

CHAPTER III DRINKING WATER REVOLVING FUND HANDBOOK OF PROCEDURES

EVALUATION OF TECHNICAL, MANAGERIAL, AND FINANCIAL CAPACITY

I. FUNCTION

It is important that all public water systems (PWS) be managed and operated in an efficient and effective manner to ensure continued service of high quality, affordable water to their customers, now and in the future. The Drinking Water Revolving Fund (DWRF) has established this technical, managerial and financial (TMF) capacity review and evaluation to help systems understand this role and build the capacity where needed to properly serve their customers. Meeting these requirements for a loan will help the system ensure it will operate into the future with fewer difficulties, be financially secure, and be managed with the best interests of the water users uppermost in mind. This will result in a PWS being considered as an asset to its community, as opposed to, a liability to be ignored until it causes a problem.

A. Eligibility

A PWS applying for assistance from the DWRF is eligible to receive assistance if one or more of the following criteria are met:

1. The project addresses present or prevent future violations of health-based drinking water standards and if it has the TMF capacity to ensure compliance for the foreseeable future.
2. The project replaces aging infrastructure that is needed to maintain compliance or further the public health protection objectives of the Safe Drinking Water Act.
3. It is in significant non-compliance with any requirement of any applicable National Primary Drinking Water Regulation (NPDWR) or variance, if the assistance will ensure a return to compliance. Applicants in significant non-compliance with any requirement of a NPDWR will receive priority for funding from the DWRF if the assistance will directly correct the non-compliance, as determined by the Water Quality Control Division (WQCD).

If a PWS meets the eligibility criteria above and it is lacking in any element of TMF capacity, it must agree to undertake feasible and appropriate changes in operations (including ownership, management, accounting, rates, maintenance, consolidation, alternative water supply or other procedures) to ensure TMF capacity over the long term. Assistance with correcting TMF deficiencies may also be available from the WQCD or through other funding set-asides from the loan fund under the DWRF grant.

Applicants who are not PWS's, but who will become a community water system upon completion of a project, may also be eligible for a loan if they meet specific criteria set forth in 40 CFR 35.3520(b)(2)(vi). These systems will be assessed as to their TMF capacity and their ability to meet the federal TMF requirements in accordance with process set forth in the "New Water System Capacity Planning Manual," currently effective in the WQCD.

B. Definition of TMF

The three capacity areas are described as follows:

1. Technical capacity - includes adequacy of source water; adequacy of infrastructure including source, treatment, storage and distribution facilities; and technical knowledge and skills of staff.
2. Managerial capacity - includes ownership accountability, staffing and organization, and effective external linkages. External linkages might include availability of specialized expertise or services beyond normal staffing ability such as legal, engineering, financial, operations or maintenance. Managerial capacity would also include the ability to coordinate the three elements through long-term and short-term planning.
3. Financial capacity - includes revenue sufficiency, credit worthiness, fiscal management and controls.

II. PROCESS

PWSs will be assessed as to their TMF capacity utilizing the procedures in this chapter. Organizational responsibilities for determining capacity and compliance of new systems have been defined in the DWRF Memorandum of Understanding. The WQCD assisted by the Department of Local Affairs (DOLA) will make a determination as to the TMF capacity of all applicants and whether or not applicants are in non-compliance with any requirement of any NPDWR.

A. Preparing for the Technical, Managerial and Financial Capacity Review

1. The 1996 Amendments to the federal Safe Drinking Water Act require each state to develop a program to ensure that all new community water systems, new non-transient non-community water systems and existing public water systems that are borrowing money from the DWRF demonstrate TMF capacity to comply with each promulgated national primary drinking water regulation in effect whether or not it has been adopted by the state prior to the system (or upgrades) going on-line.
2. The "New Water System Capacity Planning Manual" and the "Capacity Assessment Worksheets for Existing Systems" are available to assist new and existing systems with developing the necessary documents to demonstrate compliance with applicable requirements.

3. An existing PWS shall complete the Capacity Assessment Worksheets for Existing Systems (**Attachment 1**) along with the Cash Flow Projection (**Attachment 2**) as part of the documentation for providing TMF information to the WQCD. To assist the PWS in answering the questions in Attachment 1, a “User Guide for Completing the Capacity Assessment Worksheets” is available from the WQCD.

B. Assessing Technical, Managerial and Financial Capacity

1. The State will assess and make a determination as to the technical, managerial and financial capacity of all DWRF applicants as required by Section 1452(a)(3) of the SDWA. The “Capacity Assessment Worksheets for Existing Systems” will be used as a tool for the applicants and for the State to determine the ability of the PWS to meet these three dimensions of water system performance.
 - a. The Financial Assistance Program (FAP) Project Manager (PM) (along with the Technical Services Unit if necessary) will first determine if the PWS is a Tier I, II, or III system, as described in the Tier Assignment and Check-sheet (**Attachment 3**).
 - b. The PM is responsible for coordinating activities of all agencies involved in the review process, and will immediately forward information from the PWS to the reviewers from the WQCD Technical Services Unit (TSU) and the Department of Local Affairs’ Division of Local Government (DOLA). The PM will distribute applications and TMF data submissions with a Cover Memo (**Attachment 5**). This memo will describe assignments and schedules to all involved staff. (Use Gant and Communications with TSU to help determine schedule.)
 - c. The WQCD will use a streamlined process for Tier III systems.
 - d. The WQCD will determine if Tier I or II systems require a preliminary on-site visit to assist the PWS with developing and completing its TMF worksheets and loan application. If a meeting is required, the PM will coordinate a meeting with the PWS and necessary WQCD, Colorado Water Resources and Power Development Authority (CWRPDA), and DOLA staff to assist the system personnel in gathering and reviewing necessary data and information. If a meeting is not required, the PWS will submit paperwork independently.
2. The TSU will perform, and document, technical and managerial reviews. DOLA will perform and document financial reviews. DOLA will make final recommendations after the TSU communicates to DOLA any technical/managerial issue that may impact the financial review. The overall process for initiating and conducting the TMF review is shown in the TMF Review Process Flow Charts, (**Attachment 6**).

3. The TSU will determine technical, managerial and some financial capacity (ex. Enough income to cover operations and maintenance) by utilizing some or all of the following informational sources:

DWRF Application	Capital Improvement Plan
TMF Worksheets	Operation and Maintenance Manual
Planning Document (which will include a managerial plan)	CPE Report
Sanitary Survey	Water Quality Report
Compliance Data	Cash Flow Projections
Operator Certification Data	Budget Information

- a. The TSU will make the final determination regarding the PWSs compliance with TMF capacity. The TSU will determine whether there are feasible and appropriate changes in operations that may be undertaken to bring the system into compliance or provide adequate TMF capacity.
- b. The WQCD (either FAP or TSU) will contact the PWS personnel directly for more information as needed.
4. The DOLA will determine financial capability as it relates to the system's ability to repay a DWRF loan over a period of up to 20 years. The DOLA's financial analysis will focus on credit-worthiness and fiscal management based on some or all of the following informational sources:

DWRF Application	Annual Budget
TMF Worksheets	Annual Audit
Planning Document	Cash Flow Projection
Capital Improvement Plan	

- a. The DOLA will contact the PWS personnel directly for more information as needed.
5. The PM will monitor progress of the review, and will follow the steps outlined in Schedule Resolution (**Attachment 4**), in the event scheduled deadlines are not met.

C. Review Criteria

Review criteria include both mandatory and recommended facility improvements, procedures, policies and practices for effective operation of a PWS.

1. The WQCD technical capacity review will consider all appropriate questions in Attachment 1, including the following mandatory criteria:

- Finished water must be able to meet all required drinking water standards (i.e. maximum contaminant levels (MCLs), and infrastructure adequacy). Treatment processes must be in accordance with State Design Criteria or WQCD approved variances thereto.
 - A valid water rights certification or well permit from the Department of Natural Resources must be available.
 - Personnel must be able to operate the system effectively (i.e. the operator must, as a minimum, be certified at the proper level).
 - The responsibilities of the operator are delineated, with an explanation of those functions that are to be delegated to management or other operational staff. Operator responsibilities are outlined in the Operator Certification Regulation at 100.16 and 100.17.
2. The WQCD managerial capacity review will consider all appropriate questions in Attachment 1, including the following mandatory criteria:
- Identification of the system owner(s), manager(s), and operator(s), and organizational chart, as well as other essential services in-house or contractual.
 - Monitor personnel performance.
 - A system to effectively maintain required records, distribution system histories/maps, and compliance information.
 - Access to operation and maintenance manual and other essential services related to system management, e.g., legal, engineering, finance, accounting, maintenance, etc.
 - Adequate cross connection control program.
3. The DOLA financial capacity review will consider all appropriate questions in Attachment 1, including the following mandatory criteria:
- Demonstration that the applicant has established an enterprise or other accounting method to ensure there are adequate revenues to meet all projected expenses in operating and maintaining the system.
 - The applicant has established a reserve system to pay for replacements and contingencies (emergencies).
 - Demonstration that the system conducts audits, prepares annual budgets and capital improvement plan.

- A cash flow projection for the term of the proposed loan, which includes annual revenues, reserve funds, debt service, and operating expenses.

4. The final TMF Financial Capacity Evaluation Report will be prepared by WQCD in collaboration with DOLA.

D. Method of Evaluation

1. If the system does not meet the recommended criteria, the TSU or DOLA analyst may take the opportunity to educate the system on the benefits of meeting that criteria to enhance capacity.
2. If the system does not meet the mandatory criteria, the TSU or DOLA analyst will work with the system to try to find a reasonable solution. The system will be required to commit (in writing or by conditions in the loan agreement) to meeting the solution to accomplish the following so the DWRF loan award can proceed:
 - Attain technical, managerial or financial capability to meet the requirements of the SDWA, and/or
 - Ensure that the system can return to compliance upon completion of the project.
3. If mandatory elements cannot be satisfactorily addressed, DWRF financial assistance shall be denied.

E. Final Evaluation and Reporting

1. The TMF analysis shall be documented in a Technical/Managerial/Financial Evaluation Report (**Attachment 7**) to be prepared by the WQCD, with DOLA collaboration on the financial capacity review.
2. A letter (**Attachment 8**) will be sent to the applicant from the PM outlining the recommendations or requirements from the evaluation and will include comments from WQCD and DOLA. A copy of the letter will be sent to the CWRPDA to incorporate the requirements as loan conditions.
3. The PWS must address issues required by WQCD or DOLA prior to DWRF loan approval; or, the PWS must agree to conditions in the loan agreement that will ensure compliance with TMF capacity requirements.
4. The TSU (or DOLA if appropriate) will review the completed project to ensure that all commitments and conditions have been met prior to closing out the loan and releasing final payments.

A biennial report will be prepared that provides a summary of all DWRF loan applications, the status of loan actions, and a summary of the TMF review process. This report will describe unusual issues as well as the routine handling of the applications. A brief summary of the actions required by PWSs to meet the TMF criteria will be provided. A current status report can be provided upon request.

USER GUIDE

For Completing the Technical, Managerial and Financial Capacity Assessment Worksheets



Provided by:

**Department of Public Health and Environment, Water Quality
Control Division**

Department of Local Affairs

Colorado Water Resources and Power Development Authority

The Drinking Water Revolving Fund (DWRF) program was established with federal dollars to provide low cost loans to communities. Public water systems that apply for a DWRF loan are required to complete the Technical, Managerial and Financial (TMF) Capacity Assessment Worksheets to demonstrate that it has the ability to provide safe drinking water to customers.

To begin the TMF review process, you will need to address all of the questions on the TMF Capacity Assessment Worksheets with a yes, no, or not applicable (NA) answer and provide a reference that supports your answer. Short reference documents can be attached to the worksheets as part of your submittal; long documents will be reviewed on-site as necessary. Following is guidance on the information needed for each question on the worksheets:

TECHNICAL CAPACITY

Questions 1 – 4 are mandatory requirements. You will need to assure the state that you are complying with these items or that they will be corrected by the changes you are putting into place with this loan. These items can be addressed prior to the loan or as a condition of your loan agreement.

1a. Is the system in compliance with all promulgated federal and state drinking water regulations related to quality and monitoring?

We need to make sure that you are or will be meeting these regulations. Your response should provide recently completed laboratory data sheets or current Consumer Confidence Report to support this requirement.

A public water system (PWS) must be in compliance with all parameters listed in the Colorado Primary Drinking Water

Regulations, and any new rules promulgated by U.S. EPA and not yet adopted by the Colorado Department of Public Health and Environment (CDPHE). If you are not in compliance, discuss how the proposed project will bring your system into compliance.

1b. Are monitoring compliance issues being addressed?

You may refer to a Water Quality Report generated by the WQCD to support this requirement. You should address any monitoring violations noted by providing information on how the additions to the system, or other measures you plan to take, will eliminate these problems.

1c. Considering existing source water quality and potential sources of contamination, are the available (or proposed) treatment technologies and size appropriate to meet drinking water standards?

We want to look at your engineering design report. You should make certain the report addresses the current or anticipated water quality in your source, and identify any potential sources of contamination of that source. The report should justify the processes selected for design in relation to these water quality issues. If it does not, you need to work with your design consultant to include this information. For this question, reference the report if it has not been submitted, and we will examine the details during the on-site visit.

2. Does the system have proof of sufficient water rights to meet projected needs (including, if applicable, appropriate priority if water is purchased)?

We want to make sure you have the right to enough water to meet your customers' needs.

Provide a five-year projection of your total annual system water needs, including domestic, commercial, and industrial uses. Domestic use should be based on historical records if available. If no records are available, a minimum quantity of 100 gallons per person per day is required, but you should recognize that this quantity will not meet the demand if your consumers plan irrigation or other outside water use. Also attach (or have available for the on-site visit) a copy of any water rights court decrees, referee rulings, and permits for withdrawal.

3. Is the certification level of the operator in responsible charge at or above the facility's classification level as required by Regulation 100? Consider any upcoming treatment process changes.

Question 3, 4 and 5 are all related; therefore, you may answer each one individually or you can provide a brief summary that incorporates all three.

You can find the requirements of Regulation 100 at http://www.cdphe.state.co.us/op/regs/reg1001_2002.pdf. This regulation describes the classification levels of plants and operators. Provide copies of licenses for your operator(s), and a copy of your facility's current classification. If your project is a treatment plant upgrade or expansion, show that your operator in responsible charge (ORC) meets the requirement for the new plant, or how s/he will get that certification.

4. Is the system staffed adequately considering as a minimum, the operator duties delineated in part 100.16.2 of Regulation 100?

Provide names and copies of certifications of all operators and identify the ORC.

Describe how your system manages the work described in Regulation 100, and how the ORC delegates duties to other certified operators, or other workers. Describe how you make certain a qualified individual is making any critical adjustments within the treatment system. Job descriptions and policies and procedures can be attached to document how you meet these requirements.

5. Does management provide opportunities for operator training?

Describe your training program, and how your certified operator(s) get the continuing education and training units required to maintain their certificates. Training is important for both operators and managers to make sure you are aware of changes to the legal requirements that you must meet and preventing violations. Your operators may also work more efficiently, saving time, money and materials.

6. Does the system have an adequate emergency plan that addresses storms, floods, terrorism, security, wild fires, and major mechanical or electrical failures?

If you have an emergency operations plan, provide a copy of the table of contents, and make the whole plan available for the on-site visit. If not, provide information on how you respond to emergencies, including potential breaches of security. Preparation of a written plan may be recommended as a condition of your loan if it does not exist.

7. Does the system have a master plan to address infrastructure and capacity needs?

If you have a master plan, provide a copy of the table of contents, and have the plan available for the on-site visit. If not, describe how you prepare for current and future needs including the currently proposed project.

Master Plans identify future capital improvement projects needed for the water system. A master plan may include forecasting future flow needs, a review of applicable regulations, modeling of the distribution system, and identification of future projects needed to accommodate system growth and deterioration.

8a. Has the system identified its source water area and potential sources of contamination?

If the State of Colorado has done a Source Water Assessment for your system, include or reference that information here. This assessment may be under the Wellhead Protection Program, or the Source Water Assessment and Protection Program. If it has not, but you have other information that documents your source, provide a description of the information and have the reports available for the on-site visit. These reports may include an engineering study of your watershed, geologic study of your aquifer, or other similar reports.

8b. Does the system have a plan for protecting its source water area?

Source water protection is important for both surface and ground water systems. If you have a wellhead protection plan or a watershed protection plan, please include a description of the plan, and have the full plan available for the on-site visit. If a Source Water Assessment and Protection plan has been conducted for your system, refer to that plan in your response. If you do not have a plan, include a description of any information you have to protect the quality of your source of supply. This may include restricting access or use of your watershed, limiting use of raw water reservoirs, and other water quality protection measures.

MANAGERIAL CAPACITY

Questions 1a., 1d., 2a., 3a. and 3b.(if the loan is funding process changes), 4b., and 5 are mandatory requirements. You will need to assure the state that you are complying with these items or that they will be corrected by the changes you are putting into place with this loan. These items can be addressed prior to the loan or as a condition of your loan agreement.

1a. Who has legal ownership of the system?

Provide a clear description of PWS legal ownership, with name, mailing address and telephone number.

1b. Does the system have an organizational chart?

Provide the chart or description of your staff organization. You should have a chart, (or for very small systems, a description of responsibilities) which shows the chain of command for the system.

1c. Is there a clear delegation of responsibilities?

Your organizational chart and supporting documents should also include the level of decision-making authority so it is clear who can make changes to the system operation. Written job descriptions should provide detail on the authority of each position. Provide this material, if available. If not available, provide a clear description of which persons have authority to make changes to your operation. You should plan to develop job descriptions.

1d. Do managers have a procedure to monitor personnel performance?

The system manager or supervisor needs to make sure everyone is doing his or her job and let each person know how well he or she is doing. Provide a description of your performance evaluation system. If all staff associated with water system operations are not subject to performance oversight, you must plan to develop an evaluation system.

2. Is there a record keeping system for all required records?

Answer yes or no. Provide specific information for each category listed in 2a. - 2d. These record-keeping systems can be reviewed on-site if necessary.

2a. Is there a record keeping system for Monitoring Records?

Section 1.2.3 of the Colorado Primary Drinking Water Regulations specifies record keeping requirements. You should be aware of these requirements, and should provide a description of your record-keeping plan for these files. The regulations specify the following retention:

- 5 years - bacteriological monitoring
- 10 years - chemical monitoring
- 3 years - actions to remedy violations
- 10 years -sanitary surveys
- 5 years -variances and exemptions
- 12 years - lead and copper monitoring
- 3 years - cross-connection control records
- 3 years - consumer confidence reports.

You must have at least these records available for review during the on-site visit.

2b. Is there a record keeping system for Operating Records?

Describe your operating records system. The operational records that you need depend on the complexity of your system. Your operators should use these records to operate the system effectively in order to prevent risks to public health and infrastructure. You should also record system failures and your response. If you do not have an effective system of record keeping, you should plan on developing one.

Records should include (but may not be limited to):

- raw water flow
- treated water flow
- water storage levels
- treatment process control information
- chemical usage rates
- treated and distribution system disinfectant residuals
- raw water bacterial quality
- well drawdown levels and associated pump run times

2c. Is there a record keeping system for Maintenance Records?

Describe your maintenance record keeping system. The maintenance records that you need depend on your system. Generally, each system should have a maintenance program that takes care of their source water, treatment plant, storage tanks and distribution system. The purpose of maintenance records is to give you a history of your system, letting you anticipate and plan for repairing or replacing system parts before they fail and create water quality problems for consumers. The maintenance records can also document the activities of assigned staff or contractors and keep equipment warranties from being voided.

If you need assistance, we have example filing plans and templates you can use to create your own plan. You can get a copy by calling the Water Quality Control Division (WQCD).

2d. Is there a record keeping system for Financial Records?

Provide a description or show evidence of your financial record keeping system. Adequate records allow the water system to develop accurate forward-looking budgets, current year status reports, balance sheets and financial reports. An adequate financial report allows the water system to: compare current and previous year's income and expenses, identify areas of increase or loss in income and expenses, pinpoint financial problems (especially delinquent accounts), identify possible cost cutting measures, inform lenders and consumers about the status of their interests, and help determine the need for rate increases. At a minimum, the financial records should consist of the following five sections: balance sheet, income statement, statement of retained earnings, statement of cash flow, and any notes to the financial statements. The budget should account for all incoming revenue and outgoing expenses.

3a. Does the system have a map and description of the treatment facility?

Provide a copy, or plan to make it available during the on-site visit.

To properly operate a treatment plant, and to respond to equipment failures, operators must know how the parts are interconnected and all the possible flow paths for the water and any treatment chemicals that may be added. This is generally accomplished by maintaining "as-built" drawings and an O&M manual for the entire facility.

All new process additions supported with DWRf funds **must have plans and specifications approved by the Division** and the system

should be provided with as built drawings as part of the process revision **C.R.S. 1973, Section 25-1-107(1)(X)**. The as-built drawings must include as a minimum: plan view, (and elevation views for underground components), pipe/vessel component material, size, and include all pipes, valves, connectors and storage devices.

3b Does the system have a map and description of the distribution system?

Provide a copy, or plan to make it available during the on-site visit.

To properly operate a distribution system, and to respond to main breaks or equipment failures, operators must know the location of pipes, valves, hydrants, etc., and all the possible flow paths for the water. This is generally accomplished by maintaining "as-built" drawings and an O&M manual for the entire distribution system.

All new distribution system projects supported with DWRf funds must have plans and specifications approved by the Division and the system should be provided with as built drawings as part of the process revision. The as-built drawings must include as a minimum: plan view, (and elevation views for underground components), pipe material, size, and include all valves, connectors and storage tanks, and the location, size, and type of all hydrants.

4a. Is the system implementing an O & M Plan that includes all existing equipment and processes essential to provide safe drinking water?

Provide a copy, or plan to have your O & M Manual available for the on-site visit.

The O & M Manual should cover the source, treatment plant, storage tanks and distribution system. Typically, O&M manuals describe the proper way to install, start, operate, shut down and maintain the equipment and process controls so the operator's personal safety is protected, the equipment functions most effectively, unscheduled repairs are minimized, and the overall process functions properly.

4b. Does the system plan to include a requirement that an O&M manual be provided for any new equipment detailing startup, shutdown and maintenance procedures?

Contracts for all new equipment funded under the DWRF program must include equipment specific O&M manuals and a revision of the overall facility O&M manual. The O&M manuals must explain the proper way to install, start, operate, shut down and maintain the equipment so the operator's personal safety is protected, the equipment functions most effectively, and unscheduled repairs are minimized.

5. Does the system have an adequate cross-connection control program?

Provide a copy of your cross-connection control program policies and procedures. If you do not have a cross connection control program, development of a program will be made a condition of your loan agreement. The WQCD has a sample plan available upon request.

The Colorado Primary Drinking Water Regulations require PWS's to identify potential hazardous service connections, install containment devices on hazardous service connections, and ensure that containment devices are tested annually by trained cross-connection control technicians.

6. Does the system have a program to address water that is lost due to leakage?

If you have a leak detection and control program, provide a description of the program. If you do not, the state may recommend you develop a program in order to minimize the loss of water, reduce main break frequency by detecting problems while they are small, and prevent the possibility of contaminants entering the distribution system.

7. Does the system log or track, and address customer questions or complaints?

Provide a brief description of your customer service program.

Customer complaints and questions can help you detect problems in your treatment and distribution system, but you need a record of the complaints and how they were handled to be effective. A tracking system will let you see the frequency, location, type of complaint and what was done to fix the problem. It will let you see if the problem is widespread, only occurs in certain locations, or is repeated often. You can compare operating records to complaints to help determine the source of the problem, and possible solutions.

FINANCIAL CAPACITY

Questions 2, 6, 7, and 13 are mandatory requirements. You will need to assure the state that you are complying with these items or that they will be corrected by the changes you are putting into place with this loan. These items can be addressed prior to the loan or as a condition of your loan agreement.

1. Does the system use enterprise accounting, and does it have the required revenues and reserves for current and future operations?

Describe the accounting system used by your water system or community, and plan on having your budget information available for the on-site visit.

Enterprise accounting means the system operates like a separate business, with all revenues and expenses used exclusively for the water system. This type of accounting can help assure that reserve accounts are used for water system improvements, not general obligations or other city improvements. If your water funds are commingled with other money, describe how you account for water system income and expenses, reserves, debt service, etc. If your water system is financed by money other than fees for service, describe the source of these other funds, and how you can count on the money being available in the future.

2. Is a reserve system established to help pay for replacements and contingencies (i.e. emergencies)?

Provide a description of your reserve policies.

Generally, a 3 month operations and maintenance reserve shows adequate preparation for contingencies. Other reserves for debt service, bond retirement, replacement, and capital improvements should also be in place. If past revenue and expense data show instability of the system's cash flows, a larger O&M reserve may be appropriate.

3. Do key financial ratios indicate adequate cash flow, liquidity, and affordability?

A credit report prepared by the Department of Local Affairs will show 15 to 20 current indicators used to measure financial condition, and rate your system and the community as either "weak" "average" or "strong". If you are unfamiliar with these indicators, contact the Department of Local Affairs (303) 866-2352 for assistance in understanding your financial situation.

4. Do bond ratings for the system or its owners indicate creditworthiness?

Your past history of payment to creditors, vendors, etc. is important, since you will be obtaining a loan, and the lender wants to make sure you will be able to repay the principal and interest on the loan, and still be able to support all your other water system financial needs. You should check to see if your community has a bond rating, and know what it is. This information is available from Standard & Poor's, Moody's or Fitch. The State will also get this information from one or more of these sources.

5. Does the system follow accepted accounting standards and practices?

In order to manage your resources, you should be following the accepted standards and practices in accounting. If you are not, you should indicate why you are not, and what you do to make sure you account for your income and expenses properly. For information on accounting standards, consult the Financial Management Manual available from the Office of State Auditor and on their Internet site at <http://www.state.co.us/auditor/locgovt/FMM/PDF/99FMM.pdf>

6. Does the system conduct audits or perform well in audits conducted by others?

You can reference your last audit if it was included in the application submittal or provide a copy, including any recommendations from the auditor. If your system has not been audited, regular audits in future years will be included as a condition of your loan agreement.

According to Colorado State Statute, an annual audit must be conducted by public entities like water systems, or the applicant must obtain exemption from this requirement by the Office of the State Auditor.

7. Does the system prepare an annual budget and capital improvement plan?

An annual budget is a state requirement and is required for systems obtaining DWRF loans. It is a critical element in providing good financial control of your system. A capital improvement plan demonstrates proactive planning for your system. This plan will show you your financial resource needs so you can plan to obtain those funds in a careful and conservative way. Without a capital improvement plan, financing vital improvements can become emergencies, and will often cost the system more.

8. Does the system maintain a user charge system that allows equitable billing, collection and enforcement?

User charges are the most common way to fund a water system. It is allowable to use a system other than user charges to collect the necessary revenues to fund your water system, but you must provide a clear description of the system used, and show that it will be reliable in the future. Whatever fee collection system is used, it should be set so all needs of the water system, including payment to reserve funds and debt service are covered by the income.

9. Does the system utilize metering?

Metering is required by **SECTION 37-97-101 C.R.S. (1990 WATER METERING ACT)** for systems with more than 600 taps. You need to have at least 50% of your services metered at this time, and the rest must be metered by 2009. If this applies to your system, and you are not 50% metered now, indicate how you plan to catch up to this requirement and provide the schedule for installing the rest of your meters.

10. Does the system maintain general liability insurance?

While insurance is not a requirement, lack of insurance could affect the system's ability to repay a loan or other obligations if anything should happen. A lack of liability insurance may have an impact on your qualifications for loans.

11. Does the system have pending lawsuits that may result in substantial financial losses?

Lawsuits might cost your system a lot of money, which could hinder your ability to repay a loan, and will be considered in evaluating the financial stability of the system.

Describe any current or pending lawsuits against the water system, including discrimination cases.

12. Do election records suggest board instability or general public dissatisfaction with its policies?

The answer to this question is used to help determine if your system will continue in the current direction, or if there is a risk of frequent changes. Constantly changing policies and direction can have a negative impact on your financial stability and can waste funds on projects that are later abandoned. This will be considered when evaluating the suitability of this loan.

13. Has the system filled out a cash flow projection or a comparable financial spreadsheet?

Provide your own 20-year financial spreadsheet, or complete the sample 20-year cash flow projection attached.

Describe what happens to end of year operation cash and reserves. Does this money (if excess) stay with the drinking water system, or is it used for other purposes? Explain what it is used for, and why. If the end of year is negative, describe where funds will come from to make up the shortfall.

14. Has the system undertaken a cost of service study that allows it to fund operations, debt service, depreciation, and rate of return?

Provide a clear description of the study and demonstrate how it will ensure financial stability for your system.

A cost of service study will provide you with information that is very useful in determining appropriate water rates, setting other fees you need to charge, etc. so your system is financially stable, and you can continue to replace equipment, pipe, etc. as it wears out or becomes obsolete, cover your operating and maintenance expenses, and put money into a reserve fund for future expenses. Cost of service studies are not required, but are **highly recommended**.

A tool available to assist you with a cost of service study is the ShowMe Ratemaker software. The software was developed by the state of Missouri Department of Natural Resources to help water and wastewater systems analyze their rate structure and, if necessary, develop revised rates. It includes a five-year financial projection to ensure secure future for your utility. This software is available on the Internet at www.dnr.state.mo.us/deq/tap/emiapps.htm.

Contact Information

General Information, Eligibility Lists, Applications

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donna.davis@state.co.us

Technical Issues

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Financial Review

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Department of Local Affairs
1313 Sherman Street, Room 521
Denver, CO 80203
Phone: (303) 866-2352
Fax: (303) 866-4819
barry.cress@state.co.us

Loan Financing Information

Mike Brod
Colorado Water Resources and Power Development Authority
1580 Logan Street, Suite 620
Denver, CO 80203
Phone: (303) 830-1550, Ext. 15
Fax: (303) 832-8205
info@cwrpda.com

Rate setting and technical assistance

Colorado Rural Water Association
176 West Palmer Lake Drive
Pueblo West, Co 81007-2875
(719) 545-6748
<http://www.crwa.net>

Rural Community Assistance Corporation
2460 W. 26th Avenue, Suite 480C
Denver, CO 80211
(303) 455-7882
<http://www.rcap.org>

Department of Local Affairs
1313 Sherman Street, Room 521
Denver, CO 80203
Phone: (303) 866-2352
barry.cress@state.co.us

Chapter III Attachment 1

CAPACITY ASSESSMENT WORKSHEETS FOR EXISTING SYSTEMS

INTRODUCTION

Public water systems that apply for a Drinking Water Revolving Fund (DWRf) Loan are required to complete the following worksheets. The Safe Drinking Water Act requires that a system applying for a DWRf loan must demonstrate that it has technical, managerial, and financial 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 the system or proposed system include the appropriate or required technologies to meet Safe Drinking Water Act requirements? Is the system or proposed system properly designed?
- **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, community support and fiscal controls. 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 DWRf loan. You will be eligible if the loan 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 the Water Quality Control Division, Outreach and Assistance Unit at (303) 692-3562.

(Instructions for completing worksheets on back)

INSTRUCTIONS

1. Answer all questions with a YES, NO, UNK (unknown) or NA (not applicable). A “User Guide for Completing the Technical, Managerial, and Financial Capacity Assessment Worksheets” is included in the Loan Application Packet.
2. Under the “RESOURCE” column, please provide the document name and where in that document (page number) the information for that question can be found. The following resources can be used to support necessary information:

Water System Plans or Business Plans
Water Quality Report
Operator Certification Data
Capital Improvement Plan
Loan Application
Consumer Complaint Records
Operation & Maintenance Manual
Interviews with Personnel
Sanitary Survey
CPE Report
Annual Budget
Annual Audit
Cash Flow Projection or Financial Spreadsheet
Other (please specify)

3. The “OBJECTIVES OR COMMENT” column is for the Division’s analysis; however, if you would like to provide any comments, please do.
4. Incomplete worksheets will be returned to the PWS applying for the loan to be completed.

After the Water Quality Control Division receives these worksheets, the Division will review them and other information to make a determination whether or not your public water system has the technical, managerial and financial capacity to be eligible to apply for a DWRF loan.

The Division will consider your answers to each question as either adequate, needing a mandatory fix or recommendations that may enhance your capacity. A final report will be available upon completion of the analysis.

The PWS must agree in writing to address issues required by WQCD or DOLA prior to the DWRF loan award; or, the PWS must agree to conditions in the loan agreement that will ensure compliance with TMF capacity requirements.

If you have any questions while completing the following worksheets, please call our office at (303) 692 – 3562.

Chapter III
Attachment 1
CAPACITY ASSESSMENT WORKSHEETS FOR EXISTING SYSTEMS

Technical Capacity	ANSWER	RESOURCE	OBJECTIVES OR COMMENTS
1a. Is the system in compliance with all promulgated federal and state drinking water regulations related to quality and monitoring?			
1b. Are monitoring compliance issues being addressed?			
1c. Considering existing source water quality and potential sources of contamination, is the available (or proposed) treatment technologies and size appropriate to meet drinking water standards?			
2. Does the system have proof of sufficient water rights to meet projected needs (including, if applicable, appropriate priority if water is purchased)?			
3. Is the certification level of the operator in responsible charge at or above the facility's classification level as required by Regulation 100? Consider any upcoming treatment process changes.			
4. Is the system staffed adequately considering as a minimum, the operator duties delineated in part 100.16.2 of Regulation 100? (Provide names and certifications of all operators and identify the operator in responsible charge.)			
5. Does management provide opportunities for operator training?			
6. Does the system have an adequate emergency plan that addresses storms, floods, terrorism, security, wild fires and major mechanical or electrical failures?			
7. Does the system have a master plan to address infrastructure and capacity needs?			
8a. Has the system identified its source water area and potential sources of contamination?			
8b. Does the system have a plan for protecting its source water area?			

Managerial Capacity	ANSWER	RESOURCE	OBJECTIVES OR COMMENTS
1a. Who has legal ownership of the system? – Name, Address, Phone No.			
1b. Does the system have an organizational chart?			
1c. Is there a clear delegation of responsibilities?			
1d. Do managers have a procedure to monitor personnel performance?			
2. Is there a record keeping system for all required records?			
a. Monitoring			
b. Operating			
c. Maintenance			
d. Financial			
3a. Does the system have a map and description of the treatment facility?			
3b. Does the system have a map and description of the distribution system?			
4a. Is the system implementing an O & M Plan that includes all existing equipment and processes essential to provide safe drinking water?			
4b. Does the system plan to include a requirement that an O&M manual be provided for any new equipment detailing startup, shutdown and maintenance procedures?			
5. Does the system have an adequate cross-connection control program?			
6. Does the system have a program to address water that is lost due to leakage?			
7. Does the system log or track, and address customer questions or complaints?			

Financial Capacity	ANSWER	RESOURCE	OBJECTIVES OR COMMENTS
1. Does the system use enterprise accounting, and does it have the required revenues and reserves for current and future operations?			
2. Is a reserve system established to help pay for replacements and contingencies (i.e. emergencies)?			
3. Do key financial ratios indicate adequate cash flow, liquidity, and affordability?			
4. Do bond ratings for the system or its owners indicate creditworthiness?			
5. Does the system follow accepted accounting standards and practices?			
6. Does the system conduct audits or perform well in audits conducted by others?			
7. Does the system prepare an annual budget and capital improvement plan?			
8. Does the system maintain a user charge system that allows equitable billing, collection and enforcement?			
9. Does the system utilize metering?			
10. Does the system maintain general liability insurance?			
11. Does the system have pending lawsuits that may result in substantial financial losses?			
12. Do election records suggest board instability or general public dissatisfaction with its policies?			
13. Has the system filled out a cash flow projection or a comparable financial spreadsheet?			
14. Has the system undertaken a cost of service study that allows it to fund operations, debt service, depreciation, and rate of return?			

APPLICANT: _____

PREPARED BY: _____

PHONE NUMBER: _____

DATE: _____

REVIEWED BY: **WQCD (TSU)** _____
DATE _____

WQCD (FAP) _____
DATE _____

DOLA _____
DATE _____

Chapter III
Attachment 2
SAMPLE CASH FLOW WORKSHEET

Sample Cash Flow Projection
Years Ended December 31, 1995 through 2002 Actual
Projections for 2003 through 2023 (or for the term of the proposed loan)

(Note: This is an example of the minimum required information.
An applicant can demonstrate financial and managerial capacity
by modifying and expanding this form to reflect the actual detailed
revenue, expense and reserves of the system, or providing
something comparable. Contact the Department of Local Affairs at
(303) 866-2352 if you need assistance completing this form.)

	Actual							Estimated																				
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Available Resources: January 1	<hr/>																											
Revenues:	<hr/>																											
User charge revenue																												
Contributions from customers - tap fees																												
Late fees and other																												
Total Revenues	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Expenditures:	<hr/>																											
Operations and Maintenance																												
Capital outlay																												
Debt service																												
Total Expenditures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Excess (Deficiency) of Revenues Over Expenditures:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Available Resources: December 31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Chapter III
Attachment 7

SAMPLE TECHNICAL/MANGERIAL/FINANCIAL CAPACITY EVALUATION REPORT

APPLICANT: _____
DATE: _____ REVIEWED BY: _____
Funding Recommended:
Funding Recommended with Requirements:
Funding Denied:

TMF CAPACITY ASSESSMENT SUMMARY
(Areas to be addressed by PWS during DWRF process)

TMF FACTOR #	PRIORITY	EVALUATOR COMMENTS

**CAPACITY ASSESSMENT EVALUATION CRITERIA FOR EXISTING SYSTEMS
(Original Worksheet and Criteria FOR INTERNAL TRAINING USE ONLY)**

CAPACITY	PRIORITY	EVALUATION CRITERIA	RESPONSE TEXT
TECHNICAL CAPACITY			
1a. Is the system in compliance with all promulgated federal and state drinking water regulations related to quality and monitoring?	Mandatory	A public water system (PWS) must be in compliance with all parameters listed in the <u>Colorado Primary Drinking Water Regulations</u> and the following existing promulgated federal drinking water rules: Interim Enhanced Surface Water Treatment (IESTWR), Disinfection/Disinfection By-Product (DDBP), and the Radionuclides. PWS with arsenic levels greater than 0.01 may be affected by a federal rule soon to be promulgated. The PWS may either submit recently completed laboratory data sheets or a Water Quality Report generated by the WQCD to support this requirement. Starting January 2002, the IESTWR requires large surface water systems with individual filter turbidity levels greater than 2.0 NTU on two consecutive measurements 15 minutes apart for two consecutive months must have a CPE within 30 days. The results of the CPE must be used to determine if the project for which funding is sought will address performance limiting factors identified by the CPE.	N/A
1b. Are monitoring compliance issues being addressed?	Mandatory	A public water system (PWS) must be in compliance with the monitoring requirements parameters listed in the <u>Colorado Primary Drinking Water Regulations</u> . As a minimum, the PWS must address monitoring compliance within the 12 months prior to their submittal. The PWS may submit a Water Quality Report generated by the WQCD to support this requirement. Any monitoring violations noted must be addressed in the submittal.	N/A
1c. Considering existing source water quality and potential sources of contamination, is the available (or proposed) treatment technologies and size appropriate to meet drinking water standards?	Mandatory	The design report must address both the ambient water quality to be treated, and potential sources of contamination in the watershed or source aquifer as part of the justification for the selected treatment alternative. Examples of potential sources of contamination are upstream discharges with a history of upsets, upstream agricultural practices, or a plume of contamination in the source aquifer.	N/A

CAPACITY	PRIORITY	EVALUATION CRITERIA	RESPONSE TEXT
<p>2. Does the system have proof of sufficient water rights to meet projected needs (including, if applicable, appropriate priority if water is purchased)?</p>	<p>Mandatory</p>	<p>A public water system must have access to sufficient water to meet the anticipated demand of the expected user base. The system must provide a projection of the expected water use considering projected served population and industrial expansion for the next five years and the ability to meet this demand through surface water rights, well permits or purchase agreements with a supplier. The minimum quantity which meets capacity criteria for domestic purposes that will be used by Division evaluators is 100 gallons per capita per day. Anticipated industrial and commercial uses need to be added to the domestic requirements. System representatives and system customers should realize that individual daily demand may be significantly higher than 100 gallons per capita per day if finished water is used for irrigation or other high volume purposes.</p>	<p>N/A</p>
<p>3. Is the certification level of the operator in responsible charge at or above the facility's classification level as required by Regulation 100 considering any upcoming treatment process changes?</p>	<p>Mandatory</p>	<p>Treatment facility classification levels are provided in Regulation 100 at Section 100.4 and Water distribution system classification levels are provided at Section 100.7. The Division evaluator must compare the applicant system relative to the classification schemes and compare these classifications to the certification level of the Operator in Responsible Charge (ORC) of the treatment facility and distribution system. The applicant system's ORC must be certified at or above the classification level of the facilities.</p>	
<p>4. Is the system staffed adequately considering as a minimum, the operator duties delineated in part 100.16.2 of Regulation 100? (Provide names and certifications of all operators and identify the operator in responsible charge.)</p>	<p>Mandatory</p>	<p>Regulation 100 delineates the responsibilities of the ORC (100.17) and other certified operators (100.16). Certified operators must be accountable (job description for example) for performing as a minimum, the duties delineated by Regulation 100. In the event that other workers perform these duties, written delegation of duties is expected along with a statement of constraints or conditions that would require consultation with the certified operator or (ORC) prior to making adjustments that could affect the quality of the finished water delivered to the consumer.</p>	
<p>5. Does management provide</p>	<p>Recommended</p>	<p>If there is no training plan for the operations staff, add the text in the next column to your evaluation report.</p>	<p>Certified operators are required to participate in continuing education as</p>

CAPACITY	PRIORITY	EVALUATION CRITERIA	RESPONSE TEXT
opportunities for operator training?			a condition of renewing their certificates. In addition, facility managers should have procedures in place to ensure their certified operators are meeting the minimum re-certification training requirements to ensure they do not violate the requirement to have certified operators in responsible charge. Facility owners and managers are encouraged to be cognizant of the operational skills necessary to properly operate their facilities. They are encouraged to ensure that their operators master and retain these skills by, at a minimum, participating in appropriate training events. In addition, owners and managers should avail themselves of suitable training to ensure they are abreast of the latest information that will ensure their system provides safe drinking water at all times
6. Does the system have an adequate emergency plan that addresses storms, floods, and major mechanical or electrical failures?	Recommended	If no, include text in next column in your evaluation report.	The water system should have an emergency response plan that outlines what action will be taken and by whom. The plan should meet the needs of the facility, the geographic area, and the nature of the emergency likely to occur. As a minimum, storms, floods, major mechanical failure, and major electrical failure should be addressed.
7. Does the system have a master plan to address infrastructure and capacity needs?	Recommended	Typically, PWS specific Master Plans identify future capital improvement projects needed for the water system. A master plan may include forecasting future flow needs, a review of applicable regulations, modeling of the distribution system, and identification of future projects needed to accommodate system	The water system should develop a master plan to address infrastructure and capacity needs. The idea of the plan is to assess needed improvements, set timetables, and

CAPACITY	PRIORITY	EVALUATION CRITERIA	RESPONSE TEXT
		growth and deterioration. If no, include text in next column in your evaluation report.	develop an approach to complete the improvements.
8a. Has the system identified its source water area and potential sources of contamination?	Recommended	If no, include text in next column in your evaluation report.	The water system does not presently have a Source Water Assessment (SWA). Source Water Assessments will be completed for all public water systems by 2003. The SWA will identify immediate and potential sources of contamination to the source water utilized by your system. Included in this Assessment is a ranking based upon the severity of risk to the source water.
8b. Does the system have a plan for protecting its source water area?	Recommended	If no, include text in next column in your evaluation report	It is important that the Public Water System (PWS) evaluate the outcome of its Source Water Assessment. The PWS should enter into partnerships with any interested parties to discuss the risks to their source water and take appropriate actions to protect the quality of their drinking water. Such actions may include establishing a line of communication with upstream CPDES or instituting watershed protection practices. The WQCD has developed resources that can assist PWS protect their source waters. Copies of these resources can be obtained by contacting your Watershed Coordinator at the WQCD.
9. Other Technical Issues of Concern to Evaluator	Mandatory or Recommended	The generic technical evaluation criteria can never anticipate all of the unique situations that may affect a particular system and limit its capacity. System representatives should coordinate closely with the project manager and evaluator to anticipate and respond to additional capacity issues of concern to the evaluator.	
MANAGERIAL CAPACITY			
1a. Who has legal ownership of the	Mandatory	The PWS submittal must contain a clear description of PWS	N/A

CAPACITY	PRIORITY	EVALUATION CRITERIA	RESPONSE TEXT
system? – Name, Address, Phone No.		legal ownership, with mailing address and telephone number.	
1b. Does the system have an organizational chart?	Recommended	The organizational chart should clearly depict the “chain of command” or level of decision-making authority throughout the organization of the public water system. If this information is not available, include the text in the next column in your capacity evaluation report. Very small systems where all system activities are performed by a manager and certified operator may be able to address this more appropriately with a short written narrative	This system does not currently have an organizational chart that depicts the “chain of command” or level of decision-making authority throughout the organization. It is recommended that such a chart or other method be developed that ensures operational staff know how to obtain the resources necessary to ensure the continuous provision of safe drinking water.
1c. Is there a clear delegation of responsibilities?	Recommended	The organizational chart, an appendix thereto, a written staffing plan of some kind, or written job descriptions should describe the major duties or decision making authority of each person working in the public water system and performing duties relevant to water quality and quantity. If this information is not available for assigned staff beyond certified operators who are performing duties relevant to water quality and quantity, include the text in the next column in your capacity evaluation report.	This system does not have written job descriptions for all staff performing duties relevant to water quality and quantity. This could lead to unqualified staff performing essential tasks or the complete lack of qualified staff assigned to important tasks. It is recommended that the system develop job descriptions for all staff and ensure that all essential functions relating to water quality and quantity are addressed.
1d. Do managers have a procedure to monitor personnel performance?	Mandatory for owner/ manager evaluation of and certified operator(s). Recommended for others.	Each person should be accountable for performing the duties they are assigned in accordance with the staffing plan (above) and evaluated at some predictable frequency. In the event all staff associated with water system operations are not subject to performance oversight, include the text in the next column in your capacity evaluation report. (Where the system is so small that the manager is also the certified operator, this may not be feasible)	This system does not currently have a personnel accountability and evaluation system for assigned staff. This situation could allow staff to be less than optimally effective and could adversely affect the provision of continuously safe water. It is recommended that an employee evaluation system be implemented as soon as possible.
2. Is there a record keeping system for all required records?		Ideally, every public water system should have an organized plan for filing, retaining, and disposing of the records that are necessary to properly operate all aspects of the enterprise. This	

CAPACITY	PRIORITY	EVALUATION CRITERIA	RESPONSE TEXT
		<p>is traditionally accomplished by means of a centrally located file plan. The overall file plan would be accessible at every file storage location. It would describe who is responsible for maintaining the records, where the records are located, the format of the records to be maintained, the time period the records are to be maintained and disposition instructions. The file plan should cover both hard copy and electronic records and its location should be accessible to all staff that may have a need for the information to properly operate the facility.</p>	
a. Monitoring	Mandatory	<p>Section 1.2.3 of the <u>Colorado Primary Drinking Water Regulations</u> specifies record keeping requirements. The evaluator should ensure that the applicant is aware of these requirements and is in fact maintaining records as required by the regulation. The CPDWR effective 1/30/99 specify the following retention periods: 5 years bacteriological monitoring, 10 years chemical monitoring, 3 years actions to remedy violations, 10 years sanitary surveys, 5 years variances and exemptions, 12 years lead and copper monitoring, 3 years cross-connection control records, and 3 years consumer confidence reports.</p>	
b. Operating	Recommended	<p>The operational records that are appropriate to a particular treatment system and its distribution system are dependent upon the complexity of that system. The goal is for these records to be used by its operators to effectively operate the system in a way that prevents risks to public health and infrastructure rather than just recording system response to failures. Operational variables that should as a minimum be recorded and kept available to the operators include: treated water flow measurement, water storage levels, treatment process control information, chemical usage rates, treated and distribution system disinfectant residuals, raw water bacterial quality, and, if applicable, well draw-down levels and associated pump run times. If the system does not maintain at least these kinds of records, include the text in the next column as part of your evaluation report.</p>	<p>This system's operational records appear inadequate to ensure the continuous provision of safe water and preservation of the installed infrastructure. It is recommended that records of the following variables be collected, maintained and used by the operational staff: [list all desirable records here]. The routine use of this data will help ensure the production and distribution of safe water and minimize unexpected system failures. The <u>Self Evaluation Guide for Decision Makers of Small Community Water Systems</u> available from the Rural Community Assistance Corporation/western RCAP is a useful reference.</p>

CAPACITY	PRIORITY	EVALUATION CRITERIA	RESPONSE TEXT
c. Maintenance	Recommended	<p>The maintenance records that are appropriate to a particular treatment system and its distribution system are dependent upon the complexity of the components of that system. Generically, each system should, as a minimum, have a maintenance program that addresses essential components of their source water, treatment train, storage tanks and distribution system. As with operational records, the goal of having maintenance records is to anticipate and plan for repairing or replacing system components before they fail and compromise the water quality provided to consumers. The maintenance records may also be used as part of a personnel system to document the activities of assigned staff or contractors and to ensure retention of maintenance records that may be required to keep equipment warranties from being voided. If the applicant system does not have and use a system to document maintenance activities associated with critical system components, add the text in the next column as part of your capacity evaluation report.</p>	<p>This system does not have accurate records of maintenance activities for critical components such as: [list appropriate components] major transmission, treatment and monitoring components. Maintaining such records and using them for scheduling proper preventive maintenance is generally the most effective way to minimize both long term equipment costs and unplanned equipment outages. Accordingly, it is recommended that the system improve its maintenance records keeping procedures.</p>
d. Financial	Recommended	<p>Public water systems, in general, should be treated as separate enterprises for financial record keeping purposes even when they are wholly owned by a larger entity such as a public community that has additional revenue sources. This real or “paper” separation of the water system enterprise allows the managers and customers to quickly assess whether the water system’s fee structure and other income covers the costs of the water system or whether the water system is subsidizing other community activities. In addition, adequate records allow the water system to develop an accurate forward looking budget, current year status reports, balance sheet and financial report. An adequate financial report allows the water system to: compare current and previous year’s income and expenses, identify areas of growth or loss in income and expenses, pinpoint financial problems (especially delinquent accounts), identify cost cutting measures, inform lenders and consumers about the status of their interests, and determine the need for rate increases. Public water systems should retain sufficient records to prepare an accurate financial report and to prepare a forward looking budget. At a minimum, the financial report should consist of the following five sections: balance sheet, income</p>	<p>This system does not currently have a system to maintain records of this budget and basic financial reports including: balance sheet, income statement, statement of retained earnings, statement of cash flow, and any notes to the financial statements. The availability of such records based solely on the water system enterprise, is highly recommended. It’s availability would better enable the system to compare current and previous year’s income and expenses, identify areas of growth in income and expenses, pinpoint financial problems, identify cost cutting measures, inform lenders and consumers about the status of their interests, and determine the need for rate increases. A useful basic reference titled: <u>Understanding</u></p>

CAPACITY	PRIORITY	EVALUATION CRITERIA	RESPONSE TEXT
		<p>statement, statement of retained earnings, statement of cash flow, and any notes to the financial statements. The budget should account for all incoming revenue and outgoing expenses. The complexity of the entries to these documents will vary with individual system size and organization. If the applicant system does not have an up to date financial report consisting of the above listed elements, add the text in the next column to your capacity evaluation report.</p>	<p><u>Financial</u> Reports, Rural and Small Systems Training Guide is available from the National Rural Water Association.</p>
<p>3a. Does the system have a map and description of the treatment facility?</p>	<p>Recommended Or Mandatory for DWRF funded process changes.</p>	<p>To properly operate a treatment train and to respond to equipment failures, operators must know how the parts are interconnected to the whole and all the possible flow paths for the water and any treatment chemicals that may be added. This is generally accomplished by maintaining “as-built” drawings and an O&M manual for the entire facility.</p> <p>All new process additions supported with DWRF funds must have plans and specifications approved by the Division and the system should be provided with as built drawings as part of the process revision. The as-built drawings must include as a minimum plan view, (and elevation views for underground components), pipe/vessel component material, size, and include all pipes, valves, connectors and storage devices.</p> <p>In the event the system does not have as built drawings meeting the above requirements for the existing system, add the text in the next column to your capacity evaluation report.</p>	<p>This system does not currently have as-built drawings that depict [insert as appropriate: treatment processes, pipe materials and sizes, and components such as valves and back flow prevention devices]. This situation may compromise your operator’s ability to properly operate this facility both during routine operation and in the event of equipment failure and could result in increased risk to the health of consumers. It is recommended that the system take steps to address this situation as soon as possible.</p>
<p>3b. Does the system have a map and description of the distribution system?</p>	<p>Recommended Or Mandatory for DWRF funded distribution changes.</p>	<p>See the paragraph above for treatment facility as-built drawings and apply it to the distribution system including storage tanks, and the location, size, and type of all hydrants.</p>	<p>Use text from above as appropriate considering distribution system components including storage tanks, and the location, size and type of hydrants.</p>
<p>4a. Is the system implementing an O & M Plan that includes all existing equipment and processes essential to the provision of safe drinking water?</p>	<p>Recommended</p>	<p>The O & M Plan should cover the source, treatment train, storage components and distribution system. Typically, facility specific O&M manuals describe the proper way to install, start, operate, shut down and maintain the equipment and process controls such that the operator’s personal safety is protected, the</p>	<p>This system does not have [or is not using] equipment O&M manuals to guide their [preventive maintenance, safety, emergency repair, as appropriate] activities for lost missing</p>

CAPACITY	PRIORITY	EVALUATION CRITERIA	RESPONSE TEXT
		equipment functions most effectively, unscheduled repairs are minimized, and the overall process functions properly. While it is appropriate to have these manuals available for reference “on the shelf” for critical system components, it is more important that their contents be built into the overall operations plan of the facility. For example, maintenance procedures for all critical components should be synthesized into an overall facility preventive maintenance and emergency repair program that can be viewed and tracked easily in one document visible to management, the operator in responsible charge and any assigned maintenance staff. In the event the system does not have or is not making use of O&M manuals use the text in the next column in the capacity evaluation report.	components such as source treatment, storage and distribution system. This could [increase the frequency of unscheduled repairs, endanger the safety of the operator, increase the time required to return the system to operation following an equipment failure, increase unscheduled maintenance costs, as appropriate]. This situation should be remedied as soon as possible by developing and using a system O&M manual.
4b. Does the system plan to include a requirement that an O&M manual be provided for any new equipment that details startup, shutdown and maintenance procedures?	Mandatory	Contracts for all new equipment funded under the SRF program must include the provision of equipment specific O&M manuals and revision of the overall facility O&M manual. The O&M manuals must describe as a minimum, the proper way to install, start, operate, shut down and maintain the equipment such that the operator’s personal safety is protected and the equipment functions most effectively, and unscheduled repairs are minimized.	
5. Does the system have an adequate cross-connection control program?	Mandatory	The <u>Colorado Primary Drinking Water Regulations</u> require PWS to identify potential hazardous service connections, require the installation of containment devices on hazardous service connections, and assure that the containment devices are tested annually by a trained cross-connection control technician. PWS are required to maintain cross-connection control records for a period of three (3) years.	
6. Does the system have a program to address water that is lost due to leakage?	Recommended	If no, include text in next column in your evaluation report.	The PWS should conduct a routine program for leak detection in order to prevent main breaks, prevent the intrusion of contaminants into the distribution system, and to reduce unaccounted for water. A record of distribution system repairs should be maintained. Additionally, it is recommended that a meter testing and change-out program be developed for

CAPACITY	PRIORITY	EVALUATION CRITERIA	RESPONSE TEXT
			your system. If meters are not accurate, you may be providing more water than your billing reflects.
7. Does the system log or track, and address customer questions or complaints?	Recommended	If no, include text in next column in your evaluation report.	It is recommended that the PWS create a system to log/track and address customer questions and complaints.
8. Other Managerial Issues of Concern to Evaluator	Mandatory or Recommended	The generic managerial evaluation criteria can never anticipate all of the unique situations that may affect a particular system and limit its capacity. System representatives should coordinate closely with the project manager and evaluator to anticipate and respond to additional capacity issues of concern to the evaluator	
FINANCIAL CAPACITY	DLG will develop the Credit Report utilizing the following questions; Question 13 will be utilized by WQCD in determining financial capacity related to Technical and Managerial considerations.		
1. Is the system enterprise funded, and does it have the required revenues and reserves for current and future operations?	Mandatory	These criteria will be evaluated using the current indicator and trends tables of the DLG credit report, and the cash flow projection provided by the applicant, and the annual report, if available, of the system. Operations, debt service, depreciation and a rate of return should be funded by system. Appropriate coverage requirements should be demonstrated in the applicant's past financial practices and cash flow projection. The revenue sources will determine if the system is enterprise funded, and variability in past revenue and expense data from the trends table should be considered when evaluating the stability of the system's cash flows. Numerous average or weak indicators may suggest a limited ability of the system to fund expenses needed to maintain compliance with applicable drinking water regulations, and may necessitate technical assistance from the state or other outside sources.	
2. Is a reserve system established to help pay for replacements and contingencies (i.e. emergencies)?	Mandatory	The system's financial audit, budget, and cash flow projection should demonstrate that adequate reserves are in place. Generally, at least a 3 month operations and maintenance reserve demonstrates adequate preparation for contingencies. However, if past revenue and expense data show instability of the system's cash flows, a larger reserve may be appropriate. In addition, consideration of the system's ability to access capital may be needed. Banking relationships, credit ratings, and legal ability to access funds from inter- or intra-governmental sources	

CAPACITY	PRIORITY	EVALUATION CRITERIA	RESPONSE TEXT
		<p>may be necessary. Weak capacity in this are may suggest a limited ability of the system to fund expenses needed to respond to emergencies, or maintain compliance with applicable drinking water regulations, and may necessitate technical assistance from the state or other outside sources.</p>	
<p>3. Do key financial ratios indicate adequate cash flow, liquidity, and affordability?</p>	<p>Recommended</p>	<p>These criteria will be evaluated based on the current indicator table of the DLG credit report and the system’s cash flow projection. Generally the credit report shows 15 to 20 current indicators used to measure financial condition, and rate the community as either “weak” “average” or “strong”. technical assistance from the state or other outside sources.</p>	<p>Numerous average or weak indicators may suggest a limited ability of the system to fund expenses needed to maintain compliance with applicable drinking water regulations, and may necessitate</p>

<p>4. Do bond ratings for the system or its owners indicate creditworthiness?</p>	<p>Recommended</p>	<p>This criterion will be evaluated based on information received from credit rating agencies. S&P or Fitch ratings of AAA, AA, A and BBB; and Moody's ratings of Aaa, Aa, A, and Baa are considered investment grade and should be creditworthy</p>	<p>. If credit ratings are not available, consideration of other revenue sources, such as banking relationships and legal ability to access funds from inter- or intra-governmental sources may be necessary.</p>
<p>5. Does the system follow accepted accounting standards and practices?</p>	<p>Recommended</p>	<p>This criterion will be evaluated based on information received from Division of Local Government and Office of the State Auditor files. Accepted accounting standards and practices should be followed</p>	<p>. Failure to meet these requirements results in compliance letters that can be referenced in the DLG Credit Report. Numerous compliance problems in this area may suggest a limited ability of the system to manage its resources in order to maintain compliance with applicable drinking water regulations, and may necessitate technical assistance from the state or other outside sources.</p>
<p>6. Does the system conduct audits or perform well in audits conducted by others?</p>	<p>Mandatory</p>	<p>This criterion will be evaluated based on information received from Division of Local Government and Office of the State Auditor files. An annual audit must be conducted, or the applicant must obtain exemption from this requirement by the Office of the State Auditor. The Office of the State Auditor reviews financial statements for compliance with applicable requirements. Failure to meet these requirements results in compliance letters from the State Auditor, which can then be referenced in the DLG credit report. Numerous compliance problems in this area may suggest a limited ability of the system to fund expenses needed to maintain compliance with applicable drinking water regulations, and may necessitate technical assistance from the state or other outside sources.</p>	
<p>7. Does the system prepare an annual budget and capital improvement plan?</p>	<p>Mandatory</p>	<p>These criteria will be evaluated based on Division of Local Government files, annual system reports, and the material submitted with the loan application. An annual budget must be prepared. The Division of Local Government reviews local government budgets based on 12 different criteria. Failure to meet these requirements results in compliance letters from DLG and can then be referenced in the credit report. Numerous</p>	

		compliance problems in this area may suggest a limited ability of the system to provide management adequate to maintain compliance with applicable drinking water regulations, and may necessitate technical assistance from the state or other outside sources.	
8. Does the system maintain a user charge system that allows equitable billing, collection and enforcement?	Recommended	This criterion will be evaluated based on information received in the loan application, annual system reports, or from direct contact with the applicant. Some utilities fund their systems with sources other than user charges, so a user charge system should not be considered the only acceptable system, but adequate funding of all system needs should be assured.	Failure to fund all system needs may suggest a limited ability to maintain compliance with applicable drinking water regulations, and may necessitate technical assistance from the state or other outside sources.
9. Does the system utilize metering?	Mandatory and Recommended	SECTION 37-97-101 C.R.S. (1990 WATER METERING ACT): Colorado Revised Statutes call for water service suppliers with more than 600 unmetered taps to have 50% of those taps metered by January 1, 2000, and all remaining unmetered taps metered by January 1, 2009. This criterion will be evaluated based on information received in the loan application, annual system reports, and through direct contact with the applicant. A billing system that monitors system activity and supports a proportional billing system is recommended.	Failure of a small system to utilize metering indicates less than a full understanding of the operations and performance of the system, and maintain equity among its customers.
10. Does the system maintain general liability insurance?	Recommended	This criterion will be evaluated based on information received from Division of Local Government files, and direct contact with the applicant. Insurance should be maintained to shield the system against major financial losses.	
11. Does the system have pending lawsuits that may result in substantial financial losses?	Recommended	This criterion will be evaluated based on information received from direct contact with the applicant and the annual financial statements.	Applicants showing a history of legal claims may present a greater risk for future financial losses that could impair the system's ability to finance its operations.
12. Do election records suggest board instability or general public dissatisfaction with its policies?	Recommended	Division of Local Government files, and direct contact with the applicant. Applicants showing a history of public dissatisfaction may present a greater risk for reversals in policy on the development and use of public facilities.	Scarce system resources may continually be directed toward expenses that do not advance the system's ability to maintain compliance with applicable drinking water regulations, and may necessitate technical assistance from the state or other outside sources.

13a. Has the system filled out the Financial Spreadsheet or a comparable cash flow analysis?	Mandatory	If the annual “Ending Cash Position” and/or the “Total Reserves” shows an <u>excess</u> , do these funds remain with the system or are they spent on non-drinking water uses?	If excess is spent elsewhere, describe the use and rationale.
13b. Same question as 13a.	Mandatory	If the annual “Ending Cash Position” and/or the “Total Reserves” shows a <u>shortfall</u> , where will the needed funds come from?	If shortfall is met by other sources, describe the reliability of the sources.
14. Has the system undertaken a cost of service study that allows it to fund operations, debt service, depreciation, and rate or return?	Recommended	This criterion will be evaluated based on information received in the loan application, annual system reports, or from direct contact with the applicant. Whether or not depreciation and a rate of return is included in the rate base is a good indicator of financial ability to replace deteriorating infrastructure, i.e. long-term financial capacity to comply with SDWA. Financially strong water utilities have been using depreciation for a long time, however, until recent GASB rulings, standard government accounting did not require depreciation. It is now being phased in	For those systems where this information is not yet available, depreciation tables should be calculable or reasonably estimable from equipment tables, system construction records and cost information maintained in the accounting system. If these records are incomplete or missing, it could reflect negatively on both managerial and technical capacity as well as financial capacity.