

Best Management Practice:

BMP D: Create a Long-Term Financial Plan

1 What, Why and How?

What is a long-term financial plan? A long-term financial plan estimates what your revenues and expenses will be over a period of at least ten years into the future. It includes planning for repair or replacement of equipment, for system improvement, for any proposed financing, and for building up reserve funds to pay for operations and projects.

Why do we need a long-term financial plan? Many parts of your system are expensive to repair or replace. You need lead-time to budget and save funds to be able to continue delivering safe water. A long-term plan shows you how much money to set aside each year, and helps to set a realistic price for water today and tomorrow.

How do we prepare a long-term financial plan? Here are the main steps in preparing five-year plan. These steps are explained further in following sections. For each step you create a building block.

- Step 1: Prepare a strategic plan
- Step 2: Forecast operating expenses and operating reserve
- Step 3: Forecast capital expenditures and capital reserve
- Step 4: Manage balance of Capital Reserve
- Step 5: Forecast Asset Replacement Reserve
- Step 6: Forecast annual revenues
- Step 7: Review your financial viability

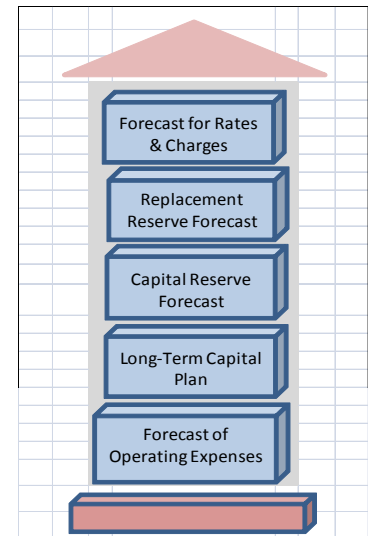
Outline of Long-Term Financial Planning

A long-term financial plan is based around estimates of the financial condition and needs of your water system over the long-term planning period. The planning period should be at least as long as the life of your asset with the greatest remaining useful life. The long-term plan should reference your strategic plan and documents used to prepare other BMPs. It should also include a clear statement of the assumptions on which the forecasts in the plan are based.

Reserves Are Good

Don't get overwhelmed by the thought of figuring out "reserves." Remember that it is easier to put aside \$500 a year to eventually replace a \$10,000 item than to pay the whole amount in an emergency situation when it fails!

The long-term financial plan is a key document: it should help answer the question: "Is our water system financially sustainable?" That is: Can you deliver safe and secure water in sufficient quantities to meet the needs of users for the foreseeable future. The plan will help you set realistic water rates and explain them to users. (See also the BMP: Sustainable Rates and Charges). A long-term financial plan is essential for all water systems, but some smaller systems may not need to include all the items outlined below. You are encouraged to modify the worksheets to suit your own situation.



Meaning of Terms

Forecast: to estimate or calculate in advance

Reserves: cash set aside from regular operations. It may be used for emergencies, for long-term asset renewal, for large projects and for unexpected operating circumstances.

2 Challenges and Benefits

A long-term financial plan will help overcome certain challenges and provide several benefits:

Challenges to Overcome	Benefits
<ul style="list-style-type: none"> • How do we predict the future? • How do we convince our customers that rate increases are required? • What are my minimum life cycle costs? • How do we manage increasing demands for service? • How do we plan to meet regulations? 	<ul style="list-style-type: none"> • Provides lead-time to research cost-effective equipment choices • Establishes regular contributions to dedicated reserve funds • Helps explain water rate increases to customers • Gives greater access to financial assistance by demonstrating efficient planning

3 Steps to Follow

Follow the steps outlined below. Create building blocks using the worksheets and other tools provided.

STEP 1: Prepare a strategic plan

Your strategic plan is a statement of how you want your water system to look in the future and how you intend to get there. It is difficult to create a good long-range financial plan if you do not have a strategic plan. Strategic planning typically:

Our Mission

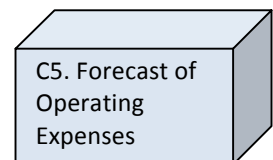
“We will deliver safe, affordable, and sustainable water supplies to our customers for the long-term future.”

- defines the purpose of your water system
- includes a vision and mission that reflects your values
- lists achievable goals and objectives.

Even if your water system has only a few connections, developing a common vision for the future of your water system makes sustainable operation easier. If you cannot agree on your vision and mission, you will have a hard time creating agreement around your long-term financial plan. To operate sustainably, you must fully maintain your system, renew components in a timely manner, safeguard the quality and quantity of your water, and earn revenues that exceed expenses. Your strategic plan should outline how you will do these things; they all have important financial implications.

STEP 2: Forecast Operating Expenses & Operating Reserve

Operating expenses are those everyday costs to your system to produce and deliver water. These costs can include such things as chemicals, maintenance, fuel, utilities, payroll, depreciation, rent, repairs, and taxes. You may already have made forecasts of your operating expenses as part of your five-year operating plan in BMP C, in which case the following sections may help you refine those forecasts.



Possible Inflation Assumptions

General	2%
Materials & Supplies	3%
Fuel	4%
Hydro	3%

An on-line inflation calculator is available at:

<http://www.bankofcanada.ca/rates/related/inflation-calculator/#>

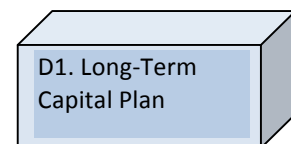
You will already have an Operating Account at a financial institution such as bank or credit union for your water system. If you are a smaller system, this may be the only account you have; all revenues and expenses appear in this account. A larger system may maintain other bank accounts such as a separate account for reserves. Whether your system is large or small, it's a good idea to establish a policy that says you will maintain reserve accounts. For some systems, maintaining appropriate reserve accounts may be a requirement by the Comptroller of Water Rights.

To manage your Operating Account, no matter what size of system, consider grouping operating expenses into "Administration and Operations" and "Contributions to Reserve Accounts." This will help you to build the reserve needed for future expenditures such as improving your water treatment. To forecast your annual operating expenses look at past financial records. Once you know your current operating expenses, you can forecast by including adjustments for future inflation. Remember that you will want to re-visit inflation assumptions occasionally. Also add new operating expenses that may be identified in your five-year plan.

Your forecast of operating expenses is a key component of the long-range financial plan. It includes not only a forecast of Administration and Operations expenses, but also the contributions you will make to the various reserve accounts, as outlined in other BMPs.

STEP 3: Forecast Capital Expenditures & Capital Reserve

Your strategic plan from Step 1 will give you a good idea of the capital projects you need to undertake. Examples might include installation of water filtration equipment or construction of a new reservoir. The information needed to create a capital expenditure forecast is partly



available from your asset management, five-year, and strategic plans. The asset management plan identifies major items needing replacement or renewal. The strategic and five-year plans include reference to system upgrading and expansion. These plans should reflect any required actions to meet conditions of Operating Permits or Construction Permits, such as to install disinfection within the next two years.

Depreciation

Your Statement of Income and Expenditures may list "depreciation: expenses. *Depreciation* is the decrease in value of assets as a result of wear and tear. Some types of water systems, such as improvement districts, are now required to calculate the amount of annual depreciation. *Depreciated value* of an asset is not the same as *replacement value*. See BMP B for more information.

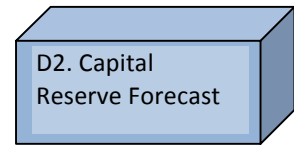
To prepare the Long-Term Capital Plan, gather information on the cost of each item and the year it is expected to be installed. You can ask manufacturers or installers for quotes, other local water systems for information on their experiences, or contact your local drinking water officer or public health engineer for guidance.

Then complete the forecast worksheet appropriate for your system.

Also note that there is no hard and fast rule that separates capital expenditures from expenditures from the operating budget. A practical guideline for small water systems is that any item exceeding \$2,000 is a capital expenditure. Consult with your accountant if necessary.

STEP 4: Manage the Balance of the Capital Reserve

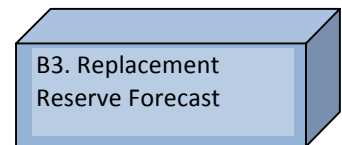
Consider setting up a separate Capital Reserve bank account. Otherwise, do track Capital Reserve (also known as Construction Reserve) funds within your regular account and make sure this money is dedicated to capital purchases. Use a worksheet to show the sources of money that you use to pay for capital projects, and show the various expenditures you make in connection with capital projects. This account may include proceeds from loans, and the payments of principal and interest on long-term debt.



Your long-range financial plan should include a forecast of the balance of this account over the longest term practical. You should manage this account so that the bottom line is always positive. To do this, you may need to occasionally increase the money going into this account, for example, by increasing the contribution from your operating account. Or you may need to limit your expenditures from this account, for example, by deferring a capital project.

STEP 5: Forecast Asset Replacement Reserve

The Asset Replacement Reserve (also known as the Renewal Reserve) lists the sources of money and the expenditures related to asset renewal. Your long-range financial plan should incorporate the forecast of this account over the longest term practical. Manage this reserve account so that the bottom line is always positive. To do this, you may need to occasionally increase the money going into this account, for example, by increasing the contribution from your operating account. Further information about managing asset renewal is found in Best Management Practice: *Create an Asset Management Plan*.



STEP 6: Forecast Annual Revenues

Water system revenues may come from one or more of these charges:

1. the basic water service charge (fixed charge per billing period)
2. the consumption charge (rate per cubic metre)
3. service fees (connection/disconnection charge, line extensions).

There may be earned revenues from other sources, such as charges to developers for extending the water system.

Base your projected revenues on clear assumptions about changes in the water supplied to customers; for example state the estimated increase in additional customers over the period covered by your plan. You may make projections of your customer base by looking at past growth trends and taking into account what you know about the future of your community. In larger systems where water meters are installed, revenues are influenced by the amount of water the average customer uses. In recent years, some systems have experienced a modest fall in consumption per person, due to the success of water conservation initiatives. Small changes to the assumptions you make about these factors can cause large changes in projected revenue. These factors should be reviewed annually to see if they are still valid.

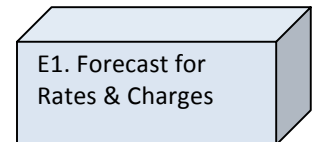
To start this part of the planning process, make some realistic assumptions about annual changes. For example, assume that the basic water service charge will increase by 2% per year and the consumption charge will increase by 3% per year. The underlying purpose of forecasting future revenue requirements is to be able to set future rates and charges to recover enough money to be financially viable for the long-term. This topic is covered in the Best Management Practice: *Setting Sustainable Rates and Charges*. You can enter your forecasts of revenues in the worksheet associated with that BMP.

Step 7: Review Your Financial Viability

Once you have completed the forecasts and estimates outlined above, the next step is to find out if your planned rates and charges will be enough to pay for the estimated operating expenses and contributions to reserves.

For this purpose, a calculation of Annual Net Surplus (or Deficit) will indicate if your system is financially sustainable. The Annual Net Surplus/Deficit measures the difference between revenue and expenses: a positive difference is a surplus and a negative difference is a deficit. This in turn lets you know whether your financial assets can be maintained or if they will be depleted.

Your financial viability is directly linked to the rates and charges you make for water. This topic is covered in the Best Management Practice: *Setting Sustainable Rates and Charges*. You can enter your forecasts of revenues in the worksheet associated with that BMP.



At this point in your planning, if you have not done so already, continue communications with your customers and other stakeholders and build support for your planning initiatives.

4 How long will this take?

The table below shows a typical timeframe to prepare the Best Management Practice Long-term Financial Plan for implementation. This includes communication time to discuss details with key people, bring together individuals who can contribute to the process, and administrative time to assemble the information needed for the individual building blocks. Preparation of each building block, perhaps in the form of a worksheet or checklist, may only require one or two hours, once you are familiar with the process.

Expect to revisit your long-term financial plan at least annually to update information. This review and update will take less time than the initial planning process, and is important for good financial decision-making.

	Building Block	Weeks >	1	2	3	4	5	6	7	8
1	Create strategic plan									
2	Create long-term financial plan									
3	Forecast of revenue									
4	Forecast of expenses									
5	Forecast of capital expenditures									
6	Forecast annual net surplus									

5 More Information

More information on long-term financial planning is available from the following:

Drinking Water Health Authority Contacts:

http://www.health.gov.bc.ca/protect/dw_ha_contacts.html

Drinking Water Resources and Associations:

<http://www.health.gov.bc.ca/protect/dwresources.html>