Please complete the sign-in sheet and review the display materials. Our representatives will be pleased to answer your questions and discuss any concerns.

Your input is much appreciated!
Introduction
The purpose of this Class EA study is to identify the preferred solution to address the long-term water storage needs in Pressure District (PD) 18 in Ancaster and PD-13, PD-14 and PD-15, and to mitigate pressure and operational issues in the system.

The preferred solution would improve system security and reliability, provide operations and maintenance savings, and alleviate pressure issues.

This project is classified as a Schedule ‘B’ Class EA and is being undertaken in accordance with Phases 1 and 2 of the Municipal Class Environmental Assessment process.

Purpose of this Public Information Centre
As part of the Class EA process, the public is invited to provide feedback for consideration in the planning and design of this project. The Class EA process ensures that the opportunity is given to Agencies and the public to provide comments and voice concerns regarding environmental, social, cultural, economic and other potential issues related to the project.

This evening’s Public Information Centre (PIC) is being held to allow local residents, landowners, and other stakeholders to:

- Review and discuss the information being presented with City staff and its Consultant
- Voice concerns regarding the project
- Provide input for the City to consider during this Class EA
- Discuss potential construction impacts to local residents, businesses and other stakeholders

The Study Area
The Study Area boundary shown below has been identified.
Municipal Class Environmental Assessment (EA) Process

The Ancaster Elevated Water Reservoir project corresponds to a Schedule ‘B’ undertaking, in accordance with the planning process outlined in the Municipal Engineers Association (MEA) Municipal Class Environmental Assessment document (October 2000, amended in 2007, 2015). As such, the Study requires the completion of Phases 1 and 2 of the MEA Class EA process. Upon completion of the Study, a Phase 1 and 2 Class Environmental Assessment Project File Report will be prepared and filed for comment.
Ancaster Elevated Water Reservoir
Schedule ‘B’ Municipal Class EA
Panel No. 3

Problem Statement

The existing water system requires continuous pumping to meet the varying water demands, which results in high electricity and maintenance costs. Furthermore, the system is vulnerable to emergency situations such as watermain breaks and loss of power.

Historically, low water pressure issues have been reported in the high elevation areas of Ancaster (corresponding roughly to areas northwest of Wilson Street). To address these issues the City has modified the operation of the HD018 Pumping Station to run at a higher pressure. This change in operation philosophy has resulted in increased water recirculation within the station, lower pump efficiency, increased equipment wear and tear, and increased maintenance and energy costs.

It is the City’s objective to provide adequate water services to its residents, businesses and industries to meet existing community needs in an efficient and cost-effective manner.

Therefore, a solution is required in Ancaster to improve water system security and reliability, to alleviate system pressure issues, and to improve the efficiency and reduce operation and maintenance costs.
## Alternative Servicing Strategies

Several alternative servicing strategies were considered. These included:

- **Do Nothing - Retrofit of the Pumps at HD018 Pumping Station**
- **Alternative 1 - Upgrade HD018 Pumping Station** (*
- **Alternative 2 - Upgrade HD018 Pumping Station and Construction of a New Elevated Water Reservoir**

### Preferred Servicing Strategy

The preferred servicing strategy is to upgrade HD018 pumping station and to construct a new elevated water reservoir in Ancaster. This alternative was preferred because it provides more reliability, results in more efficient operation, reduced energy costs and greenhouse gas emissions and results in the lowest overall lifecycle cost.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Description</th>
<th>Preferred Servicing Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Do Nothing</strong> - Retrofit of Existing Pumps at HD018 PS</td>
<td>Current mode of operation at the Garner Road HD018 pumping station will be maintained. The existing pumps will be replaced with similar capacity pumps.</td>
<td>Construction of a new booster station and in-ground reservoir to service high elevation areas in Ancaster.</td>
</tr>
<tr>
<td><strong>Alternative 1</strong> - Upgrade HD018 PS (*)</td>
<td>The pumps at the HD018 pumping station will be replaced with larger capacity pumps.</td>
<td>Construction of a new booster station to service high elevation areas in Ancaster.</td>
</tr>
<tr>
<td><strong>Alternative 2</strong> - Upgrade HD018 and Construct a New Elevated Water Reservoir</td>
<td>An elevated water reservoir will be constructed. Various pieces of equipment including the pumps at the HD018 pumping station will be replaced.</td>
<td></td>
</tr>
<tr>
<td><strong>Alternative 3</strong> - Upgrade HD018 PS and Construct a New Booster Station</td>
<td>Construction of a new booster station to maintain supply. Increased energy costs. Requires standby power to maintain supply during power outages. High lifecycle costs.</td>
<td></td>
</tr>
<tr>
<td><strong>Alternative 4</strong> - Upgrade HD018 PS and Construct a New Booster Station and In-Ground Reservoir</td>
<td>Depend on Garner Road HD018 PS to maintain supply. Increased energy costs. Requires standby power to maintain supply during power outages. Highest lifecycle costs.</td>
<td></td>
</tr>
</tbody>
</table>

### Evaluation of Alternative Servicing Strategies

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Description</th>
<th>Risk Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Do Nothing</strong> - Retrofit of Existing Pumps at HD018 PS</td>
<td>Unsustainable. Station failure is imminent due to poor condition. Major rehabilitation would be required in addition to replacement of the pumps.</td>
<td>5</td>
</tr>
<tr>
<td><strong>Alternative 1</strong> - Upgrade HD018 PS (*)</td>
<td>Can satisfy technical requirements. However, results in high operations and energy costs.</td>
<td>4</td>
</tr>
<tr>
<td><strong>Alternative 2</strong> - Upgrade HD018 and Construct a New Elevated Water Reservoir</td>
<td>Water supply is uninterrupted by power outages and other emergencies within the pressure district. Provides superior equalization of daily flow cycles and system pressures. Permits power-saving time-of-day filling approaches. Lowest lifecycle cost.</td>
<td>1</td>
</tr>
<tr>
<td><strong>Alternative 3</strong> - Upgrade HD018 PS and Construct a New Booster Station</td>
<td>Dependent on HD018 PS to maintain supply. Increased energy costs. Requires standby power to maintain supply during power outages.</td>
<td>3</td>
</tr>
<tr>
<td><strong>Alternative 4</strong> - Upgrade HD018 PS and Construct a New Booster Station and In-Ground Reservoir</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

(*) - Pumping Station will be on the same site as existing
Ancaster Elevated Water Reservoir
Schedule ‘B’ Municipal Class EA
Panel No. 5

Elevated Reservoir Site Selection Criteria & Constraints

- Top water level of the elevated reservoir > 294 m
- Seek to minimize overall height of the elevated reservoir
- Ground elevations > 233 m to minimize pedestal height
- Compatible Land Use Designation (Outside Greenbelt Area and Niagara Escarpment boundary)
- Away from John C. Munro Hamilton International Airport Zoning Regulation areas
- Consider property acquisition requirements
- Preferred 60 m x 100 m site area with good road access. 60 m x 60 m minimum site area.
- Proximity to existing watermain infrastructure
- Lowest aesthetic impact on existing residents and customers
- Minimum natural/heritage/environmental impacts
- Optimum distribution system hydraulics to provide adequate pressure and fire flows

Constraints Map

Elevated Water Reservoir Site Selection – Key Considerations
Ancaster Elevated Water Reservoir
Schedule ‘B’ Municipal Class EA
Panel No. 6

Elevated Water Reservoir Site Evaluation Criteria

NATURAL ENVIRONMENT CONSIDERATIONS
- Proximity to Environmentally Sensitive Areas (e.g. Greenbelt, Niagara Escarpment and Conservation Authority Regulated Areas)

SOCIAL & CULTURAL ENVIRONMENT CONSIDERATIONS
- Proximity to built heritage areas and areas of archaeological importance
- Aesthetic impact on existing and proposed development
- Availability of Suitable Sites/Property Ownership
- Traffic impacts during construction
- Air and noise impact during construction

TECHNICAL CONSIDERATIONS
- Ground elevation
- Constructability and site access
- System reliability and hydraulic performance

ECONOMIC CONSIDERATIONS
- Capital cost
- Land acquisition costs
- Distance of new watermain connection to existing system
Natural Heritage Assessment

Azimuth Environmental Consulting Inc. completed a preliminary Natural Heritage Assessment of the alternative sites identified within the Study Area. The objective of the assessment was to identify potential environmental constraints and opportunities that may assist in the evaluation of alternatives from an environmental perspective.

The assessment involved a review of data from City of Hamilton, Ministry of Natural Resources, Hamilton Conservation Authority and Grand River Conservation Authority to identify Areas of Natural and Scientific Interest (ANSI), Environmentally Sensitive Areas, Wetlands (Locally and Provincially Significant), Woodlands, drainage courses, and occurrences of Species at Risk.

Also as part of the assessment, conducted field surveys to determine the presence of vegetation, birds, amphibians, and Species at Risk.

Natural Heritage Assessment Findings

<table>
<thead>
<tr>
<th>SITE</th>
<th>NATURAL FEATURES ASSOCIATED WITH PROPERTY</th>
<th>SUITABILITY FOR ELEVATED WATER RESERVOIR</th>
</tr>
</thead>
</table>
| 1    | Dundas Valley Forests Life Science ANSI on adjacent lands.  
• Within the Plan area of the Niagara Escarpment Commission.  
• No significant natural features were identified within the manicured areas. | The site includes areas of previously disturbed land. An elevated water reservoir can be constructed in these areas. |
| 2    | Areas of ground water seepage were observed in a remnant woodlot – this area is identified as a PSW by the City of Hamilton.  
• Manicured areas offer no natural features of note. | The site includes areas of previously disturbed land. An elevated water reservoir can be constructed in these areas. |
| 3, 4, 7 - 12 | No significant natural features were identified, although there is the City’s Natural Heritage System and unevaluated wetlands within close proximity. Further investigation is required. | No significant natural features were identified. However, there is the City’s Natural Heritage System and unevaluated wetlands within close proximity. An elevated water reservoir can be constructed in this area provided it does not affect the Natural Heritage System and wetlands. |
| 5    | City of Hamilton identified SAR (American Chestnut) and Significant Woodlands within the property limits. | The area is within Significant Woodlands and habits American Chestnuts. An elevated water reservoir cannot be constructed in this area. |
| 6    | Potential habitat for Barn Swallow (Threatened) on adjacent lands. No habitat for Barn Swallow was observed within the property limits.  
• Intermittent drainage features have been identified. | An elevated water reservoir can be constructed outside of the mandated vegetated buffers for natural features. |
Archaeological, Built, and Cultural Heritage Assessments

Archaeological Services Inc. and ARA Ltd. completed Stage 1 archaeological assessments as part of this Class EA study. The objective of the Stage 1 assessment was to determine the presence or absence of known archaeological sites in the Study Area and in proximity to the Alternative Sites for the proposed Ancaster Elevated Water Storage Facility, and to identify the need for Stage 2 archaeological assessments for areas identified during the Stage 1 assessment as having potential archaeological planning concerns.

Stage 1 Assessment Findings

The Stage 1 assessment involved background research concerning the known and potential archaeological resources in the Study Area. The conclusions of the assessment are summarized below:

- 204 archaeological sites registered within 1 km of the alternative sites
- Geography and history of area suggest that there is potential for the recovery of Aboriginal and Euro-Canadian archaeological resources
- Site 1: Mainly disturbed with some areas of potential. Near Designated Built Heritage Area. **Stage 2 Archaeological Assessment required.**
- Sites 3, 4, 7-12: Archaeological and built heritage potential – **Stage 2 Archaeological Assessment required**
- Site 5: Mix of low/wet conditions and areas with potential. **Stage 2 Archaeological assessment required**
- Site 6: Area disturbed by grading and heavy landscaping. Previously assessed in 2004. No archaeological potential found.
Alternative Elevated Storage Locations with Representative Sites
## Ancaster Elevated Water Reservoir

Schedule ‘B’ Municipal Class EA

Panel No. 11

### Elevated Water Reservoir Evaluation Table

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Site #1</th>
<th>Site #2</th>
<th>Site #3, #4, #7 to #12</th>
<th>Site #5</th>
<th>Site #6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wade Ancaster Community Park</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Environment Considerations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proximity to Environmentally Sensitive Areas</td>
<td>In Niagara Escarpment</td>
<td>Identified as Provincially Significant Wetland by City. Sections of</td>
<td>No natural features of note.</td>
<td>American Chestnut and Significant Woodlands located within the site.</td>
<td>No environmentally sensitive areas within the site.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>previously disturbed areas. No natural features of note.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Cultural Environment Considerations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proximity to Built Heritage Areas</td>
<td>Near Designated Built Heritage Area</td>
<td>Near Designated Built Heritage Area</td>
<td>Areas listed in the City’s inventory of Buildings of architectural and</td>
<td>Not in the proximity of any Built Heritage Areas</td>
<td>Not in the proximity of any Built Heritage Areas</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Historical Interest.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proximity to Archaeological and Cultural Heritage Areas</td>
<td>Several sections appear undisturbed and retain archaeological potential.</td>
<td>Several sections appear undisturbed and retain archaeological potential.</td>
<td>A Stage 2 Archaeological Assessment is required. A Stage 2 Archaeological Assessment is required.</td>
<td>Area disturbed by grading and heavy landscaping. Previously assessed in</td>
<td>Area disturbed by grading and heavy landscaping. Previously assessed in</td>
</tr>
<tr>
<td></td>
<td>A Stage 2 Archaeological Assessment is required.</td>
<td>A Stage 2 Archaeological Assessment is required.</td>
<td>Area has been identified as Cultural Heritage Resources.</td>
<td>2004. No archaeological potential found.</td>
<td>2004. No archaeological potential found.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aesthetic Impact</td>
<td>High, in the Niagara Escarpment</td>
<td>High, within residential areas</td>
<td>Low, south of Garner Rd.</td>
<td>High, within residential areas</td>
<td>High, within residential areas</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land Ownership</td>
<td>Owned by the City</td>
<td>Owned by the City</td>
<td>Owned by the City</td>
<td>Owned by the City</td>
<td>Owned by the City</td>
</tr>
<tr>
<td>Noise, Traffic, and Dust Impacts Disrupting Surrounding Area During Construction</td>
<td>High, near residential areas. High traffic impact on Jersville Rd. W.</td>
<td>High, within residential areas. High traffic impact on Fiddler’s Green Rd.</td>
<td>Low, south of residential areas. High traffic impact on Garner Rd.</td>
<td>High, within residential areas. Low traffic impact on local roads.</td>
<td>High, within residential areas. Low traffic impact on local roads.</td>
</tr>
<tr>
<td>Economic Considerations</td>
<td>$8.8</td>
<td>$9.0</td>
<td>$8.3</td>
<td>$6.9</td>
<td>$7.3</td>
</tr>
<tr>
<td>Technical Considerations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest Height including Land Acquisition ($M)</td>
<td>38 m</td>
<td>48 m</td>
<td>38 m</td>
<td>47 m</td>
<td>49 m</td>
</tr>
<tr>
<td>Constructability and Site Access</td>
<td>Accessible by urban local road Jersville Rd.</td>
<td>Accessible by minor arterial road Garner Rd.</td>
<td>Accessible by minor arterial road Fiddler’s Green Rd.</td>
<td>Accessible by urban local road Bookmas Dr.</td>
<td>Accessible by urban local road Vinton Rd.</td>
</tr>
<tr>
<td></td>
<td>Located within the highest elevation area of the pressure district, near</td>
<td>Located within the highest elevation area of the pressure district, near</td>
<td>Located within the highest elevation area of the pressure district, near</td>
<td>This Site is the least preferred hydraulically due to the distance to the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>the areas more likely to experience low pressures. The distance from the</td>
<td>the areas more likely to experience low pressures. The distance from the</td>
<td>the areas more likely to experience low pressures. The distance from the</td>
<td>west side of the pressure district, which is more likely to experience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>pumping station and the size of the pipe feeding the site results in greater</td>
<td>pumping station and the size of the pipe feeding the site results in greater</td>
<td>pumping station and the size of the pipe feeding the site results in greater</td>
<td>experience low pressures. Low pressure during maximum dry condition. In</td>
<td></td>
</tr>
<tr>
<td></td>
<td>pressure losses.</td>
<td>pressure losses.</td>
<td>pressure losses.</td>
<td>addition, the tank location is serviced by 300mm diameter pipes.</td>
<td></td>
</tr>
<tr>
<td>System Reliability and Hydraulic Performance</td>
<td>Located within the Niagara Escarpment and near a designated built</td>
<td>Located beside a designated built heritage area and a Provincially</td>
<td>Located within any environmentally sensitive areas or built heritage</td>
<td>Located within the American Chestnut and Woodlands area. Not near any</td>
<td>Not located near any environmentally sensitive areas or built heritage</td>
</tr>
<tr>
<td></td>
<td>heritage area. Contains archaeological potential. Owned by the City.</td>
<td>Significant Wetland. No archaeological potential. High impact during</td>
<td>areas or built heritage areas. Contains archaeological potential.</td>
<td>built heritage areas. Owned by the City. High impact during construction</td>
<td>areas or built heritage areas. No archaeological potential. Large</td>
</tr>
<tr>
<td></td>
<td>High aesthetic impact on the Escarpment and high impact during</td>
<td>construction due to being within a major residential area. Owned by the</td>
<td>High impact during construction due to being within a major residential</td>
<td>High impact during construction due to being within a major residential</td>
<td>Large aesthetic and construction noise impact on the residential area.</td>
</tr>
<tr>
<td></td>
<td>construction. Reduced tank height. Accessible by urban local roads.</td>
<td>City. Reduced tank height. Accessible by minor arterial road. Most</td>
<td>area. Tank is required to be taller due to lower ground height. Accessible</td>
<td>area. Tank is required to be taller due to lower ground height. Accessible</td>
<td>No archaeological potential. Large</td>
</tr>
<tr>
<td></td>
<td>Less preferred hydraulically.</td>
<td>preferred hydraulically.</td>
<td>only by urban local roads. Most preferred hydraulically.</td>
<td>only by urban local roads. Most preferred hydraulically.</td>
<td>Large aesthetic and construction noise impact on the residential area.</td>
</tr>
</tbody>
</table>

### Summary

- Least preferred
- Less preferred
- Most preferred
- Least preferred
- Less preferred
- Most preferred
- Least preferred
- Less preferred
- Most preferred
- Least preferred
**Preferred Solution**

Sites 3, 4 and 7 through 12 are the preferred sites of the elevated water reservoir. The specific location will depend on property acquisition negotiations. Initial consultation with the John C. Munro Airport has concluded that all sites being evaluated would have no impact on the airport, although further investigation and consultation is required.

These sites will have minimal impact on environmentally sensitive areas and built heritage areas. There will also be minimal noise and dust impacts during construction as the sites are south of the major residential areas.

These sites are preferred because they are south of Garner Rd. and not near major residential areas.

These sites result in superior hydraulic performance due to their proximity to the trunk watermain on Gardner Road and their central location in the water supply network.
Ancaster Elevated Water Reservoir
Schedule ‘B’ Municipal Class EA
Panel No. 13

Next Steps

Public Consultation Centre # 1
Tuesday September 25th, 2012
- Comment Sheets from Public Information Centre
  Incorporation of comments received from Public and Review Agencies
- Evaluation of Alternative Solutions
  Identification of Recommended Solution (Siting of Elevated Tank)

We are Here

Public Consultation Centre # 2
Wednesday October 5th, 2016
- Comment Sheets from Public Information Centre (due to Project Team by October 25th, 2016)
  Incorporation of comments received from Public and Review Agencies
- Incorporation of Comments received from Public and Review Agencies
- Selection of Preferred Site Location
- Prepare Project File Report
  Distribute for Agency Review
- Issue Notice of Study Completion
  File Class EA Report followed by a mandatory 30-day Public Review Period
  (Anticipated Winter 2017)
- Commence Detailed Design and Construction of Preferred Solution
Ancaster Elevated Water Reservoir
Schedule ‘B’ Municipal Class EA
Panel No. 14

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• Please sign-in on the sheet provided.
• The Study Team is interested in receiving any comments that you may have about the Study.
• Comment Sheets are available for your input on the project.
• Should you have any questions, concerns or wish to obtain additional information, please contact one of the Study Team members.
• Additional information on the project can be found on the project website.