

THIS AGREEMENT made in duplicate as of the 18th day of July, 2005.

BETWEEN:

THE CORPORATION OF THE TOWN OF PELHAM
(hereinafter called the "Municipality")

AND

C.N. WATSON AND ASSOCIATES LTD.
(hereinafter called the "Consultant")

WHEREAS:

1. The Consultant is engaged in the business of providing municipal water and wastewater rate study consulting services (and has the knowledge and expertise to provide such services);
2. The Municipality desires to avail itself of these services of the Consultant and the Consultant desires to enter into Agreement with the Municipality;

NOW THEREFORE IN CONSIDERATION of the mutual promises and agreements contained in this Agreement, and other good and valuable consideration, the parties agree as follows:

1. SERVICES RETAINED

1.1 Description

The Municipality retains the professional services of the Consultant in order to undertake a Water and Sewer Rate Study for the Town of Pelham. Schedule A to this agreement provides for the Request for Proposal issued by the Town and Schedule B provides for the Consultant's response to undertaking the work provided in the Request for Proposal. Schedules "A" and "B" form part of this Agreement. This study is as approved by Council by resolution No.5 passed on June 20, 2005.

2. APPLICABLE CHARGES

2.1 Standard Rates

All applicable charges for services performed or to be performed by the Consultant shall be quoted on a "time and materials" basis, using the Consultant's current standard rates. The Consultant's price schedule of current standard rates (2005) for services is as follows:

- Gary Scandlan – \$205 per hour
- Nancy Hayes - \$130 per hour
- Support Staff - \$85 per hour

2.2 Upset Limit

The parties acknowledge and agree that notwithstanding the foregoing, the total charges for services to be performed by the Consultant herein shall not exceed the sum of \$29,000 plus GST.

2.3 Out-of-Pocket Expenses

The Municipality shall pay the Consultant the cost of all out-of-pocket expenses to the extent that these expenses are incurred directly as a result of the performance of delivery of services rendered pursuant to the terms of this Agreement. Out-of-pocket expenses are included within the budget estimate in 2.2.

2.4 Invoices

The Consultant will submit invoices on a monthly basis of all applicable charges incurred by it in respect of the services to be performed pursuant to this Agreement as outlined in Schedule "B". These invoices shall be due and payable within thirty (30) days from the date of its receipt by the Municipality, subject to verification by the Municipality of the validity of the applicable charges.

2.5 Payment to Date of Termination

In the event of termination of this Agreement as provided in paragraph 3.2(a) and (b) below, the Municipality shall pay the Consultant for services rendered to the date of termination at the standard rates, calculated pro-rata to the termination date, and the Municipality shall not be liable for any other payments.

2.6 Taxes

The Municipality shall pay the Consultant the cost of all customs fees, duties, Goods and Services Taxes and other related costs incurred by the Consultant directly as a result of the provision of services pursuant to this Agreement. The Municipality shall, however, have no liability or responsibility for the withholding, collection or payment of income taxes, unemployment insurance, statutory or other taxes or payments of any nature on behalf or in respect of or for the benefit of the Consultant

or any other person retained, employed or hired by the Consultant. The Consultant agrees to hold the Municipality harmless from and against any order, penalty, interest or tax that may be assessed or levied against the Municipality as a result of the failure or delay of the Consultant to file any return or information required by any law, ordinance or regulation.

3. TERM

3.1 Commencement

The Municipality shall engage the Consultant to provide professional services commencing the date of signing of this agreement by both parties.

3.2 End of Term

This Agreement shall continue until the earliest of any of the following events:

- a) Completion of all of the services described in Schedule "B";
- b) Termination of this Agreement by either party of twenty (20) day written notice; or
- c) Immediately upon a breach by either party of any terms or conditions of this Agreement which breach is not cured within ten (10) days of written notice thereof.

4. CLIENT PREMISES AND SUPERVISION

4.1 Access to Premises

The Consultant agrees that access to any of the Municipality's premises by any of the Consultant's employees which is necessary for the performance of the services herein shall only be granted by the Municipality during the normal business hours of the Municipality's premises in question, unless otherwise previously authorized by the Chief Administrative Officer or his/her designate on behalf of the Municipality, in writing. The Consultant also agrees to observe all client security requirements and measures in effect at the Municipality's premises to which access is granted by this Agreement.

4.2 Replacement of Personnel

The Consultant agrees that the Municipality has the right to terminate the use of, and request the Consultant to replace any employee of the Consultant assigned to the Municipality who does not, in the opinion of the Municipality, meet the Municipality's requirements.

4.3 Specific Personnel

The parties agree that during the entire term herein the Study Director shall be Gary Scandlan except in the case of unavailability due to illness or termination.

4.4 Independent Contractor

The Consultant is not an agent, servant or employee of the Municipality and the Consultant shall not hold itself out as such.

4.5 Conflict of Interests

In the event the Consultant determines that it has a conflict of interest which materially affects its ability to provide independent advice, the Consultant shall disclose this fact to the Municipality.

5. PATENT, TRADEMARK, TRADE SECRET AND COPYRIGHT INFRINGEMENT

5.1 Non-Infringement

The Consultant covenants that all services or data or materials or any combinations of the former to be provided to the Municipality do not infringe any existing patent, trademark, trade secret or copyright registered or recognized in Canada or elsewhere with respect to or in connection with the intended use of the services or materials or both by the Municipality.

The Consultant shall have no liability for an infringement based on:

- i) usage of the services or data or both the Municipality in combination with other services, programs, material or data not provided by the Consultant to the Municipality;

- ii) compliance by the Consultant with designs, instructions, requirements or specifications of the Municipality;
- iii) modifications other than by the Consultant.

6. CONFIDENTIALITY

6.1 All Records Municipality Property

Except as may be necessary in the performance of an order under this Agreement, the Consultant shall not at any time or in any manner make or cause to be made any copies, pictures, duplicates, facsimiles or other reproduction or recording of any type, or any abstracts or summaries or any reports, studies, memoranda, correspondence, manuals, records, plans or other written, printed or otherwise recorded material of the Municipality, or which relate to any manner to the present or prospective business of the Municipality. The Consultant shall have no interest in any of this data and or information and agrees to surrender any of this material which may be in its possession to the Municipality immediately upon the termination of this Agreement or at any time prior to the termination upon the request of the Municipality.

6.2 Non-Disclosure

Neither the Municipality nor the Consultant shall at any time (except under legal process) divulge any matters relating to the business of the other party or any customers or agents of the other party which may become known to it by reason of its services or otherwise and shall be true to the other party in all dealings and transactions relating to the services contemplated by this Agreement. Furthermore, neither the Municipality nor the Consultant shall use at any time (whether during the continuance of this Agreement or after its termination) for its own benefit or purpose of any other person, firm, corporation, association or other business entity, any trade secrets, data or plans belonging to or relating to the affairs of the other party, including knowledge relating to customer, clients, or employees of the other party.

6.3 Legislative Standard of Confidentiality

The Consultant acknowledges and agrees to be bound by the *Municipal Freedom of Information and Protection of Privacy Act*, 1999 with respect to all records, activities and undertakings arising out of or related to the services to be performed herein and not to disclose any records which are under control or in the possession of the Municipality in violation of the said Act.

7. OWNERSHIP OF MATERIALS

- 7.1 All original materials, data, specification, tapes, programs, either in written or in magnetic or electronic form, which are provided by the Municipality to the Consultant or which are prepared or produced by the Consultant specifically for the Municipality under this Agreement shall be the sole property of the Municipality.
- 7.2 All systems, models, programs, and other materials and hardware owned by or in the possession of the Consultant prior to the execution of this Agreement and used by the Consultant in conjunction with the services to the Municipality, shall continue to belong exclusively to the Consultant unless they are specifically adapted by the Consultant for use by the Municipality, in which case paragraph 7.1 above applies.

8. DUTIES IMPOSED BY-LAW

- 8.1 The duties and obligations set out in this Agreement and the rights and remedies available herein, shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed by law.

9. ASSIGNMENT

Neither this Agreement nor any interest in it or under any order authorized under it may be assigned or ceded in any manner by either party to it without the prior written consent of the non-assignment party, which consent shall not be unreasonably withheld.

10. CONSULTANTS LIABILITY

10.1 For Fault or Negligence

The Consultant shall be liable for all personal injury and property damage caused to the Municipality, its employees or agent by the Consultant's own fault or negligence (or by that of its employees or agents) in the performance or non-performance of any of its obligations under the terms of this Agreement and further, the Consultant shall indemnify the Municipality from and against any loss arising from claims against the Municipality for personal injury or property damage caused by fault or negligence of the Consultant, its employees or agents in the performance or non-performance of any of their obligations under the terms of this Agreement.

10.2 For Dishonesty or Fraud

Without limiting the generality of the foregoing, the Consultant shall also be liable and shall indemnify the Municipality for any loss suffered by the Municipality as a result of the commission of any dishonest or fraudulent act by any of the Consultant's employees or agents acting under the Consultant's direction and control during the currency of this Agreement.

11. TERMINATION OF CAUSE

11.1 Notwithstanding paragraph 3.2 above, the Municipality may terminate this Agreement by written notice to take effect immediately upon receipt thereof by the consultant if:

- a) the Consultant is in breach of paragraph 6.0 of this Agreement relating to the secrecy or confidentiality information; or
- b) the Consultant becomes insolvent or bankrupt or makes an assignment for the benefit of creditors, or a receiver is appointed of its business; or a voluntary or involuntary petition in bankruptcy is filed or proceedings for the reorganization or winding-up of the Contractor are instituted; or
- c) the Consultant attempts to assign or cede any interest in this Agreement or under any order without the prior consent of the Municipality.

11.2 The provisions of this paragraph shall not in any way restrict the rights of either party hereto to terminate this Agreement pursuant to any other paragraph herein.

12. OFFERS OF EMPLOYMENT

12.1 Each party to this Agreement hereby undertakes that, without the prior written approval of the other party, it shall not solicit any employee(s) or the other party who shall have been assigned to or worked under this Agreement, nor shall it, either directly or indirectly, induce any such employee to terminate his or her employment with the other party.

12.2 This section shall be effective and enforceable throughout the entire term of this Agreement and for a period of one (1) year thereafter.

13. ENTIRE AGREEMENT

13.1 This Agreement, including the Schedule(s) hereto, constitutes the entire understanding between the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, negotiations and discussions, whether oral or written, of the parties. There are no warranties, representations, promises, covenants or other agreements between the parties other than those expressly set forth herein.

13.2 No supplement, modification or amendment of this Agreement or any Schedule shall be binding unless executed in writing by an authorized representative of each party.

14. NOTICES

Wherever in this Agreement it shall be required or permitted that notice be given or served by either party to or on the other, the notice shall be in writing and shall be delivered personally to the party to whom it is given or sent by prepaid, registered mail, or by facsimile, address as follows"

To the Municipality at:

L.J. Hodge
Town of Pelham
P.O. Box 400
20 Pelham Town Square
Pelham Municipal Building
Fonthill, Ontario
L0S 1E0

Tel. No: 905-892-2607
Fax No: 905-892-5055

To the Consultant at:

Gary Scandlan
C.N. Watson and Associates Ltd.
Economists
4304 Village Centre Court
Mississauga, Ontario L4Z 1S7

Tel. No: 905-272-3600
Fax No: 905-272-3602

and each such notice shall be deemed given on the date of delivery in the case of delivery, five (5) days after mailing in the case of mail and twenty-four (24) hours after the time of transmission in the case of facsimile. No notice may be given by mail during a real or

apprehended mail strike in Canada. This address may be changed from time to time by either party by notice as above provided.

15. INTERPRETATION

15.1 No action or failure to act by the parties shall constitute a waiver of any duty or obligation imposed by this Agreement, nor shall such action or failure to act constitute an approval of, or acquiescence in, any breach thereunder, except as may be specifically agreed in writing. No waiver or any provision of this Agreement shall be deemed or shall constitute a waiver of any other provisions (whether or not similar) nor shall the waiver constitute a continuing waiver unless otherwise expressly provided.

15.2 Headings

Headings are not to be considered any part of this Agreement, are included solely for convenience and are not intended to be full or accurate descriptions of the contents of the paragraphs.

15.3 Interpretation

In this Agreement, words importing the singular number include the plural and vice versa, words importing the masculine gender include the feminine and neuter genders; and words importing persons include individuals, sole proprietors, corporations, partnerships, trusts and unincorporated associations.

15.4 Applicable Law

This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada in force therein.

15.5 Invalidity of Provision

The invalidity or unenforceability of any provision of this Agreement or any covenant in it shall not affect the validity or enforceability or any other provision or covenant in it and the invalid provision or covenant shall be deemed to be severable.

16. INTERPRETATION

The Municipality will endeavour to expedite its responses to request for information or decision in order to permit the Consultant to meet the projected schedule. In the event that delays are experienced in the Municipality process that causes delays to the Consultant's schedule, the schedule may be amended without penalty to the Consultant.

IN WITNESS WHEREOF the Company has hereunto affixed its corporate seal under the hands of its proper signing officers in that behalf, and the Municipality has hereunto affixed its corporate seal under the hands of its Mayor and Clerk.

Signed, sealed and delivered

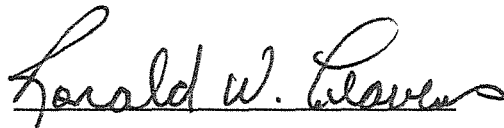
C.N Watson and Associates Ltd.



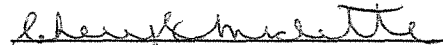
Gary Scandlan

C.N. Watson and Associates Ltd.

The Corporation of the Town of Pelham



Ronald W. Leavens, Mayor



Cheryl Miodette, Town Clerk

SCHEDULE 'A'

**THE TOWN OF PELHAM
REQUESTS FOR PROPOSAL**

Terms of Reference
Water and Sewage Rate Study
(A Financial Plan As Outlined Under the Sustainable Water and Sewer Systems Act 2003)
April 2005

1. INTRODUCTION:

The Town of Pelham operates a water distribution system and a sanitary sewage collection in the Villages of Fonthill and Fenwick with a combined serviced population of approximately 10,000. The Town of Pelham is part of a two-tier system of government wherein water and sewage treatment is an upper tier responsibility; sewage collection and water distribution is a lower tier responsibility. The Town purchases treated water from Niagara Region at a wholesale cost of .446/cubic meter (2005 rate) and pays .579/cubic meter for sewage treatment.

The Town's water system is fully metered at a current (2005) consumption fee of \$0.8302 per cubic metre, plus a fixed fee of \$19.17 per billing to cover fixed system operating costs.

The sewage rate is set based on water consumption rates and is currently \$0.8733 per cubic metre of the water bill (i.e. consumption plus service connection fee). Water and sewage billings are rendered every four months.

Prior to 2004, the water and sewer rates were arbitrarily set to ensure that revenues approximately matched expenses. In 2004, Council directed a change in the water and sewer rate structure, specifically; a consumption fee to reflect actual water consumed to more fairly reflect a consumer's actual consumption and also initiated the practice of recovering from fees a designated amount to be placed in a reserve for future expansion and replacement of water and sewer infrastructure. Council also changed sewer billings from a flat rate basis to consumption basis in 2004.

2. WATER SYSTEM OVERVIEW

The Town's water distribution system is comprised of approximately 63 km of watermain varying in size from 65mm to 400mm. Materials vary in age from 80 years to less than one year. The majority of the pipe is between 20 and 30 years old. Pipe materials include ductile iron, cast iron, asbestos cement PVC, polyethylene and concrete pressure pipe.

Financial Overview

The water system is entirely funded from water billings.

YEAR	REVENUE	TREATMENT & OPERATING COST	NET CAPITAL COST	RESERVE BALANCE
2004	990,450	941,475	131,000	- 82,025
2003	886,400	837,400	44,500	4,500
2002	837,850	946,350	90,000	-198,500
2001	712,150	746,300	21,000	-55,150
2000	609,350	611,750	270,000	-272,400

2.

Number of Water Meters

Residential	4030
Industrial, Commercial, Institutional	<u>100</u>
Total	4130

3. SEWAGE SYSTEM OVERVIEW

All sewage from the Town of Pelham is treated at the Welland Wastewater Pollution Control in Welland. As noted, this facility is owned and operated by Niagara Region which bills the Town at the current wholesale rate of \$.579 per cubic metre. The Town's collection system is comprised of approximately 55 km of pipe varying in age from less than one year to 35 years. The average pipe age is 25 years in Fenwick and 20 years in Fonthill. Average daily sewage flows in the system are 5000 cubic metres.

Financial Overview

Wholesale sewage treatment costs and capital sewer projects are funded by sewer service fees. Maintenance of the sewer collection system is also funded from sewer service fees.

Sewage Treatment, Operating and Capital Sewer Projects

Year	Revenue	Operating and Treatment Cost	Net Capital Cost	Reserve Balance
2004	897,410	1,007,500	0	-110,090
2003	940,100	1,054,300	0	-114,200
2002	910,200	873,700	0	36,500
2001	852,800	844,900	0	7900
2000	842,000	838,700	0	3300

4. STUDY REQUIREMENTS

4.1 Intent

The intent of the study is to ensure a full "use-pay" water and sewage system as required under Bill 175, the Sustainable Water and Sewage Systems Act. The study shall provide a rate structure for water and sewage for a minimum five year period and must provide flexibility for adjustments to unforeseen changes, capital needs and adjustments in response to improved data with respect to water meter readings and sewer and water billing. The Town is contemplating a water meter replacement program of approximately 3000 electro mechanical read metres to inductive read meters commencing in 2006. The Water and Sewage Rate Study should provide a mechanism for annual review to address any changes in consumption data or capital and operating needs. The Water and Sewage Rate Study report along with supporting data shall be subject to public review pursuant to Ontario Regulation 244/02.

4.2 Methodology

The study should utilize the AWWA manual titled "Principles of Water Rates, Fees and Charges". Sewage rates will require a schedule independent of water rates unless it can be shown that the respective rates can be in parallel. The study must consider any limitations in existing software utilized by the Town. Schedule 1 lists reports and other relevant information that the Town will make available for purposes of this study.

4.3 Tasks

Task 1 – Assessment of Information

- (a) meet with appropriate Town personnel to review and evaluate:
 - Operating cost history and to project future operating costs
 - Capital needs as identified in the Town's Five Year Capital Forecasts for water and sewage systems
 - Projected population growth, proposed residential subdivisions, industrial and commercial developments and the impact on water and sewage rates
 - Development charges account balance and projections
 - Reserve fund accounts
- (b) meet with appropriate Town personnel to:
 - Obtain overview of current meter reading and billing practices
 - Current software capability and limitations
 - Review current billing data summaries
- (c) determine if supplemental information is required

Task 2 – Development of Financial Plan

- Utilizing information from Task 1, develop a financial plan
- Meet with Town personnel to review and finalize the financial plan

Task 3 – Rate Design Concept

- Evaluate the applicability and merits of various rate types including uniform rate vs. variable (block) rate or escalating or decreasing rates
- Determine if sewage rate can be indexed to water rate, or if independent rates are required
- Evaluate any impact on existing billing process and describe any required changes
- Meet with Town personnel to present findings and obtain approval of concepts, or modification of concepts

4.

Task 4 – Development of Rate Structure

- Develop rationale and tabulate data to support recommended rate structure for water and sewage
- Identify assumptions and variables that warrant future review and prepare time frame for revisions to rate
- Submit draft report to Town for review prior to public presentation

Task 5 – Public Review

- Prepare information as set out in Section 12 of O.Reg.244/02 in a format suitable for presentation to the public (e.g. Display board, “Power Point”, hand outs, etc. or combination thereof)
- Attend one public open house meeting, tentatively afternoon and evening duration, to receive comments and answer questions from the public (Town will arrange for meeting, tentatively at the Municipal Office Council Chambers, and give the required 21 day public notice)
- Meet with Town to evaluate public input and any revisions that may be warranted, including determination of whether a second public meeting is warranted

Task 6 – Submission of Final Report and Draft By-laws

- Prepare and submit final Water and Sewage Rate Study report
- Submit electronic copies of report and all supplementary material
- Prepare draft by-laws for water and sewage fees for presentation to Town Council

5. CONSULTANT PROPOSALS

5.1 Consultant Proposal Contents

The Consultant shall submit three (3) copies of the proposal which should include, but need not be limited to, the following information:

- An interpretation of the requirements of the study
- A description of the proposed study approach
- A schedule of tasks and decision points
- An outline of time and costs required to complete each task

The consultant shall also provide:

- a breakdown of estimated costs and an "upset limit;;
- a detailed cost estimate segregated per each task which includes manpower costs by individual and/or level. The per diem rate and time of each personnel be indicated;
- estimates of disbursement costs should be given, as well as costs for attending additional meetings beyond those proposed, additional copies of the reports, or other areas the consultant feels appropriate;
- a list of key personnel who will be assigned to the project with identification of the areas for which each will be responsible. A resume for each personal shall be included;
- a listing of any recent assignments or similar studies by the Consultant

The key personnel assigned to this project shall not be changed during the term of the study without permission in writing from the Town to do so.

5.2 Meetings and Reports

Written progress reports shall be provided by the consultants for the Town indicating progress to date.

The consultant shall also allow for a number of meetings with Town Staff during the course of the study and a presentation to Town Council of the Draft Report. The required meetings are as follows:

Assessment of Information (Task 1)

- allow a minimum of one day each for meeting with Town personnel

Development of Financial Plan (Task 2)

- meet with Town to review and finalize plan

Rate Design Concept (Task 3)

- meet with Town personnel to present findings and discuss proposed concepts

Public Information Open House (Task 5)

Evaluation of Public Information

The consultants shall submit ten (10) copies of a Draft Report. Executive summaries shall also be provided. After authorization of the draft, twenty (20) copies of the final report will also be required. The format of the reports will be determined by the Town. Costs for additional copies of the final report shall be identified.

It is emphasized that the final report must be concise, understandable to the layman and well presented. All complex and technical data shall be confined to appendices.

5.3 Award of Contract and Conditions of Work

All work will be performed according to the terms and conditions set down in the agreement between the Town and Consultant. The form of the agreement between the Town and the Consultant will be the standard agreement form approved by Professional Engineers Ontario, unless otherwise mutually agreed.

All documents, maps, displays and computer programs developed for the study are the property of the Town.

5.4 Tender Closing

Proposals are invited from consultants capable of conducting the study analysis and report preparation. Proposals, in sealed envelopes provided, shall be submitted on or before **4:00 p.m., Friday, May 27th, 2005** to:

L.J. Hodge, P.Eng.
 Director of Operations
 The Corporation of the Town of Pelham
 20 Pelham Town Square
 P.O. Box 400
 Fonthill ON L0S 1E0
 Telephone: 905-892-2607, extension 14
 Fax: 905-892-5055
 E-mail: jhodge@town.pelham.on.ca

6. TERMS OF REFERENCE CLARIFICATION AND ADDITIONAL INFORMATION

To help ensure uniformity, questions which arise while writing the proposal should be directed to L. James Hodge, P.Eng. Director of Operations, either by phone or email to the address shown above. A written response along with the inquiry will be forwarded to all consultants.

7. PROPOSAL EVALUATION

Each proposal will be evaluated by the Town based on:

- the Consultant's understanding of the Terms of Reference and the scope of the project;
- the approach suggested to fulfill the Terms of Reference;
- the experience, expertise and organization of the consultant;
- cost and timing

The Town reserves the right, in its absolute discretion, to reject any or all Proposals or to award the contract to other than the Consultant submitting the lowest Proposal, provided that Council, in its sole and absolute discretion, decides that it is in the best interest of The Corporation of the Town of Pelham to do so.

APPENDIX 1

Water Rate By-law #2669/2005

Sewer Service Rate By-law #2670/2005

Water System; Five Year Capital Forecast

Sewage System; Five Year Capital Forecast

SCHEDULE 'B'

**C.N. WATSON AND ASSOICATES LTD.
WATER AND WASTEWATER RATE STUDY PROPOSAL**

**CONSULTING PROPOSAL
SUBMITTED TO:**

THE TOWN OF PELHAM

**RE: WATER AND WASTEWATER
RATE STUDY**

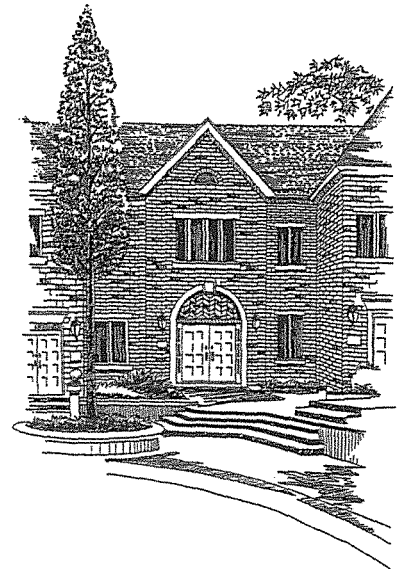
MAY 16, 2005

P L A N N I N G F O R G R O W T H



**C.N. WATSON
AND ASSOCIATES LTD.**

ECONOMISTS



4304 Village Centre Court
Mississauga, Ontario, Canada
L4Z 1S2

Telephone: (905) 272-3600

Fax: (905) 272-3602

e-mail: info@cnwatson.on.ca

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1. INTRODUCTION

1. INTRODUCTION

1.1 Background

The Town of Pelham has a present population of approximately 15,300 persons of which approximately 10,000 receive water and sewer services. The treatment of both water and sewage is the responsibility of the Region of Niagara. The distribution of water and collection of sewage is the responsibility of the Town. The serviced population is located in the Villages of Fonthill and Fenwick.

The water distribution system is fully metered and billed on a quarterly basis utilizing a rate structure with a fixed fee of \$19.17 per billing as well as a consumption charge of \$0.8302 per cubic metre. There are currently over 4,000 metered residential customers and 100 metered industrial/commercial/institutional customers within the Municipality.

All sewage is treated at the Welland Wastewater Pollution Control Plant located in Welland, which is owned and operated by Niagara Region, and services approximately 4,100 customers within the Town of Pelham.

Sewage is billed on a quarterly basis and is based on water consumption with a current charge of \$0.8733 per cubic metre.

The Town is requesting a proposal to undertake a water and sewer rate study to consider rates established at appropriate levels to address operating and capital needs along with consideration of emerging legislation (i.e. Bills 175 and 195).

2. THE WORK PLAN

2. THE WORK PLAN

2.1 Introduction

Based upon the requirements for the study and the proposed requirements for emerging legislation, a seven-task work plan has been developed for this study, as follows:

Task #1	Assessment of Water Consumption Data
Task #2	Capital Needs Assessment
Task #3	Capital Cost Financing Options
Task #4	Operating Cost and Revenue Analysis
Task #5	Rate Structure Analysis
Task #6	Report Preparation
Task #7	Presentations and Meetings

2.2 Assessment of Water Consumption Data (Task #1)

- Meet with Public Works staff to review historic records on water consumption. The historic consumption records will be classified by class of user to assess consumption patterns. These classes may be defined as residents (single vs. multi-residential), commercial, industrial and institutional. Further refinements can be made based on discussions with staff.
- Based on the average consumption patterns for above, a consumption forecast will be developed using the Town's residential and non-residential forecasts resulting from the Town's Growth Management Study, Development Charge Study or any other approved forecast document.
- This forecast will also assist in the review of capital needs, possible changes in operating expenditures and provide a basis for future forecasted rates.

2.3 Capital Needs Assessment (Task #2)

- Meet with municipal personnel to obtain all of the information required for project purposes as outlined in Section 6.1 of this proposal.
- Review the above and aggregate all existing and future growth capital and renewal/replacement/maintenance/optimization/operation items. Prioritize based on discussions with Public Works staff.
- Summarize into capital and operating components for existing system replacement/optimization needs and long-term replacement needs on a life cycle cost basis. Town of Pelham specific and/or empirical information will be used for this purpose; and growth servicing needs for alternate finance recovery purposes. It is noted that Bill 175 will require an Engineer to develop a long-term asset management plan however, in the interim, a replacement forecast will be developed based on engineering benchmarks.
- Develop 5-10 year plans for each of the above and prepare a discussion paper for review with municipal personnel before proceeding with rate determination activities.

2.4 Capital Cost Financing Options (Task #3)

- Based on findings of Task #2, consider alternatives to debt and/or transfers from operating budgets. Evaluation would include other statutory authorities such as Development Charges, Part XII charges under the *Municipal Act*, development agreements under the *Planning Act*, local improvements, regulations, etc.
- In addition, we will monitor and report on the status of potential Provincial/Federal discussions proceeding at this time and the potential for and applicability to grant funding for capital works proposed in #2. As well, evolving changes which may arise regarding the Provincial review of water and sewer systems in Ontario will also be monitored and considered. It is noted that CNWA is advisor to OWWA and OMWA who have been retained to participate in stakeholder discussions on Bill 175.

- Prepare a discussion paper for review with Municipality staff prior to proceeding with rate determination. This discussion paper will address potential short to medium term impacts of utilizing alternative capital financing methods as a means of controlling rate levels.

2.5 Operating Cost and Revenue Analysis (Task #4)

- Review all available operating related information required for project purposes as per Section 6.1.
- Identify all operating costs and related annual cost components such as maintenance costs, testing, engineering/administration, reading/billing/collecting, etc. Break down into fixed and variable components.
- From the future 5-10 year water and sewer volumes forecast identified in Task #1, assess potential cost implications. Identify sensitivity impacts (fixed vs. variable cost factors) and cost drivers.

2.6 Rate Structure Analysis (Task #5)

- There are four basic rate structures (flat, constant, declining block, increasing block), which are in use by Ontario Municipalities. Each rate method has their strengths and weaknesses relative to policy issues regarding conservation, equity, reliability, variability, etc., as well as the potential burden placed onto residential and non-residential users. A discussion of the various rate structures will be undertaken with staff to assess whether any refinements to the present rate structure is warranted. As well, discussions would also be undertaken to assess the ability of the Towns billing system to implement the various structures.

2.7 Report Preparation (Task #6)

- Finalize 10-year plans prepared as part of previous tasks for capital (existing system/future) and operating needs from a value engineering and/or long-term life cycle perspective.
- Prepare a capital/operating implementation plan from a technical and cost perspective.

- A draft table of contents is provided as Figure 2-1.

2.8 Presentations/Meetings (Task #7)

- We will meet with municipality staff to solicit their input on the process and to obtain historic information and data regarding consumption, infrastructure inventory, capital and operating information, along with presenting background discussion papers for discussion. In total, a provision of three staff meetings has been provided for. Further meetings can be accommodated at the request of the municipality however these meetings have not been included within the budget.
- One meeting with Council to solicit their input on the process has also been provided for in the proposal. Normally, we conduct a workshop for Council prior to the completion of the study. This allows Council members to consider all factors, which will impact rates in the future and solicit input prior to finalizing the report. This also allows the development of policies with Council's input and ensures recommendations are consistent with Council's preferences. As well, prior to all information being circulated to the public, this process ensures that Council is well informed to address any questions, which may arise from their constituents. As Section 12 of the *Municipal Act* requires a formal public meeting before the by-law may be passed by Council, we (CNWA) have provided in our work program for attendance and presentation at a public meeting of Council.
- We have provided a number of example formats demonstrating analytical tables and presentation materials (see Appendix B). Similar approaches will be developed on behalf of the Municipality to present the assessment in a clear and meaningful manner.

FIGURE 2-1
“DRAFT CONTENTS OF STUDY REPORT”

Page

- 1. Introduction**
 - 1.1 Background
 - 1.2 Study Process
 - 1.3 Forecast Growth and Servicing Requirements
 - 1.4 Water Consumption – Existing vs. Future
 - 1.5 Sewage Generation - Existing vs. Future
- 2. Capital Infrastructure Needs**
 - 2.1 Water Distribution System Needs Synopsis
 - 2.2 Replacement / Optimization Needs of Existing System
 - 2.3 Long Term Water Infrastructure Replacement – timing and costs
 - 2.4 Sewer Collection System Needs Synopsis
 - 2.5 Growth Related Servicing Needs
- 3. Life Cycle Costing**
 - 3.1 Definition
 - 3.2 Financing Costs
 - 3.3 Costing Methods
 - 3.4 Impact on Budgets
- 4. Capital Cost Financing Options**
 - 4.1 Summary of Capital Cost Financing Alternatives
 - 4.2 *Development Charges Act, 1997*
 - 4.3 *Municipal Act*
 - 4.4 *Local Improvement Act*
 - 4.5 Grant Funding Availability
 - 4.6 Recommended Approach
- 5. Overview of Operating Expenditures and Revenues**
 - 5.1 Water Expenditures – Existing by Component and 10-Year Forecast
 - 5.2 Water Revenue – Existing by Component
 - 5.3 Sewer Expenditures – Existing by Component and 10-Year Forecast
 - 5.4 Sewer Revenue – Existing by Component
- 6. Pricing Structures**
 - 6.1 Alternative Pricing Structures
 - 6.2 Assessment of Alternative Pricing Structures
 - 6.3 Calculation of Rates
 - 6.3.1 Assumptions
 - 6.3.2 Property Taxes
 - 6.3.3 Flat Rate
 - 6.3.4 Constant Rate
 - 6.3.5 Increasing Block Rate
 - 6.3.6 Decreasing Block Rate

- 6.4 Impact of the Rates on Users
- 6.5 Other Policy Issues (i.e. Phase-in, variation by class of user, water conservation, etc.)
- 6.6 Survey of Water and Sewer Rates in Other Municipalities

7. Analysis of Water and Sewer Policy Matters

- 7.1 Uniform vs. Charges by Class of User
- 7.2 Water Rate Options
- 7.3 Sewer Rate Options
- 7.4 Recommended Rates

3. EXPERIENCE OF THE PROJECT TEAM

3. EXPERIENCE OF CNWA

3.1 C.N. Watson and Associates Ltd.

C.N. Watson and Associates Ltd. is a firm of municipal economists, which has operated for more than 20 years. With a municipal client base of more than 250 Ontario municipalities and utility commissions, many of which are long-term repeat clients, the firm is recognized as a leader in the municipal finance/local government field. The firm has a committed sixteen-person staff that has worked together for many years. The firm's principals have participated extensively as expert witnesses on municipal finance matters at the Ontario Municipal Board for over 20 years.

A feature of many studies completed by the firm includes the development of a solid information basis, and then working closely with staff, and politicians to develop consensus around controversial issues. This was a major component of many of the development charge studies undertaken by the firm. Further, many of our studies involve public participation, presenting key information to the public in an understandable format, and seeking public input in developing recommendations and future directions as part of a study process. Our work has involved many aspects of municipal finance and economics ranging from financial feasibility assessments, capital and operating impacts of municipal servicing, demographic forecasts, local economy impact assessments, etc.

Of particular note is that the Ministry of Municipal Affairs and Housing retained C.N. Watson and Associates Ltd. in 1999 to prepare a comprehensive Municipal Capital Budgeting Handbook for distribution to all Ontario Municipalities. The handbook serves as a basis for solid long term financial planning, not only providing a basis for constructing and replacing new / existing infrastructure but also to manage future tax / rates at sustainable and acceptable levels. The firm was also retained to participate in the Walkerton Water Inquiry in regards to Issue papers 14 and 15 (dealing with financial, budgetary and administrative processes of municipal water operations). Several papers were prepared and submitted to the Inquiry along with participation at two Expert Panel Meetings and presentation to Judge O'Connor on two separate occasions.

Gary Scandlan, PLE, Associate Director, would represent the firm and be responsible for all facets of the study process. Mr. Scandlan has been with the firm of C. N. Watson for 16 years

before which he worked for two Regional municipalities. In regard to the latter, he held senior managerial positions and was directly responsible for long range financial planning, long term rate and tax impact planning as well as all facets of capital financing. He is presently a member of the firm's senior management group, which develops interpretations of legislative requirements, as well as methodologies and formats and determines alternative policy strategies for all facets of the corporate assignments. Mr. Scandlan has undertaken rate studies for a number of municipalities of varying size and has advanced the concept of long term lifecycle costing within rate structures. Mr. Scandlan has had considerable involvement in the changes being made to the water and wastewater industry in Ontario. Of particular note:

- represented the Ontario Water Works Association (OWWA), Ontario Municipal Water Association (OMWA) and Canada Environmental Association (CELA) during the Walkerton Inquiry. He prepared several submissions, participated in two expert panels and made presentations to Judge O'Connor on two occasions;
- assisted in the preparation of a formal submission to the Province on behalf of OWWA/OMWA upon first reading of Bill 155 (now Bill 175);
- has been retained by OWWA/OMWA to represent the Associations during stakeholder discussions on the Regulations which now accompany Bill 175;
- has undertaken numerous lectures on Bill 175/195 and other aspects of the water industry in Ontario on behalf of AMO, AMCTO, APWA, OGRA/ROMA, OMWA, OWWA/CWWA and Trent University;
- worked with the Province of Ontario to refine *Municipal Act* legislation and regulations as it applies to water and wastewater services.

Nancy Hayes, Senior Consultant, would assist in the preparation of the rate analysis, report documentation, data collection and compilation, analysis of long-term capital and operating costs. Nancy's career includes working for several municipalities (Halton Region and the Towns of Milton and Oakville) over a 15 year period. Her work at CNWA has included water and sewer rate studies, Development Charges studies and fiscal impact assessments.

CNWA Project Experience:

During the past few years, C.N. Watson and Associates Ltd. has undertaken over fifty water and wastewater rate studies. A summary of this work is provided in Appendix A. While all of our clients may be contacted regarding references for our work, we have provided a selective list of projects along with contact individuals:

- i) Town of Lincoln Water and Wastewater Rate Study – undertook a water and wastewater rate analysis on behalf of the municipality, including the identification of operating expenditures over a ten-year forecast period, and a long-term lifecycle plan consistent with the requirements of Bill 175.
Contact: Bruce Peever, CAO, (905) 563-8205.

- ii) Town of Midland Water and Wastewater Rate Study – undertook a water and wastewater rate analysis on behalf of the municipality to recommend rates at appropriate levels, over 10 years, to address operating and capital needs along with consideration of emerging legislation.
Contact: Sue Gignac, Treasurer, (705) 526-4275.

- iii) Town of Orangeville Water and Sewer Rate Study - undertook financial analysis to develop a sustainable strategy for Orangeville's future water supply and sewage treatment servicing while accounting for the environmental, social, economic, technical and political implications of the strategy for Orangeville's future. Based on this, the rate structure developed for the systems, gave due consideration to assisting in achieving the desired results of the servicing strategy.
Contact: Jack Tupling, Director of Public Works, (519) 941-0440.

4. BUDGET AND ALLOCATION

4. BUDGET AND ALLOCATION

Table 4-1 summarizes our proposed budget for the project based on the items outlined in our work program. Should this budget not reflect the level of effort envisioned by the client, we would be pleased to review the scope of the work and budgetary requirement.

The above provides for 10 copies of the Draft Rate Study Report and 20 copies of the Final Report, along with a camera-ready copy suitable for reproduction.

Key project staff that will be working on this project and their hourly rates are as follows:

C.N. Watson and Associates Ltd.

- Gary Scandlan \$205
- Nancy Hayes \$130
- Support Staff \$85

Table 4-1
Summary of Staff Hours and Budget

Activity	Hours			Total
	Scandlan	Hayes	Support	
1. Data Collection	10	20	-	30
2. Capital Needs	6	6	-	12
3. Capital Financing	6	6	-	12
4. Operating Costs	6	6	-	12
5. Rate Structure	10	8	-	18
6. Report(s) Preparation	20	8	4	32
7. Presentations/Meetings ¹	30	10	3	43
Total	88	64	7	159

Activity	Budget			Total
	Scandlan	Hayes	Support	
Hourly Rate	205	130	85	
1. Data Collection	2,050	2,600	-	4,650
2. Capital Needs	1,230	780	-	2,010
3. Capital Financing	1,230	780	-	2,010
4. Operating Costs	1,230	780	-	2,010
5. Rate Structure	2,050	1,040	-	3,090
6. Report(s) Preparation	4,100	1,040	340	5,480
7. Presentations/Meetings ¹	6,150	1,300	255	7,705
Subtotal	18,040	8,320	595	26,955
Disbursements				1,500
10 Copies of Draft Report & 20 Copies of Final Report				500
Total (net of GST)				28,955
Upset Limit				29,000

¹ Includes meeting and preparation time

5. TIME SCHEDULE

5. TIME SCHEDULE

Schedule 5-1 summarizes the schedule of project activities. Based on the request for proposal we have developed the work program to allow us to complete the study activities and have the final report and draft by-laws available no later than December 1, 2005. We have provided for the Public Meeting to be held in November 2005.

**SCHEDULE 5-1
SCHEDULE OF PROJECT ACTIVITIES
WATER AND SEWER RATE STUDY**

	2005						
	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1. Assessment of Water and Wastewater Data							
2. Capital Needs Assessment							
3. Capital Cost Financing Options							
4. Operating Cost and Revenue Analysis							
5. Rate Structure Analysis							
6. Report Preparation							
7. Presentation and Meetings	SM		SM	SM	CW	PM	

SM - Staff Meeting with CN Watson

CW - Council Workshop

PM - Public Meeting

The timelines outlined above are based on the Town's request as set out in the request for proposal however; we note that these timelines are dependant on staff meeting their timelines as we will require their input prior to being able to undertake all aspects of the financial analysis.

6. OTHER MATTERS

6. OTHER MATTERS

6.1 Town Staff Responsibilities

Based upon our knowledge of the undertaking, we would require the following information from Town staff:

- Past studies and/or staff reports related to system needs (Future Growth/Existing system upgrade requirements and replacement/optimization efforts/information)
- Past two year and future 1 to 5-year capital and operating budgets (actual operating costs, items and sources included)
- Inventory of water system infrastructure (WIM's) and sewer infrastructure (SIM's) To include age, materials, location, length, size and any related maintenance history information
- Water and Sewer rate by-laws for past years
- Summary of operational policies and non rate fees and charges
- Summary of number of customers by class and consumption data by classes of users for 2003 and 2004
- Historical water conservation efforts (and related measures of success), water loss detection/repair efforts and backflow prevention.
- Any water and/or wastewater agreements terms and conditions with respect to possible servicing arrangements with others.
- Most recent letter from Ministry of Municipal Affairs regarding debt capacity limits.

6.2 Conflict of Interest

We have reviewed our current projects and confirm that none of the project team members has a conflict of interest.

APPENDIX A

CORPORATE PROFILE MATERIAL – C.N. WATSON AND ASSOCIATES LTD.

APPENDIX B

EXAMPLE FORMATS FOR ANALYSIS AND PRESENTATION

Table 1-3
Town of Lakeshore
Average Water Consumption by Service Area For All Users

Water Service Area		Consumption (m ³)		Users (#)		Average Consumption (m ³ / User)		
		2000	2001	2000	2001 ¹	2000	2001	2-Years
Belle River	BR	506,548	590,241	1,770	1,816	286	325	306
Comber	CM	70,942	85,489	342	346	207	247	227
Maidstone	MN / MU	1,652,852	1,728,571	4,560	4,708	362	367	365
Rochester South	RU	159,424	178,316	509	520	313	343	328
Rochester North	RN	407,880	407,880	1,095	1,108	372	368	370
Tilbury North	TN	370,513	334,509	1,530	1,554	242	215	229
Tilbury West	TW	105,727	85,542	312	315	339	272	305
Total / Average		3,273,886	3,410,548	10,118	10,367	324	329	326

¹ 2001 user numbers estimated by applying annual growth rate, by area, to 2000 user numbers

Town of Lakeshore
Average Water Flows Of Users With Sewage By Service Area

Sewage Service Area		Flows (m ³)	Users (#)	Average Flows (m ³ / User)
Belle River	BR	589,705	1,969	299
Maidstone	MN	1,178,483	3,440	343
Comber	CM	84,965	364	233
Tilbury North ¹	TN	171,723	909	189
Total / Average		2,024,876	6,682	303

¹ For Stoney Point

**Table 1-5
MUNICIPALITY OF LAMBTON SHORES
WATER CONSUMPTION FORECAST**

Annual Consumption in m ³												
Development Location	Year											
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Residential												
Arkona	46,042	47,030	48,008	50,388	51,970	53,551	55,329	57,109	58,886	60,665	62,443	64,222
Bosanquet	400,268	402,383	411,481	420,529	424,739	428,849	432,838	436,074	438,503	440,932	443,361	445,790
Forest	220,165	221,560	224,348	227,139	229,820	232,518	235,108	237,898	240,886	243,875	246,864	249,853
Grand Bend	119,774	120,597	122,244	123,890	125,536	127,183	128,829	130,613	132,399	134,180	135,963	137,610
Thedford	58,776	58,776	58,776	59,688	61,514	63,339	65,164	67,902	71,553	75,204	78,854	82,508
Town-wide Total	845,045	850,366	865,838	881,635	892,887	905,540	917,287	929,595	942,225	954,856	967,486	979,982
Non-Residential												
Arkona	6,114	9,171	15,465	21,938	26,412	34,088	41,719	48,373	55,386	62,399	69,592	76,785
Bosanquet	78,228	78,228	80,598	80,598	82,987	85,337	85,337	87,708	87,708	90,078	92,449	92,449
Forest	83,480	84,036	85,762	86,914	88,640	89,791	91,518	93,245	94,398	96,123	97,650	99,001
Grand Bend	128,891	127,514	129,982	132,450	134,095	138,583	139,031	141,499	143,144	145,612	148,080	150,548
Thedford	11,882	11,882	12,007	12,331	12,331	12,666	12,666	12,980	13,305	13,305	13,629	13,954
Town-wide Total	306,173	310,829	323,812	334,229	348,445	359,233	370,261	383,804	393,939	407,517	421,600	432,736
Bulk Water												
Bosanquet	2,890	2,890	2,890	2,890	2,890	2,890	2,890	2,890	2,890	2,890	2,890	2,890
Forest	244	244	244	244	244	244	244	244	244	244	244	244
Town-wide Total	3,134	3,134	3,134	3,134	3,134	3,134	3,134	3,134	3,134	3,134	3,134	3,134
Other Users												
Bosanquet	62,192	62,192	62,192	62,192	62,192	62,192	62,192	62,192	62,192	62,192	62,192	62,192
Forest	6,013	6,013	6,013	6,013	6,013	6,013	6,013	6,013	6,013	6,013	6,013	6,013
Thedford	2,738	2,738	2,738	2,738	2,738	2,738	2,738	2,738	2,738	2,738	2,738	2,738
Town-wide Total	70,943	70,943	70,943	70,943	70,943	70,943	70,943	70,943	70,943	70,943	70,943	70,943
Town-Wide Grand Total	1,225,295	1,235,061	1,263,627	1,289,941	1,314,210	1,338,850	1,361,605	1,387,476	1,410,241	1,436,449	1,463,162	1,486,775
Total Residential With Additions Bos. Users	1,225,295	1,235,061	1,263,627	1,307,753	1,336,691	1,368,941	1,399,334	1,431,845	1,461,246	1,494,096	1,527,448	1,558,024

Table C-3
TOWNSHIP OF CENTRE WELLINGTON
RESERVES & RESERVE FUND CONTINUITY SCHEDULE - Calculated Rate
2003 - 2012
Inflated \$

Capital Reserves Description	Budget 2002	Year									
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Opening Balance	757,384	782,011	360,859	224,310	-	198,975	-	-	-	-	-
Income	10,000	10,000	10,000	10,000	191,322	10,000	10,000	10,000	10,000	10,000	10,000
Transfer to Operating	-	-	-	-	-	-	-	-	-	-	-
Transfer to Capital	15,450	445,032	155,176	234,310	-	208,975	10,000	10,000	10,000	10,000	10,000
Balance	751,934	346,979	215,683	-	191,322	-	-	-	-	-	-
Interest	30,077	13,079	8,627	-	7,653	-	-	-	-	-	-

Motor Maintenance Reserve Description	Budget 2002	Year									
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Opening Balance	-	-	150,989	313,547	488,135	675,236	875,349	1,088,996	1,316,716	1,559,075	1,816,656
Income	-	145,182	150,498	155,814	161,130	166,448	171,782	177,078	182,394	187,710	193,026
Transfer to Operating	-	-	-	-	-	-	-	-	-	-	-
Transfer to Capital	-	-	-	-	-	-	-	-	-	-	-
Balance	-	145,182	301,487	469,361	649,265	841,682	1,047,111	1,266,074	1,499,110	1,746,785	2,009,682
Interest	-	5,807	12,059	18,774	25,971	33,667	41,884	50,643	59,964	69,871	80,387

DC Reserve Fund Description	Budget 2002	Year									
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Opening Balance	500,000	188,760	-	22,822	23,056	257,990	178,318	-	-	-	-
Income	211,500	221,682	452,231	461,276	470,501	478,911	489,509	499,299	509,285	519,471	529,861
Transfer to Operating	-	-	245,490	-	245,490	-	-	499,299	509,285	519,471	529,861
Transfer to Capital	530,000	410,442	184,798	461,928	-	585,480	668,828	-	-	-	-
Balance	181,500	-	21,945	22,170	248,068	172,422	-	-	-	-	-
Interest	7,260	-	878	887	9,923	6,897	-	-	-	-	-

Interest Rate 4%

Table C-1
TOWNSHIP OF CENTRE WELLINGTON
WATER SERVICES CAPITAL BUDGET FORECAST - Calculated Rate
2003 - 2012
Inflated \$

Project Description	Total Expenditures	Year									
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Capital Expenditures											
Growth Related Projects											
Elera											
Colborne St. - N. Queen - John	63,000	63,000	-	-	-	-	-	-	-	-	-
Colborne St. - Geddes - N. Queen	108,800	-	108,800	-	-	-	-	-	-	-	-
Colborne St. - John - Wilson	116,072	-	-	116,072	-	-	-	-	-	-	-
David St. - Geddes - Cly. Rd. 7	217,943	12,000	205,943	-	-	-	-	-	-	-	-
High St. / Melcalfe / McNab	140,857	-	140,857	-	-	-	-	-	-	-	-
Irvine St. - Colborne - John	131,171	-	-	131,171	-	-	-	-	-	-	-
Water St. - High - Bridge	187,680	-	95,200	92,480	-	-	-	-	-	-	-
Well No. 4 & Transmission Main	1,100,000	1,100,000	-	-	-	-	-	-	-	-	-
Fergus											
Beatty Line/Allardice Well (Well No. 7)	891,000	891,000	-	-	-	-	-	-	-	-	-
Forfar St. E. - St. David - James	70,775	-	-	70,775	-	-	-	-	-	-	-
Garafraxa St. - Malden Lane - Beatty Line	174,000	174,000	-	-	-	-	-	-	-	-	-
Jones Baseline, 2nd Line, Hwy No. 6	949,336	-	-	949,336	-	-	-	-	-	-	-
St. Andrew St. E. - Gartshore to Tom	245,784	-	-	-	-	245,784	-	-	-	-	-
Union Street W. - Tower to Perth	103,804	-	-	103,804	-	-	-	-	-	-	-
Well Exploration (Well No. 8)	350,000	350,000	-	-	-	-	-	-	-	-	-
New Water Tower	1,324,897	-	-	-	-	-	1,324,897	-	-	-	-
Interconnection of Water Systems	838,870	-	-	-	-	838,870	-	-	-	-	-
Total Growth Related Projects	7,013,980	2,590,000	550,800	1,463,638	-	1,084,653	1,324,897	-	-	-	-
Non-Growth Related Projects											
Elera											
Geddes St. - Mill - Church	75,000	75,000	-	-	-	-	-	-	-	-	-
Geddes St. - Church - Shoppers DM	19,000	19,000	-	-	-	-	-	-	-	-	-
Gorge Watermain - GRCA - Bridge	138,423	-	-	-	138,423	-	-	-	-	-	-
Henderson St. - Smith - James	28,000	28,000	-	-	-	-	-	-	-	-	-
York St. - Waterloo - Well. Rd. 7	109,000	109,000	-	-	-	-	-	-	-	-	-
Fergus											
Breadalbane St. - St. Patrick - Hill	55,000	55,000	-	-	-	-	-	-	-	-	-
Churchill Cres. (Incl. Edinburgh/James)	218,932	-	-	218,932	-	-	-	-	-	-	-
Forfar St. W. - St. David - Woodside	30,000	30,000	-	-	-	-	-	-	-	-	-
Gowrie St. - Union - Queen	5,000	5,000	-	-	-	-	-	-	-	-	-
Gowrie St. - St. George - Hill	27,000	27,000	-	-	-	-	-	-	-	-	-
High School - Scolland St. Extension	68,000	68,000	-	-	-	-	-	-	-	-	-
MacQueen Blvd. - Scolland - McTavish	60,000	60,000	-	-	-	-	-	-	-	-	-
Sideroad 19 - Hwy. 6 - Beatty Line	315,714	-	315,714	-	-	-	-	-	-	-	-
St. David St. S - High School - Princess	5,000	5,000	-	-	-	-	-	-	-	-	-
St. George St. E. - Herrick - Gartshore	96,255	-	-	-	96,255	-	-	-	-	-	-
St. George St. W. - Maple - Beatty Line	52,458	-	52,458	-	-	-	-	-	-	-	-
DWPR Improvements	94,000	94,000	-	-	-	-	-	-	-	-	-
Watermain Replacement Provision	3,276,859	-	-	-	-	-	629,678	642,270	655,115	668,217	681,582
Vehicle/Equipment Replacement	103,164	15,300	-	10,571	-	16,561	-	17,230	17,575	17,928	-
Total Non-Growth Related Projects	4,776,806	590,300	368,172	237,504	234,678	16,561	629,678	659,500	672,690	686,144	681,582
Total Capital Expenditures	11,790,784	3,180,300	918,972	1,701,141	234,678	1,101,215	1,954,573	659,500	672,690	686,144	681,582
Capital Financing											
Development Charges	2,291,474	410,442	184,796	461,928	-	666,480	668,828	-	-	-	-
DC Debiture Requirements	2,462,896	1,806,826	-	-	-	-	658,058	-	-	-	-
Debiture Requirements	2,663,282	-	-	686,903	-	326,739	619,876	-	-	-	-
Operating Contributions	3,279,678	518,000	678,000	396,000	234,678	-	-	278,500	303,690	280,144	245,582
Capital Reserves	1,093,493	445,032	155,176	234,310	-	208,975	10,000	10,000	10,000	10,000	10,000
Total Financing	11,790,794	3,180,300	910,972	1,701,141	234,678	1,101,215	1,954,573	659,500	672,690	686,144	681,582

Table 7-1
Operating Expenditure Forecast for Central Elgin Service Area

7-4

	Municipal-Wide Forecast				
	2001 Budget	2002	2003	2004	2005
<u>Capital Related</u>					
Existing Debt Charges	110,000	56,500	56,500	56,500	56,500
New Debt Charges	-	39,746	210,725	569,709	623,337
Transfer to Lifecycle Reserves	-	-	-	-	-
Transfer to Capital	-	-	-	-	-
Total Capital Related Expenditures	110,000	96,246	267,225	626,209	679,837

	2001 Budget	2002	2003	2004	2005
<u>Water Supply</u>					
Pumphouse Operation and Maintenance, Belmont	71,500	72,930	74,389	75,876	77,394
Water Purchases	100,000	110,745	122,645	135,823	150,417
Elgin Sec System Operating Charges	52,500	53,550	54,621	55,713	56,828
Total Water Supply Expenditures	224,000	237,225	251,654	267,412	284,638

	2001 Budget	2002	2003	2004	2005
<u>Water Billings and Collection & Sampling</u>					
Billing/Collection/Meter Reading	36,000	38,005	40,122	42,357	44,716
Sampling	22,000	22,440	22,889	23,347	23,814
<u>Water Administration and Operations</u>					
<u>Administration</u>					
Administration Wages/Salaries & Benefits	119,900	122,298	124,744	127,239	129,784
Professional Services	20,000	20,400	20,808	21,224	21,649
Supplies	1,500	1,530	1,561	1,592	1,624
Office Expenses	-	-	-	-	-
Insurance and Permits	6,000	6,120	6,242	6,367	6,495
Other	10,500	10,710	10,924	11,143	11,366
Training, Travel and Workshops	25,500	26,010	26,530	27,061	27,602
<u>Operations</u>					
Shop and Equipment Maintenance	10,500	10,710	10,924	11,143	11,366
Equipment	29,000	29,580	30,172	30,775	31,391
Locates	22,000	22,440	22,889	23,347	23,814
Water Distribution System Maintenance	161,000	164,220	167,504	170,854	174,272
<u>Water Efficiency</u>					
Water Efficiency Program	-	50,000	50,000	50,000	50,000
Total Operations Expenditures	463,900	524,463	535,309	546,448	557,889
<u>Non-Rate Revenues</u>					
WW Rev Int Earned	3,000	3,060	3,121	3,184	3,247
Sanitary Sewer Billing Recovery	11,400	11,626	11,861	12,098	12,340
New Meter Charges	8,000	8,160	8,323	8,490	8,659
Water Truck filling station	5,000	5,100	5,202	5,306	5,412
Recovery from Municipality for Hydrant maintenance	15,000	15,300	15,606	15,918	16,236
New Water Service	20,000	20,400	20,808	21,224	21,649
Water Sampling Stations	4,000	4,080	4,162	4,245	4,330
Late Charges	3,500	3,570	3,641	3,714	3,789
New Water Main	2,000	2,040	2,081	2,122	2,165
Water meter inspection revenue	2,000	2,040	2,081	2,122	2,165
Total Non-Rate Revenues	73,900	75,378	76,886	78,423	79,992
<u>Monthly Base Charge Revenue (\$13.50 per Month per user)</u>					
Total System Users	2,210	2,295	2,380	2,465	2,549
Annual Base Charge per User (12 months at \$13.50/month)	162	162	162	162	162
Total Base Charge Revenue	357,986	371,804	385,574	399,263	412,952
Total Non-Rate and Base Charge Revenues	431,886	447,182	462,459	477,686	492,943
Total Net Operations Expenditures	32,014	77,282	72,850	68,762	64,946
Consumption of Water (m ³) - Residential	415,402	431,733	448,064	464,395	480,726
Consumption of Water (m ³) - Non-Residential	93,970	97,554	100,883	103,819	106,754
Total Municipal-wide Consumption (m3)	509,372	529,287	548,947	568,214	587,480
Capital Charge per m³	\$ 0.22	\$ 0.18	\$ 0.49	\$ 1.10	\$ 1.16
Water Supply Charge per m³	\$ 0.44	\$ 0.45	\$ 0.46	\$ 0.47	\$ 0.48
Operations Charge per m³(1)	\$ 0.06	\$ 0.15	\$ 0.13	\$ 0.12	\$ 0.11
Total Rate(m³)	\$ 0.72	\$ 0.78	\$ 1.08	\$ 1.69	\$ 1.75

(1) Note that Non-rate Revenues have been allocated to Administration and Operation Expenditures. Hence the rate calculated for Operations is a net rate.

**Table 7-4
Town of Lakeshore
Sewer Rate Summary**

Rate Structure	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Calculated											
Uniform Monthly Charge	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50
Constant Rate	0.58	0.64	0.70	0.80	0.85	0.94	0.83	0.63	0.62	0.61	0.60
<u>Increasing Block Rate</u>											
First Block	0.54	0.85	0.71	0.81	0.77	0.85	0.57	0.57	0.56	0.56	0.54
Second Block	0.81	1.29	1.07	1.22	1.17	1.29	0.87	0.86	0.85	0.84	0.82
<u>Declining Block Structure</u>											
First Block (1,000 m3 / year)	0.60	0.96	0.80	0.91	0.88	0.98	0.64	0.64	0.63	0.62	0.61
Second Block (>1,000 m3 / year)	0.39	0.82	0.52	0.59	0.56	0.62	0.42	0.41	0.41	0.40	0.39
Smoothed											
Uniform Monthly Charge	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50
Constant Rate	0.59	0.70	0.82	0.87	0.89	0.91	0.77	0.79	0.78	0.78	0.77
<u>Increasing Block Rate</u>											
First Block	0.54	0.63	0.74	0.79	0.81	0.82	0.70	0.71	0.71	0.71	0.69
Second Block	0.81	0.98	1.13	1.20	1.23	1.24	1.06	1.08	1.07	1.07	1.05
<u>Declining Block Structure</u>											
First Block (1,000 m3 / year)	0.60	0.71	0.84	0.89	0.91	0.92	0.79	0.80	0.79	0.79	0.78
Second Block (>1,000 m3 / year)	0.39	0.46	0.54	0.58	0.59	0.60	0.51	0.52	0.52	0.51	0.50
Sensitivity Run 1											
Uniform Monthly Charge	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00
Constant Rate	0.59	0.64	0.78	0.81	0.84	0.85	0.71	0.73	0.72	0.72	0.71
<u>Increasing Block Rate</u>											
First Block	0.54	0.58	0.69	0.74	0.76	0.77	0.65	0.66	0.66	0.65	0.64
Second Block	0.81	0.88	1.05	1.12	1.15	1.16	0.88	1.00	0.89	0.99	0.97
<u>Declining Block Structure</u>											
First Block (1,000 m3 / year)	0.60	0.65	0.78	0.83	0.85	0.86	0.73	0.74	0.73	0.73	0.72
Second Block (>1,000 m3 / year)	0.39	0.42	0.50	0.54	0.65	0.68	0.47	0.48	0.48	0.48	0.47
Sensitivity Run 2											
Uniform Monthly Charge	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00
Constant Rate	0.59	0.52	0.64	0.69	0.72	0.73	0.60	0.61	0.61	0.60	0.59
<u>Increasing Block Rate</u>											
First Block	0.54	0.47	0.58	0.63	0.65	0.68	0.54	0.55	0.55	0.55	0.53
Second Block	0.81	0.72	0.88	0.95	0.99	1.00	0.82	0.84	0.83	0.83	0.81
<u>Declining Block Structure</u>											
First Block (1,000 m3 / year)	0.60	0.63	0.68	0.71	0.73	0.74	0.61	0.62	0.62	0.61	0.60
Second Block (>1,000 m3 / year)	0.39	0.35	0.43	0.48	0.48	0.48	0.39	0.40	0.40	0.40	0.39
Sensitivity Run 3											
Uniform Monthly Charge	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50	\$ 10.50
Constant Rate	0.59	0.88	0.88	0.88	0.88	0.88	0.68	0.68	0.67	0.66	0.64
<u>Increasing Block Rate</u>											
First Block	0.54	0.80	0.80	0.80	0.80	0.80	0.62	0.61	0.60	0.60	0.58
Second Block	0.81	1.21	1.21	1.21	1.21	1.21	0.94	0.93	0.92	0.91	0.88
<u>Declining Block Structure</u>											
First Block (1,000 m3 / year)	0.60	0.90	0.90	0.90	0.90	0.90	0.70	0.69	0.68	0.67	0.65
Second Block (>1,000 m3 / year)	0.39	0.58	0.58	0.58	0.58	0.58	0.45	0.45	0.44	0.43	0.42

MUNICIPALITY OF CENTRAL ELGIN
WATER NEEDS AND FINANCIAL STUDY

C-1

Summary of Watermains by Pipe Material Type, Age and Size

Village of Port Stanley

Material	Construction	Diameter (mm)	Total length(m)	Replacement Unit Cost	Replacement Cost	Avg. Life	Year of Replacement	Annual Lifecycle Contribution
CI	1940	100	45	\$175	\$7,875	50	2011	\$744
CI	OLD?	100	707	\$175	\$123,725	50	2011	\$11,691
CI	OLD?	150	165	\$175	\$28,875	50	2011	\$2,728
CI	OLD?	200	215	\$175	\$37,625	50	2011	\$3,555
COPPER	1970	50	55	\$393	\$21,615	80	2050	\$155
COPPER	1990	25	82	\$393	\$32,226	80	2070	\$96
Duct. Iron	1968	250	1,170	\$434	\$507,780	50	2018	\$23,266
Duct. Iron	1968	300	165	\$458	\$75,570	50	2018	\$3,463
Duct. Iron	1971	150	125	\$393	\$49,125	50	2021	\$1,775
Duct. Iron & CI	1940	200	120	\$412	\$49,440	50	2011	\$4,672
Poly Eth	1979	300	175	\$458	\$80,150	80	2059	\$384
Poly Eth	1996	200	85	\$412	\$35,020	80	2076	\$81
PVC	1968	150	235	\$393	\$92,355	80	2048	\$728
PVC	1970	150	120	\$393	\$47,160	80	2050	\$339
PVC	1976	50	260	\$393	\$102,180	80	2056	\$559
PVC	1976	150	310	\$393	\$121,830	80	2056	\$666
PVC	1979	150	288	\$393	\$113,184	80	2059	\$542
PVC	1980	150	342	\$393	\$134,406	80	2060	\$616
PVC	1981	200	410	\$412	\$168,920	80	2061	\$741
PVC	1982	150	116	\$393	\$45,588	80	2062	\$192
PVC	1986	150	747	\$393	\$293,571	80	2066	\$1,039
PVC	1988	150	30	\$393	\$11,790	80	2068	\$38
PVC	1988	200	270	\$412	\$111,240	80	2068	\$361
PVC	1989	150	800	\$393	\$314,400	80	2069	\$979
PVC	1989	200	110	\$412	\$45,320	80	2069	\$141
PVC	1992	150	720	\$393	\$282,960	80	2072	\$777
PVC	1992	200	3,171	\$412	\$1,306,452	80	2072	\$3,586
PVC	1995	200	330	\$412	\$135,960	80	2075	\$329
PVC	1996	150	192	\$393	\$75,456	80	2076	\$175
PVC	1996	250	1,350	\$434	\$585,900	80	2076	\$1,361
PVC	1996	300	1,015	\$458	\$464,870	80	2076	\$1,080
PVC	1997	150	328	\$393	\$128,904	80	2077	\$287
PVC	1998	200	737	\$412	\$303,644	80	2078	\$649
PVC	1999	150	210	\$393	\$82,530	80	2079	\$169
PVC	1999	200	620	\$412	\$255,440	80	2079	\$524
	Totals		15,620		\$6,273,086			\$66,493

Note: Summary does not include any identified capital works already accounted for in Tables 2-1 to 2-5

FIGURE 6-2
FINANCING LIFE CYCLE COSTS

Financing Methods
Available

Development Charges

Reserves

Debentures

Operating Budget Contributions

Operating Budget

Debentures

Reserves

Operating Budget Contributions

Operating Budget

Debentures

Reserves

Operating Budget Contributions

NEW ASSET
User

Select
or Specify

Purchase
Install
Commission

Operate
Maintain
Monitor
(Throughout Life
of Assets)
(To End of
Useful Life)

Remove

Dispose

REPLACEMENT ASSET
User

Select
or Specify

Purchase
Install
Commission

Operate
Maintain
Monitor
(Throughout Life
of Assets)
(To End of
Useful Life)

Remove

Dispose

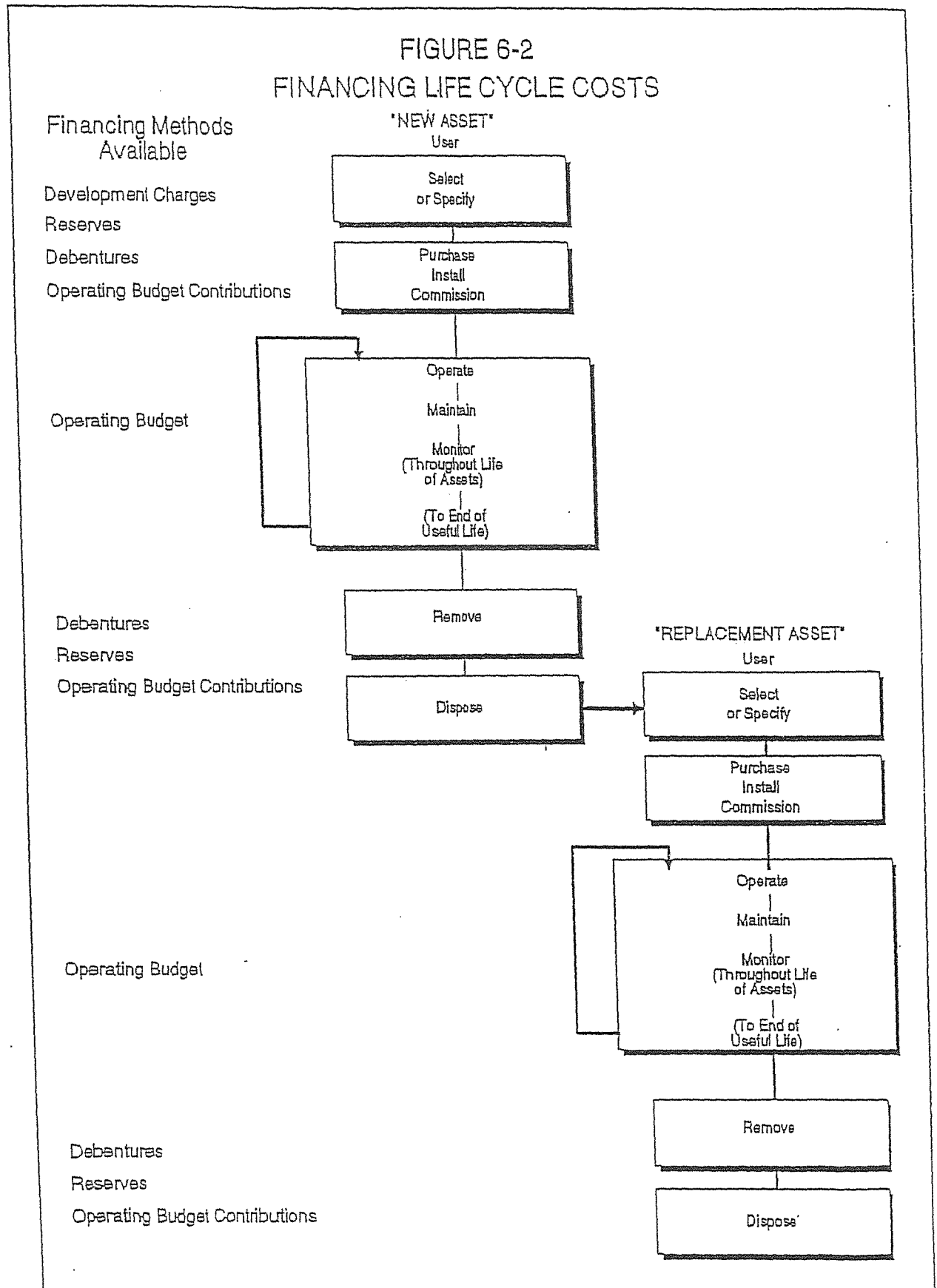
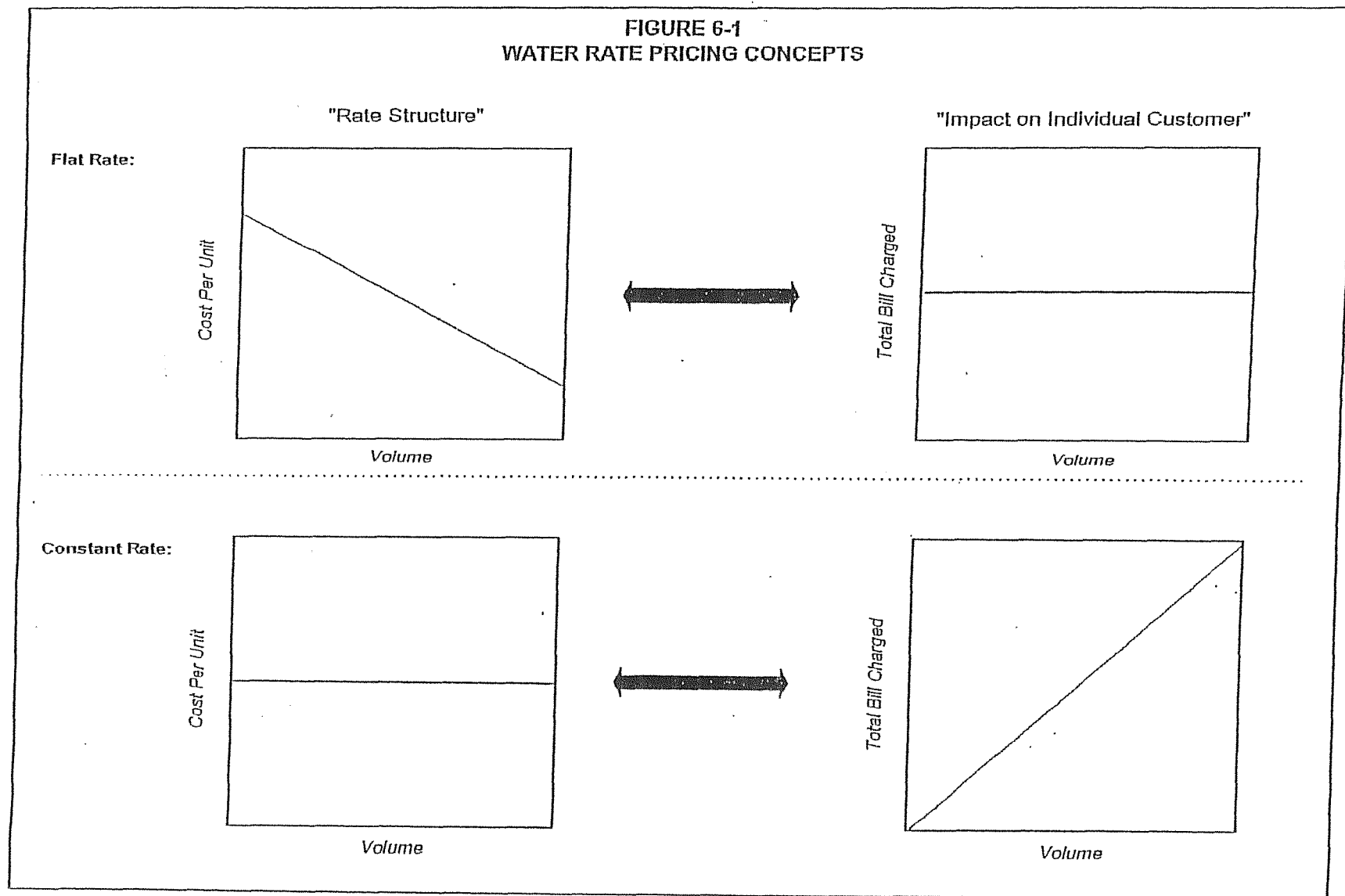


TABLE 5-4
Annual Residential Water/Sewer Bill Based on 227 Cubic Metres Consumption (50,000 Gallons)
(2000/2001 Rates)

Municipality	Water Charges	Sewer Charges	Total Charges	Ranking	
				Water Only	Combined
<i>Chatham-Kent:</i>					
Chatham	\$ 156.21	\$ 135.80	\$ 292.01	6	4
Wallaceburg	\$ 251.45	\$ 269.82	\$ 521.27	20	22
Blenheim	\$ 215.76	\$ 125.30	\$ 341.06	15	8
Thamesville	\$ 297.21	\$ 299.01	\$ 596.22	24	24
Ridgetown	\$ 268.14	\$ 147.48	\$ 415.62	21	19
Dover	\$ 205.37	\$ 135.80	\$ 341.17	10	9
Wheatley	\$ 144.28	\$ 251.05	\$ 395.33	4	15
Wheatley (Romney)	\$ 144.28	\$ 259.70	\$ 403.98	3	17
Merlin (Raleigh)	\$ 215.76	\$ 200.00	\$ 415.76	14	21
Merlin (Tilbury E.)	\$ 215.76	\$ 200.00	\$ 415.76	13	20
Tilbury	\$ 227.66	\$ 136.60	\$ 364.26	17	12
Dresden	\$ 271.41	\$ 327.96	\$ 599.37	22	25
Charing Cross	\$ 215.76	\$ 125.00	\$ 340.76	12	7
Bothwell	\$ 308.29	-	\$ 308.29	25	5
Mitchell's Bay	\$ 156.21	\$ 135.80	\$ 292.01	5	3
<i>Other Municipalities:</i>					
London	\$ 240.33	\$ 141.99	\$ 382.32	19	13
Guelph	\$ 88.76	\$ 170.25	\$ 259.01	1	2
Windsor ¹	\$ 184.07	\$ 230.09	\$ 414.16	8	18
St. Thomas	\$ 289.77	\$ 247.43	\$ 537.20	23	23
Leamington	\$ 228.80	\$ 171.60	\$ 400.40	18	16
Kingston	\$ 186.08	\$ 205.39	\$ 391.47	9	14
Sarnia	\$ 216.19	\$ 129.71	\$ 345.90	16	10
Kitchener	\$ 205.48	\$ 154.11	\$ 359.59	11	11
Stratford	\$ 104.76	\$ 149.81	\$ 254.57	2	1
Cambridge	\$ 180.39	\$ 144.13	\$ 324.52	7	6

¹ Windsor adds a \$1m³ surcharge in the summer months.

FIGURE 6-1
WATER RATE PRICING CONCEPTS



Drawing 1

FIGURE 6-1 (Cont'd)
WATER RATE PRICING CONCEPTS

