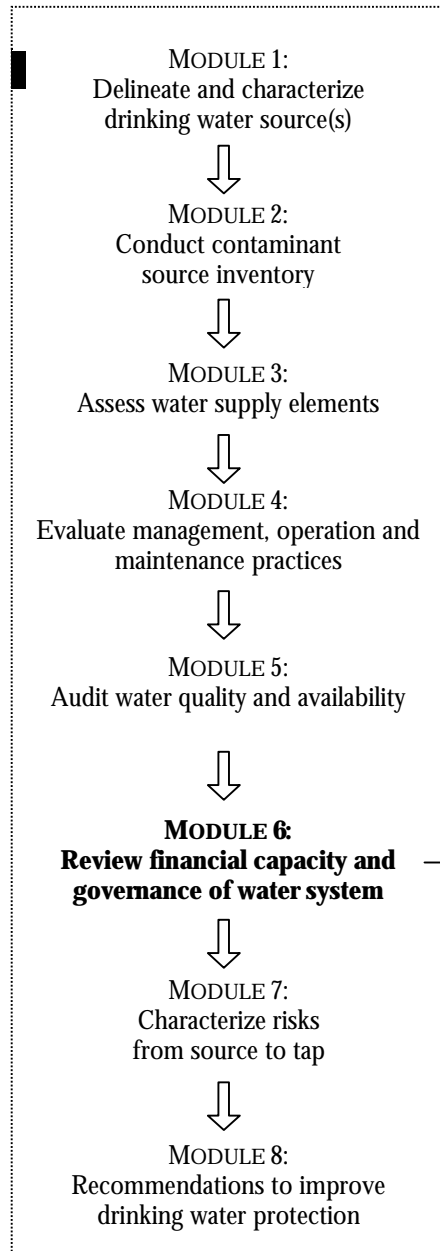


MODULE 6

REVIEW FINANCIAL CAPACITY AND GOVERNANCE OF THE WATER SERVICE AGENCY



ASSESSMENT COMPONENTS

1. Evaluate governance and accountability structures for the water service agency.
2. Assess the financial capacity of the water service agency.
3. Evaluate whether community growth and development pose a significant risk to the provision of safe drinking water.
4. Describe how the governance structure, organizational capacity, development pressures, and funding influence the physical production of safe drinking water.

DRINKING WATER BARRIERS ASSESSED IN MODULE 6

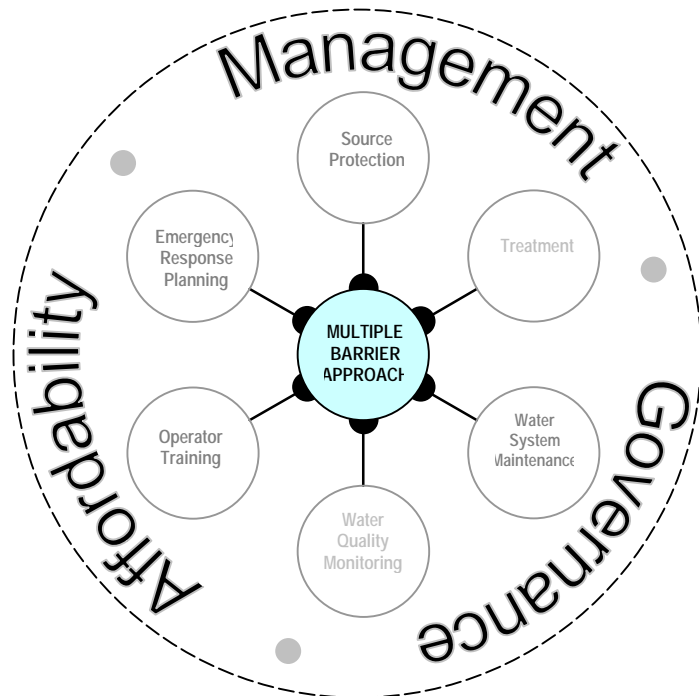


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1. INTRODUCTION

For a water system to be viable over the long-term it must be able to meet both short-term and projected future financial needs. Even the smallest water systems incorporate numerous supply elements to deliver safe drinking water to their customers and these components require on-going monitoring and maintenance as well as occasional major repairs, upgrades, and replacements. Module 6 of the drinking water source to tap assessment involves an evaluation of the water service agency's governance structure and financial capacity. This includes a review of the financial management of the water system, available funding mechanisms, governance and accountability, and response to development pressures.

Consumers and regulatory authorities have expectations that water suppliers will provide water free of harmful or objectionable elements (e.g., pathogens, toxic chemicals, tastes, and odours) in sufficient volumes 24 hours a day, while maintaining adequate pressure in the distribution system. To meet these expectations, water service agencies require sufficient financial resources to employ qualified management and certified operations personnel, fund on-site monitoring and laboratory analyses, maintain infrastructure, create a source/drinking water protection plan, and upgrade system components.

Module 6 requires an understanding of water system governance issues affecting accountability and capacity to deliver safe drinking water. Assessments of financial capacity for water systems should be conducted by professionals with experience in financial planning for water systems. The cooperation of the water system manager (or senior financial official) with a member of the source to tap assessment team will be needed for the financial assessment.

Gerry Tonn Comments:

- Discuss interaction of finance, governance, management with physical provision of drinking water.
- There should be a clear indication of what must be described and assessed with respect to governance and accountability structures, how service delivery is organized, how the service is funded and how costs are recovered.

1.1 Hazard and Vulnerability Identification

Throughout the process of evaluating water supply elements in the source to tap system, assessors identify and describe hazards that pose a threat to drinking water safety or sustainability, and vulnerabilities in the multiple barrier system or other protective systems (e.g., security).

Hazards are recorded in the Hazard Identification Table (see Table 6-1) used to document hazards in a consistent way throughout the source to tap assessment process. Information on strengths and vulnerabilities in the drinking water supply system identified throughout the assessment is recorded, compiled from each module, and used to inform the multiple barrier system evaluation in Module 7.

1.2 Module 6 Assessment Team

A broad range of issues can exist in a water supply system from source to tap. As a result, comprehensive drinking water assessments require a multi-disciplinary assessment team rather than a single assessor. Each module of the comprehensive drinking water source to tap assessment guideline requires some specialized skills and a unique spectrum of knowledge related to water sources and systems.

Collectively, the assessment team for Module 6 should have knowledge and experience related to:

- ♦ water system governance structures and their implications for financial and management capacity
- ♦ financial planning for water supply systems
- ♦ drinking water chemistry
- ♦ microbiology and microbes commonly found in drinking water
- ♦ public health issues related to drinking water
- ♦ legislation relating to drinking water, surface water, groundwater
- ♦ risk assessment and risk management

2. ASSESSMENT COMPONENTS

2.1 Evaluate the governance and accountability structures for the water service agency

Governance structure of a water service agency has inherent implications with regard to management, fee systems, and eligibility for government funding. Common governance structures are local government systems including regional districts, municipalities, and improvement districts; and others, such as water users' communities and private water utilities. Many small water systems have informal governance structures.

Organizational, management, and technical capacity are implicit in water system size. By design, larger water service agencies have greater human and financial resources to meet consumer and regulatory requirements. They also tend to have a larger customer base to draw upon for on-going operation and maintenance costs, as well as capital expenditures for upgrades. Smaller water systems have added challenges in providing safe drinking water because they often do not have in-house technical or operational expertise, they are disadvantaged due to a lack of economies of scale, and they have, if any, a smaller customer base to fund the water system.

Evaluate the governance structure of the water service agency and its associated technical, operational, and financial capacity. Where the water service agency is an improvement district, water user's community, utility, or a small independent system, identify alternative governance options such as conversion to regional district or municipal jurisdiction, or consolidation of waterworks with nearby systems, if governance is affecting the water suppliers ability to provide safe drinking water.

For consumers to be confident that the water coming out of the tap is safe, it is crucial that there is one person or organizational entity ultimately responsible that can be held accountable for delivering potable water.

Some smaller systems have no distinct identifiable water supplier. These systems can be composed of a collection of households that fund the operation of the system with one person (often voluntarily) responsible for carrying out maintenance activities. The vulnerability of the water system increases when no one person or entity is accountable for supplying safe drinking water to consumers. Lack of accountability may be a drinking water hazard where a water system has no single identifiable owner responsible for providing safe drinking water.

- ♦ Are professional/qualified staff managing and administering the water service?
- ♦ Are there sufficient personnel to operate and manage the water system?
- ♦ Does the water supplier have access to technical and professional services such as:
 - Technical / operations assistance
 - Engineering advice
 - Financial advice
 - Insurance
 - Legal counsel

2.2 Assess the management and financial capacity of the water service agency

Water supply systems require adequate funding for operation and maintenance, management and planning processes, and for capital works upgrading and replacement. The only way a water supplier will be able to ensure that it can have adequate funds for short-term and long-term needs is for it to be self-sustaining. When a water system is self-sustaining, it has an annual budget with enough funds to support on-going operation and maintenance costs as well as annual contributions to a reserve fund for future expenditures or emergencies. Becoming self-sustaining may pose a significant challenge for some water service agencies, but it should be a goal to work towards.

Assess the management and financial capacity of a water system, addressing the following questions:

- ♦ Is an up-to-date water system assessment (engineering report and capital works plan) in place?
- ♦ Is an up-to-date financial plan (incorporating an annual operating budget and capital expenditure program projecting future needs) in place?
- ♦ Does the water supply system have an adequate renewal plan? Refer to the InfraGuide Best Practices on Developing a Water Distribution System Renewal Plan (see References).
- ♦ What is the current water pricing structure? Does it meet the present and projected future needs of the water system?
- ♦ Does the water supply system have adequate liability insurance coverage?
- ♦ What mechanisms are available to the water service agency to raise or access funds?

2.3 Evaluate whether community growth and development pose a significant risk to the provision of drinking water

Community development pressures may adversely impact a water system by bringing in additional water service connections, increasing demand on the water source, or introducing added risks of contaminating the drinking water source. Water suppliers need to anticipate development pressures, plan for them, and ideally have a voice in local land use decision-making processes.

- ♦ Evaluate whether the water service agency is able to deal effectively with growth management issues and identify if it has a voice in local land use decision-making.
- ♦ Identify development pressures in the community that may impact the water system.
- ♦ Evaluate whether the water service agency is able to deal effectively with growth management issues.
- ♦ Identify if the water supplier has a voice in local land use decision making.
- ♦ Assess the relative risk community growth and development pose to the provision of safe drinking water

2.4 Describe how the governance structure, organizational capacity, development pressures and funding influence the physical production of safe drinking water

- ♦ Identify the interrelationships between the factors and how they reinforce one another
- ♦ Evaluate whether water supplier would ever be in a position to achieve the standards or implement the best practices required to supply safe drinking water.

3. ASSESSMENT DOCUMENTATION AND REPORTING

3.1 Assessment Report

The following elements should be included, as a minimum, in the assessment report for Module 6:

- ♦ Brief description of the governance and management system, identifying the accountable person or body.
- ♦ Where water system governance is insufficient to meet present or future water supply requirements, discuss advantages and disadvantages of governance or business restructuring options available to the water supply system
- ♦ In the analysis of water system capacity, identify the key financial and governance risk factors and their underlying causes.

- ♦ Briefly describe any imminent development pressures, and note the water system’s response to the pressure.
- ♦ Completed Module 6 hazard identification table (see Table 6-1).

3.2 Hazard identification Table

Management and financial risk factors identified for the water system are considered drinking water hazards and should be incorporated into the Module 6 hazard identification table (see Table 6-1).

Table 6-1. Sample Module 6 Hazard Identification Table

Hazard No.	Drinking Water Hazard	Possible Effects	Existing Preventative Measures	Associated Barrier(s)
6-1	Absence of a long term capital expenditure program.	Inability to replace inadequate infrastructure or equipment. Aging or inappropriate equipment could leave water vulnerable to contamination.	None identified.	Governance, management, affordability
6-2	Water service agency is a strata council and no single individual is accountable for providing safe drinking water.	Lack of accountability can lead to poor management practices.	One individual maintains water system on a weekly basis.	Governance and accountability

APPENDIX 6A

MODULE 6 ASSESSMENT AT-A-GLANCE

Components	Recommended Methods	Scope	Documentation and Reporting
1. Assess the management and financial capacity of the water service agency	<ul style="list-style-type: none"> • Evaluate qualifications of staff administering the water service. • Is there an up-to-date financial plan in place? • How is the service funded? • How are costs recovered? • Evaluate the water pricing structure for present and future needs • Does the water supply system have adequate liability insurance coverage? • How is service delivery organized? • Does the water supplier have access to technical and professional services? 	•	<ul style="list-style-type: none"> • Identify as a hazard or vulnerability any practice, process, situation (or absence of one) that could put the safety of water at risk..
2. Evaluate the governance and accountability structures for the water service agency	<ul style="list-style-type: none"> • Identify the governance and accountability structures 	•	<ul style="list-style-type: none"> • Describe the governance and accountability structures • Identify as a hazard or vulnerability any practice, process, situation (or absence of one) that could put the safety of water at risk.
3. Describe how the governance structure, organizational capacity, and funding influence the physical production of safe drinking water	<ul style="list-style-type: none"> • Identify the interrelationships between the factors and how they reinforce one another 	•	<ul style="list-style-type: none"> • Evaluate whether water supplier would ever be in a position to achieve the standards or implement the best practices required to supply safe drinking water. • Identify as a hazard or vulnerability any practice, process, situation (or absence of one) that could put the safety of water at risk.
4. Evaluate whether community growth and development poses a	<ul style="list-style-type: none"> • Identify development pressures in the community that may 	•	<ul style="list-style-type: none"> • Statement of the relative risk community growth and development poses

Comprehensive Drinking Water Source to Tap Assessment Guideline

<p>significant risk to the provision of safe drinking water</p>	<p>impact the water system</p> <ul style="list-style-type: none">• Evaluate whether the water service agency is able to deal effectively with growth management issues• Identify if it has a voice in local land use decision making		<p>to the provision of safe drinking water</p> <ul style="list-style-type: none">• Identify as a hazard or vulnerability any practice, process, situation (or absence of one) that could put the safety of water at risk.
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APPENDIX 6B RECOMMENDED RESOURCES

Drinking Water Risk Management

Canadian Council of Ministers of the Environment (CCME). 2004. *From source to tap: Guidance on the multi-barrier approach to safe drinking water*. Produced jointly by the Federal-Provincial-Territorial Committee on Drinking Water and the CCME Water Quality Task Group.

<http://www.ccme.ca/sourcetotap/mba.html>.

NHMRC/ARMCANZ Co-ordinating Group. 2001. *Framework for Management of Drinking Water Quality: A Preventive Strategy from Catchment to Consumer*. National Health and Medical Research Council/Agriculture and Resource Management Council of Australia.

<http://www.nhmrc.gov.au/advice/pdf/waterqly.pdf>.

Pennsylvania Department of Environmental Protection. 1998. *Pennsylvania Water System Self-Assessment Guide and Budgeting Worksheets*. Bureau of Water Supply Management.

http://www.waterwatchdogs.org/pdf/Self-Asses%20Guide_MHP.pdf

Water System Planning, Funding and Renewal

National Guide to Sustainable Municipal Infrastructure (InfraGuide). 2003. *Developing a Water Distribution System Renewal Plan*.

http://www.infraguide.ca/bestPractices/PublishedBP_e.asp#pw

National Guide to Sustainable Municipal Infrastructure (InfraGuide). 2003. *Developing Levels of Service*.

http://www.infraguide.ca/bestPractices/PublishedBP_e.asp

National Guide to Sustainable Municipal Infrastructure (InfraGuide). 2003. *Municipal Infrastructure Asset Management*. http://www.infraguide.ca/bestPractices/PublishedBP_e.asp

National Guide to Sustainable Municipal Infrastructure (InfraGuide). 2003. *Dedicated Funding*.

http://www.infraguide.ca/bestPractices/PublishedBP_e.asp