Public Information Centre - 2

Date: February 2, 2018

URBAN CENTRE WASTEWATER SERVICING

Phase 3 - Design Alternatives



Class Environmental Assessment Phase 3 & 4









Public Information Centre (PIC) Schedule

6:00 pm PIC Begins

Information boards to explain project

Project team available for questions

7:00 pm Presentation

8:00 pm Questions and Answers

9:00 pm PIC concludes





The Purpose of Today's Public Information Centre

- ➤ To provide an overview of past work on the Urban Centre Wastewater Servicing EA (UCWS EA) to residents of Erin Village, Hillsburgh and interested parties;
- ➤ To summarise findings of Phase 1 & Phase 2 of the UCWS EA which defined the service area and system size and population that could be serviced by the system, and defined the quality of treated wastewater to be discharged to the West Credit River;
- ➤ To present the findings of Phase 3 activities that examined design alternatives for each component of the system and identified a recommended design alternative solution;
- ➤ To receive comments on completed Phase 3 work;
- > To outline the project's next steps and proposed schedule.





Servicing and Settlement Master Plan (SSMP)

- ➤ The Urban Centre Wastewater Servicing (UCWS) Class EA follows from the completion of the Servicing and Settlement Master Plan (SSMP) in 2014 by B.M. Ross. The SSMP completed Phase 1 & part of Phase 2 of the Class Environmental Assessment process.
- ➤ The SSMP concluded that the Town should proceed with planning for a municipal wastewater system for both communities.
- ➤ The preferred alternative was identified as a single sewage treatment plant with an effluent discharge to the West Credit River between 10th Line and Winston Churchill Boulevard.
- ➤ The SSMP identified a potential buildout population of 6,000 constrained primarily by the West Credit River's assimilative capacity for phosphorus. This represented a increase in residential population of approx. 1,500.





UCWS EA Phase 1 and 2

Phase 1 and 2 work completed under the UCWS EA included:

- A review of the wastewater service area including both the existing communities and development areas and establishing a recommended service area for Erin Village and Hillsburgh;
- Determination of the system capacity needed to service the recommended service area including existing communities and development areas to full build out of the lands identified in the Town's Official Plan;
- An Assimilative Capacity Study defining the quality of treated wastewater effluent to be discharged to the West Credit River to meet the full build out capacity of the wastewater system;
- ➤ Confirmation that a wastewater treatment plant with a flow capacity of 7,100 m³/d servicing a residential population of approximately 14,600 residents could meet the treatment requirements for the discharge to the River;
- ➤ The recommended general alternative identified during the SSMP was confirmed as the preferred alternative.





Class Environmental Assessment (EA) Process

The Class EA process for Municipal Water and Wastewater projects consists of 5 Phases as follows:

Phase 1

Problem Definition

Phase 2

Identification and Evaluation of General Alternative Solutions

Phase 3

Identification and Evaluation of Design Alternative Solutions and second PIC

Phase 4

Completion of Environmental Study Report (ESR) followed by a 30 day Public Review period

Phase 5

Implementation of the project

We are here





General Project Update

- ➤ The project is in Phase 3 of the Class EA process, looking at Design Alternatives for the general alternatives identified in Phase 1 & 2
- Since the June 22, 2017 Public Information Centre (PIC) we have:
 - Worked with property owners, including executing agreements to get access for completion of studies;
 - Carried out all necessary field work;
 - Prepared "Draft" Reports and Technical Memorandums;
 - All Phase 3 Reports/Technical Memorandums have been on the Town website from Jan 10th.
- ➤ We are now in the Public Consultation part of Phase 3 and the team would appreciate receiving public comments before the end of February after which we will review the comments and prepare the Environmental Study Report in consultation wit the Town and the Public Liaison Committee prior to submitting the Environmental Study Report (ESR) for the mandatory 30-Day Public Review Period;





Phase 3 Reports/Technical Memorandums

The following Phase 3 Reports will remain in Draft until all comments are received from the public:

- 1. Natural Environment Report
- 2. Outfall Alternatives Technical Memorandum
 - Selects preferred site for discharge to West Credit River
- 3. Wastewater Treatment Plant (WWTP) Site Selection Technical Memorandum
 - Selects preferred site for WWTP
- 4. Collection System Alternatives Technical Memorandum
 - Identifies preferred Collection System
- 5. Pump Stations and Forcemains Routing Alternatives Technical Memorandum
 - Identifies preferred Forcemain routing between Hillsburgh and Erin
- 6. Wastewater Treatment Technology Evaluation Technical Memorandum
 - Identifies preferred treatment system
- 7. Other Reports include Cultural Heritage Assessment Report, Stage 1
 Archeological Assessment Report & Geotechnical/ Hydrogeological Report



Phase 3 Alternatives Evaluation Process

- ➤ Alternative design solutions were identified based on SSMP and Phase 2 work and potential impacts arising from each solution were defined;
- ➤ Natural Heritage/Social Environment potential impacts were identified;
- ➤ Technical solutions were sized and conceptual designs completed to identify advantages and disadvantages of each alternative;
- Natural Environment potential impacts including Geotechnical and Archaeological Resources were identified;
- > Economic Impacts were defined through life cycle costs;
- ➤ With consideration of the potential impacts a weighted scoring system was developed consisting of primary and secondary criteria;
- ➤ Secondary criteria's were scored for each alternative using 1 5 scores and the preferred alternative identified as the highest score;
- > Sensitivity analysis was conducted by varying primary weightings to confirm validity of preferred alternative;





Town of Erin – Urban Centre Wastewater Servicing

Typical - Evaluation Criteria Weighting System

WWTP Site Selection

Primary Criteria	Weight	Secondary Criteria	Weight
Social/Culture	15%	Impacts During Construction	20%
		Aesthetics	30%
		Effect on Residential Properties	30%
		Effect on Businesses/ Commercial Properties	10%
		Effect on Industrial Properties	10%
Technical	10%	Suitability of Elevation and Topography	50%
		Suitability for Phasing	20%
		Construction Impacts	20%
		Operation and Maintenance Impacts	10%
Economic	25%	Capital Cost	30%
Environmental	50%	Effect on Habitat/ Wildlife	30%
		Effect on Vegetation/ Wetlands	30%
		Effect on Groundwater	20%
		Effect on Surface Water/ Fisheries	20%

WWTP Liquid Train Selection

Primary Criteria	Weight	Secondary Criteria	Weight
		Aesthetic Impacts (plant appearance)	10%
	15%	Traffic Impacts (during construction and operation)	10%
Social / Culture	15%	Noise Impacts (during operation)	40%
		Odours Impacts (during operation)	40%
		Ability to Meet Regulatory Objectives	30%
		Technology / Process Robustness	30%
Tankainal	250/	Ease of Expansion and Phasing to Buildout	20%
Technical	35%	Energy Requirements	5%
		Operation & Maintenance Requirements	10%
		Site Requirements (plant footprint)	5%
Environmental	20%	Public Health and Safety	30%
		Sustainability	20%
		Climate Change Impacts / Greenhouse Gas Generation	20%
		Natural Environment Impacts	10%
		Waste Generation	20%
Economic	30%	Capital Cost	30%
		Operation and Maintenance Costs	40%
		Net Present Value	30%

Forcemain Route Selection

Primary Criteria	Weight	Secondary Criteria	Weight
Social/Culture	10%	Impacts During Construction	50%
		Traffic Disruption	20%
		Effect on Residential Properties	10%
		Effect on Commercial Properties	10%
		Effect on Industrial Properties	10%
Technical	30%	Operational Performance	20%
		Energy Requirements	30%
		Suitability for Phasing	10%
		Constructability	20%
		Operation and Maintenance Impacts	20%
	30%	Effect on Surface Water/ Fisheries	30%
Environmental		Effect on Vegetation/ Wetlands	30%
		Effect on Groundwater	10%
		Effect on Habitat/ Wildlife	30%
Economic	30%	Capital Cost	70%
Economic		Operational Costs	30%

Outfall Site Selection

Primary Criteria	Weight	Secondary Criteria	Weight
	10%	Impacts During Construction	30%
		Aesthetics (Appearance of discharge)	40%
Social/Culture		Effect on Residential Properties	10%
		Effect on Businesses/ Commercial Properties	10%
		Effect on Industrial Properties	10%
	10%	Functionality and Performance	30%
Taskeisel		Suitability for Phasing	10%
Technical		Constructability	30%
		Operation and Maintenance Impacts	30%
	60%	Effect on Surface Water/ Fisheries	50%
Environmental		Effect on Vegetation/ Wetlands	20%
		Effect on Groundwater	20%
		Effect on Habitat/ Wildlife	10%
Economic	20%	Capital Cost	100%





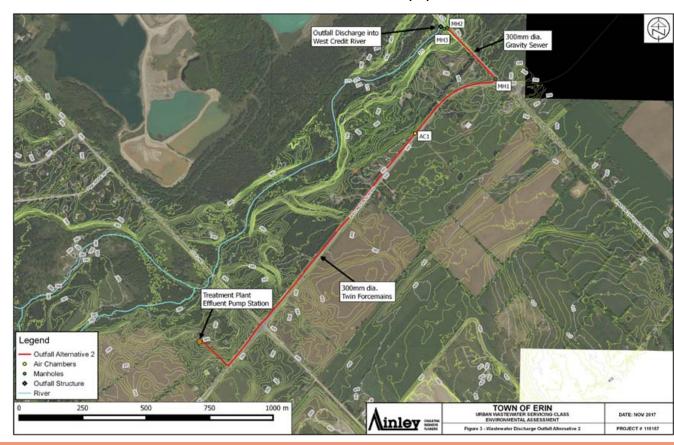
Treated Effluent Outfall Alternatives

Three locations, as noted below, were evaluated for the WWTP Treated Effluent Outfall to the West Credit River:

- ➤ Either side of Tenth Line / West Credit River (1A/1B)
- West side of Winston Churchill Boulevard / West Credit River (2)

Alternative 2 West Side of Winston Churchill Boulevard is recommended as the preferred discharge location for the following reasons:

- It avoids a significant fish spawning area between 10th Line and Winston Churchill:
- Provides optimal mixing for effluent.

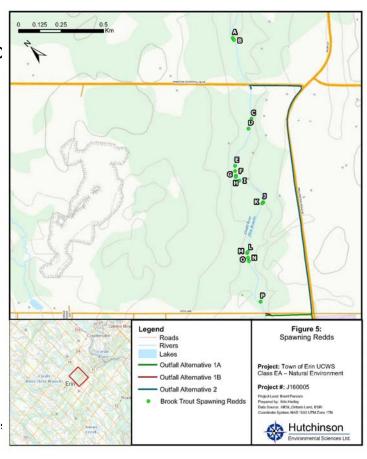






Natural Environment Effluent Outfall Assessment

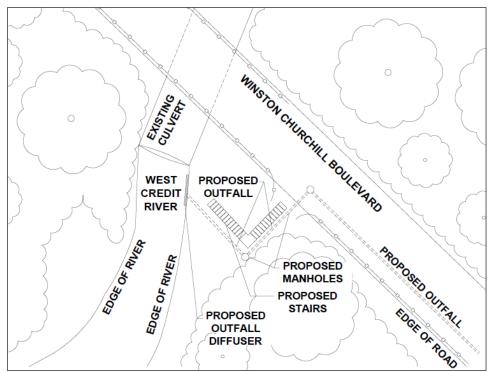
- ➤ Benthic invertebrates, fish habitat and fish were characterized at the potential effluent outfall locations and played a key role in the preferred effluent outfall location.
- ➤ The reach between the 10th Line and Winston Churchill Boulevard provides pristine coldwater habitat for Brook Trout.
 - ➤ The preferred effluent outfall location is therefore Winston Churchill Boulevard
- Mitigation measures were developed to minimize the impacts:
 - > Follow construction timing windows to protect fish,
 - Implement a erosion and sediment control plan,
 - Treat effluent to a high quality to protect water quality, and
 - Develop a comprehensive long-term monitoring program.





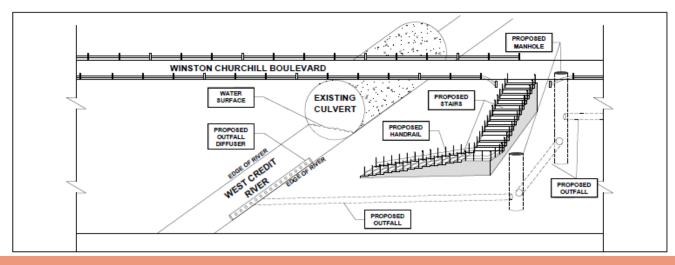


Town of Erin – Urban Centre Wastewater Servicing





- The effluent will be discharged into the river below the water surface.
- A diffuser with multiple ports will be used to promote good mixing of the effluent into the river.



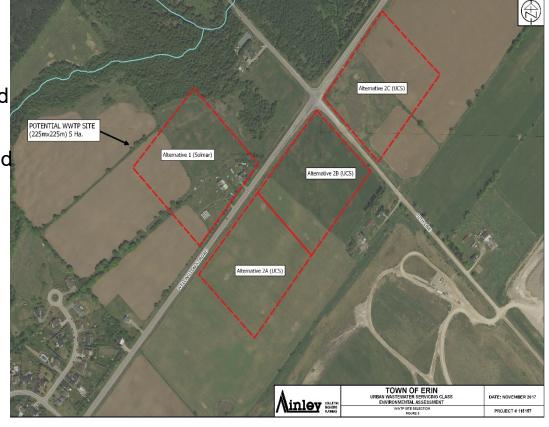




Wastewater Treatment Plant Site Selection Alternatives

Four locations have been evaluated for the WWTP site:

- Site 1 Solmar Lands
- ➤ Site 2A, B & C Halton Crushed Stone (HCS) Lands
- ➤ All four 5 Ha sites provide adequate buffer from residential developments;
- Sites 1 and 2B (after aggregate extraction) can be completely hidden from view of road and houses;
- All sites have Species at Risk (Bobolink and Eastern Meadowlark);
- Two evaluations were completed
 - One prior to aggregate extraction
 - One after aggregate extraction
 - The Solmar property (Site 1) is the preferred alternative prior to extraction;
 - Halton Crushed Stone (Site 2B) is the preferred after extraction.







Natural Environment Wastewater Treatment Plant Site Assessment

- ➤ Vegetation communities, Species at Risk, birds and amphibians were characterized at the potential WWTP locations and used to select the preferred WWTP location from an environmental perspective.
- > The preferred WWTP location was the Solmar Site (Site #1)
 - but each of the potential sites contained similar environmental features.
- ➤ Mitigation measures were developed to minimize the impacts associated with constructing a WWTP. Mitigation measures included:
 - ➤ Minimize the development footprint and locate facilities away from the habitat edge to avoid habitat loss and fragmentation.
 - Avoid construction during sensitive breeding periods for amphibians, reptiles and birds.
 - > Implement an erosion and sediment control plan to prevent runoff.





Town of Erin – Urban Centre Wastewater Servicing

- Conceptual Plant Layout Site Alternative 1 (Solmar)
- > Closest resident over 200m (660 ft) away

- Conceptual Plant Layout Site Alternative 2B (HCS)
- Closest resident over 250m (820 ft) away









Collection System Alternatives

Five collection system alternatives were evaluated, namely:

- A1: Gravity Collection System
- A2: Low Pressure Collection System
- A3: Vacuum Collection System
- A4: STEP/STEG Collection System
- A5: Blended Gravity/ Low Pressure Collection System
- ➤ A hydraulic model was developed for A1 to determine pipe sizing for both the existing and full build out flows.
- ➤ Vendors were identified and consulted for conceptual sizing for A2, A3, and A4.





Collection System Alternatives

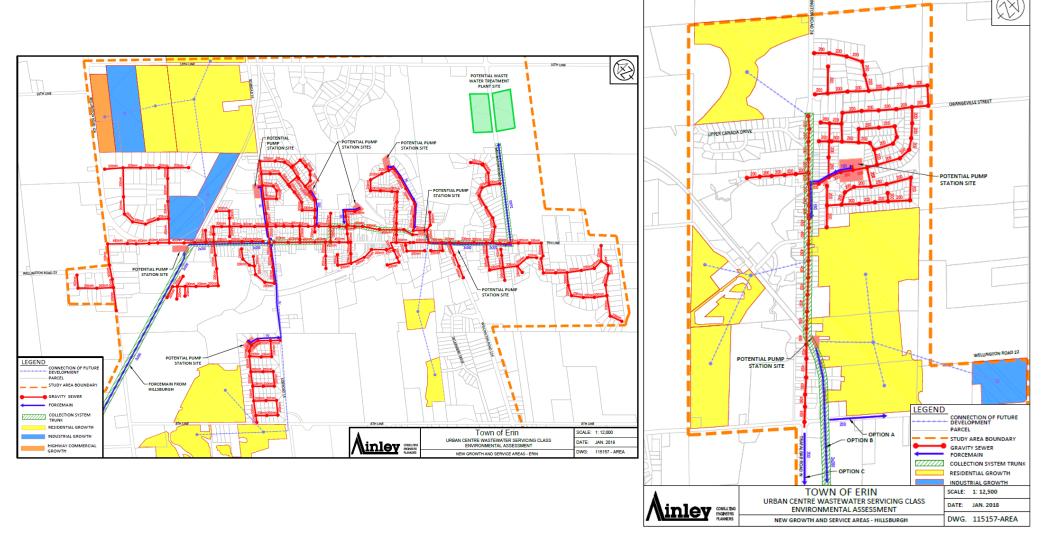
Alternative 5 Blended Gravity/Low Pressure Collection system recommended preferred Collection System alternative for the following reasons:

- Gravity system most commonly used system
- Gravity system best suited to Erin/Hillsburgh topography
- Provides the most secure, sustainable long term solution
- Provides the highest level of service to properties
- Lowest operating cost
- Not a proprietary system and does not depend on power supply at each property
- Two small localized areas are recommended for Low Pressure Sewers to avoid more costly Sewage Pumping Stations
- Suitable Sewage Pumping Station sites were identified based on the gravity alternative suitable to service full build out of both communities
- > All necessary surveys were conducted to define and mitigate potential impacts
- ➤ A trunk system wherein costs are shared between developers and the Town is suggested but will be refined based location and servicing plan for each development





Erin and Hillsburgh Collection System Layouts







Collection System Alternatives – Example Pumping Stations



The architecture of a pumping station can be designed to suit the surrounding area.





Erin to Hillsburgh Forcemain Alignment Routes

- > Three forcemain routes have been evaluated for the connection of Hillsburgh to Erin, as follows:
 - Elora Cataract Trail
 - 2. Wellington Road 22 / Eighth Line
 - 3. Trafalgar Road / Side Road 17
 - Alternatives were conceptually designed and costed and Natural Environment and Geotechnical assessments were conducted along the routes
 - Evaluation of the alternatives identified the Elora Cataract Trail as the preferred alternative for the following reasons:
 - Lowest capital and operating cost;
 - Concerns noted in Natural Environment Report can be mitigated and relate to short term construction impacts;
 - Least energy use;
 - Best technical solution.

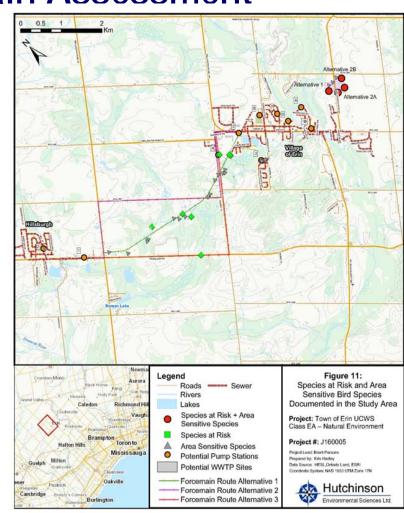






Natural Environment Hillsburgh to Erin Forcemain Assessment

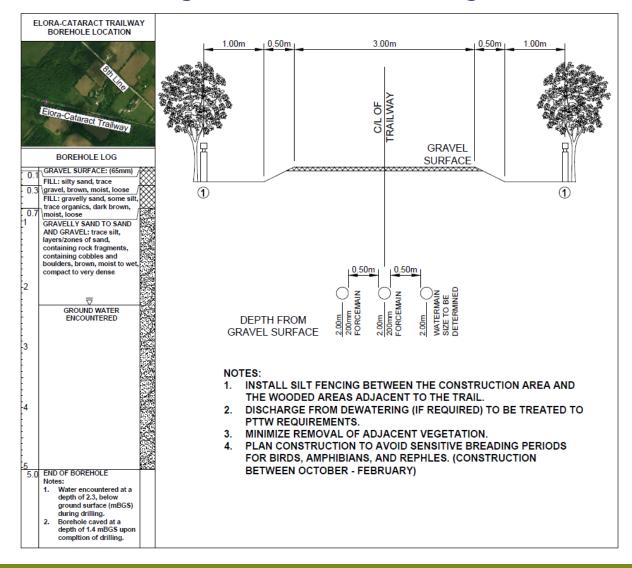
- ➤ Vegetation communities, Species at Risk, birds and amphibians were characterized to determine the feasibility of installing a forcemain along the Elora Cataract Trail between Hillsburgh and Erin
- ➤ The following sensitive features were identified:
 - West Credit River Provincially Significant Wetland,
 - Species at Risk (Snapping Turtle, Western Chorus Frog and 3 bird species), and
 - Significant Wildlife Habitat (habitat for sensitive birds).
- Impacts can be minimized to acceptable levels:
 - Minimize development footprint, vegetation clearing and manage topsoil,
 - Avoid sensitive breeding periods, and
 - Implement a sediment/erosion plan







Erin to Hillsburgh Forcemain Alignment Routes







Wastewater Treatment Technology Alternatives

An overview of the processes within a modern Wastewater Treatment Plant (WWTP) are identified below:

Process	Brief Description and Treatment Focus		
Preliminary / Primary Treatment	Removal of screenings and grit and Removal of settleable solids by gravity		
Secondary Treatment	Processes to oxidize organics, oxidize ammonia, remove nitrogen and phosphorus		
Tertiary Treatment Further removal of total phosphorus and suspended solids to rethe effluent criteria			
Disinfection	Inactivation of pathogenic organisms		
Biosolids Management	Process to thicken, stabilize and dewater the liquid sludge for reuse		

Important factors in identifying appropriate technologies:

- Very strict effluent criteria (Limits and Objectives) have been developed through the ACS process to protect the river water quality
- The enhanced tertiary treatment is required to achieve high removal rates for contaminants and nutrients





Treatment Technology Evaluation Process

For the treatment technology evaluation process we looked at separate components as shown in the adjacent table:

- First we assembled a "Long List" of candidate processes
- Then we "Short Listed" appropriate processes from the Long List
- Then we carried out a detailed evaluation of the Short Listed processes and assembled a recommended process for each treatment train process.

Description		
	Primary/Secondary	
Liquid Train	Tertiary	
	Disinfection	
Solids Train	Sludge Stabilization	
	Septage Treatment	

In compiling the Long List of potential treatment technologies they had to:

- > Have proven reliability treating municipal wastewater in similar size and climate
- > Have a proven history being able to achieve regulatory compliance
- ➤ Have a proven history being able to achieve effluent compliance
- > Be cost effective
- ➤ Short Listed treatment processes were then sized, costed, conceptually designed and compared against a set of detailed evaluation criteria
- Budgetary quotes were obtained from vendors but process selection is not vendor specific. For most selected processes, multiple vendors exist



Long Listed of Alternative Short Listed Alternative

Recommended Alternative



Wastewater Treatment Technology Evaluation

To illustrate the range of processes considered the long lists are shown below:

❖ Liquid Train:

Primary/Secondary

> CAS; Modified CAS; Extended Air; SBR; RBC; MBR; MBBR; IFAS; BAF

Tertiary/Disinfection

> Two Stage Sand Filters; Disc Filters; High Rate Clarifier; Adsorptive Deep Bed Filters; Low Pressure Membranes; UV Disinfection; Chlorine Disinfection

❖ Solids Train:

Aerobic; Anaerobic; Alkaline Stabilization; ATAD, Thermal Drying

❖ Septage Treatment:

Co-Treatment; Pretreatment/Co-Treatment; Separate Treatment; Lagoon

Based on the evaluation process the recommended treatment processes are shown below:

Process	Recommended Treatment Technology	
Preliminary/ Primary Treatment	Course screen and grit removal followed by a rotating belt filter	
Secondary Treatment	Membrane Bioreactor	
Tertiary Treatment	Membrane Bioreactor	
Disinfection	Ultraviolet Light (UV)	
Biosolids Management	Autothermal Thermophilic Aerobic Digestion (ATAD)	

In addition, the recommended solution for Septage Treatment is to pre-treat the septage and then co-treat the liquid component in the main plant.





Typical Modern Wastewater Treatment Plant

- Buildings enclosed
- Majority of tanks covered and ventilated to central odour control system







Odour Management

Majority of treatment processes enclosed in buildings or in covered tanks and have odour management systems in place

TREATMENT PROCESS	LOCATION / MITIGATION
Preliminary & Primary Treatment	Enclosed in Headworks Building with odour control system
Aeration tank	Open to atmosphere - not odourous under normal conditions
Membrane Modules	Enclosed in Membrane Building with odour control
Sludge/Biosolids System	Enclosed in building equipped with odour control system
Septage Receiving/Storage	Underground tank with odour control system. No odour issues reported for Geotube septage treatment.



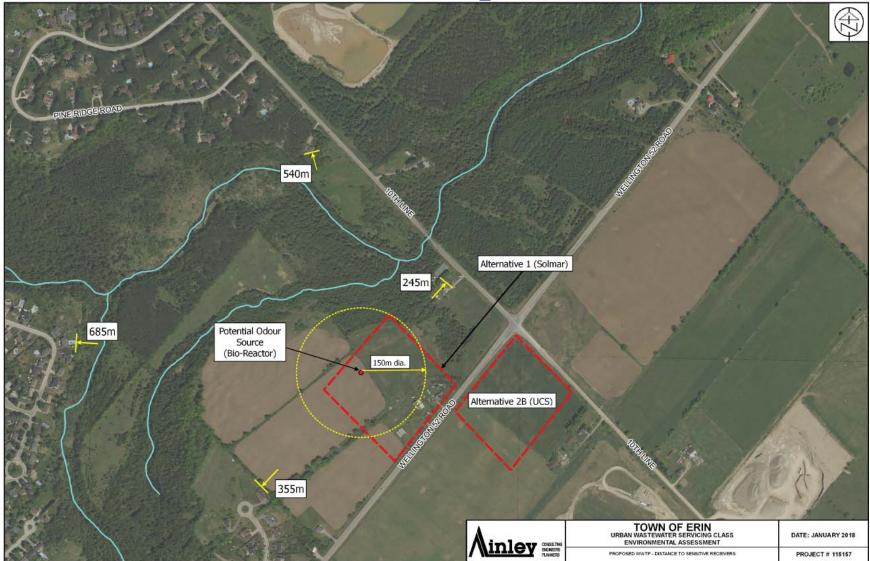
Example Odour Management System

- Wastewater Treatment Plant will have at least 200 meters (660 ft) separation from nearest resident.
- Odour control systems to be designed to comply with MOECC odour limits.





Odour Management







Sludge/Biosolids Disposal

- ➤ The recommended treatment process for Biosolids is a heated digestion process called ATAD that will produce a stabilized liquid suitable for use as a fertilizer product;
- > The likely disposal method is land application on farm fields
 - ➤ Liquid biosolids can be injected into the soil
 - ➤ Land application not restricted to lands within Erin/Hillsburgh
 - > A biosolids handling contractor would secure sites for land application
- > The biosolids product is both stabilized and pasteurized
 - Other digestion technologies only stabilize product use restricted to land application
 - > ATAD product has no use restrictions
 - Can be dewatered and dried to create a commercially marketable fertilizer without additional treatment.





Cost Analysis – Cost Components

There 3 cost components for associated with the Wastewater System:

> System Capital Cost

- ➤ Identifies the cost to construct the entire wastewater system up to the street line outside each property
- Financed by the Town and paid for by connected properties typically over a number of years usually with payment options

▶ Property Connection Cost

- ➤ Is the cost to connect the system from the street into each property
- > Paid for directly by the property owner at time of connection

> System Operating Cost

➤ Paid for through monthly billing to serviced properties through user rates, similar to water rates





Total Number of Properties to Be Serviced

The wastewater system will serve the existing community including both infill and intensification, as well as potential development areas identified in the Town's Official Plan representing a residential population of approximately 14,600.

Existing Community



Current Residential,
Commercial, and
Industrial Units

1,800

Additional Potential units with infill and intensification in existing community

872

Total (equivalent units) 2,6

2,672

Full Build-Out (including existing)





Development Potential Residential, Commercial, and Industrial Units

Total (equivalent units)

6,740





Preliminary Capital Costs – Servicing Full Build Out (6,740 Equivalent Units)

➤ The following capital cost estimate was prepared to service the full buildout of the community. The cost of the system would be shared between the existing community and the development community.

Existing Community

Total system cost

\$50 - 60 million

- Costs paid by residents
- Includes a share of treatment costs
- Includes a share of the collection system costs up to the property line
- Does not include costs for connection on private property

Future Development

New growth

\$58 - 68 million

- Costs paid by developers
- Includes a share of treatment costs
- Includes a share of collection system costs
- Does not include sewers within future subdivisions





Cost Share to Existing Community

- This table shows the existing community share of costs per household for the 3 main components (Capital Cost, Property Connection Cost & Annual Operating Cost) of the wastewater system.
- Also identifies the costs, if the Town were to obtain a Federal or Provincial 2/3 grant for the wastewater system.
- > Existing community would not pay any monies towards wastewater system for future development.
- > Assumes future residential population of 14,600.

Cost Components	Base Cost	Receive significant Grant (2/3) from Federal or Provincial Government
 System Capital Costs Wastewater Treatment Plant Sewage collection system Town funded 	Preliminary Cost Estimate \$20,000 - \$25,000 per household	Preliminary Cost Estimate \$6,700 - \$8,300 per household
 Property Connection Cost Connecting from property edge to house Paid separately by each owner Costs will vary and are dependent on lot size and form Includes pumping out and filling of septic tank with sand 	Average approx. cost \$6,000 ± per household	Average approx. cost \$6,000 ± per household
 System Annual Operating Cost Ongoing operations and maintenance Paid through user fees, similar to municipal water system 	Yearly costs per household \$400 - \$500	Yearly costs per household \$400 - \$500



Town of Erin – Urban Centre Wastewater Servicing

Private Property Connection Costs

- Municipal Wastewater Systems collect wastewater at the municipal property line and as noted are the responsibility of each property owner;
- A field survey of the community was conducted to estimate costs for connection to each existing property;
- The cost for residential homes will depend on landscaping and lot size;
- > The cost for larger commercial properties will depend on connection size, lot size and complexity;
- The estimated average cost for a residential connection was determined to be \$6,000±

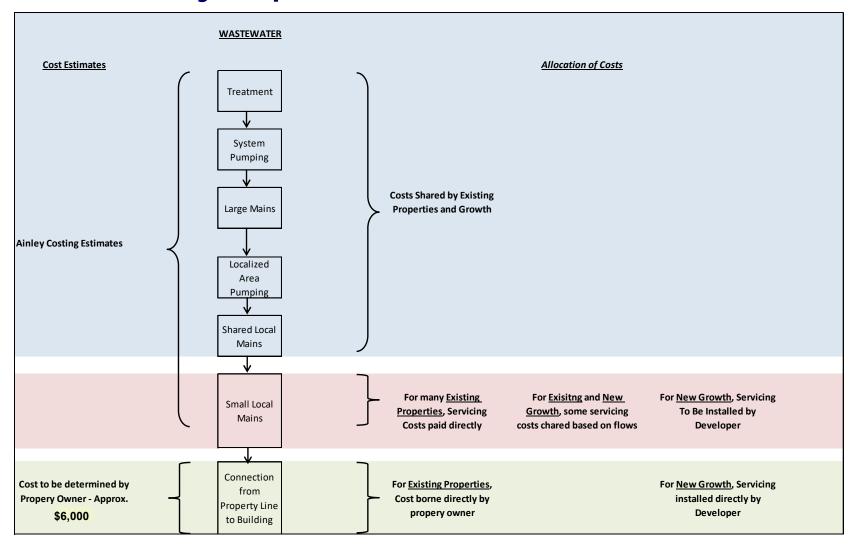
Estimated Annual Operating Costs

- The SSMP identified an average cost per household of \$422 per year to operate the system based on a 6,000 population. However, this did not include system capital cost recovery;
- Similar to Water Supply, Wastewater user rates reflect a balance between revenue and expenses to operate the system and make allowance for reserves for future system replacement;
- Wastewater rates typically include a fixed/basic charge and a usage rate linked to the household water use and are typically slightly higher than water rates;
- Wastewater rates will likely reduce as new customers are added;
- Based on other local municipalities with similar size, it is anticipated that the annual operating costs per customer range from \$400 to \$500 per year.





Preliminary Capital Costs – Allocation of Costs







Town of Erin – Urban Centre Wastewater Servicing

Preliminary Capital Cost, Project Funding and Capital Financing Options

- Municipal Act Part 12 (Fees and Charges)
- Municipal Act Local Improvement Regulation
- Development Charges
- Developer Assistance

- Grants
- Debt (Infrastructure Ontario)
- Private-Public Partnership (3P)

Preliminary Capital Cost, Project Funding – Debt Capacity

- MMAH regulations allow municipalities to issue debt to the limit of where annual debt payments equal 25% of total own revenues
- Erin's debt capacity would allow between \$15 million (10 year debt) \$24 million (20 year debt)
- The above does not take into account other capital needs of the municipality
- To undertake the servicing project, grant funding or other contributions will be needed

Financial Observations

Based on the foregoing:

- Town needs to pursue Federal/Provincial grants to reduce the overall impact onto property owners;
- Grants are also needed to be able to remain within the Town's debt capacity limits;
- Municipal Act (Part 12) charges for existing properties would be the primary basis for recovery;
- For growth related costs, developing landowners would need to prepay their charges to offset the cost of borrowing;
- Staging of the works could be considered, as the Wastewater Treatment Plant and Collection System could be constructed in stages.





Property Values

There are a number of potential impacts on property values for homeowners.

- Property value likely to rise if new system replaces old or leaky septic system.
- Reduced maintenance costs and reliability of system may also raise property value.
- Connection costs include the price of connection and decommissioning of existing septic system to a reasonable standard of safety (waste removed and backfilled with sand and gravel)
 - Full removal of existing septic is discretionary and at the Owner's choice
- Municipal long term loans are used as a financing method, that could remain in place for new homeowners. (loans usually remain with the property but often subject to negotiation between seller and purchaser)







Town of Erin – Urban Centre Wastewater Servicing

Project Funding and Capital Financing Options

There are a number of options that the Town has for funding sources and financing methods that may help reduce costs for residents:

1. Provincial and Federal Grants

Provincial and Federal grants have been available for infrastructure development and wastewater treatment and the Town is currently pursuing funding from these levels of government.

2. Development Charges

If the Town chooses growth, development charges may be placed on properties that are to be built on or intensified, bringing down the overall cost for current residents.

3. Developer Assistance

In order to ensure that there is a potential for growth through new subdivisions, developers may opt to assist the Town with funding to support the wastewater system.

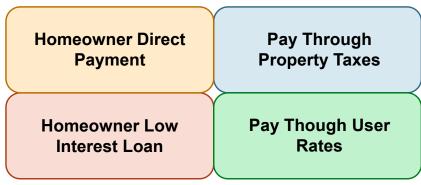
4. Debt

The Town is considering various options to take on debt to fund the system, allowing residents to pay their share over time via a municipal loan, rather than a single lump sum.

Funding – How Will I Pay?

There are a number of potential approaches for residents to pay the cost of the new system. The Town is currently considering options and seeking input on how best to soften and reduce the impact on current home owners.

Some of the potential options include:







Schedule to Class EA Completion

- PIC February 2, 2018
- Receive Public and Agency Comments until February 28, 2018
- Prepare Draft ESR by early April 2018
- ESR Reviews and Council acceptance before end of April 2018
- 30 Day Public Review Process May 2018





Project Implementation Schedule

After successful completion of the Class EA process, including any Part II Orders:

Description	Estimated Time
Complete Preliminary & Detailed Design of the WWTP and Collection System	18 Months
Obtain MOECC ECA Approvals for WWTP and Collection System	12 months
Tendering and Construction of WWTP and Collection System	24 months

In addition, the following independent processes would also have to be completed:

- Official Plan Amendment confirming the projected growth for each community.
- Completion of Water Supply Class EA to locate sufficient water to meet the projected growth in each community;
- Securing project funding and agreements for cost sharing.





YOUR COMMENTS ARE IMPORTANT TO US

Please complete a Comment Sheet or take one home with you.

Comment Sheets may be placed in the comment box or returned to the study team by Email or regular Mail to:

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We would appreciate receiving your comments by February 28, 2018

