

Financial

Best Management Practice Guide

**A Financial Road Map for Small**

**Community Water Systems**

**in British Columbia**

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**Appendices**

To follow

# 1 Is this Guide for Me?

This Guide is for owners and operators of small water systems in British Columbia ranging in size from a handful of connections to one hundred or more.

The Guide describes aspects of financial management and provides tools to develop a financial plan for the lifetime of your system. Specifically, it outlines a series of **Best Management Practices** that are practical and proven methods used by successful water systems to operate sustainably.

**Your Team**

“Your team” as used in this Guide is a flexible term. In some cases it may mean only a small group of volunteers, or even just the owner and family members. In another case it may include volunteers, a part-time operator, trustees, and even a paid staff member.

There are six Best Management Practises (BMPs) described in this Guide. They help to:

BMP A. Create a basic asset inventory

BMP B. Build an asset management plan

BMP C. Create a five-year operating plan

BMP D. Establish a long-term financial plan

BMP E. Determine sustainable water rates and charges

BMP F. Develop a communications plan.

You do not have to use all six at once. You may choose to apply one or two to start, and then implement other BMPs when you have the resources available in the future. You should encourage the members of your team to look through this Guide.

## 

## 1.1 Benefits of BMPs

Using BMPs in your water system will provide you with important benefits. For example, they may help you to:

***Note***

*Completed worksheets from this Guide could contain sensitive information about your system. Be sure to store these worksheets in a secure place.*

* Develop water rates that reflect the true cost of service
* justify water rates to users
* budget for infrastructure upgrades, both current and future
* propose reasonable timelines for compliance
* explain future plans to customers and decision-makers
* prepare successful loan applications.

## 1.2 Contents of This Guide

This Guide is divided into these sections:

1. Is This Guide for Me?
2. About Best Management Practices
3. Six Financial Best Management Practices
4. Appendices: Supporting Information

Part 2 provides an overview of BMPs. Part 3 includes six financial Best Management Practices and provides the tools you need to apply them to your water system. In the appendices you will find further information to help in the management of your water system.

## 1.3 Getting Started

To get started in the use of BMPs, look through Section I of this Guide. Then look through one of the BMPs in Section II to get an idea of how they are used. The first BMP: Create a Basic Asset Inventory, is a good one to start.

**Quick Start**

To make a quick start and build confidence, look though Section I. Then review the first BMP in Section II and complete the first simple worksheet. Now you are on your way.

To use this Guide effectively you need to take a team approach. Even if you have a very small system, say twelve connections, you can create a team by bringing together interested property owners. Part III of this Guide provides information to help your team to work together on specific topics. Share this Guide with key members of your team so that you have a common understanding of Best Management Practices and their benefits.

# 2 About Best Management Practices

**BMPs**

This Guide is concerned with financial Best Management Practices. To keep things simple we refer to them as Best Management Practices,or BMPs .

A Best Management Practice (BMP) is simply a method or approach that is shown to be an effective and practical means to achieve an objective while making the optimum use of resources. A "best" practice can evolve to become even better as improvements are discovered. BMPs for water systems can be grouped in three categories:

* Management and Making Decision
* Operations
* Finance.

The BMPs in this Guide are in the Finance category. In future BMPs may be developed to cover the other categories related to small community water systems in British Columbia.

Running a water system partly involves asking the right questions, working out answers and then making decisions and taking action. This Guide prompts you with questions that help you assemble the information you will need to implement the financial BMPsfor your system.

## 2.1 Why Start with Financial BMPs

Small water systems in BC will benefit from a range of BMPs covering management, operations and financial topics. We started with financial BMPs for several reasons, including:

* When asked about the challenges facing small water systems, the owners and operators frequently say that their biggest problems are to do with finance.
* Some customers of water systems may think that because rain falls from the sky that water should be almost free. They don’t realize that there are continuing costs for things like operation, maintenance, and testing.
* Some customers are not aware that infrastructure such as pipes, pumps, and reservoirs all have a limited life, and eventually need renewal and replacement.
* Many water sources are threatened by contamination, and money and resources are required to monitor and manage upstream activities, both natural and man-made, to ensure the water supplied is safe.
* Water rates in BC, even after significant increases are made to cover the full cost of water, are very reasonable compared to other living costs, and remain low compared to most other parts of the developed world.
* There are advantages to rural living, one of which is avoidance of municipal taxes. However rural living may also mean being responsible for a small water system which is unable to achieve the same economies of scale as found in larger urban systems.

The financial BMPs in this document will help the owners and operators of small systems to deal with financial realities and make progress towards sustainable operations over the long-term.

## 2.2 The Make-Up of a BMP

A BMP may be viewed as a simple structure that is assembled using several “building blocks” To succesfully use a BMP in your water system you also need other things to be in place:



* + Sound Leadership
  + Effective Planning
  + Efficient Organization
  + Monitoring and measurement
  + Good customer communication.

Some of these topics may be covered in future BMPs.

In the following sections of this Guide you will find information that helps create the building blocks that make up the financial BMPs for your water system. A BMP is what it says it is- a “practice” - and practice means to do something again and again to learn to do it well. Best practices can improve over time, and you will experience this as you become more skilled and efficient in BMP use. Over time you may even find a better way to do a BMP. The important part is to get started!

## 2.3 Creating Building Blocks

Building Blocks typically take the form of checklists, schedules, and worksheets These help you to answer Key Questions related to a specific financial topic. For example, the Key Question “What are our annual income and expenses?” is answered by creating the building block “Statement of Income & Expenses.” Table 1.1 lists the Key Questions and associated Building Blocks that are covered in this Guide.

***Note***

*Blank worksheets are included that you can complete by hand. Or you can, use the electronic versions. In this case a member of your team will need basic experience with using Microsoft Excel.*

Notes explaining the use of each building block are shown in the appendices to the BMP, together with several blank checklists, schedules, and worksheet. You fill in the blanks with your own water system information to create useable building blocks.

Most information that you will need is found in your existing operations files and financial records. In some cases, you may have to talk with specialists such as your local drinking water officer or other people associated with the water system, or look at as-built plans if you have them. You may also gather required information by doing a “walk-about” with a notebook and measuring tape to confirm details such as pipe size and construction material.

Most of the building blocks mentioned in this Guide are available in both print and electronic form. Generally, the building blocks are most conveniently completed in electronic form. To do this you will need a computer, and experience in the use of Microsoft Word and Excel. Internet access is also very helpful. However if you do not have a computer, or have no-one on your team who is familiar with Excel, you can complete blank versions of the worksheets by hand. In the end you will have the same results, whether you create building blocks in “electonic” form or by hand.



Some worksheets may have more, or less, details than you want for your size of operation. Very small systems may not need to complete all worksheets, while others will want to add more lines or categories. Feel free to adjust the spreadsheets, worksheets, and other materials to suit ***your*** situation.

*Note*

*Your checklists, schedules, and worksheets will need regular updating. Plan to re-visit these building blocks at least annually.*

Some Building Blocks are used within more than one Best Management Practice. For example, you can use the Building Block: *Asset Replacement Schedule* in both the BMP: *Prepare an Asset inventory*, and the BMP: *Prepare a Long-Term Financial Plan*

## 2.4 Six Financial Best Management Practices

The following table summarizes the BMPs outlined in this document.

**Table 2.1: The Best Management Practices Outlined in these Guidelines**

| **Best Management Practice** | **What It’s About** | **Why You Need It** |
| --- | --- | --- |
| A. Create a Basic Asset Inventory | This is a list of water system assets with details such as:   * component manufacturer/model * installation date, * original cost * condition of the asset | If you don’t know what you have, you can’t manage it effectively. |
| B. Establish an Asset Management Plan | The plan is a written document that includes:   * a basic asset inventory * a priority list for repair or replacement of assets * an annual budget, including estimates for capital reserve * a schedule for implementation | * Provides useful information to develop options for service delivery * reduces number of loss of service incidents and emergency repairs because of planned replacements * prioritizes needs and allows for cost-effective research * increases customer confidence in ability of system to provide safe, sustainable water. * increases ability to comply with all regulatory requirements |
| C. Create a Five-Year Operating Plan | The plan is a written document listing the conclusions of a planning process and that shows what you want to do with your water system in the next five years, and how you expect to do it. | * Provides context for preparing the annual budget * enables focus on what you want to achieve |
| D. Establish a Long-Term Financial Plan | The plan forecasts revenues and expenses over a period of at least ten years into the future. Includes provision for:   * asset renewal * proposed financing * projected reserves. | You need to estimate your future financial condition to know how to provide for asset renewal and to establish realistic water pricing today and into the future . |
| E. Establish Sustainable Rates & Charges | Your water rates and charges should cover costs of:   * regular maintenance * operating costs * planned replacements * contribution to reserve funds * debt repayment | Sustainable water rates and charges are essential to adequately fund operations safely and effectively in the present and for the foreseeable future. |
| F. Create a Communications Plan | You should share information, motivate your team, and enlist support of decision-makers, regualtors and consumers about the operation of your water system. | Stakeholders, including customers, health officials, suppliers, funders, and others need to know your situation. |

## 2.5 About Reserve Funds

In the BMPs we use the term “reserve” or “reserve account.” A reserve account is basically a pot of money that you set aside for a specific purpose. There are four types of reserve account mentioned in the BMPs. These are: Operating Reserve, Emergency Reserve, Capital Reserve, and Renewal Reserve. In practice most small water systems will not maintain four separate bank accounts for these purposes.

You can still however set these reserve accounts up as “virtual” reserves, and keep track of the balance in your financial record keeping. The important thing is that everyone knows what these accounts are for, that the money is only used for the purpose intended, and that you manage them effectively. You can accumulate money in the reserve account s by making contributions from your operating budget. Before you do this however, make sure that regulations do not prohibit your category (E.g. Improvement District, Private Water Utility) of water system from creating certain types of reserve accounts.

## 2.6 BMP “Road Map” and Linkages

Fig. 2.1 (*In Excel: See BMP A Worksheets*) shows all the building blocks that make up the six BMPs outlined in this document. This figure may be viewed as a ‘Roadmap” that can be used to navigate through financial BMPs.

**Using the Excel Worksheets**

Note the following when using the worksheets:

1. Note the tabs at the bottom of each worksheet file
2. Reference (Ref) worksheets provide data
3. Enter data in yellow shaded cells
4. Check arithmetic (worksheets in draft only)

Fig.2.2 following also shows the building blocks, and highlights the linkages between each block. If you are creating all the BMPs you should start with the building blocks shown in the figure. In many cases you require the output from one building block as the input to another building block.

In the next section of this document you will find descriptions of the Best Management Practices. Each BMP consists of text and figures and several worksheets (which are mostly in the form of Excel documents). Each BMP has blank versions (as well as the versions with Notes) of the worksheets appended, which you can fill in with information about your water system to create your building blocks.

BMP F

**F1. Communication Plan**

For all BMPs

BMP D

These require input from other worksheets

Start with these worksheets

**Fig. 2.2: Linkages Between Worksheets**

BMP E

BMP C

**C2. 5-Yr Operating Budget Forecast**

Details of water system

**B2. $ for Renewal Reserve**

Annual contributions required

**B1. Asset Prioritization**

Asset renewal and priority

**B3. Renewal Reserve Account**

Annual contributions required

**D2. Capital Reserve Account**

Annual contributions required

**D1. Long-Term Capital Plan**

Planned capital expenditures

**A1. Asset Inventory**

Asset and useful life

BMP B

BMP A

**Plans & Documents**

Details of water system

**C4. 5-Yr Goals**

Overall system goals

**C3. 5-Yr Operating Costs**

Planned new operating costs

**C5. 5-Yr Capital Costs**

Planned capital spending

**B2. $ for Renewal Reserve**

Annual contributions required

**B1. Asset Prioritization**

Asset renewal and priority

**B3. Renewal Reserve Account**

Annual contributions required

**E1. Sustainable Rates & Charges**

Cost per connection

**D2. Capital Reserve Account**

Annual contributions required

**D1. Long-Term Capital Plan**

Planned capital expenditures

**C1. Current Yr Operating Budget**

Annual contributions available

**A1. Asset Inventory**

Asset and useful life

BMP B

BMP A

**Plans & Documents**

(These are unique to your system)

Details of water system

# 3 Six Best Management Practices

Please see separate files for all BMPs and worksheets