by department staff until all documents listed in this section are submitted.**

#### **Financial Documents**

Provide a copy of the financial audit report for the most recent fiscal year. This report should include all operations of the entity (jurisdiction). If certain funds are reported in separate documents, include all reports concerning fiscal operations of the entity. If different funds are accounted for by differing fiscal years, make this notation. If audit for the most recent year is not available, list reason.

Provide a copy of the current year's budget, if approved by the governing board.

#### **Planning and Legal Documents**

Provide a copy of the existing or any proposed user charge ordinance or resolution currently governing the utility department.

Provide a copy of the resolution of authorized signatory for the person or persons signing the loan agreement and payment requests. The resolution must also include the maximum loan amount requested, interest rate and term, description of proposed project, and security pledged towards the repayment of the loan.

Submit a Facilities Plan as outlined in section 8.3.18.

Submit the completed Capacity Assessment Worksheets provided in section 8.3.16.

**If a Nonprofit**, submit a copy of the organization's By-laws.

**If a Nonprofit**, submit a copy of the organization's Articles of Incorporation.

**If a Nonprofit**, submit a copy of the organization's Certificate of Good Standing from the Secretary of State.

### **8.3.7 General Information**

Provide the month and day the sponsor's fiscal year begins.

Fill in population data. Estimate current year if necessary.

List the top five employers in a 30 mile radius of your service area. Also list the number of employees at the facility and the type of business.

### **8.3.8 Drinking Water Utility Information**

The following information will be used to evaluate the applicant's capacity to provide local funds for the project.

Attach the current and proposed rate ordinances or resolutions and rate schedules.

Current Utility Debt - Provide the information requested in the table for each obligation pledged towards repayment. If the applicant intends to issue Water Revenue or Project Surcharge Revenue bonds, only debt related to the drinking water utility need be entered. If the applicant is a political subdivision and intends to issue either General Obligation or Sales Tax bonds, only debt secured by the applicant's general obligations or sales tax revenues need be entered. Include all required debt information requested in the table to assure an appropriate review of the applicant's finances.

Complete the Drinking Water Utility Cash Flow table. Obtain prior year information from previous system audits. The Current Year column should contain information from the system's current year utility budget. The Future Year column should contain anticipated cash flow information for the utility's first full fiscal year of operation after project completion.

Provide a balance for each restricted account or activity, identify the activity to be completed with the funding, and specify the method used to restrict the funds (*i.e.* governing board resolution, board motion, by-laws, etc.).

Check whether the sponsor is an incorporated municipality, sanitary district or other system. Municipalities and Sanitary Districts provide rate information based on 5,000 gallons (670 cubic feet) per month. All Other Systems provide rates based on 7,000 gallons (935 cubic feet) per month.

Fill in the current monthly rate being charged to businesses and domestic users to include individual households and farmsteads. If fees are billed quarterly, calculate the monthly rate. Include the proposed new monthly rate. Complete the information for the total number of business and domestic hookups which will be served systemwide. Provide the current average monthly usage by business, domestic, and other customers and specify either gallons or cubic feet.

If there is a special rate being charged for users other than business and domestic hookups, provide information about that rate, the number of customers for which the rate applies, and the user's average usage.

Indicate whether fees are calculated on the amount used or on a flat rate.

Furnish dates for when the current rate was adopted, when the proposed fee schedule will take effect, and what the rate was prior to the current rate.

List the system's five largest customers, the type of business, and the percent this account represents when compared to total system revenues.

### **8.3.9 Property Tax Information**

**Fill out this section only if a general obligation bond is being pledged towards repayment of the loan.**

The property tax information will be used to evaluate the applicant's ability to repay the loan. The purpose of this section is to evaluate a borrower's tax base and customers in order to assess the condition of the community.

Provide the assessed valuation and full and true valuation for the current and last two years.

Provide the amount levied and collected for the most recent three years for which data is available. Indicate any penalties, interest charged, or late payments.

List the five largest taxpayers within the system's service area and describe the type of property involved and the assessed valuation.

Provide the information requested in the table for each obligation to which the general fund has been pledged towards repayment.

### **8.3.10 Sales Tax Information**

**Fill out this section only if sales tax is being pledged towards repayment of the loan.**

The sales tax information will be used to evaluate the applicant's ability to repay the loan.

Provide the amount of sales tax collections by month for each of the last fifteen months.

Provide the information requested in the table for each obligation to which sales tax has been pledged towards repayment.

### **8.3.11 Facilities Plan Checklist**

The Facilities Plan Checklist is provided for your convenience. Please review the checklist and make sure that the required steps have been taken to ensure that an adequate Facilities Plan has been prepared.

### **8.3.12 Certification of Drinking Water Needs Categories**

Form is self-explanatory.

### **8.3.13 Preaward Compliance Review EPA Form 4700-4 General Instructions**

Recipients of federal financial assistance from the U.S. Environmental Protection Agency must comply with the following statutes.

Title IV of the Civil Rights Act of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. The Act goes on to explain that the title shall not be construed to authorize action with respect to any employment practice of any employer, employment agency, or labor organization (except where the primary objective of the federal financial assistance is to provide employment).

Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act provides that no person in the United States shall on the grounds of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the Federal Water Pollution Control Act, as amended. Employment discrimination on the basis of sex is prohibited in all such programs or activities.

Section 504 of the Rehabilitation Act of 1973 provides that no otherwise qualified handicapped individual shall solely by reason of handicap be excluded from participation in, be denied the benefit of or be subjected to discrimination under any program or activity receiving federal financial assistance. Employment discrimination on the basis of handicap is prohibited in all such programs or activities.

The Age Discrimination Act of 1975 provides that no person on the basis of age shall be excluded from participation under any program or activity receiving Federal financial assistance. Employment discrimination is not covered. Age discrimination in employment is prohibited by the Age Discrimination in Employment Act administered by the Equal Employment Opportunity Commission.

Title IX of the Education Amendments of 1972 provides that no person on the basis of sex shall be excluded from participation in, be denied the benefit of, or be subjected to discrimination under any education program or activity receiving federal financial assistance. Employment discrimination on the basis of sex is prohibited in all such education programs or activities. Note: an education program or activity is not limited to only those conducted by a formal institution.

The information on this form is required to enable the U.S. Environmental Protection Agency to determine whether applicants and prospective recipients are developing projects, programs and activities on a nondiscriminatory basis as required by the above statutes.

Submit this form with the original and required copies of applications, requests for extensions, requests for increase of funds, etc. Updates of information are all that are required after the initial application submission.

If an item is not relevant to the project for which assistance is requested, write "NA" for "Not Applicable."

In the event applicant is uncertain about how to answer certain questions, EPA program officials should be contacted for clarification.

- IA. "Applicant" means any entity that files an application or unsolicited proposal or otherwise requests EPA assistance.
- IB. "Recipient" means any entity, other than the applicant, which will actually receive EPA assistance.
- IC. Self-explanatory.
- II. Self-explanatory.
- III. "Civil rights lawsuits" means any lawsuit or complaint alleging discrimination on the basis of race, color, national origin, sex, age or handicap pending against the applicant and/or entity which actually benefits from the grant. For example, if a city is the named applicant but the grant will actually benefit the Department of Water, civil rights lawsuits involving both the city and the Department of Water should be listed.
- IV. "Civil rights compliance review" means any review assessing the applicant's and/or recipient's compliance with laws prohibiting discrimination on the basis of race, color, national origin, sex, age or handicap. If any part of the review covered the entity which will actually benefit from the grant, it should be listed.

V. Self-explanatory.

VI. The word “community” refers to the area under the applicant’s and/or recipient’s jurisdiction. The “community” might be a university or laboratory campus, or a community within a large city. If there is a significant disparity between minority and non-minority populations to receive service, not otherwise satisfactorily explained, the Regional office may require a map which indicates the minority and non-minority population served by this project, program or activity.

VII. This information is required so that reviewers may determine if a disparity in the proposed provision of services will exist in the event the application is approved for funding. Give population of recipient’s jurisdiction, broken out by categories as specified.

In the event the applicant cannot provide the requested information because the funds will be distributed over a wide demographic area which is yet to be determined, an explanation may be provided on a separate sheet. For example, a State applying for a capitalization grant under the State Revolving Fund program may not know which cities and counties will apply for, and receive, SRF loans.

VIII. Self-explanatory.

IX. “Jurisdiction” means the geographical area over which applicant has the authority to provide service.

IX. Self-explanatory.

“Burden Disclosure Statement” - EPA estimates public reporting burden for the preparation of this form to average 30 minutes per response. This estimate includes the time for reviewing instruction, gathering and maintaining the data needed and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, S.W. Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

### **8.3.14 Certification Regarding Debarment, Suspension, and Other Responsibility Matters**

Under Executive Order 12549, an individual or organization debarred or excluded from participation in federal assistance or benefit programs may not receive any assistance award under a federal program, or a sub-agreement thereunder for \$25,000 or more.

Accordingly, each prospective recipient of an EPA grant, loan, or cooperative agreement and any contract or sub-agreement participant thereunder must certify to or provide an explanation why they cannot. For further details, see 40 CFR §32.510, Participants' responsibilities.

### **8.3.15 Notice of Public Hearing**

The facilities planning process requires public participation is required for SRF program. The applicant must hold a public hearing to discuss the project, the proposed financing and subsequent affects on the system users. A “Notice of Public Hearing” must be published in an appropriate legal newspaper at least 10 days prior to the hearing. A copy of the affidavit of publication must be submitted as part of the final Facilities Plan. Other notification methods may be used with prior approval by the department. A sample Notice can be found below.

At minimum, the following items shall be addressed at the public hearing:

- The need for the project;
- All alternatives that were evaluated, including the cost of each;
- A description of the proposed project;
- The proposed financing for the project;
- The amount of SRF loan expected to be borrowed;
- The revenue source pledged for repayment;
- The interest rate and term of the loan; and
- The affect of the proposed financing on user rates.

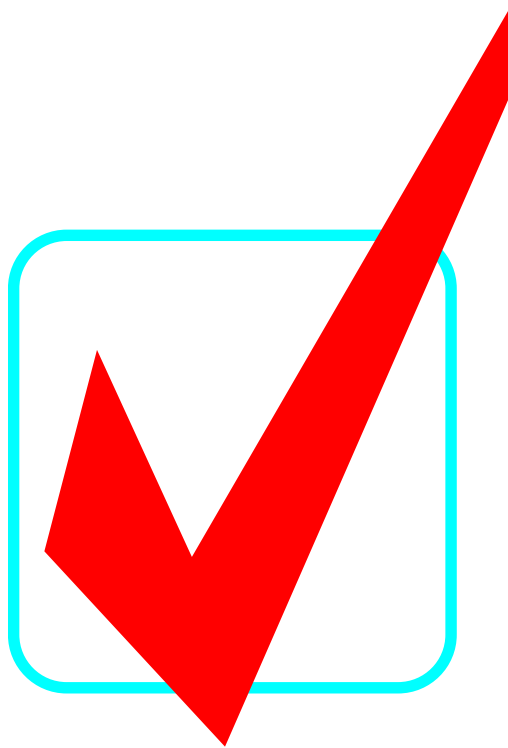
Minutes must be kept at the public hearing and should include a summary of the comments received on the proposed project. A copy of the minutes must be submitted as part of the final Facilities Plan.

**NOTICE OF PUBLIC HEARING**  
for the  
**WATER PROJECT**

The {city, town, district} is seeking \$XXX,XXX of funding from the Board of Water and Natural Resources for {briefly describe project}. The funds could be either a grant from the state Consolidated Water Facilities Construction Program or a loan from the Drinking Water State Revolving Fund (SRF) Program. The Drinking Water SRF loan terms are \_\_\_% for \_\_\_ years, and the Board of Water and Natural Resources may forgive all or a portion of loan principal. The amount, source of funds, and terms will be determined by the Board of Water and Natural Resources when the application is presented at a scheduled board meeting. The purpose of the public hearing is to discuss the proposed project, the proposed financing, and the source of repayment for the loan. The public is invited to attend and comment on the project.

The public hearing will be held at {location} on {date} at {time}.

**8.3.16 Capacity Assessment  
Worksheets  
for  
Public Water Systems**



**Department of  
Environment and Natural Resources**

Revised January 2007

## Introduction

Because you are in the process of applying for a Drinking Water State Revolving Fund (DWSRF) loan, it is necessary for you to complete the following worksheets. The Safe Drinking Water Act requires that a system applying for a DWSRF loan must demonstrate that it has financial, managerial, and technical capacity. What exactly does that mean?

- **Technical capacity** - the physical infrastructure of the water system, including but not limited to the source water adequacy, infrastructure adequacy, and technical knowledge. In other words, does your treatment system work the way it is supposed to? Are you providing the safest and cleanest water possible and required by law to your customers right now, and will you be able to in the future?
- **Managerial capacity** - the management structure of the water system, including but not limited to ownership accountability, staffing and organization, and effective linkages. In simpler terms, do you have a capable and trained staff? Do you have an effective management structure?
- **Financial capacity** - the financial resources of the water system, including but not limited to the revenue sufficiency, credit worthiness, and fiscal controls. Basically, does your system have a budget and enough revenue coming in to cover costs, repairs, and replacements?

If it is determined that your system does NOT have the required capacity, you may still qualify for a DWSRF loan if it is going to be used to ensure that your system will have the necessary capacity. If you have questions while completing the following worksheets, please call our office at **(605) 773-3754**, and we will be happy to help.

After DENR receives these worksheets, we will study them and other information located in our files to make a determination whether or not your public water system has the technical, financial, and managerial capacity to be eligible to apply for a DWSRF loan. A final report will be available upon completion of the analysis.

**Applicant:** \_\_\_\_\_  
**Prepared**  
**by:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
**Phone #:** \_\_\_\_\_  
**Date:** \_\_\_\_\_

## Glossary of Terms

**Contaminant:** Any physical, chemical, biological, or radiological substance or matter in water;

**Disinfectant:** Any oxidant, including chlorine, chlorine dioxide, chloramine, and ozone, that is added to water in any part of the treatment or distribution process and that is intended to kill or inactivate pathogenic microorganisms;

**Disinfectant contact time:** The time in minutes that it takes for water to move from the point of disinfectant application or the previous point of disinfectant residual measurement to a point before or at the point where residual disinfectant concentration is measured;

**Filtration:** A process for removing particulate matter from the water by passing the water through porous media;

**Ground Water:** The supply of fresh water found beneath the surface of the ground, usually in aquifers, which is often used for supplying wells and springs;

**Ground Water Under the Direct Influence of Surface Water:** Any water beneath the surface of the ground with a significant occurrence of insects, macroorganisms, algae, or large-diameter pathogens such as *Giardia lamblia*; or any water with significant and relatively rapid shifts in water quality characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to climatological or surface water conditions;

**Maximum Contaminant Level (MCLs):** The maximum permissible level of a contaminant in water delivered to any user of a public water system. MCLs are enforceable standards;

**mg/L:** milligrams per liter - equivalent to parts per million;

**µg/L:** micrograms per liter - equivalent to parts per billion;

**NTU:** nephelometric turbidity unit;

**psi:** pounds per square inch

**Surface Water:** All water that is open to the atmosphere and subject to surface runoff;

**Turbidity:** A cloudy condition in water due to suspended silt or organic matter; and

**Waiver:** A process used by the Department of Environment and Natural Resources that allows a public water system to reduce or eliminate monitoring for a particular chemical.

## The Technical Portion of your System

### Your Water Supply

Please mark  the appropriate box: *Yes*, *No*, or *Unknown* for each section. Please try to determine the answer to every question. **If a section or question does not apply to your system, please write NA for not applicable.**

<b>Water Supply and Existing Demands</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Do you know how much water you pump on an average day? <b>Amount:</b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you know how much water you pump on a peak day? <b>Amount:</b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you know the maximum amount of water you can pump from your source? <b>Amount:</b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is your source capacity higher than your peak day demand? <b>Percentage higher or lower:</b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can you meet peak demand without pumping at peak capacity for extended periods? <b>Longest time pumping at peak demand:</b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have you been able to provide adequate volumes of water during drought cycles?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have you had to restrict usage at any time for any reason? <b>Please specify:</b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your system have an emergency or supplemental water supply? <b>Please specify:</b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have an Emergency Response Plan that will allow you to meet system demand during a drought or shortage, such as the loss of the largest source? <b>If yes, please attach.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Water Demand</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Do you know whether your system demands will be growing, declining, or remain stable over the next ten years? <b>Please circle: growing, declining, or stable.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your source have additional water available for appropriation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have a water right? <b>Water right permit number(s):</b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If you have large commercial, industrial, or irrigation users, do you know their long-term plans and understand their needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Purchased Water</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
If you purchase water from another system or a wholesaler, do you know their long-term plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have a contract to purchase water? <b>If yes, with whom?</b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are you currently staying within your contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Are you knowledgeable about other demands being placed on the same water source that you are using?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Alternative Sources</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Are alternative water sources possibly available to you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are you knowledgeable of the characteristics and costs of using alternative sources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Water Source</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Do you know the depth of your well? <i>Depth:</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you know the geologic name of the aquifer system from which your water is drawn? <i>If yes, geologic name:</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all abandoned water sources properly managed and disconnected to prevent accidental contamination or problems with current water system facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### ***Treatment - Microbiological Contamination***

**Is your system using surface water or ground water under the influence of surface water?**  **yes**  **no**

*(if you checked “no”, skip to the next section - Ground Water Systems – unless your water system requires treatment other than just disinfection).*

### ***Surface Water Systems***

<b>Filtration Plant Condition</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Is your filter plant in good physical condition (free from spalling concrete, peeling paint)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If constructed more than 20 years ago, have treatment processes been upgraded to meet current standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are repair parts available?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have redundancy (back-ups/automatic switch-overs) for all major mechanical units? <i>If no, list units you do NOT have redundancy for:</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can your plant achieve a filtered water turbidity of 0.3 NTU?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have on-line continuous turbidimeters on each filter?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have you adopted a turbidity goal lower than the standard? <i>If yes, list goal:</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have the capability to add coagulant before the filter?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### ***Ground Water Systems***

<b>Ground Water Under the Influence of Surface Water</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Is your water free from variations in turbidity and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

temperature after storm events?			
<b>Well Construction and Protection</b>			
Do you know when your well was constructed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>List year:</b> _____			
Is your well(s) constructed according to current South Dakota regulations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have a source water protection plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is your wellhead finished with a pitless adapter that will prevent contamination from surface water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Disinfection

Do you disinfect?  yes  no (if “no”, skip to the Infrastructure - Pumping section)

Disinfection	Yes	No	Unknown
Do you regularly inspect and maintain your disinfection / chlorination equipment? <b>Type of Equipment:</b> _____ <b>How often?</b> _____ <b>Disinfectant used:</b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have back-up equipment? <b>Type:</b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have adequate contact time following disinfection and before the first user in the distribution system (30 minutes for ground water systems)? <b>Contact time:</b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can you detect a chlorine residual at taps at the ends of the distribution system? <b>Free Chlorine Residual:</b> _____ <b>Total Chlorine Residual:</b> _____ (if using chloramines)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Disinfection By-Products

Treatment for the Control of Disinfection By-Products	Yes	No	Unknown
If you treat surface water, are you already practicing or could you adopt “enhanced coagulation” in your current plant?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If you treat surface water, could you still meet current contact-time requirements if disinfection were not allowed before sedimentation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Treatment - Security

Treatment Security	Yes	No	Unknown
Has the system implemented procedures to improve security of its facilities? (i.e. limiting access to sensitive sites, protecting computer and control equipment etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are chemicals used for treatment properly stored and secure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Does the water system track chemical usage? (i.e. a sudden increase in usage may signal potential contamination or tampering.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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### **Infrastructure - Pumping**

<b>Condition of Pumping Equipment</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Do you routinely inspect for signs of pump or pump motor problems? <i>How often:</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Once diagnosed, are problems corrected in a timely enough manner to avoid crisis financing, costly repairs, and unscheduled downtime?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you hire a qualified pump contractor to perform an inspection of all pumping equipment, identify potential problems, and perform maintenance, on an annual basis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Standby/Emergency Power Equipment</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Is there sufficient standby/emergency power capacity to supply 100% of the average daily demand of the system (excluding fire demand)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are any existing standby/emergency power equipment, controls and switches tested or exercised routinely under load conditions, for at least 30 minutes at a time?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the local electric utility been made aware of the standby/emergency power provisions made by the water system, so that they can reinforce and safeguard the electrical facilities serving the water operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### **Infrastructure - Storage**

<b>Storage Capacity</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Does the system have sufficient gravity-flow (non-pumped) or emergency generator-supported pumping capability to ensure adequate distribution storage to provide safe and adequate service for up to 24 hours without power? <i>If no, how long:</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there reserve capacity in the tank for fire protection support? <i>Amount:</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Security Measures</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Are any openings, such as vent pipes, screened to protect against the entrance of small animals, birds, and small insects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are access hatches locked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the tank and the immediate surrounding area fenced?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Control Systems</b>			
Is there a high and low water level signal system to control the pumps?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Is there a drain valve or hydrant to allow for draining of the tank?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Tank Maintenance</b>			
Is the tank inspected at least every three years by a qualified tank contractor for evidence of corrosion or pitting, leakage, and structural weakness?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the tank contractor capable of analyzing the coating of paint on the interior and exterior surfaces of the tank to determine if it contains lead or other hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## **Infrastructure - Distribution**

<b>System Maintenance</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Do you have an accurate map of your distribution system that indicates main sizes and valve locations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the operator routinely flush, test, and maintain the hydrants in the system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>How often:</b> _____			
Are the locations of valves in the mains and curb stops on the service lines precisely known?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the system keep a log of distribution system breaks to identify weak areas in the system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are histories, locations, size, and type of mains and service lines detailed on records in a secure area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all valves exercised and lubricated periodically?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the system free of severe “water hammer” problems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are meter pits, pressure regulating valves, altitude valves, blow-offs, and other appurtenances maintained on a regular basis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Unaccounted-for Water</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Is unaccounted-for water in the water system monitored and analyzed each month?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the unaccounted-for water less than 15 percent of the total water delivered to the mains?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>List percentage of unaccounted-for water:</b> _____%			
	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Are the normal operating pressures in the distribution system between 25 psi and 125 psi?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Normal operating pressure:</b> _____ psi			
Do you have a routine leak detection and repair program?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all sources of supply and customers metered?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the meters calibrated and tested routinely to ensure their accuracy and reliability?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Water Quality in Distribution System</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Does your system have an active cross-connection control program?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Are any inspections for cross-connections performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there a program for installing and testing backflow prevention devices where potential contamination is present?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there a program to eliminate "dead-ends" in the mains, where feasible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Construction Standards</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Are the majority of your mains 6 inches in diameter or larger? <i>List percentage:</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there a program to gradually replace sub-standard sized mains?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there suitable rights-of-way and easements provided to the water system for expansion, maintenance, and replacement of mains and services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there sufficient earth cover (six feet) to protect the mains from frost damage or heavy loads, if driven over?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are materials of mains designed and selected to resist corrosion, electrolysis, and deterioration?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Distribution System Problems</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Do you receive any complaints regarding water quality (taste, odor, color, etc.)? <i>List number of complaints/year:</i> _____ <i>Most common complaint:</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can you maintain adequate pressure in the distribution system under all conditions of flow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## The Management Portion of your System

Please mark  the appropriate box: *Yes*, *No*, or *Unknown* for each section. Please try to determine the answer to every question. ***If a section does not apply to your system, please write NA for not applicable.***

### ***Operation & Maintenance***

<b>Operations Staff</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Does the person operating your system have current water treatment plant and water distribution operator certification credentials from DENR? <b><i>If yes, list classification(s):</i></b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your operator receive additional training on an ongoing basis to keep current on new developments in the field?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Future Operational Demands</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Does your water system obtain any regular or occasional technical assistance from outside sources, such as DENR, your engineer, other utilities or organizations specifically dedicated to providing technical assistance? <b><i>If yes, who:</i></b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### ***Management & Administration***

<b>Who's in Charge?</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Is there a clear plan of organization and control among the people responsible for management and operation of the system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your system have written personnel policies and job descriptions signed by the employees?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the limits of the operator's authority clearly known?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does everyone involved in operations know who is responsible for each area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is someone responsible for scheduling work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Security</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Does the system have procedures for handling new and terminated employees (i.e. collecting keys, changing locks and computer passwords)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Rules and Standards</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Do you have explicit rules and standards for system modifications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have rules governing new hook-ups?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have a water main extension policy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have standard construction specifications to be followed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	Unknown
Do you have measures to assure cross-connection control and backflow prevention?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have policies or rules describing customer rights and responsibilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Regulatory Compliance Program</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Do you fully understand monitoring requirements and have a scheduling mechanism to assure compliance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you know how to obtain clarification or explanation of requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have a mechanism to obtain the most recent information on regulatory requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you maintain adequate records to document compliance? <i>If yes, for how long?</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did your system have any violations of the primary drinking water standards in the last year?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did your system have any monitoring or reporting violations in the last year?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you know what to do in the event of a violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Emergencies</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Do you have an Emergency Response Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there a contingency for making emergency interconnections to neighboring systems, and do you know they will work if needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does everyone involved in operations know what they are to do in the event of contamination from a toxic hazardous waste spill in your source water or a main break or a tank failure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have a clear chain-of-command protocol for emergency action?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is someone responsible for emergency operations, for communications with state regulators, for customer relations, for media relations? <i>If yes, who (title):</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Safety</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Do you have a safety program defining measures to be taken if someone is injured?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the entire staff been properly trained in the location and use of safety equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does everyone understand the risks and safety measures involved in handling water treatment chemicals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have written operating procedures for both routine and emergency system operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are you fully aware of Occupational Safety and Health Administration (OSHA) confined space (such as trenches/manholes) regulations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the system work with customers to promote their awareness of security?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Does the system have a communication plan to alert customers of a natural or intentional threat to public health?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Maintenance</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Do you have a planned maintenance management system -- a system for scheduling routine preventive maintenance (line flushing, pumps, meters, storage tanks, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have a system for assuring adequate inventory of essential spare parts and back-up equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have relationships with contractors and equipment vendors to assure prompt priority service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have records and data management systems for system operating and maintenance data, for regulatory compliance data, and for system management and administration?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Management Capability</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Are you getting the outside services and technical assistance you need? Do you have adequate legal counsel, insurance, engineering advice, technical/operations assistance, rate case preparation, and financial advice?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## The Financial Portion of your System

Please mark  the appropriate box: *Yes*, *No*, or *Unknown* for each section. Please try to determine the answer to every question. ***If a section does not apply to your system, please write NA for not applicable.***

<b>Financial Planning Mechanisms</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Does your system develop and follow an annual budget that is approved by the governing body?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the governing body review a monthly summary of revenues and expenses of the utility system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have within the annual budget separate reserve accounts for equipment replacement, capital improvement, depreciation or security upgrades? <b><i>If so, list accounts:</i></b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the system have reserve funds available in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have a capital budget or capital improvement plan that projects future capital investment needs some distance (at least five years) into the future?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have a process for scheduling and committing to capital projects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your planning process take account of all the potential capital needs suggested by your answers to the technical questions in these worksheets?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your long-term planning incorporate analysis of alternative strategies that might offer cost saving to customers, such as consolidation with other nearby systems or sharing of operations and management expenses with other nearby systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Rates/Billing - Are they Adequate?</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Do you regularly review your rates? <b><i>How often?</i></b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have a plan in place for periodic increases in rates?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the rate structure based on metered watered use? <b><i>List rates per 1000 gallons:</i></b> _____ (i.e. \$22 minimum plus \$2.50/1000 gallons)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the rate per 1000 gallons change as consumption increases? <b><i>If so, please describe:</i></b> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the rate structure assure proportionality among users?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have procedures for billing and collection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is your billing collection rate greater than 95%?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Do you have collection procedures specifically for delinquent accounts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Financial Planning Mechanisms - Are they Adequate?</b>	<b>Yes</b>	<b>No</b>	<b>Unknown</b>
Does your system have audited financial statements prepared by a certified public accountant (CPA)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your water system income exceed operating expenses (including debt service)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your water utility support other enterprise funds or the general fund?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your system require revenues from other enterprise funds or the general fund for normal operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you employ standardized accounting and tracking systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you track budget performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you keep records to substantiate depreciation of fixed assets and accounting for reserve funds?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are financial management recordkeeping systems organized?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are controls exercised over expenditures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are controls exercised to keep from exceeding your budget?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there purchasing procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did your system's governing body review this assessment before returning it to the South Dakota Department of Environment and Natural Resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 8.3.16.1 Financial Spreadsheet

Complete the financial spreadsheet on the following page using the guidance.

#### **GUIDELINES:**

This cash flow projection form provides a systematic method of estimating cash receipts, disbursements and balances. The entries listed on the form will not necessarily apply to every PWS, and some entries may not be included which would be pertinent to each PWS. It is suggested, therefore, that the form be adapted to each particular PWS, with appropriate changes in the entries as may be required.

**Procedure:** Most of the entries on the form are self-explanatory; however, the following suggestions are offered to simplify the procedure:

- (1) First gather the audited financial statements, internally prepared statements or budgets and other information for the current year and the two prior years. Include the most recent audited financial statement with your self-assessment report.
- (2) Complete the columns for the prior two years using actual data from your audited financial statements, if available, or your internally prepared financial statements. Keep in mind, for purposes of this analysis, it is important to use **cash** receipts and disbursements. **Suggestion: Round amounts to the nearest dollar.**
- (3) Complete the current year's column using the most recent budget information. Include all expenditures incurred by the utility.
- (4) Complete the form using the suggestions in the partial form below for each entry. Be sure to include any expenditures resulting from planned plant improvement and estimate the impact of inflation on all expenditures.
- (5) Item #1 (Beginning Cash on Hand) plus Item #3 (Total Cash Receipts) minus Item #6 (Total Cash Paid Out) should equal Item #7 (Ending Cash Position).
- (6) Item #13 (Total Added to Reserves) plus Item #14 (Operating Cash) should equal Item #7 (Ending Cash Position).
- (7) Item #1 (Beginning Cash on Hand) should equal Item #14 (Ending Cash Position) from the prior financial period.
- (8) Items #8 & 9 are used together to determine the impact of the rate structure on the equivalent residential user. If industrial or business customers contribute a significant portion of the revenues, these amounts should be looked at separately. Consideration should be given to design a rate structure so that each category of user pays its proportional share of the costs of operating and maintaining the PWS.

- (9) Item #10 is used to determine to what extent a PWS's net operating income is able to cover its debt service requirements.
- (10) Item #11 is used to determine to what extent a PWS's rate structure produces revenues sufficient to cover operating expenses.
- (11) Item #14 is the operating cash balance at year end. The operating cash balance at the end of any financial period should be adequate to meet the cash requirements for a minimum of one month. If there is too little cash, additional cash may have to be injected or expenditures may have to be reduced. If there is excessive cash on hand, the money should be invested or otherwise deposited into interest bearing accounts (e.g., set up reserves for replacement or capital improvements, etc.)

**Financial Spreadsheet**

**Applicant:** \_\_\_\_\_  
**Completed by:** \_\_\_\_\_  
**Date:** \_\_\_\_\_

<b>4 Year Projections</b>	<b>Last Year Actual</b>	<b>Current Year Budget Year 1 Projected</b>	<b>Year 2 Projected</b>	<b>Year 3 Projected</b>	<b>Year 4 Projected</b>
<b>Enter Year:</b>					
<b>1. Beginning Cash on Hand</b>					
<b>2. Cash Receipts:</b>					
a. Unmetered Water Revenue					
b. Metered Water Revenue					
c. Other Water Revenue					
<b>d. Total Water Revenues (2a through 2c)</b>					
e. Connection Fees					
f. Interest and Dividend Income					
g. Other Income					
<b>h. Total Cash Revenues (2d through 2g)</b>					
i. Transfers in/Additional Rev Needed					
j. Loans, Grants or other Cash Please specify					
<b>3. Total Cash Receipts (2h through 2j)</b>					
<b>1. Total Cash Available (1+3)</b>					
<b>5. Operating Expenses</b>					
a. Salaries and wages					
b. Employee Pensions and Benefits					
c. Purchased Water					
d. Purchased Power					
e. Fuel for Power Production					
f. Chemicals					
g. Materials and Supplies					
h. Engineering Services					
i. Contractual Services - Other					
j. Equip. Rent/Real Property					
k. Transportation Expenses					
l. Laboratory					
m. Insurance					
n. Regulatory Commission Expenses					
o. Advertising					
p. Miscellaneous					
<b>q. Total Cash O&amp;M Expenses (5a through 5p)</b>					
r. Replacement Expenditures					
<b>s. Total OM&amp;R Expenditures (5q+5r)</b>					
t. Loan Principal/Capital Lease Payments					
u. Loan Interest Payments					
v. Transfers Out					
w. Capital Purchases (specify):					
x. Other					
<b>6. Total Cash Paid Out (5s through 5x)</b>					
<b>7. Ending Cash Position (4 - 6)</b>					

## Financial Spreadsheet

**Applicant:** \_\_\_\_\_  
**Completed by:** \_\_\_\_\_  
**Date:** \_\_\_\_\_

4 Year Projections	Last Year Actual	Current Year Budget Year 1 Projected	Year 2 Projected	Year 3 Projected	Year 4 Projected
<b>8. Number of Customer Accounts</b>					
<b>9. Avg Annual User Charge Account (2d/8)</b>					
<b>10. Coverage Ratio (2h-5s)/(5t+5u)</b>					
<b>11. Operating Ratio (2d/5s)</b>					
<b>12. Additions to Reserve Funds for the Year:</b>					
a. Debt Service Reserve					
b. Bond Retirement Reserve					
c. Capital Improvement Reserve					
d. Replacement Reserve					
e. Other					
<b>13. Total Reserves (12a through 12e)</b>					
<b>14. Year End Operating Cash (7 - 13)</b>					

<b>4 Year Projections</b>	<b>Last Year Actual</b>	<b>Current Year Budget</b>	<b>Year 2 Projected</b>	<b>Year 3 Projected</b>	<b>Year 4 Projected</b>
<b>1. Beginning Cash on Hand</b>	For the prior period and the current year budget, use the actual cash balance. For all other years, cash on hand should equal item #14 from previous period.				
<b>2. Cash Receipts:</b>					
a. Unmetered Water Revenue	All cash received/estimated for water supplied to residential, commercial, industrial and public customers where the customer charge is not based on quantity, i.e., its based on diameter of service pipe, room, foot of frontage or other type units.				
b. Metered Water Revenue	all cash received/estimated for water supplied to residential, commercial, industrial and public customers where the charge is based on quantity of water delivered.				
c. Other Water Revenue	Other cash received/estimated from sale of water, e.g., sales for irrigation, sales for resale, inter- municipal sales, advalorem taxes (OM&R portion) etc.				
<b>d. Total Water Revenues (2a through 2c)</b>	<b>Self-explanatory</b>				
e. Connection Fees	All cash received/estimated for connection of customer service during the year.				
f. Interest and Dividend Income	All cash received/estimated on interest income from securities, loans, notes, etc., whether the securities are carried as investments or included in sinking or reserve accounts.				
g. Other Income	Other revenues collected/estimated during the period (e.g., disconnection or change in service fees, Profit on materials billed to customers, servicing of customer lines, late payment fees, rents, sales of assets, advalorem taxes (infrastructure portion) etc.).				
<b>h. Total Cash Revenues (2d through 2g)</b>	<b>Self-explanatory</b>				
i. Transfers in/Additional Rev Needed	Includes transfers from other funds w/i the municipality or can be used as a "plug" figure when determining the additional cash needed to cover cash needs.				
j. Loans, Grants or other Cash Injection	Includes loans or grants from financial institutions, inter-municipal loans, state or federal sources.				
<b>3. Total Cash Receipts (2h through 2j)</b>	<b>Self-explanatory</b>				
<b>4. Total Cash Available (1+3)</b>	<b>Self-explanatory</b>				
<b>5. Operating Expenses</b>	Use actual amounts paid when completing the prior year. Estimate the amounts for projected years based on prior year amounts, trends and other known variables (including those related to needs identified in the self-assessment.				
a. Salaries and wages	Cash expenditures made/estimated for salaries, bonuses and other consideration for work related to the O&M of the facility, including administration, and compensation for officers, directors, etc.				
b. Employee Pensions and Benefits	Paid vacations, paid sick leave, health insurance, unemployment insurance, pension plan, etc.				
c. Purchased Water	Amounts paid/estimated for cost of water purchased for resale.				
d. Purchased Power	Amounts paid/estimated for all electrical power for the utility.				
e. Fuel for Power Production	Amounts paid/estimated for fuel purchased for the production of power to operate pumps, etc.				
f. Chemicals	Amounts paid/estimated for chemicals used in the treatment and distribution.				
g. Materials and Supplies	Amounts paid/estimated for materials and supplies used for O&M of the PWS other than those under contractual services.				
h. Contractual Services - Engineering	Amounts paid/estimated to outside engineers to perform ongoing engineering work for the facility.				
i. Contractual Services - Other	Amounts paid/estimated for costs of outside accounting, legal, managerial, and other services.				
j. Rental of Equipment/Real Property	Amounts paid/estimated for costs associated w/the rental of equipment, buildings and real property.				
k. Transportation Expenses	Amounts paid/estimated for automobile, truck, equipment, and other vehicle use and maintenance.				
l. Laboratory	Self-explanatory				
m. Insurance	Amounts paid/estimated for vehicle, liability, workers' compensation and other insurance.				
n. Regulatory Commission Expenses	Amounts paid/estimated for rate cases and other activities with a regulatory commission				
o. Advertising	Amounts paid/estimated for informational, instructional and other advertising.				
p. Miscellaneous	Amounts paid/estimated for all expenses not included elsewhere (e.g. permit fees, training, etc.).				
<b>q. Total Cash O&amp;M Expenses (5a through 5p)</b>	<b>Total of lines 5a through 5p.</b>				
r. Replacement Expenditures	Amounts paid/estimated for replacement of equipment to maintain system integrity.				
<b>s. Total OM&amp;R Expenditures (5q+r)</b>					
t. Loan Principal/Capital Lease Payments	Include cash payments made/estimated for principal on all loans, including vehicle and equipment purchases on time payments and capital lease payments.				
u. Loan Interest Payments	Self-explanatory				

v. Transfers Out	Include cash transfers made/estimated to funds or entities outside the PWS.
w. Capital Purchases (specify):	Amount of cash outlays/estimates for items such as equipment, building, vehicle purchases, and leasehold improvements that were not a part of the initial design of the PWS infrastructure.
<b>6. Total Cash Paid Out (5s through 5x)</b>	Self-explanatory
<b>7. Ending Cash Position (4 – 6)</b>	Self-explanatory
<b>8. Number of Customer Accounts</b>	Use most recent system data or expected increases.
<b>9. Ave User Charge per Customer (2d/8)</b>	Self-explanatory
<b>10. Coverage Ratio (2h-5s)/(5t+5u)</b>	Measure of the sufficiency of net operating profit to cover the debt service requirements of the system. A bond covenant might require this to meet or exceed certain limits (e.g. 1.25)
<b>11. Operating Ratio (2d/5s)</b>	Measure of whether operating revenues are sufficient to cover OM&R expenses. An operating ratio of 1.0 is the bare minimum for a self-supporting facility. With debt service requirements, the operating ratio would have to be higher.
<b>12. Additions to Reserve Funds for the Year:</b>	Do not include depreciation as a reserve unless there is actually a "depreciation" reserve that has cash set-aside for future expansion. <b>Include only amounts that are added to the reserve funds for the year (i.e., do not include accrued interest on CDs).</b>
a. Debt Service Reserve	Funds specifically set-aside to meet debt service requirements or requirements set forth in a loan Covenant/bond indenture.
b. Bond Retirement Reserve	Funds specifically set aside to retire debt as it is scheduled.
c. Capital Improvement Reserve	Funds specifically set aside to meet long-term objectives for major facility expansion, improvement and/or the construction of a new facility.
d. Replacement Reserve	Funds specifically set aside for the future replacement of equipment needed to maintain the integrity of the facility over its useful life.
e. Other	Other cash set-aside for reserve.
<b>13. Total Added to Reserves (12a through 12e)</b>	<b>Total of lines 12a through 12e.</b>
<b>14. Year End Operating Cash (7-13)</b>	<b>All non-reserved cash.</b>

### **8.3.17 Capacity Requirements for New Drinking Water System**

Certificate of Approval: Obtaining a certificate of approval for a new drinking water system is required by law. More importantly, a certificate of approval shows that the drinking water system has gone through the planning process. Planning is critical for all new, as well as existing, water systems. A system that lacks technical, managerial, or financial capacity will have problems complying with all of the requirements of the 1996 Safe Drinking Water Act amendments. Since new water systems are required to complete the planning process, this will help ensure that these systems have adequate capacity and that the public will be provided with safe drinking water.

#### **Who needs a certificate of approval?**

All new community and nontransient noncommunity water systems that begin operation after October 1, 1999, are required to obtain a certificate of approval from the Department of Environment and Natural Resources (DENR) before beginning operation.

This includes water systems that do not meet the definition of community or nontransient noncommunity water system (NTNC) at start-up, but are designed to one day meet that definition. For example, a developer plats out 30 lots for homes in the development, but when the water system begins operation, there are only four homes connected to the system. Obviously, the intent is for this water system to one day be large enough to qualify as a public water system; therefore, the developer must meet all the new water system requirements.

Any system that has infrastructure in place before October 1, 1999, and then becomes a new community or NTNC water system only by the addition of new users is not required to obtain a certificate of approval.

#### **What is the process for obtaining a certificate of approval?**

DENR recommends that you apply as soon as possible to receive approval of the required documents in a timely manner. Approval may be delayed if more information is needed by the department during the review process. The following are minimum guidelines for certificate approval.

- Submit the New Water System Application and business plan no later than *90 days* before you anticipate beginning operation.
- Submit plans and specifications no later than *30 days* before the anticipated bid-letting and contract award date.
- Submit the operations and maintenance manual as soon as practicable before system start-up

## **Where do I get more information on obtaining a certificate of approval?**

A website has been developed for new water systems. Guidance and applications can be downloaded at:

<http://denr.sd.gov/des/dw/capacity.aspx>

For more information please contact the Drinking Water Program at (605) 773-3754.

### **8.3.18 Facilities Plan**

The following summarizes the minimum information expected in a facilities plan. The information is provided in two sections. The first section is that information required in **all** facilities plans. The second section provides more detail based on the project type.

#### INFORMATION REQUIRED FOR ALL FACILITIES PLANS

##### Project Executive Summary

- Provide a detailed narrative describing the selected project alternative. Be specific, providing the feet or miles of pipe to be constructed, replaced or repaired; treatment process being utilized; capacity of storage tanks; cubic yards of sediment removal; feet of shoreline stabilization; and so forth. Identify the preferred method of construction or project completion, an itemized break-out of estimated costs, the area to be affected by the project, maps showing locations of services and extent of construction, anticipated operation and maintenance (O&M) cost changes resulting from the project, anticipated rate effects caused by any proposed borrowing or changes to O&M expenses.

##### Project Development

- Discussion of existing conditions and need for proposed project;
- Discussion of compliance issues; and
- Map showing project area in relation to the community.

##### Environmental Considerations

- Narrative discussion of environmental impacts;
- Cultural resources review:
  - Completed Cultural Resources Effects Assessment Summary form;
  - Archaeological survey for any project, or a portion of a project, where construction will occur in an undisturbed area, which includes pasture

- and tilled crop land; and
- Database search of Historic Register if an archaeological survey was not required or if the report does not identify the presence or absence of historic properties within the project area. The database search is available at [www.nr.nps.gov](http://www.nr.nps.gov);
- Request for comments to the review agencies and responses from each; and
- Approved mitigation plans for addressing any adverse affects identified by the review agencies.

#### Alternative Development and Selection

- A narrative discussion of appropriate alternatives to include the no action alternative;
- Unit cost breakdowns and present worth or uniform annual cost evaluations for each feasible alternative;
- Narrative discussion justifying the alternative selected;
- Proposed financing of selected alternative and the impact to user fees;
- Discussion of further activities or requirements needed for project development, i.e. conditional use permits, soil borings or groundwater investigations, New Drinking Water System Certificate of Approval, Corps of Engineers 404 permits, and land/easement or water rights acquisition and
- Schedule identifying project milestones.

#### Public Participation

- Proof of public hearing advertisement (affidavit preferred; newspaper copy acceptable);
- Minutes of the public hearing; and
- Narrative discussion of steps taken to resolve issues identified in the public hearing.

#### INFORMATION REQUIRED BASED ON PROJECT TYPE

##### Water Distribution Replacement

- A narrative description of the system to include age, present condition, problems occurring within the system; and known water loss;
- A map or maps of the project area that shows the following:
  - existing and proposed pipe type and size;
  - Any historic properties identified within the project area; and
- Alternatives to consider: no-action, trenchless technology, and open trench construction.

## New Water Distribution Lines

- Discussion of the capacity of the existing infrastructure and water supply source to accommodate the new demands;
- A map or maps of the project area that shows the following:
  - Proposed project route;
  - Wetlands;
  - Any historic properties identified within the project area; and
  - Floodplains;
- Discussion of the ability of the existing infrastructure to accommodate the new water demand;
- Discussion of the direct and indirect/cumulative impacts that will result from the project with emphasis on wetlands, historic properties, endangered species habitat, and floodplain development within the area of impact, and mitigation efforts to address any identified impacts; and
- Alternatives to consider: no-action.

## Water Treatment

- Narrative describing the existing facility and a map of its location;
- All data, records, and technical information used for the basis of the design;
- Evidence of sufficient water rights to provide water for the design capacity; and
- Alternatives to consider: no-action, appropriate treatment technologies, and regionalization or consolidation of systems, which must include formal proposals or correspondence from regional water system(s) stating ability and willingness to provide service and details and costs associated with the regional water system's proposal.

## Storage

- Narrative describing existing water storage facilities;
- Historical water use records for average and peak conditions;
- Projected average and peak water use;
- A map or maps of the project area that shows the following:
  - Location of proposed project;
  - Wetlands;
  - Any historic properties identified within the project area; and
  - Floodplains if the project involves a booster station;
- Alternatives to consider: no-action.

## Water Supply

- Narrative identifying existing water source;
- Historical water use records for average and peak conditions;

- Projected average and peak water use;
- Discussion of how any potential contaminant source was taken into consideration during the site selection process, and if appropriate, how the risk posed by those potential contaminant sources to the new water source are to be mitigated (information regarding potential contaminant sources regulated by this department may be obtained from the DENR Ground Water Quality Program's Source Water Coordinator);
- Discussion of the existing treatment facility's capacity to treat additional water;
- Discussion of the compatibility of the new source and the existing treatment system to meet Safe Drinking Water Act requirements;
- A map or maps of the project area that shows the following:
  - Project location;
  - Wetlands;
  - Any historic properties identified within the project area; and
  - Floodplains;
- Evidence of legal right to use and develop the water source; and
- Alternatives to consider: no-action and regionalization or consolidation of systems, which must include formal proposals or correspondence from regional water system(s) stating ability and willingness to provide service and details and costs associated with the regional water system's proposals.

### **8.3.19 Review Agencies for State Revolving Fund Projects**

The following agencies must be given the opportunity to comment on the proposed project. It is the responsibility of the project sponsor or its consultant to supply these agencies with a brief project description and map of the project area. The final facilities plan must include each agency's response.

United States Department of Interior  
 Fish and Wildlife Service  
 420 South Garfield Avenue  
 Pierre, SD 57501-5408  
 Attn: Donald Gober, Field Supervisor

South Dakota Dept. of Game, Fish and Parks  
 Division of Wildlife  
 523 East Capitol Avenue  
 Pierre, SD 57501-3181  
 Attn: Leslie Petersen, Interagency Coordinator

United States Department of Agriculture  
 Natural Resources Conservation Service  
 200 Fourth Street SW

Huron, SD 57350-2475  
Attn: Deanna Peterson, State Soil Scientist

U.S. Army Corps of Engineers, Omaha District  
Planning Division  
Attention: Brad Thompson, CENWO-PM-AE  
1616 Capitol Avenue  
Omaha, NE 68102-4901

**8.3.20 CULTURAL RESOURCES EFFECTS ASSESSMENT SUMMARY**

Applicant \_\_\_\_\_ Project Contact \_\_\_\_\_  
Address \_\_\_\_\_ Telephone Number \_\_\_\_\_

Legal Location of Project \_\_\_\_\_  
City \_\_\_\_\_ County \_\_\_\_\_ Project No. \_\_\_\_\_

Project Description \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

For projects that involve new construction on vacant land please include information as to what previously occupied the site and whether that site has any known historic or archaeological significance.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Please describe below or attach information supporting the determination of effect.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**A map showing the project location is required.** Drawings or photographs may also be helpful.

Please indicate the effect the project will have on cultural resources based on the review performed:

\_\_\_\_\_ No Historic Properties Affected: There are no historic properties present or the undertaking will not affect any properties eligible for or listed in the National Register of Historic Preservation.

\_\_\_\_\_ No Adverse Effect: This property is listed in or eligible for the National Register of Historic Places. This project will have no adverse effect upon the historic significance of the property because the proposed undertaking meets the Secretary of the Interior's Standards for the Treatment of Historic Properties.

\_\_\_\_\_ Adverse Effect: This property is listed in or eligible for eligible for the National Register of Historic Places. This project will have an adverse effect upon the historic significance of the property. (Attach proposed mitigation measures that may minimize the adverse effect.)

Prepared by: \_\_\_\_\_ Date \_\_\_\_\_

**DETERMINATION OF EFFECTS**

I have reviewed the project description and the information provided concerning historical and cultural effects of this project. Based on that review, the Department of Environment and Natural Resources concurs with the applicant's determination of the effects that the construction of this project will have on historical or cultural resources. Additionally, if historical or cultural resources are discovered during project construction, the contractor is required to cease construction and notify the State Historical Preservation Officer.

Approved by: \_\_\_\_\_ Date \_\_\_\_\_  
SD Department of Environment and Natural Resources



## **8.4 Sanitary/Storm Sewer Facilities Funding Application Instruction**

The application form for Sanitary/Storm Sewer Facilities Funding is in section 7.4. This application is for Consolidated Water Facilities Construction Program and Clean Water State Revolving Fund Program funding. This application is for sanitary and storm sewer projects.

### **8.4.1 Applicant Form**

*Applicant.* Name and mailing address of the entity sponsoring the project.

*Sub Applicant.* Organization on whose behalf the application is being submitted.

*Proposed Funding Package.* Include the amount and type of funds requested, the amount of local funds being provided, including direct public or private contributions, loans, federal funds, and water development district grants. Enter the total amount on the last line. Multi-year or phased projects should enter only the costs associated with activities for which assistance is being requested.

*Project Title/Description.* Provide a one line title for the project and a brief narrative describing the project. Be specific, providing the feet or miles of pipe, treatment process being utilized, capacity of the storage tanks, and so forth. Include the current monthly drinking water rate. If the rate is not a flat rate, compute the monthly rate at 5,000 gallons for municipalities or sanitary districts and at 7,000 gallons for all other water systems. Additionally, indicate whether a reserve fund has been established for the drinking water utility.

*Certification.* An official of the sponsoring entity, who has been authorized by resolution of the governing body to submit the application, must read and sign the application.

#### Professional Consultants

*Application Prepared By:* Identify the entity, the individual that helped prepare the application, and the other contact information requested in case questions arise about the application.

*Consulting Engineering Firm:* Identify the engineering firm retained by the sponsor, the engineer's name, and the other contact information requested in case questions arise about the application.

*Legal Counsel's Firm:* Identify the law firm retained by the sponsor, the attorney's name, and the other contact information requested in case questions arise about the application.