FINANCIAL PLAN

#001-301

Safe Drinking Water Act, 2002
O.Reg. 453/07

June 29, 2010

Revision 1
## Table of Revisions

<table>
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<th>Revision #</th>
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EXECUTIVE SUMMARY

In 2007, the Ontario Ministry of the Environment (MOE) released O.Reg. 453/07 (Financial Plans) under the Safe Drinking Water Act, 2002 (SDWA). This regulation requires that a Financial Plan is prepared as part of the Municipal Drinking Water Licencing Program set out in Part V of the SDWA. The Financial Plan will ensure that drinking water system owners plan for the long-term financial stability of their drinking water systems in order to guarantee safe drinking water into the future.

The components of this Financial Plan are consistent with the requirements for financial statements as set out in section PS1200 of the Canadian Institute of Chartered Accountants (CICA) Public Sector Handbook. The Plan includes a Statement of Financial Position, Statement of Operations, and Statement of Cash Flow. One component of the Plan is to provide information on the operating and capital expenditures required to ensure reliability and long term sustainability of the Lake Huron Primary Water Supply System.

This Plan outlines the Lake Huron Primary Water Supply System’s financial status, discusses current and future pressures, outlines the funding structure and provides a financial forecast for the water system. The financial impacts have been considered and applied for a six year period (2010-2015).

This Financial Plan is a dynamic document that will be updated on a regular on-going basis and should be considered a work in progress. At a minimum the Financial Plan is required to be updated and included with the application for the renewal of the water system’s Municipal Drinking Water Licence every five years. However, there are many potential changes that may occur in the interim period that may affect the operating and capital projections. This plan will be updated to reflect these changes as they occur.

The Lake Huron Water Board strives to operate and to continually improve the sustainable, environmentally friendly utility that provides safe drinking water at stable and reasonable prices to current and future member municipalities.
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PART I: BACKGROUND AND CONTEXT

1 Introduction

In 2007, the Ontario Ministry of the Environment (MOE) released O.Reg. 453/07 (Financial Plans) under the Safe Drinking Water Act, 2002 (SDWA). This regulation requires that a Financial Plan is prepared as part of the Municipal Drinking Water Licensing Program set out in Part V of the SDWA. The Financial Plan will ensure that drinking water system owners plan for the long-term financial stability of their drinking water systems in order to guarantee safe drinking water into the future.

The Board of Management for the Lake Huron Primary Water Supply System had developed a Strategic Financial Plan in 2006 for the Lake Huron Primary Water Supply System. The 2006 plan was amended to satisfy the intent of O. Reg. 453/07, Sustainable Water and Sewage Systems Act (SWSSA or Bill 175), Section 30 of the Safe Drinking Water Act (SDWA), and Public Sector Accounting Board (PSAB) accounting and reporting requirements.

This plan addresses these requirements, as well as those of the Ontario provincial government’s emerging long-term strategy to ensure the financial sustainability of municipal drinking water systems.

This Financial Plan ensures the Water System is in a stable financial position, operates in a fiscally sustainable manner and establishes a sound, long-term financial view for the Board of Management ("Water Board"). It will also provide a tool with which to plan for and respond to system operating and growth pressures, and their associated costs.

Part I summarizes the purpose, vision, and accountability of the Water Board, and provides the background and context for the preparation of financial strategies that led to a Strategic Financial Plan for the Lake Huron Primary Water Supply System.

The Background sets out a historical and administrative perspective on what the Water System is, when it was established, and how it has been operated. The Context presents a perspective on where the Water System is going and what the vision for the future is, and it identifies values and guiding principles that will drive the planning and actions of the Water System in the future.

2 Background

2.1 Water Board Established by Provincial Government

In July 1998, the City of London and area municipalities were advised by the Ontario Ministry of the Environment that, pursuant to the Municipal Water and Sewage Systems Transfer Act, 1997, they were transferring ownership of the water system and associated properties from the Ontario Clean Water Agency, a Crown Corporation of the Province of Ontario, to the system’s benefiting municipalities as represented by a newly created water board: the Lake Huron Primary Water Supply System Board of Management. Approximately 3000 sq km of central Southwest Ontario is supplied by the Lake Huron Primary Water Supply System.
The Lake Huron Primary Water Supply System services the municipalities of London, Lambton Shores, North Middlesex, South Huron, Bluewater, Middlesex Centre, Lucan-Biddulph and Strathroy-Caradoc from a water treatment plant located north of the village of Grand Bend in the municipality of South Huron. The system serves an estimated population of approximately 350,000 people.

2.2 Board of Management

The Lake Huron Primary Water Supply System has a Board of Management ("Water Board") that governs the system, which is comprised of appointed representatives from each of the benefiting municipalities of the system, and represents the system ownership. The Water Board retains ownership, governance, management and ultimate responsibility for the system. Under the Transfer Order issued by the Minister of the Environment, the City of London was designated the Administering Municipality for the Lake Huron Primary Water Supply System. The City provides all associated administrative and management services on behalf of and under the direction of the Water Board.

The governance structure of the Water Board is reflected in the graphic below.

The responsibility for the operation and maintenance of the treatment and transmission facilities currently rests with a contracted operating authority (American Water Canada), hired through a public procurement process and retained according to the terms of a ten year contract (2002 – 2011). The contract is administered by the Administering Municipality\(^1\) on behalf of the Water Board.

The operating function of the Water Board is currently contracted, and the current contract has an option for a further five-year extension at the option of the Water Board. At present time the Water Board has opted to pursue a new “Manage, Operate, and Maintain” contract once the current operating contract expires at the end of 2011. In the future, should circumstances warrant, the Water Board could assume responsibility for the operations functions.

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\(^1\) The City of London was designated in the Transfer Order as the Administering Municipality for the Water Board.
2.3 Water Board Administration

The City of London, in its capacity as Administering Municipality, formally assumed administrative responsibility for the Lake Huron Primary Water Supply System and its properties on September 15, 2000, on behalf of the Board of Management in accordance with the Transfer Order.

The City of London is organized to administer the Water Board through the creation of the Regional Water Supply Division of the Environmental & Engineering Services Department. This division was created for the purpose of the administration of the Water System and meet the obligations of the Administering Municipality under the Transfer Order, and was seconded to report to the Water Board. The administrative structure is reflected in the diagram on the right, with the General Manager of Environmental & Engineering Services & City Engineer of the City of London being designated as the Chief Administrative Officer of the Water Board.

The Water Board Administration has adopted a principled approach to the management of the Water Board. This approach integrates managerial, administrative, operational and financial functions under four plans or “pillars” identified as:

- **Financial Plan**
  Long-term strategic plan for cost containment & control and “full cost recovery”

- **Operational Plan**
  Plan related to operational control and risk management

- **Master Water Plan**
  Long term strategic plan for growth control and identification of new capacity requirements

- **Administrative Plan** (to be developed)
  Strategic plan for governance and administrative support of goals and objectives; more than just supervision and resources
To support the *four pillars*, administration uses a number of management systems. For management success, each *pillar* must function successfully and in concert with the other three *pillars*. This requirement imposes a need for technical support systems, as well as training and administrative protocols that will ensure information is used, shared and managed in as efficient and effective way as possible. This need is referred to as the “foundation” for the four pillars, and typically includes systems for:

- Environmental Management (ISO 14001 currently in place)
- Quality Management (DWQMS currently in place)
- Supervisory Control And Data Acquisition, (SCADA) (to be enhanced and interrelated with Laboratory Information Management System, or “LIMS”)
- Laboratory Information Management System (currently in place, to be enhanced and interrelated with SCADA)
- Financial Management (using the Administering Municipality's financial system, to be enhanced to include long-term planning via the Strategic Financial Plan)
- Maintenance and Asset Management (work order management system in place, to be enhanced to include maintenance planning and asset management integrated with Financial Management)
- Emergency and Incident Management (IMS currently in place)

The focus of these “management systems” is the collection of that information and data necessary to make informed and supportable recommendations to the Water Board, to make appropriate and timely operational and management decisions, to make appropriate resource allocations, and to support short and long-range planning activities necessary to insure stable and sustainable funding for the utilities.

For some of these systems, there are many computerized tools available commercially that can fulfill these needs. The administration modifies or selects and implements those systems that best meet administrative and technical requirements and that are “rightly” matched to the utility’s needs. Administrative policy ensures that data that is not required is not collected. Data that is required is collected and recorded once, appropriately stored, readily retrievable, and easily shared among systems and users that require the data.

Guiding principles for the administration and operation of the water systems, as originally adopted by the Water Board in 2000, are included in Section 3.1.

### 3 Context

The Water Board has evolved and grown in response to economic pressures, changes in legislation, and the changing needs of people and communities served by the water system. In order to guide decisions on the future of the Water System, and to enable consistent and effective planning, and allocation of resources, it is necessary to have a clear understanding of what the Water Board believes is important, and how they want to conduct business and provide services in the future.

#### 3.1 Guiding Principles

The basic guiding principles initially adopted by the Water Board in 2000 for the administration and operation of the water systems are listed as follows:
Quality of Service: The contracted Operator must meet or exceed the level of water quality currently delivered to our customers as stipulated in the Contract, which surpasses the Ontario Drinking Water Standards;

Operating Flexibility / Innovation, Efficiency: The Water Board wishes to encourage performance improvement throughout the Water Board's System. Changes that have major implications for the Water Board's System will require the approval of the Water Board. Where financial gains are made from improved efficiency, it is anticipated that such gains will be appropriately shared;

Asset Protection and Maintenance: The Water Board wishes to ensure that each System at the end of the Contract is returned in a condition as mutually agreed to in the contract which, in any event, will be in a condition better than the pre-contract condition;

Continuity of Service: Service shall be maintained throughout the term of the Contract and through any transition period to a new Operator;

Environmental Impact: Environmental impact will be minimized and, at the very least, the existing performance will be maintained;

Municipal Control: The Water Board must maintain overall control over the assets, capital construction, system growth, and the long-term development of the Systems;

Value for Service: The contracted Operator must provide the best service for the price offered, as well as provide cost control mechanisms;

Capital Projects: The Water Board is responsible for developing, approving, funding and controlling the implementation of all capital projects. The input of the contracted Operator on capital projects will be sought. The Water Board is particularly interested in receiving innovative suggestions from the contracted Operator that will enhance the Water Board's System performance; and,

Appropriate Allocation of Risk: Throughout the term of the Contract, an appropriate balance of risk and benefit will be established between the Water Board and the contracted Operator.

In addition to the initial guiding principles, the following business guidelines were approved by the Water Board as part of the Strategic Financial Plan in order to express the aspiration of the Water Board to conduct the business of the regional system in a manner that is ethical and produces the greatest good for member municipalities:

Water Board: the existing primary Water Board will be respected and encouraged; new and secondary Water Boards will not be encouraged.

Wholesale water provision: The Water Board is in the 'wholesale' business of supplying water to member municipalities. They will not distribute water within a municipality to municipal customers. Distribution and system operation services within municipalities are provided by the member municipalities.
Simplicity and efficiency: in administration & management systems will be a priority.

Fairness and equity in rates: Water Rates will be fair and equitable.
  o An equitable and fair distribution of system costs will be achieved through rates that consider the interests of existing and future users.
  o Water rates may vary between the Lake Huron and Elgin Water Boards\(^2\). The systems have differing histories, ownership, and circumstances, and there is no current justification for merging the rates in order to develop a common set of rates.

Business innovation: Best practices, whether technological or business, will be used in managing the utility and in making infrastructure decisions.

Multi-source funding: The Water Board will actively pursue any available funding assistance from senior levels of Government.

Relationship building: will be valued and respected as a cornerstone for management, governance and stakeholder’s activities.

Continuous improvement: will be supported in all activities, commensurate with approved budgets and good management practices.

Supportive membership: Members will be encouraged to support and to protect Board interests within their municipalities.

3.2 Purpose of the Water Board

The Water Board is ultimately responsible for the supply and transmission of treated drinking water that meets or exceeds provincial regulations, to member municipalities within its service boundaries.

3.3 Vision of the Water Board

“The Lake Huron Water Board strives to operate and to continually improve the sustainable, environmentally friendly utility that provides safe drinking water at stable and reasonable prices to current and future member municipalities.”

\(^2\) The Elgin Area Primary Water Supply System and its Joint Board of Management (Elgin Water Board) is a separate and distinct regional water system.
3.4 Values of the Water Board

The values of the Water System are the inherent beliefs or moral standards that generally reflect what the Water Board stands for and believes in. The values of the Water Board are:

- **Sustainable** - be financially, environmentally, socially, and physically sustainable
- **Inclusive** - provide access to bulk drinking water for current and prospective members, in accordance with Board policy
- **Fair and equitable** - balance the interests of individual members with the best interests of all members, as well as the needs of existing members with the needs of new members
- **Vigilant** - ensure an adequate supply of safe and reasonably priced drinking water is available to members
- **Innovative** - be receptive to and supportive of new ideas and opportunities for continuous improvement
- **Cooperative** – be supportive to the needs of the Lake Huron Primary Water Supply System
- **Open and transparent** – conduct business in a manner that enables member municipalities and the public to review and provide input into major decisions as appropriate
- **Publicly Owned** – retain ownership of the water system within public hands
PART II: ASSESSMENT OF CURRENT STATE

Part II provides a brief assessment of the current state of the Water Board. It offers a succinct insight into the Water Board’s current and future pressures, and considerations for future action.

The creation of a sustainable and strategic Financial Plan establishes a sound, long-term financial view for the Water Board. It provides a planning tool to plan and accommodate system operating and growth pressures and their associated costs. The fundamental strategic components or elements are:

- Outcomes are “balanced” between the needs of the Lake Huron Primary Water Supply System and its benefiting municipalities, and between the current and long-term needs of the water system.
- The Water Board is presented with viable and appropriate choices when decisions are needed.
- A sustainable and long-term view be dominant in the process.
- Outcomes are documented and assessed for continuous improvement.

4 Water System Overview

4.1 Lake Huron Water Supply System

4.1.1 Overview

Potable drinking water is delivered through a 47 km transmission pipeline extending from the water treatment plant on Lake Huron to a terminal reservoir located near the village of Arva, north of the City of London. A total of 21 km of the transmission pipeline is twinned in three high pressure areas. The transmission pipeline is 1200 mm in diameter and is monitored via a SCADA system.

The Lake Huron water system is currently operated and maintained by American Water Canada Corp. (AWCC) under contract to the Water Board, administered by Regional Water Supply of the City of London in its capacity as the Administering Municipality. AWCC staff are supplemented by local subcontractors for specific services or specialized maintenance tasks. All operations are focused on meeting the drinking water regulations under the Safe Drinking Water Act, 2002 and the specified terms and conditions of the operating agreement.

The following graphic (Figure 1) reflects water use over the past 8 years.
Figure 1: Lake Huron Treated Water Flow Data

Note: Data taken from annual report provided by the Operating Authority

4.1.2 The Lake Huron Water Treatment Facility

The water system has an estimated gross intake capacity of 454 million litres per day, (MLD), a current rated treatment capacity of 340 million litres per day (75 million Imperial gallons per day) and, on average, the water treatment plant currently produces 148 MLD with a maximum day production of 262 MLD in 2007.

The water treatment plant treats raw water obtained from Lake Huron using: pre-chlorination, screening, powder-activated carbon (seasonally added on an as-required basis), coagulation, flocculation, sedimentation, dual-media filtration, pH adjustment for corrosion control and post-chlorination. The treatment system and water quality are continuously monitored using online analyzers and computerized SCADA systems.
The intake crib for the treatment plant is approximately two kilometers offshore in about 10 meters of water. The intake structure is designed for the plant’s planned ultimate treatment capacity of 454 MLD.

The water treatment plant has five 3000hp high-lift discharge pumps that pump the treated water from the plant at an average pressure of 1550 kPa (225 PSI) through the 1200mm diameter (48 inch) transmission pipeline to the Arva terminal reservoir (109 ML ground-level storage reservoir) north of the City of London. During higher demand periods, an intermediate reservoir (18.2 ML ground-level storage reservoir) and booster pumping station located near the community of Ailsa Craig is used to boost the water to the terminal reservoir. There are four 3000hp high-lift discharge pumps at the booster pumping station.

In the event of a power failure, the water treatment plant at present has a 3.8 megawatt marine-diesel generator onsite and 80,000 litres of diesel fuel, which is enough to supply power to one high-lift pump, one low-lift pump and associated treatment, control and monitoring systems for a period of 3.5 days before refuelling is required. This generator is planned to be replaced in 2011 with four 2.5 Mw diesel generators, more than doubling the pumping capacity on emergency power.

### 4.2 System Interconnections

The Lake Huron Primary Water Supply System is interconnected to the Elgin Area Primary Water Supply System through the City of London’s water distribution system. The Lake Huron system can supply water, limited in volume and duration depending on the time of year, to the Elgin Area Primary Water Supply System via the City of London in the event of an emergency.

The Lake Huron Primary Water Supply System is also interconnected with the Lambton Area Water Supply System (LAWSS) through the municipality of Lambton Shores. This interconnection is located near Kettle Point and is normally closed. In an emergency in either the Lambton Area Water System or the Lake Huron Primary Water Supply System, this interconnection can be opened under the control and operation of the Municipality of Lambton Shores.

### 5 Growth and Management

#### 5.1 Financial

The Water Board has developed a Connection Policy which in part identifies the requirement for new municipalities to pay a capacity “buy-in” charge reflective of the payment to the Board for the proportionate share of unutilized system capacity, as well as the capital cost of facilitating the new connection and supply. (See Part III – “Funding Structure”)

A sustainable cash flow plan has been developed for operating and capital funds in order to support appropriate rates for Water Board members.

A strategy and funding mechanism exists to address growth and renewal of water system infrastructure to meet increases in demand. The strategy is linked to the rate structure. (See Part III on “Funding Structure”)

The acquisition of debt and apportionment to the benefiting municipalities can impact the ability of the Water Board to accomplish projects due to limitations of the debt capacity of each of the benefiting municipalities, and the associated statutory limitations on borrowing.

5.2 Legislation

Water system infrastructure and related management requirements may be impacted by changes in legislation and standards such as the Sustainable Water and Sewage Systems Act (SWSSA), Section 30 of the Safe Drinking Water Act (SDWA), and Public Sector Accounting Board (PSAB) methodologies. Implications to the following areas are considered:

- Treatment levels & quality standards
- Infrastructure and industry standards
- Testing, inspection, auditing and reporting requirements
- Customer/market expectations, e.g. bottled versus tap drinking water
- Water supply costs, i.e. the costs of possible water tariffs set by the provincial government for withdrawal of water from the lakes

Benefiting member municipalities collectively hold the debt for the Lake Huron Primary Water Supply System in proportion to their current annual consumption. In the longer term, this may impact individual municipalities and their ability to borrow funds for other purposes. Consideration is being given to the requirements that must be met for the Water Board to borrow in their own right. Alternative mechanisms are under investigation to enable the Water Board to meet borrowing requirements.

5.3 Governance

5.3.1 Voting Structure

The Board voting structure is presented in Table 1. This table reflects the structure set out in the Transfer Order that created the Board, and was amended to include the Municipality of Strathroy-Caradoc. Provision exists to enable municipalities to be added or to withdraw from the Water Board, and membership and any terms and conditions altered by a three-quarters majority vote of the Lake Huron Water Board.

The Water Board has authority to manage the water system and represent the associated interests of the benefiting municipalities for the purpose of constructing, operating, repairing and improving the system.

Table 1 identifies consumption (expressed as a proportion of the current annual withdrawal of water from the system), and water takings for 2009. As circumstances warrant, there may be periodic requirements to review the voting structure to reflect either changes in capacity utilization, water takings, or changes to the number of benefiting municipalities of the system.
Table 1 – Voting Structure

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<th>Municipality</th>
<th>Weighted Votes</th>
<th>2009 Actual Reconciled Consumption</th>
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<td></td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>London</td>
<td>16</td>
<td>59.3</td>
</tr>
<tr>
<td>Bluewater</td>
<td>1</td>
<td>3.7</td>
</tr>
<tr>
<td>Lambton Shores</td>
<td>1</td>
<td>3.7</td>
</tr>
<tr>
<td>South Huron</td>
<td>1</td>
<td>3.7</td>
</tr>
<tr>
<td>North Middlesex</td>
<td>3</td>
<td>11.1</td>
</tr>
<tr>
<td>Middlesex Centre</td>
<td>1</td>
<td>3.7</td>
</tr>
<tr>
<td>Lucan-Biddulph</td>
<td>1</td>
<td>3.7</td>
</tr>
<tr>
<td>Strathroy-Caradoc</td>
<td>3</td>
<td>11.1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>27</strong></td>
<td><strong>100.0</strong></td>
</tr>
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5.4 Administration & Management

Both the Lake Huron Primary Water Supply System Board of Management and Elgin Area Primary Water Supply System Board of Management were established by provincial legislation and subsequent Order, and the City of London was identified as the **Administering Municipality** acting on behalf and under the direction of the respective Water Board. As a consequence, and for the mutual benefit of the two systems, the two Water Boards have the same Chief Administrative Officer and administrative staff (Regional Water Supply). This format is effective and allows for efficiencies through the use of common administrative resources and procured services. It promotes and supports a broad regional perspective on planning issues for the Water Boards and their benefiting municipalities.

5.5 Asset Management and Lifecycle Replacement

*Asset Management* refers to a comprehensive process for the management of a Board’s infrastructure assets. A comprehensive process is one that is “holistic” in its perspective and “structured” in its format. As quoted from The American Public Works Association Asset Management Task Force, it is:

“*... a methodology needed by those who are responsible for efficiently allocating generally insufficient funds amongst valid and competing needs.*”

Part IV (Asset Management) addresses the issue of an *Asset Management Plan*. A comprehensive physical inventory of a Water Board’s assets indicating: material, size (diameter), age, location and depth of watermains and appurtenances etc., is currently under development. Establishing a complete inventory generally only needs to be done once. Thereafter the records can be updated on an individual basis as elements are added to or subtracted from the inventory or as their condition changes. The asset management plan once completed is intended to provide the Board with a

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3 Due to the size of the system, the Huron Water Board utilizes weighted votes (e.g. London has 4 reps with 4 votes each, etc.)
systematic process that allows for the maintenance, upgrade and the operation of the physical assets in a cost effective manner. Further, by implementing an asset management plan, the Board can meet new growth demands within a fiscally responsible and sustainable framework while preserving the quality of service to customers. Asset Management is discussed more fully in Part IV.

5.6 Growth & System Expansion

Demand management with respect to water supply is a municipal issue not presently managed at the Water Board level, but a region-wide initiative to develop a coordinated conservation program has been initiated, including point-of-use conservation, water efficiency and public education. It is anticipated that the Province, under the new Municipal Drinking Water Licencing system, will expect the Water Board as the Permit To Take Water holder to have and support a water efficiency/conservation effort.

Given the inter-connect capability that allows the movement of water between the Lake Huron Primary Water Supply System and Elgin Area Primary Water Supply System, consideration needs to be given to issues of moving water between watersheds. The Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement and the Safeguarding and Sustaining Ontario’s Water Act (SSOWA) could ultimately result in significant limitations on the growth and expansion of the LHPWSS. This issue is addressed in legislation, and consideration of the implications of such an occurrence are being explored, quantified, and monitored by the Water Board. Board staff are proactively participating on an advisory panel and various sub-groups related to the development of this legislation.
PART III: WATER BOARD FUNDING STRUCTURE

6 Financial Framework

This section documents a comprehensive framework for a Water Board’s rates and charges for the supply of treated potable water. The information contained within this section is based on the development and implementation of the Strategic Financial Plan in 2006.

6.1 System Rate

The Water Board is authorized to establish a System Rate that will be charged to all municipalities to pay the costs of the water system. The System Rate is determined annually on the basis of dividing the total forecast system costs by the total forecast system water usage. System costs include:

1. Operating and administrative costs
2. Capital replacement & rehabilitation costs
3. Contributions to the Reserve Funds
4. Cost of repaying debt on the System
5. Any other costs that the Water Board agrees to include in the System Rate

The Water Board has established component rates and charges for different purposes which make up the System Rate. All rates and charges generate revenue to the Water Board which, in turn, is used to fund the various costs of the respective Water Board. A graphic of the Funding Structure is presented as Figure 2.

The purpose of this section is to outline a financial framework that integrates the different rates and charges established by the Water Board, and to do so as provided for by governing legislation.

6.2 Water Board Funding Structure

The funding structure consists of three charges:

- **Base Rate**\(^4\) - a per cubic meter charge for water supplied
- **Capacity Buy-in Charge** – a one-time charge paid by new members joining a Water System
- **Infrastructure Charge** – a per cubic meter charge applied to the Base Volume\(^5\)

The funding structure breaks the System Rate into two components: a Base Rate and an Infrastructure Charge. This mechanism was implemented in order to provide transparency regarding where the various components of the System Rate are directed.

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\(^4\) Applies to the annual Base Volume . . . not a predetermined benchmark volume

\(^5\) Base Volume is the annual volume of water measured by a Water Board, and being consumed by a Benefiting Municipality, for which the Benefiting Municipality has been charged the Base Rate.
The *Capacity Buy-in Charge* is directed to the Asset Replacement Reserve (ARR) under item 3 of the *System Rate* referred to in the Transfer Order. This charge reflects a new member’s contribution to purchase capacity in the regional system assets in essence “paying back” costs to the Water Board that have already been paid for by others but in excess of their collective utilization. By directing the revenues to the ARR, the new member is acknowledging its share of the “sunk costs” of the Water Board. This is consistent with the context of a regional utility.

### 6.2.1 Base Rate

The *Base Rate* is the Water Board’s wholesale charge per cubic meter of water, levied on each *Benefiting Municipality*\(^6\) for all volumes taken from the Water Board. The *Base Rate* is the same for all members. The *Base Rate* is calculated annually by dividing the total forecasted costs for the Water Board for a year (in $) by the total projected water sales (in cubic meters). Forecasted costs include:

- Operation and maintenance costs (O&M)
- Capital repair, replacement and rehabilitation costs (RRR)
- Contribution to emergency reserves
- Contribution to asset replacement reserves (ARR)

Figure 2 illustrates the Water Board Funding Structure and how Base Rate revenues are managed.

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\(^6\) *Benefiting Municipality* means a member of a Water Board. Only municipalities may be members of a Water Board.
Figure 2: Water Board Funding Structure

- Base Rate Revenue
- Emergency Reserve
- Asset Replacement Reserve
- Operations
- Grant Funding
- Debt Financing
- Capital Projects
- Capital Reserve
- Infrastructure Project
- Revenue Flow-Through
- Base Rate Contributions
- Infrastructure Charge
- Asset Sale/Lease Revenue

Revenue from the Capacity Buy-In Charge for new members
6.2.2 Infrastructure Charge

The Infrastructure Charge\(^7\) is used by the Water Board to distinguish between the costs associated with capital works necessary to address the increasing water demands of its members, and the costs of running the utility which are embodied in the Base Rate. The capital works may be growth or non-growth related.

The charge covers the costs of capital works required to meet the water demands from members which can result from infill or new development, new user connections (pre-existing properties within a municipality but newly connected to the water system), and increased water usage by connected users; and the capital costs of non-growth related costs such as works to improve service levels or to meet changing regulatory requirements.

Funds collected are directed to the Capital Reserve Fund to pay down the costs associated with providing the capital works. This provides for greater transparency with respect to user accounting funds.

The premise of the Charge is that capital works enabling a Water Board to meet its members’ needs should be paid for by the Water Board and the costs shared by all Members, as these works generally benefit all members, albeit to different degrees at different times but in the fullness of time tends to normalize to the benefit of all. The point of a separate charge component of the System Rate is to add clarity to the funding process and to provide a dedicated stream of funds to pay for Surcharge Works\(^8\). This approach also mitigates concerns about high charges on selected members of the Water Board and allows the Board to plan and implement Surcharge Works in a way most beneficial to all members as a group.

The Infrastructure Charge is distinguished from the Capacity Buy-in Charge in that it is not concerned with the issue of selling surplus capacity that may exist in a system. Members of a Water Board have been contributing to their share of the costs of surplus capacity through the Base Rate since the creation of the Water Board. In the case of a new municipality wanting to connect to the Water System for the first time, the Capacity Buy-in Charge addresses the need for the new municipality to pay a fair share of the sunk costs of the Water Board in order to enjoy the same Base Rate as existing members.

The Infrastructure Charge rate is supported by a documented process identifying how the rate was arrived at, and established periodically based on Surcharge Works identified in the long-term capital plan and authorized by a Water Board for construction. The long-term capital plan would be based on the infrastructure works that a Water Board identifies as being required to meet the quality, quantity and regulatory needs of its members and regulators.

---

\(^7\) The term Infrastructure Charge is used to differentiate regional water utility language from terminology common to municipalities, and developers, such as: “development” or “growth”. Within municipal and developer environments, these terms attract specific meanings that are not relevant to a regional water utility.

\(^8\) Surcharge Works are capital works undertaken to address the increasing water demands of its members. Surcharge Works are paid for by a Water Board and recovered over time through the Charge.
6.2.3 Capacity Buy-In Charge

A Capacity Buy-in Charge is a charge that is intended to compensate the Water Board for:

- In the case of a new Municipality applying to connect to a Water Board:
  - The capital costs of any infrastructure required by the new member to connect to the system
  - The value of existing surplus capacity requested to be used by a new municipality
  - A combination of both

- In the case of an existing member where the member projects a growth in their water usage that exceeds 10% of their average annual Base Volume averaged over the last three years:
  - The capital costs of providing new infrastructure
  - The value of surplus system capacity requested, that is in excess of a normal volume increase resulting from annual growth in demand
  - A combination of both.

The Water Board has complete discretion to permit new municipalities to connect to the system or to accommodate the requests of an existing member for a significant increase in their water taking due to extensive distribution system expansion. The Water Board is not obliged to accept new municipal applications for connection. However, given the Board is in the business of wholesale water supply, it is unlikely that they would take a position of denying water or a connection unless they were not compensated for doing so.

To achieve the objective of one Base Rate for all members, those who apply to connect to a Water Board for the first time or members who want to increase their annual “taking” by a significant amount, should be required to pay a Capacity Buy-in Charge that recognizes that they will be using more of the capacity already paid for by existing members in accordance with their percentage of the water produced.

The principle is that “Latecomers” will be taking advantage of an existing system that has been financed by others and whose costs are being shared according to their usage of the water produced. By paying a Capacity Buy-in Charge, they are reimbursing the Water Board for sunk costs paid by the Water Board which they are now going to benefit from. The objective is to ensure all members have an equitable financial position in the Utility, thereby making one Base Rate for all members a fair charge.

The Capacity Buy-in Charge is not a “growth” charge and is not for growth related works. The Capacity Buy-in Charge is a reimbursement to a Water Board for existing infrastructure being provided by the Water Board for the benefit of the member.
PART IV: ASSET MANAGEMENT and BUSINESS PLAN

7 Asset Management

Asset Management refers to those activities associated with developing, operating and maintaining infrastructure to achieve the highest possible returns from an economic, environmental, and social perspective. An Asset Management Plan is one of three plans that comprise a “holistic” Business Plan which can be used to provide the core information for multi-year business planning and budgeting.

Asset management is placed in a broader business management hierarchy to be fully understood. This hierarchy is illustrated in Figure 3.

- First in that hierarchy is the Strategic Plan. The Strategic Plan considers the “whole” business at a high, strategic level. It identifies issues and strategies to address those issues.
- A Business Plan then operationalizes the Strategic Plan.

In the context of a Business Plan, the Asset Management Plan is one of four components used in managing the infrastructure business. The four components are:

- Asset Management Plan
- Financial Plan
- Operations Plan
- Master Capital Plan

A comprehensive Business Plan that includes these four components and their related features and processes is illustrated in Figure 4. It is “holistic” in its perspective and “structured” in its format. The Business Plan structure provides the core information for annual and multi-year business planning and budgeting. It also provides the performance-based framework on which to monitor the results of public infrastructure expenditures.

A sustainable long term financial plan evolved from financial workshop activity undertaken in 2006. Part IV of this plan focuses principally on the capital aspects of the Asset Management Plan. Ultimately, all the components of the Business Plan identified in Figure 4 must be addressed as future iterations of the plan in order to capture all expenditure requirements, to prioritize them, and then to prepare an optimized, integrated budget. Without at least a high level Business Plan, there is only a limited basis on which to confirm the need for and economic returns achieved from the capital expenditure program.
Figure 3: Business Management Hierarchy

7.1 Strategic Plan

The Strategic Plan documents the Water Board's mission & objectives, guiding principles, governing legislation, mandate and business scope, established performance targets, levels of service and other demand projections, key strategic issues, (including performance gaps in terms of the objectives and established performance targets), and strategies and actions to address issues and set the direction for the business plan. It establishes the framework within which a Business Plan and hence the Asset Management Plan must reside.
Separate sections of this document address these components:

- Part I - *Background and Context*
- Part II - *Assessment of Current State*

### 7.2 Business Plan

The *Business Plan* documents how the *Strategic Plan* is going to be achieved. This plan is developed using an iterative approach. The Business Plan structure is outlined in Figure 4, and is comprised of:

- Asset Management Plan
- Financial Plan
- Operations Plan
- Master Capital Plan
### Figure 4: Business Plan

#### Business Plan

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>What facilities are there and what shape are they in?</td>
<td>What funds are available and how much do we need?</td>
<td>What service is provided?</td>
<td>What new infrastructure do we need?</td>
</tr>
<tr>
<td>Facility inventory including:</td>
<td>Financial policies and standards</td>
<td>Customer service</td>
<td>Growth-related capital infrastructure projects</td>
</tr>
<tr>
<td>Condition &amp; capacity assessment and service life predictions</td>
<td>Revenues and rates</td>
<td>Revenue collection</td>
<td>Non-growth-related capital infrastructure projects</td>
</tr>
<tr>
<td>Operations &amp; maintenance procedures</td>
<td>Budget for planned maintenance</td>
<td>Operating standards</td>
<td>Regulatory upgrades and requirements</td>
</tr>
<tr>
<td>Inventory of maintenance &amp; repairs including backlog</td>
<td>Budget for unplanned maintenance</td>
<td>Service levels</td>
<td>Service enhancements</td>
</tr>
<tr>
<td>Inventory of required rehabilitation &amp; replacement – including backlog</td>
<td>Budget for operations</td>
<td>Emergency plan</td>
<td></td>
</tr>
<tr>
<td>Facility standards</td>
<td>Capital plan for repair, refurbishment, and replacement</td>
<td>Staff training</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>External relations</td>
<td></td>
</tr>
</tbody>
</table>
7.2.1 Asset Management Plan

Recent legislation and requirements of the Public Sector Accounting Board (PSAB 3150) are moving water utilities and municipalities toward complete inventory valuations, prioritized planning and full cost recovery for their water systems. Effective management and planning of water system infrastructure requires a well-considered and planned approach that is focused on providing an appropriate level of service to customers, while ensuring system reliability and long term sustainability.

To quantify and justify infrastructure expenditures, the Water Board must carefully consider the condition and performance of their water infrastructure based on regulatory requirements and realistic service levels. Asset Management remains an invaluable tool in the identification of water infrastructure needs, and has gained greater relevance in the larger context of revenue generation and more recent regulatory requirements.

Figure 4 (Business Plan) identifies the components of an Asset Management Plan. Asset management can be characterized by the following key categories:

- Asset Inventory;
- Asset Valuation;
- Asset Condition;
- Evaluation of Renewal Alternatives;
- Renewal Priorities; and
- Financial Sustainability

The asset management plan for the Lake Huron Primary Water Supply System is currently in development. Once completed the Plan is intended to provide the Water Board with a systematic process that allows for the maintenance, upgrade and the operation of the physical assets in a cost effective manner. Further, by implementing an asset management plan, the Board can meet new growth demands within a fiscally responsible and sustainable framework while preserving the quality of service to customers.

The Asset Management Plan will be implemented using an iterative approach whereby periodic reviews and updates will be implemented. An Asset Management Plan is a critical and fundamental component of further and ongoing development of the Boards’ Financial Strategic Plan and necessary to address the requirements of PSAB-3150.
7.2.2 Financial Plan

7.2.2.1 Operating, Maintenance and Capital Budgets

These are group of program/activity based budgets that describe in detail the estimated funds required to support sustainable operations of the Water Board. These budgets should be cast within a framework that includes long-term strategic budgets, mid-term tactical budgets and a current year Operational budget.

Results are achieved by integrating the budgets for operating, maintenance and capital needs. For example, a change in an operating activity may provide higher returns than further capital investment. Individual capital, operating and maintenance budgets can be drawn from the integrated budget once optimized.

7.2.2.2 Funding Plan

The Funding Plan sets out a long-term sustainable strategy, including financial policies, for funding the needs set out in the Asset Management plan and other related operational budgets. Lifecycle cost analysis of assets is the foundation of a funding plan for a “sustainable” Utility.

Revenue Plan (including Rate Plan)

The Revenue Plan identifies and quantifies all sources of operating revenues, including utility rates. Rate policy sets out the basis on which utility rates are set.

Rate Plans present the Water Board’s rates that are necessary to achieve the Work Plan. They provide rates for current and 5 year budgets and projections in support of the 20 year Funding Plan.

Financing Plan

This plan sets out financing policies including debt to equity and/or debt-to-turnover targets, reserve policies, working capital requirements, current debt (amounts, sources, terms) and projected debt (amount, sources, terms)

7.2.3 Operations Plan

This plan addresses the services provided by the Water Board. Figure 4 (Business Plan) identifies the components of an Operations Plan. Many of the elements of this plan already exist, which will enable staff to document them in the form of an Operational Plan as part of a future iteration of the Water Board’s Business Plan.

The water system is currently operated and maintained by American Water Canada Corp., under a management contract to the Water Board. Water Board staff frequently review the performance of the contracted operating authority.
7.2.4 Board Master Plan

This plan identifies the Water Board’s plans for the provision of new infrastructure. Figure 4 (Business Plan) identifies the components of the Master Plan. This plan currently exists but is due for a review and update, which is required on a five year cycle. This document will be incorporated into a future iteration of the Water Board’s Business Plan.
PART V: FINANCIAL PLAN

8 Introduction

This section draws together the information assembled in the other sections and sets out strategies and actions aimed at ensuring the long term financial sustainability of the Water Board. The final product of this section is the Financial Plan for the Water Board which provides structure, tools, and targets. The Plan provides the dynamic ability to respond to change and guide the future of the Water Board.

9 Context of the Strategic Financial Plan

The primary objective of the Strategic Financial Plan ensures the financial sustainability of the Water Board. The Strategic Financial Plan is one of several primary “drivers” or key components which guide the current and future operation of the Water Board. The following diagram (Figure 5) sets out the context of the Strategic Financial Plan, and explains what the various component are and how they fit together to guide the administration and operation of the Water Board. The Strategic Financial Plan is noted in yellow to set it apart from the other components and to show the primary focus of this study.
9.1 **Strategic Financial Plan Context Diagram**

**Figure 5:** Strategic Financial Plan Context

```
Corporate Strategic Plan

Strategic Financial Plan

Business Plan

Operations Plan

Asset Management Plan

Board Master Plan

Annual Budget & Rates

Long Term Projections and/or Plans For:
- Revenues and expenditures
- Annual rates
- Asset replacement
- Infrastructure surcharges
- Buy-in charges
- Contributions to reserves
- Use and management of debt
```
9.2 Financial Principles

Financial principles are fundamental to the Water Board. The following principles have been formally adopted by the Water Board:

- Financial sustainability
- Fairness to and equitability with existing and new customers
- User-pay approach
- Full cost recovery
- Dedicated funding so that all revenues raised through water rates are used to fund the water utilities
- Appropriately funded life-cycle replacement
- Stable annual rates that avoid extreme fluctuations
- Strengthening of reserves
  - to help ensure a financially sustainable utility
  - to stabilize rates
  - to appropriately fund life-cycle replacement
  - to begin moving toward self-funding / pay as you go for lower-cost capital works
  - to provide opportunities for internal borrowing
- Avoidance of using reserves to pay for or offset increases in operating costs
- Prudent issuance and handling of debt
  - Minimizing of external borrowing by using a pay-as-you-go approach whenever possible
  - Management of the timing of borrowing for major capital projects to ensure stable annual water rates
  - Appropriately termed debenture borrowing to ensure cost effectiveness
  - Balance of the Water Board’s need for adequate room to borrow with member communities’ debt limits and ability to pay
  - Redirection of funds resulting from debt reduction into the budgeting process to meet outstanding infrastructure challenges
10 Financial Requirements of the Water Board

The financial requirements are developed from the basic information set out in the Transfer Order, which is summarized below:

- The Transfer Order authorizes the Water Board to establish a system rate
- The System Rate is determined by dividing total forecast system costs by total projected system water usage
- System costs include:
  - Operating budget costs
  - Capital replacement & rehabilitation budget costs
  - Contributions to the Capital Replacement and Rehabilitation Reserve Fund
  - Cost of repaying capital debt on the system
  - Any other costs that the Water Board agrees to include in the System Rate

- Water Boards establish different rates and charges for different purposes
- Rates and charges generate revenue to the Water Board which, in turn, is used to fund the various costs of the Water Board
- The Current sources of Operating Budget Revenue are volume-based water rates
- Current sources of Capital Plan Revenue include:
  - Contributions from operating budget (water rates)
  - Interest earnings
  - Capacity buy-in charges
  - Transfers from reserves
  - Grants (when available)
### 10.1 Water Costs in Perspective

<table>
<thead>
<tr>
<th>Water Board water rate is based on the formula:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate = Total Costs/Total Volume</td>
</tr>
<tr>
<td>Rates provides for:</td>
</tr>
<tr>
<td>□ System Operation</td>
</tr>
<tr>
<td>□ Lifecycle costs</td>
</tr>
<tr>
<td>□ Growth &amp; non-growth capital costs</td>
</tr>
</tbody>
</table>

| Water Board wholesales water to Municipalities @ per cu meter rate |

| Municipality sells water to consumer @ per cu meter rate calculated as: |
| Rate = WD Wholesale cost + Municipal Distribution Cost |

| Home-owner buys water from the municipality |
11 Projected Annual Water Rate Increases

The water rate increases outlined in the table below were generated in the Rate Model used to determine future rate and capital reserve requirements, and are presented to illustrate the magnitude of annual water rate increases that would be needed over the next six years to meet the following requirements:

- to address the existing and emerging Provincial regulations
- to address the existing deficiencies in asset replacement funding
- to meet the upcoming needs for capital works outlined in the 2010 capital plan and forecast for 2011 to 2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Huron Rate Increase</th>
<th>Water Rate ($ per cubic meter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>6</td>
<td>0.3441</td>
</tr>
<tr>
<td>2011</td>
<td>5</td>
<td>0.3613</td>
</tr>
<tr>
<td>2012</td>
<td>5</td>
<td>0.3794</td>
</tr>
<tr>
<td>2013</td>
<td>5</td>
<td>0.3983</td>
</tr>
<tr>
<td>2014</td>
<td>5</td>
<td>0.4182</td>
</tr>
<tr>
<td>2015</td>
<td>5</td>
<td>0.4391</td>
</tr>
</tbody>
</table>

The following figures (Figure 6a and Figure 6b) are a graphical depiction of Table 2. The cost of water in 2010 is $0.3441 per cubic meter. The water rate increases outlined would see the annual water rate (base rate + infrastructure charge rate) increase from $0.3441 per cubic meter in 2010 to $0.4392 in 2015. As depicted in Figure 7, the estimated annual base volume of the water system will be 51,959,575 Mm$^3$ in 2015.
Figure 6a – Annual Water Rate

Huron - Total Annual Water Rate

Figure 6b – Annual Water Rate % Increase

Huron - Annual Water Rate Increase
12 Capital Works

The Huron current capital works requirements are presented to show the magnitude of anticipated work. The longer term capital program needs will be revisited as part of the Asset Management work and the ongoing consideration of the future needs of new and existing members.

Some capital funding will be available from senior government funding through the HELP (Huron Elgin London Project) Clean Water initiative, and municipal funding if a project directly benefits them.
Major scheduled capital works include the following:

- **2010**: Pipeline chamber upgrades; Surge tank air compressor replacement; Filter influent and effluent valve replacements
- **2011**: Primary transmission main twinning; Residue management plant
- **2012**: Process pH adjustment; Wind generator
- **2013**: Electrical (4kv and 600v) distribution upgrades
- **2014**: New highlift pump
13 Reserves Policy

Strong reserves are an important part of the Strategic Financial Plan for the water system. They provide the Water Board with some of the tools necessary to

- ensure a financially sustainable utility
- stabilize rates
- appropriately fund life-cycle replacement
- move toward self-funding / pay as you go for smaller and modest size capital works
- consider opportunities for internal borrowing

As part of the Utility Funding Structure, it is identified that the water utility utilizes three basic reserves; an asset replacement reserve, an emergency reserve, and a capital reserve. The three reserves are differentiated for the purpose of tracking their adequacy for responding to their designated purposes. To ensure maximum flexibility and usefulness of the reserves funds, the monies from all three reserves may actually be contained in one reserve for each utility. While such an approach would rely on prudent management to ensure that the reserves are not overdrawn, it would provide increased short term access to monies being set aside for larger capital works which sometimes have a degree of timing flexibility attached to them.

The three reserves are outlined in the following;

- **Asset Replacement Reserve**
  To be used as a source of funds to repair, refurbish, and replace the assets of the Water Board. The primary purpose of this reserve is to ensure adequate funds are available for life-cycle replacement of the Water system infrastructure. This reserve is established over time and will grow to a level where the assets of the Water Board are fully financially sustainable. Funds would be raised through the base water rate and by selling existing system capacity to existing and new members.

- **Emergency Reserve**
  To be used as a source of funds for responding to emergencies and for stabilization of annual water rates when extreme circumstances would otherwise result in an unusually large fluctuation/increase in the annual water rate. It is suggested this reserve should be created over several years ($500,000 per year for four years starting in 2011) to reach a level of $2 million. Funds would be raised through the base water rate.

- **Capital Reserve**
  To be used as a source of funding for major capital works associated with additions to and expansion of the existing system. It could also be used to pay down debt associated with existing capital work, or to offset the need for new borrowing by creating opportunities for pay-as-you-go, especially on smaller and medium size capital works. Contributions to this reserve would occur periodically with funds coming from the following sources: the base water rate; asset sale and lease revenue; an Infrastructure Charge applied to members for system expansion; and, a capital cost
charge to new members for work that will be completed on behalf of the new member at a future time.

Due to the fact that there are three reserves in place, this will be a primary source of funding for future capital projects to fund improvements.

14 Debt Strategy

A strategic approach to incurring and managing debt will further enhance the effectiveness of the Strategic Financial Plan.

Regarding time frames for debt repayment, the desire to shorten repayment periods to reduce financing costs or to pay slightly less each year over time needs to be balanced with the overall cost burden levels on member municipalities. There may be instances where the Water Board chooses slightly longer debt repayment time frames in order to ensure the financial burden on some members does not become unmanageable.

The question of “mix” for the use of debt in relation to other sources of revenue such as base rates, reserves, and grants is addressed as part of the Funding Structure discussion. With the strengthening of reserves and adoption of a pay-as-you-go approach to capital works whenever possible, the reliance on debt (borrowing) will be reduced over time. Grants (whenever they are available), may further reduce the need to borrow. Finally, ensuring that life-cycle asset replacement is properly funded through annual water rates will further reduce the need to borrow. In combination, these actions will significantly reduce the reliance on borrowing over time.

The following policies and approaches are used in order to make best use of debt while protecting the capacity of member municipalities to incur debt for their own internal purposes.

- Integrate the use of debt with the rate plan, the use of reserves, and the asset management plan
- Reduce reliance on external debt over time, especially for small and medium sized capital projects, by strengthening reserves and applying a pay-as-you-go approach to capital works whenever possible
- Manage utility debt in order to ensure members have access to their debt capacity for their own purposes
- When debt is retired, commit freed-up funds to addressing historical infrastructure challenges and strengthening the Asset Replacement Reserve
- Adjust the timing of large capital works to “even out” demands on reserve funds and to help stabilize annual rate increases
15 Financial Statements
The three tables associated with the sections below provide the Financial Plan for the Water Board. A short summary and analysis of each table is provided in the relevant section below.

15.1 Statement of Financial Position
The Statement of Financial Position summarizes the assets, liabilities and accumulated surplus of the water system. The difference between financial assets and liabilities provides an indication of the water system’s future revenue requirement. A net financial asset position implies that the system has the resources to finance future operations, as the financial assets are greater than liabilities. On the other hand, a net debt position implies that future revenues generated will be needed to finance past transactions as well as future operations.

Table 3 indicates that accumulated surplus from 2010 forward is increasing due to a surplus from operations (2010-2015). A net debt position is changing throughout. The Water Board is issuing debt as a funding source for some capital projects. Some capital projects will be supported by senior government funding and member municipalities, which reduces debt issued. As a result of spending on capital projects, the net tangible capital asset values of the Water Board are increasing from approximately $119 million in 2009 to approximately $155 million in 2015.

15.2 Statement of Operations
The Statement of Operations summarizes the revenues and expenses generated by the water system for a period of time. Annual surplus/deficit measures whether revenues generated were sufficient to cover expenses incurred. This in turn indicates whether net financial assets were maintained or depleted.

Table 4 indicates that due to an increase in volumes supplied and rates charged, revenues increase from approximately $17 million in 2010 to approximately $22 million in 2015. Annual surpluses in the same period indicates the Water Board will be providing an annual surplus from operations to go into reserves at the end of each year to support the operations and funding of capital projects. Approximately $32.72 million will be added to the reserve fund over the course of the plan. Surplus has been accumulated in spite of additional amortization expenses resulting from the implementation of PSAB3150, whereby the Water Board has to capitalize tangible capital assets as part of its operations.

15.3 Statement of Cash Flow
The Statement of Cash Flows summarizes how the water system will generate and use cash resources during the period. The transactions that provide or use cash are classified as operating activities, capital activities and financing activities as shown in Table 5. The Statement of Cash Flow focuses on the cash aspect of these transactions and is the link between cash and accrual based reporting. Cash from operations will be used to fund capital transactions (i.e. tangible capital asset acquisitions) and build internal reserves and reserve funds over the forecast period. The
Financial Plan improves the cash position of the Water Board from a net debt position of $1,447,369 at the beginning of 2010 to just under $48 million by the end of 2015.
### Table 3 – Statement of Financial Position

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and short-term investments</td>
<td>-</td>
<td>10,988,092</td>
<td>8,030,902</td>
<td>31,626,591</td>
<td>29,539,821</td>
<td>37,964,311</td>
<td>47,582,746</td>
</tr>
<tr>
<td>Trade and other receivables</td>
<td>6,238,024</td>
<td>2,000,000</td>
<td>2,000,000</td>
<td>2,000,000</td>
<td>2,000,000</td>
<td>2,000,000</td>
<td>2,000,000</td>
</tr>
<tr>
<td><strong>Total financial assets</strong></td>
<td>6,238,024</td>
<td>12,988,092</td>
<td>10,030,902</td>
<td>33,626,591</td>
<td>31,539,821</td>
<td>39,964,311</td>
<td>49,582,746</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financial liabilities</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank indebtedness</td>
<td>1,447,369</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts payable and accrued liabilities</td>
<td>6,408,787</td>
<td>2,400,000</td>
<td>2,400,000</td>
<td>2,400,000</td>
<td>2,400,000</td>
<td>2,400,000</td>
<td>2,400,000</td>
</tr>
<tr>
<td>Accrued interest on long-term debt</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Net long-term debt</strong></td>
<td>-</td>
<td>1,750,000</td>
<td>1,604,241</td>
<td>11,784,651</td>
<td>10,794,617</td>
<td>13,259,038</td>
<td>11,896,455</td>
</tr>
<tr>
<td><strong>Total financial liabilities</strong></td>
<td>7,856,156</td>
<td>4,150,000</td>
<td>4,004,241</td>
<td>14,184,651</td>
<td>13,194,017</td>
<td>15,659,038</td>
<td>14,295,455</td>
</tr>
</tbody>
</table>

| Net debt³               | (1,618,132)  | 8,838,092 | 6,026,661 | 19,641,940 | 18,345,204 | 24,305,274 | 35,287,291    |

<table>
<thead>
<tr>
<th>Non-financial assets</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangible capital assets (net)⁴</td>
<td>119,038,512</td>
<td>124,556,173</td>
<td>151,204,310</td>
<td>151,473,056</td>
<td>158,679,076</td>
<td>159,613,471</td>
<td>154,946,241</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>1,991</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td><strong>Total non-financial assets</strong></td>
<td>119,040,503</td>
<td>124,558,173</td>
<td>151,206,310</td>
<td>151,475,056</td>
<td>158,681,076</td>
<td>159,615,471</td>
<td>154,948,241</td>
</tr>
</tbody>
</table>

**Accumulated surplus**


---

Note 1. 2009 trade and other receivables include outstanding receivables relating to completed construction project (Strathroy/Caradoc Pipeline).

Future year's year end position anticipated to be at a normal level.

Note 2. 2009 accounts payable year end position reflects large construction project payable outstanding at year end (Strathroy/Caradoc Pipeline).

Note 3. 2009 net debt represents the short term cash flow position. Future years anticipated to be in a positive net asset position.

### Table 4 – Statement of Operations

**LAKE HURON PRIMARY WATER SUPPLY SYSTEM**

#### Statement of Operations

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User charges</td>
<td>15,351,175</td>
<td>16,707,024</td>
<td>17,891,019</td>
<td>19,148,749</td>
<td>20,493,607</td>
<td>21,677,218</td>
<td>21,731,411</td>
</tr>
<tr>
<td>Other</td>
<td>60,374</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer payments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other capital funding</td>
<td>278,646</td>
<td>4,435,000</td>
<td>20,091,000</td>
<td>8,814,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- municipalities</td>
<td>13,524,362</td>
<td>6,753,011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total revenues</strong></td>
<td>29,214,557</td>
<td>27,395,035</td>
<td>37,982,019</td>
<td>27,963,749</td>
<td>20,493,607</td>
<td>21,677,218</td>
<td>21,731,411</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries, wages and benefits (includes some admin expenses)</td>
<td>422,260</td>
<td>359,166</td>
<td>366,369</td>
<td>373,697</td>
<td>381,171</td>
<td>388,794</td>
<td>396,570</td>
</tr>
<tr>
<td>Materials and supplies</td>
<td>8,830,600</td>
<td>7,406,013</td>
<td>8,165,560</td>
<td>8,395,952</td>
<td>8,633,634</td>
<td>8,878,860</td>
<td>9,131,893</td>
</tr>
<tr>
<td>Contracted services (includes Non-TCA capital expenses)</td>
<td>317,778</td>
<td>776,311</td>
<td>1,450,717</td>
<td>781,231</td>
<td>441,856</td>
<td>292,593</td>
<td>403,445</td>
</tr>
<tr>
<td>Rents and financial expenses</td>
<td>32,933</td>
<td>26,014</td>
<td>28,574</td>
<td>28,145</td>
<td>29,728</td>
<td>30,323</td>
<td>30,929</td>
</tr>
<tr>
<td>Interest on long-term debt</td>
<td>341,580</td>
<td>-</td>
<td>70,000</td>
<td>64,170</td>
<td>545,575</td>
<td>500,031</td>
<td>621,778</td>
</tr>
<tr>
<td>Expenses billed</td>
<td>131,053</td>
<td>149,245</td>
<td>152,230</td>
<td>155,274</td>
<td>158,380</td>
<td>161,548</td>
<td>164,779</td>
</tr>
<tr>
<td><strong>Total expenses</strong></td>
<td>12,916,632</td>
<td>11,921,140</td>
<td>14,455,413</td>
<td>14,079,724</td>
<td>14,584,323</td>
<td>14,782,754</td>
<td>15,416,624</td>
</tr>
<tr>
<td>Annual surplus</td>
<td>16,297,025</td>
<td>15,073,805</td>
<td>23,336,705</td>
<td>13,884,025</td>
<td>5,900,284</td>
<td>6,894,464</td>
<td>6,314,787</td>
</tr>
<tr>
<td>Accumulated surplus, beginning of year</td>
<td>101,124,446</td>
<td>117,422,371</td>
<td>133,396,266</td>
<td>157,232,971</td>
<td>171,116,996</td>
<td>177,026,280</td>
<td>183,920,745</td>
</tr>
<tr>
<td>Accumulated surplus, end of year</td>
<td>117,422,371</td>
<td>133,396,266</td>
<td>157,232,971</td>
<td>171,116,996</td>
<td>177,026,280</td>
<td>183,920,745</td>
<td>190,235,532</td>
</tr>
</tbody>
</table>
Table 5 – Statement of Cash Flows

<table>
<thead>
<tr>
<th>LAKE HURON PRIMARY WATER SUPPLY SYSTEM</th>
<th>Statement of Cash Flows</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Audited</th>
<th>Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash provided by:</td>
<td></td>
</tr>
<tr>
<td>Operating activities:</td>
<td></td>
</tr>
<tr>
<td>Annual surplus</td>
<td>16,297,925</td>
</tr>
<tr>
<td>Items not involving cash:</td>
<td></td>
</tr>
<tr>
<td>Amortization</td>
<td>2,840,419</td>
</tr>
<tr>
<td>Change in non-cash assets and liabilities:</td>
<td></td>
</tr>
<tr>
<td>Prepaid, receivables, accounts payable and accrued interest</td>
<td>(824,940)</td>
</tr>
<tr>
<td>Net change in cash from operating activities</td>
<td>18,313,404</td>
</tr>
<tr>
<td>Capital activities:</td>
<td></td>
</tr>
<tr>
<td>Purchase of tangible capital assets</td>
<td>(16,439,583)</td>
</tr>
<tr>
<td>Cash used in capital activities</td>
<td>(16,439,583)</td>
</tr>
<tr>
<td>Financing activities:</td>
<td></td>
</tr>
<tr>
<td>Proceeds of long-term debt</td>
<td>1,750,000</td>
</tr>
<tr>
<td>Repayment of long-term debt</td>
<td>(6,327,171)</td>
</tr>
<tr>
<td>Cash used in financing activities</td>
<td>(6,327,171)</td>
</tr>
<tr>
<td>Net change in cash and short-term investments (bank indebtedness)</td>
<td>(4,453,350)</td>
</tr>
<tr>
<td>Cash and short-term investments (bank indebtedness), beginning of year</td>
<td>3,005,981</td>
</tr>
<tr>
<td>Cash and short-term investments (bank indebtedness), end of year</td>
<td>(1,447,369)</td>
</tr>
</tbody>
</table>
16 Financial Strategies for the Water Board

In addition to the primary thrust of the Water Board operating in a financially sustainable manner, the following financial principles have been adopted by the Water Board.

✓ Operate as a sustainable utility, and accept the Financial Principles and the Business Guidelines as the basis for complying with the existing and emerging Provincial regulations governing water utilities in Ontario.

✓ The Utility Funding Structure is the vehicle with which to create and maintain a sustainable utility as required by the Sustainable Water and Sewer Systems Act.

✓ Review and adjust the timing of major capital works to even out ongoing costs and demands on reserves, and to stabilize annual rate increases.

✓ Increase funding to asset replacement over time to address the current shortfall in funding.

✓ Clarify and strengthen reserves to address Asset Replacement Reserve and Capital works needs.

✓ Create Asset Replacement and Capital reserves.

✓ Create an Emergency Reserve.

✓ Integrate the use of debt with the rate plan, the use of reserves, and the asset management plan.

✓ Reduce reliance on external debt over time, especially for small and medium sized capital projects, by strengthening reserves and applying a pay-as–you-go approach to capital works whenever possible.

✓ Manage utility debt in order to ensure members have access to their debt capacity for their own purposes.

✓ When debt is retired, commit freed-up funds to addressing historical infrastructure challenges and strengthening the Asset Replacement Reserve.

✓ Use the principle and interest that falls off as debt is repaid over time to increase the annual funding to life-cycle asset replacement (repair, refurbish, and replace), and to strengthen the Asset Replacement Reserve.

✓ Introduce an infrastructure charge for system improvement and for system growth.

✓ Create a buy-in charge for new members.

✓ Create a long-term Asset Management Program over the next 3 to 5 years (in progress).