RESILIENT CONSULTING

PLANMAC ENGINEERING INC.

Stormwater Management Improvements in Gallanough Park & Surrounding Area

Municipal Class EA Schedule 'B' Revised Project File

November 2020

Prepared for: VAUGHAN

Standard Limitations

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Municipal Class EA Schedule 'B' Revised Project File

November 2020

FINAL

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1 Introduction

The City of Vaughan (herein the 'City') has retained the services of Resilient Consulting and Planmac Engineering (herein the 'Project Team') to finalize the Municipal Class Environmental Assessment (EA) and Detail design for a Stormwater Management (SWM) Facility in Gallanough Park and a storm relief sewer on Arnold Avenue, between Brooke and Yonge Street. These proposed improvements will help alleviate stormwater flooding in the study area. The study area is illustrated in **Figure 1**.

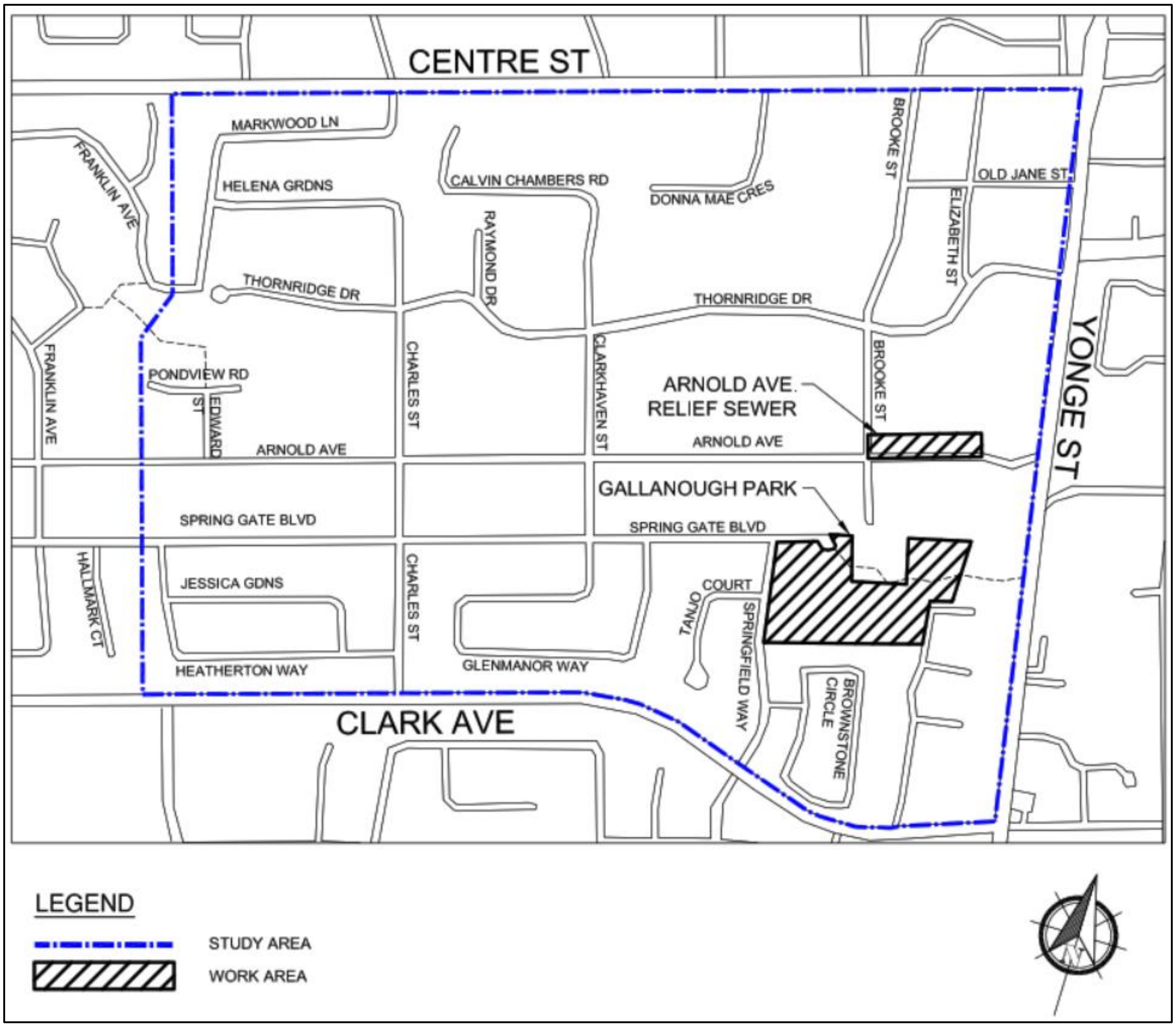


Figure 1. Study Area

1.1 EA Background and Update

In 2009, the City initiated a Municipal Class Environmental Assessment (EA), to develop plans and strategies to implement a stormwater management facility within Gallanough Park. The project was completed as a Schedule 'B' undertaking, in compliance with the Municipal Engineers Association document, 'Municipal Class Environmental Assessment', October 2000, amended

2007. The EA was completed November 2010 with the recommendation of a dry pond within Gallanough Park. There were no concerns from the public at this stage with the dry pond recommendation.

Detail design for the dry pond was initiated in September 2013. Prior to the finalization of the SWM Facility, the City experienced concerns relating to the proposed dry pond from the general public. As a result of the spread of misinformation, the public was concern that the proposed dry pond facility would endanger public safety resulting in a strong opposition from the public. It was determined that a review of the original hydrologic/hydraulic stormwater modelling would be prudent to validate the current course of action and take into account the actual benefits of the completed drainage improvements in the Thornhill community. See the below listed studies and associated findings used in the justification of the stormwater management measures implemented in this neighbourhood, including the Gallanough Park SWM Facility and Arnold Avenue relief sewer.

- Thornhill Storm Drainage Improvement Study, Genivar, February 2008.
    - This study assessed the existing drainage infrastructure in this Thornhill Neighborhood which concluded that the Brooke Street Trunk Sewer becomes severely surcharged during major rainfall events. A SWM Facility in Gallanough Park was recommended to alleviate existing flood conditions.
- Thornhill Area Road Reconstruction Stormwater Management Report, W.G. Clarke, May 2009.
    - This report supports the SNC Lavalin Road reconstruction design by evaluating and proposing drainage system improvements such as roadside ditch improvements and replacement of ditch inlets, culverts, catch basins etc. This study builds on the 2008 report and recommends construction of a SWM Facility in Gallanough Park and by-pass relief sewers at Thornridge Drive and the intersection of Brooke Street and Arnold Avenue.
    - Road reconstruction works including upsized ditch inlets, catch basins, culverts and roadside ditch networks were completed in 2010.
- Phase II Drainage Study / Flood Vulnerable Sites Report, Cole Engineering Group & Civica Infrastructure Inc, March 2014.
    - A discrete VHSWMM model was developed for a City-Wide drainage study to assess the flood vulnerable sites across Vaughan, including Gallanough Park and surrounding area.
    - This study developed flood management strategies for flood susceptible locations.

Copies of the above reports can be found at:
https://www.vaughan.ca/cityhall/departments/id/Pages/Gallanough%20Park%20and%20Surrounding%20Area/Gallanough-Park-Stormwater-Management-Improvements.aspx

Ultimately, the City's Environmental Services Division completed a comprehensive review of the hydrologic/hydraulic stormwater modelling and the proposed Gallanough Park SWM Facility project in 2019. It was confirmed that the proposed SWM Facility is still required and that alternative storage options should be considered.

Over the past decade, advancements to stormwater management have occurred with development in storage techniques at the forefront. Many different forms and styles of underground storage systems have been developed providing alternatives to a traditional underground concrete structure. In addition, a variety of underground flood remediation storage facilities have been successfully implemented across the Greater Toronto Area (GTA) since initiation of the original EA, making underground storage a viable and feasible solution. The Project Team have been retained by the City to revise and finalize this Municipal Class EA, in consultation with stakeholders and the general public, in the selection of a preferred solution. This revised Project File Report has been initiated due to the concerns raised by the general public to a dry pond as the preferred solution in 2013, as discussed above. The report documents additional studies, consultation, a re-evaluation of alternative solutions based on relevant evaluation criteria, and selection of a preferred solution to be taken forward to detail design. The detail design will be initiated for the preferred solution in January 2020 and completed in summer 2021, with construction start proposed for fall 2021.

1.2 Existing Drainage Features

Gallanough Park is located in the Thornhill Heritage Conservation District within a neighbourhood typically consisting of older single-family homes. Over the past decade, the City has invested in drainage improvements in this area including road reconstruction and enhanced flow conveyance measures. The City wishes to further explore an effective stormwater management scheme for Gallanough Park to alleviate flooding in the area.

Gallanough Park covers approximately 2.16 ha of parkland and is located south of Spring Gate Boulevard on the eastern limit of Springfield Way. It is included in a storm drainage pipe network bounded by Arnold Avenue to the north, Yonge Street to the east, Canadian National Railway to the south, and Bathurst Street to the west. The catchment area of approximately 171 ha of predominantly residential developments conveys stormwater to the existing Gallanough Park, providing temporary detention before draining to a 3.0 m diameter trunk sewer on Brooke Street. This trunk sewer begins at the northern limit of Gallanough Park and follows the Brooke Street alignment before it discharges to a tributary of the Don River north of Centre Street. Runoff from additional catchment area discharges to this storm network via drainage courses #2 and #3 shown on Figure 2 below. Ditch inlets are currently present at the intersection of Brooke Street and Arnold Avenue to collect this storm drainage and discharges to the trunk sewer. Lastly, a 2.1 m diameter storm sewer connects to the trunk sewer at the intersection of Brooke Street and Centre Street. Refer to Figure 2 below for identification of all drainage features.

In 2014, Cole Engineering Group Ltd. completed a Vaughan City-Wide Drainage Study Flood Vulnerable Sites Report which evaluate existing storm drainage systems and to develop management strategies for flood susceptible areas. The purpose of the Gallanough Park SWM Facility is to detain runoff and regulate discharge rates into the Brooke Street Trunk Sewer to provide capacity in the sewer for the future Thornridge By-Pass connection. This by-pass is proposed at Thornridge Drive and Clarkehaven and is intended to re-direct flows typically conveyed by a ditch and series of culverts along Thornridge Drive to a proposed 1000 mm diameter relief sewer connecting to the Brooke Street Trunk Sewer. A culvert is proposed under Clarkehaven Street to maintain partial flow conveyance to Drainage Course #2. Implementation of By-pass #1 will reduce flows and ultimately the extents of flooding on Drainage Course #2 downstream of Clarkehaven Street. Although this by-pass is not currently existing, it is anticipated to be implemented shortly after the SWM Facility and relief sewer once additional capacity in the Trunk Sewer becomes available. This Class EA addendum will investigate and evaluate design options for the Gallanough Park SWM Facility.

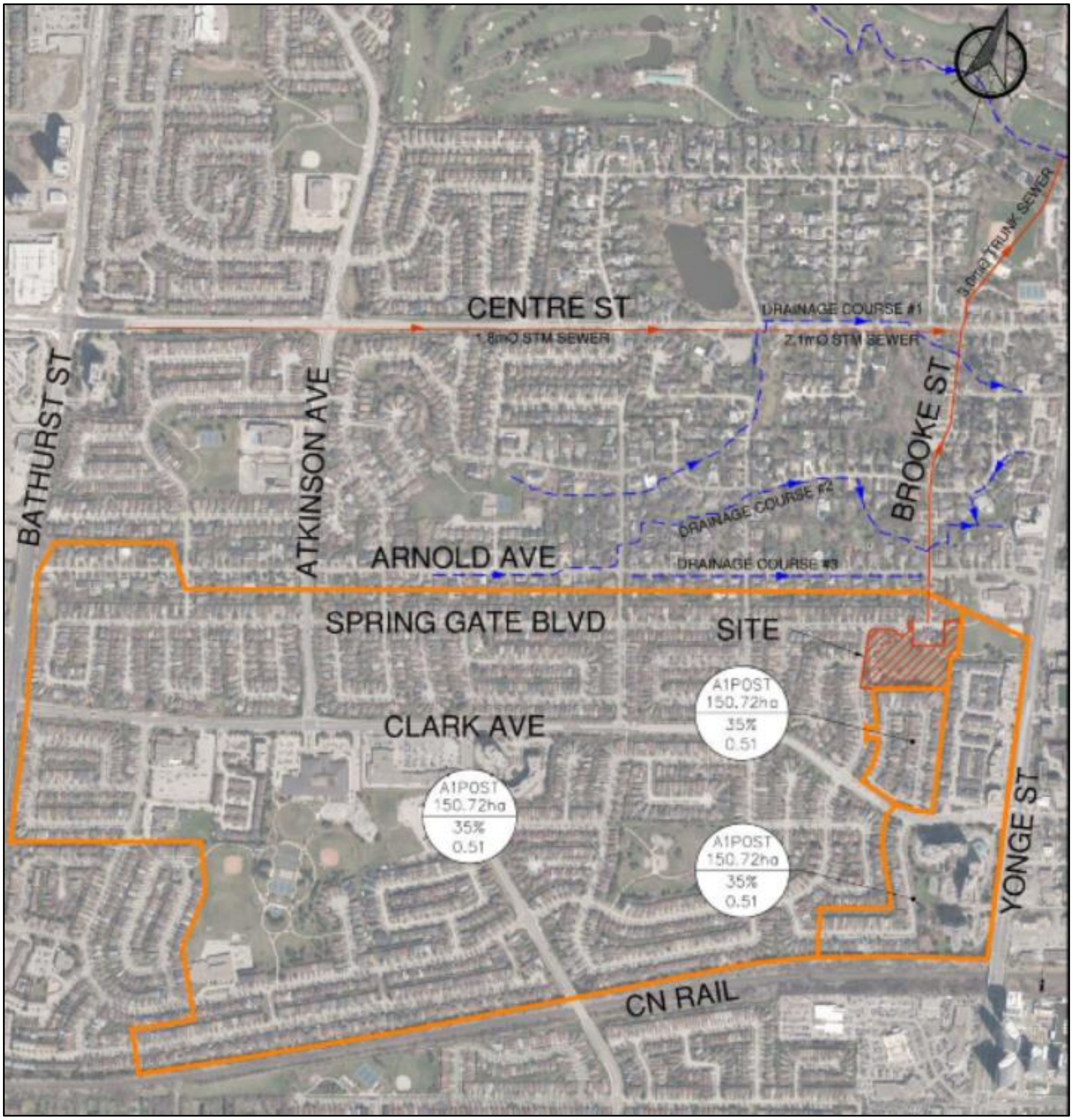


Figure 2: Gallanough Park Drainage Area Plan

1.3 Objectives of the Project

The Study was undertaken in accordance with the Municipal Class EA Guidance (2000, as amended in 2007, 2011 and 2015) as described in Section 2.0 and the Ontario Environmental Assessment Act (EAA).

The objectives of this project are to:

- Reduce flooding potential to the residential properties located north of Gallanough Park that fronts onto Brooke Street, Thornridge Drive, Tanjo Court, Springfield Way and Arnold Avenue;
- Reduce the risk to public safety;
- Reduce the risk to surrounding properties; and,
- Provide environmental benefits.

1.4 Purpose of the Project File

This Project File documents the planning and design process followed and conclusions reached for the Gallanough Park and Surrounding Area Enhancement Class EA Study. In accordance with the Municipal Class EA, the problems and opportunities associated with this study were investigated and documented.

A Notice of Study Update was sent to stakeholders and the general public to obtain input on the project. Using the information gathered, a number of alternative solutions were identified and evaluated, leading to the selection of a preferred solution. This information was presented to stakeholders and the general public online via a presentation provided on the City website along with a comment form to provide input. Given the health risks of COVID-19 and requirement for social distancing a Public Information Centre (PIC) was not held as part of this study, with the Project Team opting to provide materials online as noted prior. The Project File documents the EA process followed and is structured for ease of public review.

For consultation completed as part of the 2010 Municipal Class EA please refer to the previous Project File Report (Clarifica Water Resources, November 2010) that can be found at the following link under 'Additional Resources':

https://www.vaughan.ca/cityhall/departments/id/Pages/Gallanough%20Park%20and%20Surrounding%20Area/Gallanough-Park-Stormwater-Management-Improvements.aspx.

The slides presented at the PIC held on June 2014 to present the detail design for the previous preferred solution (i.e. dry pond – implement SWM Facility with surface storage only) are provided in **Appendix E** and comments and responses following the PIC in **Appendix F**.

2 Planning Context and EA Planning Process

2.1 Municipal Class EA

The Municipal Class EA (2000, as amended in 2007, 2011 and 2015) planning and design process was followed for this project because it allows the City to meet the requirements of the Ontario Environmental Assessment Act (EAA) for municipal infrastructure without having to either undertake an Individual EA or request a specific exemption for the project. The Class EA is a planning process approved under the EAA for a class or group of undertakings including municipal infrastructure. Municipal projects included in the Class EA may be implemented without further approval under the EAA, provided that the approved Class EA planning and design process is followed (refer to **Figure 3**).

2.1.1 Project Schedules

Planning methodologies are described within the Municipal Class EA guidance and are different according to Schedule type, as outlined below:

Schedule 'A' and Schedule 'A+'

The More Homes, More Choice Act, 2019 was given royal assent on June 6, 2019, which amended the Environmental Assessment Act (EAA) to exempt low risk projects from the requirements of the EAA through either exempting specific low-risk schedule undertakings from approved Class EAs or exempting undertakings that are determined to be low-risk through a screening process within an approved Class EA process. Through this amendment, Schedule 'A' and 'A+' projects in the Municipal Class EA guidance are now exempt from the EAA. The public therefore have no ability to request a Part II Order (see Section 2.3 for further detail).

Schedule 'A' projects are limited in scale, have minimal adverse environmental effects and include a number of municipal maintenance and operational activities. There is no expectation of consultation with Schedule 'A' projects.

Schedule 'A+' projects are slightly more complex in scale than Schedule 'A' with minimal adverse environmental effects. Given the added complexity and nature of Schedule 'A+' projects, the proponent is responsible for notifying the general public and stakeholders of the proposed works. The level of consultation undertaken is typically reflected by the complexity and interest of the project.

Schedule 'B'

Projects have the potential for some adverse environmental effects. The municipality is required to undertake a screening process (Phases One and Two) involving mandatory contact with directly affected public and relevant review agencies to ensure that they are aware of the project and that their concerns are addressed. Schedule 'B' projects require that a Project File report be prepared and submitted for review by the public and review agencies. If there are no outstanding concerns, then the municipality may proceed to Phase Five for implementation.

Schedule 'C'

Projects have the potential for significant environmental effects and must proceed under the full planning and documentation procedures specified in the Class EA Document (Phases One to Four). Schedule 'C' projects require that an Environmental Study Report be prepared and submitted for review by the public and review agencies. If there are no outstanding concerns, then the municipality may proceed to Phase Five for implementation.

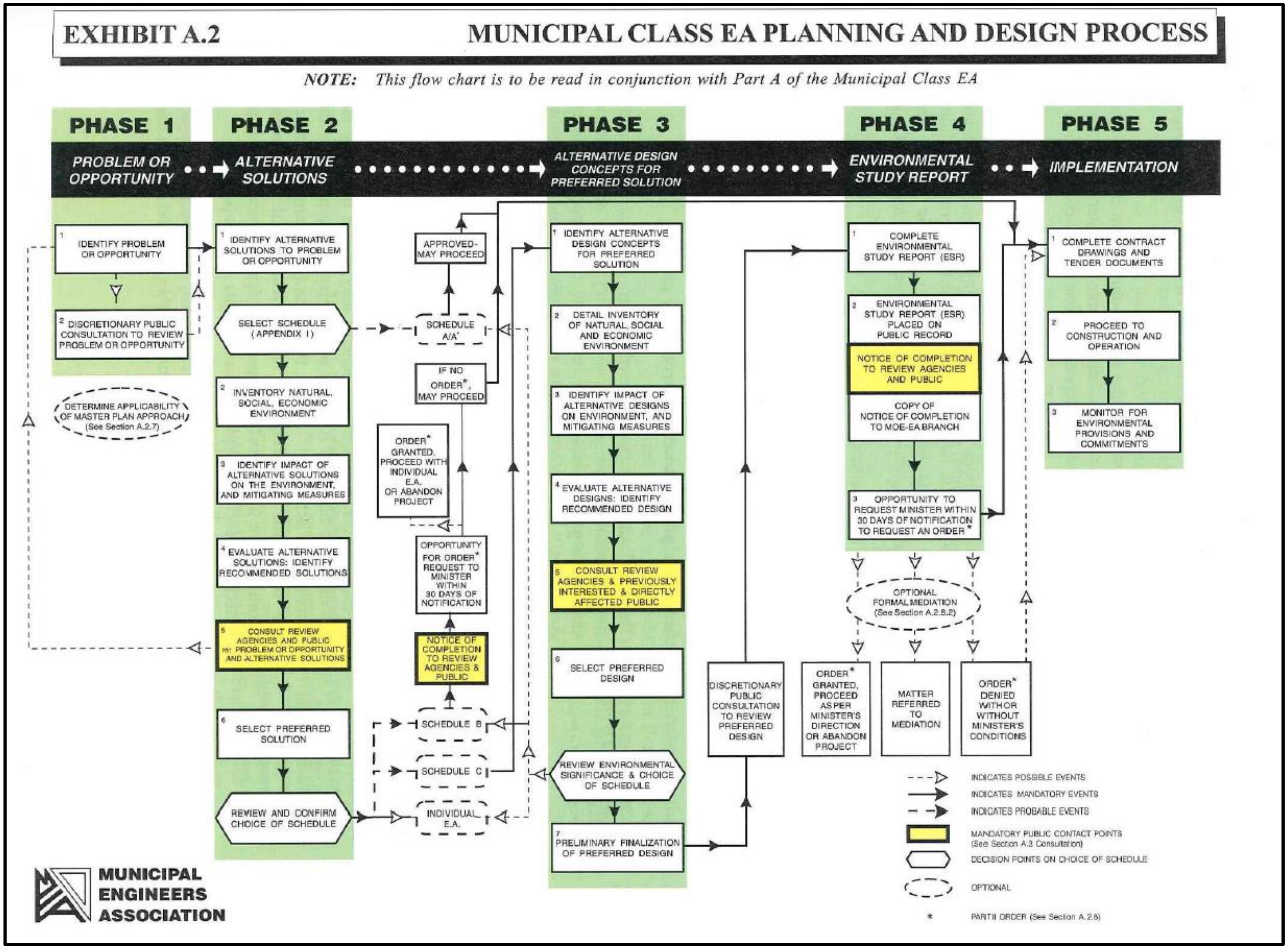


Figure 3: Municipal Class EA Process

2.1.2 Schedule 'B' Classification

Appendix 1 of the Municipal Class EA document identifies activities or projects subject to Schedule 'B' of the Class EA, including the following:

- *'3. Establish new storm water retention/detention ponds and appurtenances or infiltration systems including outfall to receiving water body.'*

Since the Gallanough Park project involves establishing a new stormwater detention Pond, it is classified as a Schedule 'B' project.

2.1.3 Schedule 'B' EA Process

The following activities were carried out for this study:

Phase One: Identify the Problem/Opportunity

This phase involves identifying the problem/opportunity to be addressed through the study and describing it in sufficient detail to lead to a clear problem/opportunity statement. Upon completion of the problem/opportunity statement, a Study Notice is published to notify the public that the Class EA study has been initiated. This phase is described in **Section 3.0**.

Phase Two: Identify and Evaluate Alternative Solutions to the Problem/Opportunity

This phase involves the following steps:

1. Prepare a general inventory of the existing natural, and social environments in which the project is to occur (**Section 4.0**);
2. Identify reasonable alternative solutions to the problem/opportunity (**Section 5.0**);
3. Identify the positive and negative effects of each alternative solution (**Section 6.0**);
4. Evaluate the alternative solutions (**Section 6.5 - 6.8)**;
5. Identify design and construction considerations (**Section 7.0**);
6. Consult with review agencies and the public to solicit comment and input (**Section 8.0**); and;
7. Select or confirm the preferred solution (**Section 6.9**).

2.2 The Project File

The Municipal Class EA document stresses the importance of documenting the planning and design process followed in developing a Schedule 'B' project. At the end of Phase Two, the formal planning for the project is considered complete. Thereafter, the process of Phase 1 and 2 is finalized and a Notice of Completion is issued to the Ministry of the Environment, Conservation and Parks (MECP). As this is a revised Project File, a 'Revised Notice of Completion' was issued to MECP Central Region in accordance with Section A.4.1.1 of the Municipal Class EA Guidance (2000, as amended in 2007, 2011 and 2015). This Revised Notice of Completion was also sent to stakeholders and local residents and published on the City's website (https://www.vaughan.ca/cityhall/departments/id/Pages/Gallanough%20Park%20and%20Surrounding%20Area/Gallanough-Park-Stormwater-Management-Improvements.aspx) advising of the completion of this Project File and how to view the report during the 30-calendar day review period.

A copy of the Revised Notice of Completion is provided in **Appendix E**.

2.3 Part II Order

If concerns regarding a project cannot be resolved in discussions with the proponent (for this study, the proponent is the City of Vaughan), the Municipal Class EA process does include an appeal mechanism. Under the Municipal Class EA, members of the public, interest groups, agencies, and other stakeholders may submit a written request to the Minister of the Environment, Conservation and Parks to require the proponent (the City of Vaughan) to comply with Part II of the Environmental Assessment Act before proceeding with the proposed undertaking on the basis on potential adverse impacts to constitutionally protected Aboriginal and treaty rights. This is known as a 'Part II Order'.

The request for a Part II Order must also be copied to the proponent at the same time it is submitted to the Minister. Written requests for a Part II Order must be submitted to the Minister within the 30-calendar day review period after the proponent has issued the Notice of Completion. Requests after the 30-calendar day review period will not be considered. The Minister of the Environment, Conservation and Parks can be contacted as follows:

Office of the Minister
Ministry of the Environment, Conservation and Parks
777 Bay St., 5th Floor
Toronto, ON M7A 2J3
Minister.mecp@ontario.ca

Copies of the request must also be sent to the Director of the Environmental Approvals Branch at the Ministry of the Environment, Conservation and Parks at the address below:

Director, Environmental Assessment Branch
Ministry of the Environment, Conservation and Parks
135 St. Clair Ave West, 1st Floor
Toronto ON M4V 1P5
EABDirector@ontario.ca

The decision on whether a Part II Order (bump-up) is appropriate or necessary rests with the Minister of the Environment, Conservation and Parks. If following 30 days after the end of the comment period provided for in the Revised Notice Of Completion no Part II Order requests have been submitted to the MECP regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, or no Notice of Proposed Order has been issued regarding the project, the project is considered to have met the requirements of the Class EA, and the City may proceed to subsequent phases of design and construction subject to meeting any commitments documented in this Project File Report and obtaining the necessary environmental approvals.

For further information regarding Part II Order requests, including specific submission requirements, please go to: https://www.ontario.ca/page/class-environmental-assessments-part-ii-order.

3 Problem/Opportunity Statement

3.1 Problem

The residential properties located north of Gallanough Park that front onto Brooke Street, Thornridge Drive, Clarkehaven Street, and Arnold Avenue have been frequently affected by flooding during heavy storms over the years. The City has investigated the drainage infrastructure in and around the affected area and has determined that flooding is partly caused by the surcharged Trunk Sewer along Brooke Street. Other causes are from deficient/deteriorated culverts and poor drainage practices resulting from residential redevelopment in the Thornhill Neighbourhood area.

3.2 Opportunity

The project presents an opportunity to provide social and environmental benefits. Through SWM implementation of Gallanough Park, improvements (reduction) in the risk of flooding can be realized. The reduced risk of flooding will benefit the safety of the public and private properties. The enhancement will include the latest SWM measures and Low Impact Development (LID) measures that will improve the drainage characteristics and result in reduced erosion potential of the receiving creeks and reduced pollution input to the environment.

4 Inventory of Existing Conditions

4.1 Planning Environment

This section reviews the planning and policy framework applicable to the Stormwater Management Improvements in Gallanough Park and the Surrounding Area. The planning and policy framework guides infrastructure planning, land use planning, and strategic investment decisions to support Provincial, Regional and Local objectives in growth.

The identification of the study area problems and opportunities was in consideration of the policy framework, to ensure that the final recommendations are consistent with Provincial, Regional and Local policies and objectives.

A Place to Grow - Growth Plan for the Greater Golden Horseshoe (2020)

A Place to Grow: Growth Plan for the Greater Golden Horseshoe ('Growth Plan'), 2020, was prepared and approved under the Places to Grow Act (2005) as a legal framework to implement the Province's vision for managing growth within the Greater Golden Horseshoe (GGH).

The GGH is a dynamic and diverse area, and one of the fastest growing regions in North America. By 2041, this area is forecast to grow to 13.5 million people and 6.3 million jobs. The magnitude and pace of this growth necessitates a plan for building healthy and balanced communities and maintaining and improving our quality of life while adapting to the demographic shift underway.

A Place to Grow is the Ontario government's initiative to plan for growth and development in a way that supports economic prosperity, protects the environment, and helps communities achieve a high quality of life. The Places to Grow Act enables the development of regional growth plans that guide government investments and land use planning policies.

Policy 3.2.7 provides direction on Stormwater Management Planning. The following excerpted policies are applicable to this Municipal Class EA:

Municipalities will develop stormwater master plans or equivalent for serviced settlement areas that:

a) are informed by watershed planning or equivalent;

b) protect the quality and quantity of water by assessing existing stormwater facilities and systems;

c) characterize existing environmental conditions;

d) examine the cumulative environmental impacts of stormwater from existing and planned development, including an assessment of how extreme weather events will exacerbate these impacts and the identification of appropriate adaptation strategies;

e) incorporate appropriate low impact development and green infrastructure;

f) identify the need for stormwater retrofits, where appropriate;

g) identify the full life cycle costs of the stormwater infrastructure, including maintenance costs, and develop options to pay for these costs over the long-term; and

h) include an implementation and maintenance plan.

Planning for the Stormwater Management Improvements in Gallanough Park and the Surrounding Area is consistent with the policy direction of the Growth Plan, most notably, by contributing to the improvement of existing stormwater facilities, reducing the impact of extreme flooding events to adjacent residencies through better sustainable design, and reducing impact on quality and quantity of water.

Provincial Policy Statement (2020)

The Provincial Policy Statement (PPS) provides policy direction on matters of provincial interest related to land use planning and development. As a key part of Ontario's policy-led planning system, the PPS sets the policy foundation for regulating the development and use of land. It also supports the provincial goal to enhance the quality of life for all Ontarians.

The PPS provides for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment. The PPS supports improved land use planning and management, which contributes to a more effective and efficient land use planning system.

Municipal official plans are the most important vehicle for implementation of the PPS and for achieving comprehensive, integrated and long-term planning. Official plans shall identify provincial interests and set out appropriate land use designations and policies.

Policy 3.2.7 provides direction on Stormwater Management Planning. The following excerpted policies are applicable to this Municipal Class EA:

Planning for stormwater management shall:

a) be integrated with planning for sewage and water services and ensure that systems are optimized, feasible and financially viable over the long term;

b) minimize, or, where possible, prevent increases in contaminant loads;

c) minimize erosion and changes in water balance, and prepare for the impacts of a changing climate through the effective management of stormwater, including the use of green infrastructure;

d) mitigate risks to human health, safety, property and the environment;

e) maximize the extent and function of vegetative and pervious surfaces; and

f) promote stormwater management best practices, including stormwater attenuation and re-use, water conservation and efficiency, and low impact development.

This project aligns with Policy 3.2.7 through satisfying the requirements outlined in subpoints a) to f), particularly subpoint d) where the proposed development will reduce impacts to human health, safety, property and the environment through significant reduction in the impact of future flooding events.

The Regional Municipality of York Official Plan (2010)

The policies of The Regional Municipality of York Official Plan (the 'Plan') guide economic, environmental and community building decisions to manage growth. A series of regional strategies, plans and guidelines support and implement the policies of the Plan. The policies in the Plan help co-ordinate and set the stage for more detailed planning by local municipalities such as the City of Vaughan. The Plan also provides a framework for co-ordinated planning with adjacent municipalities, as well as with other jurisdictions. The Plan provides certainty on how to approach environmental, economic and community issues when creating sustainable communities.

Policies 2.3.40, 2.3.41 and 2.3.42 provides direction on Stormwater Management Planning and are relevant to this EA:

- *2.3.40 - To work in partnership with local municipalities, the Province, conservation authorities and other agencies in the implementation of stormwater management initiatives.*
- *2.3.41 - To require the preparation of comprehensive master environmental servicing plans, or appropriate technical studies, as a component of secondary plans and major development or re-development to minimize stormwater volume and contaminant loads, and maximize infiltration through an integrated treatment approach, which may include techniques such as rainwater harvesting, phosphorus reduction, constructed wetlands, bioretention swales, green roofs, permeable surfaces, clean water collection systems, and the preservation and enhancement of native vegetation cover.*
- *2.3.42 - That local municipalities require that stormwater management works be inspected and maintained to ensure that they function as designed.*

During preliminary design and throughout the EA process, the Project Team have been in contact with the Province, York Region, Toronto and Region Conservation Authority (TRCA) and other agencies regarding the proposed development and received feedback from all parties on various aspects including design and stormwater facility preference. With regards to Policy 2.3.41, a number of technical studies have been undertaken to inform the preferred alternative, with consideration of integrated treatment approaches. Following construction, the City of Vaughan will ensure routine inspection and maintenance of the proposed stormwater management facility.

City of Vaughan Official Plan (2010)

The Official Plan addresses the City's long-term planning requirements to the year 2031 and, in addition to consolidating all former land use policy into one document, the Plan brings the City into conformity with recent Provincial and Regional land use policy direction. The Official Plan is part of an overall Growth Management Strategy, initiated by Council, that will shape the future of the City and guide its continued transformation into a vibrant, beautiful and sustainable City.

The goals of the Official Plan are as follows:

- Goal 1: Strong and Diverse Communities;
- Goal 2: A Robust and Prominent Countryside;
- Goal 3: A Diverse Economy;
- Goal 4: A Vibrant and Thriving Downtown;
- Goal 5: Moving Around without a Car;
- Goal 6: Design Excellence and Memorable Place;
- Goal 7: A Green and Sustainable City; and,
- Goal 8: Directing Growth to Appropriate Locations.

The above goals constitute the City of Vaughan's Vision for Transformation and were developed following extensive consultation with Vaughan residents to define the main principles that would guide the development of the Official Plan.

Policy 3.6.6 (3.6.6.1. – 3.6.6.17.) of the Official Plan provides direction on Stormwater Management in the City of Vaughan and applicable to this project. Given the extensiveness of the Policy, a summary of the main points is provided below:

- To recognize stormwater management facilities as a functioning part of Vaughan's natural water system and ecosystem, new development will employ stormwater management practices that are sensitive to the natural environment and natural heritage features.
- That new development must satisfy the City and demonstrate consistency with the TRCA Stormwater Management Criteria for water quantity (flood flow) control, water quality control, erosion control, groundwater recharge and water balance, for the protection of hydrologically sensitive features.
- Consideration of innovative stormwater management approaches must be implemented and designed in accordance with MECP's Stormwater Management Practices Planning and Design Manual and with reference to TRCA's LID Stormwater Management Planning and Design Guide.
- New stormwater facilities shall be:
    - located outside of valley and stream corridors, unless approved by TRCA and MECP;
    - located, where possible, adjacent to open spaces, parks and/or natural heritage areas contributing to a connected system and to encourage public access to these facilities, where appropriate;
    - integrated into surrounding developments as publicly accessible open space; and,
    - designed as naturalized or formal landscapes that are complementary to adjacent features, including adjacent landscapes or natural heritage features.

- Undertake stormwater management on a volume control basis that maintains recharge rates, flow paths and water quality to the extent possible, in addition to peak flow control, and to maintain pre-development water balance. Particular emphasis shall be placed on areas confirmed as significant recharge areas.
- To support the TRCA in establishing programs for ongoing monitoring of ambient conditions as part of the Regional Watershed Monitoring Program, including evaporation, stream flow, channel form, groundwater levels, water quality and terrestrial communities and species to provide baseline data to facilitate an adaptive management approach.

The project has encompassed and considered the requirements of Policy 3.6.6 as described below.

The proposed development will integrate into Gallanough Park, Arnold Avenue and Brooke Street without adversely impacting the areas, or any valley and stream corridors. The natural environment within Gallanough Park will be protected during construction and additional tree planting will be undertaken to compensate for the minimal removal of trees required for construction access. The Project Team have consulted and held meetings with TRCA and the Sustainable Neighbourhood Action Program (SNAP) through preliminary design with regards to permitting, landscaping, tree protection, and retaining and enhancing features in the park and Arnold Avenue through integration. The Project Team will continue to consult with TRCA, SNAP and MECP during detail design and provide pertinent information to inform TRCA's flood plain mapping.

Consideration has been given to sustainable and innovative stormwater management approaches that provide substantial underground storage benefits while improving water quality. Such infrastructure will be further considered during detail design.

The MECP will be further consulted during detail design regarding approvals (i.e. Environmental Compliance Approval (ECA)), along with a potential Environment Activity Sector Registry (EASR) or Permit to Take Water (PTTW) depending on the water-taking activities of the project. Requirement for an EASR or PTTW will be reviewed and calculated during detail design. Through submission for an ECA, MECP will review the proposed detail design and ensure the Project Team are in compliance with provincial regulatory requirements and guidance, as well as the suitability of the proposed development to the study area and surrounding environment.

City of Vaughan Stormwater Management Master Plan (2014)

The City's Stormwater Management (SWM) Master Plan evaluates the effectiveness of the existing SWM infrastructure within the City. The study evaluated the use of alternative SWM practices for effective treatment of stormwater from source, conveyance, and end-of-pipe controls, to promote protection of the natural environmental systems and was conducted in accordance with the Master Plan process as outlined in the Municipal Engineers Association Municipal Class EA guidance (October 2000, as amended in 2007 and 2011).

The SWM Master Plan is divided into various secondary plans. Gallanough Park and Arnold Avenue fall within the Yonge-Steeles Secondary Plan Area (North and South), which encompasses the southeastern limit of the City, in the community of Thornhill. Within each secondary plan, areas were identified as having existing SWM issues and in requirement of infrastructure upgrade that included Gallanough Park. Three (3) alternative options were reviewed for the Yonge-Steeles Secondary Plan area that included: Do Nothing; At Source / Lot Level Controls; and End-op-Pipe

Controls. The evaluation of alternatives deduced that At Source / Lot Level Controls for the Yonge-Street Secondary Plan Area (i.e. small scale controls such as underground / superpipe storage, swales, infiltration trenches, cisterns etc.).

4.2 Natural Environment

No Provincially Significant Wetlands (PSW), Areas of Natural Scientific Interest (ANSI), Enhanced Management Areas (EMA), or Significant Wildlife Habitat (SWH) areas are present within 1km of the study area as confirmed by MNRF's natural heritage mapping. No watercourses, wetlands or fish habitat are present within the study area.

Breeding birds have the potential to be on-site during nesting season. Any tree removals will occur outside of the breeding bird timing windows or trees will be screened by qualified biologists prior to removal. No Species at Risk (SAR) have been noted during any field investigations. During future field investigations during detail design, any SAR will be noted and appropriate mitigation measures implemented.

The site consists of mostly open grassed areas with concrete trails and large diameter trees along the perimeter. Gallanough Park has a bowl like appearance and a depressed shape because it was initially designed as a water holding area. The area along Springfield Way on the west side of the Park is prone to frequent flooding due to the existing topography and previous modifications to the park features.

The drainage area (see **Figure 2**) has been modified over the years in a way that can potentially decrease infiltration. For example, larger homes have replaced smaller existing homes, and drainage ditches and swales have been filled by residents to create swimming pools or increase construction area.

In addition, existing soil and groundwater conditions have the potential to affect the design of this facility. The Geotechnical Report (October 2020) notes that the site is generally underlain with silt to silt and sand followed by layers of clayey silt and silty clay. Groundwater readings were collected in July 2020 and identify water elevations of 172 m along the eastern limit of the park and 174 m to the west. Areas near the Thornhill Public School have been known to contain a water table close to the existing ground surface.

The site falls in the TRCA's Source Protection Area and therefore the CTC Protection Plan applies. As per the Ministry's mapping, the subject site crosses a highly-vulnerable aquifer (HVA) with a vulnerability score of 6. According to the Don River Watershed Plan – Geology and Groundwater Resources Report (2009), aquifers in this area are deep compared to the proposed works and therefore will not be impacted.

4.3 Social Environment

Based on a desktop review of the study area property fabric and ownership, the park is on the City's property. The surrounding area consists mainly of residential properties with direct access to the park.

Gallanough Park is heavily used by surrounding residents in all seasons, including tobogganing in the winter, picnics, sports and camps in the summer, as well as for walking throughout the year. The park's additional uses include those by the public library and Thornhill Public School.

Gallanough Resource Centre is also present at the end of Brooke Street. A small soccer field is also present. The soccer field is uneven and drains poorly after rainfalls.

Arnold Avenue and Brooke Street fall within the study area to the north of Gallanough Park and are completely residential with detached dwellings present throughout. Both streets are prone to large runoff during storm events.

4.4 Cultural Environment

Built Cultural Heritage

The John R. Arnold House located at 21 Spring Gate Boulevard falls within the study area to the northwest and was designated under the Ontario Heritage Act, upon recommendation by the City of Vaughan, on May 5, 1982. Built in 1860, the property was designated on architectural and historical grounds and described as being '*built in a classical tradition in that it is well proportioned and exhibits good details in the wood and brickwork'* (Town of Vaughan, 1982).

The northeast portion of the study area falls within the Thornhill Vaughan Heritage Conservation District, as displayed on Section 1.3 of the 2007 District Plan (Philip H. Carter Architect and Planner, 2007). Section 2.7.5 of the Plan outlines objectives for new development that are as follows:

- *To ensure compatible infill construction that will enhance the District's heritage character and complement the area's village-like, human scale of development.*
- *To guide the design of new development to be sympathetic and compatible with the heritage resources and character of the District while providing for contemporary needs.*

In accordance with Section 41.1 (5)(e) of the Ontario Heritage Act, the project is exempt from obtaining a heritage permit and not subject to review under the Plan, falling under the description of *'repair of utilities and public works, installation of public works that are in compliance with the Guidelines'* (Section 3.1.2 of the 2007 District Plan). Nonetheless, the City of Vaughan's Cultural Heritage Division will be provided with the detail design for review and check for compliance with the Guidelines.

No further cultural heritage properties or areas of cultural heritage value or interest are present within the study area.

Archaeology

The Ministry of Tourism and Culture confirmed on May 10, 2010 that the site had been reviewed and it was determined it had low archaeological potential and an archaeological assessment was not required. Please refer to **Appendix F** for correspondence.

4.5 Built Environment / Other Infrastructure

The Brooke Street Trunk Sewer begins at the north end of Gallanough Park at Chamber #9. This is the location where three sewer alignments discharge flows from the upstream southern catchment area. Both storm and sanitary sewers networks convey flow from the west, east and south. These storm networks include:

- West System: 2100 mm ∅ concrete storm sewer at a pipe invert of 173.49 m
- East System: 1500 mm ∅ concrete storm sewer at a pipe invert of 167.63 m
- South System: 600 mm ∅ concrete storm sewer at a pipe invert of 173.15 m

The sanitary sewer networks include:

- West Network: 450 mm ∅ concrete sanitary sewer at a pipe invert of 172.00 m
- East Network: 300 mm ∅ concrete sanitary sewer at a pipe invert of 167.86 m
- South Network: 200 mm ∅ concrete sanitary sewer at a pipe invert of 173.00 m

The receiving 600 mm ∅ sanitary sewer is concrete encased inside the trunk sewer and has a pipe invert of 166.76 m exiting Chamber #9. The trunk sewer has a pipe invert of 166.47 m on the downstream side of Chamber #9. The effective diameter of the trunk sewer is estimated to be 2.7 m. The proposed SWM Facility is designed around this existing infrastructure to minimize impacts on upstream landowners.

All applicable utility providers were contacted for locates to map existing utilities alongside the CCTV inspection results to establish all existing services. External utilities (i.e. Rogers, Bell, etc.) were determined to not conflict with the proposed SWM Facility and will therefore remain unimpacted during and post-construction. Internal park services (i.e. park lighting) will be impacted by the proposed works, particularly those along the western limit at the pathway.

All existing utilities and infrastructure on Arnold Avenue were mapped to delineate a proposed relief sewer alignment. Additional CCTV inspection has been requested to determine the preferred sewer alignment which will minimize impacts to existing services and infrastructure.

5 Alternative Solutions

A range of alternative solutions were developed to address the identified problem and opportunity. These alternatives can be categorized as do nothing or establish a SWM Facility.

The four (4) alternatives identified for evaluation are:

- Alternative #1 – Do Nothing
- Alternative #2 – Dry Pond – surface storage only
- Alternative #3 – Underground Facility – underground storage only
- Alternative #4 – Hybrid Facility – combination of surface and underground storage

Even though the 'Do Nothing' alternative does not address the Problem/Opportunity Statement, the Class EA document mandates its consideration in all Class EAs as a means of providing a benchmark for evaluating the other alternative solutions. Detailed drawings of each of the proposed alternatives are provided in **Appendix A (Drawings A-D)**. The following subsections briefly describe each of these alternative solutions.

5.1 Alternative #1 – Do Nothing

The 'Do Nothing' alternative would involve leaving the Gallanough Park in its current condition. As a result, the Trunk Sewer would surcharge and flood at Arnold Avenue and Brook Street intersection during any storm events greater than the 2-year storm frequency. Culvert and drainage course improvements within the Thornhill Neighbourhood area may reduce the extent of flooding. Plan and profile of Gallanough Park in its current condition is provided as **Appendix A (Drawing A)**.

5.2 Alternative #2 – Dry Pond

This alternative involves excavating the park grounds lower to provide additional surface storage for stormwater detention. Approximately 0.65 ha of existing open space is available to be used for surface storage. The available area would be lowered by 0.5 – 3.0 m to increase storage for stormwater prior to discharging to the trunk sewer. These works involve retrofitting the existing storm sewer network located within the park to include inlet and outlet control structures. Plan and profile of Gallanough Park under these conditions is provided as **Appendix A (Drawing B)**.

The potential for a wet pond facility was briefly reviewed by the Project Team as a possible sub-option to improve water quality, however a permanent pool would be required. Given the comments received during the initial EA process, local residents were opposed to any standing water within the park. This sub-option was therefore not carried forward for any further analysis.

5.3 Alternative #3 – Underground Facility

This alternative involves installing an underground tank structure to provide storage for stormwater detention. The open space in the park would be raised by a maximum 0.75m to improve drainage conditions at the low point in the park. This alternative involves retrofitting the existing storm sewer network within the park to include inlet and outlet control structures. Plan and profile of Gallanough Park under these conditions is provided as **Appendix A (Drawing C)**.

Groundwater elevations were determined to assess the proposed depth of the facility. Geotechnical Investigations concluded that groundwater is approximately 5-8 mbgs (meters below ground surface). As the proposed underground facility extends approximately 4 mbgs, the facility is not anticipated to be impacted by groundwater. A hydrogeological investigation of the site will need to be undertaken before this alternative is implemented to confirm seasonally high ground-water elevations, but it is not anticipated to present any design constraints. This alternative can provide improvements to the park that will increase the park's usage by the residents.

The Project Team will consider multiple potential alternative materials for the underground tank including:

- Open-bottom plastic arch chambers;
- Cast-in-place concrete forms; and,
- Precast concrete chambers.

5.4 Alternative #4 – Hybrid Facility

This alternative involves excavating the park ground by 0.5 – 2.0 m to increase surface storage and install an underground storage tank below the surface storage for additional stormwater detention. This alternative involves retrofitting the existing storm sewer network within the park to include inlet and outlet control structures. Plan and profile of Gallanough Park under these conditions is provided as **Appendix A (Drawing D)**.

5.5 Hydrologic and Hydraulic Analysis

In March 2014, Cole Engineering completed the Vaughan City-Wide Drainage Study, Flood Vulnerable Sites Report which included creation of a comprehensive and discrete hydrologic / hydraulic model for the study area. This model was further updated in June 2016 by Amec Foster Wheeler as part of the Gallanough Park Stormwater Management Facility Modelling Review. Cole's VH-SWMM model was imported into PCSWMM, thoroughly reviewed, and updated based on field reconnaissance.

The Amec updated model was used as the baseline for the Gallanough Park SWM Facility update. The existing model was tweaked within the Gallanough Park project scope to represent true existing conditions, as depicted by the topographic and sub-surface utility surveys. This model is used to establish the existing flooding conditions capturing recent improvements in the area. Upon connection of the Thornridge Diversion, flood storage will be required to ensure hydraulic grade line (HGL) elevations in the trunk sewer are not increased to maintain existing flood risk.

The proposed conditions model was created to analyze the benefits of the proposed stormwater management scheme. The model was updated to include the proposed stormwater management facility in Gallanough Park and the two (2) flow diversions proposed in this Thornhill area, including the Thornridge Diversion and Arnold Avenue By-Pass. Using the 24-hour Chicago event was as the design storm event, the storage was updated to represent the proposed storage design in conjunction with the outlet control structure curve to restrict flows. Flow splits at the facility inlet was included using maximum pipe flow (2-year) and strategic pipe invert coding. The overland flow inlet from Tanjo Count and overland flow outlet to Yonge Street have also been included in this scenario to fully evaluate drainage conditions during major storm events.

The total storage proposed in the SWM Facility increased to 10,000 m^3 in proposed conditions and the inflow at Yonge street into Markham at Arnold Avenue remains consistent with the design flows presented in the West Thornhill Phase 3 Stormwater Model Review – Assessment of Vaughan Boundary Conditions prepared by Cole Engineering for the City of Markham in October 2017. Only one proposed scenario was modelled as the other alternatives explored herein have larger storage volumes and ultimately improved drainage conditions.

6 Evaluation of Alternatives

6.1 Identification/Description of Alternative Solutions

As an initial step, the Project Team identified and described alternative solutions, or functionally different ways of addressing the problem/opportunity statement, as described in Section 6.0. Any 'reasonable' alternative was included initially. All alternatives were considered equally for discussion purposes and evaluation.

As discussed in **Section 5.5**, a hydrologic and hydraulic model (EPASWMM 5.0) was created to simulate the existing and the typical proposed condition. The input/output data of the analysis are included in **Appendix B**.

6.2 Common Elements to be Addressed

Residents along the western Park boundary at Springfield Way experiences flooding during many storm events. Except for Alternative #1 ('Do Nothing), all considered alternatives will propose a solution to resolve this flooding issue. Given the existing topography at the south-western limit of the site, near Tanjo Court and Springfield Way, is the only location where ponded surface water can enter the proposed stormwater management facility. The existing concrete pedestrian trail entering the park at this location has the flexibility to be flattened to direct water to a major intake location for collection and conveyance of major storm flows to the proposed SWM Facility and ultimately the Municipal storm network. This approach will provide additional social and economic benefits.

In addition, a proposed storm relief sewer is recommended at the intersection of Brooke Street and Arnold Avenue to provide additional underground storage to alleviate flooding in this area. All alternatives, except for Alternative #1, incorporates this recommendation as it provides a direct flood relief by diverting flows upstream of Brooke Street to minimize surface flows conveyed to Drainage Crouse #2 east of Brooke Street. This flood remediation measure includes a major intake location to collect and convey 100-year flows to the proposed 1200 mm relief sewer on Arnold Avenue. Ultimately, flows will be discharged to Markham's existing storm network conveying easterly past Yonge Street, the same location as existing conditions. Therefore, peak flows discharged into this network need to be verified and confirmed to not increase past existing levels.

All works associated with this relief sewer and by-pass are contained within the City's right-of-way on Brooke Street and Arnold Avenue and therefore no impacts to private property are anticipated. One homeowner at the north-east corner of this intersection will experience limited driveway access during the installation of the relief sewer.

6.3 Other Modifications Required Along with SWM Facility in Gallanough Park

Except for the Alternative #1, Do Nothing, all other alternatives' full benefits with respect to flood reduction are contingent on the completion of other modifications as outlined in the report by W.G. Clarke (2009). Please refer to **Figure 4** for a depiction of major improvements required along with the Gallanough Park SWM Facility. In addition to detaining stormwater from the upstream catchment area in Gallanough Park, a series of by-passes are proposed to alleviate flooding along Thornridge Drive.

By-Pass #1 is recommended on Drainage Course #2 near Thornridge Drive and Clarkeharven Street to divert flows into the sewer and minimize flows conveyed in the watercourse through the resident's backyards west of Brooke Street. This diversion will improve downstream flood concerns on Drainage Course #2. It is noted that this by-pass is not part of this scope and therefore the design remained unchanged.

The Arnold Avenue relief sewer and associated diversion (by-pass #2) are included in this projects scope. A major intake structure is proposed on the east side of Brooke Street and sized to capture 100-year flows conveyed in Drainage Course #2. This intake will eliminate existing storm conveyance easterly across Brooke Street and through the backyards of the residential properties bound by Thornridge Drive and Arnold Avenue. Drastic flood improvements for these residents are anticipated as storm conveyance through their backyards will be limited to the runoff generated from these properties.

Collected major storm flows will be conveyed to a proposed 750 mm diameter storm sewer inlet connected to the proposed 1200 mm relief sewer along Arnold Avenue. This relief sewer will be connected to the existing 1500 mm storm sewer crossing Yonge Street into Markham and therefore existing flow targets into Markham's storm network need to be considered. It is noted that existing flows through Drainage Course #2 currently discharge to the Markham network after treatment through a private stormwater management facility (Minto WaterGarden development).

Lastly, numerous culvert upgrades and replacements have been previously recommended in the Thornhill neighbourhood to reduce flood impacts. Existing undersized infrastructure and surface conveyance networks (i.e. roadside ditches) were replaced in 2010 as part of the road reconstruction works. Any outstanding recommendations in the W.G. Clarke report must be implemented to experience the full benefits of the Gallanough Park SWM Facility.

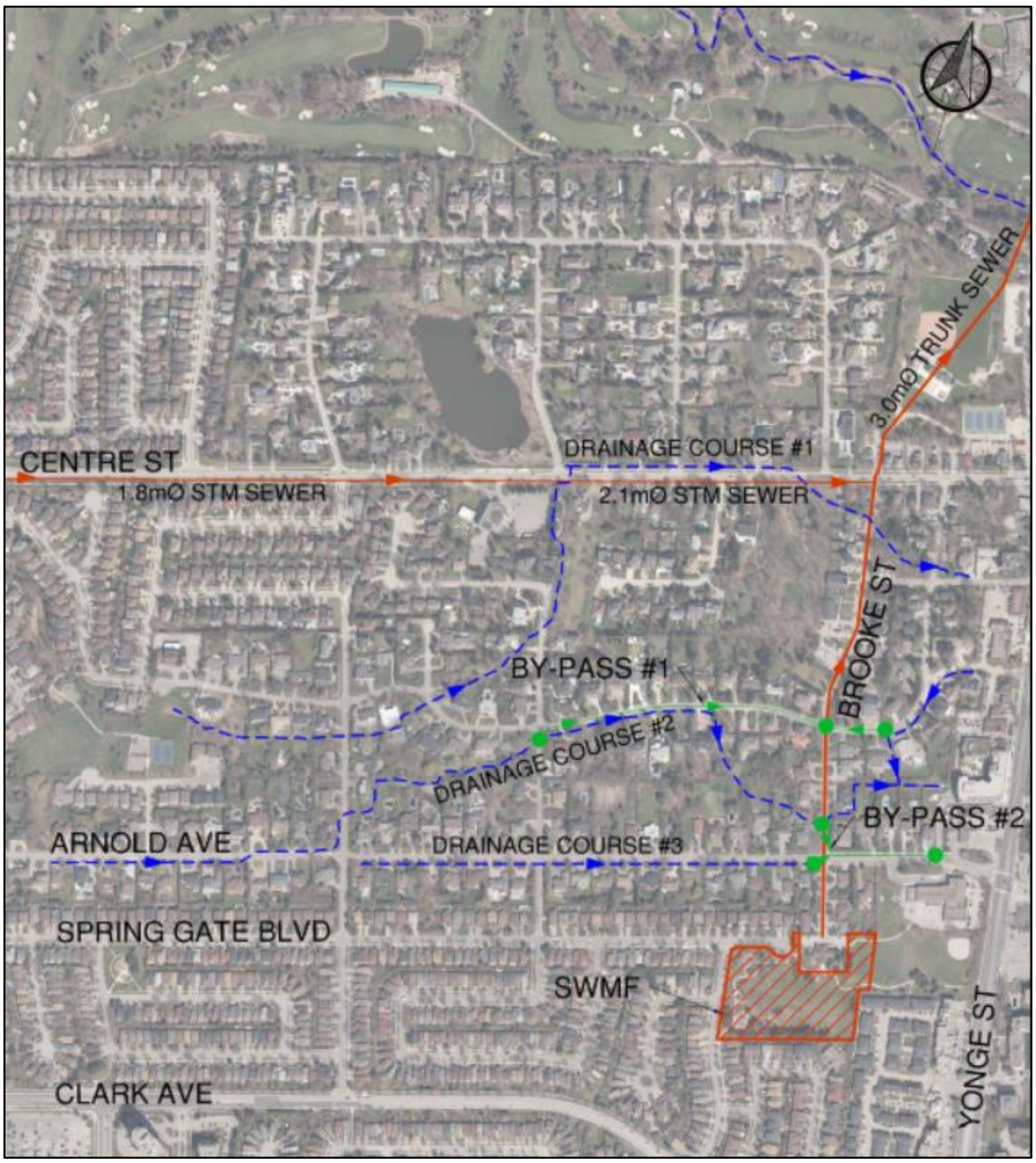


Figure 4: Drainage Improvements Plan

6.4 Development of Evaluation Categories and Criteria

Evaluation criteria were developed to reflect the definition of 'environment' provided in the EAA (Part I, 1 (1)) and any specific circumstances associated with this project. The concerns and priorities of citizens living near the park through consultation and they subsequently played a major role in effective criteria development. All applicable comments were considered in the creation of the evaluation criteria to correctly incorporate all instances that would affect the park, the Trunk Sewer, the surrounding area and users of the park. Criteria were divided into four (4) categories, as listed in **Table 1** below:

Table 1: Evaluation Criteria

Social
Impacts to existing Park uses
Creation of new Park uses
Potential of standing water
Impacts to adjacent properties during and after construction
Economic
Capital construction cost
Operation and maintenance cost
Reduction in flood damages
Natural Environment
Impacts on general water quality
Impacts to existing vegetation
Functional
Ease of construction
Ease of operations and maintenance
Risk to adjacent or upstream properties
Risk to downstream properties

6.5 Undertake Net Effects Analysis

Using the evaluation criteria, the Project Team applied a net effects analysis to the alternative solutions, which involved the following steps:

- Identify potential effects;
- Develop and apply mitigation/compensation/enhancement measures; and,
- Determine net effects after mitigation measures have been applied.

Cost estimates to support the evaluation of the alternative solutions are included in **Appendix C**. The details of the net effects analysis are included in **Appendix D**.

6.6 Comparative Evaluation Based on Net Effects and Identification of Recommended Alternative Solution

The comparative evaluation was undertaken using a 'reasoned argument' or trade-off method. This method highlights the relative advantages and disadvantages of each alternative solution based on its identified net effects. This allowed for a clear presentation of the key trade-offs between the various evaluation factors and the reasons why one alternative solution is preferred over another. As a result, the relative differences and key trade-offs between each alternative solution for the various factors are clearly understood, and a traceable rationale for selection of the preferred solution has been provided.

6.7 Evaluation Summary

Evaluation of the alternative solutions takes into consideration all of the net effects identified in **Appendix D** and assigned a level of effect depending on the significance of their residual impact for each criteria. The following symbols are used to identify their ranking:

High Negative Effect	Moderate Negative Effect	No Effect	Moderate Positive Effect	High Positive Effect
✖	✕	≠	=	+

Table 2 provides a summary of the evaluation and identifies the positive and negative effects of each alternative using the above symbology.

Table 2: Summary of Comparative Evaluation

Criteria / Alternatives	Alternative #1 (Do Nothing)	Alternative #2 (Surface Storage)	Alternative #3 (Underground Storage)	Alternative #4 (Hybrid Storage)
Social				
Impacts to existing Park uses	≠	✖	+	✕
Creation of new Park uses	✕	=	+	=
Potential of standing water	=	✖	+	✕
Impacts to adjacent properties during and after construction	≠	=	+	=
Economic				
Capital construction cost	+ $0	= $1,700,000	✖ $4,400,000	✕ $3,200,000
Operation and maintenance cost	=	+	✕	=
Reduction in flood damages	✖	+	+	+
Natural Environment				
Impacts on general water quality	✕	+	+	+
Impacts to existing vegetation	+	✕	✕	✕

Criteria / Alternatives	Alternative #1 (Do Nothing)	Alternative #2 (Surface Storage)	Alternative #3 (Underground Storage)	Alternative #4 (Hybrid Storage)
Functional				
Ease of construction	≠	=	=	=
Ease of operations and maintenance	=	=	✗	✗

6.8 Evaluation Ranking and Discussion

The alternative solutions were ranked in order of preference according to the analysis as identified in the comparative evaluation in **Table 2**. The ranking is summarized in **Table 3**. Comparison matrix of the four (4) alternatives with respect to all of the criteria can be found in **Table 3**.

Table 3: Ranking of Alternative Solutions

Rank	Alternative Solution
1st	Alternative #3
2nd	Alternative #2
3rd	Alternative #4
4th	Alternative #1

The following provides a rationale for the ranking of each of the alternative solutions and the evaluation in **Table 2**.

6.8.1 Alternative #3: Ranked First

Alternative #3: Underground Storage ranked the highest amount the four (4) alternatives by providing similar flood reduction benefits as Alternatives #2 and #4 with the highest social benefits. Although this alternative presents significantly increased capital costs, the improved social and safety benefits out weight these cost impacts. It is noted that a variety of these underground facilities have been implemented over the past decade, decreasing the overall cost by approximately 1 million dollars.

Alternative #3 provides an overall net advantage under all categories with the exception of Economic (capital costs) and Functional as a result of the increased complexity of maintenance. It is noted that maintenance of these facilities is well established and not complex in nature but is more complex than maintenance of an above ground facility.

The underground facility will provide a reduction in flooding events in the Thornhill area, which is the primary objective of this project. By providing approximately 10,000 m^3 of available storage below Gallanough Park, the downstream trunk sewer is able to accept additional flows, ultimately decreasing downstream flooding.

6.8.2 Alternative #2: Ranked Second

Alternative #2: Surface Storage ranked second as it provides the next most high positive impacts. This alternative provides similar flood improvements to Alternatives #3 and #4 at a fraction of the cost. Although capital and maintenance costs are significantly lower for this alternative, there are high negative social implications with this alternative.

Although Alternative #2 incorporates a 2-year flow by-pass at the inlet structure, surface storage will occur within the facility during all events larger than the 2-year storm. Although ponding water and saturated soils will be experienced during and after storm events, additional park uses can be added and used during sunny day conditions. Additional walking trails, soccer fields, and toboggan hills can be incorporated into the park design.

The surface storage facility is easy to construct and maintain. No special procedures, such as confined space entry, is required to perform the required maintenance. This alternative presents the best scenario for cost-benefit but is the lowest ranked for social criteria.

6.8.3 Alternative #4: Ranked Third

Alternative #4: Hybrid Storage ranked third as this alternative has increased capital and maintenance costs when compared to Alternative #2 while providing similar flood improvements in the area.

Alternative #4 is advantageous over Alternative #2 with respect to the social criteria. This configuration proposes to store runoff underground during more frequent events (i.e. up to the 10-year event) utilizing surface storage for major storm events. This alternative minimizes the frequency and depths of surface storage within the park.

The major disadvantage of this alternative fall under the economic criteria category. As this design incorporates an underground storage component, capital and maintenance costs are elevated over a surface storage only facility.

6.8.4 Alternative #1: Ranked Fourth

Alternative #1: Do Nothing ranked last among the four (4) alternatives primarily because it does not address the problem or opportunity statement.

Alternative #1 provides limited advantages towards the economic, environmental and constructability criteria categories. As this option does not require any construction, capital costs are not incurred and the park, existing vegetation, and nearby properties will not be disturbed.

The option to do nothing does not reduce the risk to adjacent, upstream or downstream properties from flood damages. The current flooding conditions in this Thornhill Neighbourhood pose a social and economic hazard to private properties. The extents and extremity of flooding may worsen over time has a result of climate change and increased development in the catchment area. In addition, this alternative does not adhere to the recommendations presented in the background studies on this topic.

6.9 Preferred Alternative Solution

The net advantages of Alternative #3: Underground Storage is superior to the other alternatives since it addresses the problem/opportunity statement while providing the best solution to the social criteria and local resident concerns. This alternative involved the installation of a cast-in-place concrete tank and minor park grading to improve drainage conditions in the existing low point of the park. This alternative presents the costliest installation and maintenance procedures; however, a variety of these facilities have been implemented in southern Ontario reducing the costs from the previous EA.

Alternative #3 provides the highest positive effects across all the criteria. This alternative also satisfies the concerns identified by the public during the previous consultation process. More research and analysis will be completed at the detail design stage to refine tank materials, shape/size and methods of construction. Preliminary design drawings for the preferred solution are provided in **Appendix A (Drawing E)**.

7 Public and Agency Consultation

7.1 Consultation Activities

The Municipal Class EA requires the Proponent to undertake two (2) mandatory points of public contact during Phase Two (Alternative Solutions) for a Schedule 'B' project. In addition to the consultation that was undertaken as part of the 2010 Municipal Class EA and the PIC held on June 2014, the Project Team conducted the following further contact with stakeholders and the general public as part of this EA allowing ample opportunity to provide contact on the project:

- Newsletter to Local Residents;
- Notice of Study Update;
- Meeting with the TRCA and SNAP;
- Meeting with SpringFarm Ratepayers Association;
- Notice of Online Public Information Materials; and
- Revised Notice of Completion.

All relevant parties including the general public, Provincial and Federal Agencies, Indigenous Groups, utility companies, Sustainable Neighbourhood Action Program (SNAP) and TRCA were contacted regarding this Municipal Class EA. The Notice of Online Public Information Materials and Revised Notice of Completion were sent to stakeholders electronically via email and mailed directly to the general public via hard copy. The Revised Notice of Completion was also placed in the "Thornhill Liberal" newspaper on November 12 and 19, 2020 and is provided in **Appendix E**. The Notice of Study Update and newsletters were mailed to local residents by hard copy and the Notice of Study Update emailed to stakeholders. Each notice/newsletter provided contact information to provide comments on the project. In addition, a Project Initiation Form (PIF) was provided to the Ministry of the Environment, Conservation and Parks (MECP) on May 13, 2020 informing them of the initiation of the EA. A complete list of agencies contacted as part of this Municipal Class EA (Update) can be found in **Table 4**.

Table 4: Contact List of Agencies

Provincial Ministries
Ministry of Natural Resources and Forestry (MNRF)
Ministry of the Environment, Conservation and Parks (MECP)
Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI)
Ministry of Indigenous Affairs
Federal Agencies
Fisheries and Oceans Canada (DFO)
Indigenous Communities
Mississaugas of Scugog Island First Nation
Hiawatha First Nation
Alderville First Nation
Curve Lake First Nation
Coordinator for the Williams Treaties First Nation
Kawartha Nishnawbe First Nation of Burleigh Falls
Mississaugas of the New Credit First Nation
Métis Nation of Ontario
Local Municipalities
The Regional Municipality of York
City of Markham
Conservation Authorities
Toronto and Region Conservation Authority (TRCA)
Sustainable Neighbourhood Action Plan (SNAP)
Emergency Services
City of Vaughan Fire Rescue & Service
St. John Ambulance York Region
York Region Police
Ontario Provincial Police
Utilities
Alectra Utilities
Bell Canada
Cogeco
Enbridge Gas
Hydro One

Rogers Cable
Telus
Interested Stakeholders
Sustainable Technologies Evaluation Program (STEP)
York Region District School Board
York Region Catholic District School Board
York Region Rapid Transit Corporation
SpringFarm Ratepayers Association

7.1.1 Newsletter to Local Residents

A newsletter was sent out by the City to local residents on May 6, 2020 outlining the proposed project, field investigations to be undertaken and associated traffic impacts. The newsletter also noted that a follow up notice outlining details of this Revised Municipal Class EA would be sent out in the coming weeks.

A copy of the newsletter is provided in **Appendix E**.

7.1.2 Notice of Study Update

A Notice of Study Update was sent hard copy to local residents on May 13, 2020 and Study Update letters were also emailed to external agencies, Indigenous Groups and utility companies. The Notice and letters provided details on the EA process, previous studies undertaken related to the project, the purpose of the project and how to provide comments. A copy of the Notice of Study Update and Study Update letters are provided in **Appendix E**.

A total of fourteen (14) comments were received from external agencies and one (1) comment from a local resident. No comments were received from Indigenous Communities.

Comments received from external agencies and the one (1) local resident following the mailing of the Notice of Study Update and Study Update letters are summarized in **Table 5**. All received comments can be found in their entirety in **Appendix F**.

Table 5: Summary of Stakeholder Comments following Notice of Study Update & Letters

Agency / Resident	Summary of Comment	Follow-up Action Undertaken
TRCA Suzanne Bevan Senior EA Planner	Suzanne Bevan (Senior EA Planner) noted that Manirul Islam (Planner) will be our contact for the project and will be in touch with next steps.	Thanked for information and noted Manirul will be sent on future notifications.
York Region Catholic School Board Ab Falconi Director of Education Joshua Cipolleta Planner	Ab Falconi thanked for the letter and shared the information with their Planning Team. Joshua Cipolleta noted the York Region Catholic School Board have no comments on the project and no longer need to be involved in the ongoing process.	Thanked for the responses provided.
York Region District School Board Gilbert Luk Planning & Property – Development Services	Noted that due to the proximity of Gallanough Park to Thornhill Public School they would like to be added to the email list to ensure there are no negative impacts to the school and its operations.	Thanked for the response, added to the contact list and noted that the York Region District School Board would receive all future notifications.
MNRF Maria Jawaid Planner (Aurora District)	Thanked for notice and stated that upon review MNRF have no comments or concerns with the project.	Thanked for information.
SNAP / TRCA Adriana Gomez Senior Program Manager	Thanked for notice and stated the following: • Noted TRCA is working the City and the local community in the development of a Sustainable Neighbourhood Action Plan (SNAP) for Thornhill, the study area where the Gallanough Project is taking place. • One of their signature projects of the plan will be the revitalization of Gallanough Park for which the SNAP has developed some initial draft design principles and recommendations.	Thanked for the information and noted the Project Team would be happy to participate in the 'live session' consultation and update local residents of the EA process. *Members of the Project Team attended the online session on July 29, 2020. No comments/questions were raised regarding the EA, only the overarching SNAP for Thornhill.*

Agency / Resident	Summary of Comment	Follow-up Action Undertaken
	• Suggested that community consultation could be coordinated. Noted they are currently planning an on-line engagement process, which will likely include a 'live session' with the community to discuss the Gallanough project. • Asked if the Project Team could participate in this session and can include any questions or discussion points with the community that you think are relevant for the EA.	Timelines for the EA were provided and stated that the project objective is to ensure that the preferred stormwater management solution will not conflict with future landscaping/park revitalization plans.
Hydro One Abinan Thevakumaran Area Distribution Engineering	Provided information on Hydro One assets in the area and noted there is no distribution plant within the study area.	Thanked for information
Aptum Technologies (formerly Cogeco Peer 1) Mark-up Team	Noted that Aptum have no objection to the proposed works.	Thanked for information.
Ontario Provincial Police Kerry Schmidt Highway Safety Division	Thanked for notice but noted that it did not apply to her responsibilities.	Asked if there was anyone in the Vaughan region who may have a local interest in the project. No response received.
Enbridge Lauren Li Drafting CADD Tech	Locate information provided and requested that the detail design be requested to Enbridge at a later date to identify if there are potential conflicts.	Thanked for information.
MHSTCI Dan Minkin Heritage Planner	Provided letter outlining the proponent's responsibility to determine if the project will have any potential impact on cultural heritage resources.	No cultural heritage resources will be impacted as a result of proposed works. Previous correspondence from May 10, 2010 from the Ministry of Tourism and Culture noted that the site had been reviewed and determined that the site has low archaeological potential and therefore does not require an archaeological assessment (refer to **Appendix F**).

Agency / Resident	Summary of Comment	Follow-up Action Undertaken
MECP Emilee O'Leary Regional EA Coordinator – Central Region	Provided letter outlining the MECP's 'Areas of Interest' and proponent's consultation responsibilities including contacting Indigenous, specifically Mississaugas of the Credit First Nation and Huron-Wendat Nation (if there are potential archaeological impacts). MECP requested a draft copy of the Project File Report be sent to their office prior to the filing of the final report, allowing a minimum of 30 days for the ministry's technical reviewers to provide comments. In addition, ensure a copy of the final notice is sent to the ministry's Central Region EA notification email account after the draft report is finalized.	'Areas of Interest' reviewed and incorporated into this Project File Report where applicable. It was noted in the correspondence received by MECP that a Stormwater Management Plan should be prepared as part of the Class EA Process. The proposed works at Gallanough Park and Arnold Avenue will restore the surface to current conditions, maintaining existing impervious area coverage. Therefore, water quality and quantity will not be negatively impacted by the proposed works; as such, a site-specific Stormwater Management Plan is not warranted. The project in itself is a Stormwater management Plan for this Thornhill neighbourhood, and follows MECP's Stormwater Management Planning and Design Manual (2003). These works will improve current drainage conditions by providing additional underground storage to alleviate surface flooding. Mississaugas of the Credit First Nation and other applicable Indigenous Communities were contacted as part of the consultation process. Huron-Wendat Nation were not contacted as there are no potential archaeological impacts from this project. A draft copy of this report was sent to MECP on for their review. A copy of the final notice for this report was sent to MECP's Central Region EA email account.
Bell Canada Reju Skaria CAD Technician	Mark-up provided.	Thanked for information.
Rogers	Mark-up provided.	Thanked for information.

Agency / Resident	Summary of Comment	Follow-up Action Undertaken
Shoaib Akram CAD, Engineering		
Alectra Josie Ilari Records Clerk	Mark-up provided.	Thanked for information.
Local Resident	An email from a local resident enquired about the following: • justification for the project; • if the project will resort in safety issues for users of the park; • implications of property tax increases as a result of the project; and • what streets will benefit from the proposed works? • The resident enquired if there was a flaw in the original construction of the Brooke Street Trunk Sewer? The resident was content with the responses provided and expressed a preference for an 'underground solution.'	With regards to justification, the local resident was informed that the Brooke Street trunk sewer, which conveys drainage north along Brooke to the Don River tributary, is subject to significant surcharging. During major storm events there is surface flooding at Arnold Avenue and Brooke Street, due to flows from and stormwater cannot enter the trunk sewer because it is surcharged. This surface flooding has affected numerous properties in the West Thornhill Area. It was noted the facility will be designed as per current design standards and regulations to ensure that safety is not a concern to park users. The local resident was also informed that the project is currently not being funded from property tax, but instead the construction phase is planned to be funded from the City's Stormwater Reserve and the Federal Disaster Mitigation Adaptation Fund grant and should not have an impact on residential property taxes. Lastly, the resident was informed areas north of Gallanough Park, including Brooke Street, which drain into the Brooke Street trunk sewer, will benefit from the project. The project serves to reduce flows and create capacity in the Brooke Street trunk sewer for flows from these areas, reducing the likelihood of flooding.

7.1.3 TRCA and SNAP Stakeholder Meeting (June 9, 2020)

Following the issue of the Notice of Study Update, an online meeting was held between TRCA, SNAP and the Project Design Team. The purpose of the meeting was to provide TRCA and SNAP a detailed overview of the project, timelines and the EA process. In addition, the meeting provided the opportunity to discuss future TRCA permitting requirements and SNAP's goals for Gallanough Park and the surrounding area.

The main takeaways and discussion points from the meeting included:

- Based on current regulation limits, the implementation of the Gallanough Park SWMF would not require a permit from TRCA. The implementation of the proposed Arnold Avenue relief sewer would require a permit from TRCA.
- TRCA will provide EA study update notice of commencement letter outlining TRCA's commenting roles, and EA interests.
- TRCA would provide the Project Team with the updated Don River hydrology model.
- Collaboration and coordination with SNAP would occur during the design process to ensure that the design of the stormwater management solution considers the desired sustainability features, public amenities and community priorities (i.e. what can be placed on top of SWM Facility?).

7.1.4 SpringFarm Ratepayers Association (SFRA) Stakeholder Meeting (July 28, 2020)

A meeting between the SFRA, the Project Team, TRCA and SNAP was held online on July 28, 2020 to provide the SFRA a detailed overview of the project and receive comments and input from their members on the preferred solution. Members of the SFRA expressed concerns relating to existing filled gutters on Arnold Avenue and Brooke Street, existing and future hardscaping from adjacent properties in the area, the effects of climate change on the proposed SWM Facility, impact on trees and vegetation, and accessibility to the park during construction and maintenance period. The SFRA noted their agreement with the preferred solution of an Underground Storage Facility.

In relation to SFRA's concerns, the Project Team firstly noted that the filled gutters were due to an increase in localized hardscaping / runoff. It was agreed that this was a maintenance and bylaw issue outside of the project scope, although the preferred alternative would help to reduce stress on the overall stormwater management system including surrounding streets such as Arnold Avenue and could deal with flooding up to 100-year event as currently defined. The Project Team acknowledged that climate change flooding events may result in more severe events; however, noted that the preferred alternative would provide substantially better stormwater management than the existing system.

The Project Team informed SFRA that tree removal would be minimized during construction. The City of Vaughan Parks Delivery (in consultation with SNAP) will be responsible for any future planting in the park following project completion. The Project Team will work with SNAP to coordinate what can be placed above the underground facility (i.e. plantings, structures, etc.). In relation to accessibility to the park during construction and maintenance, SFRA were informed that all efforts would be made to maintain surrounding paths and amenities not directly affected by the construction zone. The park will be accessible during annual maintenance but may experience minor closures for flushing of the facility every five (5) years.

7.1.5 Notice of Online Public Information Materials

Email invitations to review the online public information materials were sent by the Project Team to external agencies, utility companies, and Indigenous Groups on July 27, 2020. The City of Vaughan mailed hard copy invitation notices to local residents on July 27, 2020.

A copy of the Notice of Online Public Information Materials is provided in **Appendix E**.

7.1.6 Public Information Materials

The public information materials were posted on the following website https://www.vaughan.ca/cityhall/departments/id/Pages/Gallanough%20Park%20and%20Surrounding%20Area/Gallanough-Park-Stormwater-Management-Improvements.aspx on August 1, 2020 and are also provided within **Appendix E**.

The materials outlined the study area's existing conditions and constraints, the studies undertaken, alternatives evaluated, the preliminary preferred solution, mitigation measures and next steps. Given the current COVID-19 circumstances, an in-person Public Information Centre (PIC) for this project was not progressed. Public input and feedback on the public information materials were encouraged on the website and it was noted that comments would be appreciated by August 31, 2020 by sending to either the City of Vaughan or the Project Team via email.

A total of nine (9) emails and one (1) phone call were received from local residents during and after the consultation period. No comments from external agencies, utility companies or Indigenous Communities were received during or after the consultation. All comments and associated responses are provided *in verbatim* within **Appendix F**.

A summary of comments received following the online presentation are provided in **Table 6**.

Table 6: Comments Received following the Online Public Information Materials

Summary of Comments Received	Consideration of Comments Received
One (1) local resident thanked City of Vaughan and their consultants for the comprehensive and detailed information package provided.	Comment acknowledged.
One (1) local resident noted that they hope the project will be carefully, consistently and constantly supervised for safety, noise, debris, and the freedom to allow the customary vehicular and pedestrian traffic, particularly at the intersection at Spring Gate Boulevard and Springfield Way.	Mitigation measures for air quality, dust emissions, noise and safety will be implemented during construction as discussed in Section 8.2.1 of this report.
A resident acknowledged that although the preferred alternative is more expensive, it will be safer for the community both during and after a significant rainfall and will preserve the park for the neighbourhood to use and enjoy.	Comment acknowledged.
A resident noted they were 'so happy' with the preferred alternative and that the project would both protect surrounding housing, the environment and overall safety.	Comment acknowledged.
A resident expressed their '100% support' for the preferred option, along with their family and	Comment acknowledged.

Summary of Comments Received	Consideration of Comments Received
neighbours. Stated the 'Evaluation Matrix on page 16' of the PowerPoint slides 'confirms that the Underground option is the best option of the four presented.'	
One (1) resident noted they were very pleased with the preferred alternative and had received 450 signatures from local residents from their petition for an underground option as opposed to a dry pond initiative.	Comment acknowledged.
One (1) resident expressed their support of the preferred alternative but enquired about potential backflow of sanitary sewage from the sanitary in the trunk sewer getting back into the park facility. *This resident sent email correspondence and had a phone conversation with the Project Team.*	The Project Team replied noting that all the connections between the sanitary and the main trunk were sealed but would confirm with the City. The Project Team further noted that they did not think backflow of sewage to the facility is a concern, but it will be reviewed during detail design.
1. Initial email comment: one (1) resident expressed concerned of flooding at the back of their property and enquired if the project will address their problem? Also noted there is an old sewer that is at the front of their neighbour's house to the west. 2. Enquired further if the design plans on constructing any works to drain the water from the rear of the properties along the north side of Arnold Street to the new retention pond, or the storm sewer in the road allowance? 3. Noted that it would be nice if there was a high-level relief drain at the rear of their property to protect against a major storm event. Enquired if the high-water elevation had been calculated at the rear drainage ditch, if the flows are diverted? 4. Thanked for reply. Noted they understood the methodology but were still concerned about the new inlet structure and asked for assurance that the flow contributions from lands outside their watershed would be minimal. Asked if details of the inlet design could be provided?	1. The Project Team replied that the storm relief sewer proposed in front of their house will assist with alleviating the flooding experienced at the back of your property during larger storm events. Stated that it has been noted that there is a catch basin/lead on your neighbours property. Enquired if this the sewer they were referring to. 2. Stated no works are proposed to directly connect the backyard drainage system to the Gallanough Park SWM Facility or Arnold Avenue relief sewer for properties north of Arnold Avenue and East of Brooke Street. The SWM Facility will act to lower existing water elevations in the Brooke Street Trunk sewer to allow acceptance of diverted flows. Noted the properties north of Arnold Avenue will experience reduced flooding. 3. Noted the inlet structure will be sized to capture peak flows for a 100-year return period event from this area, therefore, any overflow at the intake would be very infrequent. Stated their property will not be altered by the proposed work but will no longer receive flow contributions from the area west of Brooke during events up to and including the 100-year return period event. 4. Noted it is very difficult to guarantee that there will never be flooding. The inlet will be designed to capture the peak flow from the area to the west during a 100-year return period event. The probability of this flow being exceeded in any year is 1%. Noted the City typically do not share design details of

Summary of Comments Received	Consideration of Comments Received
	construction projects until they are publicly tendered. Stated floodlines will not be produced as part of this study, as the plan is to capture the flow from the 100-year event.
One (1) resident expressed their disappointment that the project is proceeding. Noted that the City allows residents in larger homes to remove trees and replace grass with non-permeable materials resulting in flooding. Also highlighted that they hope that the few trees in the park are untouched and if so, replaced.	The Project Team replied noting they are sorry to hear of their disappointment. Noted that the current stormwater system has existing deficiencies that require upgrading to address existing flooding and future issues. Stated that tree removal will be minimized as much as possible to compensate for the required works. Planmac noted that the City of Vaughan's Parks Delivery team in consultation with Thornhill's Sustainable Neighbourhoods Action Plan (SNAP) will be responsible for any future planting in the park following project completion. Details were provided for SNAP as they are actively seeking input from the general public for tree planning and sustainable projects in the area.

Overall, from those that commented on the public information materials the general consensus was that local residents are in support of the preferred alternative, including a petition of 450 residents. This is with the exception of one (1) resident who expressed concern on tree removal; however, the resident was informed of SNAP and they can get involved in providing input to future planting initiatives.

7.1.7 Consultation with Indigenous Communities

Projects conducted under the Municipal Class EA have a requirement for consultation with Indigenous communities. Indigenous communities must be made aware of the project and afforded opportunities to provide comments.

The Project Team followed the Aboriginal consultation recommendations provided by the Ministry of Environment, Conservation and Parks (MECP). The process is described below.

The project team conducted a search of the Aboriginal and Treaty Rights Information System (ATRIS) to determine which Indigenous communities might have an interest in the project. Previous Indigenous consultation lists from other City of Vaughan projects were also reviewed.

Notification of the project was mailed to the elected leadership of every identified Indigenous community for the study area (refer to Table 4). This included the Notice of Study Update, Notice of Online Public Information Materials and the Revised Notice of Completion.

8 Description, Implementation and Monitoring of the Project

8.1 Description of the Project

For the purpose of the Class EA, the steps listed below are intended to provide a broad overview of the construction methodology of the project. The details of the construction procedure will be refined as more information becomes available during the detail design stage.

8.1.1 Permits and Approvals

Table 7 below is a summary of Permits and Approvals required prior to construction.

Table 7: Summary of Permits and Approvals

Agency	Approval	Follow-up Action Undertaken
Ministry of the Environment, Conservation and Parks (MECP)	Environment Activity Sector Registry (EASR) or Permit to Take Water (PTTW)	• An EASR or PTTW registration may be required depending on the water-taking activities of the project. This will be reviewed and calculated during detail design.
Ministry of the Environment, Conservation and Parks (MECP)	Environmental Compliance Approval	• Ongoing consultation shall be undertaken with MECP during detail design. • An ECA application will be completed and submitted to MECP for approval.
Toronto and Region Conservation Authority (TRCA)	O.Reg. 162/06 Permit Approvals	• Gallanough Park is not in TRCA's regulated area and no TRCA approval is required for the new facility. • A portion of the works on Arnold Avenue is regulated by TRCA. • A permit application will be completed and submitted at detail design for approval.
City of Vaughan	Engineering Approvals	• The detail design will be to City of Vaughan standards, and will be reviewed and approved by City Engineering staff prior to construction. During the design, access and staging areas will be determined to confirm the extents of required park closure.

All permits and approvals must be received prior to construction.

8.1.2 Construction Sequencing

Site Clearing and Preparation

In order to create a safe and effective working site within the park, its public use must be halted or restricted during construction. This can be done by installing restricted entry and danger signs.

Some mature trees growing along the perimeter of the park will need to be removed to create an access route for the construction equipment. Transplantation will be considered if desirable sensitive species are discovered. Potential for vegetation retention will be assessed on a site-specific basis during the detail design process. Trees not to be removed should be protected by hoarding or tree protection fencing.

Erosion and Sediment Control

A comprehensive erosion and sediment control plan will be developed during detail design and implemented by the Contractor to mitigate the potential release of sediments from the site to the receiving trunk sewer. It is anticipated that the plan will focus on isolation of the work area from incoming upstream flow and control of on-site sediment runoff.

Flow By-Pass

As new inlet/outlet connections need to be made with the existing storm sewer network, temporary by-passes may need to be created. It is anticipated that the construction of the storage facility can be constructed prior to connecting to the existing storm sewer network. Should connection occur prior to completing the facility, consideration to the flow bypass method should be given. Setup and operation of a storm bypass dam and pump type system within a storm sewer is onerous and expensive. It may be more cost effective to reduce the duration of bypass through careful construction staging and planning.

Underground Facility Construction

Major elevations of the storage facility include:

- Topsoil stripping;
- Removals;
- Earthworks including the disposal of excess fill material off-site;
- Installation of new inlet/outlet structures; and,
- Restoration and landscaping.

During detail design, construction quantities will be confirmed, and the cost estimate within **Appendix C** should be refined accordingly.

8.2 Summary of Potential Effects and Mitigation Measures

8.2.1 Tree & Vegetation Cover

Some mature trees growing along the perimeter of Gallanough Park will require removal to create an access route for construction equipment. To avoid disturbance to breeding birds and Species at Risk (SAR) species such as Barn Swallow and their nesting, removal will be scheduled prior to April 1 or after August 15 in line with the breeding bird season. In addition, it is recommended that an Avian Specialist be present on-site with the Contractor to check for nesting prior to tree and vegetation removal. No tree removal on Arnold Avenue or Brooke Street ais required to accommodate the proposed works.

During detail design, a comprehensive tree inventory will be completed to determine species present in the study area and potential removals as result of construction. A tree and vegetation removal and restoration plan will be provided as part of the detail design drawings. Tree species will be replaced where possible and consultation will continue with SNAP and TRCA during detail design regarding species and location of replacement trees.

Exposed soil surfaces should be re-stabilized and re-vegetated as soon as possible as per Ontario Provincial Standard Specification (OPSS).MUNI 804 (Construction Specification for Seed and Cover) to restore the site to its pre-construction condition, where possible.

8.2.2 Wildlife Management and Protection

Encountering wildlife during construction may occur given the location of the proposed works. Should wildlife be encountered within or adjacent the worksites, the Contractor shall stop any work that could harm or harass the species and report the encounter to the Contract Administrator (CA) as these animals are protected under the Ontario Endangered Species Act (2007). Where it is suspected that it is a threatened or endangered SAR, the CA shall contact the City to determine the next course of action (i.e. contacting the MECP). It is therefore suggested that the CA and Contractor familiarize themselves with SAR in Ontario as specified in O.Reg. 230/08: Species at Risk in Ontario List.

Occurrences of SAR during construction should be documented as to time, spatial location, habitat type and activity. This information should be forwarded to MNRF Aurora District by the CA, following permission of the City, in a timely manner for their records and if required, consultation.

8.2.3 Property and Access Impacts - Residential, Commercial and Community

The construction of a SWM Facility is a major undertaking requiring the work areas to be fenced off for the duration of construction. In addition to the typical erosion control, health and safety, and environmental protection measures, traffic flow will be maintained to minimize disturbance and nuances to the local residents, particularly at Arnold Avenue and Brooke Street. Minor excavation required at the northeast corner of the Arnold Avenue / Brooke Street intersection may result in access impacts to one (1) adjacent property. Access will be maintained for the property owner during construction.

Advance notice of construction will be provided to local residents and to local community groups (sports clubs, public school, library, etc.) will be provided so that their planned activities can be reschedules. It is noted that construction is tentatively scheduled for the fall season to minimize park disruptions during prime season.

No direct property impacts or land acquisition are anticipated as a result of the proposed works at Gallanough Park, Arnold Avenue and Brooke Street. Where this may change during detail design (e.g. minor garden encroachment), the affected landowner/s will be contacted in advance of construction.

During construction, access to Gallanough Park will be maintained although construction areas will be off-limits and segregated to the park users. This will be further reviewed during detail design with the plan to maintain as much of the park open as possible including trails and park facilities.

8.2.4 Effects on Adjacent Uses (Noise, Air Quality & Dust Emissions)

Noise

To minimize construction noise impacts on the surrounding environment and adjacent residential / community properties on Arnold Avenue and Brooke Street, standard mitigation measures and best management practices will be included in the contract package. Specifically, the Contractor will be required to keep idling of construction equipment to a minimum and to maintain equipment in good working order to reduce noise resulting from construction activities to adjacent residential and community receptors.

If complaints regarding construction noise arise during construction, the initial complaint from the public will require verification from the CA that the general noise control measures agreed to are in effect. If not, the CA / City will warn the Contractor of any problems and enforce its contract.

During construction, the Town's noise by-law will be adhered to (By-law 96-2006, Section 10 (1) and (2)). This restricts any sound made by construction activities to the hours of 7:00 p.m. to 7:00 a.m. and at all times on Sundays and statutory holidays. Where night-work is required to meet the construction schedule, the Contractor will receive the City's consent via a formal noise by-law exemption.

Air Quality and Dust Emissions

Short-term effects to air quality include dust emissions created by construction activities. For this project, the following activities are anticipated to be the main sources of emissions:

- Topsoil removal;
- Removals;
- Earthworks including the disposal of excess fill material off-site
- Installation of new inlet/outlet structures;
- Transportation of materials on unpaved areas; and,
- Diesel combustion from construction equipment operation.

Emissions will be temporary and localized, which reduces the potential for nuisance. To further reduce potential nuisance effects of dust and air emissions, mitigation measures shall be employed during construction activities. These mitigation measures include:

- Regular maintenance of construction equipment to maintain compliance with federal regulations for off-road diesel engine exhaust;
- Use of effective dust suppression techniques, such as on-site watering of stockpiles and / or unpaved areas of construction site, as necessary;
- Reducing speed limits on unpaved areas of construction site;
- Optimization of material transfer operations, including reducing distance for material transfers and drop heights, if possible; and,
- Locating stationary equipment (e.g. generators) as far away from sensitive receptors as practical.

The Contractor will be required to implement standard mitigation measures for dust control during construction, and steps will be taken as necessary to control dust resulting from the construction works such that it does not affect traffic, enter surface waters, or escape beyond the site to cause a nuisance to residents or community facilities in the area.

8.2.5 Erosion and Sediment Control

During construction, there is a risk of potential erosion and siltation impacts that could release sediment into the storm sewer or catch basin, which eventually reaches the tributary to the Don River. This impact would degrade the water quality of the tributary and affect the habitat of wildlife. Therefore, a comprehensive erosion and sediment control plan will be implemented by the Contractor throughout construction in accordance with OPSS.MUNI 805 to mitigate any potential effects.

Possible measures include, but are not limited to, use of siltation fencing and mud mats during construction. These activities will be confirmed during the detail design phase of the project before implementation and will be reviewed and approved by City Engineering staff, with input from TRCA during their permitting process for works on Arnold Avenue.

Erosion and sediment control measures will be maintained by the Contractor in an effective, functioning, stable condition. Routine inspections will be required by the CA, and repair will be undertaken as required.

8.2.6 Source Water Protection

The site falls in the TRCA's Source Protection Area and therefore the CTC Protection Plan applies. The proposed works crosses a highly-vulnerable aquifer (HVA), with a vulnerability score of 6, at Arnold Avenue. As the proposed works will not change the current use the risk to the HVA is not increased. To eliminate any potential contamination, a salt management plan will be developed during detail design to minimize the amount of salt applied during the winter applications. Alternatively, as this is municipally owned land, snow removal may be conducted via plowing. Storage of chemicals or hazardous material is not part of these works. Overall, there are no design implications with respect to this HVA.

8.2.7 Surface Water

As noted in Section 8.2.1, no watercourses or wetlands are present within the study area.

In relation to stormwater management, this project will restore the surface to current conditions, maintaining existing impervious area coverage. Water quality and quantity will not be negatively impacted by the proposed works. The design follows MECP's Stormwater Management Planning and Design Manual (2003). These works will improve current drainage conditions by providing additional underground storage to alleviate surface flooding. The proposed works at Gallanough Park and at the intersection of Brooke Street and Arnold Avenue will provide flood remediation for storm events up to the 100-year event as a result of improved conveyance and intake measures and additional underground storage provided. Local residents downstream of Gallanough Park will experience this flood relief while upstream residents will not experience any negative affects of these works.

An EASR or PTTW registration may be required depending on the water-taking activities of the project. An EASR will be required for the following water taking activities:

- surface water takings that are more than 50,000 L/day and are for road construction purposes that meet specified criteria about the purpose, rate or location of the water taking; or,
- construction site dewatering involving more than 50,000 L/day and less than 400,000 L/day.

If a water taking does not meet the criteria of the prescribed activity set out in O.Reg. 63/16 the surface water taking cannot be registered on the EASR and may require a PTTW, particularly where exceeding 400,000 l/day. This will be reviewed and calculated during detail design.

In addition, an ECA application in line with O.Reg. 60/08 under the *Ontario Water Resources Act* will be completed at detail design and submitted to MECP for approval given the proposed changes as part of the project.

8.2.8 Groundwater

Groundwater elevations were experienced at the north end of the park during the 2014 Geotechnical and Hydrogeological investigations. High groundwater elevations are predicted to be in the range of 5-8 mbgs and will therefore not affect the proposed underground facility extending approximately 4 mbgs. Additional geotechnical investigations are planned during the detail design phase to confirm groundwater elevations in Gallanough Park and at Arnold Avenue. Varying groundwater elevations may affect the design of the facility, such as allowable depth and invert elevations. Groundwater taking or discharge is not required to facility the project.

Construction or decommissioning of water wells are not required as part of this project.

8.2.9 Utilities / Other Infrastructure

Existing infrastructure and utilities were mapped to aid in the development of the conceptual designs. All external utilities will remain unimpacted by the proposed works in Gallanough Park. Potential impacts to utilities at Arnold Avenue and Brooke Street will be confirmed during detail design through ongoing consultation with utility providers. Where impacts cannot be avoided the Project Team will work with utility providers on appropriate relocation.

Internal park lighting will be impacted at the western limit with the revised pathway entrance. A light-post and associated wiring will be removed and re-instated post-construction. All other services will remain unimpacted by the proposed SWMF.

Additional CCTV inspection has been requested to determine the preferred sewer alignment which will minimize impacts to existing services and infrastructure

8.2.10 Excess Materials Management and Contaminated Soils

Removal will be required of all the debris and excavated fill from Gallanough Park, Arnold Avenue and Brooke Street. These items will need to be disposed of and can potentially impact the local environment if not disposed of properly. All activities involving the management of excess soil will be completed in accordance with O. Reg. 406/19 and the MECP's current guidance document titled 'Management of Excess Soil – A Guide for Best Management Practices' (2014).

If hazardous contaminants are found in the sediment at elevated levels, the removed fill will require special handling as well as disposal at an approved facility in line with *Part XV.1* of the *Environmental Protection Act* (EPA), O.Reg. 406/19, and O.Reg. 153/04.

To mitigate any potential waste that can be re-directed from landfill facilities, every attempt will be made to use portions of the excavated fill on-site for regrading purposes. Other waste will be investigated to determine if there are feasible alternative facilities to recycle or reuse the material.

Any temporarily stockpiled soil, debris or other excess materials, and any construction-related materials, will be properly contained (e.g. inside silt fencing) in accordance with OPSS.MUNI 180. All construction materials, excess materials and debris will be removed and appropriately disposed of following construction.

All construction-related activities will be controlled to prevent entry of any petroleum products, debris or other potential contaminants/deleterious substances, in addition to sediment as outlined above, to the watercourses as outlined in OPSS.MUNI 805 and in accordance with a Spills Prevention and Emergency Response Plan. The Plan, as well as appropriate emergency response materials, will be kept on site throughout construction and all employees made aware of its requirements and response protocols.

8.2.11 Climate Change and Energy Consumption / Abatement

Context

The MECP note within their guidance 'Considering Climate Change in the Environmental Assessment Process' that climate change and energy reduction shall be considered during in projects following the EA process. Climate change has always occurred on Earth. Natural climate change has taken place as a result Milankovitch Cycles, changes in sunspot activity, significant volcanic events etc. and evidenced from research upon ice core samples, tree rings, and marine coral. The 'Maunder Minimum', a period of low sunspot activity between 1645 and 1715, provided the 'Little Ice Age' and demonstrates a recent occurrence of natural global climatic change.

Anthropogenic activity (i.e. releases of the 'basket of six' greenhouse gas (GHG) emissions from human activity such as industrial activity, farming, energy production through use of non-renewable resources etc.) has been noted by the Intergovernmental Panel on Climate Change (IPCC) as the contributing factor to recent and potential future changes in climate. The IPCC is made up of thousands of experts and governmental representatives with the aim of setting out abatement policies and targets to prevent 'runaway climate change' and reaching a 'tipping point' where climate change cannot be reversed.

The willingness to consume less, reduce energy consumption from non-renewable resources, and conduct activities in a more sustainable manner should be encouraged worldwide to reduce stress on the planet.

Project Impact & Energy Reduction

Section 3 of the MECP guidance provides questions to consider for an EA project to reduce impacts on climate change. The following questions have been considered with responses provided below:

- How might the project / alternatives generate greenhouse gas emissions or affect carbon storage or the removal of carbon dioxide from the atmosphere?

  Energy consumption is required for construction activities (e.g. equipment usage, worker travel), along with indirect consumption of energy through usage of construction materials (i.e. embedded carbon and life cycle). To reduce energy consumption at the source, the Contractor will be informed via the tender document to reduce idling of construction equipment and vehicles when not in use. Sourcing of local materials is encouraged reducing travel distance and gas consumption.

  The project will result in tree and vegetation to aid construction. Additional tree planting will occur as part of construction and following construction by SNAP. In addition, exposed soil surfaces will be re-stabilized and re-vegetated as soon as possible to restore the site to its pre-construction condition, where possible. Although minor in nature, planting and re-vegetation will act as a method of carbon sequestration.

- To what extent have the project / alternatives already taken into account impacts on climate change in project planning?

  Given the small magnitude and nature of the project, the impact upon global climate change is considered negligible. Nonetheless, sustainable construction methods and sourcing of local materials, as described above, will contribute to a reduction in energy consumption and greenhouse gas emissions.

Climate change flooding events may result in more severe events and the preferred alternative will provide substantially better stormwater management than the existing system.

- Are there alternative methods to implement the project that would reduce any adverse contributions to a changing climate?

  The adverse contributions from this project on a changing climate are considered negligible. The alternatives reviewed as part of this EA would have similar construction timelines and footprints to the preferred alternative and therefore direct and indirect energy consumption (and associated tonnage of CO_2e) would be also be similar.

- How might the project / alternatives give rise to climate change impacts, positive or negative, on Indigenous people and / or communities?

  Given the magnitude of the project, beneficial nor adverse impacts are considered significant to affect Indigenous People and / or communities. Indigenous Communities were contacted throughout the consultation process and no concerns regarding the project or impacts on climate change from the project were raised.

- What commitments can be made to reduce the impacts on climate change from the project over time, i.e. when the project is implemented?

  Operationally, the preferred alternative will reduce the effects of severe flooding induced by climate change through a new underground storage system that can deal with greater runoff and rainfall. Additionally, collaboration between the City of Vaughan, SNAP and interested local residents in the near future will help in the implementation of sustainable strategies such as tree planting, multi-use trails etc. that will contribute in the reduction of greenhouse gas emissions.

8.2.12 Archaeological Resources, Built Heritage and Cultural Heritage Landscapes

Built Heritage and Cultural Heritage Landscapes

No impacts on the John R. Arnold House located at 21 Spring Gate Boulevard will occur as a result of the proposed works.

As noted in Section 4.4 of this report, the northeast section of Gallanough Park falls within the Thornhill Vaughan Heritage Conservation District. As such, the Project Team will work with the City of Vaughan's Cultural Heritage Division during detail design to ensure the objectives of new development, according to Section 2.7.5 of the 'Thornhill Vaughan Heritage Conservation District Plan 2007', are adhered to.

Archaeology

As noted in **Section 4.4** and **Table 5**, the Ministry of Tourism and Culture confirmed on May 10, 2010 that the site had been reviewed it was determined it had low archaeological potential and an archaeological assessment was not required. Please refer to **Appendix F** for the correspondence.

If something of archaeological significance is uncovered during construction the following direction is to be followed in accordance with OPSS.MUNI 100 General Conditions of Contract G3.07.05:

- If previously unknown or unassessed deeply buried archaeological resources are uncovered during construction, the Contractor shall immediately cease work and notify the CA. Work shall remain suspended within the subject area until otherwise directed by the CA in writing, according to subsection GC 7.11, Suspension of Work. The CA will contact the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) who will confirm the need to engage a licensed consultant archaeologist to carry out any archaeological fieldwork, in compliance with Section 48 (1) of the Ontario Heritage Act.
- If human remains are encountered during construction, the Contractor shall immediately cease all work and notify the CA. The CA must notify the police or coroner and the City of Vaughan. The City of Vaughan will notify the Regional Archaeologist, Registrar of Cemeteries at the Ministry of Government and Consumer Services and the Ministry of Heritage, Sport, Tourism, and Culture Industries. Work shall remain suspended within the subject area until otherwise directed by the CA in writing, according to subsection GC 7.11, Suspension of Work.

8.3 Proposed Construction Schedule

Assuming that 30 days after the end of the comment period provided in the Revised Notice of Completion no Part II Order requests have been submitted to the MECP, construction of the preferred alternative, pending Council approval, is tentatively scheduled as follows:

- End of 30-day review period – mid-December 2020
- Additional 30-day review period for Minister – mid-January 2021
- Detail design and Tender Period – January 2021 to summer 2021
- Construction Duration – fall 2021 to spring 2022
- Post-Construction Monitoring – spring 2022 to spring 2024

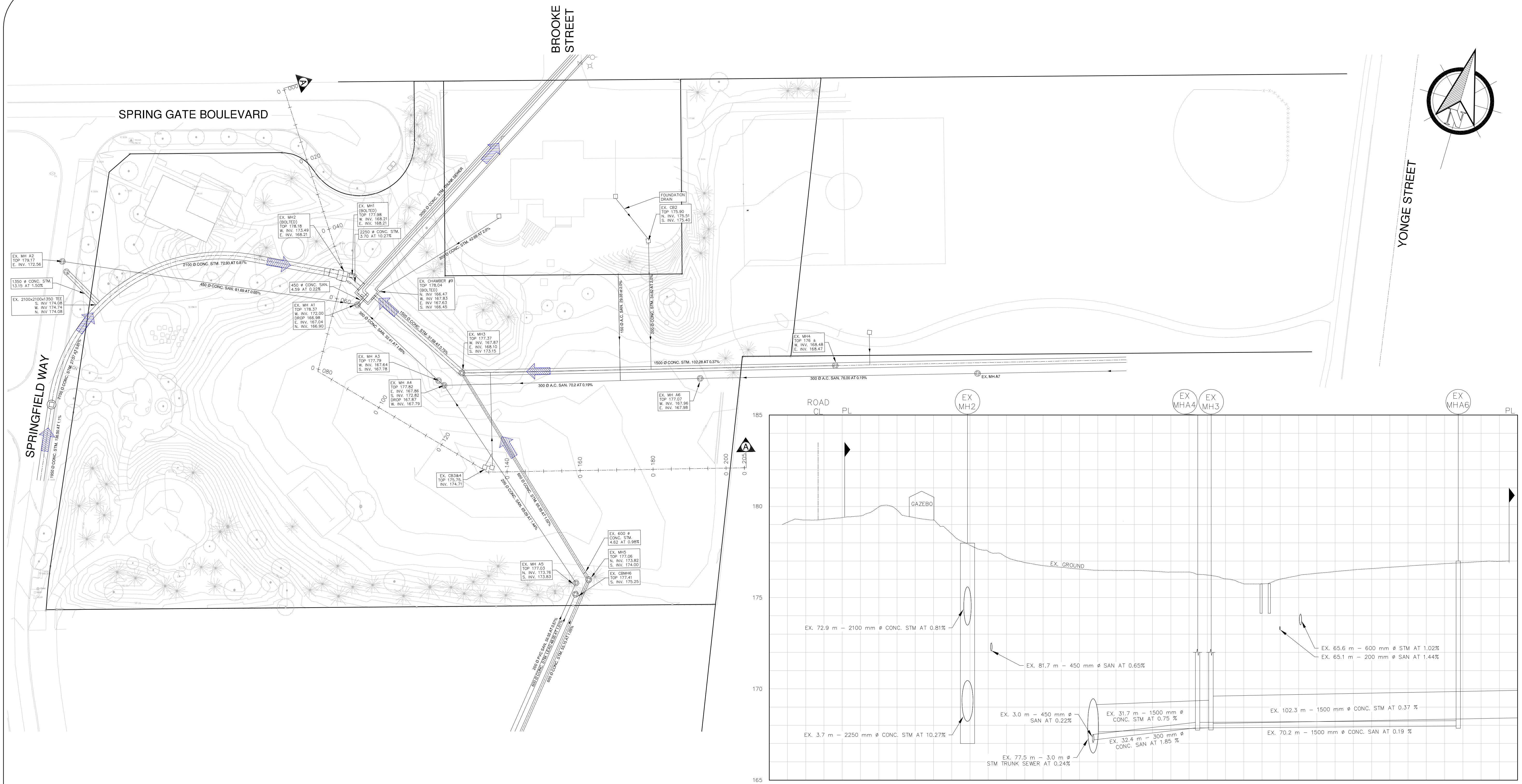
8.4 Proposed Monitoring and Maintenance

As part of implementing this project, monitoring will be conducted during construction to ensure that:

- Individual mitigation measures are providing the expected control and/or protection continuously throughout the construction period;
- The mitigating measures are adequate to minimize or eliminate adverse effects;
- Additional mitigating measures are provided, if required, to address any unanticipated adverse environmental effects that arise during construction; and,
- Adequate information is available for the assessment of the mitigative measures.

Post-construction maintenance and monitoring of the underground facility will include engineering inspections of the underground storage facility and flow conveyance structures. Consideration could be given to implementing a water quantity control monitoring program that would include a rain gauge network and flow monitors upstream and downstream of the facility to assess the performance of the storage and control structures. In addition, normal park features, and landscaping maintenance will be required. Subsequent recommendations will be made after the construction to determine any required maintenance activities. Ultimately, an operations and maintenance manual will be prepared to inform City operations regarding required inspection and operations activities and frequencies.

Appendix A – Drawings: Alternative Solutions and Preferred Solution



SECTION A-A
SCALE H 1:1000, V 1:200

RESILIENT CONSULTING

LEGEND

EXISTING CONTOURS	STORM FLOW DIRECTION ARROW
PROPERTY LINE	
SECTION ALIGNMENT	

ALTERNATIVE #1 - DO NOTHING

SWM FACILITY WITHIN GALLANOUGH PARK
NORTHEAST QUADRANT OF YONGE ST. AND CLARK AVE W.
CITY OF VAUGHAN

DATE:	JULY 2020	PROJECT No.:	2020-010
SCALE:	1:1000	FIGURE No.:	1

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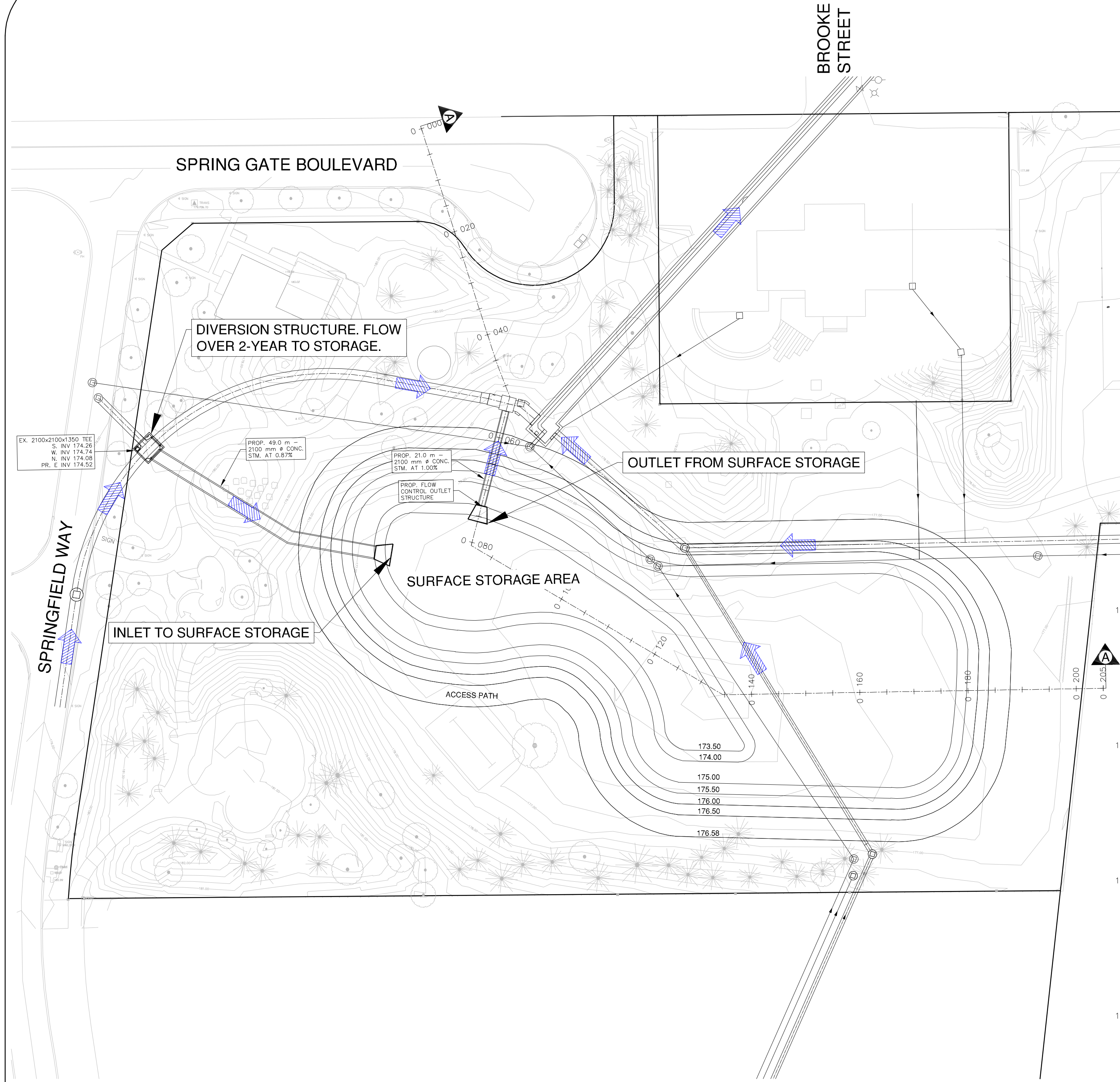
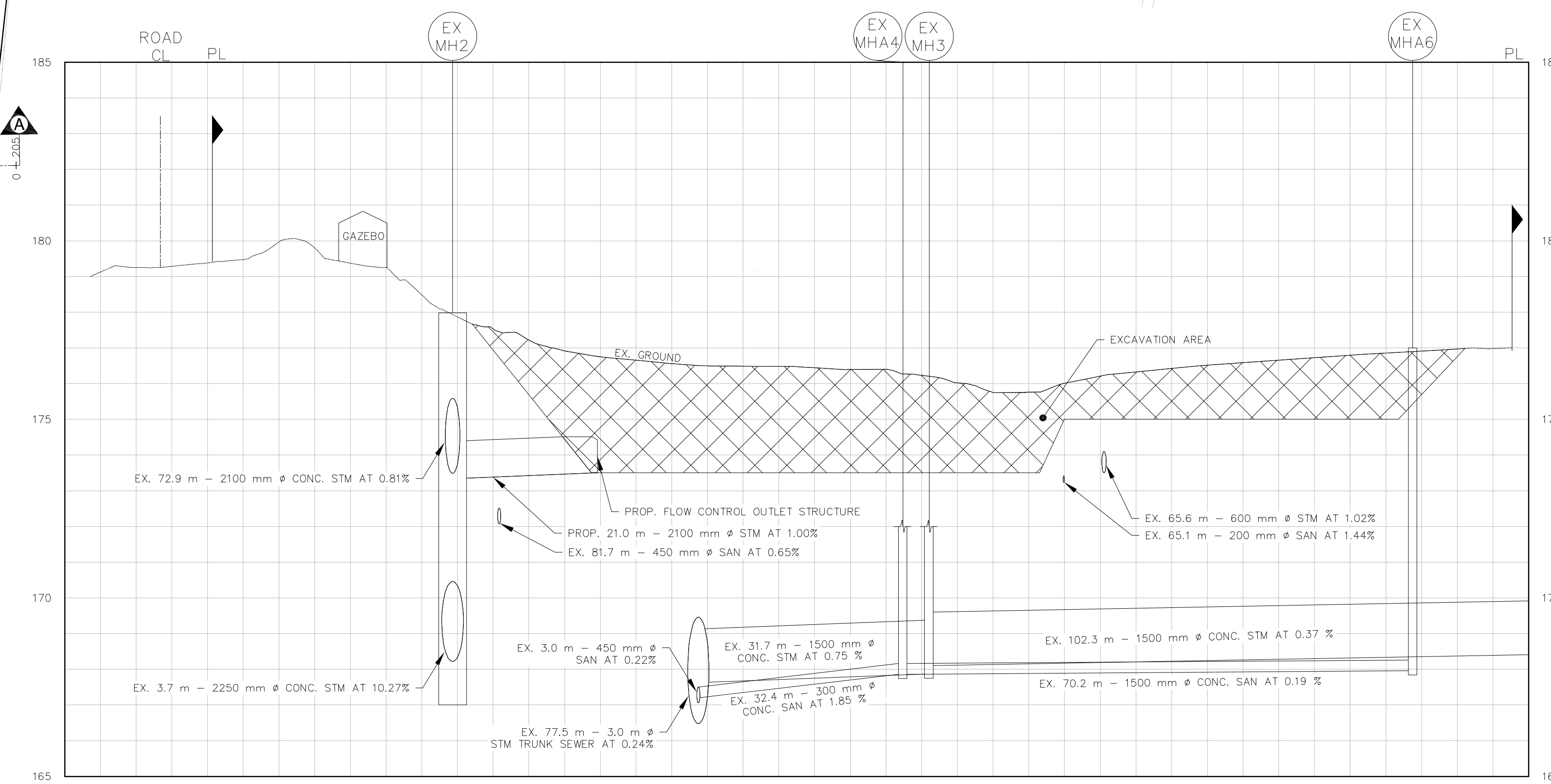


ALTERNATIVE #2
SURFACE STORAGE
10,000 m³ AT ELEVATION 176.50 m



SECTION A-A
SCALE H 1:1000, V 1:200

RESILIENT CONSULTING

LEGEND

EXISTING CONTOURS	STORM FLOW DIRECTION ARROW
PROPOSED CONTOURS	
PROPERTY LINE	
SECTION ALIGNMENT	

ALTERNATIVE #2 - SURFACE STORAGE

SWM FACILITY WITHIN GALLANOUGH PARK
NORTHEAST QUADRANT OF YONGE ST. AND CLARK AVE W.
CITY OF VAUGHAN

DATE:	JULY 2020	PROJECT No.:	2020-010
SCALE:	1:1000	FIGURE No.:	2

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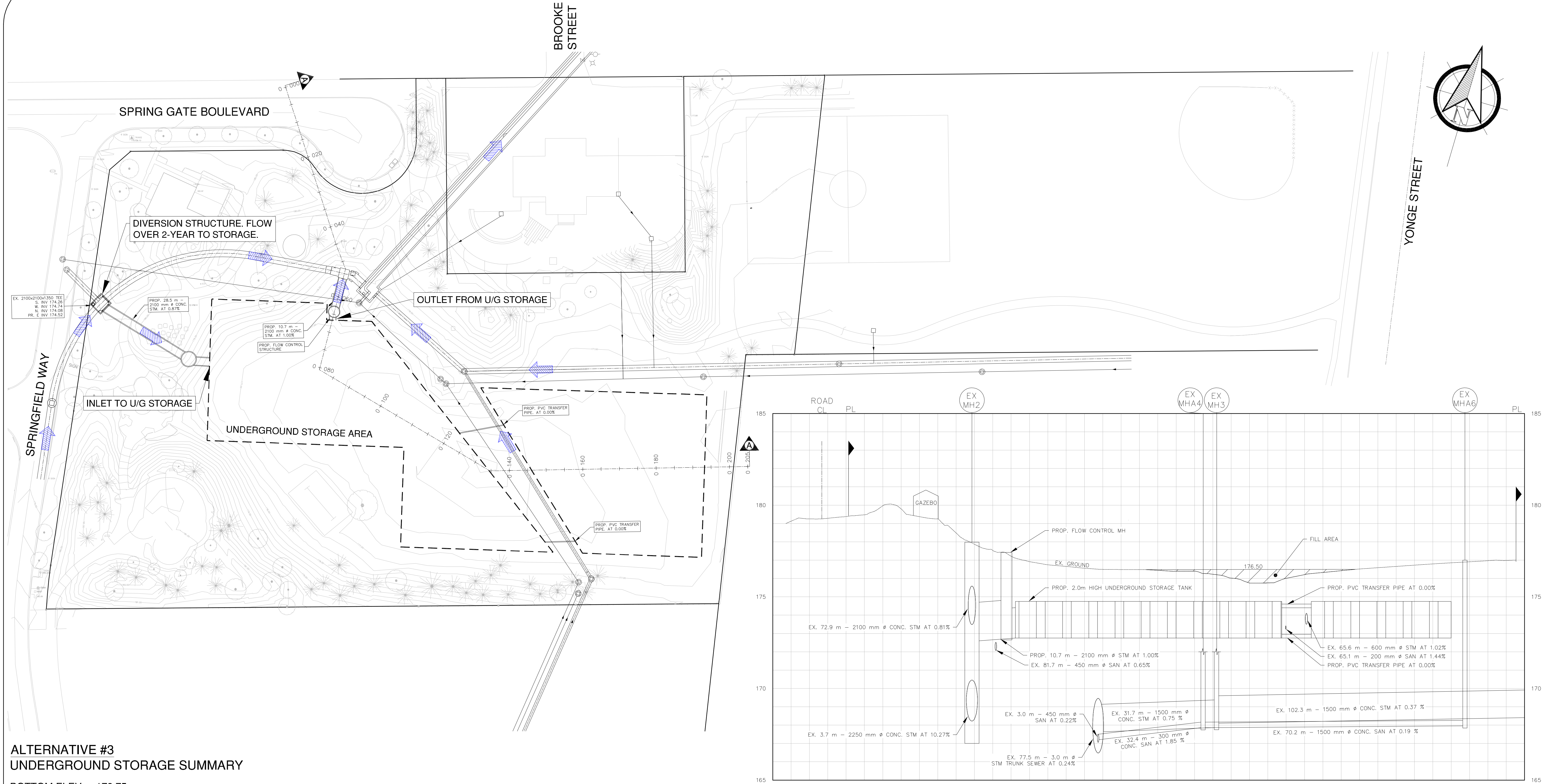


SECTION A-A
SCALE H 1:1000, V 1:200

ALTERNATIVE #3
UNDERGROUND STORAGE SUMMARY

BOTTOM ELEV. = 172.75 m
HEIGHT = 2.0 m
AREA = 5,087 m²
VOLUME = 9,559 m³

RESILIENT CONSULTING

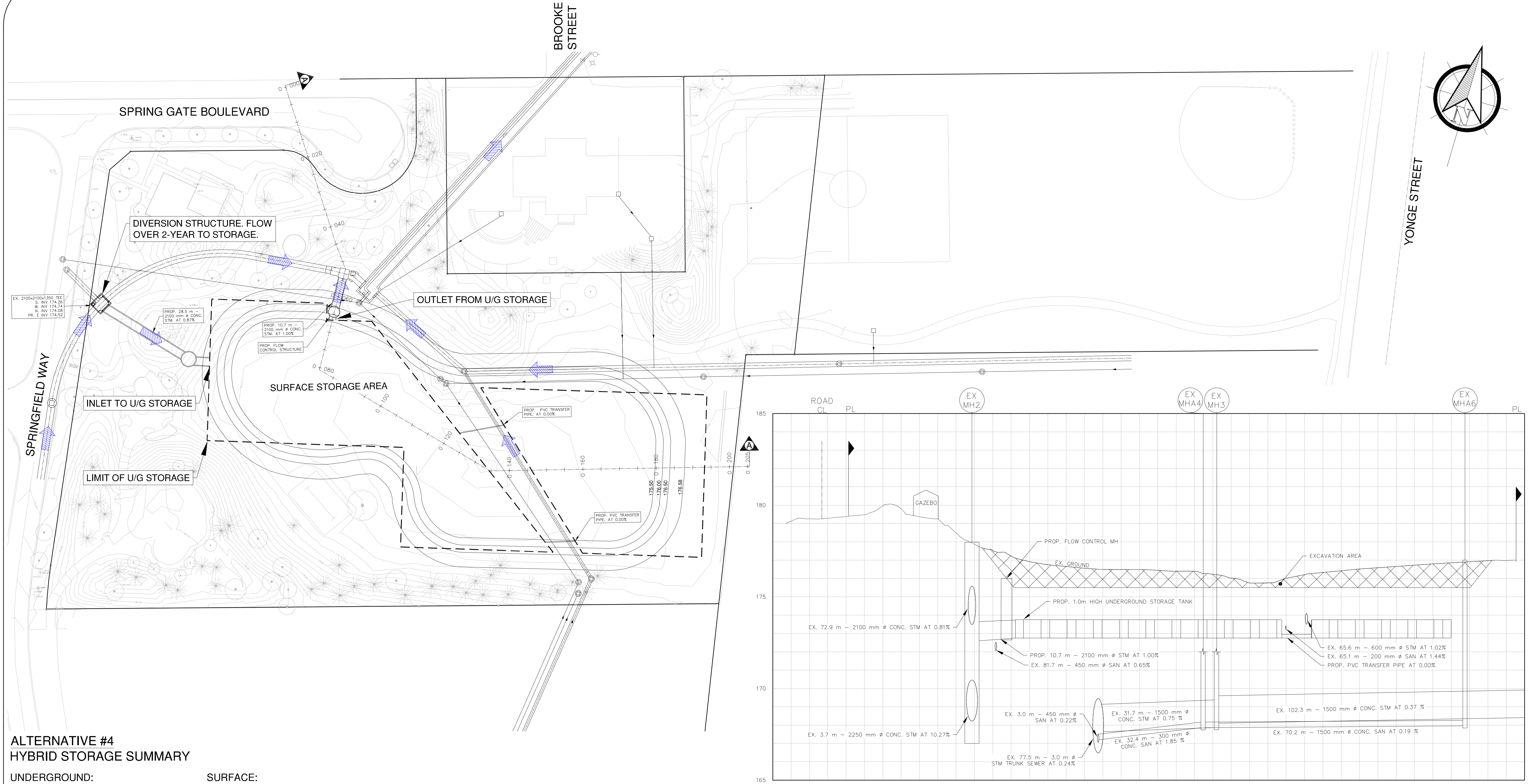
LEGEND

EXISTING CONTOURS	STORM FLOW DIRECTION ARROW
PROPERTY LINE	
SECTION ALIGNMENT	

ALTERNATIVE #3 - UNDERGROUND STORAGE
SWM FACILITY WITHIN GALLANOUGH PARK
NORTHEAST QUADRANT OF YONGE ST. AND CLARK AVE W.
CITY OF VAUGHAN

DATE:	JULY 2020	PROJECT No.:	2020-010
SCALE:	1:1000	FIGURE No.:	3

C:\Users\rturbitt\Resilient Consulting Corporation\F – Documents\Projects\2020\2020-010 Vaughan Gallanough\3 CAD GIS\Working\2020-010 – Design Alternatives-bt.dwg



SECTION A-A
SCALE H 1:1000, V 1:200

ALTERNATIVE #4
HYBRID STORAGE SUMMARY

UNDERGROUND:
BOTTOM ELEV. = 172.75 m
HEIGHT = 1.0 m
AREA = 5,087 m²
VOLUME = 4,782 m³

SURFACE:

ELEV (m)	AREA (m²)	VOLUME (m³)
175.50	4171.5	0
176.00	4750.1	2238
176.50	5406.9	4785

RESILIENT CONSULTING

LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPERTY LINE
- SECTION ALIGNMENT
- STORM FLOW DIRECTION ARROW

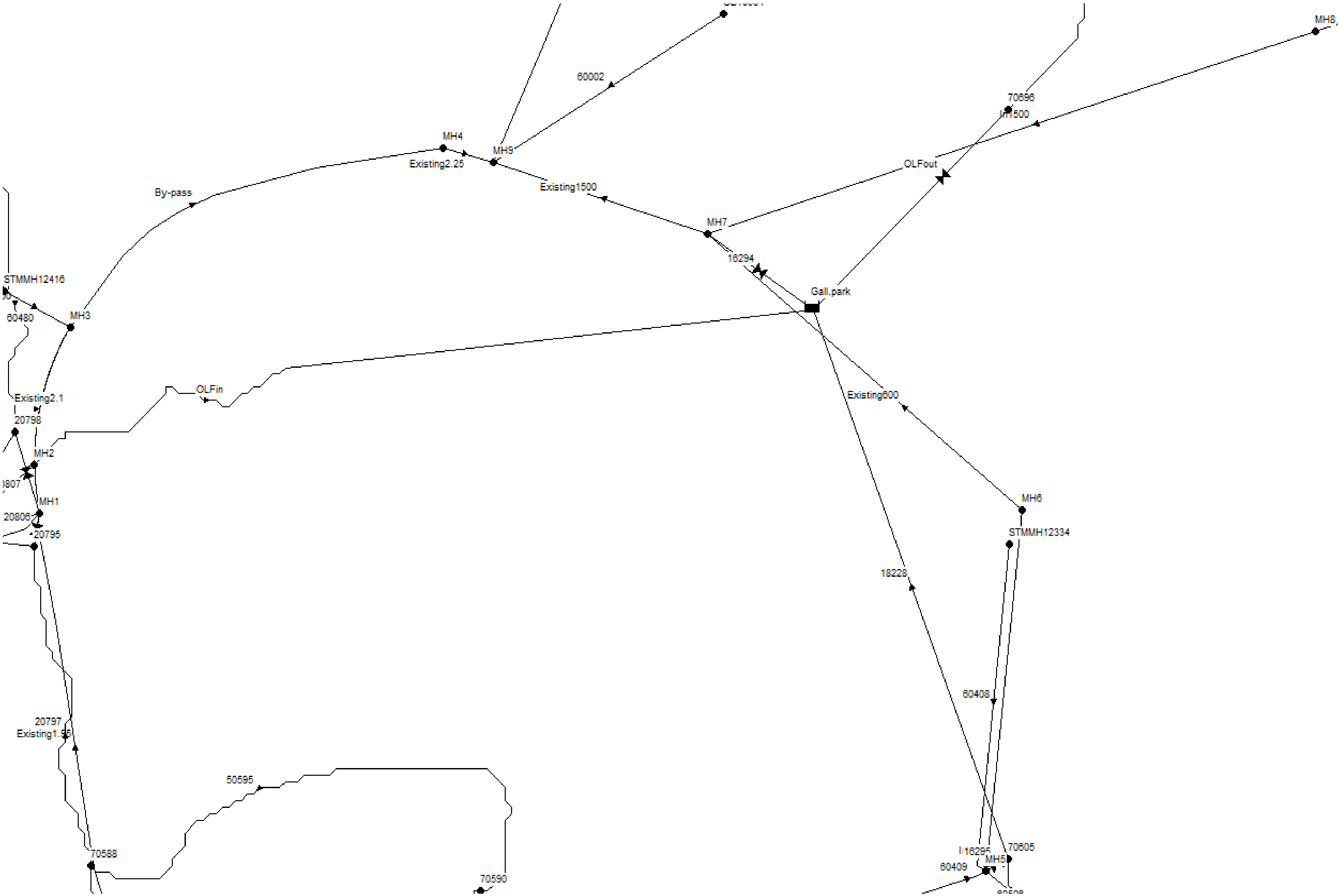
ALTERNATIVE #4 - HYBRID STORAGE

SWM FACILITY WITHIN GALLANOUGH PARK
NORTHEAST QUADRANT OF YONGE ST. AND CLARK AVE W.
CITY OF VAUGHAN

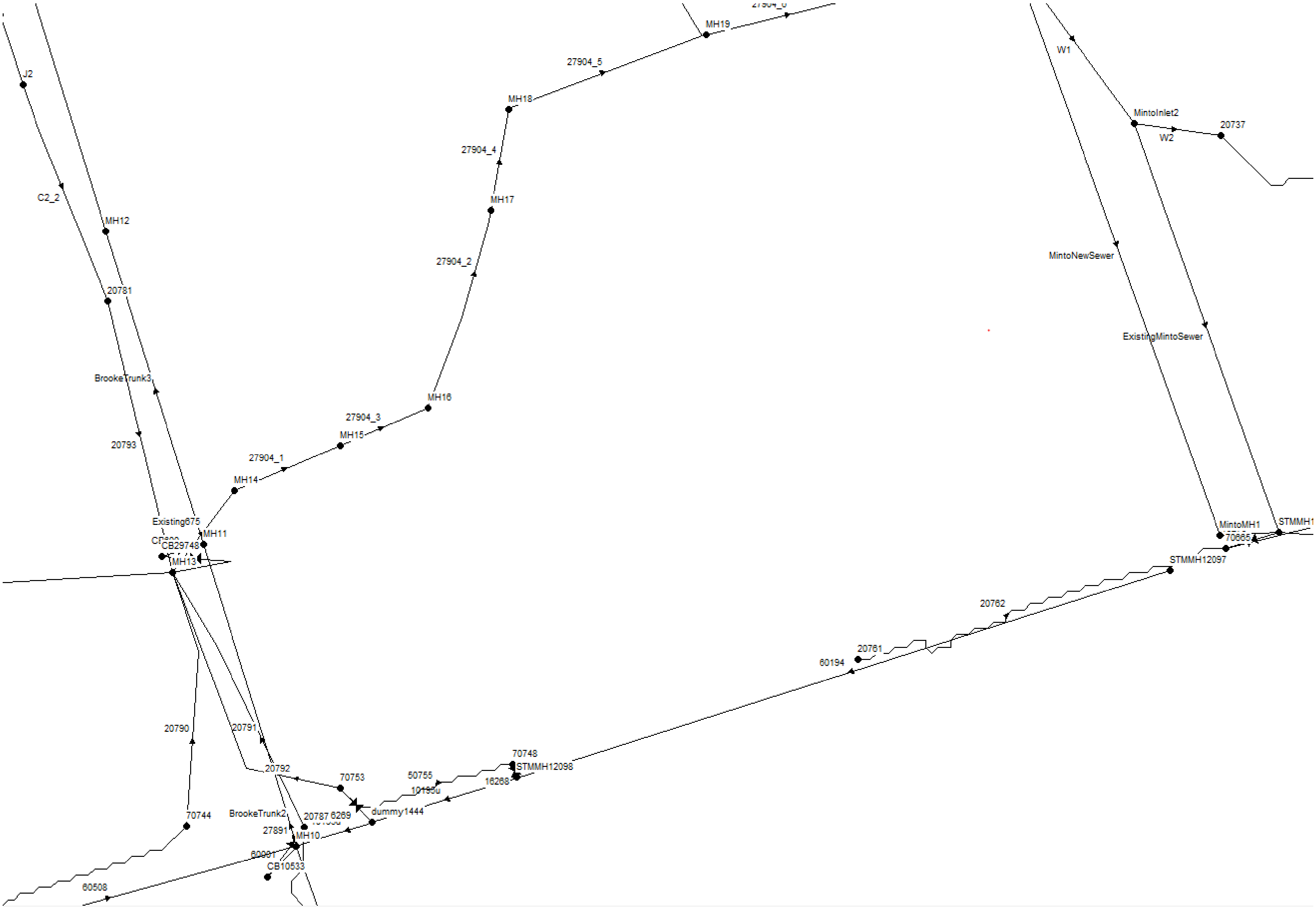
DATE:	JULY 2020	PROJECT No.:	2020-010
SCALE:	1:1000	FIGURE No.:	4

Appendix B – Input / Output Data and Results

EXISTING CONDITIONS – GALLANOUGH PARK



EXISTING CONDITIONS – ARNOLD AVENUE



Area1-6Existing -100yr

Node Depth Summary

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
14727	OUTFALL	0.00	0.07	201.38	0	08:00	0.02
14732	STORAGE	1.83	3.50	185.50	0	08:43	1.07
14734	JUNCTION	0.12	0.26	183.16	0	08:46	0.08
14739	JUNCTION	1.19	1.61	182.51	0	08:52	0.49
14740	JUNCTION	1.01	1.43	182.51	0	08:52	0.44
14744	JUNCTION	0.20	0.50	182.46	0	08:52	0.15
14747	JUNCTION	0.23	0.58	181.12	0	08:51	0.18
14748	JUNCTION	0.02	0.10	182.20	0	08:02	0.03
14756	JUNCTION	0.05	0.11	178.14	0	08:24	0.03
14758	JUNCTION	0.01	0.05	178.42	0	08:01	0.01
14760	JUNCTION	0.50	0.74	176.39	0	08:34	0.23
14761	JUNCTION	0.16	0.34	176.34	0	08:34	0.10
14765	JUNCTION	0.14	0.24	176.27	0	08:34	0.07
14767	STORAGE	0.15	0.22	174.72	0	13:19	0.07
14769	JUNCTION	0.00	0.00	176.00	0	00:00	0.00
14771	JUNCTION	0.09	0.24	175.88	0	08:09	0.07
14772	JUNCTION	0.10	0.30	175.94	0	08:06	0.09

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
14773	JUNCTION	0.05	0.26	175.97	0	08:05	0.08
14774	JUNCTION	0.03	0.20	177.26	0	08:05	0.06
14775	JUNCTION	0.03	0.16	178.02	0	08:04	0.05
14789	JUNCTION	0.00	0.00	173.83	0	00:00	0.00
14826	OUTFALL	0.01	0.10	193.97	0	08:00	0.03
14830	OUTFALL	0.02	0.16	194.44	0	08:02	0.05
14833	OUTFALL	0.05	0.31	172.73	0	08:06	0.09
14834	JUNCTION	0.12	0.54	172.99	0	08:06	0.16
14835	JUNCTION	0.02	0.17	179.24	0	08:03	0.05
14836	JUNCTION	0.02	0.18	180.25	0	08:02	0.05
14845	JUNCTION	0.03	0.11	173.16	0	08:04	0.03
14854	JUNCTION	0.02	0.08	185.80	0	08:01	0.03
14857	JUNCTION	0.03	0.13	184.64	0	08:01	0.04
14860	JUNCTION	0.01	0.07	183.90	0	08:02	0.02
14902	STORAGE	1.15	3.01	188.01	0	08:28	0.92
14927	JUNCTION	0.07	0.30	175.32	0	08:30	0.09
14956	JUNCTION	0.04	0.11	174.31	0	08:11	0.03
14963	JUNCTION	1.57	1.66	175.15	0	08:00	0.51
14964	JUNCTION	0.51	1.19	174.40	0	08:43	0.36

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
14975	JUNCTION	0.02	0.15	187.36	0	08:29	0.05
14997	JUNCTION	0.01	0.07	194.11	0	08:01	0.02
16253	JUNCTION	0.02	0.11	205.30	0	08:01	0.03
16686	JUNCTION	1.25	1.34	206.07	0	08:00	0.41
16687	JUNCTION	0.01	0.06	205.97	0	08:00	0.02
16691	JUNCTION	1.29	1.37	206.38	0	08:00	0.42
16692	JUNCTION	0.01	0.09	205.61	0	08:00	0.03
16718	JUNCTION	1.29	1.35	202.14	0	08:00	0.41
16726	JUNCTION	1.12	1.43	200.70	0	08:23	0.44
16727	JUNCTION	0.11	0.63	200.70	0	08:24	0.19
16735	JUNCTION	1.27	1.33	201.84	0	08:00	0.41
16786	JUNCTION	1.30	1.38	201.88	0	08:00	0.42
16787	JUNCTION	0.02	0.11	201.70	0	08:01	0.03
16855	JUNCTION	1.29	1.38	200.89	0	08:00	0.42
16859	JUNCTION	1.29	1.39	200.61	0	08:00	0.42
16860	JUNCTION	0.02	0.09	200.60	0	08:00	0.03
17490	STORAGE	0.68	2.14	196.47	0	08:41	0.65
17498	STORAGE	2.18	4.38	193.50	0	08:41	1.33
17499	STORAGE	0.54	2.87	190.94	0	08:14	0.87

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
17500	STORAGE	0.24	1.88	190.96	0	08:15	0.57
17516	JUNCTION	0.04	0.18	201.57	0	08:05	0.05
17519	JUNCTION	0.01	0.05	196.49	0	08:04	0.02
17523	JUNCTION	1.47	2.13	200.69	0	08:30	0.65
17531	JUNCTION	0.09	0.58	204.79	0	08:07	0.18
17540	JUNCTION	0.04	0.24	201.06	0	08:06	0.07
17553	JUNCTION	0.05	0.23	200.81	0	08:03	0.07
18169	JUNCTION	0.02	0.12	189.26	0	08:00	0.04
18186	JUNCTION	0.68	1.25	172.41	0	08:44	0.38
18202	JUNCTION	0.59	0.89	179.87	0	08:36	0.27
18206	JUNCTION	0.14	0.31	178.64	0	08:24	0.09
18210	JUNCTION	0.08	0.20	176.98	0	08:26	0.06
18218	JUNCTION	0.01	0.07	181.46	0	08:02	0.02
18221	JUNCTION	0.05	0.11	194.38	0	08:02	0.03
18225	JUNCTION	0.03	0.36	187.54	0	08:05	0.11
18229	JUNCTION	0.01	0.14	180.77	0	08:07	0.04
18232	JUNCTION	0.02	0.21	181.33	0	08:07	0.06
18235	JUNCTION	0.05	1.45	193.61	0	08:04	0.44
18245	JUNCTION	0.02	0.08	194.58	0	08:01	0.03

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
18248	JUNCTION	1.33	1.82	192.62	0	08:09	0.55
18254	JUNCTION	0.00	0.10	194.42	0	08:24	0.03
18255	JUNCTION	1.37	2.10	194.42	0	08:24	0.64
18256	JUNCTION	1.28	1.49	194.41	0	08:24	0.45
18265	JUNCTION	0.00	0.13	194.33	0	08:29	0.04
18276	STORAGE	0.80	0.98	192.81	0	09:45	0.30
18277	STORAGE	1.03	1.23	192.13	0	09:38	0.38
18278	JUNCTION	1.08	1.30	193.23	0	08:03	0.40
18279	JUNCTION	0.00	0.00	193.22	0	00:00	0.00
18285	JUNCTION	0.01	0.18	193.62	0	08:10	0.05
18290	JUNCTION	1.29	1.38	193.97	0	08:00	0.42
18303	JUNCTION	0.02	0.09	193.70	0	08:01	0.03
18306	JUNCTION	1.36	1.88	193.08	0	08:04	0.57
18307	JUNCTION	1.43	1.60	193.11	0	08:03	0.49
18310	JUNCTION	1.30	1.64	193.08	0	08:04	0.50
18313	JUNCTION	0.03	0.11	193.22	0	08:03	0.03
18328	OUTFALL	0.02	0.12	200.74	0	08:03	0.04
20727	JUNCTION	0.00	0.00	174.57	0	00:00	0.00
20730	JUNCTION	0.48	0.52	202.54	0	08:03	0.16

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
20731	JUNCTION	0.04	0.18	200.91	0	08:02	0.05
20736	JUNCTION	0.01	0.06	175.05	0	08:00	0.02
20737	JUNCTION	0.00	0.00	173.51	0	00:00	0.00
20741	JUNCTION	0.01	0.05	175.58	0	08:01	0.02
20746	JUNCTION	0.01	0.07	173.99	0	08:01	0.02
20756	JUNCTION	0.01	0.06	173.10	0	08:00	0.02
20760	JUNCTION	1.32	1.68	173.08	0	08:05	0.51
20761	JUNCTION	0.01	0.06	174.67	0	08:01	0.02
20764	JUNCTION	0.01	0.05	173.39	0	08:00	0.01
20767	JUNCTION	0.01	0.05	173.95	0	08:00	0.01
20777	JUNCTION	0.01	0.07	180.93	0	08:03	0.02
20781	JUNCTION	0.09	0.37	174.66	0	08:00	0.11
20784	JUNCTION	0.01	0.07	176.76	0	08:01	0.02
20787	JUNCTION	0.03	0.19	174.34	0	08:33	0.06
20794	JUNCTION	1.36	2.22	179.00	0	08:10	0.67
20795	JUNCTION	1.32	2.01	179.02	0	08:13	0.60
20798	JUNCTION	1.32	2.00	179.02	0	08:11	0.61
20808	JUNCTION	0.11	0.47	183.77	0	08:09	0.14
20809	JUNCTION	0.02	0.31	183.78	0	08:08	0.09

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
20812	JUNCTION	0.06	0.39	183.14	0	08:10	0.12
20818	JUNCTION	0.02	0.08	184.70	0	08:02	0.03
20821	JUNCTION	0.05	0.31	174.94	0	08:03	0.09
20824	JUNCTION	0.05	0.32	173.40	0	08:04	0.10
27834	JUNCTION	0.20	0.51	182.52	0	08:51	0.16
27862	JUNCTION	0.00	0.00	188.40	0	00:00	0.00
27894	JUNCTION	0.22	1.96	180.17	0	08:28	0.60
27897	JUNCTION	0.12	0.49	178.54	0	08:28	0.15
27907	JUNCTION	0.60	0.94	201.27	0	08:23	0.29
27944	JUNCTION	0.20	0.53	173.71	0	08:45	0.16
27947	JUNCTION	0.19	0.44	180.62	0	08:52	0.13
27951	JUNCTION	0.01	0.22	183.27	0	08:06	0.07
27967	JUNCTION	1.32	1.44	194.97	0	08:02	0.44
27969	JUNCTION	1.34	1.50	193.78	0	08:17	0.46
3192	JUNCTION	1.25	1.34	208.84	0	08:02	0.41
3193	JUNCTION	1.30	1.38	208.31	0	08:02	0.42
3195	JUNCTION	1.29	1.38	207.92	0	08:02	0.42
3197	JUNCTION	1.14	1.33	207.02	0	08:00	0.41
3199	JUNCTION	1.29	1.36	207.88	0	08:01	0.42

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
3200	JUNCTION	1.29	1.37	206.42	0	08:01	0.42
3202	JUNCTION	1.30	1.42	206.19	0	08:03	0.43
3203	JUNCTION	0.02	0.10	206.59	0	08:02	0.03
3207	JUNCTION	1.31	1.39	207.34	0	08:00	0.42
3208	JUNCTION	1.30	1.39	206.96	0	08:01	0.42
3211	JUNCTION	1.31	1.40	206.51	0	08:00	0.43
3212	JUNCTION	1.12	1.33	206.65	0	08:01	0.40
3213	JUNCTION	1.12	1.34	206.18	0	08:04	0.41
3215	JUNCTION	1.30	1.41	205.88	0	08:01	0.43
3216	JUNCTION	0.02	0.10	206.08	0	08:01	0.03
3221	JUNCTION	1.31	1.48	205.60	0	08:03	0.45
3222	JUNCTION	1.31	1.44	205.96	0	08:03	0.44
3228	JUNCTION	1.29	1.39	206.01	0	08:00	0.42
3229	JUNCTION	1.30	1.40	205.83	0	08:00	0.43
3236	JUNCTION	1.27	1.35	206.03	0	08:00	0.41
3237	JUNCTION	0.04	0.21	205.65	0	08:03	0.06
3241	JUNCTION	1.30	1.40	206.29	0	08:02	0.43
3244	JUNCTION	0.02	0.14	205.44	0	08:01	0.04
3246	JUNCTION	1.28	1.35	207.47	0	08:01	0.41

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
3248	JUNCTION	1.29	1.36	207.36	0	08:00	0.41
3249	JUNCTION	0.03	0.14	206.40	0	08:03	0.04
3251	JUNCTION	1.35	1.45	204.11	0	08:02	0.44
3253	JUNCTION	0.08	0.29	202.45	0	08:14	0.09
3304	JUNCTION	0.04	0.21	205.35	0	08:04	0.06
3305	JUNCTION	0.03	0.20	205.50	0	08:03	0.06
70000	JUNCTION	1.07	1.32	191.14	0	08:02	0.40
70002	JUNCTION	1.29	1.36	191.80	0	08:00	0.41
70003	JUNCTION	1.30	1.38	190.74	0	08:00	0.42
70004	JUNCTION	1.30	1.39	190.25	0	08:00	0.42
70006	JUNCTION	0.01	0.09	189.49	0	08:00	0.03
70008	JUNCTION	1.28	1.36	190.26	0	08:01	0.42
70010	JUNCTION	1.30	1.40	188.40	0	08:00	0.43
70013	JUNCTION	0.02	0.14	187.62	0	08:01	0.04
70014	JUNCTION	0.64	0.77	187.37	0	08:01	0.24
70015	JUNCTION	0.01	0.21	187.85	0	08:28	0.06
70016	JUNCTION	0.01	0.35	190.95	0	08:15	0.10
70028	JUNCTION	1.30	1.47	186.33	0	08:29	0.45
70032	JUNCTION	1.28	1.34	189.75	0	08:00	0.41

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70033	JUNCTION	1.29	1.38	187.51	0	08:01	0.42
70034	JUNCTION	1.30	1.39	184.43	0	08:00	0.42
70035	JUNCTION	1.27	1.37	184.10	0	08:02	0.42
70037	JUNCTION	1.29	1.33	180.38	0	08:04	0.41
70038	JUNCTION	1.28	1.35	181.72	0	08:01	0.41
70039	JUNCTION	1.29	1.35	181.45	0	08:00	0.41
70040	JUNCTION	1.45	1.52	196.20	0	08:00	0.46
70041	JUNCTION	1.30	1.40	195.42	0	08:01	0.43
70043	JUNCTION	1.29	1.39	195.15	0	08:02	0.42
70045	JUNCTION	1.30	1.40	194.54	0	08:02	0.43
70047	JUNCTION	1.30	1.47	193.95	0	08:02	0.45
70049	JUNCTION	1.30	1.37	194.04	0	08:00	0.42
70052	JUNCTION	1.29	1.38	193.82	0	08:01	0.42
70053	JUNCTION	1.28	1.35	195.50	0	08:00	0.41
70055	JUNCTION	1.36	1.86	193.77	0	08:02	0.57
70056	JUNCTION	0.01	0.05	193.98	0	08:29	0.02
70060	JUNCTION	0.04	0.16	198.44	0	08:04	0.05
70071	JUNCTION	1.29	1.37	199.43	0	08:00	0.42
70072	JUNCTION	0.04	0.19	196.63	0	08:04	0.06

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70076	JUNCTION	1.30	1.40	198.06	0	08:01	0.43
70079	JUNCTION	1.30	1.40	197.62	0	08:02	0.43
70082	JUNCTION	1.34	1.57	195.32	0	08:14	0.48
70085	JUNCTION	1.44	2.02	195.34	0	08:11	0.61
70088	JUNCTION	1.29	1.37	196.71	0	08:00	0.42
70089	JUNCTION	0.05	0.35	195.33	0	08:15	0.10
70093	JUNCTION	1.30	1.48	196.18	0	08:01	0.45
70098	JUNCTION	1.30	1.37	199.66	0	08:01	0.42
70099	JUNCTION	0.05	0.62	195.35	0	08:11	0.18
70103	JUNCTION	1.28	1.37	198.51	0	08:02	0.42
70110	JUNCTION	1.28	1.33	196.98	0	08:02	0.41
70113	JUNCTION	1.33	1.82	195.34	0	08:11	0.56
70116	JUNCTION	1.55	1.64	197.41	0	08:00	0.50
70118	JUNCTION	1.29	1.40	196.45	0	08:00	0.43
70121	JUNCTION	1.31	1.61	195.33	0	08:12	0.49
70124	JUNCTION	1.31	1.41	197.87	0	08:00	0.43
70125	JUNCTION	1.31	1.44	195.70	0	08:02	0.44
70129	JUNCTION	1.30	1.40	197.54	0	08:02	0.43
70132	JUNCTION	1.29	1.36	200.03	0	08:00	0.42

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70133	JUNCTION	1.29	1.35	199.64	0	08:01	0.41
70134	JUNCTION	1.30	1.40	197.15	0	08:01	0.43
70137	JUNCTION	1.31	1.44	196.43	0	08:02	0.44
70143	JUNCTION	1.30	1.51	195.03	0	08:02	0.46
70147	JUNCTION	1.27	1.34	195.64	0	08:00	0.41
70149	JUNCTION	1.30	1.44	193.96	0	08:02	0.44
70153	JUNCTION	1.30	1.46	192.85	0	08:02	0.45
70155	JUNCTION	1.30	1.38	195.14	0	08:01	0.42
70156	JUNCTION	0.03	0.24	194.97	0	08:12	0.07
70160	JUNCTION	1.28	1.35	195.17	0	08:01	0.41
70161	JUNCTION	1.33	1.62	194.64	0	08:13	0.49
70165	JUNCTION	1.29	1.38	194.66	0	08:01	0.42
70171	JUNCTION	1.33	1.57	194.52	0	08:14	0.48
70175	JUNCTION	1.31	1.42	194.49	0	08:02	0.43
70180	JUNCTION	1.25	1.34	195.27	0	08:04	0.41
70182	JUNCTION	1.30	1.51	194.42	0	08:23	0.46
70188	JUNCTION	1.29	1.36	194.89	0	08:00	0.42
70190	JUNCTION	1.29	1.37	194.45	0	08:00	0.42
70192	JUNCTION	1.30	1.74	194.42	0	08:25	0.53

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70195	JUNCTION	1.30	1.40	198.32	0	08:00	0.43
70196	JUNCTION	1.30	1.39	197.05	0	08:00	0.42
70198	JUNCTION	1.29	1.36	196.55	0	08:01	0.42
70199	JUNCTION	1.31	1.46	195.25	0	08:02	0.45
70206	JUNCTION	1.30	1.41	195.74	0	08:00	0.43
70208	JUNCTION	1.31	1.43	195.36	0	08:01	0.44
70212	JUNCTION	1.29	1.37	193.27	0	08:00	0.42
70213	JUNCTION	1.29	1.35	193.24	0	08:00	0.41
70214	JUNCTION	1.29	1.38	191.04	0	08:00	0.42
70216	JUNCTION	1.33	1.56	191.80	0	08:02	0.48
70218	JUNCTION	1.28	1.35	191.02	0	08:00	0.41
70219	JUNCTION	1.30	1.41	190.03	0	08:00	0.43
70221	JUNCTION	1.31	1.46	188.91	0	08:01	0.45
70225	JUNCTION	0.04	0.29	188.80	0	08:04	0.09
70226	JUNCTION	0.03	0.21	190.88	0	08:03	0.06
70227	JUNCTION	0.02	0.19	191.75	0	08:03	0.06
70238	JUNCTION	1.31	1.51	188.56	0	08:03	0.46
70242	JUNCTION	1.30	1.38	186.84	0	08:00	0.42
70243	JUNCTION	1.32	1.52	186.24	0	08:06	0.46

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70246	JUNCTION	1.32	1.59	186.23	0	08:04	0.48
70250	JUNCTION	1.30	1.40	186.28	0	08:01	0.43
70252	JUNCTION	1.32	1.57	185.67	0	08:05	0.48
70255	JUNCTION	1.28	1.34	193.31	0	08:00	0.41
70256	JUNCTION	1.31	1.39	190.87	0	08:01	0.42
70257	JUNCTION	1.30	1.41	189.39	0	08:00	0.43
70259	JUNCTION	1.32	1.53	188.36	0	08:02	0.47
70260	JUNCTION	1.31	1.47	188.74	0	08:00	0.45
70264	JUNCTION	1.29	1.37	188.67	0	08:00	0.42
70265	JUNCTION	0.05	0.27	188.43	0	08:01	0.08
70269	JUNCTION	1.30	1.38	193.18	0	08:00	0.42
70270	JUNCTION	1.30	1.41	192.66	0	08:01	0.43
70272	JUNCTION	1.19	1.29	194.25	0	08:00	0.39
70273	JUNCTION	1.30	1.39	194.63	0	08:00	0.42
70274	JUNCTION	1.29	1.36	195.00	0	08:00	0.42
70275	JUNCTION	1.29	1.40	194.03	0	08:01	0.43
70277	JUNCTION	1.30	1.40	193.66	0	08:02	0.43
70279	JUNCTION	1.31	1.43	194.36	0	08:01	0.43
70281	JUNCTION	1.30	1.41	194.17	0	08:01	0.43

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70283	JUNCTION	1.30	1.41	193.24	0	08:01	0.43
70285	JUNCTION	1.29	1.44	192.62	0	08:09	0.44
70286	JUNCTION	0.00	0.06	192.89	0	08:03	0.02
70311	JUNCTION	1.29	1.38	194.97	0	08:00	0.42
70312	JUNCTION	1.29	1.37	194.71	0	08:02	0.42
70314	JUNCTION	1.24	1.33	194.92	0	08:01	0.40
70315	JUNCTION	1.29	1.35	194.76	0	08:00	0.41
70317	JUNCTION	1.30	1.40	194.31	0	08:01	0.43
70321	JUNCTION	1.23	1.38	193.50	0	08:02	0.42
70323	JUNCTION	1.32	1.66	192.62	0	08:08	0.51
70324	JUNCTION	0.03	0.35	192.62	0	08:08	0.11
70325	JUNCTION	0.02	0.14	193.77	0	08:03	0.04
70345	JUNCTION	1.30	1.38	194.89	0	08:00	0.42
70346	JUNCTION	1.31	1.46	192.75	0	08:03	0.45
70350	JUNCTION	1.09	1.33	194.50	0	08:05	0.41
70351	JUNCTION	0.03	0.10	193.04	0	08:06	0.03
70355	JUNCTION	1.30	1.40	194.53	0	08:01	0.43
70358	JUNCTION	1.29	1.36	194.43	0	08:00	0.42
70359	JUNCTION	1.45	1.66	193.17	0	08:02	0.51

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70363	JUNCTION	1.29	1.38	193.33	0	08:05	0.42
70366	JUNCTION	1.28	1.36	194.30	0	08:00	0.41
70367	JUNCTION	1.31	1.44	194.12	0	08:01	0.44
70375	JUNCTION	1.19	1.38	192.78	0	08:02	0.42
70378	JUNCTION	1.30	1.38	193.87	0	08:01	0.42
70381	JUNCTION	1.30	1.39	192.97	0	08:01	0.42
70384	JUNCTION	1.30	1.39	194.28	0	08:01	0.42
70387	JUNCTION	1.31	1.41	193.96	0	08:02	0.43
70390	JUNCTION	1.29	1.38	195.45	0	08:01	0.42
70392	JUNCTION	1.28	1.35	194.23	0	08:00	0.41
70393	JUNCTION	0.84	0.92	193.78	0	08:00	0.28
70397	JUNCTION	1.30	1.38	194.52	0	08:01	0.42
70398	JUNCTION	1.30	1.39	194.01	0	08:01	0.42
70400	JUNCTION	0.00	0.00	194.22	0	00:00	0.00
70407	JUNCTION	1.30	1.39	194.60	0	08:00	0.42
70408	JUNCTION	1.30	1.41	194.27	0	08:01	0.43
70410	JUNCTION	1.32	1.48	193.78	0	08:01	0.45
70421	JUNCTION	1.30	1.41	193.75	0	08:02	0.43
70425	JUNCTION	1.29	1.38	195.77	0	08:01	0.42

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70426	JUNCTION	1.30	1.41	194.91	0	08:02	0.43
70428	JUNCTION	1.32	1.47	194.50	0	08:02	0.45
70430	JUNCTION	1.29	1.39	194.59	0	08:00	0.42
70431	JUNCTION	1.30	1.41	194.10	0	08:00	0.43
70433	JUNCTION	1.29	1.38	193.53	0	08:00	0.42
70443	JUNCTION	1.30	1.42	192.42	0	08:01	0.43
70447	JUNCTION	1.29	1.36	191.96	0	08:00	0.41
70448	JUNCTION	1.28	1.36	190.09	0	08:00	0.42
70450	JUNCTION	1.30	1.39	186.99	0	08:00	0.42
70452	JUNCTION	1.27	1.39	186.13	0	08:00	0.42
70454	JUNCTION	1.29	1.36	186.56	0	08:00	0.41
70455	JUNCTION	1.30	1.41	190.77	0	08:01	0.43
70457	JUNCTION	1.29	1.39	190.59	0	08:01	0.42
70458	JUNCTION	1.28	1.34	185.10	0	08:00	0.41
70459	JUNCTION	1.31	1.48	182.31	0	08:02	0.45
70460	JUNCTION	0.03	0.18	183.19	0	08:01	0.05
70461	JUNCTION	0.02	0.16	185.00	0	08:01	0.05
70462	JUNCTION	0.01	0.12	185.85	0	08:00	0.04
70470	JUNCTION	1.25	1.34	182.37	0	08:01	0.41

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70471	JUNCTION	1.29	1.36	181.05	0	08:01	0.42
70473	JUNCTION	1.29	1.36	180.28	0	08:00	0.41
70474	JUNCTION	1.29	1.37	179.79	0	08:00	0.42
70492	JUNCTION	1.30	1.43	192.28	0	08:01	0.44
70494	JUNCTION	1.20	1.33	191.79	0	08:00	0.41
70495	JUNCTION	1.31	1.45	189.04	0	08:03	0.44
70496	JUNCTION	0.02	0.14	191.33	0	08:02	0.04
70497	JUNCTION	0.02	0.14	192.19	0	08:01	0.04
70503	JUNCTION	1.30	1.39	189.51	0	08:00	0.42
70504	JUNCTION	1.31	1.42	188.09	0	08:01	0.43
70506	JUNCTION	1.31	1.42	187.78	0	08:02	0.43
70508	JUNCTION	1.30	1.42	187.13	0	08:02	0.43
70510	JUNCTION	1.29	1.37	186.92	0	08:00	0.42
70512	JUNCTION	1.31	1.46	186.22	0	08:02	0.44
70516	JUNCTION	1.29	1.33	184.82	0	08:00	0.40
70517	JUNCTION	1.35	1.96	183.26	0	08:06	0.60
70520	JUNCTION	1.29	1.37	185.38	0	08:00	0.42
70521	JUNCTION	1.29	1.38	184.48	0	08:01	0.42
70524	JUNCTION	1.32	1.49	183.71	0	08:03	0.46

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70531	JUNCTION	1.32	1.50	186.79	0	08:05	0.46
70533	JUNCTION	1.29	1.38	186.47	0	08:00	0.42
70534	JUNCTION	1.32	1.50	186.15	0	08:06	0.46
70535	JUNCTION	0.04	0.21	186.47	0	08:05	0.06
70539	JUNCTION	1.31	1.50	185.97	0	08:04	0.46
70541	JUNCTION	1.32	1.54	185.09	0	08:05	0.47
70543	JUNCTION	1.32	1.53	184.57	0	08:05	0.47
70545	JUNCTION	1.24	1.34	184.20	0	08:01	0.41
70546	JUNCTION	1.31	1.51	184.13	0	08:06	0.46
70548	JUNCTION	1.31	1.52	183.27	0	08:07	0.46
70550	JUNCTION	1.30	1.40	184.55	0	08:00	0.43
70551	JUNCTION	1.30	1.42	183.49	0	08:01	0.43
70553	JUNCTION	1.30	1.43	182.92	0	08:02	0.44
70556	JUNCTION	1.31	1.50	182.56	0	08:06	0.46
70560	JUNCTION	1.29	1.37	184.47	0	08:00	0.42
70561	JUNCTION	1.30	1.40	182.57	0	08:01	0.43
70563	JUNCTION	1.30	1.43	181.72	0	08:01	0.44
70565	JUNCTION	1.30	1.39	181.43	0	08:00	0.43
70566	JUNCTION	1.31	1.49	180.24	0	08:07	0.46

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70567	JUNCTION	0.03	0.21	181.39	0	08:07	0.07
70571	JUNCTION	1.29	1.36	181.40	0	08:00	0.42
70574	JUNCTION	0.00	0.18	183.24	0	08:07	0.05
70581	JUNCTION	1.30	1.55	179.02	0	08:09	0.47
70585	JUNCTION	1.29	1.49	179.40	0	08:07	0.45
70588	JUNCTION	0.02	0.10	179.30	0	08:01	0.03
70590	JUNCTION	0.06	0.23	179.95	0	08:03	0.07
70591	JUNCTION	0.04	0.66	179.04	0	08:11	0.18
70602	JUNCTION	1.30	1.38	179.14	0	08:01	0.42
70605	JUNCTION	1.30	1.42	178.20	0	08:01	0.43
70609	JUNCTION	1.29	1.35	178.79	0	08:00	0.41
70610	JUNCTION	1.29	1.35	193.22	0	08:00	0.41
70612	JUNCTION	1.25	1.33	189.93	0	08:00	0.41
70631	JUNCTION	1.29	1.38	186.52	0	08:01	0.42
70632	JUNCTION	0.01	0.07	188.56	0	08:00	0.02
70640	JUNCTION	1.29	1.37	189.46	0	08:00	0.42
70643	JUNCTION	1.30	1.40	181.49	0	08:00	0.43
70645	JUNCTION	1.30	1.41	184.95	0	08:00	0.43
70646	JUNCTION	1.29	1.36	184.63	0	08:00	0.41

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70648	JUNCTION	1.31	1.48	180.92	0	08:02	0.45
70650	JUNCTION	1.29	1.36	180.42	0	08:00	0.41
70656	JUNCTION	1.30	1.43	177.95	0	08:01	0.43
70657	JUNCTION	0.02	0.14	179.74	0	08:01	0.04
70661	JUNCTION	1.31	1.47	175.69	0	08:01	0.45
70663	JUNCTION	1.32	1.56	173.93	0	08:03	0.48
70665	JUNCTION	1.29	1.36	173.94	0	08:01	0.41
70695	JUNCTION	1.33	1.48	173.36	0	08:02	0.45
70696	JUNCTION	0.00	0.00	176.49	0	00:00	0.00
70724	JUNCTION	0.00	0.01	173.13	0	08:07	0.00
70726	JUNCTION	0.05	0.30	183.60	0	08:09	0.09
70727	JUNCTION	0.10	0.55	183.86	0	08:07	0.17
70728	JUNCTION	1.31	1.66	185.13	0	08:05	0.51
70729	JUNCTION	0.04	0.28	183.83	0	08:05	0.09
70743	JUNCTION	1.59	1.77	181.52	0	08:01	0.54
70744	JUNCTION	0.04	0.15	174.39	0	08:03	0.05
70748	JUNCTION	1.28	1.36	174.44	0	08:00	0.41
70753	JUNCTION	1.29	1.44	174.34	0	08:35	0.44
70756	JUNCTION	1.29	1.36	190.29	0	08:01	0.41

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70758	JUNCTION	1.30	1.41	187.26	0	08:01	0.43
70761	JUNCTION	1.30	1.37	187.20	0	08:00	0.42
70762	JUNCTION	0.02	0.15	186.06	0	08:02	0.04
70766	JUNCTION	1.27	1.35	199.76	0	08:00	0.41
74717	JUNCTION	0.03	0.14	200.84	0	08:03	0.04
74718	JUNCTION	0.02	0.13	200.90	0	08:02	0.04
74719	JUNCTION	0.01	0.08	202.67	0	08:01	0.02
9336	JUNCTION	1.28	1.35	206.31	0	08:03	0.41
9350	JUNCTION	1.32	1.70	205.05	0	08:07	0.52
9351	JUNCTION	1.29	1.39	205.30	0	08:00	0.42
9356	JUNCTION	1.30	1.41	206.05	0	08:00	0.43
9357	JUNCTION	1.26	1.33	205.93	0	08:00	0.41
9359	JUNCTION	1.28	1.38	205.40	0	08:01	0.42
9375	JUNCTION	1.31	1.51	205.37	0	08:04	0.46
9379	JUNCTION	1.35	1.84	205.39	0	08:05	0.56
9381	JUNCTION	1.30	1.68	205.20	0	08:06	0.51
9385	JUNCTION	1.32	1.51	205.06	0	08:04	0.46
9389	JUNCTION	1.33	1.80	204.82	0	08:06	0.55
9391	JUNCTION	1.14	1.32	205.22	0	08:02	0.40

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9392	JUNCTION	1.32	1.65	203.79	0	08:03	0.50
9410	JUNCTION	0.02	0.21	203.94	0	08:10	0.07
9411	JUNCTION	0.03	0.30	205.05	0	08:07	0.09
9420	JUNCTION	0.00	0.01	202.92	0	08:04	0.00
9421	JUNCTION	0.00	0.00	204.11	0	00:00	0.00
9425	JUNCTION	1.32	1.47	202.09	0	08:12	0.45
9428	JUNCTION	1.28	1.35	202.31	0	08:00	0.41
9429	JUNCTION	1.31	1.43	202.25	0	08:00	0.44
9431	JUNCTION	1.30	1.38	201.31	0	08:00	0.42
9433	JUNCTION	1.30	1.51	201.12	0	08:05	0.46
9437	JUNCTION	1.28	1.34	204.17	0	08:00	0.41
9442	JUNCTION	1.26	1.35	203.11	0	08:01	0.41
9448	JUNCTION	1.29	1.37	204.14	0	08:00	0.42
9453	JUNCTION	1.30	1.38	203.07	0	08:02	0.42
9456	JUNCTION	1.25	1.33	207.35	0	08:00	0.41
9459	JUNCTION	1.29	1.39	204.55	0	08:01	0.42
9461	JUNCTION	1.29	1.39	203.68	0	08:01	0.42
9470	JUNCTION	1.30	1.42	202.16	0	08:02	0.43
9479	JUNCTION	1.30	1.42	201.32	0	08:02	0.43

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9481	JUNCTION	1.30	1.45	201.16	0	08:03	0.44
9485	JUNCTION	1.24	1.33	201.56	0	08:01	0.40
9486	JUNCTION	1.30	1.46	201.12	0	08:04	0.45
9490	JUNCTION	1.30	1.42	201.51	0	08:02	0.43
9503	JUNCTION	1.29	1.50	200.95	0	08:09	0.46
9505	JUNCTION	1.28	1.34	201.36	0	08:00	0.41
9506	JUNCTION	0.01	0.12	201.12	0	08:05	0.04
9510	JUNCTION	1.30	1.44	201.15	0	08:01	0.44
9512	JUNCTION	1.31	1.53	200.80	0	08:12	0.47
9513	JUNCTION	0.08	0.33	200.93	0	08:11	0.10
9514	JUNCTION	0.10	0.35	200.94	0	08:10	0.11
9520	JUNCTION	1.42	1.52	200.84	0	08:01	0.46
9521	JUNCTION	1.28	1.37	201.63	0	08:02	0.42
9525	JUNCTION	1.27	1.35	202.34	0	08:00	0.41
9527	JUNCTION	1.28	1.37	201.95	0	08:01	0.42
9528	JUNCTION	1.32	1.59	201.11	0	08:05	0.48
9532	JUNCTION	1.13	1.32	202.14	0	08:10	0.40
9533	JUNCTION	1.30	1.39	201.44	0	08:01	0.42
9537	JUNCTION	0.11	0.37	201.11	0	08:06	0.11

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9541	JUNCTION	1.29	1.36	203.19	0	08:00	0.41
9542	JUNCTION	1.30	1.39	203.20	0	08:00	0.42
9543	JUNCTION	1.30	1.38	202.87	0	08:00	0.42
9545	JUNCTION	1.24	1.33	201.43	0	08:01	0.41
9547	JUNCTION	1.29	1.37	206.62	0	08:00	0.42
9550	JUNCTION	1.30	1.38	204.18	0	08:00	0.42
9556	JUNCTION	1.29	1.37	205.74	0	08:01	0.42
9559	JUNCTION	1.29	1.35	204.62	0	08:01	0.41
9560	JUNCTION	1.29	1.35	203.24	0	08:00	0.41
9562	JUNCTION	1.29	1.37	203.83	0	08:00	0.42
9565	JUNCTION	1.30	1.43	201.31	0	08:01	0.43
9571	JUNCTION	1.30	1.43	200.69	0	08:00	0.43
9572	JUNCTION	1.27	1.39	206.59	0	08:00	0.42
9573	JUNCTION	1.24	1.36	206.59	0	08:00	0.41
9575	JUNCTION	1.28	1.38	206.14	0	08:01	0.42
9577	JUNCTION	1.30	1.43	204.45	0	08:02	0.44
9579	JUNCTION	1.23	1.37	203.43	0	08:02	0.42
9581	JUNCTION	1.29	1.37	205.32	0	08:00	0.42
9582	JUNCTION	1.30	1.45	202.31	0	08:02	0.44

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9583	JUNCTION	1.30	1.44	202.51	0	08:02	0.44
9587	JUNCTION	1.30	1.42	202.23	0	08:03	0.43
9589	JUNCTION	1.29	1.37	201.85	0	08:00	0.42
9590	JUNCTION	1.30	1.40	201.32	0	08:02	0.43
9591	JUNCTION	0.02	0.12	201.85	0	08:02	0.04
9595	JUNCTION	1.30	1.38	202.52	0	08:00	0.42
9596	JUNCTION	1.30	1.39	203.03	0	08:00	0.42
9597	JUNCTION	1.30	1.39	201.95	0	08:01	0.42
9598	JUNCTION	0.02	0.11	202.43	0	08:01	0.03
9602	JUNCTION	1.30	1.38	201.48	0	08:00	0.42
9603	JUNCTION	1.29	1.36	202.08	0	08:00	0.41
9604	JUNCTION	1.30	1.39	200.97	0	08:01	0.42
9607	JUNCTION	1.30	1.40	200.00	0	08:01	0.43
9608	JUNCTION	0.01	0.07	200.53	0	08:01	0.02
9609	JUNCTION	1.35	2.00	200.56	0	08:38	0.61
9610	JUNCTION	0.02	0.13	200.65	0	08:15	0.04
9611	JUNCTION	0.27	0.97	200.67	0	08:14	0.30
9612	JUNCTION	1.40	2.22	200.56	0	08:37	0.67
9614	JUNCTION	1.33	1.57	200.56	0	08:39	0.48

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9615	JUNCTION	0.02	0.14	201.35	0	08:02	0.04
9635	JUNCTION	1.27	1.35	201.10	0	08:00	0.41
9636	JUNCTION	0.95	1.01	204.11	0	08:00	0.31
9637	JUNCTION	1.25	1.36	205.51	0	08:00	0.41
9638	JUNCTION	1.26	1.33	203.96	0	08:00	0.41
9639	JUNCTION	1.28	1.37	202.32	0	08:00	0.42
9640	JUNCTION	1.29	1.37	202.14	0	08:00	0.42
9642	JUNCTION	1.30	1.40	198.61	0	08:01	0.43
9645	JUNCTION	1.31	1.48	197.06	0	08:02	0.45
9646	JUNCTION	0.02	0.12	199.73	0	08:02	0.04
9652	JUNCTION	0.68	0.75	205.44	0	08:03	0.23
9657	JUNCTION	1.29	1.39	204.30	0	08:00	0.42
9659	JUNCTION	1.31	1.37	202.01	0	08:00	0.42
9660	JUNCTION	1.36	1.43	199.85	0	08:00	0.44
9662	JUNCTION	0.94	1.02	197.85	0	08:02	0.31
9663	JUNCTION	0.02	0.11	198.11	0	08:01	0.03
9667	JUNCTION	1.29	1.35	195.67	0	08:00	0.41
9669	JUNCTION	1.30	1.42	194.35	0	08:02	0.43
9673	JUNCTION	1.30	1.42	193.79	0	08:03	0.43

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9675	JUNCTION	0.41	0.48	193.96	0	08:01	0.15
9676	JUNCTION	1.30	1.39	203.38	0	08:00	0.42
9677	JUNCTION	1.30	1.39	200.82	0	08:00	0.42
9679	JUNCTION	1.29	1.39	203.03	0	08:00	0.42
9682	JUNCTION	1.27	1.32	201.78	0	08:00	0.40
9683	JUNCTION	1.66	1.77	198.42	0	08:01	0.54
9684	JUNCTION	0.01	0.10	200.40	0	08:01	0.03
9688	JUNCTION	1.30	1.42	195.10	0	08:01	0.43
9690	JUNCTION	1.30	1.46	194.03	0	08:01	0.45
9692	JUNCTION	1.30	1.41	202.36	0	08:00	0.43
9693	JUNCTION	1.31	1.42	199.02	0	08:00	0.43
9695	JUNCTION	1.30	1.39	202.46	0	08:00	0.42
9696	JUNCTION	0.01	0.13	200.35	0	08:02	0.04
9700	JUNCTION	1.31	1.45	202.00	0	08:01	0.44
9703	JUNCTION	1.29	1.40	201.86	0	08:01	0.43
9706	JUNCTION	0.02	0.14	201.10	0	08:02	0.04
9709	JUNCTION	1.30	1.38	199.61	0	08:00	0.42
9710	JUNCTION	1.64	1.75	198.13	0	08:00	0.53
9712	JUNCTION	1.30	1.42	197.12	0	08:01	0.43

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9714	JUNCTION	1.29	1.33	202.68	0	08:00	0.41
9715	JUNCTION	1.30	1.37	202.30	0	08:00	0.42
9716	JUNCTION	1.30	1.40	201.50	0	08:00	0.43
9718	JUNCTION	1.30	1.41	200.91	0	08:01	0.43
9719	JUNCTION	0.03	0.16	201.08	0	08:01	0.05
9723	JUNCTION	1.33	1.44	198.86	0	08:02	0.44
9732	JUNCTION	0.71	0.76	203.19	0	08:01	0.23
9733	JUNCTION	1.64	1.72	202.44	0	08:01	0.52
9735	JUNCTION	1.30	1.37	201.80	0	08:00	0.42
9738	JUNCTION	1.08	1.22	195.69	0	08:02	0.37
9743	JUNCTION	1.55	1.70	194.12	0	08:02	0.52
9745	JUNCTION	1.26	1.37	200.84	0	08:03	0.42
9746	JUNCTION	1.27	1.34	202.00	0	08:01	0.41
9748	JUNCTION	1.30	1.38	201.56	0	08:00	0.42
9749	JUNCTION	1.29	1.36	201.56	0	08:00	0.41
9750	JUNCTION	1.29	1.38	201.60	0	08:00	0.42
9751	JUNCTION	1.29	1.37	201.87	0	08:00	0.42
9753	JUNCTION	1.30	1.43	201.24	0	08:02	0.43
9754	JUNCTION	0.02	0.11	201.38	0	08:00	0.03

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9755	JUNCTION	0.01	0.10	201.51	0	08:00	0.03
9761	JUNCTION	1.30	1.40	200.80	0	08:02	0.43
9763	JUNCTION	1.30	1.40	198.42	0	08:02	0.43
9765	JUNCTION	1.36	1.43	198.59	0	08:00	0.43
9766	JUNCTION	1.30	1.43	195.10	0	08:01	0.44
9767	JUNCTION	0.01	0.11	197.05	0	08:02	0.03
9772	JUNCTION	0.01	0.22	192.94	0	08:03	0.07
9774	JUNCTION	0.02	0.19	193.39	0	08:02	0.06
9785	JUNCTION	1.29	1.70	191.03	0	08:05	0.52
9787	JUNCTION	1.30	1.76	190.98	0	08:15	0.53
9789	JUNCTION	1.54	1.65	193.15	0	08:00	0.50
9794	JUNCTION	1.31	1.43	192.02	0	08:00	0.44
9795	JUNCTION	1.29	1.35	193.01	0	08:00	0.41
9797	JUNCTION	1.30	1.43	191.13	0	08:01	0.44
9801	JUNCTION	1.30	1.41	190.91	0	08:01	0.43
9803	JUNCTION	1.28	1.36	190.84	0	08:00	0.41
9804	JUNCTION	1.30	1.38	190.50	0	08:01	0.42
9806	JUNCTION	1.30	1.41	189.27	0	08:01	0.43
9808	JUNCTION	1.30	1.42	189.08	0	08:02	0.43

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9810	JUNCTION	1.29	1.40	190.57	0	08:00	0.43
9819	JUNCTION	1.29	1.49	188.99	0	08:02	0.46
9823	JUNCTION	1.33	1.42	186.07	0	08:00	0.43
9824	JUNCTION	1.29	1.37	185.92	0	08:01	0.42
9826	JUNCTION	1.48	1.61	185.55	0	08:04	0.49
9827	JUNCTION	1.27	1.36	185.68	0	08:01	0.42
9828	JUNCTION	1.36	1.72	200.71	0	08:30	0.52
9833	JUNCTION	1.39	1.87	200.70	0	08:31	0.57
9836	JUNCTION	1.29	1.52	199.38	0	08:18	0.46
9841	JUNCTION	1.48	2.21	200.69	0	08:28	0.67
9842	JUNCTION	1.50	2.24	200.68	0	08:27	0.68
9846	JUNCTION	1.29	1.53	200.70	0	08:09	0.46
9851	JUNCTION	1.29	1.36	201.67	0	08:00	0.41
9852	JUNCTION	1.34	1.59	200.70	0	08:08	0.48
9856	JUNCTION	1.29	1.38	201.57	0	08:00	0.42
9857	JUNCTION	0.02	0.07	200.42	0	08:02	0.02
9861	JUNCTION	1.29	1.37	201.56	0	08:01	0.42
9862	JUNCTION	1.29	1.36	201.34	0	08:00	0.41
9863	JUNCTION	1.30	1.39	198.17	0	08:01	0.42

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9865	JUNCTION	1.30	1.40	196.70	0	08:01	0.43
9867	JUNCTION	1.30	1.38	196.60	0	08:00	0.42
9868	JUNCTION	0.02	0.17	195.01	0	08:01	0.05
9869	JUNCTION	1.30	1.46	196.39	0	08:01	0.44
9873	JUNCTION	1.33	1.61	194.01	0	08:02	0.49
9875	JUNCTION	1.29	1.35	202.32	0	08:00	0.41
9876	JUNCTION	0.02	0.15	196.92	0	08:01	0.05
9883	JUNCTION	1.30	1.40	199.06	0	08:00	0.43
9886	JUNCTION	1.32	1.55	196.21	0	08:13	0.47
9887	JUNCTION	1.32	1.54	194.95	0	08:03	0.47
9890	JUNCTION	1.31	1.52	194.71	0	08:04	0.46
9891	JUNCTION	0.03	0.18	196.21	0	08:13	0.06
9897	JUNCTION	1.32	1.51	194.16	0	08:04	0.46
9901	JUNCTION	0.03	0.29	194.00	0	08:02	0.09
9902	JUNCTION	0.03	0.21	194.76	0	08:01	0.06
9914	JUNCTION	1.36	1.80	193.75	0	08:04	0.55
9918	JUNCTION	1.32	1.65	193.55	0	08:40	0.50
9920	JUNCTION	1.29	1.35	198.97	0	08:00	0.41
9922	JUNCTION	1.30	1.39	197.07	0	08:01	0.42

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9925	JUNCTION	1.30	1.39	196.50	0	08:01	0.42
9928	JUNCTION	1.30	1.40	194.54	0	08:01	0.43
9934	JUNCTION	1.29	1.35	198.60	0	08:00	0.41
9935	JUNCTION	1.30	1.45	193.77	0	08:01	0.44
9939	JUNCTION	1.30	1.38	195.68	0	08:00	0.42
9942	JUNCTION	1.30	1.41	193.98	0	08:01	0.43
9945	JUNCTION	1.30	1.39	195.36	0	08:00	0.42
9946	JUNCTION	0.14	0.43	193.52	0	08:05	0.13
9950	JUNCTION	1.30	1.45	193.98	0	08:01	0.44
9953	JUNCTION	1.31	1.45	193.87	0	08:03	0.44
9956	JUNCTION	1.30	1.41	193.69	0	08:03	0.43
9959	JUNCTION	1.29	1.37	196.67	0	08:00	0.42
9960	JUNCTION	0.03	0.13	196.18	0	08:07	0.04
9963	JUNCTION	1.29	1.36	197.44	0	08:00	0.41
9964	JUNCTION	1.29	1.40	195.21	0	08:01	0.43
9966	JUNCTION	1.30	1.40	194.37	0	08:01	0.43
9968	JUNCTION	1.30	1.39	192.24	0	08:00	0.42
9969	JUNCTION	1.29	1.40	191.70	0	08:01	0.43
9970	JUNCTION	0.02	0.12	192.16	0	08:01	0.04

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9974	JUNCTION	1.28	1.34	193.47	0	08:03	0.41
9975	JUNCTION	1.29	1.35	190.77	0	08:00	0.41
9976	JUNCTION	1.29	1.37	187.80	0	08:01	0.42
9978	JUNCTION	1.31	1.51	185.78	0	08:03	0.46
9980	JUNCTION	1.30	1.44	185.57	0	08:04	0.44
9981	JUNCTION	0.03	0.21	185.77	0	08:03	0.06
9982	JUNCTION	0.02	0.14	190.14	0	08:02	0.04
9988	JUNCTION	1.29	1.36	197.37	0	08:00	0.41
9989	JUNCTION	0.02	0.10	192.17	0	08:02	0.03
9993	JUNCTION	1.26	1.34	194.19	0	08:02	0.41
9994	JUNCTION	0.05	0.41	193.69	0	08:04	0.13
9998	JUNCTION	0.00	0.00	194.09	0	00:00	0.00
A796	JUNCTION	0.20	0.96	168.32	0	08:20	0.29
A796-S	JUNCTION	0.05	0.42	173.02	0	08:17	0.13
A797	JUNCTION	0.00	0.00	169.89	0	00:00	0.00
A797-S	JUNCTION	0.00	0.00	172.73	0	00:00	0.00
A799	JUNCTION	0.00	0.23	169.57	0	08:03	0.07
A799-S	JUNCTION	0.00	0.00	172.44	0	00:00	0.00
A800	JUNCTION	0.27	0.82	168.82	0	08:02	0.25

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
A800-S	JUNCTION	0.02	0.13	173.05	0	08:00	0.04
A801	JUNCTION	0.00	1.62	170.65	0	08:01	0.16
A801-S	JUNCTION	0.00	0.01	171.68	0	08:01	0.00
A803	JUNCTION	0.06	2.44	170.95	0	08:00	0.32
A803-S	JUNCTION	0.02	0.12	171.68	0	08:00	0.04
A804	JUNCTION	0.33	1.13	167.48	0	08:41	0.34
A804-S	JUNCTION	0.00	0.02	173.13	0	08:02	0.01
A805	JUNCTION	0.07	4.35	172.14	0	08:00	0.49
A805-S	JUNCTION	0.01	0.10	171.24	0	08:00	0.03
A806	JUNCTION	0.10	3.32	170.46	0	08:00	0.66
A806-S	JUNCTION	0.01	0.09	170.48	0	08:01	0.03
A807	JUNCTION	0.00	0.00	169.76	0	08:07	0.00
A807-S	JUNCTION	0.00	0.00	172.20	0	00:00	0.00
A809	JUNCTION	0.10	3.03	169.79	0	08:01	0.65
A809-S	JUNCTION	0.01	0.33	169.12	0	08:09	0.10
A810	JUNCTION	0.10	3.06	169.66	0	08:09	0.70
A810-S	JUNCTION	0.00	0.18	169.13	0	08:09	0.05
A813	JUNCTION	0.00	0.01	169.64	0	08:02	0.00
A813-S	JUNCTION	0.00	0.00	172.46	0	00:00	0.00

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
A816	JUNCTION	0.36	1.22	166.83	0	08:42	0.37
A816-S	JUNCTION	0.00	0.00	172.37	0	08:07	0.00
A817	JUNCTION	0.10	2.95	169.20	0	08:00	0.88
A817-S	JUNCTION	0.00	0.00	169.78	0	00:00	0.00
A818	JUNCTION	0.13	3.10	169.21	0	08:00	0.71
A818-S	JUNCTION	0.00	0.00	169.72	0	08:02	0.00
A820	JUNCTION	0.01	3.60	170.35	0	08:01	0.52
A820-S	JUNCTION	0.00	0.00	169.35	0	08:07	0.00
A821	JUNCTION	0.11	2.55	168.59	0	07:59	0.59
A821-S	JUNCTION	0.05	0.26	169.10	0	08:00	0.07
A822	JUNCTION	0.02	4.65	171.24	0	08:00	0.50
A822-S	JUNCTION	0.00	0.01	170.25	0	08:00	0.00
A824	JUNCTION	0.16	2.50	168.27	0	08:06	0.63
A824-S	JUNCTION	0.02	0.13	169.07	0	08:01	0.04
A826	JUNCTION	0.00	0.00	171.01	0	00:00	0.00
A826-S	JUNCTION	0.00	0.00	173.16	0	00:00	0.00
A827	JUNCTION	0.15	2.47	168.62	0	08:01	0.67
A827-S	JUNCTION	0.02	0.15	169.06	0	08:00	0.04
A829	JUNCTION	0.19	3.79	169.16	0	07:59	1.06

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
A829-S	JUNCTION	0.02	0.35	168.51	0	08:13	0.11
A833	JUNCTION	0.60	1.56	166.08	0	08:04	0.47
A833-S	JUNCTION	0.01	0.07	168.66	0	08:00	0.02
A837	JUNCTION	0.71	1.59	165.98	0	08:05	0.48
A837-S	JUNCTION	0.05	0.57	167.37	0	08:05	0.17
A838	JUNCTION	0.20	4.84	171.10	0	07:59	0.91
A838-S	JUNCTION	0.02	0.10	170.88	0	08:00	0.03
A851	JUNCTION	0.20	4.94	171.23	0	07:59	0.89
A851-S	JUNCTION	0.01	0.11	170.35	0	08:01	0.03
A864	JUNCTION	0.24	2.60	167.51	0	08:22	0.45
A864-S	JUNCTION	0.02	0.10	168.80	0	08:00	0.03
A871	JUNCTION	0.20	3.94	170.40	0	07:59	1.20
A871-S	JUNCTION	0.02	0.24	169.63	0	08:23	0.07
A880	JUNCTION	0.08	3.10	170.05	0	07:59	0.94
A880-S	JUNCTION	0.04	0.60	169.65	0	08:24	0.18
A887	JUNCTION	0.04	1.58	168.83	0	08:00	0.48
A891	JUNCTION	0.03	1.48	168.86	0	08:00	0.45
CB10533	JUNCTION	0.06	2.00	174.00	0	08:09	0.36
CB10534	JUNCTION	0.00	2.00	175.09	0	08:11	0.61

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
CB10549	JUNCTION	0.00	0.00	185.48	0	00:00	0.00
CB14112	JUNCTION	0.10	3.14	200.27	0	08:13	0.96
CB14413	JUNCTION	0.04	0.16	203.86	0	08:01	0.05
CB14415	JUNCTION	0.03	0.24	202.94	0	08:15	0.07
CB14417	JUNCTION	0.04	1.32	205.32	0	08:13	0.40
CB14450	JUNCTION	0.13	3.37	200.37	0	08:28	1.03
CB14453	JUNCTION	0.07	2.73	199.99	0	08:20	0.83
CB16317	JUNCTION	0.09	0.98	196.48	0	08:41	0.30
CB16491	JUNCTION	0.04	0.24	200.24	0	08:01	0.07
CB17031	JUNCTION	0.66	2.85	193.50	0	08:40	0.87
CB17033	JUNCTION	0.00	0.00	193.11	0	00:00	0.00
CB17034	JUNCTION	0.09	1.67	193.50	0	08:41	0.51
CB17110	JUNCTION	0.04	1.76	199.78	0	08:22	0.54
CB17111	JUNCTION	0.07	2.40	199.49	0	08:29	0.73
CB17197	JUNCTION	0.04	0.93	204.59	0	07:59	0.16
CB17198	JUNCTION	0.03	0.22	204.81	0	08:00	0.07
CB29748	JUNCTION	0.89	2.49	173.39	0	08:10	0.68
CB38100	JUNCTION	0.42	0.50	176.50	0	10:05	0.15
CB38101	JUNCTION	0.00	0.00	176.00	0	00:00	0.00

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
CB9040	JUNCTION	0.01	0.07	198.32	0	08:00	0.02
CB9044	JUNCTION	0.00	0.00	194.10	0	00:00	0.00
DonTrib1	JUNCTION	0.50	1.30	164.30	0	08:05	0.40
DonTribOut	OUTFALL	0.50	1.30	163.30	0	08:05	0.40
Dummy_MH1000	JUNCTION	0.21	4.21	203.06	0	08:03	1.01
Dummy_MH1002	JUNCTION	0.12	0.32	190.54	0	08:02	0.10
Dummy_MH1004	JUNCTION	0.47	3.97	188.41	0	08:02	0.63
Dummy_MH1009	JUNCTION	0.08	0.93	203.06	0	08:14	0.28
Dummy_MH1010	JUNCTION	0.12	4.14	205.43	0	08:04	1.22
Dummy_MH1011	JUNCTION	0.20	3.29	202.96	0	08:14	0.99
Dummy_MH1012	JUNCTION	0.48	3.49	191.75	0	08:07	1.03
Dummy_MH1014	JUNCTION	0.35	2.11	185.04	0	08:46	0.64
Dummy_MH1020	JUNCTION	0.02	0.08	186.36	0	08:00	0.02
Dummy_MH1035	JUNCTION	0.18	0.41	191.20	0	09:39	0.12
Dummy_MH1047	JUNCTION	0.25	2.47	197.07	0	08:05	0.53
Dummy_MH1053	JUNCTION	0.47	3.28	191.37	0	08:06	0.97
Dummy_MH1054	JUNCTION	0.08	1.12	198.97	0	08:06	0.34
Dummy_MH1055	JUNCTION	0.02	0.08	202.00	0	08:02	0.02
dummy1413	JUNCTION	0.10	0.21	203.80	0	08:02	0.06

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
dummy1414	JUNCTION	0.15	0.70	203.26	0	08:13	0.21
dummy1415	JUNCTION	0.12	1.18	203.11	0	08:14	0.36
dummy1416	JUNCTION	0.05	0.08	203.30	0	08:03	0.03
dummy1417	JUNCTION	0.07	0.36	203.35	0	08:01	0.11
dummy1418	JUNCTION	0.07	0.25	203.36	0	08:01	0.07
dummy1419	JUNCTION	1.51	1.67	202.66	0	08:01	0.51
dummy1420	JUNCTION	0.08	0.24	199.70	0	08:01	0.07
dummy1421	JUNCTION	0.09	0.63	185.18	0	08:46	0.19
dummy1422	JUNCTION	0.09	0.25	201.89	0	08:01	0.08
dummy1423	JUNCTION	0.07	0.23	203.85	0	08:00	0.07
dummy1424	JUNCTION	0.54	0.72	199.85	0	08:01	0.22
dummy1425	JUNCTION	0.03	0.19	186.10	0	08:00	0.06
dummy1426	JUNCTION	0.03	0.12	193.94	0	08:00	0.03
dummy1427	JUNCTION	0.04	1.35	185.97	0	08:42	0.17
dummy1428	JUNCTION	0.06	0.17	197.00	0	08:00	0.05
dummy1429	JUNCTION	0.08	0.23	195.93	0	08:01	0.07
dummy1430	JUNCTION	0.07	0.96	202.54	0	08:12	0.29
dummy1431	JUNCTION	0.33	4.22	200.75	0	08:14	1.26
dummy1432	JUNCTION	0.07	0.15	198.42	0	08:01	0.05

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
dummy1433	JUNCTION	0.06	0.12	198.68	0	08:00	0.04
dummy1434	JUNCTION	0.08	0.19	198.48	0	08:01	0.06
dummy1435	JUNCTION	0.07	0.11	198.66	0	08:01	0.03
dummy1436	JUNCTION	0.09	0.21	197.31	0	08:01	0.06
dummy1437	JUNCTION	0.10	0.28	196.58	0	08:02	0.09
dummy1438	JUNCTION	0.11	0.91	196.40	0	08:16	0.25
dummy1439	JUNCTION	0.11	3.02	194.08	0	08:03	0.56
dummy1440	JUNCTION	0.17	3.15	193.58	0	08:03	0.76
dummy1441	JUNCTION	0.28	3.72	193.02	0	08:17	1.07
dummy1442	JUNCTION	0.26	1.09	184.81	0	08:07	0.33
dummy1443	JUNCTION	0.28	1.19	185.38	0	08:07	0.36
dummy1444	JUNCTION	0.11	3.84	174.23	0	08:10	0.86
dummy1445	JUNCTION	0.22	4.03	184.84	0	08:09	1.23
dummy1446	JUNCTION	0.08	0.38	173.64	0	08:10	0.11
dummy1447	JUNCTION	0.10	1.20	177.51	0	08:11	0.36
dummy1448	JUNCTION	0.07	0.19	178.51	0	08:00	0.06
dummy1449	JUNCTION	0.23	3.77	179.65	0	08:02	0.77
dummy1450	JUNCTION	0.07	0.23	180.14	0	08:01	0.07
dummy1451	JUNCTION	0.08	0.17	181.72	0	08:01	0.05

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
dummy1452	JUNCTION	0.11	1.24	181.14	0	08:10	0.38
dummy1453	JUNCTION	0.10	0.71	181.15	0	08:10	0.22
dummy1454	JUNCTION	0.27	3.93	182.67	0	08:11	1.10
dummy1455	JUNCTION	0.27	4.30	183.50	0	08:11	1.16
dummy1456	JUNCTION	0.05	3.55	184.36	0	08:04	0.79
dummy1457	JUNCTION	0.15	3.15	185.82	0	08:09	0.63
dummy1458	JUNCTION	0.15	2.92	185.93	0	08:07	0.61
dummy1459	JUNCTION	0.09	2.79	186.54	0	08:07	0.47
dummy1460	JUNCTION	0.12	2.69	186.59	0	08:07	0.48
dummy1461	JUNCTION	0.23	0.88	182.74	0	08:08	0.27
dummy1462	JUNCTION	0.08	0.15	184.26	0	08:00	0.05
dummy1463	JUNCTION	0.14	0.56	184.91	0	08:03	0.17
dummy1464	JUNCTION	0.10	0.32	188.90	0	08:02	0.10
dummy1465	JUNCTION	0.34	4.26	179.58	0	08:05	0.88
dummy1468	JUNCTION	0.24	1.05	188.79	0	08:04	0.32
dummy1469	JUNCTION	0.11	0.48	191.73	0	08:02	0.15
dummy1470	JUNCTION	0.09	0.29	190.62	0	08:02	0.09
dummy1471	JUNCTION	0.20	1.35	190.17	0	08:07	0.41
dummy1472	JUNCTION	0.07	0.17	192.11	0	08:01	0.05

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
dummy1473	JUNCTION	0.10	0.35	186.58	0	08:01	0.11
dummy1474	JUNCTION	0.29	1.19	186.40	0	08:06	0.36
dummy1475	JUNCTION	0.13	0.46	186.70	0	08:09	0.14
dummy1476	JUNCTION	0.14	0.62	188.80	0	08:03	0.19
dummy1477	JUNCTION	0.27	1.21	186.98	0	08:06	0.37
dummy1478	JUNCTION	0.26	1.10	188.43	0	08:05	0.34
dummy1479	JUNCTION	0.27	4.12	194.08	0	08:21	0.52
dummy1480	JUNCTION	0.09	0.26	191.33	0	08:02	0.08
dummy1481	JUNCTION	0.20	0.89	190.03	0	08:22	0.27
dummy1482	JUNCTION	0.09	0.19	192.94	0	08:00	0.06
dummy1483	JUNCTION	0.27	1.14	187.72	0	08:05	0.35
dummy1484	JUNCTION	0.08	0.24	195.15	0	08:01	0.07
dummy1485	JUNCTION	0.08	0.23	197.75	0	08:00	0.07
dummy1486	JUNCTION	0.09	0.51	196.14	0	08:01	0.15
dummy1487	JUNCTION	0.22	0.82	192.73	0	08:06	0.25
dummy1488	JUNCTION	0.08	0.25	195.92	0	08:00	0.08
dummy1489	JUNCTION	0.21	0.77	192.95	0	08:04	0.23
dummy1490	JUNCTION	0.25	2.06	195.28	0	08:11	0.63
dummy1491	JUNCTION	0.11	0.37	194.35	0	08:02	0.11

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
dummy1492	JUNCTION	0.08	0.14	176.79	0	08:04	0.04
dummy1493	JUNCTION	0.08	0.19	181.93	0	08:01	0.06
dummy1494	JUNCTION	0.10	0.66	187.72	0	08:06	0.18
dummy1495	JUNCTION	0.12	0.93	187.65	0	08:05	0.28
dummy1496	JUNCTION	0.12	0.85	203.07	0	08:14	0.26
dummy1497	JUNCTION	0.12	0.89	203.07	0	08:14	0.27
dummy1498	JUNCTION	0.22	4.14	205.01	0	08:11	1.25
dummy1499	JUNCTION	0.08	4.06	204.26	0	08:04	1.24
dummy1500	JUNCTION	0.06	0.18	201.30	0	08:00	0.06
dummy1501	JUNCTION	0.18	4.04	201.94	0	08:09	1.23
dummy1502	JUNCTION	0.17	4.02	201.51	0	08:08	0.94
dummy1503	JUNCTION	0.19	3.52	200.66	0	08:08	1.04
dummy1504	JUNCTION	0.08	0.26	200.80	0	08:01	0.08
dummy1505	JUNCTION	0.08	0.26	198.58	0	08:02	0.08
dummy1506	JUNCTION	0.09	0.23	199.43	0	08:00	0.07
dummy1507	JUNCTION	0.09	0.28	196.83	0	08:01	0.08
dummy1508	JUNCTION	0.12	2.87	193.95	0	08:03	0.59
dummy1509	JUNCTION	0.10	0.39	198.89	0	08:01	0.12
dummy1510	JUNCTION	0.13	1.08	188.89	0	08:05	0.33

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
dummy1511	JUNCTION	0.32	3.96	200.22	0	08:23	1.21
dummy1512	JUNCTION	0.17	4.62	201.61	0	08:05	1.41
dummy1513	JUNCTION	0.60	4.29	194.48	0	08:14	1.31
dummy1514	JUNCTION	0.53	4.34	194.01	0	08:16	1.32
dummy1515	JUNCTION	0.09	0.25	185.14	0	08:00	0.08
dummy1516	JUNCTION	0.18	0.63	172.04	0	08:45	0.19
dummy1517	JUNCTION	0.11	0.39	171.72	0	08:41	0.12
dummy1520	JUNCTION	0.08	0.29	179.70	0	08:36	0.09
dummy1521	JUNCTION	0.08	0.19	179.19	0	08:38	0.06
dummy1522	JUNCTION	0.16	0.43	177.57	0	08:24	0.13
dummy1523	JUNCTION	0.11	0.29	177.31	0	08:16	0.09
dummy1524	JUNCTION	0.17	0.74	190.56	0	08:24	0.23
dummy792	JUNCTION	0.28	1.81	185.27	0	08:42	0.49
dummy793	JUNCTION	0.12	1.83	185.50	0	08:47	0.56
dummy794	JUNCTION	0.38	1.73	188.18	0	08:24	0.49
dummy795	JUNCTION	0.58	2.15	188.17	0	08:24	0.62
dummy796	JUNCTION	0.64	2.18	188.04	0	08:25	0.66
dummy797	JUNCTION	0.29	1.70	188.20	0	08:24	0.44
dummy798	JUNCTION	0.48	1.80	188.01	0	08:24	0.54

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
dummy805	JUNCTION	0.14	0.24	191.53	0	16:32	0.07
dummy806	JUNCTION	0.50	1.09	192.81	0	16:08	0.32
dummy807	JUNCTION	0.39	1.77	193.48	0	07:58	0.54
dummy808	JUNCTION	0.29	1.78	194.79	0	07:56	0.54
dummy9998	JUNCTION	0.91	0.97	188.54	0	08:00	0.30
dummy9999	JUNCTION	0.08	0.21	191.43	0	08:01	0.06
G358	JUNCTION	0.00	0.00	169.97	0	08:03	0.00
G358-S	JUNCTION	0.00	0.00	172.61	0	00:00	0.00
Gall.park	STORAGE	1.37	2.38	175.98	0	08:24	0.72
IO295	JUNCTION	0.91	2.77	187.92	0	09:07	0.84
IO307	JUNCTION	0.05	0.29	203.57	0	08:04	0.09
IO308	JUNCTION	0.05	2.09	205.54	0	08:04	0.57
IO309	JUNCTION	0.04	0.62	202.93	0	08:16	0.19
IO375	JUNCTION	0.07	0.75	196.47	0	08:40	0.23
IO376	JUNCTION	0.27	1.71	196.47	0	08:41	0.52
IO378	OUTFALL	0.92	2.75	165.79	0	08:14	0.84
IO395	JUNCTION	1.67	3.92	193.50	0	08:41	1.19
IO431	JUNCTION	0.23	0.45	202.45	0	08:14	0.14
J1	JUNCTION	0.08	0.33	175.83	0	08:00	0.10

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
J10	JUNCTION	0.07	0.37	180.77	0	08:13	0.11
J11	JUNCTION	0.14	1.21	180.17	0	08:27	0.37
J12	JUNCTION	0.11	0.39	166.39	0	08:33	0.12
J13	JUNCTION	0.18	0.58	177.70	0	08:28	0.18
J2	JUNCTION	0.09	0.36	175.11	0	08:00	0.11
J3	JUNCTION	0.08	0.33	175.46	0	08:00	0.10
J9	JUNCTION	0.05	0.17	172.82	0	08:32	0.05
K617	JUNCTION	0.30	1.19	167.64	0	08:20	0.36
K617-S	JUNCTION	0.02	0.17	173.14	0	08:01	0.05
K618	JUNCTION	0.07	3.04	170.85	0	08:01	0.91
K618-S	JUNCTION	0.01	0.34	173.14	0	08:01	0.10
K738	JUNCTION	0.24	0.65	171.05	0	08:45	0.20
K739	JUNCTION	0.30	0.90	169.63	0	08:44	0.28
K739-S	JUNCTION	0.00	0.00	172.06	0	00:00	0.00
K740	JUNCTION	0.47	1.21	169.34	0	08:03	0.37
K740-S	JUNCTION	0.01	0.20	171.50	0	08:03	0.06
MH1	JUNCTION	0.43	2.85	177.17	0	08:10	0.87
MH10	JUNCTION	2.21	8.87	173.47	0	08:10	2.61
MH11	JUNCTION	0.82	7.29	173.14	0	08:10	2.14

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
MH12	JUNCTION	0.76	7.00	172.75	0	08:10	2.08
MH13	JUNCTION	0.17	1.09	174.34	0	08:34	0.33
MH14	JUNCTION	0.21	0.66	173.81	0	08:30	0.20
MH15	JUNCTION	0.19	0.62	173.74	0	08:30	0.19
MH16	JUNCTION	0.11	0.45	173.54	0	08:31	0.14
MH17	JUNCTION	0.11	0.37	173.40	0	08:31	0.11
MH18	JUNCTION	0.05	0.22	173.22	0	08:31	0.07
MH19	JUNCTION	0.09	0.29	172.99	0	08:32	0.09
MH2	JUNCTION	0.00	0.21	178.96	0	08:11	0.06
MH3	JUNCTION	0.35	2.66	176.74	0	08:10	0.81
MH4	JUNCTION	0.30	5.85	174.06	0	08:10	1.70
MH5	JUNCTION	0.05	0.40	175.00	0	08:01	0.12
MH6	JUNCTION	0.06	0.48	174.22	0	08:02	0.15
MH7	JUNCTION	0.23	5.84	173.59	0	08:10	1.76
MH8	JUNCTION	0.18	7.53	176.01	0	08:07	2.29
MH9	JUNCTION	0.67	7.35	173.78	0	08:10	2.16
MintoInlet2	JUNCTION	0.00	0.00	172.10	0	00:00	0.00
MintoMH1	JUNCTION	0.18	0.87	169.78	0	08:38	0.26
MintoPondedArea	STORAGE	0.19	0.91	170.50	0	08:38	0.28

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
MissingMH22	JUNCTION	0.31	4.40	200.60	0	08:14	1.32
OS002	JUNCTION	0.73	0.88	165.18	0	08:05	0.27
STMMH_Cole1012	JUNCTION	0.02	0.15	182.50	0	08:01	0.05
STMMH_Cole1013	JUNCTION	0.01	0.14	183.60	0	08:00	0.04
STMMH_Cole1014	JUNCTION	0.01	0.03	183.95	0	08:02	0.01
STMMH_Cole1015	JUNCTION	0.00	0.03	184.68	0	08:01	0.01
STMMH_Cole1016	JUNCTION	0.01	0.13	174.58	0	08:00	0.04
STMMH_Cole1017	JUNCTION	0.01	0.11	173.83	0	08:01	0.03
STMMH_Cole1018	JUNCTION	0.01	0.24	173.33	0	08:11	0.07
STMMH_Cole1019	JUNCTION	0.05	0.91	173.32	0	08:11	0.28
STMMH_Cole102	JUNCTION	0.20	1.13	188.00	0	08:07	0.34
STMMH_Cole1020	JUNCTION	0.00	0.00	178.74	0	00:00	0.00
STMMH_Cole1021	JUNCTION	0.00	0.00	178.49	0	00:00	0.00
STMMH_Cole1022	JUNCTION	0.00	0.04	177.65	0	08:00	0.01
STMMH_Cole1023	JUNCTION	0.00	0.04	176.13	0	08:01	0.01
STMMH_Cole1024	JUNCTION	0.01	0.07	173.46	0	08:01	0.02
STMMH_Cole1025	JUNCTION	0.01	0.07	172.83	0	08:01	0.02
STMMH11785	JUNCTION	0.11	1.75	193.15	0	08:03	0.53
STMMH11786	JUNCTION	0.20	3.77	192.35	0	08:02	0.88

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH11787	JUNCTION	2.25	5.45	191.07	0	08:06	1.63
STMMH11788	JUNCTION	0.09	1.99	194.74	0	08:04	0.43
STMMH11789	JUNCTION	0.03	0.10	197.17	0	08:00	0.03
STMMH11790	JUNCTION	0.05	0.28	194.31	0	08:02	0.09
STMMH11929	JUNCTION	0.01	0.08	191.44	0	08:00	0.02
STMMH11930	JUNCTION	0.01	0.07	190.43	0	08:00	0.02
STMMH11938	JUNCTION	0.15	0.98	191.05	0	08:06	0.30
STMMH11939	JUNCTION	0.03	0.15	191.49	0	08:02	0.04
STMMH11940	JUNCTION	0.11	0.21	192.21	0	08:01	0.06
STMMH11941	JUNCTION	0.02	0.10	192.40	0	08:01	0.03
STMMH11942	JUNCTION	0.02	0.10	191.92	0	08:01	0.03
STMMH11943	JUNCTION	0.02	0.12	191.67	0	08:01	0.04
STMMH11944	JUNCTION	0.01	0.08	193.07	0	08:01	0.03
STMMH11945	JUNCTION	0.03	0.15	191.62	0	08:01	0.05
STMMH11946	JUNCTION	0.02	0.13	191.37	0	08:02	0.04
STMMH11947	JUNCTION	0.06	0.34	190.95	0	08:23	0.10
STMMH11948	JUNCTION	0.24	1.47	185.11	0	08:07	0.45
STMMH11949	JUNCTION	0.22	0.30	190.30	0	08:01	0.09
STMMH11950	JUNCTION	0.00	0.02	191.34	0	08:01	0.01

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH11951	JUNCTION	0.02	0.09	189.62	0	08:00	0.03
STMMH11952	JUNCTION	0.02	0.12	186.36	0	08:00	0.03
STMMH11953	JUNCTION	0.02	0.11	184.62	0	08:00	0.03
STMMH11954	JUNCTION	0.03	0.15	182.54	0	08:01	0.05
STMMH11955	JUNCTION	0.03	0.18	177.58	0	08:01	0.06
STMMH11956	JUNCTION	0.05	0.29	181.65	0	08:01	0.09
STMMH11957	JUNCTION	0.98	1.17	182.26	0	08:00	0.36
STMMH12045	JUNCTION	0.28	3.68	193.98	0	08:21	0.62
STMMH12046	JUNCTION	0.47	2.97	189.24	0	07:59	0.59
STMMH12047	JUNCTION	1.03	3.23	188.36	0	08:23	0.94
STMMH12048	JUNCTION	1.31	3.58	188.27	0	08:23	1.06
STMMH12049	JUNCTION	1.42	3.47	188.03	0	08:27	1.05
STMMH12050	JUNCTION	0.20	1.86	186.20	0	08:42	0.27
STMMH12051	JUNCTION	0.83	3.71	189.32	0	08:00	0.89
STMMH12052	JUNCTION	0.69	3.35	189.20	0	08:00	0.87
STMMH12053	JUNCTION	0.13	3.40	190.65	0	08:01	0.45
STMMH12054	JUNCTION	0.43	3.38	189.85	0	08:04	0.88
STMMH12055	JUNCTION	0.03	0.55	187.74	0	08:05	0.17
STMMH12056	JUNCTION	0.05	3.94	190.89	0	08:04	0.21

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12057	JUNCTION	0.03	0.15	201.56	0	08:00	0.05
STMMH12058	JUNCTION	0.01	0.07	202.41	0	08:00	0.02
STMMH12059	JUNCTION	1.18	1.29	201.23	0	08:00	0.39
STMMH12060	JUNCTION	0.05	0.90	200.27	0	08:05	0.28
STMMH12061	JUNCTION	0.06	1.04	199.73	0	08:07	0.32
STMMH12062	JUNCTION	1.97	5.81	201.92	0	08:01	0.91
STMMH12063	JUNCTION	0.08	1.10	198.79	0	08:06	0.34
STMMH12064	JUNCTION	0.09	0.68	197.76	0	08:06	0.21
STMMH12065	JUNCTION	0.06	0.29	196.69	0	08:04	0.09
STMMH12066	JUNCTION	0.02	0.20	194.70	0	08:02	0.06
STMMH12067	JUNCTION	0.04	0.25	194.64	0	08:02	0.07
STMMH12068	JUNCTION	0.05	0.29	194.41	0	08:02	0.09
STMMH12069	JUNCTION	0.04	0.20	195.33	0	08:02	0.06
STMMH12070	JUNCTION	0.02	0.16	196.29	0	08:00	0.05
STMMH12071	JUNCTION	0.01	0.09	198.17	0	08:00	0.03
STMMH12072	JUNCTION	0.03	0.19	196.85	0	08:01	0.06
STMMH12073	JUNCTION	0.05	0.28	195.86	0	08:01	0.08
STMMH12074	JUNCTION	0.00	0.02	195.49	0	08:00	0.01
STMMH12075	JUNCTION	0.02	0.10	194.06	0	08:01	0.03

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12076	JUNCTION	0.07	0.39	187.83	0	08:02	0.12
STMMH12077	JUNCTION	0.09	3.94	188.89	0	08:07	0.52
STMMH12078	JUNCTION	0.16	4.53	186.49	0	08:02	1.21
STMMH12079	JUNCTION	0.16	4.65	185.97	0	08:02	1.16
STMMH12080	JUNCTION	0.20	4.33	184.74	0	08:01	1.26
STMMH12081	JUNCTION	0.22	4.76	184.33	0	08:11	1.18
STMMH12082	JUNCTION	0.22	3.68	182.30	0	08:11	1.04
STMMH12083	JUNCTION	0.22	3.86	182.08	0	08:01	0.89
STMMH12084	JUNCTION	0.18	3.51	181.01	0	08:03	0.78
STMMH12085	JUNCTION	0.23	2.90	177.88	0	08:02	0.73
STMMH12086	JUNCTION	0.50	4.06	179.93	0	08:07	0.45
STMMH12087	JUNCTION	0.00	0.00	193.01	0	00:00	0.00
STMMH12088	JUNCTION	0.02	0.07	190.64	0	08:00	0.02
STMMH12089	JUNCTION	0.02	0.06	190.13	0	08:01	0.02
STMMH12090	JUNCTION	0.06	0.58	188.93	0	08:05	0.16
STMMH12091	JUNCTION	0.04	0.47	188.70	0	08:04	0.14
STMMH12092	JUNCTION	0.16	2.19	185.68	0	08:52	0.51
STMMH12093	JUNCTION	0.00	0.03	185.22	0	08:00	0.01
STMMH12094	JUNCTION	0.15	0.74	169.45	0	08:37	0.23

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12095	JUNCTION	0.17	0.81	168.86	0	08:20	0.25
STMMH12097	JUNCTION	0.01	2.81	174.80	0	08:11	0.86
STMMH12098	JUNCTION	0.04	4.39	175.20	0	08:09	0.79
STMMH12099	JUNCTION	0.02	0.16	180.64	0	08:04	0.05
STMMH12100	JUNCTION	0.49	8.61	193.63	0	08:02	0.80
STMMH12206	JUNCTION	0.00	0.00	188.77	0	00:00	0.00
STMMH12207	JUNCTION	0.19	0.31	189.02	0	08:01	0.10
STMMH12208	JUNCTION	0.00	0.00	188.87	0	00:00	0.00
STMMH12209	JUNCTION	0.07	0.80	188.92	0	08:04	0.24
STMMH12210	JUNCTION	0.07	3.39	191.36	0	08:02	0.28
STMMH12211	JUNCTION	0.25	4.22	191.26	0	08:05	1.28
STMMH12212	JUNCTION	0.21	4.07	191.29	0	08:05	0.95
STMMH12213	JUNCTION	0.28	4.58	191.80	0	08:03	1.09
STMMH12223	JUNCTION	0.06	0.36	180.80	0	08:01	0.11
STMMH12224	JUNCTION	0.07	0.45	181.21	0	08:01	0.14
STMMH12225	JUNCTION	0.07	0.49	181.50	0	08:00	0.15
STMMH12226	JUNCTION	0.17	0.32	181.69	0	08:01	0.10
STMMH12227	JUNCTION	0.21	1.51	185.59	0	08:42	0.34
STMMH12228	JUNCTION	0.26	2.18	185.86	0	08:42	0.44

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12229	JUNCTION	0.25	2.18	185.81	0	08:42	0.45
STMMH12230	JUNCTION	0.02	0.16	186.71	0	08:00	0.05
STMMH12231	JUNCTION	0.00	0.03	186.94	0	08:00	0.01
STMMH12232	JUNCTION	0.04	0.54	186.55	0	08:04	0.16
STMMH12233	JUNCTION	0.05	0.69	186.56	0	08:05	0.19
STMMH12234	JUNCTION	0.01	0.07	188.17	0	08:00	0.02
STMMH12235	JUNCTION	0.01	0.14	187.30	0	08:00	0.04
STMMH12236	JUNCTION	0.03	0.23	183.76	0	08:01	0.07
STMMH12237	JUNCTION	0.11	1.05	180.29	0	08:07	0.32
STMMH12238	JUNCTION	0.40	1.95	180.22	0	08:07	0.59
STMMH12239	JUNCTION	0.00	0.03	186.46	0	08:00	0.01
STMMH12240	JUNCTION	0.01	0.12	185.81	0	08:00	0.04
STMMH12241	JUNCTION	0.03	0.23	183.88	0	08:00	0.07
STMMH12243	JUNCTION	0.12	1.34	185.18	0	08:47	0.41
STMMH12247	JUNCTION	0.03	0.07	177.20	0	08:04	0.02
STMMH12248	JUNCTION	0.03	0.07	177.01	0	08:04	0.02
STMMH12249	JUNCTION	0.03	0.11	176.52	0	08:02	0.03
STMMH12250	JUNCTION	0.04	0.11	175.62	0	08:02	0.03
STMMH12251	JUNCTION	0.04	0.76	175.60	0	08:10	0.23

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12252	JUNCTION	0.41	1.94	175.59	0	08:09	0.59
STMMH12255	JUNCTION	0.09	2.03	181.68	0	08:03	0.56
STMMH12256	JUNCTION	0.01	0.11	190.08	0	08:02	0.03
STMMH12257	JUNCTION	0.53	0.63	197.36	0	08:00	0.19
STMMH12258	JUNCTION	0.02	0.07	199.27	0	08:00	0.02
STMMH12259	JUNCTION	0.01	0.05	199.25	0	08:00	0.02
STMMH12260	JUNCTION	0.11	1.80	201.85	0	08:37	0.41
STMMH12261	JUNCTION	0.16	0.79	200.21	0	08:02	0.24
STMMH12262	JUNCTION	0.08	1.32	201.21	0	08:05	0.25
STMMH12263	JUNCTION	0.11	0.59	198.75	0	08:03	0.18
STMMH12264	JUNCTION	0.10	0.53	198.64	0	08:02	0.16
STMMH12265	JUNCTION	0.00	0.00	198.92	0	00:00	0.00
STMMH12266	JUNCTION	0.14	0.59	198.39	0	08:03	0.18
STMMH12267	JUNCTION	0.07	0.35	197.67	0	08:03	0.11
STMMH12268	JUNCTION	0.09	1.37	195.75	0	08:04	0.38
STMMH12269	JUNCTION	0.03	3.44	196.81	0	08:03	0.83
STMMH12270	JUNCTION	0.13	2.59	194.90	0	08:06	0.79
STMMH12271	JUNCTION	0.22	3.15	192.83	0	08:05	0.93
STMMH12272	JUNCTION	0.03	0.25	198.76	0	08:03	0.08

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12273	JUNCTION	0.01	0.06	199.57	0	08:03	0.02
STMMH12274	JUNCTION	0.02	0.14	199.79	0	08:02	0.04
STMMH12275	JUNCTION	0.00	0.00	199.82	0	00:00	0.00
STMMH12276	JUNCTION	0.03	0.11	197.46	0	08:00	0.03
STMMH12277	JUNCTION	0.04	0.24	196.52	0	08:04	0.07
STMMH12278	JUNCTION	0.07	1.16	196.08	0	08:04	0.35
STMMH12279	JUNCTION	0.12	1.95	202.18	0	07:59	0.49
STMMH12280	JUNCTION	0.08	0.81	201.44	0	08:14	0.25
STMMH12281	JUNCTION	0.22	1.09	185.17	0	08:07	0.33
STMMH12282	JUNCTION	0.17	0.81	184.41	0	08:07	0.25
STMMH12283	JUNCTION	0.17	0.81	181.87	0	08:08	0.24
STMMH12284	JUNCTION	0.22	1.90	181.43	0	08:10	0.58
STMMH12285	JUNCTION	0.21	3.56	182.53	0	08:07	0.66
STMMH12286	JUNCTION	0.11	0.30	191.64	0	08:02	0.09
STMMH12287	JUNCTION	0.15	2.75	191.72	0	08:02	0.68
STMMH12288	JUNCTION	0.07	1.22	190.66	0	08:06	0.37
STMMH12289	JUNCTION	0.04	0.20	190.73	0	08:01	0.06
STMMH12290	JUNCTION	0.03	0.14	191.50	0	08:02	0.04
STMMH12291	JUNCTION	0.01	0.06	191.85	0	08:01	0.02

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12292	JUNCTION	0.00	0.00	192.59	0	00:00	0.00
STMMH12293	JUNCTION	0.54	3.60	194.03	0	08:21	0.71
STMMH12294	JUNCTION	0.23	2.75	193.75	0	08:01	0.84
STMMH12295	JUNCTION	0.05	0.24	190.40	0	08:03	0.07
STMMH12296	JUNCTION	0.01	0.05	184.48	0	08:01	0.02
STMMH12297	JUNCTION	0.01	0.05	186.43	0	08:00	0.02
STMMH12298	JUNCTION	0.01	0.07	188.11	0	08:00	0.02
STMMH12299	JUNCTION	0.17	0.93	184.18	0	08:07	0.28
STMMH12300	JUNCTION	0.03	0.21	178.67	0	08:02	0.06
STMMH12301	JUNCTION	0.05	0.26	176.15	0	08:01	0.08
STMMH12302	JUNCTION	0.05	0.29	174.12	0	08:01	0.09
STMMH12303	JUNCTION	0.07	3.70	175.90	0	08:10	0.39
STMMH12304	JUNCTION	0.15	4.21	174.31	0	08:09	1.27
STMMH12305	JUNCTION	0.07	0.46	191.27	0	08:02	0.14
STMMH12306	JUNCTION	0.06	0.33	190.97	0	08:02	0.10
STMMH12307	JUNCTION	0.01	0.07	191.55	0	08:00	0.02
STMMH12308	JUNCTION	0.00	0.00	191.94	0	00:00	0.00
STMMH12309	JUNCTION	0.02	0.12	191.10	0	08:02	0.04
STMMH12310	JUNCTION	0.04	0.25	189.35	0	08:02	0.08

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12311	JUNCTION	0.04	0.26	187.16	0	08:02	0.08
STMMH12318	JUNCTION	0.02	0.18	178.15	0	08:06	0.05
STMMH12319	JUNCTION	0.02	0.17	179.86	0	08:05	0.05
STMMH12320	JUNCTION	0.02	0.17	179.00	0	08:05	0.05
STMMH12321	JUNCTION	0.19	0.48	193.80	0	08:03	0.15
STMMH12322	JUNCTION	0.06	0.33	193.65	0	08:03	0.10
STMMH12323	JUNCTION	0.00	0.00	196.14	0	00:00	0.00
STMMH12324	JUNCTION	0.02	0.10	194.32	0	08:00	0.03
STMMH12325	JUNCTION	0.06	0.35	193.30	0	08:03	0.11
STMMH12326	JUNCTION	0.16	0.68	193.04	0	08:04	0.21
STMMH12327	JUNCTION	0.02	0.16	196.39	0	08:00	0.05
STMMH12328	JUNCTION	0.03	0.19	194.78	0	08:00	0.06
STMMH12329	JUNCTION	0.16	0.75	192.83	0	08:03	0.23
STMMH12330	JUNCTION	0.01	0.12	197.01	0	08:00	0.04
STMMH12331	JUNCTION	0.03	0.16	195.09	0	08:00	0.05
STMMH12332	JUNCTION	0.06	0.48	193.88	0	08:01	0.15
STMMH12333	JUNCTION	0.21	1.04	189.42	0	08:04	0.32
STMMH12334	JUNCTION	0.00	0.00	174.60	0	00:00	0.00
STMMH12335	JUNCTION	0.02	0.12	177.53	0	08:01	0.04

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12336	JUNCTION	0.13	3.02	196.67	0	08:07	0.80
STMMH12337	JUNCTION	0.23	1.08	189.71	0	08:08	0.33
STMMH12338	JUNCTION	0.21	1.02	188.89	0	08:04	0.31
STMMH12339	JUNCTION	0.22	1.12	187.91	0	08:05	0.34
STMMH12340	JUNCTION	0.23	1.18	187.24	0	08:06	0.36
STMMH12341	JUNCTION	0.23	1.18	186.57	0	08:06	0.36
STMMH12342	JUNCTION	0.22	1.14	185.71	0	08:07	0.35
STMMH12351	JUNCTION	0.07	0.48	186.08	0	08:03	0.15
STMMH12352	JUNCTION	0.08	0.45	185.36	0	08:03	0.14
STMMH12353	JUNCTION	0.08	0.50	185.07	0	08:03	0.15
STMMH12354	JUNCTION	0.05	0.25	186.01	0	08:00	0.08
STMMH12355	JUNCTION	0.05	0.23	185.88	0	08:01	0.07
STMMH12356	JUNCTION	0.02	0.14	186.89	0	08:00	0.04
STMMH12357	JUNCTION	0.01	0.06	191.17	0	08:00	0.02
STMMH12358	JUNCTION	0.03	0.12	190.41	0	08:01	0.04
STMMH12359	JUNCTION	0.04	0.21	189.79	0	08:02	0.06
STMMH12360	JUNCTION	0.01	0.07	189.79	0	08:00	0.02
STMMH12361	JUNCTION	0.02	0.08	187.80	0	08:01	0.02
STMMH12365	JUNCTION	0.02	0.17	181.32	0	08:03	0.05

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12366	JUNCTION	0.02	0.16	182.01	0	08:03	0.05
STMMH12367	JUNCTION	0.02	0.15	183.31	0	08:02	0.05
STMMH12368	JUNCTION	0.02	0.13	185.05	0	08:03	0.04
STMMH12369	JUNCTION	0.02	0.16	200.16	0	08:00	0.05
STMMH12370	JUNCTION	0.01	0.12	198.51	0	08:01	0.04
STMMH12371	JUNCTION	0.01	0.10	195.33	0	08:01	0.03
STMMH12372	JUNCTION	0.01	0.09	200.83	0	08:00	0.03
STMMH12373	JUNCTION	0.02	0.16	198.65	0	08:00	0.05
STMMH12374	JUNCTION	0.01	0.14	196.78	0	08:00	0.04
STMMH12375	JUNCTION	0.04	0.27	195.05	0	08:01	0.08
STMMH12376	JUNCTION	0.05	0.28	194.49	0	08:02	0.09
STMMH12377	JUNCTION	0.00	0.00	196.20	0	00:00	0.00
STMMH12378	JUNCTION	0.04	0.24	194.24	0	08:01	0.07
STMMH12379	JUNCTION	0.05	0.36	193.67	0	08:02	0.11
STMMH12380	JUNCTION	0.21	1.06	188.18	0	08:05	0.32
STMMH12381	JUNCTION	0.01	0.13	194.31	0	08:00	0.04
STMMH12382	JUNCTION	0.01	0.07	196.64	0	08:00	0.02
STMMH12383	JUNCTION	0.01	0.07	193.40	0	08:00	0.02
STMMH12384	JUNCTION	0.02	0.13	192.48	0	08:00	0.04

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12385	JUNCTION	0.05	0.79	191.81	0	08:03	0.24
STMMH12386	JUNCTION	0.05	0.41	190.57	0	08:02	0.13
STMMH12387	JUNCTION	0.09	0.57	189.05	0	08:02	0.17
STMMH12388	JUNCTION	0.08	0.67	189.38	0	08:02	0.20
STMMH12389	JUNCTION	0.10	0.64	188.45	0	08:03	0.19
STMMH12390	JUNCTION	0.04	3.49	189.14	0	08:06	0.31
STMMH12391	JUNCTION	0.01	0.06	186.85	0	08:00	0.02
STMMH12392	JUNCTION	0.77	4.40	186.40	0	08:02	1.29
STMMH12393	JUNCTION	0.08	3.72	186.61	0	08:09	1.13
STMMH12394	JUNCTION	0.03	2.15	186.30	0	08:11	0.47
STMMH12395	JUNCTION	0.03	1.29	185.63	0	08:08	0.39
STMMH12396	JUNCTION	0.00	0.24	185.59	0	08:10	0.07
STMMH12397	JUNCTION	0.08	3.20	186.77	0	08:07	0.49
STMMH12398	JUNCTION	0.10	3.06	185.91	0	08:07	0.60
STMMH12399	JUNCTION	0.04	3.48	187.09	0	08:07	1.06
STMMH12400	JUNCTION	0.01	3.20	187.54	0	08:07	0.30
STMMH12401	JUNCTION	0.01	3.03	187.37	0	08:06	0.30
STMMH12402	JUNCTION	0.00	2.69	187.29	0	08:07	0.08
STMMH12403	JUNCTION	0.15	3.62	185.80	0	08:07	0.66

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12404	JUNCTION	0.02	10.34	191.88	0	08:04	0.59
STMMH12405	JUNCTION	0.00	0.03	182.13	0	08:00	0.01
STMMH12406	JUNCTION	0.05	1.88	181.93	0	08:06	0.33
STMMH12407	JUNCTION	0.06	1.43	181.16	0	08:09	0.43
STMMH12408	JUNCTION	0.03	0.14	181.78	0	08:01	0.04
STMMH12409	JUNCTION	0.03	0.25	181.16	0	08:10	0.07
STMMH12410	JUNCTION	0.00	0.02	182.73	0	08:00	0.01
STMMH12411	JUNCTION	0.01	0.06	182.92	0	08:00	0.02
STMMH12412	JUNCTION	0.01	0.06	181.87	0	08:01	0.02
STMMH12413	JUNCTION	0.02	0.10	180.83	0	08:01	0.03
STMMH12414	JUNCTION	0.04	2.19	181.60	0	08:08	0.20
STMMH12415	JUNCTION	0.06	1.42	180.16	0	08:09	0.39
STMMH12416	JUNCTION	0.94	2.84	176.92	0	08:10	0.87
STMMH12418	JUNCTION	0.31	5.89	182.82	0	08:05	1.00
STMMH12419	JUNCTION	0.30	4.36	180.27	0	08:05	0.91
STMMH12421	JUNCTION	0.24	1.45	177.77	0	08:09	0.37
STMMH12422	JUNCTION	0.00	0.00	186.69	0	00:00	0.00
STMMH12423	JUNCTION	0.04	0.24	185.20	0	08:46	0.07
STMMH12424	JUNCTION	0.23	1.59	185.73	0	08:42	0.32

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12434	JUNCTION	0.00	0.00	179.16	0	00:00	0.00
STMMH12435	JUNCTION	0.02	0.14	178.44	0	08:01	0.04
STMMH12436	JUNCTION	0.02	0.13	179.33	0	08:00	0.04
STMMH12437	JUNCTION	0.02	0.20	178.91	0	08:00	0.06
STMMH12438	JUNCTION	0.02	0.16	177.99	0	08:00	0.05
STMMH12439	JUNCTION	0.04	0.30	176.18	0	08:00	0.09
STMMH12440	JUNCTION	0.05	0.39	175.70	0	08:01	0.12
STMMH12442	JUNCTION	0.06	0.41	175.20	0	08:01	0.13
STMMH12443	JUNCTION	0.01	0.13	197.49	0	08:01	0.04
STMMH12444	JUNCTION	1.01	1.14	173.41	0	08:08	0.35
STMMH12445	JUNCTION	0.02	0.12	177.24	0	08:07	0.04
STMMH12446	JUNCTION	0.10	0.25	193.10	0	08:00	0.08
STMMH12447	JUNCTION	0.05	0.24	192.78	0	08:02	0.07
STMMH12448	JUNCTION	0.04	0.21	192.32	0	08:02	0.06
STMMH12449	JUNCTION	0.02	0.06	189.37	0	08:00	0.02
STMMH12450	JUNCTION	0.04	0.18	185.10	0	08:00	0.05
STMMH12451	JUNCTION	0.03	0.14	184.72	0	08:00	0.04
STMMH12452	JUNCTION	0.00	0.00	187.04	0	00:00	0.00
STMMH12453	JUNCTION	0.04	0.22	180.95	0	08:01	0.07

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12454	JUNCTION	0.02	0.15	181.92	0	08:00	0.05
STMMH12455	JUNCTION	0.02	0.10	182.30	0	08:00	0.03
STMMH12457	JUNCTION	1.71	6.86	170.66	0	08:13	2.09
STMMH12475	JUNCTION	0.05	0.26	190.79	0	08:03	0.08
STMMH12476	JUNCTION	0.26	0.42	190.05	0	08:03	0.13
STMMH12477	JUNCTION	0.08	0.19	191.05	0	08:03	0.06
STMMH12478	JUNCTION	0.03	0.15	191.19	0	08:02	0.05
STMMH12479	JUNCTION	0.02	0.13	191.80	0	08:02	0.04
STMMH12480	JUNCTION	0.03	0.13	191.60	0	08:02	0.04
STMMH12481	JUNCTION	0.00	0.02	192.66	0	08:02	0.01
STMMH12482	JUNCTION	0.04	0.23	190.77	0	08:01	0.07
STMMH12483	JUNCTION	0.04	0.38	191.79	0	08:02	0.11
STMMH12484	JUNCTION	0.05	0.29	191.34	0	08:03	0.09
STMMH12485	JUNCTION	0.02	0.19	193.67	0	08:05	0.05
STMMH12486	JUNCTION	0.02	0.13	193.11	0	08:01	0.04
STMMH12487	JUNCTION	0.04	0.35	192.86	0	08:04	0.10
STMMH12488	JUNCTION	0.03	0.77	193.68	0	08:04	0.20
STMMH12489	JUNCTION	0.09	2.97	194.49	0	08:01	0.79
STMMH12490	JUNCTION	0.11	2.58	193.81	0	08:01	0.79

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12491	JUNCTION	0.04	0.69	192.85	0	08:05	0.19
STMMH12492	JUNCTION	0.07	1.19	192.82	0	08:04	0.36
STMMH12523	JUNCTION	0.03	0.16	192.91	0	08:02	0.05
STMMH12524	JUNCTION	0.04	0.18	192.45	0	08:03	0.06
STMMH12525	JUNCTION	0.02	0.06	191.81	0	08:02	0.02
STMMH12526	JUNCTION	0.00	0.00	192.00	0	00:00	0.00
STMMH12527	OUTFALL	0.00	0.00	192.15	0	00:00	0.00
STMMH12528	JUNCTION	0.24	1.55	187.61	0	08:06	0.47
STMMH12529	JUNCTION	0.09	0.13	192.14	0	08:01	0.04
STMMH12530	JUNCTION	0.80	0.90	189.65	0	08:00	0.27
STMMH12531	JUNCTION	0.04	0.22	186.85	0	08:00	0.07
STMMH12532	JUNCTION	0.25	1.52	187.08	0	08:06	0.46
STMMH12533	JUNCTION	0.19	1.28	186.50	0	08:06	0.39
STMMH12534	JUNCTION	0.24	1.58	186.21	0	08:06	0.48
STMMH12535	JUNCTION	0.00	0.00	191.62	0	00:00	0.00
STMMH12536	JUNCTION	0.13	0.40	190.02	0	08:02	0.12
STMMH12537	JUNCTION	0.05	0.31	190.70	0	08:02	0.10
STMMH12538	JUNCTION	0.17	0.33	190.85	0	09:39	0.10
STMMH12542	JUNCTION	0.02	0.09	194.67	0	08:00	0.03

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12543	JUNCTION	0.01	0.09	193.57	0	08:00	0.03
STMMH12544	JUNCTION	0.02	0.12	191.86	0	08:01	0.04
STMMH12545	JUNCTION	0.23	3.58	193.77	0	08:21	0.58
STMMH12546	JUNCTION	0.23	2.92	192.69	0	08:21	0.44
STMMH12547	OUTFALL	0.00	0.00	189.27	0	00:00	0.00
STMMH12551	JUNCTION	0.12	0.72	190.75	0	08:24	0.22
STMMH12552	JUNCTION	0.15	0.87	190.29	0	08:22	0.26
STMMH12553	JUNCTION	0.14	0.69	190.92	0	08:03	0.21
STMMH12554	JUNCTION	0.07	0.42	191.53	0	08:02	0.13
STMMH12555	JUNCTION	0.04	0.23	192.00	0	08:02	0.07
STMMH12556	JUNCTION	0.37	0.42	193.08	0	08:00	0.13
STMMH12557	JUNCTION	0.01	0.07	193.65	0	08:00	0.02
STMMH12558	JUNCTION	0.03	0.13	192.47	0	08:01	0.04
STMMH12559	JUNCTION	0.05	0.57	190.72	0	08:07	0.17
STMMH12560	JUNCTION	0.04	0.22	191.08	0	08:02	0.07
STMMH12561	JUNCTION	0.06	0.32	191.75	0	08:02	0.10
STMMH12562	JUNCTION	0.23	1.41	185.60	0	08:07	0.43
STMMH12563	JUNCTION	0.21	2.78	180.93	0	08:09	0.85
STMMH12564	JUNCTION	0.24	1.49	187.73	0	08:06	0.46

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12565	JUNCTION	0.20	1.08	188.22	0	08:06	0.33
STMMH12566	JUNCTION	0.19	0.99	189.11	0	08:04	0.30
STMMH12567	JUNCTION	0.13	0.50	189.42	0	08:03	0.15
STMMH12568	JUNCTION	0.08	0.49	184.10	0	08:03	0.15
STMMH12569	JUNCTION	0.07	0.42	182.67	0	08:03	0.13
STMMH12570	JUNCTION	0.02	0.09	183.47	0	08:00	0.03
STMMH12571	JUNCTION	0.01	0.07	185.49	0	08:00	0.02
STMMH12572	JUNCTION	0.00	0.00	185.07	0	00:00	0.00
STMMH12574	JUNCTION	1.52	2.75	201.85	0	08:01	0.58
STMMH12575	JUNCTION	1.60	1.77	188.97	0	08:00	0.54
STMMH12576	JUNCTION	0.00	0.27	187.71	0	08:05	0.08
STMMH13107	JUNCTION	0.02	0.10	189.94	0	08:00	0.03
STMMH13108	JUNCTION	0.02	0.12	189.76	0	08:00	0.04
STMMH13109	JUNCTION	0.02	0.22	189.38	0	08:04	0.07
STMMH13113	JUNCTION	0.28	2.35	185.39	0	07:57	0.63
STMMH14862	JUNCTION	0.10	5.22	203.61	0	08:10	0.70
STMMH14863	JUNCTION	0.12	4.61	202.72	0	08:10	0.79
STMMH14864	JUNCTION	0.14	3.96	201.66	0	08:09	0.91
STMMH14867	JUNCTION	0.15	3.57	201.17	0	08:10	0.93

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH14868	JUNCTION	0.16	4.50	201.86	0	08:07	1.00
STMMH14900	JUNCTION	0.33	0.39	202.27	0	08:00	0.12
STMMH14994	JUNCTION	0.01	0.04	203.33	0	08:00	0.01
STMMH14995	JUNCTION	0.06	0.54	203.08	0	08:14	0.16
STMMH14996	JUNCTION	0.06	0.27	203.08	0	08:03	0.08
STMMH14997	JUNCTION	0.05	0.25	203.55	0	08:02	0.08
STMMH15012	JUNCTION	0.04	0.21	204.08	0	08:02	0.06
STMMH15013	JUNCTION	0.01	0.08	206.04	0	08:00	0.03
STMMH15014	JUNCTION	0.01	0.10	205.17	0	08:01	0.03
STMMH15015	JUNCTION	0.03	0.16	204.56	0	08:02	0.05
STMMH15016	JUNCTION	0.00	0.00	203.76	0	00:00	0.00
STMMH15017	JUNCTION	0.09	1.01	203.18	0	08:13	0.31
STMMH15018	JUNCTION	0.14	1.64	203.06	0	08:14	0.49
STMMH15019	JUNCTION	0.10	1.20	203.07	0	08:14	0.36
STMMH15020	JUNCTION	0.06	0.65	203.08	0	08:15	0.20
STMMH15021	JUNCTION	0.01	0.10	203.09	0	08:15	0.03
STMMH15022	JUNCTION	0.03	0.11	205.01	0	08:04	0.03
STMMH15023	JUNCTION	0.03	0.10	204.39	0	08:04	0.03
STMMH15024	JUNCTION	0.06	0.29	203.50	0	08:03	0.09

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH15025	JUNCTION	0.04	0.14	205.57	0	08:03	0.04
STMMH15039	JUNCTION	0.19	0.23	203.18	0	08:03	0.07
STMMH15040	JUNCTION	0.04	0.28	203.12	0	08:02	0.08
STMMH15041	JUNCTION	0.16	4.08	204.76	0	08:02	1.16
STMMH15042	JUNCTION	0.16	4.97	205.40	0	08:02	1.06
STMMH15043	JUNCTION	0.03	3.54	205.70	0	08:03	0.54
STMMH15044	JUNCTION	0.05	3.05	206.00	0	08:03	0.72
STMMH15045	JUNCTION	0.11	4.19	205.50	0	08:03	1.22
STMMH15046	JUNCTION	0.17	4.18	205.30	0	08:11	1.27
STMMH15047	JUNCTION	0.04	3.14	206.50	0	08:04	0.76
STMMH15048	JUNCTION	0.08	3.93	206.00	0	08:04	1.20
STMMH15049	JUNCTION	0.03	3.35	207.00	0	08:03	1.02
STMMH15050	JUNCTION	0.21	3.43	202.81	0	08:14	1.04
STMMH15051	JUNCTION	0.20	3.31	203.01	0	08:09	1.00
STMMH15052	JUNCTION	0.15	4.02	203.35	0	08:03	1.00
STMMH15053	JUNCTION	0.22	4.32	202.87	0	08:03	1.05
STMMH15054	JUNCTION	0.28	3.89	202.80	0	08:03	1.10
STMMH15056	JUNCTION	0.05	0.13	203.46	0	08:00	0.04
STMMH15057	JUNCTION	0.25	5.42	203.58	0	08:03	1.14

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH15061	JUNCTION	0.04	3.76	204.52	0	08:03	0.53
STMMH15062	JUNCTION	0.07	0.14	203.47	0	08:00	0.04
STMMH15076	JUNCTION	0.15	4.69	201.61	0	08:06	1.11
STMMH15077	JUNCTION	0.13	4.24	201.62	0	08:08	0.98
STMMH15078	JUNCTION	0.11	5.18	203.00	0	08:08	0.84
STMMH15079	JUNCTION	0.01	3.85	203.54	0	08:10	0.68
STMMH15080	JUNCTION	0.07	4.21	202.92	0	08:10	1.08
STMMH15081	JUNCTION	0.16	4.48	201.53	0	08:06	1.07
STMMH15082	JUNCTION	0.20	4.05	200.63	0	08:14	1.21
STMMH15083	JUNCTION	0.03	3.59	203.24	0	08:10	0.54
STMMH15084	JUNCTION	0.00	0.00	201.78	0	00:00	0.00
STMMH15085	JUNCTION	0.02	0.61	200.82	0	08:11	0.16
STMMH15086	JUNCTION	0.00	0.00	201.20	0	00:00	0.00
STMMH15087	JUNCTION	0.00	0.03	200.85	0	08:17	0.01
STMMH15088	JUNCTION	0.06	5.22	204.08	0	08:10	0.56
STMMH15113	JUNCTION	0.09	0.31	201.57	0	08:10	0.05
STMMH15114	JUNCTION	0.07	1.61	200.83	0	08:11	0.43
STMMH15115	JUNCTION	0.09	4.15	202.40	0	08:08	0.71
STMMH15124	JUNCTION	0.03	4.11	203.40	0	08:09	0.50

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH15125	JUNCTION	0.09	3.39	201.45	0	08:09	0.87
STMMH15126	JUNCTION	0.32	4.56	200.54	0	08:04	1.36
STMMH15127	JUNCTION	0.28	4.30	200.68	0	08:14	1.29
STMMH15129	JUNCTION	0.27	4.25	200.97	0	08:09	1.23
STMMH15130	JUNCTION	0.38	4.76	200.02	0	08:15	1.44
STMMH15131	JUNCTION	0.00	0.00	197.93	0	00:00	0.00
STMMH15132	JUNCTION	0.33	4.73	200.30	0	08:14	1.43
STMMH15133	JUNCTION	0.19	3.37	200.28	0	08:14	1.02
STMMH15323	JUNCTION	0.00	0.04	197.62	0	08:02	0.01
STMMH15324	JUNCTION	0.24	3.72	200.37	0	08:28	1.13
STMMH15325	JUNCTION	0.11	4.24	200.72	0	08:04	1.07
STMMH15326	JUNCTION	0.08	2.92	200.00	0	08:20	0.89
STMMH16218	JUNCTION	0.01	0.15	199.48	0	08:00	0.05
STMMH16219	JUNCTION	0.18	3.54	197.04	0	08:15	1.07
STMMH16220	JUNCTION	0.05	2.09	197.13	0	08:12	0.64
STMMH16221	JUNCTION	0.12	2.63	197.12	0	08:13	0.80
STMMH16222	JUNCTION	0.15	7.16	201.12	0	08:04	0.95
STMMH16223	JUNCTION	0.46	5.07	198.46	0	08:04	1.11
STMMH16224	JUNCTION	0.49	6.39	198.56	0	08:14	1.54

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH16225	JUNCTION	0.02	0.07	198.62	0	08:00	0.02
STMMH16226	JUNCTION	0.02	0.08	202.43	0	08:01	0.02
STMMH16228	JUNCTION	0.01	0.08	196.94	0	08:00	0.02
STMMH16229	JUNCTION	0.02	0.14	194.78	0	08:00	0.04
STMMH16230	JUNCTION	0.02	0.15	190.83	0	08:00	0.05
STMMH16231	JUNCTION	0.01	0.15	193.79	0	08:00	0.04
STMMH16232	JUNCTION	0.03	0.79	192.97	0	08:05	0.23
STMMH16233	JUNCTION	0.08	3.37	194.43	0	08:04	0.88
STMMH16234	JUNCTION	0.02	0.14	203.04	0	08:00	0.04
STMMH16235	JUNCTION	0.03	0.17	199.70	0	08:01	0.05
STMMH16236	JUNCTION	0.27	6.45	201.14	0	08:08	1.31
STMMH16237	JUNCTION	0.01	0.06	201.26	0	08:00	0.02
STMMH16238	JUNCTION	0.01	0.05	200.34	0	08:00	0.02
STMMH16239	JUNCTION	0.51	5.11	197.66	0	08:14	1.55
STMMH16249	JUNCTION	0.40	5.72	200.23	0	08:03	1.38
STMMH16250	JUNCTION	0.38	4.72	200.00	0	08:03	1.29
STMMH16251	JUNCTION	0.08	8.12	204.50	0	08:06	0.80
STMMH16252	JUNCTION	0.04	0.17	197.04	0	08:01	0.05
STMMH16253	JUNCTION	3.27	5.99	167.04	0	08:13	1.82

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH16339	OUTFALL	0.00	0.00	194.45	0	00:00	0.00
STMMH16340	JUNCTION	0.06	0.14	204.14	0	08:00	0.04
STMMH16341	JUNCTION	0.05	0.14	203.14	0	08:01	0.04
STMMH16342	JUNCTION	0.16	0.32	200.95	0	08:01	0.10
STMMH16343	JUNCTION	0.05	0.25	198.14	0	08:01	0.07
STMMH16344	JUNCTION	0.01	0.12	204.52	0	08:00	0.04
STMMH16345	JUNCTION	0.03	0.16	203.26	0	08:00	0.05
STMMH16346	JUNCTION	0.18	3.69	199.01	0	08:13	1.12
STMMH16348	JUNCTION	0.02	0.09	199.87	0	08:01	0.03
STMMH16349	JUNCTION	0.06	0.33	199.53	0	08:01	0.10
STMMH16350	JUNCTION	0.06	0.36	199.36	0	08:01	0.11
STMMH16351	JUNCTION	0.00	0.00	200.70	0	00:00	0.00
STMMH16368	JUNCTION	0.04	0.15	196.75	0	08:02	0.05
STMMH16369	JUNCTION	0.05	0.43	196.32	0	08:12	0.13
STMMH16370	JUNCTION	0.06	2.80	198.08	0	08:11	0.39
STMMH16371	JUNCTION	0.47	7.56	199.20	0	08:10	1.88
STMMH16372	JUNCTION	0.00	0.00	199.39	0	00:00	0.00
STMMH16373	JUNCTION	0.03	0.12	197.77	0	08:01	0.04
STMMH16374	JUNCTION	0.00	0.00	198.51	0	00:00	0.00

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH16375	JUNCTION	0.23	4.29	200.80	0	08:26	1.31
STMMH16376	JUNCTION	0.22	3.55	199.40	0	08:22	1.08
STMMH16377	JUNCTION	0.16	4.57	198.45	0	08:05	0.75
STMMH16378	JUNCTION	0.17	4.03	197.52	0	08:20	1.21
STMMH16379	JUNCTION	0.14	3.51	196.25	0	08:06	1.07
STMMH16380	JUNCTION	0.07	3.96	202.10	0	08:10	0.54
STMMH16381	JUNCTION	0.10	5.70	203.00	0	08:05	1.20
STMMH16382	JUNCTION	0.01	0.08	199.26	0	08:00	0.02
STMMH16383	JUNCTION	0.06	0.37	198.79	0	08:01	0.11
STMMH16384	JUNCTION	0.06	0.36	198.06	0	08:02	0.11
STMMH16385	JUNCTION	0.11	3.36	201.00	0	08:29	1.02
STMMH16386	JUNCTION	0.08	0.50	197.48	0	08:02	0.15
STMMH16387	JUNCTION	0.07	0.28	196.74	0	08:03	0.09
STMMH16388	JUNCTION	0.07	0.37	195.22	0	08:02	0.11
STMMH16389	JUNCTION	0.04	0.27	199.14	0	08:01	0.08
STMMH16390	JUNCTION	0.03	0.17	199.44	0	08:00	0.05
STMMH16391	JUNCTION	0.01	0.06	200.90	0	08:00	0.02
STMMH16392	JUNCTION	0.01	0.08	198.18	0	08:01	0.03
STMMH16393	JUNCTION	0.12	3.88	194.20	0	08:07	0.86

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH16394	JUNCTION	0.02	0.08	193.40	0	08:00	0.02
STMMH16395	JUNCTION	0.00	0.00	197.35	0	00:00	0.00
STMMH16399	JUNCTION	0.01	0.07	198.94	0	08:00	0.02
STMMH16400	JUNCTION	0.16	0.36	198.13	0	08:02	0.11
STMMH16401	JUNCTION	0.20	0.40	198.13	0	08:02	0.12
STMMH16402	JUNCTION	0.32	3.53	200.68	0	08:22	1.08
STMMH16403	JUNCTION	0.44	4.24	200.10	0	08:03	1.29
STMMH16404	JUNCTION	0.05	0.33	195.85	0	08:01	0.10
STMMH16405	JUNCTION	0.03	0.23	197.00	0	08:01	0.07
STMMH16406	JUNCTION	0.01	0.09	200.31	0	08:00	0.03
STMMH16407	JUNCTION	0.02	0.12	199.42	0	08:00	0.04
STMMH16408	JUNCTION	0.02	0.09	199.05	0	08:01	0.03
STMMH16409	JUNCTION	0.02	0.11	198.47	0	08:00	0.03
STMMH16410	JUNCTION	0.04	0.24	197.80	0	08:00	0.07
STMMH16411	JUNCTION	0.01	0.13	197.79	0	08:00	0.04
STMMH16412	JUNCTION	0.01	0.13	198.75	0	08:00	0.04
STMMH16413	JUNCTION	0.02	0.17	196.57	0	08:00	0.05
STMMH16414	JUNCTION	0.04	0.24	195.03	0	08:00	0.07
STMMH16416	JUNCTION	0.00	0.05	196.70	0	08:04	0.02

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH16417	JUNCTION	0.05	0.34	194.00	0	08:01	0.10
STMMH16418	JUNCTION	0.06	0.39	193.40	0	08:01	0.12
STMMH16419	JUNCTION	0.06	0.43	193.24	0	08:06	0.13
STMMH16424	JUNCTION	0.09	1.16	193.22	0	08:06	0.35
STMMH16425	JUNCTION	0.01	0.06	198.04	0	08:00	0.02
STMMH16426	JUNCTION	0.03	0.21	195.88	0	08:02	0.06
STMMH16427	JUNCTION	0.04	0.48	193.50	0	08:06	0.15
STMMH16428	JUNCTION	0.07	2.83	194.13	0	08:03	0.53
STMMH16429	JUNCTION	0.23	4.71	194.23	0	08:02	1.29
STMMH16430	JUNCTION	0.18	3.78	193.50	0	08:07	1.00
STMMH16431	JUNCTION	0.10	4.47	195.20	0	08:03	0.68
STMMH16432	JUNCTION	0.04	0.22	192.98	0	08:01	0.07
STMMH16433	JUNCTION	0.01	0.06	198.88	0	08:00	0.02
STMMH16434	JUNCTION	0.02	0.12	196.83	0	08:00	0.04
STMMH16435	JUNCTION	0.03	0.23	194.17	0	08:01	0.07
STMMH16436	JUNCTION	0.00	0.00	198.62	0	00:00	0.00
STMMH16437	JUNCTION	0.01	0.06	195.31	0	08:00	0.02
STMMH16438	JUNCTION	0.03	0.18	192.07	0	08:00	0.05
STMMH16439	JUNCTION	0.05	0.36	191.75	0	08:02	0.11

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH16440	JUNCTION	0.06	0.42	190.70	0	08:02	0.13
STMMH16441	JUNCTION	0.06	0.41	189.50	0	08:02	0.13
STMMH16442	JUNCTION	0.07	0.47	188.83	0	08:02	0.14
STMMH16443	JUNCTION	0.07	0.45	188.37	0	08:02	0.14
STMMH16444	JUNCTION	0.01	0.08	199.78	0	08:00	0.02
STMMH16445	JUNCTION	0.04	0.27	198.87	0	08:01	0.08
STMMH16446	JUNCTION	0.05	0.30	198.46	0	08:01	0.09
STMMH16448	JUNCTION	0.01	0.06	197.40	0	08:00	0.02
STMMH16449	JUNCTION	0.02	0.11	195.71	0	08:00	0.03
STMMH16450	JUNCTION	0.01	0.11	174.70	0	08:00	0.03
STMMH16451	JUNCTION	0.50	1.83	172.41	0	08:10	0.56
STMMH16458	JUNCTION	0.45	5.06	193.98	0	08:17	1.15
STMMH16462	JUNCTION	0.03	0.18	192.94	0	08:01	0.06
STMMH16463	JUNCTION	0.05	3.13	194.66	0	08:03	0.42
STMMH16732	JUNCTION	0.51	4.87	195.62	0	08:17	1.48
STMMH16735	JUNCTION	0.51	6.24	199.15	0	08:02	1.61
STMMH16913	JUNCTION	0.11	0.33	202.46	0	08:14	0.10
STMMH16914	JUNCTION	0.04	0.24	202.80	0	08:02	0.07
STMMH16931	JUNCTION	0.05	0.19	194.99	0	08:01	0.06

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH16932	JUNCTION	0.20	5.50	202.50	0	08:06	0.85
STMMH16933	JUNCTION	0.73	5.70	200.50	0	08:04	1.53
STMMH16934	JUNCTION	0.09	3.03	199.83	0	08:06	0.89
STMMH17106	JUNCTION	0.16	5.40	174.75	0	08:08	1.20
STMMH17107	JUNCTION	0.16	6.48	175.42	0	08:07	1.97
STMMH17108	JUNCTION	0.54	6.98	175.48	0	08:07	2.12
STMMH17165	JUNCTION	0.16	3.56	173.21	0	08:13	1.08
STMMH17166	JUNCTION	0.26	0.33	176.53	0	08:00	0.10
STMMH17167	JUNCTION	0.48	5.20	176.20	0	08:10	1.11
STMMH17179	JUNCTION	0.12	1.23	191.03	0	08:08	0.37
STMMH17180	JUNCTION	0.39	1.59	185.55	0	08:07	0.48
STMMH17181	JUNCTION	0.70	8.22	194.42	0	08:02	1.00
STMMH17182	JUNCTION	0.04	0.23	196.96	0	08:02	0.07
STMMH17183	JUNCTION	0.20	0.37	194.17	0	08:02	0.11
STMMH17184	JUNCTION	0.27	0.45	199.95	0	08:01	0.14
STMMH17186	JUNCTION	0.13	0.34	203.24	0	08:00	0.10
STMMH17187	JUNCTION	0.35	0.53	202.93	0	08:01	0.16
STMMH17188	JUNCTION	0.23	0.41	202.31	0	08:01	0.13
STMMH17198	JUNCTION	0.89	2.13	171.93	0	08:13	0.65

Area1-6Existing -100yr

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH17199	JUNCTION	0.91	2.29	171.09	0	08:14	0.70
STMMH17201	JUNCTION	0.51	4.45	191.39	0	08:02	1.05
STMMH18062	JUNCTION	0.01	0.12	176.71	0	08:00	0.04
STMMH18064	JUNCTION	0.66	2.01	173.31	0	08:10	0.61
STMMH25102	JUNCTION	0.89	5.06	203.36	0	08:10	0.74
STMMH25103	JUNCTION	0.28	0.77	200.87	0	08:11	0.22
STMMH25104	JUNCTION	0.28	0.39	202.19	0	08:00	0.12
STMMH25105	JUNCTION	0.19	0.25	204.85	0	08:01	0.08
STMMH27063	JUNCTION	2.01	7.96	172.21	0	08:10	2.41
STMMH27064	JUNCTION	0.29	0.33	178.13	0	08:03	0.10
STMSJ14524	JUNCTION	0.01	0.05	202.58	0	08:00	0.01
STMSJ14525	JUNCTION	0.02	0.14	202.67	0	08:00	0.04
STMSJ227	JUNCTION	0.00	0.00	186.91	0	00:00	0.00
STMSJ338	JUNCTION	0.22	4.38	202.78	0	08:03	1.08
STMSJ340	JUNCTION	0.06	3.25	201.74	0	08:09	0.83
STMSJ341	JUNCTION	0.24	3.91	201.69	0	08:09	1.04
STMSJ343	JUNCTION	0.20	3.88	201.37	0	08:09	1.05
STMSJ415	JUNCTION	0.00	0.00	177.55	0	00:00	0.00
ThornridgeNorthNode	JUNCTION	0.09	0.76	175.83	0	08:00	0.23

Area1-6Existing -100yr

Link Flow Summary

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
10128d	CONDUIT	0.116	0	08:02	1.27	0.26	0.36
10128u	CONDUIT	0.043	0	08:02	0.67	0.10	0.28
10143	CONDUIT	0.214	0	08:01	1.94	0.55	1.00
10146	CONDUIT	0.172	0	08:27	5.47	9.17	1.00
10152d	CONDUIT	0.105	0	08:01	1.28	0.53	1.00
10152u	CONDUIT	0.095	0	08:04	0.81	0.48	1.00
10153d	CONDUIT	0.136	0	08:02	1.34	0.45	1.00
10153u	CONDUIT	0.111	0	08:04	1.16	0.36	1.00
10165d	CONDUIT	0.321	0	08:03	1.68	0.31	0.39
10165u	CONDUIT	0.223	0	08:02	1.24	0.22	0.37
10167d	CONDUIT	0.094	0	08:01	1.43	0.25	0.34
10167u	CONDUIT	0.074	0	08:00	1.24	0.20	0.32
10169d	CONDUIT	0.083	0	08:00	1.60	0.46	0.48
10169u	CONDUIT	0.021	0	08:00	0.61	0.12	0.35
10177d	CONDUIT	2.224	0	08:01	2.90	0.91	1.00
10177u	CONDUIT	2.006	0	08:01	2.55	0.82	1.00
10179d	CONDUIT	3.784	0	08:07	3.35	1.33	1.00

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
10179ud	CONDUIT	3.550	0	08:07	3.14	1.27	1.00
10179uu	CONDUIT	3.331	0	08:07	2.94	1.20	1.00
10182d	CONDUIT	4.700	0	08:09	4.15	1.03	1.00
10182u	CONDUIT	4.471	0	08:09	4.02	0.97	1.00
10191d	CONDUIT	0.082	0	08:01	1.45	0.41	1.00
10191u	CONDUIT	0.003	0	08:00	0.19	0.02	0.53
10195d	CONDUIT	0.210	0	08:30	2.04	0.97	1.00
10195u	CONDUIT	0.156	0	08:08	1.64	0.73	1.00
10303d	CONDUIT	0.273	0	08:05	1.46	0.72	1.00
10303u	CONDUIT	0.200	0	08:07	1.19	0.51	1.00
10319d	CONDUIT	0.118	0	08:00	2.70	0.65	0.59
10319u	CONDUIT	0.080	0	08:00	2.11	0.44	0.53
10328d	CONDUIT	0.019	0	08:04	0.81	0.09	0.20
10328u	CONDUIT	0.011	0	08:04	0.58	0.05	0.18
10335d	CONDUIT	0.043	0	08:00	1.50	0.20	0.31
10335u	CONDUIT	0.034	0	08:00	1.29	0.16	0.29
10347	CONDUIT	0.054	0	08:08	1.72	0.40	1.00
10359d	CONDUIT	4.893	0	08:08	3.95	0.73	0.56
10359u	CONDUIT	4.883	0	08:07	3.33	0.71	0.65

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
10360d	CONDUIT	4.923	0	08:08	4.79	0.45	0.50
10360u	CONDUIT	4.896	0	08:08	4.64	0.45	0.50
10365d	CONDUIT	2.011	0	08:07	3.22	2.14	0.95
10365u	CONDUIT	1.887	0	08:07	2.97	2.03	1.00
10381d	CONDUIT	0.657	0	08:01	3.51	0.30	0.72
10381u	CONDUIT	0.550	0	08:01	3.08	0.24	0.37
10386d	CONDUIT	0.066	0	08:01	0.60	0.28	0.68
10386u	CONDUIT	0.014	0	08:00	0.47	0.06	0.26
10390d	CONDUIT	0.310	0	08:02	2.75	0.37	0.42
10390u	CONDUIT	0.294	0	08:02	2.58	0.35	0.42
10400d	CONDUIT	1.122	0	08:04	2.10	0.82	0.79
10400u	CONDUIT	0.960	0	08:03	1.82	0.71	0.78
10403d	CONDUIT	1.455	0	08:06	2.63	0.96	0.81
10403u	CONDUIT	1.206	0	08:03	2.14	0.88	0.84
10404d	CONDUIT	0.116	0	08:00	2.31	0.78	0.67
10404u	CONDUIT	0.048	0	08:00	1.27	0.32	0.53
10410d	CONDUIT	0.559	0	08:09	3.52	1.98	1.00
10410u	CONDUIT	0.213	0	08:03	1.34	0.73	1.00
10412d	CONDUIT	3.403	0	08:05	2.71	0.76	0.69

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
10412u	CONDUIT	3.330	0	08:05	2.60	0.75	0.69
10413d	CONDUIT	4.307	0	08:05	2.75	0.69	0.69
10413u	CONDUIT	4.192	0	08:05	2.76	0.69	0.67
10414d	CONDUIT	4.355	0	08:06	2.68	0.77	0.71
10414u	CONDUIT	4.331	0	08:06	2.67	0.76	0.71
10415d	CONDUIT	4.783	0	08:07	3.05	0.76	0.69
10415u	CONDUIT	4.563	0	08:06	2.86	0.77	0.70
10416d	CONDUIT	4.786	0	08:07	3.12	0.71	0.67
10416u	CONDUIT	4.785	0	08:07	3.05	0.73	0.69
10419d	CONDUIT	0.856	0	08:03	2.52	0.67	0.61
10419u	CONDUIT	0.742	0	08:03	2.16	0.58	0.61
10437d	CONDUIT	0.153	0	08:01	2.24	1.11	0.97
10437u	CONDUIT	0.063	0	08:00	1.19	0.45	0.74
10440d	CONDUIT	0.129	0	08:01	2.23	0.52	0.52
10440u	CONDUIT	0.000	0	00:00	0.00	0.00	0.26
10446d	CONDUIT	0.035	0	08:00	1.36	0.32	0.39
10446u	CONDUIT	0.014	0	08:00	0.72	0.13	0.32
10450d	CONDUIT	0.612	0	08:03	2.01	1.00	0.80
10450u	CONDUIT	0.589	0	08:02	1.84	0.97	0.84

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
10454d	CONDUIT	0.116	0	08:10	1.74	0.38	0.90
10454u	CONDUIT	0.011	0	08:00	0.33	0.04	0.44
10460d	CONDUIT	0.243	0	08:07	2.20	1.16	1.00
10460u	CONDUIT	0.050	0	08:07	0.83	0.24	0.82
10461d	CONDUIT	0.484	0	08:07	2.24	1.26	1.00
10461u	CONDUIT	0.258	0	08:15	1.29	0.67	1.00
10462d	CONDUIT	0.598	0	08:07	2.12	1.13	1.00
10462u	CONDUIT	0.488	0	08:07	1.73	0.92	1.00
10465d	CONDUIT	0.043	0	08:07	1.01	0.75	1.00
10465u	CONDUIT	0.044	0	08:06	0.91	0.78	1.00
10468d	CONDUIT	0.095	0	08:02	1.34	0.97	1.00
10468u	CONDUIT	0.063	0	08:04	0.91	0.59	1.00
10469d	CONDUIT	0.051	0	08:01	1.32	0.30	0.38
10469u	CONDUIT	0.002	0	08:00	0.12	0.01	0.23
10470d	CONDUIT	0.294	0	08:01	1.72	0.62	1.00
10470u	CONDUIT	0.219	0	08:01	1.31	0.47	1.00
10471	CONDUIT	0.309	0	08:02	2.05	0.50	1.00
10473d	CONDUIT	0.219	0	08:01	1.72	0.61	1.00
10473u	CONDUIT	0.065	0	08:01	0.73	0.18	0.74

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
10476d	CONDUIT	0.044	0	08:01	1.31	0.15	0.26
10476u	CONDUIT	0.009	0	08:01	0.44	0.03	0.19
10477d	CONDUIT	0.140	0	08:01	2.18	0.37	0.67
10477u	CONDUIT	0.044	0	08:01	0.96	0.11	0.33
10483u	CONDUIT	14.139	0	08:10	4.73	0.95	1.00
10485d	CONDUIT	0.301	0	08:14	2.21	0.60	1.00
10485u	CONDUIT	0.132	0	08:00	1.44	0.28	1.00
10486d	CONDUIT	0.125	0	08:00	2.71	0.69	0.62
10486u	CONDUIT	0.000	0	00:00	0.00	0.00	0.32
10487d	CONDUIT	0.126	0	08:01	1.87	0.63	1.00
10487u	CONDUIT	0.126	0	08:00	1.82	0.64	0.82
10497d	CONDUIT	0.084	0	08:00	1.98	0.21	0.60
10497u	CONDUIT	0.000	0	00:00	0.00	0.00	0.16
10513d	CONDUIT	0.034	0	08:00	2.34	0.07	0.19
10513u	CONDUIT	0.016	0	08:00	1.28	0.06	0.17
10530d	CONDUIT	0.035	0	08:01	1.20	0.20	0.31
10530u	CONDUIT	0.000	0	08:02	0.00	0.00	0.16
10531d	CONDUIT	0.148	0	08:02	1.25	0.22	0.31
10531u	CONDUIT	0.135	0	08:02	1.14	0.20	0.31

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
10533d	CONDUIT	0.154	0	08:02	1.49	1.23	0.89
10533u	CONDUIT	0.088	0	08:06	0.94	0.70	1.00
10551d	CONDUIT	0.332	0	08:01	1.78	0.23	0.42
10551u	CONDUIT	0.183	0	08:00	1.20	0.13	0.29
10562d	CONDUIT	1.562	0	08:13	2.45	1.58	1.00
10562u	CONDUIT	1.546	0	08:13	2.43	1.57	1.00
10564d	CONDUIT	0.973	0	08:24	2.18	1.12	0.78
10564u	CONDUIT	0.886	0	08:24	1.82	1.03	0.86
10565d	CONDUIT	1.592	0	08:23	2.32	0.97	0.78
10565u	CONDUIT	1.575	0	08:23	2.11	0.96	0.82
10581d	CONDUIT	3.356	0	08:04	2.74	0.74	0.65
10581u	CONDUIT	3.312	0	08:04	2.65	0.69	0.67
10586d	CONDUIT	0.031	0	08:00	1.55	0.12	0.24
10586u	CONDUIT	0.019	0	08:00	1.14	0.08	0.21
10810d	CONDUIT	1.063	0	08:08	1.43	0.61	1.00
10810u	CONDUIT	1.079	0	08:09	1.55	0.63	1.00
10914d	CONDUIT	0.250	0	08:03	1.48	0.49	1.00
10914u	CONDUIT	0.196	0	08:03	1.21	0.38	0.90
10936d	CONDUIT	0.003	0	08:03	0.44	0.03	0.22

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
10936u	CONDUIT	0.000	0	00:00	0.00	0.00	0.02
10937d	CONDUIT	0.394	0	08:04	1.78	0.96	1.00
10937u	CONDUIT	0.388	0	08:03	1.63	0.93	1.00
10940d	CONDUIT	0.263	0	08:01	1.40	0.88	1.00
10940u	CONDUIT	0.236	0	08:01	1.34	0.79	1.00
10943d	CONDUIT	0.078	0	08:02	1.05	0.24	0.48
10943u	CONDUIT	0.038	0	08:04	1.09	0.11	0.28
10944d	CONDUIT	0.243	0	08:03	2.05	0.82	1.00
10944u	CONDUIT	0.205	0	08:03	1.79	0.72	0.78
10963d	CONDUIT	0.131	0	08:01	1.40	1.08	0.79
10963ud	CONDUIT	0.019	0	08:03	0.31	0.15	0.69
10963uu	CONDUIT	0.003	0	08:01	0.09	0.02	0.31
10970d	CONDUIT	0.524	0	08:04	2.42	1.71	1.00
10970u	CONDUIT	0.401	0	08:01	1.85	1.31	1.00
10981d	CONDUIT	0.170	0	08:03	2.41	0.85	1.00
10981u	CONDUIT	0.034	0	08:00	2.05	0.17	0.64
10988d	CONDUIT	0.048	0	08:00	2.13	0.27	1.00
10988u	CONDUIT	0.029	0	08:00	1.52	0.16	0.57
11003d	CONDUIT	1.504	0	08:06	1.34	0.61	1.00

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
11003u	CONDUIT	1.484	0	08:07	1.38	0.61	1.00
11004d	CONDUIT	1.208	0	08:07	1.36	0.49	1.00
11004u	CONDUIT	1.148	0	08:07	1.20	0.47	1.00
11010d	CONDUIT	0.060	0	08:00	1.92	0.42	0.60
11010u	CONDUIT	0.000	0	00:00	0.00	0.00	0.23
11052d	CONDUIT	3.190	0	08:05	2.14	0.86	1.00
11052u	CONDUIT	3.099	0	08:05	2.10	0.85	1.00
11141d	CONDUIT	0.571	0	09:01	2.67	1.87	1.00
11141u	CONDUIT	0.372	0	09:01	1.72	1.22	1.00
11153d	CONDUIT	0.026	0	08:01	0.75	0.16	0.40
11153u	CONDUIT	0.011	0	08:00	0.62	0.07	0.23
11166d	CONDUIT	0.029	0	08:00	2.23	0.12	0.39
11166u	CONDUIT	0.015	0	08:00	1.41	0.06	0.21
11174d	CONDUIT	0.158	0	08:01	2.74	0.52	0.52
11174u	CONDUIT	0.058	0	08:01	1.36	0.19	0.41
11175d	CONDUIT	0.185	0	08:01	3.09	0.55	0.53
11175u	CONDUIT	0.171	0	08:01	2.91	0.51	0.53
11178d	CONDUIT	0.072	0	08:00	1.58	0.69	0.62
11178u	CONDUIT	0.034	0	08:00	0.95	0.32	0.50

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
11179d	CONDUIT	0.111	0	08:01	2.36	0.40	0.44
11179u	CONDUIT	0.105	0	08:00	2.28	0.38	0.44
11180	CONDUIT	0.559	0	08:04	1.08	0.36	1.00
11181d	CONDUIT	0.089	0	08:01	1.17	0.29	0.39
11181u	CONDUIT	0.020	0	08:01	0.47	0.07	0.28
11185d	CONDUIT	0.185	0	08:02	1.88	0.30	0.39
11185u	CONDUIT	0.084	0	08:02	1.09	0.14	0.32
11186d	CONDUIT	0.234	0	08:02	1.94	0.39	1.00
11186u	CONDUIT	0.185	0	08:02	1.64	0.31	0.86
11189d	CONDUIT	0.009	0	08:01	1.10	0.06	0.17
11189u	CONDUIT	0.000	0	00:00	0.00	0.00	0.09
11190d	CONDUIT	0.084	0	08:01	1.50	0.20	0.30
11190u	CONDUIT	0.052	0	08:01	1.09	0.12	0.27
11191d	CONDUIT	0.044	0	08:01	1.14	0.30	0.38
11191u	CONDUIT	0.000	0	00:00	0.00	0.00	0.19
11198d	CONDUIT	0.225	0	08:05	1.04	0.61	1.00
11198u	CONDUIT	0.204	0	08:05	1.35	0.55	1.00
11207d	CONDUIT	0.220	0	08:01	1.53	0.72	0.64
11207u	CONDUIT	0.156	0	08:01	1.22	0.52	0.58

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
11237d	CONDUIT	0.160	0	08:01	2.36	0.65	0.59
11237u	CONDUIT	0.016	0	08:00	0.52	0.06	0.38
11240d	CONDUIT	0.527	0	08:02	2.38	0.86	1.00
11240u	CONDUIT	0.332	0	08:02	1.65	0.52	1.00
11242d	CONDUIT	1.102	0	08:01	1.73	0.80	1.00
11242u	CONDUIT	0.875	0	08:01	1.56	0.64	1.00
11243d	CONDUIT	0.445	0	08:01	1.88	1.07	1.00
11243u	CONDUIT	0.283	0	08:01	1.27	0.68	1.00
11249d	CONDUIT	0.053	0	08:00	2.34	0.27	0.36
11249u	CONDUIT	0.018	0	08:00	1.14	0.09	0.28
11256d	CONDUIT	0.071	0	08:01	1.47	0.41	0.45
11256u	CONDUIT	0.016	0	08:00	0.52	0.09	0.33
11265d	CONDUIT	0.205	0	08:01	2.58	0.49	1.00
11265u	CONDUIT	0.141	0	08:01	1.99	0.33	1.00
11266dd	CONDUIT	7.024	0	08:31	3.97	1.15	1.00
11266du	CONDUIT	7.010	0	08:21	3.97	1.24	1.00
11266u	CONDUIT	7.056	0	08:30	3.99	1.38	1.00
11320d	CONDUIT	0.233	0	08:02	2.91	0.33	0.40
11320u	CONDUIT	0.219	0	08:01	2.79	0.31	0.39

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
11324d	CONDUIT	0.218	0	08:01	2.60	0.35	0.41
11324u	CONDUIT	0.206	0	08:01	2.52	0.33	0.40
14731	CHANNEL	5.796	0	08:03	2.12	0.04	0.31
14733	CHANNEL	1.164	0	08:29	1.27	0.08	0.62
14738	CHANNEL	0.082	0	08:04	0.36	0.01	0.13
14741	CHANNEL	1.150	0	08:52	0.23	0.01	0.55
14745	CHANNEL	1.190	0	08:51	0.45	0.01	0.38
14750	CHANNEL	0.833	0	08:02	0.55	0.01	0.32
14751	CHANNEL	1.190	0	08:52	1.66	0.04	0.22
14753	CHANNEL	0.231	0	08:02	0.65	0.00	0.09
14759	CHANNEL	0.156	0	08:01	0.16	0.11	0.59
14762	CHANNEL	1.859	0	08:34	0.81	0.12	0.59
14764	CHANNEL	0.252	0	08:04	0.08	0.01	0.50
14766	CHANNEL	1.872	0	08:34	0.92	0.04	0.54
14768	CHANNEL	0.159	0	08:07	0.90	0.00	0.09
14770	WEIR	0.000	0	00:00	0.00		
14776	CHANNEL	3.930	0	08:07	1.76	0.14	0.27
14777	CHANNEL	1.874	0	08:34	2.63	0.09	0.28
14778	CHANNEL	2.816	0	08:05	1.03	0.06	0.28

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
14779	CHANNEL	0.000	0	00:00	0.00	0.00	0.13
14780	CHANNEL	2.739	0	08:05	1.49	0.04	0.23
14781	CHANNEL	2.563	0	08:04	2.16	0.02	0.18
14782	CHANNEL	0.099	0	08:01	0.31	0.00	0.12
14783	CHANNEL	0.260	0	08:00	1.00	0.01	0.12
14784	CHANNEL	2.122	0	08:04	2.34	0.02	0.15
14792	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
14793	DUMMY	0.004	0	08:02			
14795	DUMMY	0.037	0	08:02			
14797	DUMMY	0.027	0	08:01			
14798	DUMMY	0.089	0	08:02			
14799	DUMMY	0.014	0	08:02			
14800	DUMMY	0.029	0	08:00			
14804	DUMMY	0.004	0	08:00			
14805	DUMMY	0.037	0	08:01			
14806	DUMMY	0.127	0	08:03			
14807	DUMMY	0.007	0	08:01			
14808	DUMMY	0.009	0	08:00			
14812	DUMMY	0.039	0	08:02			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
14813	DUMMY	0.145	0	08:03			
14817	DUMMY	0.006	0	08:00			
14818	DUMMY	0.264	0	08:03			
14819	DUMMY	0.086	0	08:00			
14823	DUMMY	0.003	0	08:01			
14824	DUMMY	0.053	0	08:00			
14825	DUMMY	0.043	0	08:00			
14827	CHANNEL	0.412	0	08:00	0.77	0.01	0.11
14828	DUMMY	0.012	0	08:00			
14829	DUMMY	0.211	0	08:02			
14831	CHANNEL	0.617	0	08:02	0.93	0.04	0.17
14832	DUMMY	0.011	0	08:00			
14837	CHANNEL	6.231	0	08:06	0.79	0.45	0.42
14838	CHANNEL	2.413	0	08:03	0.41	0.04	0.39
14840	CHANNEL	0.149	0	08:00	0.35	0.00	0.11
14841	CHANNEL	3.177	0	08:02	2.15	0.02	0.17
14842	CHANNEL	2.728	0	08:02	1.79	0.01	0.18
14843	CHANNEL	0.328	0	08:00	0.71	0.00	0.11
14846	CHANNEL	0.413	0	08:04	0.29	0.01	0.25

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
14847	CHANNEL	0.440	0	08:02	0.45	0.01	0.14
14848	CHANNEL	0.014	0	08:04	0.08	0.00	0.06
14849	DUMMY	0.058	0	08:01			
14856	CHANNEL	0.082	0	08:00	0.51	0.00	0.10
14858	CHANNEL	0.669	0	08:01	0.28	0.02	0.58
14859	CHANNEL	0.335	0	08:01	0.61	0.00	0.11
14861	CHANNEL	0.250	0	08:02	0.70	0.00	0.08
14862	CHANNEL	0.137	0	08:01	0.58	0.01	0.08
14866	DUMMY	0.094	0	08:00			
14870	DUMMY	0.002	0	08:00			
14872	DUMMY	0.228	0	08:09			
14873	DUMMY	0.201	0	08:12			
14874	DUMMY	0.315	0	08:30			
14875	DUMMY	0.387	0	08:39			
14876	DUMMY	0.822	0	08:37			
14877	DUMMY	0.165	0	08:00			
14878	DUMMY	0.017	0	08:00			
14881	DUMMY	0.020	0	08:01			
14885	DUMMY	0.007	0	08:01			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
14886	DUMMY	0.058	0	08:00			
14887	DUMMY	0.014	0	08:00			
14888	DUMMY	0.021	0	08:00			
14892	DUMMY	0.070	0	08:00			
14893	DUMMY	0.088	0	08:01			
14894	DUMMY	0.020	0	08:00			
14896	DUMMY	0.075	0	08:04			
14897	DUMMY	0.020	0	08:01			
14901	DUMMY	0.078	0	08:00			
14904	CHANNEL	1.920	0	08:15	3.32	0.01	0.15
14905	DUMMY	0.108	0	08:01			
14906	DUMMY	0.053	0	08:02			
14907	DUMMY	0.234	0	08:02			
14908	DUMMY	0.123	0	08:00			
14909	DUMMY	0.011	0	08:00			
14913	DUMMY	0.010	0	08:00			
14914	DUMMY	0.014	0	08:00			
14918	DUMMY	0.014	0	08:00			
14919	DUMMY	0.015	0	08:03			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
14920	DUMMY	0.322	0	08:04			
14921	DUMMY	0.075	0	08:00			
14922	DUMMY	0.106	0	08:04			
14923	DUMMY	0.018	0	08:01			
14930	DUMMY	0.035	0	08:01			
14931	DUMMY	0.103	0	08:02			
14932	DUMMY	0.028	0	08:00			
14933	DUMMY	0.045	0	08:03			
14934	DUMMY	0.072	0	08:02			
14935	DUMMY	0.174	0	08:02			
14939	DUMMY	0.014	0	08:02			
14948	DUMMY	0.117	0	08:09			
14952	DUMMY	0.371	0	08:29			
14954	CHANNEL	0.079	0	08:03	0.14	0.00	0.28
14965	CHANNEL	0.090	0	08:00	0.06	0.00	0.52
14967	CHANNEL	2.972	0	08:09	0.50	0.06	0.62
14976	CHANNEL	1.475	0	08:29	1.47	0.02	0.16
14977	CHANNEL	0.885	0	08:01	1.13	0.03	0.14
14979	CHANNEL	1.302	0	08:29	2.06	0.07	0.34

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
14981	DUMMY	0.036	0	08:00			
14982	DUMMY	0.012	0	08:00			
14983	DUMMY	0.146	0	08:01			
14984	DUMMY	0.236	0	08:01			
14996	DUMMY	0.026	0	08:00			
14998	CHANNEL	0.365	0	08:01	1.01	0.00	0.09
14999	CHANNEL	0.207	0	08:00	0.91	0.00	0.07
15006	DUMMY	0.010	0	08:00			
15007	DUMMY	0.018	0	08:01			
15008	DUMMY	0.387	0	08:06			
15009	DUMMY	0.156	0	08:07			
15013	DUMMY	0.004	0	08:02			
15017	DUMMY	0.152	0	08:01			
15018	DUMMY	0.054	0	08:01			
15019	DUMMY	0.004	0	08:04			
15020	DUMMY	0.011	0	08:00			
15024	DUMMY	0.014	0	08:00			
15028	DUMMY	0.014	0	08:00			
15029	DUMMY	0.025	0	08:00			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
15034	DUMMY	0.044	0	08:00			
15038	DUMMY	0.009	0	08:00			
15042	DUMMY	0.032	0	08:01			
15046	DUMMY	0.091	0	08:01			
15050	DUMMY	0.050	0	08:01			
15051	DUMMY	0.477	0	08:13			
15052	DUMMY	1.097	0	08:18			
15053	DUMMY	0.044	0	08:01			
15054	DUMMY	0.010	0	08:00			
15055	DUMMY	0.020	0	08:00			
15056	DUMMY	0.062	0	08:00			
15060	DUMMY	0.126	0	08:03			
15061	DUMMY	0.047	0	08:01			
15062	DUMMY	0.141	0	08:03			
15066	DUMMY	0.167	0	08:01			
15067	DUMMY	0.169	0	08:03			
15068	DUMMY	0.078	0	08:03			
15072	DUMMY	0.287	0	08:40			
15073	DUMMY	0.410	0	08:04			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16254	CHANNEL	0.199	0	08:01	0.53	0.00	0.13
16255	CHANNEL	0.075	0	08:01	0.31	0.00	0.11
16259	DUMMY	0.021	0	08:00			
16263	DUMMY	0.116	0	08:01			
16264	DUMMY	0.013	0	08:01			
16268	DUMMY	0.134	0	08:09			
16269	DUMMY	0.143	0	08:35			
16270	DUMMY	0.336	0	08:01			
16274	DUMMY	0.447	0	08:05			
16276	DUMMY	0.020	0	08:01			
16278	DUMMY	0.141	0	08:02			
16279	DUMMY	0.668	0	08:09			
16283	DUMMY	0.102	0	08:01			
16284	DUMMY	0.022	0	08:00			
16285	DUMMY	0.075	0	08:01			
16286	DUMMY	0.210	0	08:02			
16287	DUMMY	0.116	0	08:00			
16288	DUMMY	0.105	0	08:00			
16289	DUMMY	0.022	0	08:00			

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16290	DUMMY	0.006	0	08:00			
16291	DUMMY	0.056	0	08:01			
16292	DUMMY	0.010	0	08:00			
16293	DUMMY	0.009	0	08:00			
16294	DUMMY	0.727	0	08:16			
16295	DUMMY	0.148	0	08:01			
16296	DUMMY	0.038	0	08:01			
16298	DUMMY	0.113	0	08:07			
16302	DUMMY	0.274	0	08:09			
16306	DUMMY	0.044	0	08:00			
16310	DUMMY	0.227	0	08:07			
16311	DUMMY	0.250	0	08:03			
16312	DUMMY	0.142	0	08:01			
16316	DUMMY	0.096	0	08:01			
16320	DUMMY	0.036	0	08:00			
16324	DUMMY	0.342	0	08:06			
16328	DUMMY	0.067	0	08:02			
16332	DUMMY	0.115	0	08:01			
16333	DUMMY	0.046	0	08:00			

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16337	DUMMY	0.235	0	08:07			
16341	DUMMY	0.218	0	08:06			
16345	DUMMY	0.058	0	08:04			
16346	DUMMY	0.590	0	08:05			
16347	DUMMY	0.139	0	08:08			
16351	DUMMY	0.105	0	08:04			
16355	DUMMY	0.249	0	08:06			
16359	DUMMY	0.037	0	08:00			
16363	DUMMY	0.236	0	08:05			
16364	DUMMY	0.231	0	08:03			
16365	DUMMY	0.027	0	08:01			
16369	DUMMY	0.038	0	08:00			
16370	DUMMY	1.200	0	08:06			
16371	DUMMY	0.004	0	08:00			
16372	DUMMY	0.215	0	08:02			
16376	DUMMY	0.012	0	08:00			
16377	DUMMY	0.111	0	08:02			
16381	DUMMY	0.115	0	08:02			
16382	DUMMY	0.128	0	08:01			

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16383	DUMMY	0.068	0	08:00			
16384	DUMMY	0.192	0	08:03			
16388	DUMMY	0.005	0	08:00			
16389	DUMMY	0.156	0	08:01			
16390	DUMMY	0.039	0	08:00			
16391	DUMMY	0.048	0	08:01			
16392	DUMMY	0.182	0	08:01			
16393	DUMMY	0.098	0	08:02			
16394	DUMMY	0.251	0	08:01			
16395	DUMMY	0.081	0	08:00			
16396	DUMMY	0.128	0	08:00			
16397	DUMMY	0.168	0	08:00			
16398	DUMMY	0.245	0	08:01			
16399	DUMMY	0.060	0	08:01			
16400	DUMMY	0.082	0	08:01			
16401	DUMMY	0.008	0	08:00			
16405	DUMMY	0.030	0	08:00			
16406	DUMMY	0.024	0	08:00			
16407	DUMMY	0.012	0	08:01			

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16408	DUMMY	0.005	0	08:01			
16409	DUMMY	0.403	0	08:02			
16410	DUMMY	0.013	0	08:00			
16411	DUMMY	0.044	0	08:00			
16412	DUMMY	0.084	0	08:00			
16415	DUMMY	0.016	0	08:00			
16416	DUMMY	0.039	0	08:00			
16417	DUMMY	0.096	0	08:02			
16418	DUMMY	0.033	0	08:01			
16422	DUMMY	0.055	0	08:01			
16425	DUMMY	0.020	0	08:01			
16427	DUMMY	0.077	0	08:00			
16428	DUMMY	0.043	0	08:01			
16429	DUMMY	0.039	0	08:02			
16430	DUMMY	0.105	0	08:01			
16431	DUMMY	0.416	0	08:08			
16432	DUMMY	0.037	0	08:01			
16436	DUMMY	0.049	0	08:01			
16437	DUMMY	0.052	0	08:02			

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16443	DUMMY	0.067	0	08:01			
16444	DUMMY	0.006	0	08:00			
16445	DUMMY	0.103	0	08:02			
16449	DUMMY	0.011	0	08:00			
16450	DUMMY	0.082	0	08:01			
16451	DUMMY	0.042	0	08:05			
16452	DUMMY	0.193	0	08:03			
16456	DUMMY	0.137	0	08:09			
16458	DUMMY	0.044	0	08:02			
16459	DUMMY	0.119	0	08:01			
16460	DUMMY	0.118	0	08:01			
16461	DUMMY	0.054	0	08:01			
16462	DUMMY	0.032	0	08:00			
16463	DUMMY	0.166	0	08:01			
16464	DUMMY	0.094	0	08:02			
16465	DUMMY	0.004	0	08:05			
16469	DUMMY	0.036	0	08:00			
16470	DUMMY	0.002	0	08:01			
16471	DUMMY	0.004	0	08:00			

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16472	DUMMY	0.035	0	08:00			
16473	DUMMY	0.085	0	08:01			
16475	DUMMY	0.023	0	08:02			
16476	DUMMY	0.038	0	08:00			
16484	DUMMY	0.248	0	08:02			
16485	DUMMY	0.149	0	08:00			
16486	DUMMY	0.059	0	08:00			
16487	DUMMY	0.042	0	08:01			
16488	DUMMY	0.008	0	08:00			
16489	DUMMY	0.202	0	08:02			
16490	DUMMY	0.228	0	08:07			
16491	DUMMY	0.538	0	08:04			
16492	DUMMY	0.299	0	08:06			
16493	DUMMY	0.020	0	08:00			
16494	DUMMY	0.242	0	08:03			
16498	DUMMY	0.086	0	08:01			
16499	DUMMY	0.250	0	08:00			
16503	DUMMY	0.016	0	08:00			
16504	DUMMY	0.147	0	08:02			

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16508	DUMMY	0.067	0	08:00			
16509	DUMMY	0.059	0	08:01			
16510	DUMMY	0.191	0	08:02			
16511	DUMMY	0.017	0	08:00			
16512	DUMMY	0.007	0	08:00			
16516	DUMMY	0.089	0	08:00			
16517	DUMMY	0.011	0	08:01			
16518	DUMMY	0.044	0	08:00			
16519	DUMMY	0.155	0	08:00			
16523	DUMMY	0.044	0	08:00			
16526	DUMMY	0.007	0	08:00			
16527	DUMMY	0.180	0	08:02			
16529	DUMMY	0.004	0	08:04			
16533	DUMMY	0.060	0	08:02			
16537	DUMMY	0.019	0	08:00			
16539	DUMMY	0.191	0	08:23			
16540	DUMMY	0.274	0	08:14			
16541	DUMMY	0.040	0	08:01			
16542	DUMMY	0.327	0	08:13			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16543	DUMMY	0.006	0	08:01			
16544	DUMMY	0.012	0	08:01			
16545	DUMMY	0.097	0	08:03			
16546	DUMMY	0.254	0	08:02			
16550	DUMMY	0.006	0	08:00			
16554	DUMMY	0.122	0	08:02			
16555	DUMMY	0.190	0	08:02			
16559	DUMMY	0.105	0	08:01			
16560	DUMMY	0.008	0	08:01			
16564	DUMMY	0.027	0	08:00			
16565	DUMMY	0.040	0	08:02			
16566	DUMMY	0.154	0	08:02			
16570	DUMMY	0.091	0	08:00			
16574	DUMMY	0.380	0	08:12			
16575	DUMMY	0.142	0	08:00			
16579	DUMMY	0.055	0	08:00			
16583	DUMMY	0.193	0	08:11			
16584	DUMMY	0.010	0	08:02			
16585	DUMMY	0.017	0	08:02			

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16586	DUMMY	0.135	0	08:01			
16587	DUMMY	0.035	0	08:00			
16588	DUMMY	0.207	0	08:14			
16592	DUMMY	0.444	0	08:11			
16596	DUMMY	0.101	0	08:02			
16597	DUMMY	0.045	0	08:01			
16598	DUMMY	0.013	0	08:00			
16601	DUMMY	0.013	0	08:00			
16602	DUMMY	0.300	0	08:01			
16603	DUMMY	0.077	0	08:02			
16604	DUMMY	0.038	0	08:02			
16605	DUMMY	0.042	0	08:01			
16606	DUMMY	0.015	0	08:00			
16607	DUMMY	0.028	0	08:00			
16611	DUMMY	0.008	0	08:01			
16612	DUMMY	0.010	0	08:04			
16613	DUMMY	0.083	0	08:00			
16617	DUMMY	0.030	0	08:02			
16618	DUMMY	0.038	0	08:00			

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16619	DUMMY	0.022	0	08:00			
16620	DUMMY	0.015	0	08:01			
16624	DUMMY	0.056	0	08:00			
16628	DUMMY	0.018	0	08:00			
16629	DUMMY	0.330	0	08:01			
16630	DUMMY	0.004	0	08:02			
16631	DUMMY	0.027	0	08:00			
16656	DUMMY	0.018	0	08:00			
16660	DUMMY	0.048	0	08:01			
16661	DUMMY	0.081	0	08:00			
16665	DUMMY	0.029	0	08:00			
16666	DUMMY	0.172	0	08:05			
16670	DUMMY	0.135	0	08:06			
16674	DUMMY	0.006	0	08:04			
16675	DUMMY	0.082	0	08:12			
16676	DUMMY	0.243	0	08:11			
16677	DUMMY	0.142	0	08:00			
16678	DUMMY	0.356	0	08:11			
16682	DUMMY	0.005	0	08:00			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16683	DUMMY	0.019	0	08:01			
16684	DUMMY	0.032	0	08:00			
16685	DUMMY	0.010	0	08:00			
16688	CHANNEL	0.037	0	08:00	0.26	0.00	0.05
16690	CHANNEL	0.026	0	08:00	0.23	0.00	0.05
16693	CHANNEL	0.291	0	08:00	0.95	0.00	0.08
16695	CHANNEL	0.185	0	08:00	0.65	0.00	0.07
16696	DUMMY	0.009	0	08:00			
16697	DUMMY	0.041	0	08:00			
16698	CHANNEL	0.507	0	08:00	1.28	0.00	0.09
16699	DUMMY	0.459	0	08:10			
16700	DUMMY	0.090	0	08:01			
16701	DUMMY	0.065	0	08:01			
16702	DUMMY	0.270	0	08:09			
16706	DUMMY	0.207	0	08:09			
16707	DUMMY	0.180	0	08:09			
16708	DUMMY	0.064	0	08:03			
16709	DUMMY	0.057	0	08:02			
16710	DUMMY	0.068	0	08:04			

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16711	DUMMY	0.232	0	08:05			
16712	DUMMY	0.032	0	08:07			
16713	DUMMY	0.116	0	08:05			
16714	DUMMY	0.043	0	08:01			
16715	DUMMY	0.111	0	08:01			
16716	DUMMY	0.532	0	08:08			
16717	DUMMY	0.014	0	08:00			
16719	CHANNEL	0.069	0	08:00	0.56	0.00	0.06
16723	DUMMY	0.005	0	08:00			
16724	DUMMY	0.025	0	08:01			
16725	DUMMY	0.002	0	08:10			
16734	DUMMY	0.100	0	08:23			
16737	CHANNEL	0.034	0	08:00	0.03	0.00	0.18
16738	DUMMY	0.004	0	08:00			
16739	DUMMY	0.059	0	08:00			
16740	DUMMY	0.005	0	08:00			
16741	DUMMY	0.023	0	08:01			
16742	DUMMY	0.064	0	08:02			
16743	DUMMY	0.031	0	08:00			

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16744	DUMMY	0.469	0	08:38			
16745	DUMMY	0.023	0	08:03			
16746	DUMMY	0.091	0	08:00			
16750	DUMMY	0.013	0	08:00			
16754	DUMMY	0.016	0	08:00			
16755	DUMMY	0.050	0	08:02			
16756	DUMMY	0.013	0	08:00			
16757	DUMMY	0.128	0	08:02			
16758	DUMMY	0.065	0	08:03			
16759	DUMMY	0.547	0	08:05			
16760	DUMMY	0.179	0	08:10			
16764	DUMMY	0.051	0	08:00			
16765	DUMMY	0.031	0	08:00			
16766	DUMMY	0.063	0	08:00			
16767	DUMMY	0.003	0	08:00			
16771	DUMMY	0.141	0	08:01			
16772	DUMMY	0.147	0	08:01			
16776	DUMMY	0.190	0	08:01			
16777	DUMMY	0.142	0	08:02			

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16778	DUMMY	0.180	0	08:00			
16779	DUMMY	0.073	0	08:00			
16780	DUMMY	0.033	0	08:00			
16781	DUMMY	0.083	0	08:01			
16785	DUMMY	0.066	0	08:01			
16788	CHANNEL	0.223	0	08:00	0.55	0.00	0.09
16789	CHANNEL	0.724	0	08:01	1.06	0.01	0.12
16790	CHANNEL	0.503	0	08:01	0.94	0.01	0.11
16791	DUMMY	0.040	0	08:00			
16792	DUMMY	0.025	0	08:00			
16793	DUMMY	0.122	0	08:00			
16794	DUMMY	0.123	0	08:01			
16795	DUMMY	0.006	0	08:00			
16796	DUMMY	0.020	0	08:00			
16797	DUMMY	0.194	0	08:00			
16798	DUMMY	0.093	0	08:01			
16799	DUMMY	0.123	0	08:02			
16800	DUMMY	0.005	0	08:01			
16801	DUMMY	0.026	0	08:01			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16803	DUMMY	0.350	0	08:02			
16804	DUMMY	0.109	0	08:03			
16805	DUMMY	0.012	0	08:01			
16806	DUMMY	0.017	0	08:00			
16807	DUMMY	0.010	0	08:00			
16808	DUMMY	0.020	0	08:00			
16809	DUMMY	0.028	0	08:00			
16810	DUMMY	0.126	0	08:02			
16811	DUMMY	0.063	0	08:02			
16812	DUMMY	0.112	0	08:02			
16813	DUMMY	0.014	0	08:00			
16814	DUMMY	0.162	0	08:01			
16816	DUMMY	0.357	0	08:05			
16817	DUMMY	0.337	0	08:15			
16819	DUMMY	0.062	0	08:00			
16820	DUMMY	0.020	0	08:00			
16821	DUMMY	0.159	0	08:01			
16822	DUMMY	0.132	0	08:01			
16823	DUMMY	0.008	0	08:00			

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16824	DUMMY	0.029	0	08:01			
16828	DUMMY	0.043	0	08:00			
16829	DUMMY	0.011	0	08:01			
16834	DUMMY	0.194	0	08:31			
16835	DUMMY	0.414	0	08:17			
16836	DUMMY	0.222	0	08:28			
16837	DUMMY	0.505	0	08:27			
16838	DUMMY	0.175	0	08:27			
16842	DUMMY	0.010	0	08:00			
16843	CHANNEL	0.119	0	08:00	0.14	0.00	0.17
16844	CHANNEL	0.904	0	08:02	0.65	0.02	0.21
16845	CHANNEL	0.302	0	08:01	0.20	0.02	0.26
16846	DUMMY	0.489	0	08:08			
16847	DUMMY	0.035	0	08:24			
16848	DUMMY	0.049	0	08:24			
16849	DUMMY	0.025	0	08:00			
16850	DUMMY	0.092	0	08:01			
16851	DUMMY	0.049	0	08:01			
16852	DUMMY	0.067	0	08:00			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16853	DUMMY	0.095	0	08:01			
16854	DUMMY	0.009	0	08:00			
16857	CHANNEL	0.130	0	08:00	0.60	0.00	0.07
16858	DUMMY	0.063	0	08:00			
16861	CHANNEL	0.093	0	08:00	0.22	0.01	0.09
16863	CHANNEL	0.245	0	08:00	0.66	0.00	0.09
16864	DUMMY	0.022	0	08:00			
16865	CHANNEL	0.540	0	08:00	1.19	0.01	0.10
16866	DUMMY	0.105	0	08:00			
16870	DUMMY	0.226	0	08:04			
16876	DUMMY	0.212	0	08:04			
16877	DUMMY	0.034	0	08:00			
16878	DUMMY	0.470	0	08:04			
16879	DUMMY	0.050	0	08:00			
16880	DUMMY	0.107	0	08:01			
16882	DUMMY	0.019	0	08:00			
16886	DUMMY	0.042	0	08:01			
16887	DUMMY	0.181	0	08:04			
16888	DUMMY	0.256	0	08:03			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
17487	DUMMY	0.107	0	08:00			
17488	DUMMY	0.868	0	08:03			
17491	CHANNEL	0.095	0	08:15	0.91	0.00	0.02
17494	CHANNEL	0.204	0	08:18	0.79	0.00	0.03
17495	CHANNEL	0.744	0	08:08	1.45	0.00	0.05
17496	CHANNEL	0.477	0	08:05	0.14	0.00	0.24
17497	DUMMY	0.586	0	08:18			
17503	CHANNEL	8.481	0	08:05	2.79	0.01	0.22
17508	CHANNEL	0.006	0	08:02	0.30	0.00	0.20
17510	DUMMY	2.437	0	08:02			
17511	DUMMY	0.586	0	08:14			
17512	DUMMY	0.455	0	08:41			
17513	DUMMY	0.464	0	08:41			
17514	DUMMY	0.016	0	08:03			
17515	CHANNEL	6.622	0	08:16	1.43	0.02	0.28
17518	CHANNEL	0.097	0	08:00	0.19	0.00	0.12
17521	CHANNEL	0.155	0	08:05	1.24	0.00	0.09
17522	CHANNEL	1.852	0	08:00	1.00	0.05	0.49
17524	CHANNEL	3.553	0	08:19	0.59	0.20	0.93

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
17526	DUMMY	0.233	0	08:30			
17527	CHANNEL	3.567	0	08:19	1.31	0.24	0.71
17533	CHANNEL	1.726	0	08:06	1.14	0.27	0.55
17534	CHANNEL	0.367	0	08:07	0.43	0.01	0.24
17535	CHANNEL	2.163	0	08:07	2.55	0.06	0.21
17536	CHANNEL	1.885	0	08:11	0.62	0.04	0.22
17537	CHANNEL	1.091	0	08:02	1.79	0.01	0.16
17538	CHANNEL	0.290	0	08:01	0.38	0.00	0.14
17539	CHANNEL	1.700	0	08:03	1.48	0.02	0.17
17542	CHANNEL	1.691	0	08:06	0.90	0.06	0.23
17543	CHANNEL	1.677	0	08:03	0.94	0.28	0.27
17547	CHANNEL	0.172	0	08:06	0.27	0.00	0.16
17548	CHANNEL	0.256	0	08:00	0.59	0.00	0.14
17549	CHANNEL	0.703	0	08:02	0.81	0.01	0.16
17550	CHANNEL	0.456	0	08:03	0.17	0.01	0.31
17551	CHANNEL	0.829	0	08:01	0.41	0.03	0.27
17552	CHANNEL	0.680	0	08:05	0.33	0.02	0.24
17555	CHANNEL	0.257	0	08:03	0.27	0.00	0.15
17556	CHANNEL	0.430	0	08:01	0.41	0.01	0.17

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
17558	CHANNEL	3.268	0	08:30	1.79	0.32	0.76
17560	CHANNEL	0.270	0	08:20	0.07	0.00	0.34
17561	CHANNEL	0.009	0	08:10	0.01	0.00	0.27
17562	CHANNEL	2.096	0	08:03	0.98	0.05	0.39
17563	DUMMY	0.149	0	08:01			
17564	CHANNEL	1.012	0	08:01	0.34	0.01	0.48
17568	CHANNEL	0.191	0	08:00	0.53	0.00	0.09
17569	CHANNEL	0.265	0	08:00	0.63	0.00	0.09
17570	CHANNEL	0.512	0	08:00	1.02	0.00	0.10
18170	CHANNEL	0.649	0	08:00	0.88	0.01	0.14
18171	CHANNEL	0.505	0	08:00	1.60	0.02	0.10
18189	CHANNEL	3.414	0	08:45	1.75	19.98	0.74
18190	DUMMY	0.000	0	00:00			
18205	CHANNEL	1.379	0	08:36	0.63	0.02	0.38
18207	CHANNEL	1.494	0	08:24	0.71	0.02	0.18
18209	CHANNEL	1.380	0	08:38	0.30	0.05	0.36
18211	CHANNEL	1.674	0	08:26	0.35	0.06	0.37
18212	CHANNEL	0.096	0	08:01	0.21	0.00	0.17
18216	CHANNEL	1.599	0	08:24	1.04	0.27	0.74

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
18217	CHANNEL	1.592	0	08:26	0.37	0.10	0.34
18219	CHANNEL	0.616	0	08:02	0.64	0.01	0.46
18220	CHANNEL	0.579	0	08:02	1.12	0.01	0.10
18222	CHANNEL	0.313	0	08:02	1.44	0.00	0.04
18223	CHANNEL	0.053	0	08:01	0.41	0.00	0.08
18224	CHANNEL	3.576	0	08:03	0.65	0.02	0.42
18226	CHANNEL	2.266	0	08:05	3.54	0.21	0.38
18227	CHANNEL	2.378	0	08:02	0.96	0.05	0.29
18228	CHANNEL	0.415	0	08:01	0.44	0.01	0.54
18230	CHANNEL	2.041	0	08:07	2.65	0.02	0.19
18233	CHANNEL	2.043	0	08:07	3.39	0.05	0.16
18234	CHANNEL	2.015	0	08:07	1.49	0.02	0.20
18236	CHANNEL	0.459	0	08:02	0.81	0.01	0.13
18237	CHANNEL	0.211	0	08:00	0.54	0.00	0.12
18241	CHANNEL	0.230	0	08:01	0.67	0.00	0.11
18243	CHANNEL	0.000	0	00:00	0.00	0.00	0.09
18244	CHANNEL	0.482	0	08:01	0.97	0.01	0.12
18246	CHANNEL	0.249	0	08:01	0.60	0.00	0.09
18247	CHANNEL	0.194	0	08:00	0.37	0.00	0.07

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
18249	CHANNEL	0.773	0	08:01	0.49	0.01	0.30
18250	CHANNEL	0.173	0	08:05	0.14	0.00	0.33
18251	CHANNEL	1.248	0	08:05	0.54	0.03	0.43
18252	CHANNEL	0.195	0	08:03	0.10	0.00	0.28
18253	DUMMY	1.641	0	08:09			
18258	CHANNEL	2.016	0	08:14	0.91	0.09	0.25
18262	DUMMY	0.087	0	08:24			
18263	CHANNEL	1.943	0	08:14	0.41	0.03	0.49
18264	CHANNEL	0.424	0	08:02	0.29	0.01	0.50
18270	CHANNEL	0.411	0	08:24	0.07	0.00	0.45
18271	CHANNEL	0.385	0	08:24	0.18	0.67	0.93
18272	CHANNEL	0.339	0	08:29	0.34	0.02	0.17
18273	DUMMY	0.698	0	08:25			
18274	CHANNEL	0.914	0	08:14	0.17	0.02	0.62
18275	DUMMY	0.668	0	08:24			
18280	WEIR	0.006	0	08:03	0.00		
18281	CHANNEL	0.000	0	08:03	0.00	0.00	0.00
18282	WEIR	0.000	0	00:00	0.00		
18283	CHANNEL	0.000	0	00:00	0.00	0.00	0.03

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
18284	CHANNEL	0.838	0	08:04	0.56	0.01	0.12
18286	CHANNEL	0.409	0	08:00	0.63	0.01	0.06
18287	DUMMY	1.102	0	08:02			
18288	CHANNEL	1.443	0	08:08	0.35	0.51	0.88
18289	CHANNEL	1.442	0	08:10	0.62	0.01	0.15
18301	DUMMY	0.021	0	08:00			
18304	CHANNEL	0.275	0	08:02	0.67	0.01	0.09
18305	CHANNEL	0.071	0	08:05	0.41	0.00	0.06
18309	CHANNEL	1.404	0	08:01	1.56	0.01	0.15
18312	CHANNEL	0.817	0	08:03	0.76	0.01	0.23
18315	CHANNEL	0.383	0	08:04	0.49	0.01	0.13
18317	DUMMY	0.339	0	08:04			
18318	DUMMY	0.253	0	08:04			
18319	DUMMY	0.104	0	08:00			
18320	CHANNEL	0.853	0	08:04	0.19	0.01	0.46
18321	CHANNEL	2.756	0	08:02	0.60	0.03	0.38
18322	CHANNEL	0.768	0	08:03	0.21	0.01	0.34
18324	CHANNEL	1.838	0	08:03	0.42	0.02	0.37
18326	DUMMY	0.582	0	08:04			

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
18327	CHANNEL	0.622	0	08:00	0.22	0.01	0.34
18330	CHANNEL	0.552	0	08:03	0.74	0.02	0.13
20728	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
20729	CHANNEL	0.000	0	00:00	0.00	0.00	0.15
20732	CHANNEL	0.052	0	08:03	0.04	0.01	0.42
20733	CHANNEL	0.993	0	08:02	0.93	0.04	0.17
20734	CHANNEL	0.048	0	08:01	0.09	0.00	0.11
20735	DUMMY	0.005	0	08:03			
20748	CHANNEL	0.101	0	08:01	0.61	0.00	0.06
20755	CHANNEL	0.525	0	08:01	0.37	0.00	0.16
20758	CHANNEL	0.214	0	08:00	0.97	0.00	0.07
20759	CHANNEL	0.235	0	08:00	0.23	0.01	0.55
20762	CHANNEL	0.096	0	08:01	0.57	0.00	0.06
20763	CHANNEL	0.162	0	08:01	0.14	0.00	0.21
20766	CHANNEL	0.000	0	00:00	0.00	0.00	0.02
20772	CHANNEL	0.319	0	08:00	0.22	0.01	0.55
20773	CHANNEL	0.386	0	08:00	0.30	0.00	0.38
20775	CHANNEL	0.012	0	08:07	0.01	0.00	0.36
20776	DUMMY	0.940	0	08:05			

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
20778	CHANNEL	0.286	0	08:03	0.55	0.00	0.11
20779	CHANNEL	0.226	0	08:01	1.41	0.03	0.17
20786	CHANNEL	0.252	0	08:00	0.84	0.02	0.22
20789	CHANNEL	0.303	0	08:01	0.50	0.00	0.12
20790	CHANNEL	0.910	0	08:03	1.13	0.02	0.22
20791	CHANNEL	0.983	0	08:01	1.01	0.03	0.26
20792	CHANNEL	0.136	0	08:30	0.55	0.00	0.24
20793	CHANNEL	0.611	0	08:00	1.94	0.02	0.61
20797	CHANNEL	0.692	0	08:02	0.96	0.01	0.39
20800	CHANNEL	2.718	0	08:07	1.25	0.03	0.44
20801	CHANNEL	3.768	0	08:09	0.38	0.06	0.79
20802	CHANNEL	5.779	0	08:16	0.52	0.07	0.80
20803	CHANNEL	3.725	0	08:17	0.33	0.04	0.81
20804	CHANNEL	3.547	0	08:10	0.44	0.03	0.57
20805	DUMMY	1.383	0	08:10			
20806	DUMMY	0.249	0	08:13			
20807	DUMMY	0.247	0	08:11			
20811	CHANNEL	0.029	0	08:01	0.19	0.00	0.17
20814	CHANNEL	5.355	0	08:09	1.77	0.08	0.34

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
20815	CHANNEL	5.213	0	08:06	0.75	0.66	0.51
20816	CHANNEL	0.440	0	08:03	0.16	0.01	0.39
20817	CHANNEL	5.370	0	08:09	1.16	2.06	0.39
20819	CHANNEL	0.343	0	08:02	0.37	0.00	0.18
20820	CHANNEL	0.228	0	08:01	0.77	0.00	0.08
20823	CHANNEL	3.343	0	08:03	1.22	0.01	0.24
20825	CHANNEL	4.016	0	08:04	0.52	0.08	0.42
20826	CHANNEL	4.124	0	08:03	42.13	0.01	0.09
24440	CHANNEL	1.514	0	08:04	1.01	0.01	0.18
27432	DUMMY	0.141	0	08:28			
27832	DUMMY	0.339	0	13:19			
27835	CHANNEL	1.027	0	08:48	0.19	0.03	0.72
27836	CHANNEL	1.065	0	08:46	0.88	0.02	0.33
27844	CONDUIT	2.368	0	08:02	2.09	0.35	1.00
27851	CONDUIT	1.034	0	08:46	10.40	5.53	0.84
27853	DUMMY	0.702	0	08:43			
27861	DUMMY	1.207	0	08:02			
27863	CHANNEL	0.000	0	00:00	0.00	0.00	0.18
27864	CHANNEL	0.000	0	00:00	0.00	0.00	0.00

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
27873	DUMMY	0.329	0	08:01			
27874	CHANNEL	0.421	0	08:04	0.34	0.04	1.00
27890	DUMMY	0.999	0	08:34			
27891	DUMMY	0.140	0	08:33			
27896_1	CHANNEL	5.612	0	08:11	0.80	0.09	0.37
27896_3	CHANNEL	5.326	0	08:13	0.70	0.35	0.84
27896_4	CHANNEL	3.836	0	08:14	0.43	0.05	0.87
27898_1	CHANNEL	2.994	0	08:28	1.50	0.04	0.42
27898_2	CHANNEL	2.995	0	08:29	3.58	0.01	0.19
27900	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
27901	CONDUIT	2.994	0	08:28	4.95	1.72	0.71
27904_1	CHANNEL	2.855	0	08:30	1.18	0.47	0.78
27904_2	CHANNEL	2.864	0	08:31	0.70	0.09	0.43
27904_3	CHANNEL	3.104	0	08:30	2.25	0.46	0.65
27904_4	CHANNEL	2.847	0	08:31	1.63	0.07	0.29
27904_5	CHANNEL	2.842	0	08:31	0.70	0.01	0.19
27904_6	CHANNEL	2.950	0	08:32	0.91	0.02	0.16
27904_8	CHANNEL	2.949	0	08:32	1.51	0.01	0.12
27908	CHANNEL	0.291	0	08:00	0.53	0.00	0.20

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
27909	CHANNEL	0.209	0	08:01	0.33	0.00	0.20
27910	DUMMY	0.019	0	08:00			
27913	DUMMY	0.460	0	08:23			
27914	WEIR	1.303	0	08:28	0.11		
27916	WEIR	0.265	0	08:02	0.13		
27917	CHANNEL	5.815	0	08:03	1.17	0.06	0.40
27919	WEIR	0.072	0	08:02	0.02		
27920	WEIR	1.962	0	08:15	0.36		
27922	WEIR	0.000	0	00:00	0.00		
27923	CHANNEL	0.000	0	00:00	0.00	0.00	0.02
27927	WEIR	0.000	0	08:43	0.00		
27940	DUMMY	1.817	0	07:58			
27941	CONDUIT	3.257	0	08:04	2.44	0.27	1.00
27942	CONDUIT	0.718	0	09:01	4.51	2.81	1.00
27943	CHANNEL	0.122	0	08:00	0.27	0.00	0.11
27945	CHANNEL	2.844	0	08:45	0.56	0.07	0.63
27946	CHANNEL	2.847	0	08:43	0.64	0.23	0.41
27948	CHANNEL	1.302	0	08:52	0.44	0.02	0.43
27949	CHANNEL	1.302	0	08:51	1.11	0.03	0.34

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
27950	WEIR	0.000	0	00:00	0.00		
27952	CHANNEL	0.915	0	08:02	0.18	0.01	0.44
27953	CHANNEL	0.125	0	08:00	0.53	0.00	0.15
27970	CHANNEL	0.254	0	08:17	0.27	0.01	0.10
27971	CHANNEL	0.693	0	08:02	0.33	0.00	0.10
27972	DUMMY	0.337	0	08:02			
27973	DUMMY	0.110	0	08:17			
27974	DUMMY	0.099	0	09:38			
27975	DUMMY	0.000	0	08:03			
27976	DUMMY	0.052	0	16:08			
3194	CHANNEL	0.025	0	08:02	0.14	0.00	0.06
3196	CHANNEL	0.189	0	08:02	0.59	0.00	0.08
3204	CHANNEL	0.450	0	08:02	0.80	0.01	0.11
3205	CHANNEL	0.033	0	08:00	0.17	0.00	0.06
3206	CHANNEL	0.253	0	08:02	0.67	0.00	0.09
3209	CHANNEL	0.251	0	08:00	0.61	0.01	0.09
3214	CHANNEL	0.013	0	08:01	0.24	0.00	0.04
3217	CHANNEL	0.586	0	08:01	1.06	0.01	0.11
3218	CHANNEL	0.040	0	08:04	0.16	0.00	0.07

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
3219	CHANNEL	0.345	0	08:00	0.66	0.01	0.10
3224	CHANNEL	0.560	0	08:01	0.66	0.01	0.15
3226	CHANNEL	0.412	0	08:03	0.55	0.01	0.13
3230	CHANNEL	0.180	0	08:00	0.43	0.00	0.09
3238	CHANNEL	0.084	0	08:00	0.15	0.00	0.13
3239	CHANNEL	1.036	0	08:04	0.74	0.05	0.20
3240	CHANNEL	0.825	0	08:03	0.71	0.02	0.18
3242	CHANNEL	0.404	0	08:02	0.63	0.01	0.12
3243	CHANNEL	0.346	0	08:01	0.77	0.01	0.10
3245	CHANNEL	0.213	0	08:01	0.43	0.00	0.11
3247	CHANNEL	0.091	0	08:01	0.47	0.00	0.06
3250	CHANNEL	0.115	0	08:00	0.28	0.00	0.10
3252	CHANNEL	0.205	0	08:01	0.78	0.00	0.07
3254	CHANNEL	0.323	0	08:02	0.39	0.00	0.18
3306	CHANNEL	1.883	0	08:03	1.21	0.04	0.21
3307	CHANNEL	1.445	0	08:03	1.06	0.03	0.19
3308	CHANNEL	0.411	0	08:00	0.50	0.01	0.15
50005	CHANNEL	0.206	0	08:00	0.64	0.00	0.08
50007	CHANNEL	0.399	0	08:00	1.02	0.00	0.09

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50009	CHANNEL	0.149	0	08:00	0.86	0.00	0.06
50011	CHANNEL	0.625	0	08:00	1.37	0.01	0.10
50018	CHANNEL	1.101	0	08:01	1.27	0.02	0.14
50019	CHANNEL	0.195	0	08:01	0.39	0.00	0.10
50020	CHANNEL	0.811	0	08:00	1.27	0.01	0.12
50036	CHANNEL	0.237	0	08:00	0.36	0.00	0.11
50042	CHANNEL	0.094	0	08:00	0.34	0.00	0.07
50044	CHANNEL	0.231	0	08:01	0.57	0.01	0.09
50046	CHANNEL	0.255	0	08:02	0.61	0.00	0.09
50048	CHANNEL	0.375	0	08:02	0.49	0.01	0.13
50054	CHANNEL	0.076	0	08:00	0.38	0.00	0.06
50057	CHANNEL	0.422	0	08:29	0.14	0.00	0.31
50062	CHANNEL	0.875	0	08:03	0.91	0.00	0.14
50078	CHANNEL	0.177	0	08:00	0.53	0.00	0.08
50080	CHANNEL	0.474	0	08:02	0.57	0.01	0.14
50081	CHANNEL	0.440	0	08:01	0.91	0.01	0.10
50084	CHANNEL	2.685	0	08:04	1.04	0.02	0.24
50091	CHANNEL	3.796	0	08:11	0.52	0.03	0.50
50092	CHANNEL	2.617	0	08:05	0.83	0.06	0.31

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50094	CHANNEL	0.538	0	08:01	2.26	0.06	0.21
50095	CHANNEL	0.204	0	08:00	0.30	0.00	0.12
50102	CHANNEL	4.515	0	08:11	0.40	0.05	0.63
50105	CHANNEL	0.207	0	08:01	0.87	0.00	0.07
50112	CHANNEL	0.249	0	08:02	0.99	0.00	0.07
50114	CHANNEL	1.429	0	08:21	0.27	0.02	0.56
50115	CHANNEL	0.333	0	08:02	0.23	0.00	0.29
50120	CHANNEL	0.339	0	08:00	0.86	0.00	0.09
50122	CHANNEL	2.096	0	08:17	0.64	0.02	0.40
50127	CHANNEL	1.157	0	08:02	1.01	0.01	0.21
50128	CHANNEL	0.445	0	08:00	0.39	0.06	0.32
50130	CHANNEL	0.404	0	08:02	0.55	0.00	0.12
50131	CHANNEL	0.455	0	08:00	0.83	0.01	0.11
50135	CHANNEL	0.199	0	08:00	0.60	0.00	0.08
50139	CHANNEL	0.099	0	08:01	0.24	0.00	0.09
50140	CHANNEL	0.430	0	08:01	0.68	0.01	0.12
50151	CHANNEL	1.962	0	08:02	2.66	0.09	0.23
50152	CHANNEL	0.054	0	08:00	0.16	0.00	0.09
50154	CHANNEL	2.038	0	08:02	2.23	0.02	0.15

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50157	CHANNEL	0.126	0	08:01	0.19	0.00	0.15
50159	CHANNEL	3.854	0	08:11	3.44	1.45	0.33
50164	CHANNEL	2.485	0	08:12	0.95	0.06	0.28
50166	CHANNEL	0.177	0	08:01	0.21	0.00	0.19
50167	CHANNEL	0.071	0	08:01	0.30	0.00	0.07
50173	CHANNEL	2.145	0	08:13	0.70	0.11	0.29
50181	CHANNEL	0.038	0	08:04	0.12	0.00	0.08
50184	CHANNEL	0.301	0	08:02	0.51	0.01	0.14
50189	CHANNEL	0.113	0	08:00	0.18	0.00	0.15
50194	CHANNEL	0.176	0	08:00	0.61	0.00	0.24
50197	CHANNEL	0.706	0	08:00	1.45	0.01	0.10
50200	CHANNEL	0.149	0	08:01	0.27	0.00	0.11
50201	CHANNEL	1.185	0	08:02	0.93	0.02	0.19
50202	CHANNEL	0.738	0	08:02	1.18	0.01	0.14
50209	CHANNEL	0.887	0	08:01	0.81	0.01	0.17
50210	CHANNEL	0.381	0	08:00	0.53	0.00	0.12
50215	CHANNEL	0.087	0	08:00	0.41	0.00	0.06
50217	CHANNEL	2.001	0	08:03	1.24	0.02	0.21
50220	CHANNEL	0.790	0	08:00	1.56	0.01	0.10

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50231	CHANNEL	0.782	0	08:01	0.59	0.02	0.22
50232	CHANNEL	2.536	0	08:03	1.85	0.04	0.22
50233	CHANNEL	0.095	0	08:00	0.16	0.00	0.13
50234	CHANNEL	2.433	0	08:03	1.66	0.03	0.20
50235	CHANNEL	0.149	0	08:00	0.49	0.01	0.14
50236	CHANNEL	2.259	0	08:03	1.23	0.07	0.23
50240	CHANNEL	1.144	0	08:00	1.31	0.01	0.16
50241	CHANNEL	3.568	0	08:04	1.35	0.08	0.29
50244	CHANNEL	0.220	0	08:00	0.32	0.00	0.14
50248	CHANNEL	0.532	0	08:11	0.33	0.03	0.25
50249	CHANNEL	4.264	0	08:03	2.01	0.04	0.25
50251	CHANNEL	0.168	0	08:01	0.21	0.01	0.15
50253	CHANNEL	4.332	0	08:04	1.46	0.08	0.29
50258	CHANNEL	0.081	0	08:00	0.29	0.00	0.07
50262	CHANNEL	0.904	0	08:00	1.10	0.01	0.14
50263	CHANNEL	0.607	0	08:01	0.85	0.01	0.13
50266	CHANNEL	0.234	0	08:00	0.17	0.00	0.17
50267	CHANNEL	2.676	0	08:01	0.89	0.06	0.25
50268	CHANNEL	2.117	0	08:00	1.20	0.03	0.22

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50271	CHANNEL	0.210	0	08:00	0.47	0.00	0.10
50276	CHANNEL	0.132	0	08:00	0.41	0.00	0.08
50278	CHANNEL	0.280	0	08:01	0.62	0.01	0.10
50280	CHANNEL	0.213	0	08:00	0.38	0.01	0.11
50282	CHANNEL	0.417	0	08:01	0.66	0.01	0.12
50284	CHANNEL	0.592	0	08:01	1.01	0.01	0.11
50313	CHANNEL	0.139	0	08:01	0.46	0.00	0.08
50316	CHANNEL	0.030	0	08:01	0.15	0.00	0.04
50331	CHANNEL	0.202	0	08:02	0.81	0.00	0.07
50335	CHANNEL	1.010	0	08:05	0.57	0.06	0.35
50340	CHANNEL	0.443	0	08:03	0.98	0.05	0.16
50341	CHANNEL	0.196	0	08:01	0.37	0.00	0.11
50348	CHANNEL	1.087	0	08:03	0.68	0.02	0.25
50353	CHANNEL	0.388	0	08:06	0.64	0.01	0.13
50357	CHANNEL	0.184	0	08:00	0.46	0.00	0.09
50360	CHANNEL	0.110	0	08:00	0.13	0.00	0.14
50361	CHANNEL	0.750	0	08:02	0.77	0.02	0.17
50364	CHANNEL	0.389	0	08:05	0.96	0.00	0.09
50368	CHANNEL	0.076	0	08:00	0.17	0.00	0.10

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50369	CHANNEL	0.676	0	08:01	0.95	0.01	0.18
50370	CHANNEL	0.367	0	08:01	0.92	0.02	0.12
50376	CHANNEL	0.325	0	08:02	0.31	0.00	0.22
50377	CHANNEL	0.377	0	08:02	0.83	0.01	0.10
50380	CHANNEL	0.182	0	08:02	0.57	0.00	0.08
50382	CHANNEL	0.545	0	08:01	0.80	0.01	0.21
50383	CHANNEL	0.349	0	08:01	0.93	0.00	0.09
50386	CHANNEL	0.247	0	08:01	0.65	0.00	0.09
50389	CHANNEL	0.176	0	08:01	0.38	0.00	0.10
50394	CHANNEL	0.067	0	08:00	0.29	0.00	0.07
50401	CHANNEL	0.000	0	00:00	0.00	0.00	0.05
50409	CHANNEL	0.240	0	08:00	0.50	0.01	0.10
50411	CHANNEL	0.248	0	08:01	0.31	0.01	0.14
50423	CHANNEL	0.348	0	08:01	0.39	0.01	0.15
50424	CHANNEL	0.444	0	08:01	0.79	0.01	0.11
50427	CHANNEL	0.185	0	08:01	0.46	0.00	0.09
50429	CHANNEL	0.353	0	08:02	0.43	0.01	0.14
50432	CHANNEL	0.250	0	08:00	0.54	0.00	0.10
50445	CHANNEL	0.719	0	08:00	1.26	0.01	0.11

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50446	CHANNEL	0.233	0	08:00	0.53	0.00	0.10
50449	CHANNEL	0.261	0	08:00	1.32	0.00	0.06
50451	CHANNEL	0.314	0	08:00	1.06	0.00	0.08
50453	CHANNEL	0.640	0	08:00	1.58	0.00	0.09
50456	CHANNEL	1.156	0	08:01	1.87	0.01	0.12
50463	CHANNEL	2.832	0	08:02	2.36	0.03	0.18
50464	CHANNEL	0.090	0	08:00	0.18	0.00	0.11
50465	CHANNEL	2.562	0	08:01	2.34	0.02	0.17
50466	CHANNEL	1.211	0	08:01	1.56	0.01	0.13
50467	CHANNEL	0.958	0	08:00	1.20	0.01	0.14
50468	CHANNEL	0.686	0	08:00	1.29	0.01	0.11
50469	CHANNEL	0.189	0	08:00	0.50	0.00	0.09
50472	CHANNEL	0.043	0	08:01	0.32	0.00	0.05
50493	CHANNEL	0.870	0	08:02	1.29	0.01	0.12
50498	CHANNEL	1.830	0	08:02	2.10	0.02	0.15
50499	CHANNEL	0.026	0	08:00	0.09	0.00	0.09
50500	CHANNEL	1.656	0	08:01	1.93	0.02	0.14
50501	CHANNEL	0.961	0	08:01	1.19	0.01	0.14
50502	CHANNEL	0.467	0	08:01	0.65	0.01	0.13

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50505	CHANNEL	0.370	0	08:00	0.74	0.00	0.10
50507	CHANNEL	0.586	0	08:01	0.91	0.01	0.12
50509	CHANNEL	0.675	0	08:02	1.01	0.01	0.12
50514	CHANNEL	0.716	0	08:02	0.90	0.01	0.14
50515	CHANNEL	0.167	0	08:00	0.32	0.00	0.11
50522	CHANNEL	0.167	0	08:00	0.62	0.00	0.07
50536	CHANNEL	2.343	0	08:06	1.44	0.04	0.21
50537	CHANNEL	2.203	0	08:05	1.44	0.04	0.20
50538	CHANNEL	0.199	0	08:00	0.28	0.00	0.15
50540	CHANNEL	2.158	0	08:06	1.41	0.04	0.20
50542	CHANNEL	2.896	0	08:04	1.74	0.04	0.22
50544	CHANNEL	2.843	0	08:05	1.39	0.05	0.24
50547	CHANNEL	2.646	0	08:06	1.36	0.05	0.23
50549	CHANNEL	2.525	0	08:06	1.53	0.04	0.22
50552	CHANNEL	0.474	0	08:00	0.85	0.01	0.11
50554	CHANNEL	0.637	0	08:01	0.95	0.01	0.12
50558	CHANNEL	2.330	0	08:08	1.33	0.05	0.22
50559	CHANNEL	0.696	0	08:02	0.73	0.01	0.16
50562	CHANNEL	0.234	0	08:00	0.66	0.00	0.09

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50564	CHANNEL	0.416	0	08:01	0.66	0.01	0.12
50568	CHANNEL	3.001	0	08:07	1.80	0.04	0.21
50569	CHANNEL	2.722	0	08:06	1.75	0.04	0.21
50570	CHANNEL	0.452	0	08:00	0.64	0.01	0.15
50578	CHANNEL	2.100	0	08:05	0.27	0.06	0.64
50583	CHANNEL	0.229	0	08:00	0.75	0.00	0.15
50586	CHANNEL	2.811	0	08:07	2.02	0.03	0.19
50594	CHANNEL	0.205	0	08:00	0.63	0.00	0.08
50595	CHANNEL	0.309	0	08:03	1.80	0.03	0.18
50598	CHANNEL	0.167	0	08:00	0.23	0.00	0.14
50599	CHANNEL	0.165	0	08:01	0.19	0.00	0.15
50600	CHANNEL	5.510	0	08:09	1.13	0.05	0.42
50606	CHANNEL	0.213	0	08:01	0.46	0.00	0.10
50633	CHANNEL	0.462	0	08:00	1.62	0.00	0.08
50634	CHANNEL	0.037	0	08:00	0.26	0.00	0.05
50641	CHANNEL	0.331	0	08:00	1.27	0.00	0.07
50642	CHANNEL	0.148	0	08:00	0.86	0.00	0.06
50644	CHANNEL	0.462	0	08:01	1.22	0.00	0.09
50647	CHANNEL	0.164	0	08:01	1.45	0.00	0.09

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50649	CHANNEL	2.630	0	08:02	1.72	0.02	0.18
50658	CHANNEL	1.601	0	08:01	1.69	0.01	0.14
50659	CHANNEL	0.441	0	08:00	1.79	0.01	0.12
50660	CHANNEL	0.827	0	08:00	1.30	0.01	0.12
50662	CHANNEL	1.591	0	08:01	1.45	0.01	0.15
50664	CHANNEL	2.710	0	08:01	1.34	0.01	0.21
50697A	CHANNEL	0.304	0	08:11	0.35	0.00	0.14
50737	CHANNEL	5.216	0	08:05	1.06	0.07	0.41
50738	CHANNEL	0.038	0	08:01	0.04	0.00	0.33
50739	CHANNEL	4.092	0	08:05	3.53	0.18	0.31
50741	CHANNEL	4.357	0	08:05	1.35	0.07	0.31
50755	CHANNEL	0.080	0	08:00	0.38	0.00	0.08
50760	CHANNEL	0.151	0	08:01	1.89	0.00	0.08
50763	CHANNEL	0.225	0	08:00	0.44	0.00	0.11
50764	CHANNEL	1.009	0	08:02	0.95	0.02	0.17
50765	CHANNEL	0.604	0	08:01	0.87	0.01	0.13
50767	CHANNEL	0.047	0	08:00	0.26	0.00	0.06
54721	CHANNEL	0.059	0	08:00	0.20	0.00	0.09
54722	CHANNEL	0.487	0	08:02	0.62	0.01	0.14

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
54723	CHANNEL	0.088	0	08:00	0.27	0.00	0.12
54724	CHANNEL	0.347	0	08:01	0.74	0.00	0.10
54725	CHANNEL	0.126	0	08:00	0.65	0.00	0.06
54726	CHANNEL	0.051	0	08:00	1.01	0.00	0.08
54728	CHANNEL	0.340	0	08:00	1.32	0.00	0.07
60001	CONDUIT	0.140	0	08:33	3.11	0.36	1.00
60002	CONDUIT	0.083	0	08:10	1.19	0.46	1.00
60003	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60011	CONDUIT	0.405	0	08:11	2.27	0.31	1.00
60014	CONDUIT	0.098	0	08:01	0.81	0.03	0.16
60015	CONDUIT	0.088	0	08:00	0.76	0.02	0.28
60016	CONDUIT	0.174	0	08:04	0.78	0.18	1.00
60017	CONDUIT	0.409	0	08:10	3.70	2.33	1.00
60018	CONDUIT	0.100	0	08:05	0.95	0.25	1.00
60019	CONDUIT	0.085	0	08:03	1.82	1.01	1.00
60020	CONDUIT	0.088	0	08:01	1.14	0.69	0.49
60021	CONDUIT	0.318	0	09:12	4.50	1.62	1.00
60022	CONDUIT	0.000	0	00:00	0.00	0.00	0.50
60023	CONDUIT	0.314	0	09:13	4.45	1.18	1.00

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60024	CONDUIT	0.065	0	08:30	2.08	1.41	1.00
60025	CONDUIT	0.148	0	08:06	4.88	4.50	1.00
60026	CONDUIT	0.118	0	08:00	1.72	1.42	0.94
60027	CONDUIT	0.118	0	08:00	1.82	0.75	0.87
60030	CONDUIT	0.000	0	10:05	0.00	0.00	0.01
60031	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60033	CONDUIT	0.017	0	08:00	1.32	0.13	0.24
60034	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60042	CONDUIT	3.030	0	08:02	4.06	1.43	1.00
60044	CONDUIT	0.491	0	08:02	2.10	0.20	0.32
60046	CONDUIT	11.565	0	08:08	4.63	1.28	0.95
60051	CONDUIT	0.335	0	08:02	1.84	1.12	1.00
60052	CONDUIT	0.191	0	08:04	0.88	0.62	1.00
60053	CONDUIT	1.786	0	08:03	2.39	1.03	1.00
60054	CONDUIT	9.003	0	08:08	4.21	1.18	1.00
60059	CONDUIT	0.033	0	08:00	2.13	0.09	0.20
60068	CONDUIT	0.195	0	09:39	1.44	1.10	0.80
60080	CONDUIT	0.390	0	08:46	2.47	1.78	1.00
60086	CONDUIT	9.004	0	08:08	4.21	1.19	1.00

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60087	CONDUIT	0.180	0	08:10	1.13	1.08	1.00
60088	CONDUIT	0.008	0	08:02	0.68	0.32	0.38
60092	CONDUIT	0.078	0	08:04	1.63	1.32	0.94
60093	CONDUIT	0.236	0	08:04	4.81	3.97	1.00
60094	CONDUIT	0.109	0	08:21	2.21	1.83	1.00
60095	CONDUIT	0.306	0	08:46	1.92	1.40	1.00
60097	CONDUIT	0.099	0	09:13	3.16	3.55	1.00
60099	CONDUIT	3.410	0	08:45	4.17	0.27	0.36
60100	CONDUIT	3.410	0	08:45	2.25	0.44	0.58
60100-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.10
60101	CONDUIT	4.214	0	08:04	2.83	1.05	1.00
60102	CONDUIT	0.567	0	08:01	3.56	1.21	1.00
60103	CONDUIT	2.236	0	08:02	3.51	0.67	1.00
60104	CONDUIT	11.164	0	08:06	4.39	1.10	1.00
60105	CONDUIT	0.595	0	08:04	2.14	0.95	1.00
60106	CONDUIT	0.016	0	08:00	1.03	0.49	0.50
60107	CONDUIT	0.282	0	08:02	2.40	0.55	0.53
60116	CONDUIT	0.018	0	08:00	1.25	0.15	0.26
60117	CONDUIT	0.019	0	08:00	0.45	0.02	0.20

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60118	CONDUIT	0.367	0	08:06	1.80	3.79	0.89
60119	CONDUIT	0.048	0	08:02	1.07	0.23	0.33
60120	CONDUIT	0.040	0	08:01	1.13	0.16	0.27
60121	CONDUIT	0.000	0	08:01	0.27	0.00	0.04
60122	CONDUIT	0.026	0	08:01	1.00	0.11	0.22
60123	CONDUIT	0.030	0	08:01	1.16	0.10	0.22
60124	CONDUIT	0.037	0	08:02	1.02	0.11	0.22
60125	CONDUIT	0.017	0	08:01	0.93	0.11	0.22
60126	CONDUIT	0.001	0	08:01	0.49	0.01	0.06
60127	CONDUIT	0.041	0	08:02	1.00	0.34	0.40
60129	CONDUIT	0.218	0	08:23	1.28	0.60	0.66
60130	CONDUIT	6.680	0	08:07	3.47	1.08	0.84
60131	CONDUIT	0.037	0	08:01	1.36	0.07	0.18
60132	CONDUIT	0.001	0	08:01	0.60	0.01	0.06
60133	CONDUIT	0.000	0	00:00	0.00	0.00	0.11
60134	CONDUIT	0.047	0	08:00	2.24	0.13	0.24
60135	CONDUIT	0.074	0	08:00	2.56	0.20	0.31
60136	CONDUIT	0.074	0	08:00	2.51	0.13	0.24
60137	CONDUIT	0.166	0	08:01	3.26	0.18	0.29

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60138	CONDUIT	0.271	0	08:01	3.14	0.10	0.22
60139	CONDUIT	0.158	0	08:01	1.28	0.45	0.45
60140	CONDUIT	0.149	0	08:00	1.91	0.48	0.49
60142	CONDUIT	1.359	0	08:01	2.54	3.51	1.00
60144	CONDUIT	1.300	0	08:03	2.94	0.58	1.00
60145	CONDUIT	1.300	0	08:03	2.94	2.04	1.00
60147	CONDUIT	0.303	0	08:55	1.45	0.42	1.00
60148	CONDUIT	0.891	0	08:03	2.02	0.89	1.00
60149	CONDUIT	0.832	0	08:03	1.88	1.02	1.00
60150	CONDUIT	0.066	0	08:01	0.93	0.40	1.00
60151	CONDUIT	0.738	0	08:05	1.70	0.94	1.00
60154	CONDUIT	0.036	0	08:00	1.08	0.67	0.80
60155	CONDUIT	0.020	0	08:00	1.96	0.27	0.36
60156	CONDUIT	0.044	0	08:00	1.41	0.32	0.70
60157	CONDUIT	0.150	0	08:01	1.39	1.15	1.00
60158	CONDUIT	0.142	0	08:01	1.35	1.12	1.00
60159	CONDUIT	0.163	0	08:01	1.03	0.97	1.00
60160	CONDUIT	0.288	0	08:05	1.81	1.38	1.00
60161	CONDUIT	0.335	0	08:06	1.67	1.26	0.87

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60162	CONDUIT	0.451	0	08:04	2.99	0.58	0.77
60163	CONDUIT	0.076	0	08:02	0.98	0.21	0.27
60164	CONDUIT	0.223	0	08:02	1.82	0.22	0.32
60166	CONDUIT	0.102	0	08:02	1.29	0.23	0.33
60168	CONDUIT	0.019	0	08:00	1.17	0.09	0.20
60170	CONDUIT	0.109	0	08:01	1.68	0.38	0.43
60171	CONDUIT	0.273	0	08:01	2.36	0.54	0.53
60172	CONDUIT	0.001	0	08:00	0.75	0.01	0.08
60173	CONDUIT	0.059	0	08:01	2.75	0.25	0.34
60174	CONDUIT	0.883	0	08:02	4.14	0.62	0.78
60175	CONDUIT	1.275	0	08:02	4.33	0.92	1.00
60176	CONDUIT	2.042	0	08:01	2.74	0.91	1.00
60178	CONDUIT	2.236	0	08:04	2.58	1.22	1.00
60180	CONDUIT	3.789	0	08:07	3.35	1.44	1.00
60181	CONDUIT	4.318	0	08:07	3.82	1.45	1.00
60183	CONDUIT	4.822	0	08:09	3.37	1.37	1.00
60184	CONDUIT	0.083	0	08:05	0.75	0.61	1.00
60185	CONDUIT	0.000	0	00:00	0.00	0.00	0.02
60186	CONDUIT	0.020	0	08:00	1.54	0.07	0.17

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60187	CONDUIT	0.020	0	08:01	1.54	0.06	0.55
60188	CONDUIT	0.206	0	08:08	1.38	0.53	0.99
60189	CONDUIT	0.214	0	08:01	2.54	0.77	1.00
60190	CONDUIT	0.135	0	08:09	0.85	0.67	1.00
60192	CONDUIT	3.092	0	08:38	3.44	0.43	0.51
60193	CONDUIT	3.485	0	08:20	3.35	0.49	0.57
60194	CONDUIT	0.087	0	08:11	1.32	0.90	1.00
60196	CONDUIT	0.112	0	08:05	1.42	0.07	0.18
60197	CONDUIT	11.503	0	08:08	4.52	1.28	1.00
60299	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60300	CONDUIT	0.062	0	08:01	1.49	0.34	0.61
60301	CONDUIT	0.000	0	00:00	0.00	0.00	0.31
60302	CONDUIT	0.201	0	08:07	1.39	0.52	1.00
60304	CONDUIT	0.682	0	08:02	2.41	2.48	1.00
60305	CONDUIT	0.394	0	08:16	1.39	1.43	1.00
60306	CONDUIT	0.316	0	08:01	1.18	1.15	1.00
60307	CONDUIT	0.747	0	08:01	3.60	0.44	0.67
60308	CONDUIT	0.741	0	08:01	2.80	0.60	0.58
60309	CONDUIT	0.369	0	08:01	1.40	0.85	0.69

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60310	CONDUIT	0.051	0	08:02	0.99	0.53	0.47
60311	CONDUIT	0.424	0	09:32	1.62	0.54	1.00
60312	CONDUIT	0.685	0	08:32	1.52	0.74	1.00
60314	CONDUIT	0.073	0	08:01	1.18	0.16	0.52
60315	CONDUIT	0.002	0	08:00	0.51	0.02	0.12
60316	CONDUIT	0.188	0	08:05	1.19	0.31	0.82
60317	CONDUIT	0.166	0	08:03	1.47	0.22	1.00
60318	CONDUIT	0.018	0	08:00	1.62	0.10	0.22
60320	CONDUIT	0.136	0	08:01	1.70	0.50	0.50
60321	CONDUIT	0.905	0	08:02	2.28	1.23	1.00
60322	CONDUIT	12.678	0	08:07	5.34	1.03	0.96
60323	CONDUIT	0.002	0	08:00	0.59	0.02	0.09
60324	CONDUIT	0.054	0	08:00	1.69	0.24	0.33
60325	CONDUIT	0.185	0	08:00	2.66	0.67	0.60
60326	CONDUIT	0.136	0	08:02	1.18	0.62	1.00
60327	CONDUIT	0.011	0	08:04	0.69	0.06	0.16
60329	CONDUIT	0.041	0	08:02	1.40	0.13	0.24
60330	CONDUIT	0.041	0	08:02	1.38	0.13	0.52
60331	CONDUIT	0.051	0	08:04	1.55	0.13	1.00

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60332	CONDUIT	12.595	0	08:10	5.34	1.03	0.96
60333	CONDUIT	0.168	0	08:01	2.39	1.93	1.00
60334	CONDUIT	0.076	0	08:02	2.41	0.09	0.20
60336	CONDUIT	0.017	0	08:00	1.87	0.23	0.63
60337	CONDUIT	0.010	0	08:00	1.62	0.13	0.62
60338	CONDUIT	0.304	0	08:29	1.91	1.81	1.00
60339	CONDUIT	0.469	0	08:02	2.23	1.35	0.93
60340	CONDUIT	0.300	0	08:29	1.95	1.25	1.00
60341	CONDUIT	0.480	0	08:03	1.52	1.17	0.83
60342	CONDUIT	0.569	0	08:03	1.97	0.96	0.75
60343	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60344	CONDUIT	0.574	0	08:03	1.98	0.97	0.75
60345	CONDUIT	0.693	0	08:03	3.44	0.52	0.76
60346	CONDUIT	1.079	0	08:03	3.63	0.81	1.00
60348	CONDUIT	0.876	0	08:01	4.05	1.26	1.00
60349	CONDUIT	2.238	0	08:01	3.52	1.25	1.00
60350	CONDUIT	0.027	0	08:05	0.44	0.13	0.78
60351	CONDUIT	0.010	0	08:03	0.70	0.06	0.30
60352	CONDUIT	0.010	0	08:02	0.41	0.25	0.28

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60353	CONDUIT	0.000	0	00:00	0.00	0.00	0.15
60354	CONDUIT	0.024	0	08:00	0.91	0.61	0.78
60355	CONDUIT	0.144	0	08:01	1.63	0.74	0.82
60356	CONDUIT	0.223	0	08:00	1.48	1.13	1.00
60357	CONDUIT	0.327	0	08:15	2.05	1.75	1.00
60358	CONDUIT	0.112	0	08:23	1.02	1.01	1.00
60361	CONDUIT	5.129	0	08:08	3.86	0.44	0.74
60362	CONDUIT	5.939	0	08:07	4.03	0.67	1.00
60363	CONDUIT	7.141	0	08:14	3.74	0.64	1.00
60364	CONDUIT	0.189	0	08:03	1.91	0.30	0.38
60366	CONDUIT	0.168	0	08:03	0.70	0.28	1.00
60367	CONDUIT	0.135	0	08:01	1.32	0.25	0.67
60368	CONDUIT	0.042	0	08:02	1.16	0.28	0.37
60369	CONDUIT	0.000	0	00:00	0.00	0.00	0.08
60370	CONDUIT	0.011	0	08:01	0.82	0.04	0.13
60371	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60372	CONDUIT	1.350	0	08:01	2.52	0.95	1.00
60373	CONDUIT	1.206	0	08:01	3.37	2.25	1.00
60374	CONDUIT	0.205	0	08:03	1.75	0.21	0.31

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60375	CONDUIT	0.015	0	08:01	1.54	0.04	0.14
60376	CONDUIT	0.015	0	08:00	1.75	0.07	0.18
60377	CONDUIT	0.015	0	08:00	1.27	0.11	0.23
60378	CONDUIT	6.762	0	08:07	5.72	0.53	0.54
60379	CONDUIT	0.210	0	08:02	3.29	0.59	0.56
60380	CONDUIT	0.475	0	08:01	3.26	0.21	0.32
60382	CONDUIT	0.659	0	08:02	3.52	0.30	1.00
60383	CONDUIT	2.474	0	08:08	1.91	0.87	1.00
60384	CONDUIT	0.245	0	08:02	1.64	1.29	0.89
60385	CONDUIT	0.303	0	08:02	2.12	0.71	0.63
60387	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60388	CONDUIT	0.049	0	08:02	0.62	0.11	0.40
60389	CONDUIT	0.050	0	08:02	1.88	0.18	0.29
60391	CONDUIT	0.310	0	08:02	2.69	0.37	0.43
60392	CONDUIT	0.129	0	08:07	1.48	0.08	0.19
60393	CONDUIT	0.122	0	08:05	1.46	0.08	0.19
60394	CONDUIT	0.123	0	08:06	1.46	0.08	0.19
60395	CONDUIT	0.327	0	08:03	1.54	0.37	0.42
60396	CONDUIT	0.328	0	08:03	1.69	0.32	0.39

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60397	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60398	CONDUIT	0.035	0	08:00	1.43	0.16	0.27
60399	CONDUIT	0.471	0	08:03	1.46	0.38	0.58
60401	CONDUIT	0.076	0	08:00	2.04	0.53	0.52
60402	CONDUIT	0.130	0	08:00	2.36	0.50	0.50
60405	CONDUIT	0.117	0	08:00	3.10	0.53	0.53
60406	CONDUIT	0.474	0	08:01	2.37	1.05	0.90
60407	CONDUIT	3.319	0	08:04	2.90	0.91	0.75
60408	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60409	CONDUIT	0.067	0	08:01	2.21	0.22	0.32
60411	CONDUIT	2.878	0	08:08	2.84	1.25	0.84
60417	CONDUIT	0.506	0	08:03	2.17	0.96	0.77
60418	CONDUIT	0.742	0	08:03	2.60	0.52	0.53
60420	CONDUIT	0.117	0	08:01	1.22	0.48	0.46
60421	CONDUIT	0.114	0	08:02	1.26	0.40	0.44
60422	CONDUIT	0.049	0	08:00	1.20	0.20	0.30
60423	CONDUIT	0.008	0	08:00	0.64	0.05	0.20
60424	CONDUIT	0.043	0	08:02	1.12	0.12	0.24
60425	CONDUIT	0.090	0	08:02	1.09	0.26	0.33

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60426	CONDUIT	0.018	0	08:00	1.42	0.12	0.23
60427	CONDUIT	0.030	0	08:01	1.72	0.10	0.21
60428	CONDUIT	0.114	0	08:04	1.43	0.07	0.18
60429	CONDUIT	0.113	0	08:03	1.43	0.07	0.18
60430	CONDUIT	0.114	0	08:02	1.77	0.09	0.20
60431	CONDUIT	0.074	0	08:03	1.65	0.10	0.22
60432	CONDUIT	0.062	0	08:00	1.65	0.54	0.53
60433	CONDUIT	0.065	0	08:01	2.13	0.22	0.32
60434	CONDUIT	0.071	0	08:01	2.60	0.11	0.23
60435	CONDUIT	0.035	0	08:00	1.53	0.09	0.20
60436	CONDUIT	0.076	0	08:01	1.57	0.26	0.35
60438	CONDUIT	0.153	0	08:01	1.86	0.81	0.70
60439	CONDUIT	0.205	0	08:02	1.72	0.72	0.77
60441	CONDUIT	0.155	0	08:01	1.43	0.56	0.65
60442	CONDUIT	0.394	0	08:02	2.51	0.79	0.68
60443	CONDUIT	3.729	0	08:05	2.88	0.75	0.70
60444	CONDUIT	0.048	0	08:00	1.65	0.38	0.43
60445	CONDUIT	0.017	0	08:00	1.38	0.12	0.24
60447	CONDUIT	0.071	0	08:00	1.98	0.27	0.67

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60448	CONDUIT	0.298	0	08:03	2.70	1.23	1.00
60449	CONDUIT	0.422	0	08:02	2.70	1.00	0.96
60451	CONDUIT	0.569	0	08:03	2.66	1.42	0.96
60452	CONDUIT	0.610	0	08:03	1.90	1.28	0.84
60453	CONDUIT	0.118	0	08:10	1.58	0.45	1.00
60455	CONDUIT	0.520	0	08:18	1.72	0.89	1.00
60456	CONDUIT	0.518	0	08:18	1.63	0.89	1.00
60457	CONDUIT	0.142	0	08:07	1.23	0.40	1.00
60458	CONDUIT	0.144	0	08:07	0.99	0.62	1.00
60459	CONDUIT	0.067	0	08:10	0.78	0.41	0.78
60463	CONDUIT	0.298	0	08:05	1.38	0.99	1.00
60464	CONDUIT	0.186	0	08:07	1.27	0.85	1.00
60466	CONDUIT	0.065	0	08:07	1.46	0.57	1.00
60467	CONDUIT	0.663	0	08:07	2.35	2.27	1.00
60472	CONDUIT	0.056	0	08:01	1.46	0.31	0.38
60474	CONDUIT	0.001	0	08:00	0.43	0.01	0.12
60475	CONDUIT	0.010	0	08:01	0.82	0.06	0.16
60478	CONDUIT	0.148	0	08:02	1.51	0.30	1.00
60479	CONDUIT	0.292	0	08:03	1.76	0.61	1.00

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60480	CONDUIT	4.822	0	08:09	3.42	1.37	1.00
60482	CONDUIT	14.139	0	08:10	4.73	1.06	1.00
60488	CONDUIT	0.366	0	09:32	1.49	0.67	1.00
60498	CONDUIT	0.045	0	08:01	1.35	0.46	0.48
60499	CONDUIT	0.036	0	08:00	1.76	0.24	0.33
60500	CONDUIT	0.032	0	08:00	1.11	0.38	0.43
60501	CONDUIT	0.079	0	08:00	1.64	0.74	0.65
60502	CONDUIT	0.101	0	08:00	2.70	0.53	0.52
60503	CONDUIT	0.209	0	08:00	1.43	0.62	0.65
60504	CONDUIT	0.330	0	08:01	1.75	0.73	0.64
60506	CONDUIT	0.330	0	08:01	1.67	0.87	0.66
60507	CONDUIT	0.076	0	08:01	2.01	0.18	0.29
60508	CONDUIT	0.129	0	08:08	2.02	0.05	0.58
60509	CONDUIT	0.129	0	08:07	2.29	0.04	0.14
60510	CONDUIT	0.061	0	08:01	0.99	0.24	0.33
60511	CONDUIT	0.070	0	08:02	0.83	0.32	0.34
60512	CONDUIT	0.134	0	08:02	1.15	0.27	0.43
60514	CONDUIT	0.116	0	08:00	2.28	0.43	0.47
60515	CONDUIT	0.116	0	08:00	3.02	0.30	0.38

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60516	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60517	CONDUIT	0.236	0	08:01	2.49	0.29	0.68
60518	CONDUIT	0.055	0	08:00	1.35	0.33	0.40
60519	CONDUIT	0.025	0	08:00	1.06	0.15	0.26
60523	CONDUIT	0.231	0	08:03	1.81	0.31	0.39
60524	CONDUIT	0.253	0	08:03	3.17	0.15	0.27
60525	CONDUIT	0.048	0	08:03	1.04	0.13	0.27
60526	CONDUIT	0.044	0	08:03	0.92	0.18	0.28
60527	CONDUIT	0.042	0	08:02	1.05	0.13	0.24
60528	CONDUIT	0.038	0	08:02	1.18	0.24	0.33
60529	CONDUIT	0.001	0	08:02	0.42	0.01	0.07
60532	CONDUIT	0.020	0	08:02	0.49	0.27	0.56
60534	CONDUIT	0.156	0	08:03	1.47	0.73	0.63
60535	CONDUIT	0.060	0	08:05	1.23	0.36	0.75
60536	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60537	CONDUIT	0.046	0	08:01	1.33	0.26	0.38
60538	CONDUIT	0.064	0	08:05	0.86	0.58	0.77
60539	CONDUIT	0.208	0	08:05	1.32	0.44	1.00
60540	CONDUIT	0.231	0	08:05	0.82	0.52	1.00

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60541	CONDUIT	0.249	0	08:05	0.88	0.44	1.00
60542	CONDUIT	0.108	0	08:05	1.15	0.38	1.00
60543	CONDUIT	0.190	0	08:06	0.88	0.52	1.00
60544	CONDUIT	0.070	0	08:02	0.97	0.06	0.17
60545	CONDUIT	0.069	0	08:03	0.87	0.09	0.18
60546	CONDUIT	0.012	0	08:02	0.73	0.02	0.10
60547	CONDUIT	0.000	0	00:00	0.00	0.00	0.07
60548	CONDUIT	5.484	0	08:07	2.76	1.13	0.89
60549	CONDUIT	0.020	0	08:01	0.17	0.02	0.55
60550	CONDUIT	0.084	0	08:00	2.33	0.05	0.16
60552	CONDUIT	6.250	0	08:06	3.25	1.20	0.84
60553	CONDUIT	6.324	0	08:06	3.25	0.70	0.86
60554	CONDUIT	6.386	0	08:07	3.18	1.12	0.90
60555	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60556	CONDUIT	0.596	0	08:03	2.03	0.29	0.37
60557	CONDUIT	0.420	0	08:02	1.89	0.17	0.30
60558	CONDUIT	0.195	0	09:40	1.35	0.59	0.51
60559	CONDUIT	0.024	0	08:01	1.25	0.21	0.32
60560	CONDUIT	0.041	0	08:00	1.42	0.04	0.14

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60561	CONDUIT	0.081	0	08:01	1.74	0.06	0.16
60563	CONDUIT	1.562	0	08:13	2.57	1.90	0.91
60566	CONDUIT	0.416	0	08:03	1.35	5.65	0.80
60567	CONDUIT	0.408	0	08:02	1.78	0.70	0.61
60568	CONDUIT	0.158	0	08:02	0.99	0.25	0.46
60569	CONDUIT	0.019	0	08:00	1.94	0.08	0.19
60570	CONDUIT	0.015	0	08:00	1.22	0.11	0.23
60571	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60572	CONDUIT	0.045	0	08:01	0.80	0.10	0.26
60573	CONDUIT	0.232	0	08:01	1.05	0.43	0.98
60574	CONDUIT	0.121	0	08:02	1.37	0.36	0.66
60575	CONDUIT	0.187	0	08:02	1.32	0.90	0.50
60576	CONDUIT	6.488	0	08:07	3.44	0.99	0.83
60577	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60578	CONDUIT	6.919	0	08:08	3.34	0.73	1.00
60579	CONDUIT	3.702	0	08:11	2.03	0.82	0.92
60580	CONDUIT	3.359	0	08:04	2.51	0.74	0.74
60582	CONDUIT	1.049	0	08:03	2.17	0.30	0.46
60583	CONDUIT	0.964	0	08:03	2.95	0.64	0.59

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60584	CONDUIT	1.205	0	08:03	4.47	0.49	0.50
60585	CONDUIT	0.031	0	08:01	1.49	0.13	0.24
60587	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60588	CONDUIT	0.030	0	08:16	1.01	0.51	1.00
60589	CONDUIT	0.034	0	08:00	1.13	0.40	0.44
60590	CONDUIT	0.034	0	08:05	0.62	0.42	0.95
60803	CONDUIT	0.022	0	08:00	0.94	0.15	0.26
60804	CONDUIT	0.043	0	08:00	1.44	0.21	0.32
60805	CONDUIT	0.077	0	08:00	1.56	0.33	0.79
60807	CONDUIT	0.135	0	08:09	1.91	1.53	1.00
60809	CONDUIT	0.910	0	08:09	1.40	0.64	1.00
60811	CONDUIT	0.824	0	08:09	1.57	0.48	1.00
60814	CONDUIT	0.971	0	08:03	2.03	0.56	1.00
60815	CONDUIT	1.036	0	08:03	2.23	0.54	1.00
60842	CONDUIT	0.017	0	08:00	1.39	0.04	0.57
60913	CONDUIT	0.003	0	08:00	0.54	0.04	0.14
60915	CONDUIT	0.180	0	08:03	1.36	0.32	0.49
60916	CONDUIT	0.179	0	08:02	1.50	0.29	0.37
60931	CONDUIT	0.128	0	08:02	1.45	0.26	0.35

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60932	CONDUIT	0.021	0	08:00	1.05	0.07	0.19
60933	CONDUIT	0.031	0	08:01	0.81	0.08	0.24
60934	CONDUIT	0.068	0	08:02	1.20	0.20	0.31
60938	CONDUIT	1.240	0	08:03	2.17	0.89	1.00
60939	CONDUIT	0.572	0	08:03	1.98	0.69	1.00
60941	CONDUIT	0.017	0	08:00	0.89	0.10	0.64
60942	CONDUIT	0.025	0	08:04	0.88	0.12	0.23
60945	CONDUIT	0.026	0	08:03	0.86	0.43	0.44
60964	CONDUIT	0.130	0	08:02	1.31	0.68	0.78
60965	CONDUIT	0.676	0	08:04	3.12	1.81	1.00
60966	CONDUIT	0.681	0	08:04	2.41	1.65	1.00
60967	CONDUIT	0.071	0	08:03	1.04	0.71	1.00
60968	CONDUIT	0.090	0	08:03	1.27	0.90	1.00
60969	CONDUIT	0.184	0	08:02	0.85	0.59	1.00
60971	CONDUIT	0.095	0	08:03	1.61	0.64	1.00
60972	CONDUIT	0.126	0	08:02	1.23	0.83	1.00
60973	CONDUIT	0.075	0	08:03	1.18	0.77	1.00
60974	CONDUIT	1.806	0	08:03	2.42	1.18	1.00
60975	CONDUIT	2.002	0	08:03	2.68	1.16	1.00

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60976	CONDUIT	0.922	0	08:04	5.80	4.57	1.00
60977	CONDUIT	3.010	0	08:06	2.18	0.74	1.00
60978	CONDUIT	2.158	0	08:03	2.89	3.03	1.00
60982	CONDUIT	3.014	0	08:06	3.48	1.80	1.00
60986	CONDUIT	0.058	0	08:03	0.93	0.36	1.00
61002	CONDUIT	1.498	0	08:06	1.32	0.54	1.00
61005	CONDUIT	0.111	0	08:10	1.71	0.67	1.00
61006	CONDUIT	0.129	0	08:10	1.53	0.71	1.00
61007	CONDUIT	1.157	0	08:04	2.14	0.43	1.00
61008	CONDUIT	1.456	0	08:03	1.66	0.38	1.00
61009	CONDUIT	0.284	0	08:10	1.86	0.81	1.00
61011	CONDUIT	0.266	0	08:10	3.11	1.07	1.00
61012	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61013	CONDUIT	0.024	0	08:11	0.67	0.15	0.54
61014	CONDUIT	0.717	0	08:10	1.22	0.56	1.00
61039	CONDUIT	0.111	0	08:10	1.84	0.35	0.82
61040	CONDUIT	0.148	0	08:08	1.35	1.19	1.00
61041	CONDUIT	0.764	0	08:08	1.21	0.54	1.00
61048	CONDUIT	0.201	0	08:09	1.43	0.46	1.00

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61049	CONDUIT	0.294	0	08:05	2.04	0.05	1.00
61050	CONDUIT	4.038	0	08:04	2.28	0.81	1.00
61051	CONDUIT	3.153	0	08:07	1.97	0.79	1.00
61053	CONDUIT	3.765	0	08:03	2.65	1.07	1.00
61054	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61055	CONDUIT	3.466	0	08:13	2.42	0.93	1.00
61056	CONDUIT	0.428	0	08:04	1.97	0.27	1.00
61140	CONDUIT	0.007	0	08:02	0.39	0.00	0.02
61142	CONDUIT	0.145	0	08:04	1.31	0.82	1.00
61143	CONDUIT	0.116	0	08:05	1.05	0.66	1.00
61146	CONDUIT	0.055	0	08:00	1.53	0.51	0.51
61147	CONDUIT	0.410	0	08:02	2.21	0.67	1.00
61148	CONDUIT	0.114	0	08:04	1.62	1.14	1.00
61149	CONDUIT	0.204	0	08:03	1.62	0.56	1.00
61150	CONDUIT	0.282	0	08:03	1.72	0.84	1.00
61151	CONDUIT	0.331	0	08:03	1.79	0.70	1.00
61152	CONDUIT	6.481	0	08:18	3.67	1.28	1.00
61154	CONDUIT	0.030	0	08:01	1.75	0.10	0.21
61155	CONDUIT	0.016	0	08:00	1.36	0.33	0.39

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61156	CONDUIT	0.090	0	08:00	2.68	0.46	0.48
61157	CONDUIT	0.105	0	08:00	1.64	0.18	0.43
61158	CONDUIT	0.066	0	08:00	1.68	0.31	0.59
61159	CONDUIT	0.159	0	08:04	1.93	0.46	1.00
61160	CONDUIT	0.332	0	08:01	1.67	0.78	1.00
61161	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61162	CONDUIT	0.071	0	08:01	2.18	0.45	0.47
61163	CONDUIT	0.100	0	08:01	2.10	0.41	0.65
61164	CONDUIT	0.646	0	08:04	1.02	0.65	1.00
61165	CONDUIT	0.015	0	08:00	1.53	0.08	0.20
61167	CONDUIT	6.227	0	08:18	3.52	1.37	1.00
61168	CONDUIT	6.133	0	08:26	3.79	0.70	1.00
61169	CONDUIT	1.538	0	09:04	2.91	1.47	1.00
61170	CONDUIT	0.094	0	08:06	1.35	1.18	1.00
61171	CONDUIT	0.084	0	08:02	1.38	0.22	0.32
61173	CONDUIT	0.022	0	08:00	1.25	0.19	0.30
61176	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61177	CONDUIT	0.323	0	08:01	3.23	0.44	0.47
61182	CONDUIT	0.209	0	08:01	1.48	0.71	0.63

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61183	CONDUIT	0.240	0	08:02	1.60	0.79	0.65
61184	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61187	CONDUIT	0.235	0	08:02	2.03	0.37	1.00
61188	CONDUIT	6.672	0	08:20	3.78	1.18	1.00
61192	CONDUIT	0.577	0	08:00	1.81	0.89	1.00
61193	CONDUIT	0.634	0	08:02	1.77	1.12	1.00
61194	CONDUIT	0.406	0	08:47	1.74	1.02	1.00
61195	CONDUIT	0.495	0	08:48	1.93	1.09	1.00
61196	CONDUIT	0.609	0	08:06	2.31	0.16	1.00
61197	CONDUIT	0.142	0	08:06	1.60	0.85	1.00
61199	CONDUIT	0.014	0	08:00	0.91	0.15	0.26
61200	CONDUIT	0.312	0	08:02	1.72	0.69	0.61
61201	CONDUIT	0.311	0	08:03	1.62	0.55	0.53
61202	CONDUIT	0.192	0	08:32	1.74	1.11	1.00
61203	CONDUIT	0.180	0	08:32	1.63	1.83	1.00
61204	CONDUIT	0.660	0	08:03	1.97	0.66	0.60
61205	CONDUIT	0.660	0	08:03	4.40	0.21	0.33
61206	CONDUIT	1.041	0	08:02	4.32	0.42	0.71
61208	CONDUIT	0.064	0	08:00	1.08	0.22	0.32

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61209	CONDUIT	0.009	0	08:01	0.84	0.09	0.20
61210	CONDUIT	0.008	0	08:01	0.88	0.04	0.14
61211	CONDUIT	0.017	0	08:01	0.29	0.03	0.24
61212	CONDUIT	0.350	0	08:00	1.55	0.75	1.00
61213	CONDUIT	0.028	0	08:00	1.59	0.10	0.22
61214	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61215	CONDUIT	0.009	0	08:00	0.83	0.10	0.22
61216	CONDUIT	0.019	0	08:03	0.09	0.04	0.57
61217	CONDUIT	0.194	0	08:02	1.67	0.27	0.36
61218	CONDUIT	0.441	0	09:29	2.23	0.90	1.00
61219	CONDUIT	0.667	0	09:29	2.39	1.51	1.00
61220	CONDUIT	0.308	0	08:01	1.96	0.55	0.54
61221	CONDUIT	0.203	0	08:01	2.26	0.39	0.43
61222	CONDUIT	0.022	0	08:01	1.13	0.12	0.23
61223	CONDUIT	0.001	0	08:01	0.40	0.01	0.06
61224	CONDUIT	0.061	0	08:00	2.28	0.34	0.40
61225	CONDUIT	0.031	0	08:01	1.59	0.12	0.23
61226	CONDUIT	0.054	0	08:00	1.86	0.20	0.31
61227	CONDUIT	0.117	0	08:01	1.35	0.55	0.54

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61228	CONDUIT	0.055	0	08:00	1.58	0.26	0.35
61229	CONDUIT	0.053	0	08:00	1.60	0.25	0.34
61230	CONDUIT	0.097	0	08:00	2.06	0.40	0.44
61231	CONDUIT	0.213	0	08:00	2.34	0.55	0.56
61232	CONDUIT	0.012	0	08:05	0.63	0.00	0.17
61233	CONDUIT	0.308	0	08:01	2.12	0.72	0.64
61234	CONDUIT	0.309	0	08:01	1.66	0.74	0.63
61235	CONDUIT	0.369	0	08:01	1.80	0.80	0.77
61236	CONDUIT	1.457	0	08:01	4.07	0.65	1.00
61238	CONDUIT	0.174	0	08:02	2.80	0.58	0.60
61239	CONDUIT	0.331	0	08:02	2.77	0.83	1.00
61241	CONDUIT	1.901	0	08:03	1.77	0.73	1.00
61244	CONDUIT	0.203	0	08:01	2.69	0.46	0.73
61245	CONDUIT	0.016	0	08:00	1.49	0.10	0.21
61246	CONDUIT	0.060	0	08:00	2.36	0.32	0.39
61247	CONDUIT	0.143	0	08:01	1.77	0.51	0.51
61248	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61250	CONDUIT	0.072	0	08:00	1.00	0.25	0.39
61251	CONDUIT	0.325	0	08:02	2.08	0.80	0.68

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61252	CONDUIT	0.479	0	08:02	2.32	0.81	0.69
61253	CONDUIT	0.618	0	08:02	2.74	0.66	0.60
61254	CONDUIT	0.722	0	08:02	2.82	0.77	0.67
61255	CONDUIT	0.723	0	08:02	2.95	0.72	0.65
61257	CONDUIT	0.171	0	08:01	1.75	0.65	0.59
61258	CONDUIT	0.181	0	08:01	1.46	0.61	0.56
61259	CONDUIT	0.015	0	08:00	1.37	0.10	0.22
61260	CONDUIT	0.048	0	08:00	1.62	0.17	0.33
61261	CONDUIT	0.067	0	08:00	0.90	0.20	0.65
61262	CONDUIT	12.756	0	08:11	4.10	0.99	0.84
61263	CONDUIT	8.938	0	08:06	4.18	1.18	1.00
61264	CONDUIT	0.126	0	08:01	2.39	0.46	0.73
61267	CONDUIT	6.138	0	08:26	3.47	1.24	1.00
61268	CONDUIT	0.083	0	08:03	0.77	0.45	0.91
61269	CONDUIT	0.090	0	08:02	1.20	0.72	0.66
61270	CONDUIT	0.076	0	08:02	1.24	0.11	0.23
61271	CONDUIT	0.073	0	08:05	0.66	0.44	1.00
61272	CONDUIT	3.968	0	08:21	2.77	1.13	1.00
61273	CONDUIT	0.228	0	08:06	1.43	1.13	1.00

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61307	CONDUIT	3.831	0	08:07	2.42	0.95	1.00
61308	CONDUIT	3.602	0	08:08	2.04	0.62	1.00
61309	CONDUIT	3.233	0	08:08	2.15	0.81	1.00
61312	CONDUIT	3.337	0	08:08	2.33	1.20	1.00
61313	CONDUIT	0.051	0	08:00	2.27	0.04	0.53
61314	CONDUIT	0.928	0	08:09	2.61	1.00	1.00
61315	CONDUIT	0.423	0	08:03	2.03	1.42	1.00
61316	CONDUIT	11.979	0	08:07	5.24	1.00	0.90
61317	CONDUIT	11.459	0	08:08	4.50	1.18	1.00
61318	CONDUIT	0.283	0	08:02	3.12	0.39	0.44
61319	CONDUIT	0.297	0	08:02	1.85	0.32	0.70
61322	CONDUIT	0.119	0	08:00	1.61	0.71	0.64
61323	CONDUIT	0.115	0	08:01	1.42	0.34	0.40
61333	CONDUIT	12.763	0	08:11	4.37	0.90	0.84
61334	CONDUIT	12.805	0	08:17	4.45	0.91	0.88
61335	CONDUIT	11.440	0	08:08	4.50	1.25	1.00
61355	CONDUIT	0.065	0	08:00	2.22	0.21	0.31
61356	CONDUIT	12.762	0	08:10	4.02	0.99	0.87
61360	CONDUIT	0.236	0	08:01	2.54	0.59	1.00

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61361	CONDUIT	0.173	0	08:01	2.32	0.45	1.00
61362	CONDUIT	0.086	0	08:00	1.91	0.18	0.58
61363	CONDUIT	0.010	0	08:01	1.50	0.08	0.19
61365	CONDUIT	0.011	0	08:03	1.00	0.10	0.22
61393	CONDUIT	0.058	0	08:01	1.07	0.13	0.25
61394	CONDUIT	0.058	0	08:00	1.40	0.20	0.31
61395	CONDUIT	0.002	0	08:03	0.38	0.01	0.06
61396	CONDUIT	0.002	0	08:01	0.44	0.01	0.07
61397	CONDUIT	0.041	0	08:01	1.05	0.12	0.24
61398	CONDUIT	0.045	0	08:01	1.10	0.02	0.15
61399	CONDUIT	0.128	0	08:17	1.14	0.05	0.58
61400	CONDUIT	0.183	0	08:17	0.60	0.07	0.96
61401	CONDUIT	3.573	0	08:05	2.71	0.78	0.80
61402	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61403	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61404	CONDUIT	0.006	0	08:00	0.96	0.02	0.11
61405	CONDUIT	0.008	0	08:01	0.77	0.03	0.15
61406	CONDUIT	0.034	0	08:01	2.34	0.08	0.19
61407	CONDUIT	0.034	0	08:01	2.37	0.08	0.19

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61416	CONDUIT	0.009	0	08:00	1.04	0.03	0.13
61417	CONDUIT	0.069	0	08:00	1.89	0.28	0.36
61419	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61428	CONDUIT	3.009	0	08:06	1.89	0.63	1.00
61429	CONDUIT	0.041	0	08:02	0.32	0.14	1.00
61430	CONDUIT	3.014	0	08:06	3.54	1.79	1.00
61431	CONDUIT	3.175	0	08:05	3.48	0.73	1.00
61432	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
9337	CHANNEL	0.206	0	08:03	0.35	0.09	0.11
9352	CHANNEL	0.159	0	08:00	0.40	0.02	0.27
9358	CHANNEL	0.096	0	08:00	0.53	0.03	0.10
9360	CHANNEL	0.135	0	08:00	0.29	0.00	0.05
9377	CHANNEL	0.519	0	08:01	0.67	0.02	0.17
9378	CHANNEL	0.258	0	08:03	0.44	0.01	0.14
9380	CHANNEL	0.635	0	08:04	0.48	0.05	0.43
9382	CHANNEL	0.521	0	08:05	0.48	0.04	0.22
9387	CHANNEL	0.194	0	08:01	0.66	0.02	0.14
9388	CHANNEL	2.019	0	08:04	1.23	0.04	0.21
9390	CHANNEL	2.203	0	08:04	0.77	0.04	0.35

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9393	CHANNEL	0.013	0	08:02	0.01	0.00	0.18
9417	CHANNEL	0.392	0	08:06	0.48	0.01	0.13
9418	CHANNEL	0.069	0	08:00	0.14	0.01	0.39
9422	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
9423	CHANNEL	0.000	0	00:00	0.00	0.00	0.12
9424	CHANNEL	0.000	0	00:00	0.00	0.00	0.17
9444	CHANNEL	0.079	0	08:00	0.65	0.00	0.05
9455	CHANNEL	0.187	0	08:00	0.64	0.00	0.08
9462	CHANNEL	0.475	0	08:01	1.10	0.01	0.09
9473	CHANNEL	0.285	0	08:02	0.60	0.00	0.10
9474	CHANNEL	0.098	0	08:01	0.29	0.00	0.08
9480	CHANNEL	0.512	0	08:01	0.95	0.00	0.11
9482	CHANNEL	0.576	0	08:02	0.63	0.01	0.15
9487	CHANNEL	0.040	0	08:01	0.15	0.00	0.10
9489	CHANNEL	0.694	0	08:02	0.65	0.02	0.17
9492	CHANNEL	0.579	0	08:02	0.91	0.01	0.12
9507	CHANNEL	0.047	0	08:00	0.27	0.00	0.07
9509	CHANNEL	0.082	0	08:00	0.40	0.00	0.22
9511	CHANNEL	0.872	0	08:00	1.02	0.01	0.13

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9515	CHANNEL	3.591	0	08:11	0.87	0.11	0.29
9516	CHANNEL	1.487	0	08:04	0.32	0.02	0.32
9517	CHANNEL	2.442	0	08:12	0.46	0.06	0.34
9518	CHANNEL	2.054	0	08:12	1.01	0.01	0.21
9519	CHANNEL	0.863	0	08:01	0.44	0.01	0.23
9522	CHANNEL	0.157	0	08:02	0.40	0.00	0.09
9526	CHANNEL	0.085	0	08:00	0.51	0.00	0.06
9535	CHANNEL	0.098	0	08:01	0.33	0.00	0.08
9540	CHANNEL	0.339	0	08:01	0.23	0.00	0.22
9544	CHANNEL	0.265	0	08:00	0.69	0.00	0.09
9546	CHANNEL	0.133	0	08:00	0.50	0.00	0.07
9557	CHANNEL	0.253	0	08:01	0.83	0.00	0.08
9558	CHANNEL	0.193	0	08:00	0.80	0.00	0.07
9561	CHANNEL	0.097	0	08:01	0.81	0.00	0.06
9574	CHANNEL	0.006	0	08:02	0.05	0.00	0.08
9576	CHANNEL	0.021	0	08:00	0.17	0.00	0.08
9580	CHANNEL	0.255	0	08:02	0.66	0.00	0.13
9584	CHANNEL	0.599	0	08:02	0.67	0.02	0.15
9585	CHANNEL	0.266	0	08:02	0.50	0.00	0.11

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9586	CHANNEL	0.223	0	08:00	0.48	0.00	0.10
9588	CHANNEL	0.667	0	08:03	0.79	0.02	0.14
9592	CHANNEL	0.885	0	08:03	1.28	0.01	0.12
9593	CHANNEL	0.723	0	08:03	1.10	0.01	0.12
9594	CHANNEL	0.164	0	08:00	0.41	0.00	0.10
9599	CHANNEL	0.610	0	08:01	1.13	0.01	0.11
9600	CHANNEL	0.159	0	08:00	0.39	0.00	0.09
9601	CHANNEL	0.249	0	08:00	0.55	0.00	0.10
9605	CHANNEL	0.114	0	08:00	0.43	0.00	0.07
9617	CHANNEL	0.224	0	08:01	0.64	0.00	0.08
9618	CHANNEL	0.271	0	08:00	0.75	0.00	0.09
9619	CHANNEL	0.318	0	08:01	1.02	0.00	0.08
9621	CHANNEL	1.155	0	08:15	0.59	0.00	0.26
9622	CHANNEL	0.590	0	08:00	0.49	0.00	0.17
9623	CHANNEL	1.239	0	08:38	0.44	0.02	0.81
9624	CHANNEL	1.119	0	08:37	0.33	0.03	0.56
9628	CHANNEL	1.626	0	08:01	0.33	0.02	0.70
9631	CHANNEL	0.279	0	08:23	0.62	0.01	0.19
9632	CHANNEL	0.682	0	08:02	0.88	0.01	0.17

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9633	CHANNEL	0.509	0	08:00	1.04	0.00	0.11
9634	CHANNEL	0.253	0	08:01	0.46	0.00	0.11
9641	CHANNEL	0.039	0	08:00	0.27	0.00	0.05
9643	CHANNEL	0.563	0	08:01	1.19	0.01	0.10
9648	CHANNEL	1.622	0	08:02	1.78	0.01	0.15
9649	CHANNEL	0.709	0	08:01	0.90	0.01	0.14
9650	CHANNEL	0.607	0	08:01	1.15	0.00	0.11
9651	CHANNEL	0.945	0	08:02	1.57	0.01	0.11
9661	CHANNEL	0.069	0	08:00	0.64	0.00	0.05
9664	CHANNEL	0.471	0	08:01	0.83	0.01	0.11
9665	CHANNEL	0.129	0	08:00	1.16	0.00	0.06
9666	CHANNEL	0.124	0	08:00	0.41	0.00	0.08
9671	CHANNEL	0.482	0	08:02	0.97	0.00	0.10
9672	CHANNEL	0.084	0	08:00	0.29	0.00	0.08
9674	CHANNEL	0.736	0	08:02	1.15	0.01	0.12
9680	CHANNEL	0.344	0	08:00	1.99	0.01	0.11
9681	CHANNEL	0.266	0	08:00	0.69	0.01	0.09
9685	CHANNEL	0.604	0	08:01	1.34	0.01	0.10
9686	CHANNEL	0.534	0	08:00	1.28	0.01	0.09

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9687	CHANNEL	0.052	0	08:00	0.12	0.00	0.07
9689	CHANNEL	0.699	0	08:01	1.22	0.01	0.11
9691	CHANNEL	0.928	0	08:01	1.09	0.01	0.14
9694	CHANNEL	0.935	0	08:00	1.50	0.01	0.12
9702	CHANNEL	0.329	0	08:00	0.51	0.01	0.12
9705	CHANNEL	0.485	0	08:01	0.64	0.02	0.13
9711	CHANNEL	0.306	0	08:00	0.72	0.00	0.09
9713	CHANNEL	0.627	0	08:00	1.05	0.01	0.11
9717	CHANNEL	0.240	0	08:00	0.63	0.00	0.09
9720	CHANNEL	0.973	0	08:01	1.00	0.02	0.16
9721	CHANNEL	0.518	0	08:00	0.72	0.01	0.13
9722	CHANNEL	0.393	0	08:00	0.33	0.00	0.10
9724	CHANNEL	0.988	0	08:01	1.65	0.01	0.11
9734	CHANNEL	0.035	0	08:01	0.23	0.00	0.05
9741	CHANNEL	0.808	0	08:01	1.10	0.01	0.13
9742	CHANNEL	0.979	0	08:02	1.37	0.01	0.13
9744	CHANNEL	1.903	0	08:02	2.19	0.02	0.15
9752	CHANNEL	0.105	0	08:00	0.42	0.00	0.07
9756	CHANNEL	0.558	0	08:00	0.89	0.01	0.12

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9757	CHANNEL	0.111	0	08:00	0.30	0.00	0.09
9758	CHANNEL	0.411	0	08:00	0.73	0.01	0.11
9759	CHANNEL	0.188	0	08:00	0.46	0.00	0.09
9760	CHANNEL	0.221	0	08:00	0.55	0.00	0.09
9762	CHANNEL	0.517	0	08:02	0.78	0.01	0.12
9764	CHANNEL	0.676	0	08:02	1.37	0.01	0.10
9768	CHANNEL	1.050	0	08:02	1.60	0.01	0.12
9769	CHANNEL	0.796	0	08:02	1.49	0.01	0.11
9770	CHANNEL	0.206	0	08:00	0.62	0.00	0.08
9782	CHANNEL	0.525	0	08:01	0.78	0.00	0.14
9783	CHANNEL	2.264	0	08:02	2.00	0.02	0.17
9788	CHANNEL	5.520	0	08:05	1.25	0.18	0.39
9799	CHANNEL	0.256	0	08:00	1.04	0.00	0.11
9800	CHANNEL	0.134	0	08:00	0.35	0.00	0.09
9802	CHANNEL	0.461	0	08:01	0.69	0.01	0.12
9807	CHANNEL	0.315	0	08:01	0.72	0.00	0.09
9809	CHANNEL	0.395	0	08:01	0.66	0.01	0.11
9811	CHANNEL	0.167	0	08:01	0.40	0.01	0.09
9812	CHANNEL	0.085	0	08:00	0.28	0.00	0.08

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9821	CHANNEL	0.462	0	08:02	0.49	0.01	0.16
9822	CHANNEL	0.751	0	08:01	0.91	0.01	0.15
9825	CHANNEL	0.172	0	08:01	0.48	0.01	0.09
9835	CHANNEL	3.407	0	08:12	0.47	0.18	0.72
9843	CHANNEL	0.720	0	08:09	0.11	0.07	0.94
9844	CHANNEL	2.883	0	08:10	0.48	0.23	0.98
9858	CHANNEL	0.108	0	08:01	0.42	0.00	0.08
9859	CHANNEL	0.165	0	08:01	0.66	0.01	0.07
9860	CHANNEL	0.266	0	08:02	0.65	0.01	0.10
9864	CHANNEL	0.171	0	08:00	0.60	0.00	0.08
9866	CHANNEL	0.496	0	08:01	1.09	0.01	0.10
9870	CHANNEL	2.625	0	08:01	2.52	0.02	0.16
9871	CHANNEL	0.254	0	08:00	0.42	0.00	0.12
9874	CHANNEL	1.094	0	08:01	0.60	0.02	0.23
9878	CHANNEL	2.434	0	08:01	2.55	0.02	0.15
9879	CHANNEL	1.390	0	08:00	1.70	0.01	0.14
9884	CHANNEL	0.807	0	08:00	1.13	0.01	0.13
9888	CHANNEL	2.341	0	08:02	1.50	0.03	0.21
9893	CHANNEL	2.295	0	08:03	1.10	0.05	0.24

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9894	CHANNEL	0.122	0	08:13	0.38	0.00	0.13
9895	CHANNEL	0.087	0	08:03	0.13	0.02	0.30
9896	CHANNEL	0.110	0	08:01	0.35	0.00	0.18
9898	CHANNEL	2.250	0	08:05	1.27	0.04	0.22
9906	CHANNEL	1.002	0	08:02	0.32	0.05	0.30
9907	CHANNEL	3.456	0	08:01	1.68	0.04	0.25
9908	CHANNEL	0.629	0	08:01	0.66	0.01	0.15
9909	CHANNEL	2.829	0	08:01	2.18	0.03	0.19
9916	CHANNEL	4.545	0	08:02	0.98	0.08	0.39
9917	CHANNEL	2.666	0	08:04	0.65	0.04	0.36
9924	CHANNEL	0.146	0	08:00	0.59	0.00	0.07
9927	CHANNEL	0.284	0	08:01	0.69	0.01	0.09
9930	CHANNEL	0.471	0	08:01	1.07	0.00	0.09
9938	CHANNEL	0.607	0	08:01	0.86	0.01	0.13
9941	CHANNEL	0.136	0	08:00	0.58	0.00	0.07
9943	CHANNEL	0.614	0	08:01	0.81	0.01	0.13
9944	CHANNEL	0.456	0	08:00	0.98	0.00	0.10
9948	CHANNEL	1.731	0	08:03	0.47	0.03	0.37
9949	CHANNEL	1.334	0	08:01	0.55	0.02	0.28

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9952	CHANNEL	0.416	0	08:00	0.70	0.00	0.12
9955	CHANNEL	0.435	0	08:01	0.48	0.02	0.15
9957	CHANNEL	0.610	0	08:03	0.26	0.01	0.27
9958	CHANNEL	0.594	0	08:03	0.73	0.02	0.14
9961	CHANNEL	0.209	0	08:00	0.59	0.00	0.09
9965	CHANNEL	0.172	0	08:00	0.58	0.00	0.08
9967	CHANNEL	0.396	0	08:01	0.86	0.01	0.10
9971	CHANNEL	1.053	0	08:01	1.57	0.01	0.12
9972	CHANNEL	0.241	0	08:00	0.47	0.00	0.10
9973	CHANNEL	0.557	0	08:01	0.99	0.01	0.11
9977	CHANNEL	0.124	0	08:00	0.65	0.00	0.06
9979	CHANNEL	0.294	0	08:01	0.38	0.00	0.14
9983	CHANNEL	2.311	0	08:04	1.48	0.04	0.21
9984	CHANNEL	0.308	0	08:04	0.22	0.05	0.21
9985	CHANNEL	1.750	0	08:02	1.54	0.02	0.17
9986	CHANNEL	0.981	0	08:01	1.51	0.01	0.12
9991	CHANNEL	0.652	0	08:02	0.97	0.01	0.12
9992	CHANNEL	0.032	0	08:03	0.13	0.00	0.07
9995	CHANNEL	0.030	0	08:02	0.02	0.00	0.23

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9996	CHANNEL	7.074	0	08:04	1.44	0.21	0.39
9997	CHANNEL	6.656	0	08:04	1.10	0.29	0.46
A796-IC	DUMMY	0.421	0	08:17			
A796K617	CONDUIT	3.906	0	08:21	2.88	0.67	0.72
A796K617-S	CHANNEL	0.891	0	08:01	0.66	0.02	0.25
A797A799	CONDUIT	0.000	0	00:00	0.00	0.00	0.27
A797A799-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
A797-IC	DUMMY	0.000	0	00:00			
A799A801	CONDUIT	0.044	0	08:02	0.63	0.50	0.79
A799A801-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
A799-IC	DUMMY	0.000	0	00:00			
A800A804	CONDUIT	4.274	0	08:03	3.81	0.40	0.46
A800A804-S	CHANNEL	0.003	0	08:02	0.01	0.00	0.07
A800-IC	DUMMY	0.836	0	08:00			
A801A803	CONDUIT	0.122	0	08:00	0.94	0.21	1.00
A801A803-S	CHANNEL	0.011	0	08:00	0.06	0.00	0.06
A801-IC	DUMMY	0.001	0	08:01			
A803A805	CONDUIT	0.436	0	08:00	2.58	0.83	1.00
A803A805-S	CHANNEL	0.713	0	08:00	1.28	0.01	0.11

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
A803-IC	DUMMY	0.451	0	08:00			
A804A816	CONDUIT	7.403	0	08:41	3.75	0.49	0.56
A804A816-S	CHANNEL	0.005	0	08:03	0.58	0.00	0.01
A804-IC	DUMMY	0.011	0	08:02			
A805A806	CONDUIT	0.494	0	08:01	2.35	0.83	1.00
A805A806-S	CHANNEL	0.609	0	08:00	1.47	0.01	0.09
A805-IC	DUMMY	0.101	0	08:00			
A806A809	CONDUIT	0.577	0	08:01	2.04	1.25	1.00
A806A809-S	CHANNEL	0.524	0	08:01	0.68	0.00	0.20
A806-IC	DUMMY	0.078	0	08:01			
A807A820	CONDUIT	0.001	0	08:06	0.02	0.00	0.50
A807A820-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
A807-IC	DUMMY	0.000	0	00:00			
A809A810	CONDUIT	0.826	0	08:03	2.31	1.34	1.00
A809A810-S	CHANNEL	0.218	0	08:08	0.15	0.00	0.26
A809-IC	DUMMY	0.373	0	08:10			
A810A817	CONDUIT	0.749	0	08:06	1.99	0.98	1.00
A810A817-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.09
A810-IC	DUMMY	0.124	0	08:02			

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
A813A803	CONDUIT	0.006	0	08:01	0.16	0.05	0.51
A813A803-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.06
A813-IC	DUMMY	0.000	0	00:00			
A816A833	CONDUIT	7.403	0	08:42	3.64	0.60	0.57
A816A833-S	CHANNEL	0.000	0	08:07	0.00	0.00	0.04
A816-IC	DUMMY	0.001	0	08:07			
A817A818	CONDUIT	0.735	0	08:13	1.81	0.56	1.00
A817A818-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
A817-IC	DUMMY	0.000	0	00:00			
A818A821	CONDUIT	0.735	0	08:13	1.71	1.46	1.00
A818A821-S	CHANNEL	0.000	0	08:02	0.00	0.00	0.13
A818-IC	DUMMY	0.000	0	08:02			
A820A829	CONDUIT	0.082	0	08:01	0.85	0.32	1.00
A820A829-S	CHANNEL	0.000	0	08:07	0.00	0.00	0.17
A820-IC	DUMMY	0.153	0	08:06			
A821A824	CONDUIT	0.886	0	08:13	2.00	0.35	1.00
A821A824-S	CHANNEL	0.781	0	08:00	0.70	0.01	0.18
A821-IC	DUMMY	0.159	0	08:00			
A822A818	CONDUIT	0.127	0	08:00	1.80	0.97	1.00

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
A822A818-S	CHANNEL	0.000	0	08:00	0.30	0.00	0.00
A822-IC	DUMMY	0.091	0	08:00			
A824A829	CONDUIT	1.648	0	08:01	2.59	1.18	1.00
A824A829-S	CHANNEL	1.026	0	08:01	1.19	0.01	0.22
A824-IC	DUMMY	0.080	0	08:01			
A826A813	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
A826A813-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
A826-IC	DUMMY	0.000	0	00:00			
A827A824	CONDUIT	0.711	0	08:00	2.51	2.12	1.00
A827A824-S	CHANNEL	0.147	0	08:00	0.27	0.01	0.13
A827-IC	DUMMY	0.097	0	08:00			
A829A864	CONDUIT	1.956	0	08:02	3.07	1.45	1.00
A829A864-S	CHANNEL	0.377	0	08:00	0.55	0.01	0.21
A829-IC	DUMMY	1.145	0	08:13			
A833A837	CONDUIT	7.428	0	08:42	2.93	0.61	0.75
A833A837-S	CHANNEL	0.543	0	08:00	0.34	0.00	0.32
A833-IC	DUMMY	0.102	0	08:00			
A837-IC	DUMMY	0.245	0	08:05			
A837OS002	CONDUIT	10.545	0	08:05	5.03	1.11	0.59

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
A838A827	CONDUIT	0.618	0	08:00	2.18	3.03	1.00
A838A827-S	CHANNEL	0.122	0	08:00	0.39	0.00	0.18
A838-IC	DUMMY	0.632	0	08:00			
A851A838	CONDUIT	0.346	0	08:46	1.23	1.94	1.00
A851A838-S	CHANNEL	0.644	0	08:00	1.19	0.01	0.11
A851-IC	DUMMY	0.068	0	08:01			
A864A837	CONDUIT	2.099	0	08:02	3.30	1.83	1.00
A864A837-S	CHANNEL	0.486	0	08:00	0.24	0.00	0.33
A864-IC	DUMMY	0.165	0	08:00			
A871A851	CONDUIT	0.330	0	08:46	1.52	2.82	1.00
A871A851-S	CHANNEL	0.562	0	08:01	1.01	0.01	0.16
A871-IC	DUMMY	0.192	0	07:59			
A880A871	CONDUIT	0.249	0	08:41	1.57	0.97	1.00
A880A871-S	CHANNEL	0.706	0	08:34	0.39	0.01	0.41
A880-IC	DUMMY	0.250	0	08:24			
A887A880	CONDUIT	0.188	0	07:59	2.00	1.45	1.00
A891A887	CONDUIT	0.105	0	08:00	2.16	3.42	1.00
BrookeTrunk1	CONDUIT	20.912	0	08:11	3.52	0.90	1.00
BrookeTrunk2	CONDUIT	20.951	0	08:11	3.52	1.16	1.00

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
BrookeTrunk3	CONDUIT	21.894	0	08:10	3.68	1.18	1.00
BrookeTrunk4	CONDUIT	21.897	0	08:10	3.68	1.23	1.00
BrookeTrunk5	CONDUIT	21.901	0	08:10	3.68	1.20	1.00
BrookeTrunk6	CONDUIT	33.429	0	08:14	5.62	1.74	1.00
BrookeTrunk7	CONDUIT	33.429	0	08:14	5.71	1.74	0.96
By-pass	CONDUIT	21.109	0	08:10	6.13	1.21	0.98
C1	CHANNEL	1.857	0	08:13	0.30	0.02	0.36
C2	CONDUIT	3.084	0	08:38	2.91	0.63	0.58
C2_2	CHANNEL	0.401	0	08:00	1.52	0.02	0.33
C2_3	CHANNEL	0.405	0	08:00	1.85	0.01	0.30
C2_4	CHANNEL	0.403	0	08:00	1.72	0.01	0.31
C3	CHANNEL	10.801	0	08:05	3.22	0.06	0.55
C4	CHANNEL	0.422	0	08:05	0.14	0.00	0.36
C5	CHANNEL	0.034	0	08:33	0.03	0.00	0.31
C6	CHANNEL	10.759	0	08:05	2.45	0.00	0.18
CB600	CONDUIT	0.999	0	08:34	3.53	1.10	1.00
Culvert4	CONDUIT	0.632	0	08:00	2.68	3.07	0.73
Existing1.95	CONDUIT	14.149	0	08:10	4.74	0.91	1.00
Existing1500	CONDUIT	2.871	0	08:06	2.40	0.46	1.00

Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
Existing2.1	CONDUIT	16.300	0	08:10	4.71	2.02	1.00
Existing2.25	CONDUIT	21.485	0	08:10	9.47	0.32	1.00
Existing600	CONDUIT	0.548	0	08:02	2.31	0.94	0.78
Existing675	CONDUIT	2.808	0	08:34	2.62	2.35	0.99
ExistingMintoSewer	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
G358A838	CONDUIT	0.001	0	08:01	0.01	0.00	0.50
G358A838-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.05
G358-IC	DUMMY	0.000	0	00:00			
In1500	CONDUIT	3.233	0	08:08	1.83	0.61	1.00
In600	CONDUIT	0.549	0	08:01	2.76	0.76	0.66
K617A804	CONDUIT	4.185	0	08:20	2.93	1.95	0.75
K617A804-S	CHANNEL	0.081	0	08:01	0.20	0.00	0.09
K617-IC	DUMMY	0.655	0	08:01			
K618-IC	DUMMY	0.376	0	08:01			
K618K617	CONDUIT	0.376	0	08:01	5.32	6.05	1.00
K618K617-S	CHANNEL	0.646	0	08:00	0.33	0.01	0.25
K739-IC	DUMMY	0.000	0	00:00			
K740A800	CONDUIT	3.564	0	08:03	2.27	1.88	0.59
K740A800-S	CHANNEL	1.275	0	08:00	1.44	0.01	0.16

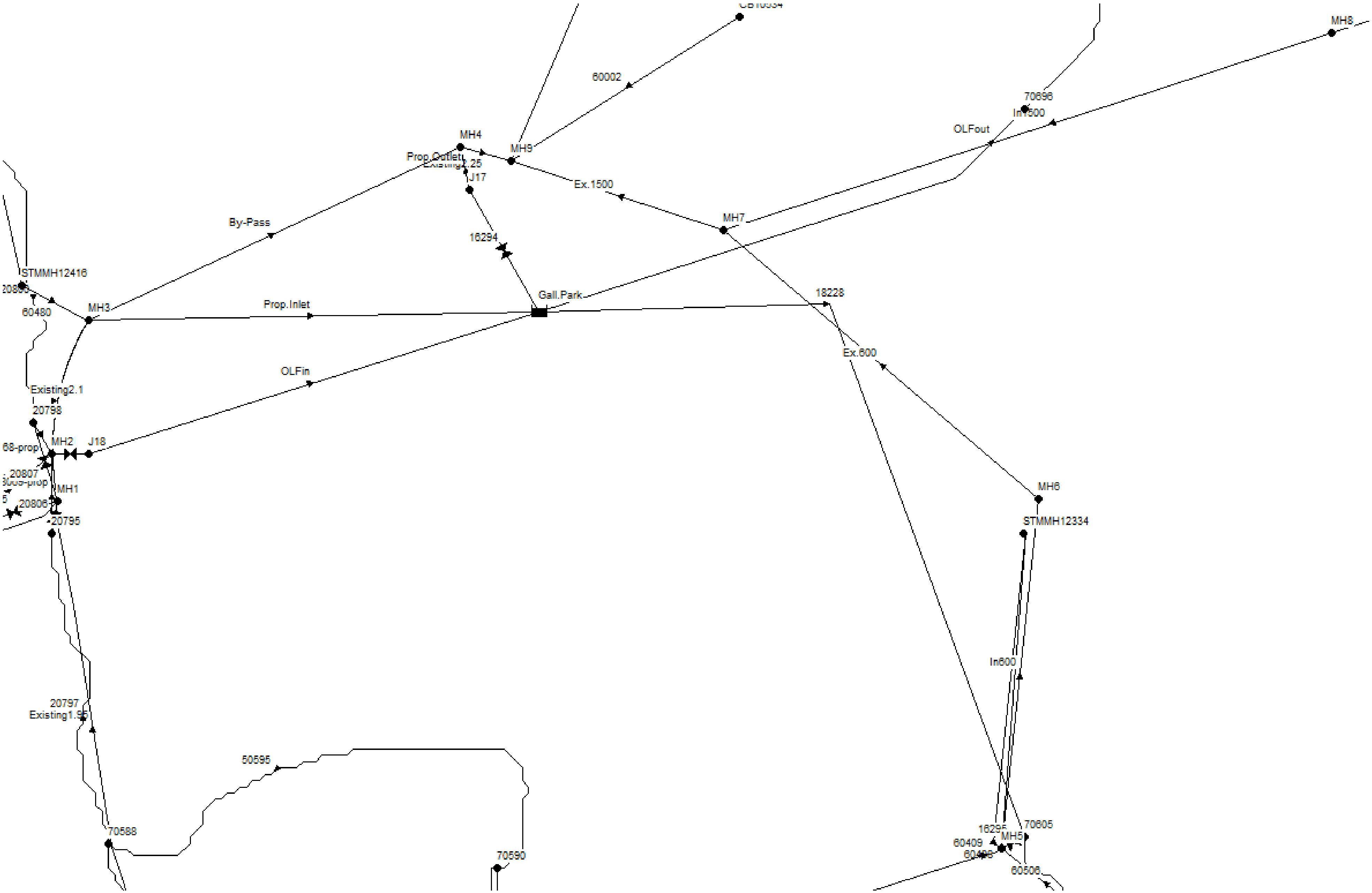
Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
K740-IC	DUMMY	0.967	0	08:03			
minorChannel-18177	CONDUIT	3.701	0	08:45	3.05	0.64	0.42
minorChannel-18179	CONDUIT	3.413	0	08:45	2.74	0.23	0.43
minorChannel-18198	CONDUIT	1.380	0	08:37	3.17	0.15	0.25
minorChannel-18215	CONDUIT	1.600	0	08:24	2.68	0.20	0.22
minorChannel-27845	CONDUIT	0.114	0	09:07	3.63	2.75	1.00
minorChannel-27848	CONDUIT	0.682	0	08:32	1.45	0.67	1.00
minorChannel-27849	CONDUIT	0.684	0	08:32	1.43	0.77	1.00
minorChannel-27854	CONDUIT	0.720	0	08:43	30.87	0.97	1.00
minorChannel-27858	CONDUIT	1.205	0	08:03	2.73	0.53	1.00
minorChannel-27859	CONDUIT	1.204	0	08:03	2.73	1.89	1.00
minorChannel-27860	CONDUIT	1.205	0	08:03	2.73	1.08	1.00
minorChannel-27867	CONDUIT	0.330	0	08:01	1.87	0.65	1.00
minorChannel-27958	CONDUIT	0.037	0	08:53	1.19	1.89	0.99
minorChannel-27960	CONDUIT	0.037	0	09:11	0.86	1.08	0.88
minorChannel-27965	CONDUIT	0.060	0	07:57	1.91	1.32	1.00
minorChannel-27966	CONDUIT	0.060	0	08:00	1.92	1.86	0.98
MintoNewSewer	CONDUIT	3.084	0	08:38	3.01	0.79	0.67
OLFin	CHANNEL	3.424	0	08:11	>50.00	0.00	0.08

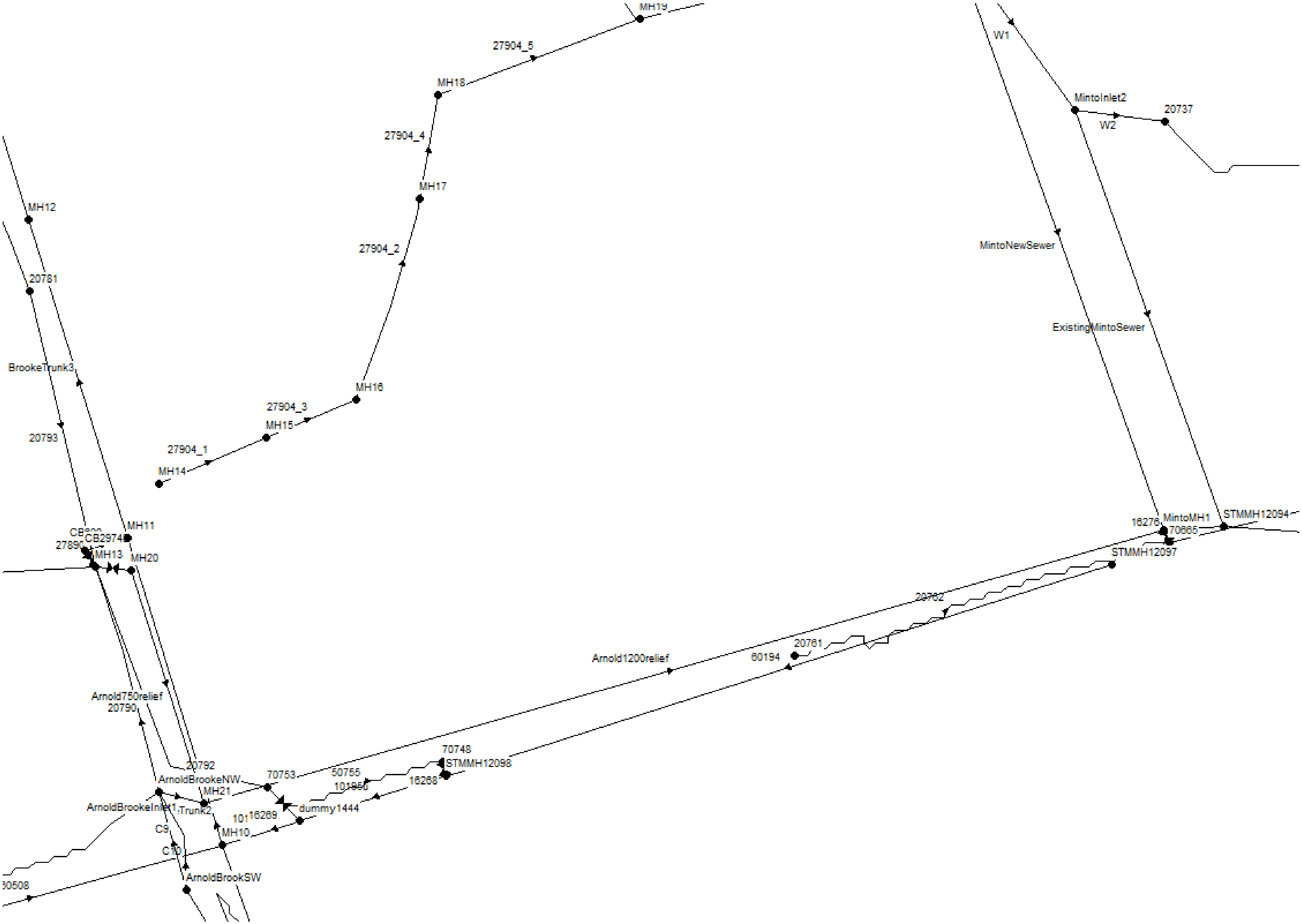
Area1-6Existing -100yr

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
OLFout	WEIR	0.000	0	00:00	0.00		
OLFyonge	CHANNEL	0.000	0	00:00	0.00	0.00	0.05
ThornridgeC4Overflow	CHANNEL	0.000	0	00:00	0.00	0.00	0.50
Trib2	CHANNEL	3.368	0	08:29	1.38	0.50	0.88
W1	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
W2	CHANNEL	0.000	0	00:00	0.00	0.00	0.00

PROPOSED CONDITIONS – GALLANOUGH PARK



PROPOSED CONDITIONS – ARNOLD AVENUE



Proposed-100YR-24HR-CHICAGO

Node Depth Summary

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
14727	OUTFALL	0.00	0.07	201.38	0	08:00	0.02
14732	STORAGE	1.83	3.56	185.56	0	08:44	1.08
14734	JUNCTION	0.12	0.27	183.17	0	08:44	0.08
14739	JUNCTION	1.19	1.62	182.53	0	08:55	0.49
14740	JUNCTION	1.01	1.44	182.53	0	08:55	0.44
14744	JUNCTION	0.20	0.51	182.48	0	08:55	0.16
14747	JUNCTION	0.22	0.59	181.14	0	08:54	0.18
14748	JUNCTION	0.02	0.10	182.20	0	08:02	0.03
14756	JUNCTION	0.05	0.11	178.14	0	08:24	0.03
14758	JUNCTION	0.01	0.05	178.42	0	08:01	0.01
14760	JUNCTION	0.50	0.74	176.39	0	08:34	0.23
14761	JUNCTION	0.16	0.34	176.34	0	08:34	0.10
14765	JUNCTION	0.13	0.24	176.27	0	08:34	0.07
14767	STORAGE	0.15	0.22	174.72	0	13:19	0.07
14769	JUNCTION	0.00	0.00	176.00	0	00:00	0.00
14771	JUNCTION	0.09	0.24	175.88	0	08:09	0.07
14772	JUNCTION	0.10	0.30	175.94	0	08:06	0.09

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
14773	JUNCTION	0.05	0.26	175.97	0	08:05	0.08
14774	JUNCTION	0.03	0.20	177.26	0	08:05	0.06
14775	JUNCTION	0.03	0.16	178.02	0	08:04	0.05
14789	JUNCTION	0.00	0.00	173.83	0	00:00	0.00
14826	OUTFALL	0.01	0.10	193.97	0	08:00	0.03
14830	OUTFALL	0.02	0.16	194.44	0	08:02	0.05
14833	OUTFALL	0.05	0.31	172.73	0	08:06	0.09
14834	JUNCTION	0.12	0.54	172.99	0	08:06	0.16
14835	JUNCTION	0.02	0.17	179.24	0	08:03	0.05
14836	JUNCTION	0.02	0.18	180.25	0	08:02	0.05
14845	JUNCTION	0.03	0.11	173.16	0	08:04	0.03
14854	JUNCTION	0.02	0.08	185.80	0	08:01	0.03
14857	JUNCTION	0.03	0.13	184.64	0	08:01	0.04
14860	JUNCTION	0.01	0.07	183.90	0	08:02	0.02
14902	STORAGE	1.14	3.02	188.02	0	08:27	0.92
14927	JUNCTION	0.06	0.16	175.18	0	08:24	0.05
14956	JUNCTION	0.04	0.11	174.31	0	08:11	0.03
14963	JUNCTION	1.57	1.66	175.15	0	08:00	0.51
14964	JUNCTION	0.51	1.19	174.40	0	08:43	0.36

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
14975	JUNCTION	0.02	0.16	187.37	0	08:28	0.05
14997	JUNCTION	0.01	0.07	194.11	0	08:01	0.02
16253	JUNCTION	0.02	0.11	205.30	0	08:01	0.03
16686	JUNCTION	1.25	1.34	206.07	0	08:00	0.41
16687	JUNCTION	0.01	0.06	205.97	0	08:00	0.02
16691	JUNCTION	1.29	1.37	206.38	0	08:00	0.42
16692	JUNCTION	0.01	0.09	205.61	0	08:00	0.03
16718	JUNCTION	1.29	1.35	202.14	0	08:00	0.41
16726	JUNCTION	1.12	1.43	200.70	0	08:23	0.44
16727	JUNCTION	0.11	0.63	200.70	0	08:24	0.19
16735	JUNCTION	1.27	1.33	201.84	0	08:00	0.41
16786	JUNCTION	1.30	1.38	201.88	0	08:00	0.42
16787	JUNCTION	0.02	0.11	201.70	0	08:01	0.03
16855	JUNCTION	1.29	1.38	200.89	0	08:00	0.42
16859	JUNCTION	1.29	1.39	200.61	0	08:00	0.42
16860	JUNCTION	0.02	0.09	200.60	0	08:00	0.03
17490	STORAGE	0.67	2.13	196.46	0	08:41	0.65
17498	STORAGE	2.17	4.37	193.49	0	08:41	1.33
17499	STORAGE	0.54	2.89	190.95	0	08:13	0.88

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
17500	STORAGE	0.24	1.89	190.97	0	08:15	0.58
17516	JUNCTION	0.04	0.18	201.57	0	08:05	0.05
17519	JUNCTION	0.01	0.05	196.49	0	08:04	0.02
17523	JUNCTION	1.47	2.13	200.68	0	08:31	0.65
17531	JUNCTION	0.09	0.58	204.79	0	08:07	0.18
17540	JUNCTION	0.04	0.24	201.06	0	08:06	0.07
17553	JUNCTION	0.05	0.23	200.81	0	08:03	0.07
18169	JUNCTION	0.02	0.12	189.26	0	08:00	0.04
18186	JUNCTION	0.68	1.25	172.41	0	08:45	0.38
18202	JUNCTION	0.59	0.90	179.88	0	08:53	0.27
18206	JUNCTION	0.14	0.31	178.64	0	08:23	0.09
18210	JUNCTION	0.08	0.20	176.98	0	08:25	0.06
18218	JUNCTION	0.01	0.07	181.46	0	08:02	0.02
18221	JUNCTION	0.05	0.11	194.38	0	08:02	0.03
18225	JUNCTION	0.03	0.36	187.54	0	08:05	0.11
18229	JUNCTION	0.01	0.14	180.77	0	08:07	0.04
18232	JUNCTION	0.02	0.21	181.33	0	08:07	0.06
18235	JUNCTION	0.05	1.45	193.61	0	08:04	0.44
18245	JUNCTION	0.01	0.08	194.58	0	08:01	0.03

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
18248	JUNCTION	1.33	1.82	192.62	0	08:09	0.55
18254	JUNCTION	0.00	0.10	194.42	0	08:24	0.03
18255	JUNCTION	1.37	2.10	194.42	0	08:23	0.64
18256	JUNCTION	1.28	1.50	194.42	0	08:23	0.46
18265	JUNCTION	0.00	0.14	194.33	0	08:27	0.04
18276	STORAGE	0.80	0.98	192.81	0	09:34	0.30
18277	STORAGE	1.03	1.23	192.13	0	09:38	0.38
18278	JUNCTION	1.08	1.30	193.23	0	08:03	0.40
18279	JUNCTION	0.00	0.00	193.22	0	00:00	0.00
18285	JUNCTION	0.01	0.18	193.62	0	08:10	0.05
18290	JUNCTION	1.29	1.38	193.97	0	08:00	0.42
18303	JUNCTION	0.02	0.09	193.70	0	08:01	0.03
18306	JUNCTION	1.36	1.88	193.08	0	08:04	0.57
18307	JUNCTION	1.43	1.60	193.10	0	08:02	0.49
18310	JUNCTION	1.30	1.64	193.08	0	08:04	0.50
18313	JUNCTION	0.03	0.11	193.22	0	08:03	0.03
18328	OUTFALL	0.02	0.12	200.74	0	08:03	0.04
20727	JUNCTION	0.00	0.00	174.57	0	00:00	0.00
20730	JUNCTION	0.48	0.52	202.54	0	08:03	0.16

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
20731	JUNCTION	0.04	0.18	200.91	0	08:02	0.05
20736	JUNCTION	0.00	0.02	175.01	0	08:00	0.01
20737	JUNCTION	0.00	0.00	173.51	0	00:00	0.00
20741	JUNCTION	0.00	0.00	175.53	0	00:00	0.00
20746	JUNCTION	0.01	0.03	173.38	0	08:05	0.01
20756	JUNCTION	0.01	0.06	173.10	0	08:00	0.02
20760	JUNCTION	1.32	1.68	173.08	0	08:05	0.51
20761	JUNCTION	0.01	0.06	174.67	0	08:01	0.02
20764	JUNCTION	0.01	0.05	173.39	0	08:00	0.01
20767	JUNCTION	0.01	0.05	173.95	0	08:00	0.01
20777	JUNCTION	0.01	0.07	180.93	0	08:04	0.02
20781	JUNCTION	0.10	0.40	174.69	0	08:00	0.12
20784	JUNCTION	0.01	0.06	176.75	0	08:01	0.02
20794	JUNCTION	1.33	1.95	178.73	0	08:08	0.59
20795	JUNCTION	1.33	1.71	178.72	0	08:08	0.52
20798	JUNCTION	1.34	1.74	178.76	0	08:08	0.53
20808	JUNCTION	0.11	0.47	183.77	0	08:09	0.14
20809	JUNCTION	0.02	0.31	183.78	0	08:08	0.09
20812	JUNCTION	0.06	0.39	183.14	0	08:10	0.12

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
20818	JUNCTION	0.02	0.08	184.70	0	08:02	0.03
20821	JUNCTION	0.05	0.31	174.94	0	08:03	0.09
20824	JUNCTION	0.05	0.32	173.40	0	08:04	0.10
27834	JUNCTION	0.20	0.53	182.54	0	08:55	0.16
27862	JUNCTION	0.00	0.00	188.40	0	00:00	0.00
27894	JUNCTION	0.22	1.64	179.85	0	08:22	0.50
27897	JUNCTION	0.10	0.28	178.33	0	08:23	0.09
27907	JUNCTION	0.60	0.94	201.27	0	08:20	0.29
27944	JUNCTION	0.20	0.53	173.71	0	08:45	0.16
27947	JUNCTION	0.19	0.45	180.63	0	08:54	0.14
27951	JUNCTION	0.01	0.22	183.27	0	08:06	0.07
27967	JUNCTION	1.32	1.44	194.97	0	08:02	0.44
27969	JUNCTION	1.34	1.50	193.78	0	08:17	0.46
3192	JUNCTION	1.25	1.34	208.84	0	08:02	0.41
3193	JUNCTION	1.30	1.38	208.31	0	08:02	0.42
3195	JUNCTION	1.29	1.38	207.92	0	08:02	0.42
3197	JUNCTION	1.14	1.33	207.02	0	08:00	0.41
3199	JUNCTION	1.29	1.36	207.88	0	08:01	0.42
3200	JUNCTION	1.29	1.37	206.42	0	08:01	0.42

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
3202	JUNCTION	1.30	1.42	206.19	0	08:03	0.43
3203	JUNCTION	0.02	0.10	206.59	0	08:02	0.03
3207	JUNCTION	1.31	1.39	207.34	0	08:00	0.42
3208	JUNCTION	1.30	1.39	206.96	0	08:01	0.42
3211	JUNCTION	1.31	1.40	206.51	0	08:00	0.43
3212	JUNCTION	1.13	1.33	206.65	0	08:01	0.40
3213	JUNCTION	1.12	1.34	206.18	0	08:04	0.41
3215	JUNCTION	1.30	1.41	205.88	0	08:01	0.43
3216	JUNCTION	0.02	0.10	206.08	0	08:01	0.03
3221	JUNCTION	1.31	1.48	205.60	0	08:03	0.45
3222	JUNCTION	1.31	1.44	205.96	0	08:03	0.44
3228	JUNCTION	1.29	1.39	206.01	0	08:00	0.42
3229	JUNCTION	1.30	1.40	205.83	0	08:00	0.43
3236	JUNCTION	1.27	1.35	206.03	0	08:00	0.41
3237	JUNCTION	0.04	0.21	205.65	0	08:03	0.06
3241	JUNCTION	1.30	1.40	206.29	0	08:02	0.43
3244	JUNCTION	0.02	0.14	205.44	0	08:01	0.04
3246	JUNCTION	1.28	1.35	207.47	0	08:01	0.41
3248	JUNCTION	1.29	1.36	207.36	0	08:00	0.41

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
3249	JUNCTION	0.03	0.14	206.40	0	08:03	0.04
3251	JUNCTION	1.35	1.45	204.11	0	08:02	0.44
3253	JUNCTION	0.08	0.29	202.45	0	08:14	0.09
3304	JUNCTION	0.04	0.21	205.35	0	08:04	0.06
3305	JUNCTION	0.03	0.20	205.50	0	08:03	0.06
70000	JUNCTION	1.07	1.31	191.13	0	08:05	0.40
70002	JUNCTION	1.29	1.36	191.80	0	08:00	0.41
70003	JUNCTION	1.30	1.38	190.74	0	08:00	0.42
70004	JUNCTION	1.30	1.39	190.25	0	08:00	0.42
70006	JUNCTION	0.01	0.09	189.49	0	08:00	0.03
70008	JUNCTION	1.28	1.36	190.26	0	08:01	0.42
70010	JUNCTION	1.30	1.40	188.40	0	08:00	0.43
70013	JUNCTION	0.02	0.14	187.62	0	08:01	0.04
70014	JUNCTION	0.64	0.77	187.37	0	08:01	0.24
70015	JUNCTION	0.01	0.22	187.86	0	08:27	0.07
70016	JUNCTION	0.01	0.36	190.96	0	08:15	0.11
70028	JUNCTION	1.30	1.48	186.34	0	08:28	0.45
70032	JUNCTION	1.28	1.34	189.75	0	08:00	0.41
70033	JUNCTION	1.29	1.38	187.51	0	08:01	0.42

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70034	JUNCTION	1.30	1.39	184.43	0	08:00	0.42
70035	JUNCTION	1.27	1.37	184.10	0	08:02	0.42
70037	JUNCTION	1.29	1.33	180.38	0	08:04	0.41
70038	JUNCTION	1.28	1.35	181.72	0	08:01	0.41
70039	JUNCTION	1.29	1.35	181.45	0	08:00	0.41
70040	JUNCTION	1.45	1.52	196.20	0	08:00	0.46
70041	JUNCTION	1.30	1.40	195.42	0	08:01	0.43
70043	JUNCTION	1.29	1.39	195.15	0	08:02	0.42
70045	JUNCTION	1.30	1.40	194.54	0	08:02	0.43
70047	JUNCTION	1.30	1.47	193.95	0	08:02	0.45
70049	JUNCTION	1.30	1.37	194.04	0	08:00	0.42
70052	JUNCTION	1.29	1.38	193.82	0	08:01	0.42
70053	JUNCTION	1.28	1.35	195.50	0	08:00	0.41
70055	JUNCTION	1.36	1.86	193.77	0	08:02	0.57
70056	JUNCTION	0.01	0.05	193.98	0	08:28	0.02
70060	JUNCTION	0.04	0.16	198.44	0	08:04	0.05
70071	JUNCTION	1.29	1.37	199.43	0	08:00	0.42
70072	JUNCTION	0.04	0.19	196.63	0	08:04	0.06
70076	JUNCTION	1.30	1.40	198.06	0	08:01	0.43

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70079	JUNCTION	1.30	1.40	197.62	0	08:02	0.43
70082	JUNCTION	1.34	1.57	195.32	0	08:10	0.48
70085	JUNCTION	1.44	2.01	195.33	0	08:11	0.61
70088	JUNCTION	1.29	1.37	196.71	0	08:00	0.42
70089	JUNCTION	0.05	0.33	195.31	0	08:15	0.10
70093	JUNCTION	1.30	1.48	196.18	0	08:01	0.45
70098	JUNCTION	1.30	1.37	199.66	0	08:01	0.42
70099	JUNCTION	0.05	0.59	195.32	0	08:11	0.18
70103	JUNCTION	1.28	1.37	198.51	0	08:02	0.42
70110	JUNCTION	1.28	1.33	196.98	0	08:02	0.41
70113	JUNCTION	1.33	1.81	195.32	0	08:13	0.55
70116	JUNCTION	1.55	1.64	197.41	0	08:00	0.50
70118	JUNCTION	1.30	1.40	196.45	0	08:00	0.43
70121	JUNCTION	1.31	1.60	195.32	0	08:13	0.49
70124	JUNCTION	1.31	1.41	197.87	0	08:00	0.43
70125	JUNCTION	1.31	1.44	195.70	0	08:02	0.44
70129	JUNCTION	1.30	1.40	197.54	0	08:02	0.43
70132	JUNCTION	1.29	1.36	200.03	0	08:00	0.42
70133	JUNCTION	1.29	1.35	199.64	0	08:01	0.41

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70134	JUNCTION	1.30	1.40	197.15	0	08:01	0.43
70137	JUNCTION	1.31	1.44	196.43	0	08:02	0.44
70143	JUNCTION	1.30	1.51	195.03	0	08:02	0.46
70147	JUNCTION	1.27	1.34	195.64	0	08:00	0.41
70149	JUNCTION	1.30	1.44	193.96	0	08:02	0.44
70153	JUNCTION	1.30	1.46	192.85	0	08:02	0.45
70155	JUNCTION	1.30	1.38	195.14	0	08:01	0.42
70156	JUNCTION	0.03	0.25	194.98	0	08:08	0.07
70160	JUNCTION	1.28	1.35	195.17	0	08:01	0.41
70161	JUNCTION	1.33	1.63	194.65	0	08:14	0.50
70165	JUNCTION	1.29	1.38	194.66	0	08:01	0.42
70171	JUNCTION	1.33	1.57	194.53	0	08:15	0.48
70175	JUNCTION	1.31	1.42	194.49	0	08:02	0.43
70180	JUNCTION	1.25	1.34	195.27	0	08:04	0.41
70182	JUNCTION	1.30	1.51	194.43	0	08:23	0.46
70188	JUNCTION	1.29	1.36	194.89	0	08:00	0.42
70190	JUNCTION	1.29	1.37	194.45	0	08:00	0.42
70192	JUNCTION	1.30	1.75	194.42	0	08:24	0.53
70195	JUNCTION	1.30	1.40	198.32	0	08:00	0.43

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70196	JUNCTION	1.30	1.39	197.05	0	08:00	0.42
70198	JUNCTION	1.29	1.36	196.55	0	08:01	0.42
70199	JUNCTION	1.31	1.46	195.25	0	08:02	0.45
70206	JUNCTION	1.30	1.41	195.74	0	08:00	0.43
70208	JUNCTION	1.31	1.43	195.36	0	08:01	0.44
70212	JUNCTION	1.29	1.37	193.27	0	08:00	0.42
70213	JUNCTION	1.29	1.35	193.24	0	08:00	0.41
70214	JUNCTION	1.29	1.38	191.04	0	08:00	0.42
70216	JUNCTION	1.33	1.56	191.80	0	08:02	0.48
70218	JUNCTION	1.28	1.35	191.02	0	08:00	0.41
70219	JUNCTION	1.30	1.41	190.03	0	08:00	0.43
70221	JUNCTION	1.31	1.46	188.91	0	08:01	0.45
70225	JUNCTION	0.04	0.29	188.80	0	08:04	0.09
70226	JUNCTION	0.03	0.21	190.88	0	08:03	0.06
70227	JUNCTION	0.02	0.19	191.75	0	08:03	0.06
70238	JUNCTION	1.31	1.51	188.56	0	08:03	0.46
70242	JUNCTION	1.30	1.38	186.84	0	08:00	0.42
70243	JUNCTION	1.32	1.52	186.24	0	08:06	0.46
70246	JUNCTION	1.32	1.59	186.23	0	08:04	0.48

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70250	JUNCTION	1.30	1.40	186.28	0	08:01	0.43
70252	JUNCTION	1.32	1.57	185.67	0	08:05	0.48
70255	JUNCTION	1.28	1.34	193.31	0	08:00	0.41
70256	JUNCTION	1.31	1.39	190.87	0	08:01	0.42
70257	JUNCTION	1.30	1.41	189.39	0	08:00	0.43
70259	JUNCTION	1.32	1.53	188.36	0	08:02	0.47
70260	JUNCTION	1.31	1.47	188.74	0	08:00	0.45
70264	JUNCTION	1.29	1.37	188.67	0	08:00	0.42
70265	JUNCTION	0.05	0.27	188.43	0	08:01	0.08
70269	JUNCTION	1.30	1.38	193.18	0	08:00	0.42
70270	JUNCTION	1.30	1.41	192.66	0	08:01	0.43
70272	JUNCTION	1.19	1.29	194.25	0	08:00	0.39
70273	JUNCTION	1.30	1.39	194.63	0	08:00	0.42
70274	JUNCTION	1.29	1.36	195.00	0	08:00	0.42
70275	JUNCTION	1.29	1.40	194.03	0	08:01	0.43
70277	JUNCTION	1.30	1.40	193.66	0	08:02	0.43
70279	JUNCTION	1.31	1.43	194.36	0	08:01	0.43
70281	JUNCTION	1.30	1.41	194.17	0	08:01	0.43
70283	JUNCTION	1.30	1.41	193.24	0	08:01	0.43

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70285	JUNCTION	1.29	1.44	192.62	0	08:09	0.44
70286	JUNCTION	0.00	0.06	192.89	0	08:03	0.02
70311	JUNCTION	1.29	1.38	194.97	0	08:00	0.42
70312	JUNCTION	1.29	1.37	194.71	0	08:02	0.42
70314	JUNCTION	1.24	1.33	194.92	0	08:01	0.40
70315	JUNCTION	1.29	1.35	194.76	0	08:00	0.41
70317	JUNCTION	1.30	1.40	194.31	0	08:01	0.43
70321	JUNCTION	1.24	1.38	193.50	0	08:02	0.42
70323	JUNCTION	1.32	1.66	192.62	0	08:08	0.51
70324	JUNCTION	0.03	0.35	192.62	0	08:08	0.11
70325	JUNCTION	0.02	0.14	193.77	0	08:03	0.04
70345	JUNCTION	1.30	1.38	194.89	0	08:00	0.42
70346	JUNCTION	1.31	1.46	192.75	0	08:03	0.45
70350	JUNCTION	1.09	1.33	194.50	0	08:05	0.41
70351	JUNCTION	0.03	0.10	193.04	0	08:06	0.03
70355	JUNCTION	1.30	1.40	194.53	0	08:01	0.43
70358	JUNCTION	1.29	1.36	194.43	0	08:00	0.42
70359	JUNCTION	1.45	1.66	193.17	0	08:02	0.51
70363	JUNCTION	1.29	1.38	193.33	0	08:05	0.42

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70366	JUNCTION	1.28	1.36	194.30	0	08:00	0.41
70367	JUNCTION	1.31	1.44	194.12	0	08:01	0.44
70375	JUNCTION	1.20	1.38	192.78	0	08:02	0.42
70378	JUNCTION	1.30	1.38	193.87	0	08:01	0.42
70381	JUNCTION	1.30	1.39	192.97	0	08:01	0.42
70384	JUNCTION	1.30	1.39	194.28	0	08:01	0.42
70387	JUNCTION	1.31	1.41	193.96	0	08:02	0.43
70390	JUNCTION	1.29	1.38	195.45	0	08:01	0.42
70392	JUNCTION	1.29	1.35	194.23	0	08:00	0.41
70393	JUNCTION	0.84	0.92	193.78	0	08:00	0.28
70397	JUNCTION	1.30	1.38	194.52	0	08:01	0.42
70398	JUNCTION	1.30	1.39	194.01	0	08:01	0.42
70400	JUNCTION	0.00	0.00	194.22	0	00:00	0.00
70407	JUNCTION	1.30	1.39	194.60	0	08:00	0.42
70408	JUNCTION	1.30	1.41	194.27	0	08:01	0.43
70410	JUNCTION	1.32	1.48	193.78	0	08:01	0.45
70421	JUNCTION	1.30	1.41	193.75	0	08:02	0.43
70425	JUNCTION	1.29	1.38	195.77	0	08:01	0.42
70426	JUNCTION	1.30	1.41	194.91	0	08:02	0.43

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70428	JUNCTION	1.32	1.47	194.50	0	08:01	0.45
70430	JUNCTION	1.29	1.39	194.59	0	08:00	0.42
70431	JUNCTION	1.30	1.41	194.10	0	08:00	0.43
70433	JUNCTION	1.29	1.38	193.53	0	08:00	0.42
70443	JUNCTION	1.30	1.42	192.42	0	08:01	0.43
70447	JUNCTION	1.29	1.36	191.96	0	08:00	0.41
70448	JUNCTION	1.28	1.36	190.09	0	08:00	0.42
70450	JUNCTION	1.30	1.39	186.99	0	08:00	0.42
70452	JUNCTION	1.27	1.39	186.13	0	08:00	0.42
70454	JUNCTION	1.29	1.36	186.56	0	08:00	0.41
70455	JUNCTION	1.30	1.41	190.77	0	08:01	0.43
70457	JUNCTION	1.29	1.39	190.59	0	08:01	0.42
70458	JUNCTION	1.28	1.34	185.10	0	08:00	0.41
70459	JUNCTION	1.31	1.48	182.31	0	08:02	0.45
70460	JUNCTION	0.02	0.18	183.19	0	08:01	0.05
70461	JUNCTION	0.02	0.16	185.00	0	08:01	0.05
70462	JUNCTION	0.01	0.12	185.85	0	08:00	0.04
70470	JUNCTION	1.26	1.34	182.37	0	08:01	0.41
70471	JUNCTION	1.29	1.36	181.05	0	08:01	0.42

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70473	JUNCTION	1.29	1.36	180.28	0	08:00	0.41
70474	JUNCTION	1.29	1.37	179.79	0	08:00	0.42
70492	JUNCTION	1.30	1.43	192.28	0	08:01	0.44
70494	JUNCTION	1.20	1.33	191.79	0	08:00	0.41
70495	JUNCTION	1.31	1.45	189.04	0	08:03	0.44
70496	JUNCTION	0.02	0.14	191.33	0	08:02	0.04
70497	JUNCTION	0.02	0.14	192.19	0	08:01	0.04
70503	JUNCTION	1.30	1.39	189.51	0	08:00	0.42
70504	JUNCTION	1.31	1.42	188.09	0	08:01	0.43
70506	JUNCTION	1.31	1.42	187.78	0	08:02	0.43
70508	JUNCTION	1.30	1.42	187.13	0	08:02	0.43
70510	JUNCTION	1.29	1.37	186.92	0	08:00	0.42
70512	JUNCTION	1.31	1.46	186.22	0	08:02	0.44
70516	JUNCTION	1.29	1.33	184.82	0	08:00	0.40
70517	JUNCTION	1.35	1.96	183.26	0	08:06	0.60
70520	JUNCTION	1.29	1.37	185.38	0	08:00	0.42
70521	JUNCTION	1.29	1.38	184.48	0	08:01	0.42
70524	JUNCTION	1.32	1.49	183.71	0	08:03	0.46
70531	JUNCTION	1.32	1.50	186.79	0	08:05	0.46

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70533	JUNCTION	1.29	1.38	186.47	0	08:00	0.42
70534	JUNCTION	1.32	1.50	186.15	0	08:06	0.46
70535	JUNCTION	0.04	0.21	186.47	0	08:05	0.06
70539	JUNCTION	1.31	1.50	185.97	0	08:04	0.46
70541	JUNCTION	1.32	1.54	185.09	0	08:05	0.47
70543	JUNCTION	1.32	1.53	184.57	0	08:05	0.47
70545	JUNCTION	1.24	1.34	184.20	0	08:01	0.41
70546	JUNCTION	1.31	1.51	184.13	0	08:06	0.46
70548	JUNCTION	1.31	1.52	183.27	0	08:07	0.46
70550	JUNCTION	1.30	1.40	184.55	0	08:00	0.43
70551	JUNCTION	1.30	1.42	183.49	0	08:01	0.43
70553	JUNCTION	1.30	1.43	182.92	0	08:02	0.44
70556	JUNCTION	1.31	1.50	182.56	0	08:06	0.46
70560	JUNCTION	1.29	1.37	184.47	0	08:00	0.42
70561	JUNCTION	1.30	1.40	182.57	0	08:01	0.43
70563	JUNCTION	1.30	1.43	181.72	0	08:01	0.44
70565	JUNCTION	1.30	1.39	181.43	0	08:00	0.43
70566	JUNCTION	1.31	1.49	180.24	0	08:07	0.46
70567	JUNCTION	0.03	0.21	181.39	0	08:07	0.07

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70571	JUNCTION	1.29	1.36	181.40	0	08:00	0.42
70574	JUNCTION	0.00	0.18	183.24	0	08:07	0.05
70581	JUNCTION	1.30	1.45	178.92	0	08:08	0.44
70585	JUNCTION	1.29	1.49	179.40	0	08:07	0.45
70588	JUNCTION	0.02	0.10	179.30	0	08:02	0.03
70590	JUNCTION	0.06	0.23	179.95	0	08:03	0.07
70591	JUNCTION	0.03	0.34	178.72	0	08:08	0.11
70602	JUNCTION	1.30	1.38	179.14	0	08:01	0.42
70605	JUNCTION	1.30	1.41	178.20	0	08:02	0.43
70609	JUNCTION	1.29	1.35	178.79	0	08:00	0.41
70610	JUNCTION	1.29	1.35	193.22	0	08:00	0.41
70612	JUNCTION	1.25	1.33	189.93	0	08:00	0.41
70631	JUNCTION	1.29	1.38	186.52	0	08:01	0.42
70632	JUNCTION	0.01	0.07	188.56	0	08:00	0.02
70640	JUNCTION	1.29	1.37	189.46	0	08:00	0.42
70643	JUNCTION	1.30	1.40	181.49	0	08:00	0.43
70645	JUNCTION	1.30	1.41	184.95	0	08:00	0.43
70646	JUNCTION	1.29	1.36	184.63	0	08:00	0.41
70648	JUNCTION	1.31	1.48	180.92	0	08:02	0.45

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70650	JUNCTION	1.29	1.36	180.42	0	08:00	0.41
70656	JUNCTION	1.30	1.43	177.95	0	08:01	0.43
70657	JUNCTION	0.02	0.14	179.74	0	08:01	0.04
70661	JUNCTION	1.31	1.47	175.69	0	08:01	0.45
70663	JUNCTION	1.32	1.56	173.93	0	08:03	0.48
70665	JUNCTION	1.29	1.36	173.94	0	08:01	0.41
70695	JUNCTION	1.33	1.48	173.36	0	08:02	0.45
70696	JUNCTION	0.00	0.00	176.49	0	00:00	0.00
70724	JUNCTION	0.00	0.01	173.13	0	08:07	0.00
70726	JUNCTION	0.05	0.30	183.60	0	08:09	0.09
70727	JUNCTION	0.10	0.55	183.86	0	08:07	0.17
70728	JUNCTION	1.31	1.66	185.13	0	08:05	0.51
70729	JUNCTION	0.04	0.28	183.83	0	08:05	0.09
70743	JUNCTION	1.59	1.77	181.52	0	08:01	0.54
70748	JUNCTION	1.28	1.36	174.44	0	08:00	0.41
70753	JUNCTION	1.28	1.37	174.27	0	08:01	0.42
70756	JUNCTION	1.29	1.36	190.29	0	08:01	0.41
70758	JUNCTION	1.30	1.41	187.26	0	08:01	0.43
70761	JUNCTION	1.30	1.37	187.20	0	08:00	0.42

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
70762	JUNCTION	0.02	0.15	186.06	0	08:02	0.04
70766	JUNCTION	1.27	1.35	199.76	0	08:00	0.41
74717	JUNCTION	0.03	0.14	200.84	0	08:03	0.04
74718	JUNCTION	0.02	0.13	200.90	0	08:02	0.04
74719	JUNCTION	0.01	0.08	202.67	0	08:01	0.02
9336	JUNCTION	1.28	1.35	206.31	0	08:03	0.41
9350	JUNCTION	1.32	1.70	205.05	0	08:07	0.52
9351	JUNCTION	1.29	1.39	205.30	0	08:00	0.42
9356	JUNCTION	1.30	1.41	206.05	0	08:00	0.43
9357	JUNCTION	1.26	1.33	205.93	0	08:00	0.41
9359	JUNCTION	1.29	1.38	205.40	0	08:01	0.42
9375	JUNCTION	1.31	1.51	205.37	0	08:04	0.46
9379	JUNCTION	1.35	1.84	205.39	0	08:05	0.56
9381	JUNCTION	1.30	1.68	205.20	0	08:06	0.51
9385	JUNCTION	1.32	1.51	205.06	0	08:04	0.46
9389	JUNCTION	1.33	1.80	204.82	0	08:06	0.55
9391	JUNCTION	1.14	1.32	205.22	0	08:02	0.40
9392	JUNCTION	1.32	1.65	203.79	0	08:03	0.50
9410	JUNCTION	0.02	0.21	203.94	0	08:10	0.07

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9411	JUNCTION	0.03	0.30	205.05	0	08:07	0.09
9420	JUNCTION	0.01	0.01	202.92	0	08:04	0.00
9421	JUNCTION	0.00	0.00	204.11	0	00:00	0.00
9425	JUNCTION	1.32	1.47	202.09	0	08:12	0.45
9428	JUNCTION	1.28	1.35	202.31	0	08:00	0.41
9429	JUNCTION	1.31	1.43	202.25	0	08:00	0.44
9431	JUNCTION	1.30	1.38	201.31	0	08:00	0.42
9433	JUNCTION	1.30	1.51	201.12	0	08:05	0.46
9437	JUNCTION	1.28	1.34	204.17	0	08:00	0.41
9442	JUNCTION	1.26	1.35	203.11	0	08:01	0.41
9448	JUNCTION	1.29	1.37	204.14	0	08:00	0.42
9453	JUNCTION	1.30	1.38	203.07	0	08:02	0.42
9456	JUNCTION	1.25	1.33	207.35	0	08:00	0.41
9459	JUNCTION	1.29	1.39	204.55	0	08:01	0.42
9461	JUNCTION	1.29	1.39	203.68	0	08:01	0.42
9470	JUNCTION	1.30	1.42	202.16	0	08:02	0.43
9479	JUNCTION	1.30	1.42	201.32	0	08:02	0.43
9481	JUNCTION	1.30	1.45	201.16	0	08:03	0.44
9485	JUNCTION	1.24	1.33	201.56	0	08:01	0.40

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9486	JUNCTION	1.30	1.46	201.12	0	08:04	0.45
9490	JUNCTION	1.30	1.42	201.51	0	08:02	0.43
9503	JUNCTION	1.29	1.50	200.95	0	08:09	0.46
9505	JUNCTION	1.28	1.34	201.36	0	08:00	0.41
9506	JUNCTION	0.01	0.12	201.12	0	08:05	0.04
9510	JUNCTION	1.30	1.44	201.15	0	08:01	0.44
9512	JUNCTION	1.31	1.53	200.80	0	08:12	0.47
9513	JUNCTION	0.08	0.33	200.93	0	08:11	0.10
9514	JUNCTION	0.10	0.35	200.94	0	08:10	0.11
9520	JUNCTION	1.42	1.52	200.84	0	08:01	0.46
9521	JUNCTION	1.28	1.37	201.63	0	08:02	0.42
9525	JUNCTION	1.27	1.35	202.34	0	08:00	0.41
9527	JUNCTION	1.28	1.37	201.95	0	08:01	0.42
9528	JUNCTION	1.32	1.59	201.11	0	08:05	0.48
9532	JUNCTION	1.13	1.32	202.14	0	08:10	0.40
9533	JUNCTION	1.30	1.39	201.44	0	08:01	0.42
9537	JUNCTION	0.11	0.37	201.11	0	08:06	0.11
9541	JUNCTION	1.29	1.36	203.19	0	08:00	0.41
9542	JUNCTION	1.30	1.39	203.20	0	08:00	0.42

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9543	JUNCTION	1.30	1.38	202.87	0	08:00	0.42
9545	JUNCTION	1.24	1.33	201.43	0	08:01	0.41
9547	JUNCTION	1.29	1.37	206.62	0	08:00	0.42
9550	JUNCTION	1.30	1.38	204.18	0	08:00	0.42
9556	JUNCTION	1.29	1.37	205.74	0	08:01	0.42
9559	JUNCTION	1.29	1.35	204.62	0	08:01	0.41
9560	JUNCTION	1.29	1.35	203.24	0	08:00	0.41
9562	JUNCTION	1.29	1.37	203.83	0	08:00	0.42
9565	JUNCTION	1.30	1.43	201.31	0	08:01	0.43
9571	JUNCTION	1.30	1.43	200.69	0	08:00	0.43
9572	JUNCTION	1.27	1.39	206.59	0	08:00	0.42
9573	JUNCTION	1.24	1.36	206.59	0	08:00	0.41
9575	JUNCTION	1.28	1.38	206.14	0	08:01	0.42
9577	JUNCTION	1.30	1.43	204.45	0	08:02	0.44
9579	JUNCTION	1.23	1.37	203.43	0	08:02	0.42
9581	JUNCTION	1.29	1.37	205.32	0	08:00	0.42
9582	JUNCTION	1.30	1.45	202.31	0	08:02	0.44
9583	JUNCTION	1.30	1.44	202.51	0	08:02	0.44
9587	JUNCTION	1.30	1.42	202.23	0	08:03	0.43

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9589	JUNCTION	1.29	1.37	201.85	0	08:00	0.42
9590	JUNCTION	1.30	1.40	201.32	0	08:02	0.43
9591	JUNCTION	0.02	0.12	201.85	0	08:02	0.04
9595	JUNCTION	1.30	1.38	202.52	0	08:00	0.42
9596	JUNCTION	1.30	1.39	203.03	0	08:00	0.42
9597	JUNCTION	1.30	1.39	201.95	0	08:01	0.42
9598	JUNCTION	0.02	0.11	202.43	0	08:01	0.03
9602	JUNCTION	1.30	1.38	201.48	0	08:00	0.42
9603	JUNCTION	1.29	1.36	202.08	0	08:00	0.41
9604	JUNCTION	1.30	1.39	200.97	0	08:01	0.42
9607	JUNCTION	1.30	1.40	200.00	0	08:01	0.43
9608	JUNCTION	0.01	0.07	200.53	0	08:01	0.02
9609	JUNCTION	1.35	2.00	200.56	0	08:38	0.61
9610	JUNCTION	0.02	0.13	200.65	0	08:17	0.04
9611	JUNCTION	0.27	0.97	200.67	0	08:14	0.30
9612	JUNCTION	1.40	2.22	200.56	0	08:37	0.67
9614	JUNCTION	1.33	1.57	200.56	0	08:39	0.48
9615	JUNCTION	0.02	0.14	201.35	0	08:02	0.04
9635	JUNCTION	1.27	1.35	201.10	0	08:00	0.41

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9636	JUNCTION	0.95	1.01	204.11	0	08:00	0.31
9637	JUNCTION	1.26	1.36	205.51	0	08:00	0.41
9638	JUNCTION	1.26	1.33	203.96	0	08:00	0.41
9639	JUNCTION	1.28	1.37	202.32	0	08:00	0.42
9640	JUNCTION	1.29	1.37	202.14	0	08:00	0.42
9642	JUNCTION	1.30	1.40	198.61	0	08:01	0.43
9645	JUNCTION	1.31	1.48	197.06	0	08:02	0.45
9646	JUNCTION	0.02	0.12	199.73	0	08:02	0.04
9652	JUNCTION	0.68	0.75	205.44	0	08:03	0.23
9657	JUNCTION	1.29	1.39	204.30	0	08:00	0.42
9659	JUNCTION	1.31	1.37	202.01	0	08:00	0.42
9660	JUNCTION	1.36	1.43	199.85	0	08:00	0.44
9662	JUNCTION	0.94	1.02	197.85	0	08:02	0.31
9663	JUNCTION	0.02	0.11	198.11	0	08:01	0.03
9667	JUNCTION	1.29	1.35	195.67	0	08:00	0.41
9669	JUNCTION	1.30	1.42	194.35	0	08:02	0.43
9673	JUNCTION	1.30	1.42	193.79	0	08:03	0.43
9675	JUNCTION	0.41	0.48	193.96	0	08:00	0.15
9676	JUNCTION	1.30	1.39	203.38	0	08:00	0.42

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9677	JUNCTION	1.30	1.39	200.82	0	08:00	0.42
9679	JUNCTION	1.29	1.39	203.03	0	08:00	0.42
9682	JUNCTION	1.27	1.32	201.78	0	08:00	0.40
9683	JUNCTION	1.66	1.77	198.42	0	08:01	0.54
9684	JUNCTION	0.01	0.10	200.40	0	08:01	0.03
9688	JUNCTION	1.30	1.42	195.10	0	08:01	0.43
9690	JUNCTION	1.30	1.46	194.03	0	08:01	0.45
9692	JUNCTION	1.30	1.41	202.36	0	08:00	0.43
9693	JUNCTION	1.31	1.42	199.02	0	08:00	0.43
9695	JUNCTION	1.30	1.39	202.46	0	08:00	0.42
9696	JUNCTION	0.01	0.13	200.35	0	08:02	0.04
9700	JUNCTION	1.31	1.45	202.00	0	08:01	0.44
9703	JUNCTION	1.30	1.40	201.86	0	08:01	0.43
9706	JUNCTION	0.02	0.14	201.10	0	08:02	0.04
9709	JUNCTION	1.30	1.38	199.61	0	08:00	0.42
9710	JUNCTION	1.64	1.75	198.13	0	08:00	0.53
9712	JUNCTION	1.30	1.42	197.12	0	08:01	0.43
9714	JUNCTION	1.29	1.33	202.68	0	08:00	0.41
9715	JUNCTION	1.30	1.37	202.30	0	08:00	0.42

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9716	JUNCTION	1.30	1.40	201.50	0	08:00	0.43
9718	JUNCTION	1.30	1.41	200.91	0	08:01	0.43
9719	JUNCTION	0.03	0.16	201.08	0	08:01	0.05
9723	JUNCTION	1.33	1.44	198.86	0	08:02	0.44
9732	JUNCTION	0.71	0.76	203.19	0	08:01	0.23
9733	JUNCTION	1.64	1.72	202.44	0	08:01	0.52
9735	JUNCTION	1.30	1.37	201.80	0	08:00	0.42
9738	JUNCTION	1.08	1.22	195.69	0	08:03	0.37
9743	JUNCTION	1.55	1.70	194.12	0	08:02	0.52
9745	JUNCTION	1.26	1.37	200.84	0	08:03	0.42
9746	JUNCTION	1.27	1.34	202.00	0	08:01	0.41
9748	JUNCTION	1.30	1.38	201.56	0	08:00	0.42
9749	JUNCTION	1.29	1.36	201.56	0	08:00	0.41
9750	JUNCTION	1.29	1.38	201.60	0	08:00	0.42
9751	JUNCTION	1.29	1.37	201.87	0	08:00	0.42
9753	JUNCTION	1.30	1.43	201.24	0	08:02	0.43
9754	JUNCTION	0.02	0.11	201.38	0	08:00	0.03
9755	JUNCTION	0.01	0.10	201.51	0	08:00	0.03
9761	JUNCTION	1.30	1.40	200.80	0	08:02	0.43

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9763	JUNCTION	1.30	1.40	198.42	0	08:02	0.43
9765	JUNCTION	1.36	1.43	198.59	0	08:00	0.43
9766	JUNCTION	1.30	1.43	195.10	0	08:01	0.44
9767	JUNCTION	0.01	0.11	197.05	0	08:02	0.03
9772	JUNCTION	0.01	0.22	192.95	0	08:04	0.07
9774	JUNCTION	0.02	0.19	193.38	0	08:02	0.06
9785	JUNCTION	1.29	1.71	191.04	0	08:05	0.52
9787	JUNCTION	1.30	1.77	190.99	0	08:15	0.54
9789	JUNCTION	1.54	1.65	193.15	0	08:00	0.50
9794	JUNCTION	1.31	1.43	192.02	0	08:00	0.44
9795	JUNCTION	1.29	1.35	193.01	0	08:00	0.41
9797	JUNCTION	1.30	1.43	191.13	0	08:01	0.44
9801	JUNCTION	1.30	1.41	190.91	0	08:01	0.43
9803	JUNCTION	1.28	1.36	190.84	0	08:00	0.41
9804	JUNCTION	1.30	1.38	190.50	0	08:01	0.42
9806	JUNCTION	1.30	1.41	189.27	0	08:01	0.43
9808	JUNCTION	1.30	1.42	189.08	0	08:02	0.43
9810	JUNCTION	1.29	1.40	190.57	0	08:00	0.43
9819	JUNCTION	1.29	1.49	188.99	0	08:02	0.46

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9823	JUNCTION	1.33	1.42	186.07	0	08:00	0.43
9824	JUNCTION	1.29	1.37	185.92	0	08:01	0.42
9826	JUNCTION	1.48	1.61	185.55	0	08:04	0.49
9827	JUNCTION	1.27	1.36	185.68	0	08:01	0.42
9828	JUNCTION	1.36	1.72	200.71	0	08:30	0.52
9833	JUNCTION	1.39	1.87	200.70	0	08:30	0.57
9836	JUNCTION	1.29	1.51	199.37	0	08:15	0.46
9841	JUNCTION	1.48	2.21	200.68	0	08:28	0.67
9842	JUNCTION	1.50	2.24	200.68	0	08:28	0.68
9846	JUNCTION	1.29	1.53	200.70	0	08:09	0.46
9851	JUNCTION	1.29	1.36	201.67	0	08:00	0.41
9852	JUNCTION	1.33	1.59	200.70	0	08:07	0.48
9856	JUNCTION	1.29	1.38	201.57	0	08:00	0.42
9857	JUNCTION	0.02	0.07	200.42	0	08:02	0.02
9861	JUNCTION	1.29	1.37	201.56	0	08:01	0.42
9862	JUNCTION	1.29	1.36	201.34	0	08:00	0.41
9863	JUNCTION	1.30	1.39	198.17	0	08:01	0.42
9865	JUNCTION	1.30	1.40	196.70	0	08:01	0.43
9867	JUNCTION	1.30	1.38	196.60	0	08:00	0.42

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9868	JUNCTION	0.02	0.17	195.01	0	08:01	0.05
9869	JUNCTION	1.30	1.46	196.39	0	08:01	0.44
9873	JUNCTION	1.33	1.61	194.01	0	08:02	0.49
9875	JUNCTION	1.29	1.35	202.32	0	08:00	0.41
9876	JUNCTION	0.02	0.15	196.92	0	08:01	0.05
9883	JUNCTION	1.30	1.40	199.06	0	08:00	0.43
9886	JUNCTION	1.32	1.55	196.21	0	08:12	0.47
9887	JUNCTION	1.32	1.54	194.95	0	08:03	0.47
9890	JUNCTION	1.31	1.52	194.71	0	08:04	0.46
9891	JUNCTION	0.03	0.18	196.21	0	08:13	0.06
9897	JUNCTION	1.32	1.51	194.16	0	08:04	0.46
9901	JUNCTION	0.03	0.29	194.00	0	08:02	0.09
9902	JUNCTION	0.03	0.21	194.76	0	08:01	0.06
9914	JUNCTION	1.36	1.80	193.75	0	08:04	0.55
9918	JUNCTION	1.32	1.64	193.54	0	08:41	0.50
9920	JUNCTION	1.29	1.35	198.97	0	08:00	0.41
9922	JUNCTION	1.30	1.39	197.07	0	08:01	0.42
9925	JUNCTION	1.30	1.39	196.50	0	08:01	0.42
9928	JUNCTION	1.30	1.40	194.54	0	08:01	0.43

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9934	JUNCTION	1.29	1.35	198.60	0	08:00	0.41
9935	JUNCTION	1.30	1.45	193.77	0	08:01	0.44
9939	JUNCTION	1.30	1.38	195.68	0	08:00	0.42
9942	JUNCTION	1.30	1.41	193.98	0	08:01	0.43
9945	JUNCTION	1.30	1.39	195.36	0	08:00	0.42
9946	JUNCTION	0.14	0.43	193.52	0	08:05	0.13
9950	JUNCTION	1.30	1.45	193.98	0	08:01	0.44
9953	JUNCTION	1.31	1.45	193.88	0	08:03	0.44
9956	JUNCTION	1.30	1.41	193.69	0	08:03	0.43
9959	JUNCTION	1.29	1.37	196.67	0	08:00	0.42
9960	JUNCTION	0.03	0.13	196.18	0	08:07	0.04
9963	JUNCTION	1.29	1.36	197.44	0	08:00	0.41
9964	JUNCTION	1.29	1.40	195.21	0	08:01	0.43
9966	JUNCTION	1.30	1.40	194.37	0	08:01	0.43
9968	JUNCTION	1.30	1.39	192.24	0	08:00	0.42
9969	JUNCTION	1.29	1.40	191.70	0	08:01	0.43
9970	JUNCTION	0.02	0.12	192.16	0	08:01	0.04
9974	JUNCTION	1.28	1.34	193.47	0	08:03	0.41
9975	JUNCTION	1.29	1.35	190.77	0	08:00	0.41

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
9976	JUNCTION	1.29	1.37	187.80	0	08:01	0.42
9978	JUNCTION	1.31	1.51	185.78	0	08:03	0.46
9980	JUNCTION	1.30	1.44	185.57	0	08:04	0.44
9981	JUNCTION	0.03	0.21	185.77	0	08:03	0.06
9982	JUNCTION	0.02	0.14	190.14	0	08:02	0.04
9988	JUNCTION	1.29	1.36	197.37	0	08:00	0.41
9989	JUNCTION	0.02	0.10	192.17	0	08:02	0.03
9993	JUNCTION	1.26	1.34	194.19	0	08:02	0.41
9994	JUNCTION	0.05	0.41	193.69	0	08:04	0.13
9998	JUNCTION	0.00	0.00	194.09	0	00:00	0.00
A796	JUNCTION	0.20	1.29	168.65	0	08:05	0.39
A796-S	JUNCTION	0.05	0.42	173.02	0	08:17	0.13
A797	JUNCTION	0.00	0.00	169.89	0	00:00	0.00
A797-S	JUNCTION	0.00	0.00	172.73	0	00:00	0.00
A799	JUNCTION	0.00	0.29	169.64	0	08:04	0.09
A799-S	JUNCTION	0.00	0.00	172.44	0	00:00	0.00
A800	JUNCTION	0.27	0.83	168.83	0	08:03	0.25
A800-S	JUNCTION	0.02	0.13	173.05	0	08:00	0.04
A801	JUNCTION	0.00	2.53	171.55	0	08:01	0.19

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
A801-S	JUNCTION	0.00	0.01	171.68	0	08:01	0.00
A803	JUNCTION	0.07	3.01	171.52	0	08:01	0.34
A803-S	JUNCTION	0.02	0.12	171.68	0	08:00	0.04
A804	JUNCTION	0.33	1.43	167.78	0	08:04	0.43
A804-S	JUNCTION	0.00	0.02	173.13	0	08:02	0.01
A805	JUNCTION	0.07	4.35	172.14	0	08:00	0.48
A805-S	JUNCTION	0.01	0.10	171.24	0	08:00	0.03
A806	JUNCTION	0.09	3.43	170.58	0	08:05	0.53
A806-S	JUNCTION	0.01	0.09	170.48	0	08:01	0.03
A807	JUNCTION	0.00	0.00	169.76	0	08:04	0.00
A807-S	JUNCTION	0.00	0.00	172.20	0	00:00	0.00
A809	JUNCTION	0.10	3.03	169.79	0	08:01	0.82
A809-S	JUNCTION	0.01	0.32	169.11	0	08:09	0.10
A810	JUNCTION	0.10	3.15	169.75	0	08:03	0.66
A810-S	JUNCTION	0.00	0.16	169.11	0	08:09	0.05
A813	JUNCTION	0.00	0.02	169.66	0	08:02	0.00
A813-S	JUNCTION	0.00	0.00	172.46	0	00:00	0.00
A816	JUNCTION	0.36	1.53	167.14	0	08:04	0.47
A816-S	JUNCTION	0.00	0.00	172.37	0	08:07	0.00

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
A817	JUNCTION	0.10	2.99	169.23	0	07:59	0.61
A817-S	JUNCTION	0.00	0.00	169.78	0	00:00	0.00
A818	JUNCTION	0.13	3.11	169.23	0	07:59	0.61
A818-S	JUNCTION	0.00	0.00	169.72	0	08:02	0.00
A820	JUNCTION	0.01	3.60	170.35	0	08:01	0.21
A820-S	JUNCTION	0.00	0.00	169.35	0	08:10	0.00
A821	JUNCTION	0.11	2.72	168.76	0	07:59	0.61
A821-S	JUNCTION	0.05	0.26	169.10	0	08:00	0.07
A822	JUNCTION	0.02	4.65	171.24	0	08:00	0.48
A822-S	JUNCTION	0.00	0.01	170.26	0	08:00	0.00
A824	JUNCTION	0.16	2.91	168.68	0	07:59	0.66
A824-S	JUNCTION	0.02	0.13	169.07	0	08:01	0.04
A826	JUNCTION	0.00	0.00	171.01	0	00:00	0.00
A826-S	JUNCTION	0.00	0.00	173.16	0	00:00	0.00
A827	JUNCTION	0.15	2.63	168.78	0	08:00	0.68
A827-S	JUNCTION	0.02	0.15	169.06	0	08:00	0.04
A829	JUNCTION	0.19	3.79	169.16	0	07:59	1.16
A829-S	JUNCTION	0.02	0.35	168.51	0	08:11	0.11
A833	JUNCTION	0.60	1.93	166.45	0	08:05	0.59

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
A833-S	JUNCTION	0.01	0.07	168.66	0	08:00	0.02
A837	JUNCTION	0.71	1.90	166.29	0	08:05	0.57
A837-S	JUNCTION	0.05	0.57	167.37	0	08:05	0.17
A838	JUNCTION	0.20	3.82	170.08	0	08:01	0.94
A838-S	JUNCTION	0.02	0.10	170.88	0	08:00	0.03
A851	JUNCTION	0.20	4.94	171.23	0	07:59	0.99
A851-S	JUNCTION	0.01	0.11	170.35	0	08:01	0.03
A864	JUNCTION	0.23	3.23	168.13	0	07:59	0.53
A864-S	JUNCTION	0.02	0.10	168.80	0	08:00	0.03
A871	JUNCTION	0.20	3.94	170.40	0	07:59	1.20
A871-S	JUNCTION	0.02	0.24	169.64	0	08:25	0.07
A880	JUNCTION	0.08	3.10	170.05	0	07:59	0.94
A880-S	JUNCTION	0.04	0.60	169.65	0	08:24	0.18
A887	JUNCTION	0.04	1.58	168.83	0	08:00	0.48
A891	JUNCTION	0.03	1.48	168.86	0	08:00	0.45
ArnoldBrookeNW	JUNCTION	0.07	0.48	172.13	0	08:02	0.15
ArnoldBrookSW	JUNCTION	0.05	0.31	172.98	0	08:02	0.09
ByPassNode1	JUNCTION	0.10	1.48	179.79	0	08:22	0.45
ByPassNode2	JUNCTION	0.08	1.15	179.36	0	08:24	0.35

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
ByPassNode3	JUNCTION	0.07	0.98	179.09	0	08:24	0.30
BypassNode4	JUNCTION	0.07	0.55	175.05	0	08:20	0.17
CB10534	JUNCTION	0.00	0.10	173.19	0	08:21	0.02
CB10549	JUNCTION	0.00	0.00	185.48	0	00:00	0.00
CB14112	JUNCTION	0.09	3.15	200.28	0	08:13	0.96
CB14413	JUNCTION	0.04	0.16	203.86	0	08:01	0.05
CB14415	JUNCTION	0.02	0.24	202.94	0	08:15	0.07
CB14417	JUNCTION	0.04	1.32	205.32	0	08:13	0.40
CB14450	JUNCTION	0.13	3.36	200.36	0	08:28	1.02
CB14453	JUNCTION	0.07	2.72	199.98	0	08:20	0.83
CB16317	JUNCTION	0.09	0.97	196.47	0	08:39	0.29
CB16491	JUNCTION	0.04	0.24	200.24	0	08:01	0.07
CB17031	JUNCTION	0.65	2.84	193.49	0	08:42	0.87
CB17033	JUNCTION	0.00	0.00	193.11	0	00:00	0.00
CB17034	JUNCTION	0.09	1.67	193.49	0	08:42	0.51
CB17110	JUNCTION	0.04	1.75	199.77	0	08:22	0.53
CB17111	JUNCTION	0.07	2.39	199.48	0	08:28	0.73
CB17197	JUNCTION	0.04	0.93	204.59	0	07:59	0.17
CB17198	JUNCTION	0.03	0.22	204.81	0	08:00	0.06

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
CB29748	JUNCTION	0.81	2.32	173.22	0	08:17	0.54
CB38100	JUNCTION	0.42	0.50	176.50	0	09:43	0.15
CB38101	JUNCTION	0.00	0.00	176.00	0	00:00	0.00
CB9040	JUNCTION	0.01	0.07	198.32	0	08:00	0.02
CB9044	JUNCTION	0.00	0.00	194.10	0	00:00	0.00
Dummy_MH1000	JUNCTION	0.21	4.19	203.04	0	08:03	1.01
Dummy_MH1002	JUNCTION	0.12	0.32	190.54	0	08:02	0.10
Dummy_MH1004	JUNCTION	0.47	4.27	188.71	0	08:02	0.61
Dummy_MH1009	JUNCTION	0.08	0.93	203.07	0	08:14	0.28
Dummy_MH1010	JUNCTION	0.12	4.14	205.43	0	08:04	1.22
Dummy_MH1011	JUNCTION	0.20	3.31	202.98	0	08:09	0.99
Dummy_MH1012	JUNCTION	0.48	3.40	191.66	0	08:08	1.01
Dummy_MH1014	JUNCTION	0.36	2.34	185.28	0	08:43	0.71
Dummy_MH1020	JUNCTION	0.02	0.08	186.36	0	08:00	0.02
Dummy_MH1035	JUNCTION	0.18	0.41	191.20	0	09:39	0.12
Dummy_MH1047	JUNCTION	0.25	2.82	197.42	0	08:05	0.55
Dummy_MH1053	JUNCTION	0.47	3.17	191.26	0	08:10	0.93
Dummy_MH1054	JUNCTION	0.08	1.12	198.97	0	08:06	0.34
Dummy_MH1055	JUNCTION	0.02	0.08	202.00	0	08:02	0.02

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
dummy1413	JUNCTION	0.10	0.21	203.80	0	08:02	0.06
dummy1414	JUNCTION	0.15	0.70	203.26	0	08:13	0.21
dummy1415	JUNCTION	0.12	1.18	203.11	0	08:14	0.36
dummy1416	JUNCTION	0.05	0.08	203.30	0	08:03	0.03
dummy1417	JUNCTION	0.07	0.36	203.35	0	08:01	0.11
dummy1418	JUNCTION	0.07	0.25	203.36	0	08:01	0.07
dummy1419	JUNCTION	1.51	1.67	202.66	0	08:01	0.51
dummy1420	JUNCTION	0.08	0.24	199.70	0	08:01	0.07
dummy1421	JUNCTION	0.10	0.88	185.43	0	08:43	0.27
dummy1422	JUNCTION	0.09	0.25	201.89	0	08:01	0.08
dummy1423	JUNCTION	0.07	0.23	203.85	0	08:00	0.07
dummy1424	JUNCTION	0.54	0.72	199.85	0	08:01	0.22
dummy1425	JUNCTION	0.03	0.19	186.10	0	08:00	0.06
dummy1426	JUNCTION	0.03	0.12	193.94	0	08:00	0.03
dummy1427	JUNCTION	0.05	1.67	186.30	0	08:37	0.25
dummy1428	JUNCTION	0.06	0.17	197.00	0	08:00	0.05
dummy1429	JUNCTION	0.08	0.23	195.93	0	08:01	0.07
dummy1430	JUNCTION	0.07	0.96	202.54	0	08:12	0.29
dummy1431	JUNCTION	0.33	4.25	200.78	0	08:09	1.26

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
dummy1432	JUNCTION	0.07	0.15	198.42	0	08:01	0.05
dummy1433	JUNCTION	0.06	0.12	198.68	0	08:00	0.04
dummy1434	JUNCTION	0.08	0.19	198.48	0	08:01	0.06
dummy1435	JUNCTION	0.07	0.11	198.66	0	08:01	0.03
dummy1436	JUNCTION	0.09	0.21	197.31	0	08:01	0.06
dummy1437	JUNCTION	0.10	0.28	196.58	0	08:02	0.09
dummy1438	JUNCTION	0.11	0.94	196.42	0	08:12	0.24
dummy1439	JUNCTION	0.11	3.02	194.08	0	08:03	0.60
dummy1440	JUNCTION	0.17	3.15	193.58	0	08:03	0.80
dummy1441	JUNCTION	0.28	3.72	193.02	0	08:14	1.09
dummy1442	JUNCTION	0.26	1.09	184.81	0	08:07	0.33
dummy1443	JUNCTION	0.28	1.19	185.38	0	08:07	0.36
dummy1444	JUNCTION	0.12	2.70	173.09	0	08:21	0.75
dummy1445	JUNCTION	0.22	3.95	184.76	0	08:09	1.20
dummy1446	JUNCTION	0.07	0.34	173.60	0	08:01	0.10
dummy1447	JUNCTION	0.09	0.47	176.79	0	08:09	0.14
dummy1448	JUNCTION	0.07	0.19	178.51	0	08:00	0.06
dummy1449	JUNCTION	0.22	3.89	179.78	0	08:02	0.58
dummy1450	JUNCTION	0.07	0.23	180.14	0	08:01	0.07

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
dummy1451	JUNCTION	0.08	0.17	181.72	0	08:01	0.05
dummy1452	JUNCTION	0.11	0.84	180.75	0	08:08	0.25
dummy1453	JUNCTION	0.10	0.36	180.79	0	08:01	0.11
dummy1454	JUNCTION	0.27	3.61	182.35	0	08:09	1.04
dummy1455	JUNCTION	0.27	4.43	183.63	0	08:05	1.27
dummy1456	JUNCTION	0.05	3.55	184.36	0	08:04	0.96
dummy1457	JUNCTION	0.15	3.15	185.82	0	08:05	0.68
dummy1458	JUNCTION	0.15	2.92	185.93	0	08:07	0.71
dummy1459	JUNCTION	0.09	2.79	186.54	0	08:07	0.65
dummy1460	JUNCTION	0.12	2.69	186.59	0	08:07	0.63
dummy1461	JUNCTION	0.23	0.88	182.74	0	08:08	0.27
dummy1462	JUNCTION	0.08	0.15	184.26	0	08:00	0.05
dummy1463	JUNCTION	0.14	0.56	184.91	0	08:03	0.17
dummy1464	JUNCTION	0.10	0.32	188.90	0	08:02	0.10
dummy1465	JUNCTION	0.33	2.36	177.68	0	08:09	0.72
dummy1468	JUNCTION	0.24	1.05	188.79	0	08:04	0.32
dummy1469	JUNCTION	0.11	0.48	191.73	0	08:02	0.15
dummy1470	JUNCTION	0.09	0.29	190.62	0	08:02	0.09
dummy1471	JUNCTION	0.19	1.35	190.17	0	08:07	0.41

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
dummy1472	JUNCTION	0.07	0.17	192.11	0	08:01	0.05
dummy1473	JUNCTION	0.10	0.35	186.58	0	08:01	0.11
dummy1474	JUNCTION	0.29	1.19	186.40	0	08:06	0.36
dummy1475	JUNCTION	0.13	0.40	186.63	0	08:09	0.12
dummy1476	JUNCTION	0.14	0.62	188.80	0	08:03	0.19
dummy1477	JUNCTION	0.27	1.21	186.98	0	08:06	0.37
dummy1478	JUNCTION	0.26	1.10	188.43	0	08:05	0.34
dummy1479	JUNCTION	0.27	2.54	192.50	0	08:04	0.59
dummy1480	JUNCTION	0.09	0.26	191.33	0	08:02	0.08
dummy1481	JUNCTION	0.20	0.90	190.03	0	08:20	0.28
dummy1482	JUNCTION	0.08	0.19	192.94	0	08:00	0.06
dummy1483	JUNCTION	0.27	1.14	187.72	0	08:05	0.35
dummy1484	JUNCTION	0.08	0.24	195.15	0	08:01	0.07
dummy1485	JUNCTION	0.08	0.23	197.75	0	08:00	0.07
dummy1486	JUNCTION	0.09	0.51	196.14	0	08:01	0.15
dummy1487	JUNCTION	0.22	0.82	192.73	0	08:06	0.25
dummy1488	JUNCTION	0.08	0.25	195.92	0	08:00	0.08
dummy1489	JUNCTION	0.21	0.77	192.95	0	08:04	0.23
dummy1490	JUNCTION	0.25	2.06	195.28	0	08:06	0.63

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
dummy1491	JUNCTION	0.11	0.37	194.35	0	08:02	0.11
dummy1492	JUNCTION	0.08	0.14	176.79	0	08:04	0.04
dummy1493	JUNCTION	0.07	0.19	181.93	0	08:01	0.06
dummy1494	JUNCTION	0.09	0.60	187.67	0	08:06	0.16
dummy1495	JUNCTION	0.11	0.89	187.60	0	08:05	0.27
dummy1496	JUNCTION	0.12	0.85	203.07	0	08:14	0.26
dummy1497	JUNCTION	0.12	0.89	203.07	0	08:14	0.27
dummy1498	JUNCTION	0.22	4.14	205.02	0	08:09	1.26
dummy1499	JUNCTION	0.08	4.06	204.26	0	08:03	1.07
dummy1500	JUNCTION	0.06	0.18	201.30	0	08:00	0.06
dummy1501	JUNCTION	0.18	4.04	201.94	0	08:09	0.84
dummy1502	JUNCTION	0.17	4.45	201.95	0	08:08	0.94
dummy1503	JUNCTION	0.19	3.52	200.66	0	08:08	1.04
dummy1504	JUNCTION	0.08	0.26	200.80	0	08:01	0.08
dummy1505	JUNCTION	0.08	0.26	198.58	0	08:02	0.08
dummy1506	JUNCTION	0.09	0.23	199.43	0	08:00	0.07
dummy1507	JUNCTION	0.09	0.28	196.83	0	08:01	0.08
dummy1508	JUNCTION	0.12	2.87	193.95	0	08:03	0.59
dummy1509	JUNCTION	0.10	0.39	198.89	0	08:01	0.12

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
dummy1510	JUNCTION	0.13	1.11	188.92	0	08:28	0.33
dummy1511	JUNCTION	0.32	3.95	200.21	0	08:23	1.20
dummy1512	JUNCTION	0.17	4.62	201.61	0	08:05	1.32
dummy1513	JUNCTION	0.59	4.29	194.49	0	08:16	1.31
dummy1514	JUNCTION	0.52	4.34	194.01	0	08:10	1.32
dummy1515	JUNCTION	0.09	0.25	185.14	0	08:00	0.08
dummy1516	JUNCTION	0.18	0.63	172.04	0	08:45	0.19
dummy1517	JUNCTION	0.11	0.39	171.72	0	08:41	0.12
dummy1520	JUNCTION	0.08	0.30	179.71	0	08:53	0.09
dummy1521	JUNCTION	0.08	0.19	179.19	0	08:55	0.06
dummy1522	JUNCTION	0.16	0.43	177.57	0	08:24	0.13
dummy1523	JUNCTION	0.11	0.29	177.31	0	08:16	0.09
dummy1524	JUNCTION	0.17	0.75	190.56	0	08:23	0.23
dummy792	JUNCTION	0.28	1.99	185.45	0	08:36	0.56
dummy793	JUNCTION	0.12	1.89	185.56	0	08:44	0.57
dummy794	JUNCTION	0.38	1.76	188.21	0	08:24	0.49
dummy795	JUNCTION	0.57	2.17	188.19	0	08:24	0.62
dummy796	JUNCTION	0.64	2.19	188.06	0	08:27	0.66
dummy797	JUNCTION	0.29	1.70	188.20	0	08:18	0.40

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
dummy798	JUNCTION	0.46	1.62	187.82	0	08:18	0.49
dummy805	JUNCTION	0.14	0.24	191.53	0	16:34	0.07
dummy806	JUNCTION	0.50	1.09	192.81	0	16:10	0.32
dummy807	JUNCTION	0.39	1.77	193.48	0	07:58	0.54
dummy808	JUNCTION	0.29	1.78	194.79	0	07:56	0.54
dummy9998	JUNCTION	0.91	0.97	188.54	0	08:00	0.30
dummy9999	JUNCTION	0.08	0.21	191.43	0	08:01	0.06
G358	JUNCTION	0.00	0.00	169.97	0	08:03	0.00
G358-S	JUNCTION	0.00	0.00	172.61	0	00:00	0.00
Gall.Park	STORAGE	0.07	1.78	174.53	0	08:19	0.54
IO295	JUNCTION	0.90	2.78	187.92	0	09:02	0.85
IO307	JUNCTION	0.05	0.29	203.57	0	08:04	0.09
IO308	JUNCTION	0.05	2.09	205.54	0	08:04	0.57
IO309	JUNCTION	0.04	0.62	202.93	0	08:16	0.19
IO375	JUNCTION	0.07	0.74	196.46	0	08:40	0.22
IO376	JUNCTION	0.26	1.70	196.46	0	08:41	0.52
IO378	OUTFALL	0.91	2.74	165.78	0	08:23	0.84
IO395	JUNCTION	1.66	3.91	193.50	0	08:42	1.19
IO431	JUNCTION	0.23	0.45	202.45	0	08:14	0.14

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
J1	JUNCTION	0.08	0.33	175.83	0	08:00	0.10
J10	JUNCTION	0.07	0.37	180.77	0	08:13	0.11
J11	JUNCTION	0.12	0.89	179.85	0	08:23	0.27
J12	JUNCTION	0.11	0.39	166.39	0	08:36	0.12
J13	JUNCTION	0.16	0.41	177.53	0	08:25	0.13
J17	JUNCTION	0.10	1.28	173.88	0	08:19	0.39
J2	JUNCTION	0.09	0.35	175.10	0	08:00	0.11
J3	JUNCTION	0.08	0.33	175.46	0	08:00	0.10
J9	JUNCTION	0.01	0.05	172.70	0	08:09	0.02
K617	JUNCTION	0.30	1.56	168.00	0	08:04	0.47
K617-S	JUNCTION	0.02	0.17	173.14	0	08:01	0.05
K618	JUNCTION	0.07	3.04	170.85	0	08:01	0.91
K618-S	JUNCTION	0.01	0.34	173.14	0	08:01	0.10
K738	JUNCTION	0.23	0.65	171.05	0	08:45	0.20
K739	JUNCTION	0.30	0.90	169.63	0	08:44	0.28
K739-S	JUNCTION	0.00	0.00	172.06	0	00:00	0.00
K740	JUNCTION	0.46	1.21	169.34	0	08:03	0.37
K740-S	JUNCTION	0.01	0.20	171.50	0	08:03	0.06
MH1	JUNCTION	0.42	2.30	176.62	0	08:09	0.70

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
MH10	JUNCTION	2.21	8.35	172.95	0	08:18	2.52
MH11	JUNCTION	0.81	6.87	172.73	0	08:18	2.07
MH12	JUNCTION	0.76	6.72	172.46	0	08:18	2.03
MH13	JUNCTION	0.05	0.26	173.51	0	08:04	0.08
MH14	JUNCTION	0.00	0.09	173.24	0	08:01	0.03
MH15	JUNCTION	0.00	0.12	173.24	0	08:01	0.04
MH16	JUNCTION	0.02	0.15	173.24	0	08:00	0.04
MH17	JUNCTION	0.02	0.14	173.17	0	08:01	0.04
MH18	JUNCTION	0.01	0.06	173.06	0	08:02	0.02
MH19	JUNCTION	0.03	0.11	172.81	0	08:08	0.03
MH2	JUNCTION	0.01	0.24	178.72	0	08:08	0.07
MH20	JUNCTION	0.21	3.04	174.55	0	08:00	0.93
MH21	JUNCTION	0.15	0.81	171.56	0	08:03	0.25
MH3	JUNCTION	0.31	1.40	175.48	0	08:11	0.43
MH4	JUNCTION	0.32	5.18	173.39	0	08:20	1.57
MH5	JUNCTION	0.05	0.40	175.00	0	08:01	0.12
MH6	JUNCTION	0.06	0.47	174.21	0	08:02	0.14
MH7	JUNCTION	0.23	5.43	173.18	0	08:20	1.65
MH8	JUNCTION	0.19	7.53	176.01	0	08:09	1.42

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
MH9	JUNCTION	0.69	6.76	173.19	0	08:20	2.05
MintoInlet2	JUNCTION	0.00	0.00	172.10	0	00:00	0.00
MintoMH1	JUNCTION	0.19	0.98	169.89	0	08:04	0.30
MintoPondedArea	STORAGE	0.07	0.37	169.96	0	08:05	0.11
MissingMH22	JUNCTION	0.31	4.38	200.59	0	08:14	1.31
OF1	OUTFALL	0.46	0.94	163.94	0	08:04	0.28
OS002	JUNCTION	0.75	0.98	165.28	0	08:04	0.30
STMMH_Cole1012	JUNCTION	0.02	0.15	182.50	0	08:01	0.05
STMMH_Cole1013	JUNCTION	0.01	0.14	183.60	0	08:00	0.04
STMMH_Cole1014	JUNCTION	0.01	0.03	183.95	0	08:02	0.01
STMMH_Cole1015	JUNCTION	0.00	0.03	184.68	0	08:01	0.01
STMMH_Cole1016	JUNCTION	0.01	0.13	174.58	0	08:00	0.04
STMMH_Cole1017	JUNCTION	0.01	0.11	173.83	0	08:01	0.03
STMMH_Cole1018	JUNCTION	0.01	0.24	173.32	0	08:10	0.07
STMMH_Cole1019	JUNCTION	0.05	0.90	173.31	0	08:10	0.28
STMMH_Cole102	JUNCTION	0.20	1.13	188.00	0	08:07	0.34
STMMH_Cole1020	JUNCTION	0.00	0.00	178.74	0	00:00	0.00
STMMH_Cole1021	JUNCTION	0.00	0.00	178.49	0	00:00	0.00
STMMH_Cole1022	JUNCTION	0.00	0.04	177.65	0	08:00	0.01

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH_Cole1023	JUNCTION	0.00	0.04	176.13	0	08:01	0.01
STMMH_Cole1024	JUNCTION	0.01	0.07	173.46	0	08:01	0.02
STMMH_Cole1025	JUNCTION	0.01	0.07	172.83	0	08:01	0.02
STMMH11785	JUNCTION	0.11	1.75	193.15	0	08:05	0.52
STMMH11786	JUNCTION	0.19	3.70	192.29	0	08:02	0.87
STMMH11787	JUNCTION	2.25	5.37	190.98	0	08:08	1.59
STMMH11788	JUNCTION	0.09	1.49	194.24	0	08:04	0.41
STMMH11789	JUNCTION	0.02	0.10	197.17	0	08:00	0.03
STMMH11790	JUNCTION	0.05	0.28	194.31	0	08:02	0.09
STMMH11929	JUNCTION	0.01	0.08	191.44	0	08:00	0.02
STMMH11930	JUNCTION	0.01	0.07	190.43	0	08:00	0.02
STMMH11938	JUNCTION	0.15	0.99	191.06	0	08:09	0.30
STMMH11939	JUNCTION	0.03	0.15	191.49	0	08:02	0.04
STMMH11940	JUNCTION	0.11	0.21	192.21	0	08:01	0.06
STMMH11941	JUNCTION	0.02	0.10	192.40	0	08:01	0.03
STMMH11942	JUNCTION	0.02	0.10	191.92	0	08:01	0.03
STMMH11943	JUNCTION	0.02	0.12	191.67	0	08:01	0.04
STMMH11944	JUNCTION	0.01	0.08	193.07	0	08:01	0.03
STMMH11945	JUNCTION	0.03	0.15	191.62	0	08:01	0.05

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH11946	JUNCTION	0.02	0.13	191.37	0	08:02	0.04
STMMH11947	JUNCTION	0.06	0.34	190.95	0	08:23	0.10
STMMH11948	JUNCTION	0.24	1.47	185.11	0	08:07	0.45
STMMH11949	JUNCTION	0.22	0.30	190.30	0	08:01	0.09
STMMH11950	JUNCTION	0.00	0.02	191.34	0	08:01	0.01
STMMH11951	JUNCTION	0.02	0.09	189.62	0	08:00	0.03
STMMH11952	JUNCTION	0.02	0.12	186.36	0	08:00	0.03
STMMH11953	JUNCTION	0.02	0.11	184.62	0	08:00	0.03
STMMH11954	JUNCTION	0.03	0.15	182.54	0	08:01	0.05
STMMH11955	JUNCTION	0.03	0.18	177.58	0	08:01	0.06
STMMH11956	JUNCTION	0.05	0.29	181.65	0	08:01	0.09
STMMH11957	JUNCTION	0.98	1.17	182.26	0	08:00	0.36
STMMH12045	JUNCTION	0.28	3.03	193.34	0	08:20	0.73
STMMH12046	JUNCTION	0.47	2.98	189.25	0	07:59	0.62
STMMH12047	JUNCTION	1.02	3.21	188.34	0	08:27	0.96
STMMH12048	JUNCTION	1.30	3.58	188.27	0	08:27	1.07
STMMH12049	JUNCTION	1.41	3.49	188.05	0	08:36	1.06
STMMH12050	JUNCTION	0.21	3.20	187.54	0	08:36	0.34
STMMH12051	JUNCTION	0.83	3.70	189.31	0	08:00	0.87

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12052	JUNCTION	0.68	3.25	189.09	0	08:00	0.83
STMMH12053	JUNCTION	0.13	3.40	190.65	0	08:01	0.41
STMMH12054	JUNCTION	0.43	3.31	189.78	0	08:13	0.76
STMMH12055	JUNCTION	0.03	0.48	187.67	0	08:06	0.14
STMMH12056	JUNCTION	0.05	3.85	190.79	0	08:04	0.19
STMMH12057	JUNCTION	0.03	0.15	201.56	0	08:00	0.05
STMMH12058	JUNCTION	0.01	0.07	202.41	0	08:00	0.02
STMMH12059	JUNCTION	1.18	1.29	201.23	0	08:00	0.39
STMMH12060	JUNCTION	0.05	0.91	200.27	0	08:05	0.28
STMMH12061	JUNCTION	0.06	1.04	199.73	0	08:07	0.32
STMMH12062	JUNCTION	1.97	4.88	201.00	0	08:01	0.91
STMMH12063	JUNCTION	0.08	1.11	198.80	0	08:06	0.34
STMMH12064	JUNCTION	0.09	0.68	197.76	0	08:06	0.21
STMMH12065	JUNCTION	0.06	0.29	196.69	0	08:04	0.09
STMMH12066	JUNCTION	0.02	0.20	194.70	0	08:02	0.06
STMMH12067	JUNCTION	0.04	0.25	194.64	0	08:02	0.07
STMMH12068	JUNCTION	0.05	0.29	194.41	0	08:02	0.09
STMMH12069	JUNCTION	0.04	0.20	195.33	0	08:02	0.06
STMMH12070	JUNCTION	0.02	0.16	196.29	0	08:00	0.05

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12071	JUNCTION	0.01	0.09	198.17	0	08:00	0.03
STMMH12072	JUNCTION	0.03	0.19	196.85	0	08:01	0.06
STMMH12073	JUNCTION	0.05	0.28	195.86	0	08:01	0.08
STMMH12074	JUNCTION	0.00	0.02	195.49	0	08:00	0.01
STMMH12075	JUNCTION	0.02	0.10	194.06	0	08:01	0.03
STMMH12076	JUNCTION	0.07	0.39	187.83	0	08:02	0.12
STMMH12077	JUNCTION	0.09	3.13	188.08	0	08:07	0.50
STMMH12078	JUNCTION	0.15	4.53	186.49	0	08:02	1.09
STMMH12079	JUNCTION	0.16	4.65	185.97	0	08:02	1.15
STMMH12080	JUNCTION	0.19	4.38	184.79	0	08:01	1.26
STMMH12081	JUNCTION	0.21	4.60	184.17	0	08:09	1.22
STMMH12082	JUNCTION	0.21	3.33	181.95	0	08:09	0.96
STMMH12083	JUNCTION	0.21	3.89	182.11	0	08:01	0.78
STMMH12084	JUNCTION	0.17	3.95	181.45	0	08:03	0.63
STMMH12085	JUNCTION	0.23	2.34	177.32	0	08:02	0.51
STMMH12086	JUNCTION	0.50	0.80	176.67	0	08:08	0.24
STMMH12087	JUNCTION	0.00	0.00	193.01	0	00:00	0.00
STMMH12088	JUNCTION	0.02	0.07	190.64	0	08:00	0.02
STMMH12089	JUNCTION	0.02	0.06	190.13	0	08:01	0.02

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12090	JUNCTION	0.06	0.53	188.88	0	08:06	0.15
STMMH12091	JUNCTION	0.04	0.47	188.70	0	08:04	0.14
STMMH12092	JUNCTION	0.17	1.93	185.41	0	08:42	0.58
STMMH12093	JUNCTION	0.01	0.25	185.44	0	08:43	0.08
STMMH12094	JUNCTION	0.16	0.88	169.59	0	08:04	0.27
STMMH12095	JUNCTION	0.17	1.06	169.11	0	08:04	0.32
STMMH12097	JUNCTION	0.01	2.81	174.80	0	08:18	0.27
STMMH12098	JUNCTION	0.05	4.05	174.87	0	08:16	0.62
STMMH12099	JUNCTION	0.02	0.16	180.64	0	08:04	0.05
STMMH12100	JUNCTION	0.49	8.61	193.63	0	08:02	0.77
STMMH12206	JUNCTION	0.00	0.00	188.77	0	00:00	0.00
STMMH12207	JUNCTION	0.19	0.31	189.02	0	08:01	0.10
STMMH12208	JUNCTION	0.00	0.00	188.87	0	00:00	0.00
STMMH12209	JUNCTION	0.07	0.79	188.92	0	08:06	0.22
STMMH12210	JUNCTION	0.07	2.41	190.38	0	08:02	0.27
STMMH12211	JUNCTION	0.25	4.22	191.26	0	08:24	1.28
STMMH12212	JUNCTION	0.21	4.07	191.29	0	08:05	1.21
STMMH12213	JUNCTION	0.28	4.58	191.80	0	08:07	1.24
STMMH12223	JUNCTION	0.06	0.36	180.80	0	08:01	0.11

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12224	JUNCTION	0.07	0.45	181.21	0	08:01	0.14
STMMH12225	JUNCTION	0.07	0.49	181.50	0	08:00	0.15
STMMH12226	JUNCTION	0.17	0.32	181.69	0	08:01	0.10
STMMH12227	JUNCTION	0.21	1.91	185.98	0	08:36	0.41
STMMH12228	JUNCTION	0.27	2.36	186.04	0	08:36	0.52
STMMH12229	JUNCTION	0.26	2.38	186.01	0	08:36	0.53
STMMH12230	JUNCTION	0.02	0.16	186.71	0	08:00	0.05
STMMH12231	JUNCTION	0.00	0.03	186.94	0	08:00	0.01
STMMH12232	JUNCTION	0.04	0.52	186.53	0	08:04	0.16
STMMH12233	JUNCTION	0.05	0.67	186.54	0	08:05	0.19
STMMH12234	JUNCTION	0.01	0.07	188.17	0	08:00	0.02
STMMH12235	JUNCTION	0.01	0.14	187.30	0	08:00	0.04
STMMH12236	JUNCTION	0.03	0.23	183.76	0	08:01	0.07
STMMH12237	JUNCTION	0.11	1.02	180.26	0	08:07	0.31
STMMH12238	JUNCTION	0.39	1.93	180.20	0	08:07	0.58
STMMH12239	JUNCTION	0.00	0.03	186.46	0	08:00	0.01
STMMH12240	JUNCTION	0.01	0.12	185.81	0	08:00	0.04
STMMH12241	JUNCTION	0.03	0.23	183.88	0	08:00	0.07
STMMH12243	JUNCTION	0.13	1.60	185.44	0	08:42	0.48

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12247	JUNCTION	0.03	0.07	177.20	0	08:04	0.02
STMMH12248	JUNCTION	0.03	0.07	177.01	0	08:04	0.02
STMMH12249	JUNCTION	0.03	0.11	176.52	0	08:02	0.03
STMMH12250	JUNCTION	0.04	0.11	175.62	0	08:02	0.03
STMMH12251	JUNCTION	0.04	0.57	175.41	0	08:08	0.17
STMMH12252	JUNCTION	0.40	1.75	175.40	0	08:08	0.53
STMMH12255	JUNCTION	0.09	2.05	181.70	0	08:01	0.59
STMMH12256	JUNCTION	0.01	0.11	190.08	0	08:02	0.03
STMMH12257	JUNCTION	0.53	0.63	197.36	0	08:00	0.19
STMMH12258	JUNCTION	0.02	0.07	199.27	0	08:00	0.02
STMMH12259	JUNCTION	0.01	0.05	199.25	0	08:00	0.02
STMMH12260	JUNCTION	0.11	1.80	201.85	0	08:04	0.34
STMMH12261	JUNCTION	0.16	0.79	200.21	0	08:02	0.24
STMMH12262	JUNCTION	0.08	1.57	201.46	0	08:00	0.26
STMMH12263	JUNCTION	0.11	0.59	198.75	0	08:03	0.18
STMMH12264	JUNCTION	0.10	0.53	198.64	0	08:02	0.16
STMMH12265	JUNCTION	0.00	0.00	198.92	0	00:00	0.00
STMMH12266	JUNCTION	0.14	0.59	198.39	0	08:03	0.18
STMMH12267	JUNCTION	0.07	0.35	197.67	0	08:03	0.11

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12268	JUNCTION	0.09	1.36	195.74	0	08:03	0.38
STMMH12269	JUNCTION	0.03	3.44	196.81	0	08:03	0.94
STMMH12270	JUNCTION	0.13	2.59	194.90	0	08:05	0.79
STMMH12271	JUNCTION	0.20	3.52	193.20	0	08:06	1.07
STMMH12272	JUNCTION	0.03	0.25	198.76	0	08:02	0.08
STMMH12273	JUNCTION	0.01	0.06	199.57	0	08:03	0.02
STMMH12274	JUNCTION	0.02	0.14	199.79	0	08:02	0.04
STMMH12275	JUNCTION	0.00	0.00	199.82	0	00:00	0.00
STMMH12276	JUNCTION	0.03	0.11	197.46	0	08:00	0.03
STMMH12277	JUNCTION	0.04	0.24	196.52	0	08:04	0.07
STMMH12278	JUNCTION	0.07	1.17	196.09	0	08:05	0.36
STMMH12279	JUNCTION	0.12	1.95	202.18	0	07:59	0.54
STMMH12280	JUNCTION	0.07	0.81	201.44	0	08:12	0.24
STMMH12281	JUNCTION	0.22	1.09	185.17	0	08:07	0.33
STMMH12282	JUNCTION	0.17	0.81	184.41	0	08:07	0.25
STMMH12283	JUNCTION	0.17	0.80	181.86	0	08:08	0.24
STMMH12284	JUNCTION	0.21	1.26	180.79	0	08:09	0.38
STMMH12285	JUNCTION	0.20	1.59	180.56	0	08:09	0.48
STMMH12286	JUNCTION	0.11	0.30	191.64	0	08:02	0.09

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12287	JUNCTION	0.15	2.73	191.70	0	08:02	0.73
STMMH12288	JUNCTION	0.07	1.22	190.66	0	08:06	0.37
STMMH12289	JUNCTION	0.04	0.20	190.73	0	08:01	0.06
STMMH12290	JUNCTION	0.03	0.14	191.50	0	08:02	0.04
STMMH12291	JUNCTION	0.01	0.06	191.85	0	08:01	0.02
STMMH12292	JUNCTION	0.00	0.00	192.59	0	00:00	0.00
STMMH12293	JUNCTION	0.54	3.60	194.03	0	08:00	0.82
STMMH12294	JUNCTION	0.23	2.75	193.75	0	08:01	0.84
STMMH12295	JUNCTION	0.05	0.24	190.40	0	08:03	0.07
STMMH12296	JUNCTION	0.01	0.05	184.48	0	08:01	0.02
STMMH12297	JUNCTION	0.01	0.05	186.43	0	08:00	0.02
STMMH12298	JUNCTION	0.01	0.07	188.11	0	08:00	0.02
STMMH12299	JUNCTION	0.17	0.93	184.18	0	08:07	0.28
STMMH12300	JUNCTION	0.03	0.21	178.67	0	08:02	0.06
STMMH12301	JUNCTION	0.05	0.26	176.15	0	08:01	0.08
STMMH12302	JUNCTION	0.05	0.29	174.12	0	08:01	0.09
STMMH12303	JUNCTION	0.07	3.70	175.90	0	08:19	0.29
STMMH12304	JUNCTION	0.16	4.18	174.28	0	08:13	1.27
STMMH12305	JUNCTION	0.07	0.46	191.27	0	08:02	0.14

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12306	JUNCTION	0.06	0.33	190.97	0	08:02	0.10
STMMH12307	JUNCTION	0.01	0.07	191.55	0	08:00	0.02
STMMH12308	JUNCTION	0.00	0.00	191.94	0	00:00	0.00
STMMH12309	JUNCTION	0.02	0.12	191.10	0	08:02	0.04
STMMH12310	JUNCTION	0.04	0.26	189.35	0	08:02	0.08
STMMH12311	JUNCTION	0.04	0.26	187.16	0	08:02	0.08
STMMH12318	JUNCTION	0.02	0.18	178.15	0	08:06	0.05
STMMH12319	JUNCTION	0.02	0.17	179.86	0	08:05	0.05
STMMH12320	JUNCTION	0.02	0.17	179.00	0	08:05	0.05
STMMH12321	JUNCTION	0.19	0.48	193.80	0	08:03	0.15
STMMH12322	JUNCTION	0.06	0.33	193.65	0	08:03	0.10
STMMH12323	JUNCTION	0.00	0.00	196.14	0	00:00	0.00
STMMH12324	JUNCTION	0.02	0.10	194.32	0	08:00	0.03
STMMH12325	JUNCTION	0.06	0.35	193.30	0	08:03	0.11
STMMH12326	JUNCTION	0.16	0.68	193.04	0	08:04	0.21
STMMH12327	JUNCTION	0.02	0.16	196.39	0	08:00	0.05
STMMH12328	JUNCTION	0.03	0.19	194.78	0	08:00	0.06
STMMH12329	JUNCTION	0.16	0.75	192.83	0	08:04	0.23
STMMH12330	JUNCTION	0.01	0.12	197.01	0	08:00	0.04

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12331	JUNCTION	0.02	0.16	195.09	0	08:00	0.05
STMMH12332	JUNCTION	0.06	0.48	193.88	0	08:01	0.15
STMMH12333	JUNCTION	0.21	1.04	189.42	0	08:04	0.32
STMMH12334	JUNCTION	0.00	0.00	174.60	0	00:00	0.00
STMMH12335	JUNCTION	0.02	0.12	177.53	0	08:01	0.04
STMMH12336	JUNCTION	0.13	3.02	196.67	0	08:06	0.58
STMMH12337	JUNCTION	0.22	1.08	189.71	0	08:06	0.33
STMMH12338	JUNCTION	0.21	1.02	188.89	0	08:04	0.31
STMMH12339	JUNCTION	0.22	1.12	187.91	0	08:05	0.34
STMMH12340	JUNCTION	0.23	1.18	187.24	0	08:06	0.36
STMMH12341	JUNCTION	0.23	1.18	186.57	0	08:06	0.36
STMMH12342	JUNCTION	0.22	1.14	185.71	0	08:07	0.35
STMMH12351	JUNCTION	0.07	0.48	186.08	0	08:03	0.15
STMMH12352	JUNCTION	0.08	0.45	185.36	0	08:03	0.14
STMMH12353	JUNCTION	0.08	0.50	185.07	0	08:03	0.15
STMMH12354	JUNCTION	0.05	0.25	186.01	0	08:00	0.08
STMMH12355	JUNCTION	0.05	0.23	185.88	0	08:01	0.07
STMMH12356	JUNCTION	0.01	0.14	186.89	0	08:00	0.04
STMMH12357	JUNCTION	0.01	0.06	191.17	0	08:00	0.02

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12358	JUNCTION	0.03	0.12	190.41	0	08:01	0.04
STMMH12359	JUNCTION	0.04	0.21	189.79	0	08:02	0.06
STMMH12360	JUNCTION	0.01	0.07	189.79	0	08:00	0.02
STMMH12361	JUNCTION	0.02	0.08	187.80	0	08:01	0.02
STMMH12365	JUNCTION	0.02	0.17	181.32	0	08:03	0.05
STMMH12366	JUNCTION	0.02	0.17	182.01	0	08:03	0.05
STMMH12367	JUNCTION	0.02	0.15	183.31	0	08:02	0.05
STMMH12368	JUNCTION	0.02	0.13	185.05	0	08:03	0.04
STMMH12369	JUNCTION	0.02	0.16	200.16	0	08:00	0.05
STMMH12370	JUNCTION	0.01	0.12	198.51	0	08:01	0.04
STMMH12371	JUNCTION	0.01	0.10	195.33	0	08:01	0.03
STMMH12372	JUNCTION	0.01	0.09	200.83	0	08:00	0.03
STMMH12373	JUNCTION	0.02	0.16	198.65	0	08:00	0.05
STMMH12374	JUNCTION	0.01	0.14	196.78	0	08:00	0.04
STMMH12375	JUNCTION	0.04	0.27	195.05	0	08:01	0.08
STMMH12376	JUNCTION	0.05	0.28	194.49	0	08:02	0.09
STMMH12377	JUNCTION	0.00	0.00	196.20	0	00:00	0.00
STMMH12378	JUNCTION	0.04	0.24	194.24	0	08:01	0.07
STMMH12379	JUNCTION	0.05	0.36	193.67	0	08:02	0.11

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12380	JUNCTION	0.21	1.06	188.18	0	08:05	0.32
STMMH12381	JUNCTION	0.01	0.13	194.31	0	08:00	0.04
STMMH12382	JUNCTION	0.01	0.07	196.64	0	08:00	0.02
STMMH12383	JUNCTION	0.01	0.07	193.40	0	08:00	0.02
STMMH12384	JUNCTION	0.02	0.13	192.48	0	08:00	0.04
STMMH12385	JUNCTION	0.05	0.79	191.81	0	08:03	0.24
STMMH12386	JUNCTION	0.05	0.41	190.57	0	08:03	0.13
STMMH12387	JUNCTION	0.08	0.57	189.05	0	08:02	0.17
STMMH12388	JUNCTION	0.08	0.67	189.38	0	08:02	0.20
STMMH12389	JUNCTION	0.10	0.64	188.45	0	08:03	0.19
STMMH12390	JUNCTION	0.04	2.14	187.79	0	08:07	0.29
STMMH12391	JUNCTION	0.01	0.06	186.85	0	08:00	0.02
STMMH12392	JUNCTION	0.77	4.40	186.40	0	08:02	1.13
STMMH12393	JUNCTION	0.08	3.72	186.61	0	08:04	0.89
STMMH12394	JUNCTION	0.03	1.51	185.66	0	08:09	0.46
STMMH12395	JUNCTION	0.03	1.27	185.61	0	08:09	0.38
STMMH12396	JUNCTION	0.00	0.21	185.56	0	08:10	0.06
STMMH12397	JUNCTION	0.07	2.86	186.43	0	08:07	0.66
STMMH12398	JUNCTION	0.10	3.10	185.95	0	08:07	0.69

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12399	JUNCTION	0.04	3.48	187.09	0	08:08	1.06
STMMH12400	JUNCTION	0.01	3.20	187.54	0	08:07	0.98
STMMH12401	JUNCTION	0.01	3.03	187.37	0	08:06	0.48
STMMH12402	JUNCTION	0.00	2.69	187.29	0	08:07	0.07
STMMH12403	JUNCTION	0.15	3.62	185.80	0	08:09	0.59
STMMH12404	JUNCTION	0.02	10.34	191.88	0	08:04	0.76
STMMH12405	JUNCTION	0.00	0.03	182.13	0	08:00	0.01
STMMH12406	JUNCTION	0.05	1.10	181.15	0	08:07	0.21
STMMH12407	JUNCTION	0.05	1.38	181.11	0	08:06	0.30
STMMH12408	JUNCTION	0.03	0.14	181.78	0	08:01	0.04
STMMH12409	JUNCTION	0.03	0.15	181.06	0	08:01	0.05
STMMH12410	JUNCTION	0.00	0.02	182.73	0	08:00	0.01
STMMH12411	JUNCTION	0.01	0.06	182.92	0	08:00	0.02
STMMH12412	JUNCTION	0.01	0.06	181.87	0	08:01	0.02
STMMH12413	JUNCTION	0.02	0.10	180.83	0	08:01	0.03
STMMH12414	JUNCTION	0.04	0.23	179.64	0	08:02	0.07
STMMH12415	JUNCTION	0.06	0.84	179.58	0	08:08	0.25
STMMH12416	JUNCTION	0.93	2.10	176.18	0	08:08	0.63
STMMH12418	JUNCTION	0.31	3.53	180.46	0	08:05	0.85

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12419	JUNCTION	0.30	2.47	178.38	0	08:09	0.75
STMMH12421	JUNCTION	0.23	0.47	176.79	0	08:09	0.14
STMMH12422	JUNCTION	0.00	0.00	186.69	0	00:00	0.00
STMMH12423	JUNCTION	0.04	2.61	187.57	0	08:37	0.14
STMMH12424	JUNCTION	0.24	2.29	186.43	0	08:36	0.40
STMMH12434	JUNCTION	0.00	0.00	179.16	0	00:00	0.00
STMMH12435	JUNCTION	0.02	0.14	178.44	0	08:01	0.04
STMMH12436	JUNCTION	0.02	0.13	179.33	0	08:00	0.04
STMMH12437	JUNCTION	0.02	0.20	178.91	0	08:00	0.06
STMMH12438	JUNCTION	0.02	0.16	177.99	0	08:00	0.05
STMMH12439	JUNCTION	0.04	0.30	176.18	0	08:00	0.09
STMMH12440	JUNCTION	0.05	0.39	175.70	0	08:01	0.12
STMMH12442	JUNCTION	0.06	0.41	175.20	0	08:01	0.13
STMMH12443	JUNCTION	0.01	0.13	197.49	0	08:01	0.04
STMMH12444	JUNCTION	1.01	1.14	173.41	0	08:08	0.35
STMMH12445	JUNCTION	0.02	0.12	177.24	0	08:07	0.04
STMMH12446	JUNCTION	0.10	0.25	193.10	0	08:00	0.08
STMMH12447	JUNCTION	0.05	0.24	192.78	0	08:02	0.07
STMMH12448	JUNCTION	0.04	0.21	192.32	0	08:02	0.06

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12449	JUNCTION	0.02	0.06	189.37	0	08:00	0.02
STMMH12450	JUNCTION	0.04	0.18	185.10	0	08:00	0.05
STMMH12451	JUNCTION	0.03	0.14	184.72	0	08:00	0.04
STMMH12452	JUNCTION	0.00	0.00	187.04	0	00:00	0.00
STMMH12453	JUNCTION	0.04	0.22	180.95	0	08:01	0.07
STMMH12454	JUNCTION	0.02	0.15	181.92	0	08:00	0.05
STMMH12455	JUNCTION	0.02	0.10	182.30	0	08:00	0.03
STMMH12457	JUNCTION	1.71	6.74	170.54	0	08:23	2.05
STMMH12475	JUNCTION	0.05	0.26	190.79	0	08:03	0.08
STMMH12476	JUNCTION	0.26	0.42	190.05	0	08:03	0.13
STMMH12477	JUNCTION	0.08	0.19	191.05	0	08:03	0.06
STMMH12478	JUNCTION	0.03	0.15	191.19	0	08:02	0.05
STMMH12479	JUNCTION	0.02	0.13	191.80	0	08:02	0.04
STMMH12480	JUNCTION	0.03	0.13	191.60	0	08:02	0.04
STMMH12481	JUNCTION	0.00	0.02	192.66	0	08:02	0.01
STMMH12482	JUNCTION	0.04	0.23	190.77	0	08:01	0.07
STMMH12483	JUNCTION	0.04	0.38	191.79	0	08:02	0.11
STMMH12484	JUNCTION	0.05	0.29	191.34	0	08:03	0.09
STMMH12485	JUNCTION	0.02	0.17	193.66	0	08:05	0.05

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12486	JUNCTION	0.02	0.13	193.11	0	08:01	0.04
STMMH12487	JUNCTION	0.04	0.35	192.86	0	08:04	0.10
STMMH12488	JUNCTION	0.03	0.76	193.67	0	08:04	0.19
STMMH12489	JUNCTION	0.09	2.97	194.49	0	08:04	0.79
STMMH12490	JUNCTION	0.11	2.58	193.81	0	08:04	0.76
STMMH12491	JUNCTION	0.04	0.69	192.85	0	08:05	0.19
STMMH12492	JUNCTION	0.07	1.19	192.81	0	08:04	0.36
STMMH12523	JUNCTION	0.03	0.16	192.91	0	08:02	0.05
STMMH12524	JUNCTION	0.04	0.18	192.45	0	08:03	0.06
STMMH12525	JUNCTION	0.02	0.06	191.81	0	08:02	0.02
STMMH12526	JUNCTION	0.00	0.00	192.00	0	00:00	0.00
STMMH12527	OUTFALL	0.00	0.00	192.15	0	00:00	0.00
STMMH12528	JUNCTION	0.24	1.55	187.61	0	08:06	0.47
STMMH12529	JUNCTION	0.09	0.13	192.14	0	08:02	0.04
STMMH12530	JUNCTION	0.80	0.90	189.65	0	08:00	0.27
STMMH12531	JUNCTION	0.04	0.22	186.85	0	08:00	0.07
STMMH12532	JUNCTION	0.25	1.52	187.08	0	08:06	0.46
STMMH12533	JUNCTION	0.19	1.28	186.50	0	08:06	0.39
STMMH12534	JUNCTION	0.24	1.58	186.21	0	08:06	0.48

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12535	JUNCTION	0.00	0.00	191.62	0	00:00	0.00
STMMH12536	JUNCTION	0.13	0.40	190.02	0	08:02	0.12
STMMH12537	JUNCTION	0.05	0.31	190.70	0	08:01	0.10
STMMH12538	JUNCTION	0.17	0.33	190.85	0	09:39	0.10
STMMH12542	JUNCTION	0.02	0.09	194.67	0	08:00	0.03
STMMH12543	JUNCTION	0.01	0.09	193.57	0	08:00	0.03
STMMH12544	JUNCTION	0.02	0.12	191.86	0	08:01	0.04
STMMH12545	JUNCTION	0.23	2.64	192.83	0	08:04	0.67
STMMH12546	JUNCTION	0.23	2.16	191.94	0	08:04	0.50
STMMH12547	OUTFALL	0.00	0.00	189.27	0	00:00	0.00
STMMH12551	JUNCTION	0.12	0.73	190.76	0	08:23	0.22
STMMH12552	JUNCTION	0.15	0.88	190.30	0	08:21	0.27
STMMH12553	JUNCTION	0.14	0.69	190.92	0	08:03	0.21
STMMH12554	JUNCTION	0.07	0.42	191.53	0	08:02	0.13
STMMH12555	JUNCTION	0.04	0.23	192.00	0	08:02	0.07
STMMH12556	JUNCTION	0.37	0.42	193.08	0	08:00	0.13
STMMH12557	JUNCTION	0.01	0.07	193.65	0	08:00	0.02
STMMH12558	JUNCTION	0.03	0.13	192.47	0	08:01	0.04
STMMH12559	JUNCTION	0.05	0.57	190.72	0	08:07	0.17

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH12560	JUNCTION	0.04	0.22	191.08	0	08:02	0.07
STMMH12561	JUNCTION	0.06	0.32	191.75	0	08:02	0.10
STMMH12562	JUNCTION	0.23	1.41	185.60	0	08:07	0.43
STMMH12563	JUNCTION	0.20	2.31	180.46	0	08:09	0.70
STMMH12564	JUNCTION	0.24	1.49	187.73	0	08:06	0.45
STMMH12565	JUNCTION	0.20	1.08	188.22	0	08:06	0.33
STMMH12566	JUNCTION	0.19	0.99	189.11	0	08:04	0.30
STMMH12567	JUNCTION	0.13	0.50	189.42	0	08:03	0.15
STMMH12568	JUNCTION	0.08	0.49	184.10	0	08:03	0.15
STMMH12569	JUNCTION	0.07	0.42	182.67	0	08:03	0.13
STMMH12570	JUNCTION	0.02	0.09	183.47	0	08:00	0.03
STMMH12571	JUNCTION	0.01	0.07	185.49	0	08:00	0.02
STMMH12572	JUNCTION	0.00	0.00	185.07	0	00:00	0.00
STMMH12574	JUNCTION	1.52	2.75	201.85	0	08:01	0.56
STMMH12575	JUNCTION	1.60	1.77	188.97	0	08:00	0.54
STMMH12576	JUNCTION	0.00	0.22	187.66	0	08:05	0.07
STMMH13107	JUNCTION	0.02	0.10	189.94	0	08:00	0.03
STMMH13108	JUNCTION	0.02	0.12	189.76	0	08:00	0.04
STMMH13109	JUNCTION	0.02	0.19	189.35	0	08:29	0.06

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH13113	JUNCTION	0.29	2.35	185.39	0	07:57	0.70
STMMH14862	JUNCTION	0.10	5.22	203.61	0	08:10	0.70
STMMH14863	JUNCTION	0.12	4.84	202.95	0	08:10	0.78
STMMH14864	JUNCTION	0.14	4.09	201.80	0	08:09	0.88
STMMH14867	JUNCTION	0.15	3.75	201.35	0	08:10	0.91
STMMH14868	JUNCTION	0.16	4.50	201.86	0	08:07	0.97
STMMH14900	JUNCTION	0.33	0.39	202.27	0	08:00	0.12
STMMH14994	JUNCTION	0.00	0.04	203.33	0	08:00	0.01
STMMH14995	JUNCTION	0.06	0.54	203.08	0	08:14	0.16
STMMH14996	JUNCTION	0.06	0.27	203.08	0	08:15	0.08
STMMH14997	JUNCTION	0.05	0.25	203.55	0	08:02	0.08
STMMH15012	JUNCTION	0.04	0.21	204.08	0	08:02	0.06
STMMH15013	JUNCTION	0.01	0.08	206.04	0	08:00	0.03
STMMH15014	JUNCTION	0.01	0.10	205.17	0	08:01	0.03
STMMH15015	JUNCTION	0.03	0.16	204.56	0	08:02	0.05
STMMH15016	JUNCTION	0.00	0.00	203.76	0	00:00	0.00
STMMH15017	JUNCTION	0.09	1.01	203.18	0	08:13	0.31
STMMH15018	JUNCTION	0.14	1.64	203.06	0	08:15	0.49
STMMH15019	JUNCTION	0.10	1.20	203.07	0	08:14	0.36

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH15020	JUNCTION	0.06	0.65	203.09	0	08:15	0.20
STMMH15021	JUNCTION	0.01	0.10	203.09	0	08:15	0.03
STMMH15022	JUNCTION	0.03	0.11	205.01	0	08:04	0.03
STMMH15023	JUNCTION	0.03	0.10	204.39	0	08:04	0.03
STMMH15024	JUNCTION	0.06	0.29	203.50	0	08:03	0.09
STMMH15025	JUNCTION	0.04	0.14	205.57	0	08:03	0.04
STMMH15039	JUNCTION	0.20	0.24	203.19	0	08:03	0.07
STMMH15040	JUNCTION	0.04	0.28	203.12	0	08:02	0.08
STMMH15041	JUNCTION	0.16	4.08	204.76	0	08:02	1.17
STMMH15042	JUNCTION	0.16	4.97	205.40	0	08:02	1.07
STMMH15043	JUNCTION	0.03	3.54	205.70	0	08:03	0.54
STMMH15044	JUNCTION	0.05	3.05	206.00	0	08:03	0.72
STMMH15045	JUNCTION	0.10	4.19	205.50	0	08:03	1.22
STMMH15046	JUNCTION	0.17	4.18	205.30	0	08:11	1.28
STMMH15047	JUNCTION	0.04	3.14	206.50	0	08:04	0.96
STMMH15048	JUNCTION	0.08	3.93	206.00	0	08:03	1.20
STMMH15049	JUNCTION	0.03	3.35	207.00	0	08:03	0.51
STMMH15050	JUNCTION	0.21	3.46	202.84	0	08:09	1.04
STMMH15051	JUNCTION	0.20	3.33	203.02	0	08:09	1.00

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH15052	JUNCTION	0.15	4.01	203.34	0	08:03	1.02
STMMH15053	JUNCTION	0.22	4.29	202.85	0	08:03	1.05
STMMH15054	JUNCTION	0.28	3.92	202.83	0	08:09	1.10
STMMH15056	JUNCTION	0.05	0.13	203.46	0	08:00	0.04
STMMH15057	JUNCTION	0.24	5.52	203.68	0	08:03	1.13
STMMH15061	JUNCTION	0.04	3.76	204.52	0	08:03	0.54
STMMH15062	JUNCTION	0.07	0.14	203.47	0	08:00	0.04
STMMH15076	JUNCTION	0.15	4.69	201.61	0	08:06	1.10
STMMH15077	JUNCTION	0.13	4.21	201.58	0	08:08	0.98
STMMH15078	JUNCTION	0.11	5.18	203.00	0	08:08	0.84
STMMH15079	JUNCTION	0.01	3.85	203.54	0	08:10	0.45
STMMH15080	JUNCTION	0.07	4.21	202.92	0	08:10	0.63
STMMH15081	JUNCTION	0.16	4.39	201.44	0	08:06	1.06
STMMH15082	JUNCTION	0.20	4.04	200.62	0	08:14	1.20
STMMH15083	JUNCTION	0.03	3.59	203.24	0	08:10	0.32
STMMH15084	JUNCTION	0.00	0.00	201.78	0	00:00	0.00
STMMH15085	JUNCTION	0.02	0.62	200.83	0	08:11	0.16
STMMH15086	JUNCTION	0.00	0.00	201.20	0	00:00	0.00
STMMH15087	JUNCTION	0.00	0.03	200.85	0	08:14	0.01

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH15088	JUNCTION	0.05	5.22	204.08	0	08:10	0.56
STMMH15113	JUNCTION	0.09	0.31	201.56	0	08:10	0.05
STMMH15114	JUNCTION	0.07	1.61	200.83	0	08:11	0.45
STMMH15115	JUNCTION	0.09	4.15	202.40	0	08:08	0.71
STMMH15124	JUNCTION	0.03	4.11	203.40	0	08:09	0.49
STMMH15125	JUNCTION	0.09	3.44	201.50	0	08:09	0.87
STMMH15126	JUNCTION	0.32	4.56	200.54	0	08:04	1.36
STMMH15127	JUNCTION	0.28	4.28	200.66	0	08:14	1.28
STMMH15129	JUNCTION	0.27	4.30	201.02	0	08:09	1.22
STMMH15130	JUNCTION	0.38	4.76	200.02	0	08:14	1.44
STMMH15131	JUNCTION	0.00	0.00	197.93	0	00:00	0.00
STMMH15132	JUNCTION	0.33	4.73	200.30	0	08:14	1.43
STMMH15133	JUNCTION	0.19	3.38	200.29	0	08:14	1.03
STMMH15323	JUNCTION	0.00	0.04	197.62	0	08:02	0.01
STMMH15324	JUNCTION	0.23	3.71	200.36	0	08:28	1.13
STMMH15325	JUNCTION	0.11	4.24	200.72	0	08:04	1.06
STMMH15326	JUNCTION	0.08	2.91	199.99	0	08:20	0.88
STMMH16218	JUNCTION	0.01	0.15	199.48	0	08:00	0.05
STMMH16219	JUNCTION	0.17	3.53	197.03	0	08:12	1.07

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH16220	JUNCTION	0.05	2.13	197.17	0	08:12	0.64
STMMH16221	JUNCTION	0.12	2.65	197.14	0	08:13	0.81
STMMH16222	JUNCTION	0.15	6.41	200.37	0	08:04	0.96
STMMH16223	JUNCTION	0.46	5.35	198.74	0	08:04	1.12
STMMH16224	JUNCTION	0.48	6.38	198.55	0	08:14	1.64
STMMH16225	JUNCTION	0.02	0.07	198.62	0	08:00	0.02
STMMH16226	JUNCTION	0.02	0.08	202.43	0	08:01	0.02
STMMH16228	JUNCTION	0.01	0.08	196.94	0	08:00	0.02
STMMH16229	JUNCTION	0.02	0.14	194.78	0	08:00	0.04
STMMH16230	JUNCTION	0.02	0.15	190.83	0	08:00	0.05
STMMH16231	JUNCTION	0.01	0.15	193.79	0	08:00	0.04
STMMH16232	JUNCTION	0.03	0.72	192.90	0	08:05	0.21
STMMH16233	JUNCTION	0.08	3.37	194.43	0	08:04	0.88
STMMH16234	JUNCTION	0.02	0.14	203.04	0	08:00	0.04
STMMH16235	JUNCTION	0.03	0.17	199.70	0	08:01	0.05
STMMH16236	JUNCTION	0.27	6.16	200.85	0	08:08	1.32
STMMH16237	JUNCTION	0.01	0.06	201.26	0	08:00	0.02
STMMH16238	JUNCTION	0.01	0.05	200.34	0	08:00	0.02
STMMH16239	JUNCTION	0.51	5.09	197.64	0	08:14	1.55

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH16249	JUNCTION	0.40	5.74	200.25	0	08:03	1.37
STMMH16250	JUNCTION	0.38	4.72	200.00	0	08:03	1.28
STMMH16251	JUNCTION	0.07	8.12	204.50	0	08:06	0.80
STMMH16252	JUNCTION	0.04	0.17	197.04	0	08:01	0.05
STMMH16253	JUNCTION	3.26	5.95	167.00	0	08:23	1.81
STMMH16339	OUTFALL	0.00	0.00	194.45	0	00:00	0.00
STMMH16340	JUNCTION	0.06	0.14	204.14	0	08:00	0.04
STMMH16341	JUNCTION	0.05	0.14	203.14	0	08:01	0.04
STMMH16342	JUNCTION	0.16	0.32	200.95	0	08:01	0.10
STMMH16343	JUNCTION	0.05	0.25	198.14	0	08:01	0.07
STMMH16344	JUNCTION	0.01	0.12	204.52	0	08:00	0.04
STMMH16345	JUNCTION	0.03	0.16	203.26	0	08:00	0.05
STMMH16346	JUNCTION	0.18	3.70	199.02	0	08:13	1.13
STMMH16348	JUNCTION	0.02	0.09	199.87	0	08:01	0.03
STMMH16349	JUNCTION	0.06	0.33	199.53	0	08:01	0.10
STMMH16350	JUNCTION	0.06	0.36	199.36	0	08:01	0.11
STMMH16351	JUNCTION	0.00	0.00	200.70	0	00:00	0.00
STMMH16368	JUNCTION	0.04	0.15	196.75	0	08:02	0.05
STMMH16369	JUNCTION	0.05	0.48	196.37	0	08:12	0.14

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH16370	JUNCTION	0.06	2.55	197.82	0	08:14	0.36
STMMH16371	JUNCTION	0.46	7.56	199.20	0	08:10	2.00
STMMH16372	JUNCTION	0.00	0.00	199.39	0	00:00	0.00
STMMH16373	JUNCTION	0.03	0.12	197.77	0	08:01	0.04
STMMH16374	JUNCTION	0.00	0.00	198.51	0	00:00	0.00
STMMH16375	JUNCTION	0.23	4.29	200.80	0	08:21	1.31
STMMH16376	JUNCTION	0.22	3.55	199.40	0	08:17	1.08
STMMH16377	JUNCTION	0.15	4.57	198.45	0	08:05	1.22
STMMH16378	JUNCTION	0.17	4.03	197.52	0	08:21	1.11
STMMH16379	JUNCTION	0.13	3.51	196.25	0	08:14	1.07
STMMH16380	JUNCTION	0.07	3.96	202.10	0	08:11	0.65
STMMH16381	JUNCTION	0.10	5.69	203.00	0	08:05	1.19
STMMH16382	JUNCTION	0.01	0.08	199.26	0	08:00	0.02
STMMH16383	JUNCTION	0.06	0.37	198.79	0	08:01	0.11
STMMH16384	JUNCTION	0.06	0.36	198.06	0	08:02	0.11
STMMH16385	JUNCTION	0.11	3.36	201.00	0	08:11	1.02
STMMH16386	JUNCTION	0.08	0.50	197.48	0	08:02	0.15
STMMH16387	JUNCTION	0.07	0.28	196.74	0	08:03	0.09
STMMH16388	JUNCTION	0.07	0.37	195.22	0	08:02	0.11

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH16389	JUNCTION	0.04	0.27	199.14	0	08:01	0.08
STMMH16390	JUNCTION	0.03	0.17	199.44	0	08:00	0.05
STMMH16391	JUNCTION	0.01	0.06	200.90	0	08:00	0.02
STMMH16392	JUNCTION	0.01	0.08	198.18	0	08:01	0.03
STMMH16393	JUNCTION	0.12	3.88	194.20	0	08:03	1.18
STMMH16394	JUNCTION	0.02	0.08	193.40	0	08:00	0.02
STMMH16395	JUNCTION	0.00	0.00	197.35	0	00:00	0.00
STMMH16399	JUNCTION	0.01	0.07	198.94	0	08:00	0.02
STMMH16400	JUNCTION	0.16	0.36	198.13	0	08:02	0.11
STMMH16401	JUNCTION	0.20	0.40	198.13	0	08:02	0.12
STMMH16402	JUNCTION	0.31	3.53	200.68	0	08:22	1.08
STMMH16403	JUNCTION	0.44	4.24	200.10	0	08:03	1.29
STMMH16404	JUNCTION	0.05	0.33	195.85	0	08:01	0.10
STMMH16405	JUNCTION	0.03	0.23	197.00	0	08:01	0.07
STMMH16406	JUNCTION	0.01	0.09	200.31	0	08:00	0.03
STMMH16407	JUNCTION	0.02	0.12	199.42	0	08:00	0.04
STMMH16408	JUNCTION	0.02	0.09	199.05	0	08:01	0.03
STMMH16409	JUNCTION	0.02	0.11	198.47	0	08:00	0.03
STMMH16410	JUNCTION	0.04	0.24	197.80	0	08:00	0.07

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH16411	JUNCTION	0.01	0.13	197.79	0	08:00	0.04
STMMH16412	JUNCTION	0.01	0.13	198.75	0	08:00	0.04
STMMH16413	JUNCTION	0.02	0.17	196.57	0	08:00	0.05
STMMH16414	JUNCTION	0.04	0.24	195.03	0	08:00	0.07
STMMH16416	JUNCTION	0.00	0.05	196.70	0	08:04	0.02
STMMH16417	JUNCTION	0.05	0.34	194.00	0	08:01	0.10
STMMH16418	JUNCTION	0.06	0.39	193.40	0	08:01	0.12
STMMH16419	JUNCTION	0.06	0.42	193.23	0	08:01	0.13
STMMH16424	JUNCTION	0.09	1.09	193.16	0	08:06	0.33
STMMH16425	JUNCTION	0.01	0.06	198.04	0	08:00	0.02
STMMH16426	JUNCTION	0.03	0.21	195.88	0	08:02	0.06
STMMH16427	JUNCTION	0.04	0.40	193.42	0	08:05	0.12
STMMH16428	JUNCTION	0.06	2.86	194.17	0	08:03	0.53
STMMH16429	JUNCTION	0.23	4.71	194.23	0	08:02	1.10
STMMH16430	JUNCTION	0.18	3.76	193.48	0	08:08	1.03
STMMH16431	JUNCTION	0.09	4.47	195.20	0	08:03	0.69
STMMH16432	JUNCTION	0.04	0.22	192.98	0	08:01	0.07
STMMH16433	JUNCTION	0.01	0.06	198.88	0	08:00	0.02
STMMH16434	JUNCTION	0.02	0.12	196.83	0	08:00	0.04

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH16435	JUNCTION	0.03	0.23	194.17	0	08:01	0.07
STMMH16436	JUNCTION	0.00	0.00	198.62	0	00:00	0.00
STMMH16437	JUNCTION	0.01	0.06	195.31	0	08:00	0.02
STMMH16438	JUNCTION	0.03	0.18	192.07	0	08:00	0.05
STMMH16439	JUNCTION	0.05	0.36	191.75	0	08:02	0.11
STMMH16440	JUNCTION	0.06	0.42	190.70	0	08:02	0.13
STMMH16441	JUNCTION	0.06	0.41	189.50	0	08:02	0.13
STMMH16442	JUNCTION	0.07	0.47	188.83	0	08:02	0.14
STMMH16443	JUNCTION	0.07	0.45	188.37	0	08:02	0.14
STMMH16444	JUNCTION	0.01	0.08	199.78	0	08:00	0.02
STMMH16445	JUNCTION	0.04	0.27	198.87	0	08:01	0.08
STMMH16446	JUNCTION	0.05	0.30	198.46	0	08:01	0.09
STMMH16448	JUNCTION	0.01	0.06	197.40	0	08:00	0.02
STMMH16449	JUNCTION	0.02	0.11	195.71	0	08:00	0.03
STMMH16450	JUNCTION	0.01	0.11	174.70	0	08:00	0.03
STMMH16451	JUNCTION	0.50	1.82	172.40	0	08:10	0.56
STMMH16458	JUNCTION	0.45	5.06	193.98	0	08:16	1.36
STMMH16462	JUNCTION	0.03	0.18	192.94	0	08:01	0.06
STMMH16463	JUNCTION	0.04	3.57	195.10	0	08:03	0.44

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH16732	JUNCTION	0.51	4.87	195.62	0	08:12	1.48
STMMH16735	JUNCTION	0.50	5.32	198.22	0	08:14	1.61
STMMH16913	JUNCTION	0.11	0.33	202.46	0	08:14	0.10
STMMH16914	JUNCTION	0.04	0.24	202.80	0	08:02	0.07
STMMH16931	JUNCTION	0.05	0.19	194.99	0	08:01	0.06
STMMH16932	JUNCTION	0.19	4.63	201.63	0	08:06	0.85
STMMH16933	JUNCTION	0.73	5.70	200.50	0	08:04	1.53
STMMH16934	JUNCTION	0.09	3.03	199.83	0	08:06	0.88
STMMH17106	JUNCTION	0.18	5.38	174.73	0	08:12	1.15
STMMH17107	JUNCTION	0.18	6.45	175.39	0	08:11	1.28
STMMH17108	JUNCTION	0.55	6.97	175.47	0	08:11	1.42
STMMH17165	JUNCTION	0.17	3.48	173.13	0	08:22	1.06
STMMH17166	JUNCTION	0.26	0.33	176.53	0	08:00	0.10
STMMH17167	JUNCTION	0.48	5.20	176.20	0	08:18	1.37
STMMH17179	JUNCTION	0.11	1.10	190.90	0	08:06	0.33
STMMH17180	JUNCTION	0.39	1.56	185.52	0	08:06	0.48
STMMH17181	JUNCTION	0.69	8.22	194.42	0	08:02	0.96
STMMH17182	JUNCTION	0.04	0.23	196.96	0	08:02	0.07
STMMH17183	JUNCTION	0.20	0.37	194.17	0	08:02	0.11

Proposed-100YR-24HR-CHICAGO

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMMH17184	JUNCTION	0.27	0.45	199.95	0	08:01	0.14
STMMH17186	JUNCTION	0.13	0.34	203.24	0	08:00	0.10
STMMH17187	JUNCTION	0.35	0.53	202.93	0	08:01	0.16
STMMH17188	JUNCTION	0.23	0.41	202.31	0	08:01	0.13
STMMH17198	JUNCTION	0.88	2.07	171.87	0	08:11	0.63
STMMH17199	JUNCTION	0.91	2.15	170.95	0	08:23	0.65
STMMH17201	JUNCTION	0.50	4.95	191.90	0	08:02	1.01
STMMH18062	JUNCTION	0.01	0.12	176.71	0	08:00	0.04
STMMH18064	JUNCTION	0.66	2.00	173.30	0	08:10	0.61
STMMH25102	JUNCTION	0.89	5.06	203.36	0	08:10	0.74
STMMH25103	JUNCTION	0.28	0.79	200.89	0	08:11	0.23
STMMH25104	JUNCTION	0.28	0.39	202.19	0	08:00	0.12
STMMH25105	JUNCTION	0.19	0.25	204.85	0	08:01	0.08
STMMH27063	JUNCTION	2.02	7.92	172.17	0	08:20	2.40
STMMH27064	JUNCTION	0.29	0.33	178.13	0	08:03	0.10
STMSJ14524	JUNCTION	0.01	0.05	202.58	0	08:00	0.01
STMSJ14525	JUNCTION	0.02	0.14	202.67	0	08:00	0.04
STMSJ227	JUNCTION	0.00	0.00	186.91	0	00:00	0.00
STMSJ338	JUNCTION	0.22	4.53	202.93	0	08:03	1.08

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Day of Maximum Depth	Hour of Maximum Depth	Maximum Reported Depth Meters
STMSJ340	JUNCTION	0.06	3.30	201.79	0	08:09	0.83
STMSJ341	JUNCTION	0.24	3.95	201.73	0	08:09	1.04
STMSJ343	JUNCTION	0.20	3.93	201.42	0	08:09	1.04
STMSJ415	JUNCTION	0.00	0.00	177.55	0	00:00	0.00
ThornC7Node	JUNCTION	0.05	0.39	173.82	0	08:09	0.12
ThornC7NodeE	JUNCTION	0.03	0.22	174.82	0	08:01	0.07
ThornC7NodeW	JUNCTION	0.05	0.19	175.19	0	08:03	0.06
ThornMHc7	JUNCTION	0.05	0.34	172.34	0	08:21	0.10
ThornridgeNorthNode	JUNCTION	0.03	0.46	175.53	0	08:00	0.14

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Link Flow Summary

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
10128d	CONDUIT	0.117	0	08:02	1.27	0.26	0.36
10128u	CONDUIT	0.043	0	08:02	0.67	0.10	0.28
10143	CONDUIT	0.214	0	08:01	1.94	0.55	1.00
10146	CONDUIT	0.172	0	08:27	5.48	9.18	1.00
10152d	CONDUIT	0.105	0	08:01	1.28	0.53	1.00
10152u	CONDUIT	0.088	0	08:04	0.77	0.44	1.00
10153d	CONDUIT	0.136	0	08:02	1.34	0.45	1.00
10153u	CONDUIT	0.106	0	08:01	1.16	0.34	1.00
10165d	CONDUIT	0.321	0	08:03	1.68	0.31	0.39
10165u	CONDUIT	0.223	0	08:02	1.24	0.22	0.37
10167d	CONDUIT	0.094	0	08:01	1.43	0.25	0.34
10167u	CONDUIT	0.074	0	08:00	1.24	0.20	0.32
10169d	CONDUIT	0.083	0	08:00	1.60	0.46	0.48
10169u	CONDUIT	0.021	0	08:00	0.61	0.12	0.35
10177d	CONDUIT	2.270	0	08:10	2.90	0.93	1.00
10177u	CONDUIT	2.006	0	08:01	2.55	0.82	1.00
10179d	CONDUIT	3.876	0	08:08	3.43	1.36	1.00

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
10179ud	CONDUIT	3.644	0	08:09	3.22	1.30	1.00
10179uu	CONDUIT	3.434	0	08:09	3.04	1.23	1.00
10182d	CONDUIT	4.893	0	08:08	4.33	1.07	1.00
10182u	CONDUIT	4.661	0	08:08	4.12	1.02	1.00
10191d	CONDUIT	0.082	0	08:01	1.45	0.41	1.00
10191u	CONDUIT	0.026	0	08:39	0.36	0.13	0.83
10195d	CONDUIT	0.117	0	08:14	1.40	0.54	1.00
10195u	CONDUIT	0.117	0	08:15	1.09	0.55	1.00
10303d	CONDUIT	0.259	0	08:06	1.46	0.69	1.00
10303u	CONDUIT	0.220	0	08:05	1.19	0.56	1.00
10319d	CONDUIT	0.118	0	08:00	2.70	0.65	0.59
10319u	CONDUIT	0.080	0	08:00	2.11	0.44	0.53
10328d	CONDUIT	0.019	0	08:04	0.81	0.09	0.20
10328u	CONDUIT	0.011	0	08:04	0.58	0.05	0.18
10335d	CONDUIT	0.043	0	08:00	1.50	0.20	0.31
10335u	CONDUIT	0.034	0	08:00	1.29	0.16	0.29
10347	CONDUIT	0.044	0	08:07	1.72	0.33	1.00
10359d	CONDUIT	4.892	0	08:07	3.95	0.73	0.56
10359u	CONDUIT	4.882	0	08:07	3.33	0.71	0.65

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
10360d	CONDUIT	4.915	0	08:08	4.69	0.45	0.49
10360u	CONDUIT	4.896	0	08:08	4.63	0.45	0.50
10365d	CONDUIT	2.011	0	08:07	3.22	2.14	0.95
10365u	CONDUIT	1.887	0	08:07	2.97	2.03	1.00
10381d	CONDUIT	0.657	0	08:01	3.51	0.30	0.63
10381u	CONDUIT	0.550	0	08:01	3.08	0.24	0.37
10386d	CONDUIT	0.066	0	08:01	0.60	0.28	0.68
10386u	CONDUIT	0.014	0	08:00	0.47	0.06	0.26
10390d	CONDUIT	0.310	0	08:02	2.75	0.37	0.42
10390u	CONDUIT	0.294	0	08:02	2.58	0.35	0.42
10400d	CONDUIT	1.123	0	08:04	2.10	0.82	0.79
10400u	CONDUIT	0.957	0	08:04	1.82	0.71	0.78
10403d	CONDUIT	1.455	0	08:06	2.63	0.96	0.81
10403u	CONDUIT	1.204	0	08:04	2.14	0.88	0.84
10404d	CONDUIT	0.116	0	08:00	2.31	0.78	0.67
10404u	CONDUIT	0.048	0	08:00	1.27	0.32	0.53
10410d	CONDUIT	0.559	0	08:07	3.51	1.98	1.00
10410u	CONDUIT	0.213	0	08:03	1.34	0.72	1.00
10412d	CONDUIT	3.401	0	08:05	2.71	0.76	0.69

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
10412u	CONDUIT	3.327	0	08:05	2.60	0.75	0.69
10413d	CONDUIT	4.306	0	08:05	2.75	0.69	0.69
10413u	CONDUIT	4.191	0	08:05	2.76	0.69	0.67
10414d	CONDUIT	4.355	0	08:06	2.68	0.77	0.71
10414u	CONDUIT	4.329	0	08:06	2.67	0.76	0.71
10415d	CONDUIT	4.783	0	08:07	3.05	0.76	0.69
10415u	CONDUIT	4.562	0	08:06	2.86	0.77	0.70
10416d	CONDUIT	4.786	0	08:07	3.12	0.71	0.67
10416u	CONDUIT	4.785	0	08:07	3.05	0.73	0.69
10419d	CONDUIT	0.856	0	08:03	2.52	0.67	0.61
10419u	CONDUIT	0.742	0	08:03	2.16	0.58	0.61
10437d	CONDUIT	0.153	0	08:01	2.24	1.11	0.97
10437u	CONDUIT	0.063	0	08:00	1.19	0.45	0.74
10440d	CONDUIT	0.129	0	08:01	2.23	0.52	0.52
10440u	CONDUIT	0.000	0	00:00	0.00	0.00	0.26
10446d	CONDUIT	0.035	0	08:00	1.36	0.32	0.39
10446u	CONDUIT	0.014	0	08:00	0.72	0.13	0.32
10450d	CONDUIT	0.612	0	08:03	2.01	1.00	0.80
10450u	CONDUIT	0.589	0	08:02	1.84	0.97	0.84

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
10454d	CONDUIT	0.112	0	08:10	1.74	0.37	0.83
10454u	CONDUIT	0.011	0	08:00	0.33	0.04	0.36
10460d	CONDUIT	0.243	0	08:12	2.20	1.16	1.00
10460u	CONDUIT	0.041	0	08:08	0.66	0.20	0.78
10461d	CONDUIT	0.479	0	08:07	2.21	1.25	1.00
10461u	CONDUIT	0.263	0	08:12	1.29	0.69	1.00
10462d	CONDUIT	0.601	0	08:08	2.13	1.14	1.00
10462u	CONDUIT	0.498	0	08:08	1.76	0.94	1.00
10465d	CONDUIT	0.038	0	08:07	1.01	0.67	1.00
10465u	CONDUIT	0.037	0	08:06	0.76	0.65	1.00
10468d	CONDUIT	0.095	0	08:02	1.34	0.98	1.00
10468u	CONDUIT	0.064	0	08:04	0.91	0.59	1.00
10469d	CONDUIT	0.051	0	08:01	1.32	0.30	0.38
10469u	CONDUIT	0.002	0	08:00	0.12	0.01	0.23
10470d	CONDUIT	0.294	0	08:01	1.72	0.62	1.00
10470u	CONDUIT	0.219	0	08:01	1.31	0.47	1.00
10471	CONDUIT	0.308	0	08:02	2.05	0.50	1.00
10473d	CONDUIT	0.219	0	08:01	1.72	0.61	0.75
10473u	CONDUIT	0.065	0	08:01	0.73	0.18	0.43

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
10476d	CONDUIT	0.044	0	08:01	1.31	0.15	0.26
10476u	CONDUIT	0.009	0	08:01	0.44	0.03	0.19
10477d	CONDUIT	0.140	0	08:01	2.18	0.37	0.42
10477u	CONDUIT	0.044	0	08:01	0.96	0.11	0.33
10483u	CONDUIT	14.262	0	08:09	4.78	0.96	1.00
10485d	CONDUIT	0.239	0	08:00	2.20	0.48	0.90
10485u	CONDUIT	0.132	0	08:00	1.44	0.28	0.65
10486d	CONDUIT	0.125	0	08:00	2.71	0.69	0.62
10486u	CONDUIT	0.000	0	00:00	0.00	0.00	0.32
10487d	CONDUIT	0.126	0	08:01	1.87	0.63	1.00
10487u	CONDUIT	0.126	0	08:00	1.82	0.64	1.00
10497d	CONDUIT	0.084	0	08:00	1.98	0.21	0.31
10497u	CONDUIT	0.000	0	00:00	0.00	0.00	0.16
10513d	CONDUIT	0.034	0	08:00	2.34	0.07	0.19
10513u	CONDUIT	0.016	0	08:00	1.28	0.06	0.17
10530d	CONDUIT	0.035	0	08:01	1.20	0.20	0.31
10530u	CONDUIT	0.000	0	08:02	0.00	0.00	0.16
10531d	CONDUIT	0.148	0	08:02	1.25	0.22	0.31
10531u	CONDUIT	0.135	0	08:02	1.14	0.20	0.31

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
10533d	CONDUIT	0.154	0	08:02	1.49	1.23	0.89
10533u	CONDUIT	0.088	0	08:06	0.94	0.70	1.00
10551d	CONDUIT	0.332	0	08:01	1.78	0.23	0.42
10551u	CONDUIT	0.183	0	08:00	1.20	0.13	0.29
10562d	CONDUIT	1.572	0	08:14	2.47	1.59	1.00
10562u	CONDUIT	1.558	0	08:14	2.45	1.58	1.00
10564d	CONDUIT	0.983	0	08:23	2.18	1.13	0.78
10564u	CONDUIT	0.894	0	08:24	1.82	1.04	0.86
10565d	CONDUIT	1.611	0	08:21	2.31	0.98	0.79
10565u	CONDUIT	1.595	0	08:21	2.11	0.97	0.83
10581d	CONDUIT	3.355	0	08:04	2.74	0.74	0.65
10581u	CONDUIT	3.312	0	08:04	2.65	0.69	0.67
10586d	CONDUIT	0.031	0	08:00	1.55	0.12	0.24
10586u	CONDUIT	0.019	0	08:00	1.14	0.08	0.21
10810d	CONDUIT	1.056	0	08:08	1.43	0.61	1.00
10810u	CONDUIT	1.003	0	08:09	1.55	0.59	1.00
10914d	CONDUIT	0.251	0	08:03	1.48	0.49	1.00
10914u	CONDUIT	0.196	0	08:03	1.21	0.38	0.90
10936d	CONDUIT	0.003	0	08:03	0.44	0.03	0.22

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
10936u	CONDUIT	0.000	0	00:00	0.00	0.00	0.02
10937d	CONDUIT	0.394	0	08:04	1.78	0.96	1.00
10937u	CONDUIT	0.388	0	08:03	1.63	0.93	1.00
10940d	CONDUIT	0.263	0	08:01	1.40	0.88	1.00
10940u	CONDUIT	0.236	0	08:01	1.34	0.79	1.00
10943d	CONDUIT	0.078	0	08:02	1.05	0.24	0.48
10943u	CONDUIT	0.038	0	08:04	1.09	0.11	0.28
10944d	CONDUIT	0.243	0	08:03	2.05	0.82	1.00
10944u	CONDUIT	0.205	0	08:03	1.79	0.72	0.78
10963d	CONDUIT	0.131	0	08:01	1.40	1.08	0.79
10963ud	CONDUIT	0.019	0	08:03	0.31	0.15	0.70
10963uu	CONDUIT	0.003	0	08:01	0.09	0.02	0.31
10970d	CONDUIT	0.540	0	08:04	2.49	1.77	1.00
10970u	CONDUIT	0.409	0	08:04	1.89	1.34	1.00
10981d	CONDUIT	0.171	0	08:03	2.41	0.85	1.00
10981u	CONDUIT	0.034	0	08:00	2.05	0.17	0.64
10988d	CONDUIT	0.048	0	08:00	2.13	0.27	1.00
10988u	CONDUIT	0.029	0	08:00	1.52	0.16	0.57
11003d	CONDUIT	1.506	0	08:06	1.34	0.61	1.00

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
11003u	CONDUIT	1.480	0	08:07	1.37	0.60	1.00
11004d	CONDUIT	1.203	0	08:07	1.35	0.48	1.00
11004u	CONDUIT	1.148	0	08:07	1.21	0.47	1.00
11010d	CONDUIT	0.060	0	08:00	1.92	0.42	0.60
11010u	CONDUIT	0.000	0	00:00	0.00	0.00	0.23
11052d	CONDUIT	3.191	0	08:05	2.14	0.86	1.00
11052u	CONDUIT	3.099	0	08:05	2.10	0.85	1.00
11141d	CONDUIT	0.572	0	09:01	2.67	1.87	1.00
11141u	CONDUIT	0.371	0	09:01	1.71	1.22	1.00
11153d	CONDUIT	0.026	0	08:01	0.75	0.16	0.40
11153u	CONDUIT	0.011	0	08:00	0.62	0.07	0.23
11166d	CONDUIT	0.029	0	08:00	2.23	0.12	0.36
11166u	CONDUIT	0.015	0	08:00	1.41	0.06	0.21
11174d	CONDUIT	0.158	0	08:01	2.74	0.52	0.52
11174u	CONDUIT	0.058	0	08:01	1.36	0.19	0.41
11175d	CONDUIT	0.185	0	08:01	3.09	0.55	0.53
11175u	CONDUIT	0.171	0	08:01	2.91	0.51	0.53
11178d	CONDUIT	0.072	0	08:00	1.58	0.69	0.62
11178u	CONDUIT	0.034	0	08:00	0.95	0.32	0.50

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
11179d	CONDUIT	0.111	0	08:01	2.36	0.40	0.44
11179u	CONDUIT	0.105	0	08:00	2.28	0.38	0.44
11180	CONDUIT	0.554	0	08:04	1.08	0.36	1.00
11181d	CONDUIT	0.089	0	08:01	1.17	0.29	0.39
11181u	CONDUIT	0.020	0	08:01	0.47	0.07	0.28
11185d	CONDUIT	0.185	0	08:02	1.88	0.30	0.44
11185u	CONDUIT	0.084	0	08:02	1.09	0.14	0.32
11186d	CONDUIT	0.237	0	08:12	1.94	0.39	1.00
11186u	CONDUIT	0.188	0	08:13	1.64	0.31	0.90
11189d	CONDUIT	0.009	0	08:01	1.10	0.06	0.17
11189u	CONDUIT	0.000	0	00:00	0.00	0.00	0.09
11190d	CONDUIT	0.084	0	08:01	1.50	0.20	0.30
11190u	CONDUIT	0.052	0	08:01	1.09	0.12	0.27
11191d	CONDUIT	0.044	0	08:01	1.14	0.30	0.38
11191u	CONDUIT	0.000	0	00:00	0.00	0.00	0.19
11198d	CONDUIT	0.224	0	08:05	1.03	0.61	1.00
11198u	CONDUIT	0.197	0	08:05	1.35	0.54	1.00
11207d	CONDUIT	0.220	0	08:01	1.53	0.72	0.64
11207u	CONDUIT	0.156	0	08:01	1.22	0.52	0.58

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
11237d	CONDUIT	0.160	0	08:01	2.36	0.65	0.59
11237u	CONDUIT	0.016	0	08:00	0.52	0.06	0.38
11240d	CONDUIT	0.527	0	08:02	2.38	0.86	1.00
11240u	CONDUIT	0.336	0	08:03	1.65	0.53	1.00
11242d	CONDUIT	1.102	0	08:01	1.73	0.80	1.00
11242u	CONDUIT	0.875	0	08:01	1.56	0.64	1.00
11243d	CONDUIT	0.445	0	08:01	1.88	1.07	1.00
11243u	CONDUIT	0.283	0	08:01	1.27	0.68	1.00
11249d	CONDUIT	0.053	0	08:00	2.34	0.27	0.36
11249u	CONDUIT	0.018	0	08:00	1.14	0.09	0.28
11256d	CONDUIT	0.071	0	08:01	1.47	0.41	0.45
11256u	CONDUIT	0.016	0	08:00	0.52	0.09	0.33
11265d	CONDUIT	0.205	0	08:01	2.58	0.49	1.00
11265u	CONDUIT	0.141	0	08:01	1.99	0.33	1.00
11266dd	CONDUIT	7.099	0	08:21	4.02	1.16	1.00
11266du	CONDUIT	7.026	0	08:21	3.98	1.25	1.00
11266u	CONDUIT	7.089	0	08:30	4.01	1.39	1.00
11320d	CONDUIT	0.233	0	08:02	2.91	0.33	0.40
11320u	CONDUIT	0.219	0	08:01	2.79	0.31	0.39

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
11324d	CONDUIT	0.218	0	08:01	2.60	0.35	0.41
11324u	CONDUIT	0.206	0	08:01	2.52	0.33	0.40
14731	CHANNEL	6.052	0	08:04	2.12	0.04	0.32
14733	CHANNEL	1.318	0	08:28	1.31	0.09	0.64
14738	CHANNEL	0.082	0	08:04	0.36	0.01	0.13
14741	CHANNEL	1.228	0	08:56	0.25	0.02	0.55
14745	CHANNEL	1.265	0	08:55	0.47	0.01	0.38
14750	CHANNEL	0.833	0	08:02	0.55	0.01	0.32
14751	CHANNEL	1.265	0	08:55	1.70	0.05	0.22
14753	CHANNEL	0.231	0	08:02	0.65	0.00	0.09
14759	CHANNEL	0.156	0	08:01	0.16	0.11	0.59
14762	CHANNEL	1.859	0	08:34	0.81	0.12	0.59
14764	CHANNEL	0.252	0	08:04	0.08	0.01	0.50
14766	CHANNEL	1.872	0	08:34	0.92	0.04	0.54
14768	CHANNEL	0.159	0	08:07	0.90	0.00	0.09
14770	WEIR	0.000	0	00:00	0.00		
14776	CHANNEL	3.930	0	08:07	1.76	0.14	0.27
14777	CHANNEL	1.874	0	08:34	2.62	0.09	0.28
14778	CHANNEL	2.816	0	08:05	1.03	0.06	0.28

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
14779	CHANNEL	0.000	0	00:00	0.00	0.00	0.13
14780	CHANNEL	2.739	0	08:05	1.49	0.04	0.23
14781	CHANNEL	2.563	0	08:04	2.16	0.02	0.18
14782	CHANNEL	0.099	0	08:01	0.31	0.00	0.12
14783	CHANNEL	0.260	0	08:00	1.00	0.01	0.12
14784	CHANNEL	2.122	0	08:04	2.34	0.02	0.15
14792	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
14793	DUMMY	0.004	0	08:02			
14795	DUMMY	0.037	0	08:02			
14797	DUMMY	0.027	0	08:01			
14798	DUMMY	0.089	0	08:02			
14799	DUMMY	0.014	0	08:02			
14800	DUMMY	0.029	0	08:00			
14804	DUMMY	0.004	0	08:00			
14805	DUMMY	0.037	0	08:01			
14806	DUMMY	0.127	0	08:03			
14807	DUMMY	0.007	0	08:01			
14808	DUMMY	0.009	0	08:00			
14812	DUMMY	0.039	0	08:02			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
14813	DUMMY	0.145	0	08:03			
14817	DUMMY	0.006	0	08:00			
14818	DUMMY	0.264	0	08:03			
14819	DUMMY	0.086	0	08:00			
14823	DUMMY	0.003	0	08:01			
14824	DUMMY	0.053	0	08:00			
14825	DUMMY	0.043	0	08:00			
14827	CHANNEL	0.412	0	08:00	0.77	0.01	0.11
14828	DUMMY	0.012	0	08:00			
14829	DUMMY	0.211	0	08:02			
14831	CHANNEL	0.618	0	08:02	0.93	0.04	0.17
14832	DUMMY	0.011	0	08:00			
14837	CHANNEL	6.231	0	08:06	0.79	0.45	0.42
14838	CHANNEL	2.413	0	08:03	0.41	0.04	0.39
14840	CHANNEL	0.149	0	08:00	0.35	0.00	0.11
14841	CHANNEL	3.176	0	08:02	2.15	0.02	0.17
14842	CHANNEL	2.728	0	08:02	1.79	0.01	0.18
14843	CHANNEL	0.328	0	08:00	0.71	0.00	0.11
14846	CHANNEL	0.413	0	08:04	0.29	0.01	0.25

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
14847	CHANNEL	0.440	0	08:02	0.45	0.01	0.14
14848	CHANNEL	0.014	0	08:04	0.08	0.00	0.06
14849	DUMMY	0.058	0	08:01			
14856	CHANNEL	0.082	0	08:00	0.51	0.00	0.10
14858	CHANNEL	0.669	0	08:01	0.28	0.02	0.58
14859	CHANNEL	0.335	0	08:01	0.61	0.00	0.11
14861	CHANNEL	0.250	0	08:02	0.70	0.00	0.08
14862	CHANNEL	0.137	0	08:01	0.58	0.01	0.08
14866	DUMMY	0.094	0	08:00			
14870	DUMMY	0.002	0	08:00			
14872	DUMMY	0.228	0	08:09			
14873	DUMMY	0.201	0	08:12			
14874	DUMMY	0.314	0	08:30			
14875	DUMMY	0.387	0	08:39			
14876	DUMMY	0.822	0	08:37			
14877	DUMMY	0.165	0	08:00			
14878	DUMMY	0.017	0	08:00			
14881	DUMMY	0.020	0	08:01			
14885	DUMMY	0.007	0	08:01			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
14886	DUMMY	0.058	0	08:00			
14887	DUMMY	0.014	0	08:00			
14888	DUMMY	0.021	0	08:00			
14892	DUMMY	0.070	0	08:00			
14893	DUMMY	0.088	0	08:01			
14894	DUMMY	0.020	0	08:00			
14896	DUMMY	0.075	0	08:04			
14897	DUMMY	0.020	0	08:01			
14901	DUMMY	0.078	0	08:00			
14904	CHANNEL	2.092	0	08:15	3.40	0.01	0.15
14905	DUMMY	0.108	0	08:01			
14906	DUMMY	0.053	0	08:02			
14907	DUMMY	0.234	0	08:02			
14908	DUMMY	0.123	0	08:00			
14909	DUMMY	0.011	0	08:00			
14913	DUMMY	0.010	0	08:00			
14914	DUMMY	0.014	0	08:00			
14918	DUMMY	0.014	0	08:00			
14919	DUMMY	0.015	0	08:03			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
14920	DUMMY	0.322	0	08:04			
14921	DUMMY	0.075	0	08:00			
14922	DUMMY	0.106	0	08:04			
14923	DUMMY	0.018	0	08:01			
14930	DUMMY	0.035	0	08:01			
14931	DUMMY	0.103	0	08:02			
14932	DUMMY	0.028	0	08:00			
14933	DUMMY	0.045	0	08:03			
14934	DUMMY	0.072	0	08:02			
14935	DUMMY	0.174	0	08:02			
14939	DUMMY	0.014	0	08:02			
14948	DUMMY	0.117	0	08:19			
14952	DUMMY	0.393	0	08:28			
14954	CHANNEL	0.079	0	08:03	0.13	0.00	0.28
14965	CHANNEL	0.090	0	08:00	0.06	0.00	0.52
14967	CHANNEL	2.973	0	08:09	0.50	0.06	0.62
14976	CHANNEL	1.649	0	08:28	1.51	0.02	0.17
14977	CHANNEL	0.885	0	08:01	1.13	0.03	0.15
14979	CHANNEL	1.471	0	08:28	2.13	0.08	0.35

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
14981	DUMMY	0.036	0	08:00			
14982	DUMMY	0.012	0	08:00			
14983	DUMMY	0.146	0	08:01			
14984	DUMMY	0.236	0	08:01			
14996	DUMMY	0.026	0	08:00			
14998	CHANNEL	0.365	0	08:01	1.01	0.00	0.09
14999	CHANNEL	0.207	0	08:00	0.91	0.00	0.07
15006	DUMMY	0.010	0	08:00			
15007	DUMMY	0.018	0	08:01			
15008	DUMMY	0.387	0	08:06			
15009	DUMMY	0.156	0	08:07			
15013	DUMMY	0.004	0	08:02			
15017	DUMMY	0.152	0	08:01			
15018	DUMMY	0.054	0	08:01			
15019	DUMMY	0.004	0	08:04			
15020	DUMMY	0.011	0	08:00			
15024	DUMMY	0.014	0	08:00			
15028	DUMMY	0.014	0	08:00			
15029	DUMMY	0.025	0	08:00			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
15034	DUMMY	0.044	0	08:00			
15038	DUMMY	0.009	0	08:00			
15042	DUMMY	0.032	0	08:01			
15046	DUMMY	0.091	0	08:01			
15050	DUMMY	0.050	0	08:01			
15051	DUMMY	0.520	0	08:16			
15052	DUMMY	1.097	0	08:16			
15053	DUMMY	0.044	0	08:01			
15054	DUMMY	0.010	0	08:00			
15055	DUMMY	0.020	0	08:00			
15056	DUMMY	0.062	0	08:00			
15060	DUMMY	0.064	0	08:01			
15061	DUMMY	0.047	0	08:01			
15062	DUMMY	0.054	0	08:01			
15066	DUMMY	0.167	0	08:01			
15067	DUMMY	0.169	0	08:03			
15068	DUMMY	0.078	0	08:03			
15072	DUMMY	0.284	0	08:41			
15073	DUMMY	0.410	0	08:04			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16254	CHANNEL	0.199	0	08:01	0.53	0.00	0.13
16255	CHANNEL	0.075	0	08:01	0.31	0.00	0.11
16259	DUMMY	0.021	0	08:00			
16263	DUMMY	0.116	0	08:01			
16264	DUMMY	0.013	0	08:01			
16268	DUMMY	0.012	0	08:16			
16269	DUMMY	0.026	0	08:01			
16270	DUMMY	0.338	0	08:01			
16274	DUMMY	0.447	0	08:05			
16276	DUMMY	0.020	0	08:01			
16278	DUMMY	0.141	0	08:02			
16279	DUMMY	0.656	0	08:13			
16283	DUMMY	0.102	0	08:01			
16284	DUMMY	0.022	0	08:00			
16285	DUMMY	0.075	0	08:01			
16286	DUMMY	0.210	0	08:02			
16287	DUMMY	0.116	0	08:00			
16288	DUMMY	0.105	0	08:00			
16289	DUMMY	0.022	0	08:00			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16290	DUMMY	0.006	0	08:00			
16291	DUMMY	0.056	0	08:01			
16292	DUMMY	0.010	0	08:00			
16293	DUMMY	0.009	0	08:00			
16294	DUMMY	10.094	0	08:19			
16295	DUMMY	0.135	0	08:02			
16296	DUMMY	0.038	0	08:01			
16298	DUMMY	0.113	0	08:07			
16302	DUMMY	0.179	0	08:08			
16306	DUMMY	0.044	0	08:00			
16310	DUMMY	0.227	0	08:07			
16311	DUMMY	0.094	0	08:03			
16312	DUMMY	0.142	0	08:01			
16316	DUMMY	0.096	0	08:01			
16320	DUMMY	0.036	0	08:00			
16324	DUMMY	0.342	0	08:06			
16328	DUMMY	0.067	0	08:02			
16332	DUMMY	0.115	0	08:01			
16333	DUMMY	0.046	0	08:00			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16337	DUMMY	0.236	0	08:07			
16341	DUMMY	0.218	0	08:06			
16345	DUMMY	0.116	0	08:04			
16346	DUMMY	0.590	0	08:05			
16347	DUMMY	0.136	0	08:05			
16351	DUMMY	0.105	0	08:04			
16355	DUMMY	0.249	0	08:06			
16359	DUMMY	0.078	0	08:07			
16363	DUMMY	0.236	0	08:05			
16364	DUMMY	0.231	0	08:03			
16365	DUMMY	0.027	0	08:01			
16369	DUMMY	0.038	0	08:00			
16370	DUMMY	1.200	0	08:06			
16371	DUMMY	0.004	0	08:00			
16372	DUMMY	0.215	0	08:02			
16376	DUMMY	0.012	0	08:00			
16377	DUMMY	0.111	0	08:02			
16381	DUMMY	0.115	0	08:02			
16382	DUMMY	0.128	0	08:01			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16383	DUMMY	0.068	0	08:00			
16384	DUMMY	0.192	0	08:03			
16388	DUMMY	0.005	0	08:00			
16389	DUMMY	0.156	0	08:01			
16390	DUMMY	0.039	0	08:00			
16391	DUMMY	0.048	0	08:01			
16392	DUMMY	0.182	0	08:01			
16393	DUMMY	0.098	0	08:02			
16394	DUMMY	0.251	0	08:01			
16395	DUMMY	0.081	0	08:00			
16396	DUMMY	0.128	0	08:00			
16397	DUMMY	0.168	0	08:00			
16398	DUMMY	0.245	0	08:01			
16399	DUMMY	0.060	0	08:01			
16400	DUMMY	0.082	0	08:01			
16401	DUMMY	0.008	0	08:00			
16405	DUMMY	0.030	0	08:00			
16406	DUMMY	0.024	0	08:00			
16407	DUMMY	0.012	0	08:01			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16408	DUMMY	0.034	0	08:05			
16409	DUMMY	0.403	0	08:02			
16410	DUMMY	0.013	0	08:00			
16411	DUMMY	0.044	0	08:00			
16412	DUMMY	0.084	0	08:00			
16415	DUMMY	0.016	0	08:00			
16416	DUMMY	0.039	0	08:00			
16417	DUMMY	0.096	0	08:02			
16418	DUMMY	0.033	0	08:01			
16422	DUMMY	0.055	0	08:01			
16425	DUMMY	0.020	0	08:01			
16427	DUMMY	0.077	0	08:00			
16428	DUMMY	0.043	0	08:01			
16429	DUMMY	0.039	0	08:02			
16430	DUMMY	0.105	0	08:01			
16431	DUMMY	0.416	0	08:08			
16432	DUMMY	0.037	0	08:01			
16436	DUMMY	0.049	0	08:01			
16437	DUMMY	0.052	0	08:02			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16443	DUMMY	0.067	0	08:01			
16444	DUMMY	0.006	0	08:00			
16445	DUMMY	0.103	0	08:02			
16449	DUMMY	0.011	0	08:00			
16450	DUMMY	0.082	0	08:01			
16451	DUMMY	0.042	0	08:05			
16452	DUMMY	0.193	0	08:03			
16456	DUMMY	0.137	0	08:09			
16458	DUMMY	0.044	0	08:02			
16459	DUMMY	0.119	0	08:01			
16460	DUMMY	0.118	0	08:01			
16461	DUMMY	0.054	0	08:01			
16462	DUMMY	0.032	0	08:00			
16463	DUMMY	0.166	0	08:01			
16464	DUMMY	0.094	0	08:02			
16465	DUMMY	0.004	0	08:05			
16469	DUMMY	0.036	0	08:00			
16470	DUMMY	0.002	0	08:01			
16471	DUMMY	0.004	0	08:00			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16472	DUMMY	0.035	0	08:00			
16473	DUMMY	0.085	0	08:01			
16475	DUMMY	0.023	0	08:02			
16476	DUMMY	0.038	0	08:00			
16484	DUMMY	0.248	0	08:02			
16485	DUMMY	0.149	0	08:00			
16486	DUMMY	0.059	0	08:00			
16487	DUMMY	0.042	0	08:01			
16488	DUMMY	0.008	0	08:00			
16489	DUMMY	0.202	0	08:02			
16490	DUMMY	0.228	0	08:08			
16491	DUMMY	0.538	0	08:04			
16492	DUMMY	0.299	0	08:06			
16493	DUMMY	0.020	0	08:00			
16494	DUMMY	0.242	0	08:03			
16498	DUMMY	0.086	0	08:01			
16499	DUMMY	0.250	0	08:00			
16503	DUMMY	0.016	0	08:00			
16504	DUMMY	0.147	0	08:02			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16508	DUMMY	0.067	0	08:00			
16509	DUMMY	0.059	0	08:01			
16510	DUMMY	0.191	0	08:02			
16511	DUMMY	0.017	0	08:00			
16512	DUMMY	0.007	0	08:00			
16516	DUMMY	0.089	0	08:00			
16517	DUMMY	0.011	0	08:01			
16518	DUMMY	0.044	0	08:00			
16519	DUMMY	0.155	0	08:00			
16523	DUMMY	0.044	0	08:00			
16526	DUMMY	0.007	0	08:00			
16527	DUMMY	0.180	0	08:02			
16529	DUMMY	0.004	0	08:04			
16533	DUMMY	0.060	0	08:02			
16537	DUMMY	0.019	0	08:00			
16539	DUMMY	0.196	0	08:23			
16540	DUMMY	0.278	0	08:15			
16541	DUMMY	0.040	0	08:01			
16542	DUMMY	0.331	0	08:14			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16543	DUMMY	0.006	0	08:01			
16544	DUMMY	0.012	0	08:01			
16545	DUMMY	0.097	0	08:03			
16546	DUMMY	0.254	0	08:02			
16550	DUMMY	0.006	0	08:00			
16554	DUMMY	0.122	0	08:02			
16555	DUMMY	0.190	0	08:02			
16559	DUMMY	0.105	0	08:01			
16560	DUMMY	0.008	0	08:01			
16564	DUMMY	0.027	0	08:00			
16565	DUMMY	0.040	0	08:02			
16566	DUMMY	0.154	0	08:02			
16570	DUMMY	0.091	0	08:00			
16574	DUMMY	0.370	0	08:13			
16575	DUMMY	0.142	0	08:00			
16579	DUMMY	0.055	0	08:00			
16583	DUMMY	0.190	0	08:13			
16584	DUMMY	0.010	0	08:02			
16585	DUMMY	0.017	0	08:02			

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16586	DUMMY	0.135	0	08:01			
16587	DUMMY	0.035	0	08:00			
16588	DUMMY	0.204	0	08:10			
16592	DUMMY	0.442	0	08:11			
16596	DUMMY	0.101	0	08:02			
16597	DUMMY	0.045	0	08:01			
16598	DUMMY	0.013	0	08:00			
16601	DUMMY	0.013	0	08:00			
16602	DUMMY	0.300	0	08:01			
16603	DUMMY	0.077	0	08:02			
16604	DUMMY	0.038	0	08:02			
16605	DUMMY	0.042	0	08:01			
16606	DUMMY	0.015	0	08:00			
16607	DUMMY	0.028	0	08:00			
16611	DUMMY	0.008	0	08:01			
16612	DUMMY	0.010	0	08:04			
16613	DUMMY	0.083	0	08:00			
16617	DUMMY	0.030	0	08:02			
16618	DUMMY	0.038	0	08:00			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16619	DUMMY	0.022	0	08:00			
16620	DUMMY	0.015	0	08:01			
16624	DUMMY	0.056	0	08:00			
16628	DUMMY	0.018	0	08:00			
16629	DUMMY	0.336	0	08:02			
16630	DUMMY	0.004	0	08:02			
16631	DUMMY	0.027	0	08:00			
16656	DUMMY	0.018	0	08:00			
16660	DUMMY	0.048	0	08:01			
16661	DUMMY	0.081	0	08:00			
16665	DUMMY	0.029	0	08:00			
16666	DUMMY	0.172	0	08:05			
16670	DUMMY	0.135	0	08:06			
16674	DUMMY	0.006	0	08:04			
16675	DUMMY	0.082	0	08:12			
16676	DUMMY	0.243	0	08:14			
16677	DUMMY	0.142	0	08:00			
16678	DUMMY	0.376	0	08:11			
16682	DUMMY	0.005	0	08:00			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16683	DUMMY	0.019	0	08:01			
16684	DUMMY	0.032	0	08:00			
16685	DUMMY	0.010	0	08:00			
16688	CHANNEL	0.037	0	08:00	0.26	0.00	0.05
16690	CHANNEL	0.026	0	08:00	0.23	0.00	0.05
16693	CHANNEL	0.291	0	08:00	0.95	0.00	0.08
16695	CHANNEL	0.185	0	08:00	0.65	0.00	0.07
16696	DUMMY	0.009	0	08:00			
16697	DUMMY	0.041	0	08:00			
16698	CHANNEL	0.507	0	08:00	1.28	0.00	0.09
16699	DUMMY	0.459	0	08:10			
16700	DUMMY	0.090	0	08:01			
16701	DUMMY	0.065	0	08:01			
16702	DUMMY	0.272	0	08:10			
16706	DUMMY	0.161	0	08:10			
16707	DUMMY	0.137	0	08:10			
16708	DUMMY	0.064	0	08:03			
16709	DUMMY	0.057	0	08:02			
16710	DUMMY	0.068	0	08:04			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16711	DUMMY	0.232	0	08:05			
16712	DUMMY	0.055	0	08:07			
16713	DUMMY	0.116	0	08:05			
16714	DUMMY	0.043	0	08:01			
16715	DUMMY	0.111	0	08:01			
16716	DUMMY	0.532	0	08:08			
16717	DUMMY	0.014	0	08:00			
16719	CHANNEL	0.069	0	08:00	0.56	0.00	0.06
16723	DUMMY	0.005	0	08:00			
16724	DUMMY	0.025	0	08:01			
16725	DUMMY	0.002	0	08:10			
16734	DUMMY	0.155	0	08:08			
16737	CHANNEL	0.034	0	08:00	0.03	0.00	0.18
16738	DUMMY	0.004	0	08:00			
16739	DUMMY	0.059	0	08:00			
16740	DUMMY	0.005	0	08:00			
16741	DUMMY	0.023	0	08:01			
16742	DUMMY	0.064	0	08:02			
16743	DUMMY	0.031	0	08:00			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16744	DUMMY	0.469	0	08:38			
16745	DUMMY	0.023	0	08:03			
16746	DUMMY	0.091	0	08:00			
16750	DUMMY	0.013	0	08:00			
16754	DUMMY	0.016	0	08:00			
16755	DUMMY	0.050	0	08:02			
16756	DUMMY	0.013	0	08:00			
16757	DUMMY	0.128	0	08:02			
16758	DUMMY	0.065	0	08:03			
16759	DUMMY	0.433	0	08:06			
16760	DUMMY	0.178	0	08:07			
16764	DUMMY	0.051	0	08:00			
16765	DUMMY	0.031	0	08:00			
16766	DUMMY	0.063	0	08:00			
16767	DUMMY	0.003	0	08:00			
16771	DUMMY	0.141	0	08:01			
16772	DUMMY	0.147	0	08:01			
16776	DUMMY	0.190	0	08:01			
16777	DUMMY	0.194	0	08:02			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16778	DUMMY	0.180	0	08:00			
16779	DUMMY	0.073	0	08:00			
16780	DUMMY	0.033	0	08:00			
16781	DUMMY	0.083	0	08:01			
16785	DUMMY	0.066	0	08:01			
16788	CHANNEL	0.223	0	08:00	0.55	0.00	0.09
16789	CHANNEL	0.724	0	08:01	1.06	0.01	0.12
16790	CHANNEL	0.503	0	08:01	0.94	0.01	0.11
16791	DUMMY	0.040	0	08:00			
16792	DUMMY	0.025	0	08:00			
16793	DUMMY	0.122	0	08:00			
16794	DUMMY	0.123	0	08:01			
16795	DUMMY	0.006	0	08:00			
16796	DUMMY	0.020	0	08:00			
16797	DUMMY	0.194	0	08:00			
16798	DUMMY	0.093	0	08:01			
16799	DUMMY	0.123	0	08:02			
16800	DUMMY	0.005	0	08:01			
16801	DUMMY	0.026	0	08:01			

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16803	DUMMY	0.350	0	08:03			
16804	DUMMY	0.109	0	08:03			
16805	DUMMY	0.012	0	08:01			
16806	DUMMY	0.017	0	08:00			
16807	DUMMY	0.010	0	08:00			
16808	DUMMY	0.020	0	08:00			
16809	DUMMY	0.028	0	08:00			
16810	DUMMY	0.126	0	08:02			
16811	DUMMY	0.063	0	08:02			
16812	DUMMY	0.112	0	08:02			
16813	DUMMY	0.014	0	08:00			
16814	DUMMY	0.162	0	08:01			
16816	DUMMY	0.361	0	08:05			
16817	DUMMY	0.341	0	08:15			
16819	DUMMY	0.062	0	08:00			
16820	DUMMY	0.020	0	08:00			
16821	DUMMY	0.159	0	08:01			
16822	DUMMY	0.132	0	08:01			
16823	DUMMY	0.008	0	08:00			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16824	DUMMY	0.029	0	08:01			
16828	DUMMY	0.043	0	08:00			
16829	DUMMY	0.011	0	08:01			
16834	DUMMY	0.194	0	08:30			
16835	DUMMY	0.414	0	08:17			
16836	DUMMY	0.222	0	08:28			
16837	DUMMY	0.505	0	08:28			
16838	DUMMY	0.175	0	08:11			
16842	DUMMY	0.010	0	08:00			
16843	CHANNEL	0.119	0	08:00	0.14	0.00	0.17
16844	CHANNEL	0.905	0	08:02	0.65	0.02	0.21
16845	CHANNEL	0.302	0	08:01	0.20	0.02	0.26
16846	DUMMY	0.489	0	08:07			
16847	DUMMY	0.098	0	08:19			
16848	DUMMY	0.137	0	08:19			
16849	DUMMY	0.025	0	08:00			
16850	DUMMY	0.092	0	08:01			
16851	DUMMY	0.049	0	08:01			
16852	DUMMY	0.067	0	08:00			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
16853	DUMMY	0.095	0	08:01			
16854	DUMMY	0.009	0	08:00			
16857	CHANNEL	0.130	0	08:00	0.60	0.00	0.07
16858	DUMMY	0.063	0	08:00			
16861	CHANNEL	0.093	0	08:00	0.22	0.01	0.09
16863	CHANNEL	0.245	0	08:00	0.66	0.00	0.09
16864	DUMMY	0.022	0	08:00			
16865	CHANNEL	0.540	0	08:00	1.19	0.01	0.10
16866	DUMMY	0.105	0	08:00			
16870	DUMMY	0.226	0	08:04			
16876	DUMMY	0.212	0	08:04			
16877	DUMMY	0.034	0	08:00			
16878	DUMMY	0.470	0	08:04			
16879	DUMMY	0.050	0	08:00			
16880	DUMMY	0.107	0	08:01			
16882	DUMMY	0.019	0	08:00			
16886	DUMMY	0.042	0	08:01			
16887	DUMMY	0.181	0	08:04			
16888	DUMMY	0.256	0	08:03			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
17487	DUMMY	0.107	0	08:00			
17488	DUMMY	0.868	0	08:03			
17491	CHANNEL	0.095	0	08:17	0.91	0.00	0.02
17494	CHANNEL	0.179	0	08:15	0.76	0.00	0.03
17495	CHANNEL	0.747	0	08:07	1.46	0.00	0.05
17496	CHANNEL	0.476	0	08:05	0.14	0.00	0.24
17497	DUMMY	0.586	0	08:18			
17503	CHANNEL	8.480	0	08:05	2.79	0.01	0.22
17508	CHANNEL	0.003	0	08:05	0.26	0.00	0.20
17510	DUMMY	2.438	0	08:02			
17511	DUMMY	0.586	0	08:14			
17512	DUMMY	0.453	0	08:41			
17513	DUMMY	0.455	0	08:41			
17514	DUMMY	0.049	0	08:02			
17515	CHANNEL	6.805	0	08:17	1.46	0.02	0.29
17518	CHANNEL	0.097	0	08:00	0.19	0.00	0.12
17521	CHANNEL	0.155	0	08:05	1.24	0.00	0.09
17522	CHANNEL	1.852	0	08:00	1.00	0.05	0.49
17524	CHANNEL	3.489	0	08:19	0.59	0.20	0.93

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
17526	DUMMY	0.232	0	08:31			
17527	CHANNEL	3.556	0	08:19	1.32	0.24	0.71
17533	CHANNEL	1.727	0	08:06	1.14	0.27	0.55
17534	CHANNEL	0.367	0	08:07	0.43	0.01	0.24
17535	CHANNEL	2.163	0	08:07	2.55	0.06	0.21
17536	CHANNEL	1.885	0	08:11	0.62	0.04	0.22
17537	CHANNEL	1.091	0	08:02	1.79	0.01	0.16
17538	CHANNEL	0.291	0	08:01	0.38	0.00	0.14
17539	CHANNEL	1.700	0	08:03	1.48	0.02	0.17
17542	CHANNEL	1.691	0	08:06	0.90	0.06	0.23
17543	CHANNEL	1.677	0	08:03	0.94	0.28	0.27
17547	CHANNEL	0.171	0	08:06	0.27	0.00	0.16
17548	CHANNEL	0.256	0	08:00	0.59	0.00	0.14
17549	CHANNEL	0.703	0	08:02	0.81	0.01	0.16
17550	CHANNEL	0.456	0	08:03	0.17	0.01	0.31
17551	CHANNEL	0.828	0	08:01	0.41	0.03	0.27
17552	CHANNEL	0.681	0	08:05	0.33	0.02	0.24
17555	CHANNEL	0.257	0	08:03	0.27	0.00	0.15
17556	CHANNEL	0.430	0	08:01	0.41	0.01	0.17

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
17558	CHANNEL	3.260	0	08:30	1.79	0.32	0.76
17560	CHANNEL	0.275	0	08:20	0.07	0.01	0.34
17561	CHANNEL	0.009	0	08:10	0.01	0.00	0.27
17562	CHANNEL	2.096	0	08:03	0.98	0.05	0.39
17563	DUMMY	0.149	0	08:01			
17564	CHANNEL	1.012	0	08:01	0.34	0.01	0.48
17568	CHANNEL	0.191	0	08:00	0.53	0.00	0.09
17569	CHANNEL	0.265	0	08:00	0.63	0.00	0.09
17570	CHANNEL	0.512	0	08:00	1.02	0.00	0.10
18170	CHANNEL	0.649	0	08:00	0.88	0.01	0.14
18171	CHANNEL	0.505	0	08:00	1.60	0.02	0.10
18189	CHANNEL	3.414	0	08:45	1.76	19.98	0.74
18190	DUMMY	0.000	0	00:00			
18205	CHANNEL	1.425	0	08:53	0.63	0.02	0.38
18207	CHANNEL	1.494	0	08:24	0.71	0.02	0.18
18209	CHANNEL	1.425	0	08:55	0.30	0.05	0.36
18211	CHANNEL	1.675	0	08:25	0.35	0.06	0.37
18212	CHANNEL	0.096	0	08:01	0.21	0.00	0.17
18216	CHANNEL	1.599	0	08:24	1.04	0.27	0.74

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
18217	CHANNEL	1.592	0	08:26	0.37	0.10	0.34
18219	CHANNEL	0.616	0	08:02	0.64	0.01	0.26
18220	CHANNEL	0.579	0	08:02	1.12	0.01	0.10
18222	CHANNEL	0.313	0	08:02	1.44	0.00	0.04
18223	CHANNEL	0.053	0	08:01	0.41	0.00	0.08
18224	CHANNEL	3.576	0	08:03	0.65	0.02	0.42
18226	CHANNEL	2.266	0	08:05	3.54	0.21	0.38
18227	CHANNEL	2.378	0	08:02	0.96	0.05	0.29
18228	CHANNEL	0.415	0	08:02	0.98	0.01	0.25
18230	CHANNEL	2.041	0	08:07	2.68	0.02	0.14
18233	CHANNEL	2.043	0	08:07	3.39	0.05	0.16
18234	CHANNEL	2.015	0	08:07	1.49	0.02	0.20
18236	CHANNEL	0.459	0	08:02	0.81	0.01	0.13
18237	CHANNEL	0.211	0	08:00	0.55	0.00	0.12
18241	CHANNEL	0.229	0	08:01	0.68	0.00	0.11
18243	CHANNEL	0.000	0	00:00	0.00	0.00	0.09
18244	CHANNEL	0.482	0	08:01	0.97	0.01	0.12
18246	CHANNEL	0.249	0	08:01	0.60	0.00	0.09
18247	CHANNEL	0.194	0	08:00	0.37	0.00	0.07

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
18249	CHANNEL	0.773	0	08:01	0.49	0.01	0.30
18250	CHANNEL	0.174	0	08:05	0.14	0.00	0.33
18251	CHANNEL	1.248	0	08:05	0.54	0.03	0.43
18252	CHANNEL	0.195	0	08:03	0.10	0.00	0.28
18253	DUMMY	1.642	0	08:09			
18258	CHANNEL	2.104	0	08:15	0.91	0.09	0.25
18262	DUMMY	0.090	0	08:23			
18263	CHANNEL	2.027	0	08:15	0.41	0.03	0.50
18264	CHANNEL	0.424	0	08:02	0.29	0.01	0.51
18270	CHANNEL	0.449	0	08:21	0.07	0.00	0.45
18271	CHANNEL	0.430	0	08:24	0.20	0.75	0.95
18272	CHANNEL	0.373	0	08:28	0.35	0.03	0.18
18273	DUMMY	0.702	0	08:24			
18274	CHANNEL	0.947	0	08:14	0.17	0.02	0.62
18275	DUMMY	0.669	0	08:23			
18280	WEIR	0.006	0	08:03	0.00		
18281	CHANNEL	0.000	0	08:03	0.00	0.00	0.00
18282	WEIR	0.000	0	00:00	0.00		
18283	CHANNEL	0.000	0	00:00	0.00	0.00	0.03

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
18284	CHANNEL	0.838	0	08:04	0.56	0.01	0.12
18286	CHANNEL	0.409	0	08:00	0.63	0.01	0.06
18287	DUMMY	1.102	0	08:02			
18288	CHANNEL	1.444	0	08:08	0.35	0.51	0.88
18289	CHANNEL	1.442	0	08:10	0.62	0.01	0.15
18301	DUMMY	0.021	0	08:00			
18304	CHANNEL	0.276	0	08:02	0.67	0.01	0.09
18305	CHANNEL	0.071	0	08:05	0.41	0.00	0.06
18309	CHANNEL	1.404	0	08:01	1.56	0.01	0.15
18312	CHANNEL	0.817	0	08:03	0.76	0.01	0.23
18315	CHANNEL	0.383	0	08:04	0.49	0.01	0.13
18317	DUMMY	0.342	0	08:04			
18318	DUMMY	0.224	0	08:04			
18319	DUMMY	0.104	0	08:00			
18320	CHANNEL	0.991	0	08:04	0.19	0.01	0.46
18321	CHANNEL	2.743	0	08:02	0.60	0.03	0.38
18322	CHANNEL	0.768	0	08:03	0.21	0.01	0.34
18324	CHANNEL	1.756	0	08:02	0.42	0.02	0.37
18326	DUMMY	0.584	0	08:04			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
18327	CHANNEL	0.622	0	08:00	0.22	0.01	0.34
18330	CHANNEL	0.552	0	08:03	0.74	0.02	0.13
20728	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
20729	CHANNEL	0.000	0	00:00	0.00	0.00	0.15
20732	CHANNEL	0.052	0	08:03	0.04	0.01	0.42
20733	CHANNEL	0.993	0	08:02	0.93	0.04	0.17
20734	CHANNEL	0.048	0	08:01	0.09	0.00	0.11
20735	DUMMY	0.005	0	08:03			
20748	CHANNEL	0.000	0	00:00	0.00	0.00	0.01
20755	CHANNEL	0.044	0	08:05	0.11	0.00	0.07
20758	CHANNEL	0.016	0	08:00	0.62	0.00	0.02
20759	CHANNEL	0.234	0	08:00	0.10	0.01	0.42
20762	CHANNEL	0.096	0	08:01	0.57	0.00	0.06
20763	CHANNEL	0.162	0	08:01	0.14	0.00	0.21
20766	CHANNEL	0.000	0	00:00	0.00	0.00	0.02
20772	CHANNEL	0.319	0	08:00	0.22	0.01	0.55
20773	CHANNEL	0.386	0	08:00	0.30	0.00	0.38
20775	CHANNEL	0.012	0	08:07	0.01	0.00	0.36
20776	DUMMY	0.940	0	08:05			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
20778	CHANNEL	0.251	0	08:04	1.16	0.00	0.07
20779	CHANNEL	0.221	0	08:01	1.45	0.03	0.17
20786	CHANNEL	0.252	0	08:00	0.90	0.02	0.21
20789	CHANNEL	0.304	0	08:01	0.28	0.00	0.19
20790	CHANNEL	0.068	0	08:04	0.67	0.01	0.20
20792	CHANNEL	0.134	0	08:01	0.55	0.00	0.07
20793	CHANNEL	0.618	0	08:00	3.21	0.02	0.29
20797	CHANNEL	0.692	0	08:02	0.46	0.01	0.25
20800	CHANNEL	2.718	0	08:07	0.92	0.03	0.32
20801	CHANNEL	2.594	0	08:07	0.51	0.04	0.50
20804	CHANNEL	1.587	0	08:07	0.28	0.02	0.44
20805	DUMMY	1.189	0	08:08			
20806	DUMMY	0.193	0	08:08			
20807	DUMMY	0.200	0	08:08			
20811	CHANNEL	0.029	0	08:01	0.19	0.00	0.17
20814	CHANNEL	5.356	0	08:09	1.77	0.08	0.34
20815	CHANNEL	5.215	0	08:06	0.75	0.66	0.51
20816	CHANNEL	0.440	0	08:03	0.16	0.01	0.39
20817	CHANNEL	5.371	0	08:09	1.16	2.06	0.39

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
20819	CHANNEL	0.343	0	08:02	0.37	0.00	0.18
20820	CHANNEL	0.228	0	08:01	0.77	0.00	0.08
20823	CHANNEL	3.342	0	08:03	1.22	0.01	0.24
20825	CHANNEL	4.016	0	08:04	0.52	0.08	0.42
20826	CHANNEL	4.124	0	08:03	41.87	0.01	0.09
24440	CHANNEL	1.514	0	08:04	1.01	0.01	0.18
27432	DUMMY	0.141	0	08:27			
27832	DUMMY	0.339	0	13:19			
27835	CHANNEL	1.108	0	08:49	0.19	0.03	0.73
27836	CHANNEL	1.174	0	08:44	0.88	0.02	0.34
27844	CONDUIT	2.367	0	08:02	2.09	0.35	1.00
27851	CONDUIT	1.100	0	08:43	10.92	5.88	0.86
27853	DUMMY	0.757	0	08:44			
27861	DUMMY	1.207	0	08:02			
27863	CHANNEL	0.000	0	00:00	0.00	0.00	0.18
27864	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
27873	DUMMY	0.329	0	08:01			
27874	CHANNEL	0.421	0	08:04	0.34	0.04	1.00
27890	DUMMY	0.236	0	08:04			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
27896_1	CHANNEL	5.613	0	08:11	0.80	0.09	0.37
27896_3	CHANNEL	5.327	0	08:13	0.70	0.35	0.84
27896_4	CHANNEL	4.505	0	08:12	0.53	0.06	0.77
27898_1	CHANNEL	0.824	0	08:23	0.83	0.01	0.28
27898_2	CHANNEL	0.823	0	08:25	2.45	0.00	0.13
27900	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
27901	CONDUIT	0.825	0	08:22	3.69	2.16	0.74
27904_1	CHANNEL	0.005	0	08:00	0.15	0.00	0.13
27904_2	CHANNEL	0.160	0	08:00	0.42	0.01	0.15
27904_3	CHANNEL	0.009	0	08:00	0.15	0.00	0.16
27904_4	CHANNEL	0.159	0	08:01	0.65	0.00	0.10
27904_5	CHANNEL	0.157	0	08:02	0.34	0.00	0.06
27904_6	CHANNEL	0.147	0	08:08	0.29	0.00	0.06
27904_8	CHANNEL	0.146	0	08:09	0.67	0.00	0.04
27908	CHANNEL	0.291	0	08:00	0.53	0.00	0.20
27909	CHANNEL	0.209	0	08:01	0.33	0.00	0.20
27910	DUMMY	0.019	0	08:00			
27911	DUMMY	0.637	0	08:00			
27913	DUMMY	0.460	0	08:20			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
27914	WEIR	1.473	0	08:27	0.12		
27916	WEIR	0.265	0	08:02	0.13		
27917	CHANNEL	6.061	0	08:04	1.19	0.07	0.40
27919	WEIR	0.043	0	08:05	0.01		
27920	WEIR	2.126	0	08:15	0.37		
27922	WEIR	0.000	0	00:00	0.00		
27923	CHANNEL	0.000	0	00:00	0.00	0.00	0.02
27927	WEIR	0.042	0	08:44	0.06		
27940	DUMMY	1.817	0	07:58			
27941	CONDUIT	3.336	0	08:04	2.44	0.27	1.00
27942	CONDUIT	0.719	0	09:01	4.52	2.82	1.00
27943	CHANNEL	0.122	0	08:00	0.27	0.00	0.11
27945	CHANNEL	2.844	0	08:45	0.56	0.07	0.63
27946	CHANNEL	2.848	0	08:43	0.64	0.23	0.41
27948	CHANNEL	1.369	0	08:54	0.45	0.02	0.43
27949	CHANNEL	1.369	0	08:54	1.13	0.03	0.35
27950	WEIR	0.000	0	00:00	0.00		
27952	CHANNEL	0.915	0	08:02	0.18	0.01	0.44
27953	CHANNEL	0.125	0	08:00	0.53	0.00	0.15

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
27970	CHANNEL	0.254	0	08:17	0.27	0.01	0.10
27971	CHANNEL	0.693	0	08:02	0.33	0.00	0.10
27972	DUMMY	0.337	0	08:02			
27973	DUMMY	0.110	0	08:17			
27974	DUMMY	0.099	0	09:38			
27975	DUMMY	0.000	0	08:03			
27976	DUMMY	0.058	0	10:40			
28068-prop	CHANNEL	2.811	0	08:01	1.40	0.02	0.34
28069-prop	CHANNEL	0.655	0	08:02	0.27	0.01	0.32
3194	CHANNEL	0.025	0	08:02	0.14	0.00	0.06
3196	CHANNEL	0.189	0	08:02	0.59	0.00	0.08
3204	CHANNEL	0.450	0	08:02	0.80	0.01	0.11
3205	CHANNEL	0.033	0	08:00	0.17	0.00	0.06
3206	CHANNEL	0.253	0	08:02	0.67	0.00	0.09
3209	CHANNEL	0.251	0	08:00	0.61	0.01	0.09
3214	CHANNEL	0.013	0	08:01	0.24	0.00	0.04
3217	CHANNEL	0.587	0	08:01	1.06	0.01	0.11
3218	CHANNEL	0.040	0	08:04	0.16	0.00	0.07
3219	CHANNEL	0.345	0	08:00	0.66	0.01	0.10

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
3224	CHANNEL	0.561	0	08:01	0.66	0.01	0.15
3226	CHANNEL	0.412	0	08:03	0.55	0.01	0.13
3230	CHANNEL	0.180	0	08:00	0.43	0.00	0.09
3238	CHANNEL	0.084	0	08:00	0.15	0.00	0.13
3239	CHANNEL	1.036	0	08:04	0.74	0.05	0.20
3240	CHANNEL	0.825	0	08:03	0.71	0.02	0.18
3242	CHANNEL	0.404	0	08:02	0.63	0.01	0.12
3243	CHANNEL	0.346	0	08:01	0.77	0.01	0.10
3245	CHANNEL	0.213	0	08:01	0.43	0.00	0.11
3247	CHANNEL	0.091	0	08:01	0.47	0.00	0.06
3250	CHANNEL	0.115	0	08:00	0.28	0.00	0.10
3252	CHANNEL	0.205	0	08:01	0.78	0.00	0.07
3254	CHANNEL	0.323	0	08:02	0.39	0.00	0.18
3306	CHANNEL	1.883	0	08:03	1.21	0.04	0.21
3307	CHANNEL	1.445	0	08:03	1.06	0.03	0.19
3308	CHANNEL	0.411	0	08:00	0.50	0.01	0.15
50005	CHANNEL	0.206	0	08:00	0.64	0.00	0.08
50007	CHANNEL	0.399	0	08:00	1.02	0.00	0.09
50009	CHANNEL	0.149	0	08:00	0.86	0.00	0.06

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50011	CHANNEL	0.625	0	08:00	1.37	0.01	0.10
50018	CHANNEL	1.101	0	08:01	1.27	0.02	0.14
50019	CHANNEL	0.195	0	08:01	0.39	0.00	0.10
50020	CHANNEL	0.811	0	08:00	1.27	0.01	0.12
50036	CHANNEL	0.237	0	08:00	0.36	0.00	0.11
50042	CHANNEL	0.094	0	08:00	0.34	0.00	0.07
50044	CHANNEL	0.231	0	08:01	0.57	0.01	0.09
50046	CHANNEL	0.255	0	08:02	0.61	0.00	0.09
50048	CHANNEL	0.375	0	08:02	0.49	0.01	0.13
50054	CHANNEL	0.076	0	08:00	0.38	0.00	0.06
50057	CHANNEL	0.460	0	08:28	0.15	0.01	0.31
50062	CHANNEL	0.875	0	08:03	0.91	0.00	0.14
50078	CHANNEL	0.177	0	08:00	0.53	0.00	0.08
50080	CHANNEL	0.474	0	08:02	0.57	0.01	0.14
50081	CHANNEL	0.440	0	08:01	0.91	0.01	0.10
50084	CHANNEL	2.685	0	08:04	1.04	0.02	0.24
50091	CHANNEL	3.720	0	08:06	0.52	0.03	0.49
50092	CHANNEL	2.632	0	08:05	0.83	0.06	0.31
50094	CHANNEL	0.538	0	08:01	2.26	0.06	0.20

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50095	CHANNEL	0.204	0	08:00	0.30	0.00	0.12
50102	CHANNEL	4.406	0	08:07	0.39	0.05	0.62
50105	CHANNEL	0.207	0	08:01	0.87	0.00	0.07
50112	CHANNEL	0.249	0	08:02	0.99	0.00	0.07
50114	CHANNEL	1.780	0	08:11	0.27	0.03	0.54
50115	CHANNEL	0.333	0	08:02	0.23	0.00	0.28
50120	CHANNEL	0.339	0	08:00	0.86	0.00	0.09
50122	CHANNEL	1.642	0	08:07	0.64	0.02	0.39
50127	CHANNEL	1.157	0	08:02	1.01	0.01	0.21
50128	CHANNEL	0.445	0	08:00	0.39	0.06	0.32
50130	CHANNEL	0.404	0	08:02	0.55	0.00	0.12
50131	CHANNEL	0.455	0	08:00	0.83	0.01	0.11
50135	CHANNEL	0.199	0	08:00	0.60	0.00	0.08
50139	CHANNEL	0.099	0	08:01	0.24	0.00	0.09
50140	CHANNEL	0.430	0	08:01	0.68	0.01	0.12
50151	CHANNEL	1.962	0	08:02	2.66	0.09	0.23
50152	CHANNEL	0.054	0	08:00	0.16	0.00	0.09
50154	CHANNEL	2.038	0	08:02	2.23	0.02	0.15
50157	CHANNEL	0.126	0	08:01	0.19	0.00	0.16

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50159	CHANNEL	3.662	0	08:14	3.35	1.38	0.33
50164	CHANNEL	2.650	0	08:08	0.95	0.06	0.29
50166	CHANNEL	0.177	0	08:01	0.21	0.00	0.20
50167	CHANNEL	0.071	0	08:01	0.30	0.00	0.07
50173	CHANNEL	2.252	0	08:15	0.71	0.12	0.30
50181	CHANNEL	0.038	0	08:04	0.12	0.00	0.08
50184	CHANNEL	0.301	0	08:02	0.51	0.01	0.14
50189	CHANNEL	0.113	0	08:00	0.18	0.00	0.16
50194	CHANNEL	0.176	0	08:00	0.61	0.00	0.24
50197	CHANNEL	0.706	0	08:00	1.45	0.01	0.10
50200	CHANNEL	0.149	0	08:01	0.27	0.00	0.11
50201	CHANNEL	1.185	0	08:02	0.93	0.02	0.19
50202	CHANNEL	0.738	0	08:02	1.18	0.01	0.14
50209	CHANNEL	0.887	0	08:01	0.81	0.01	0.17
50210	CHANNEL	0.381	0	08:00	0.53	0.00	0.12
50215	CHANNEL	0.087	0	08:00	0.41	0.00	0.06
50217	CHANNEL	2.001	0	08:03	1.24	0.02	0.21
50220	CHANNEL	0.790	0	08:00	1.56	0.01	0.10
50231	CHANNEL	0.782	0	08:01	0.59	0.02	0.22

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50232	CHANNEL	2.536	0	08:03	1.85	0.04	0.22
50233	CHANNEL	0.095	0	08:00	0.16	0.00	0.13
50234	CHANNEL	2.433	0	08:03	1.66	0.03	0.20
50235	CHANNEL	0.149	0	08:00	0.49	0.01	0.14
50236	CHANNEL	2.259	0	08:03	1.23	0.07	0.23
50240	CHANNEL	1.144	0	08:00	1.31	0.01	0.16
50241	CHANNEL	3.568	0	08:04	1.35	0.08	0.29
50244	CHANNEL	0.220	0	08:00	0.32	0.00	0.14
50248	CHANNEL	0.515	0	08:08	0.32	0.02	0.25
50249	CHANNEL	4.264	0	08:03	2.01	0.04	0.25
50251	CHANNEL	0.168	0	08:01	0.21	0.01	0.15
50253	CHANNEL	4.334	0	08:04	1.46	0.08	0.29
50258	CHANNEL	0.081	0	08:00	0.29	0.00	0.07
50262	CHANNEL	0.904	0	08:00	1.10	0.01	0.14
50263	CHANNEL	0.607	0	08:01	0.85	0.01	0.13
50266	CHANNEL	0.234	0	08:00	0.17	0.00	0.17
50267	CHANNEL	2.675	0	08:01	0.89	0.06	0.25
50268	CHANNEL	2.117	0	08:00	1.20	0.03	0.22
50271	CHANNEL	0.210	0	08:00	0.47	0.00	0.10

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50276	CHANNEL	0.132	0	08:00	0.41	0.00	0.08
50278	CHANNEL	0.280	0	08:01	0.62	0.01	0.10
50280	CHANNEL	0.213	0	08:00	0.38	0.01	0.11
50282	CHANNEL	0.417	0	08:01	0.66	0.01	0.12
50284	CHANNEL	0.592	0	08:01	1.01	0.01	0.11
50313	CHANNEL	0.139	0	08:01	0.46	0.00	0.08
50316	CHANNEL	0.030	0	08:01	0.15	0.00	0.04
50331	CHANNEL	0.202	0	08:02	0.81	0.00	0.07
50335	CHANNEL	1.010	0	08:05	0.57	0.06	0.35
50340	CHANNEL	0.443	0	08:03	0.98	0.05	0.16
50341	CHANNEL	0.198	0	08:01	0.37	0.00	0.11
50348	CHANNEL	1.087	0	08:03	0.68	0.02	0.25
50353	CHANNEL	0.388	0	08:06	0.64	0.01	0.13
50357	CHANNEL	0.184	0	08:00	0.46	0.00	0.09
50360	CHANNEL	0.110	0	08:00	0.13	0.00	0.14
50361	CHANNEL	0.750	0	08:02	0.77	0.02	0.17
50364	CHANNEL	0.389	0	08:05	0.96	0.00	0.09
50368	CHANNEL	0.076	0	08:00	0.17	0.00	0.10
50369	CHANNEL	0.676	0	08:01	0.95	0.01	0.18

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50370	CHANNEL	0.367	0	08:01	0.92	0.02	0.12
50376	CHANNEL	0.325	0	08:02	0.31	0.00	0.22
50377	CHANNEL	0.377	0	08:02	0.83	0.01	0.10
50380	CHANNEL	0.182	0	08:02	0.57	0.00	0.08
50382	CHANNEL	0.545	0	08:01	0.80	0.01	0.21
50383	CHANNEL	0.349	0	08:01	0.93	0.00	0.09
50386	CHANNEL	0.247	0	08:01	0.65	0.00	0.09
50389	CHANNEL	0.176	0	08:01	0.38	0.00	0.10
50394	CHANNEL	0.067	0	08:00	0.29	0.00	0.07
50401	CHANNEL	0.000	0	00:00	0.00	0.00	0.05
50409	CHANNEL	0.240	0	08:00	0.50	0.01	0.10
50411	CHANNEL	0.248	0	08:01	0.31	0.01	0.14
50423	CHANNEL	0.348	0	08:01	0.39	0.01	0.15
50424	CHANNEL	0.444	0	08:01	0.79	0.01	0.11
50427	CHANNEL	0.185	0	08:01	0.46	0.00	0.09
50429	CHANNEL	0.353	0	08:02	0.43	0.01	0.14
50432	CHANNEL	0.250	0	08:00	0.54	0.00	0.10
50445	CHANNEL	0.719	0	08:00	1.26	0.01	0.11
50446	CHANNEL	0.233	0	08:00	0.53	0.00	0.10

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50449	CHANNEL	0.261	0	08:00	1.32	0.00	0.06
50451	CHANNEL	0.314	0	08:00	1.06	0.00	0.08
50453	CHANNEL	0.640	0	08:00	1.58	0.00	0.09
50456	CHANNEL	1.156	0	08:01	1.87	0.01	0.12
50463	CHANNEL	2.832	0	08:02	2.36	0.03	0.18
50464	CHANNEL	0.090	0	08:00	0.18	0.00	0.11
50465	CHANNEL	2.562	0	08:01	2.34	0.02	0.17
50466	CHANNEL	1.211	0	08:01	1.56	0.01	0.13
50467	CHANNEL	0.958	0	08:00	1.20	0.01	0.14
50468	CHANNEL	0.686	0	08:00	1.29	0.01	0.11
50469	CHANNEL	0.189	0	08:00	0.50	0.00	0.09
50472	CHANNEL	0.043	0	08:01	0.32	0.00	0.05
50493	CHANNEL	0.870	0	08:02	1.29	0.01	0.12
50498	CHANNEL	1.830	0	08:02	2.10	0.02	0.15
50499	CHANNEL	0.026	0	08:00	0.09	0.00	0.09
50500	CHANNEL	1.656	0	08:01	1.93	0.02	0.14
50501	CHANNEL	0.961	0	08:01	1.19	0.01	0.14
50502	CHANNEL	0.467	0	08:01	0.65	0.01	0.13
50505	CHANNEL	0.370	0	08:00	0.74	0.00	0.10

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50507	CHANNEL	0.586	0	08:01	0.91	0.01	0.12
50509	CHANNEL	0.675	0	08:02	1.01	0.01	0.12
50514	CHANNEL	0.716	0	08:02	0.90	0.01	0.14
50515	CHANNEL	0.167	0	08:00	0.32	0.00	0.11
50522	CHANNEL	0.167	0	08:00	0.62	0.00	0.07
50536	CHANNEL	2.343	0	08:06	1.44	0.04	0.21
50537	CHANNEL	2.203	0	08:05	1.44	0.04	0.20
50538	CHANNEL	0.199	0	08:00	0.28	0.00	0.15
50540	CHANNEL	2.158	0	08:06	1.41	0.04	0.20
50542	CHANNEL	2.896	0	08:04	1.74	0.04	0.22
50544	CHANNEL	2.844	0	08:06	1.39	0.05	0.24
50547	CHANNEL	2.646	0	08:06	1.36	0.05	0.23
50549	CHANNEL	2.526	0	08:06	1.53	0.04	0.22
50552	CHANNEL	0.474	0	08:00	0.85	0.01	0.11
50554	CHANNEL	0.637	0	08:01	0.95	0.01	0.12
50558	CHANNEL	2.334	0	08:08	1.33	0.05	0.22
50559	CHANNEL	0.696	0	08:02	0.73	0.01	0.16
50562	CHANNEL	0.234	0	08:00	0.66	0.00	0.09
50564	CHANNEL	0.416	0	08:01	0.66	0.01	0.12

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50568	CHANNEL	3.001	0	08:07	1.80	0.04	0.21
50569	CHANNEL	2.722	0	08:06	1.75	0.04	0.21
50570	CHANNEL	0.452	0	08:00	0.64	0.01	0.15
50578	CHANNEL	2.100	0	08:05	0.27	0.06	0.64
50583	CHANNEL	0.229	0	08:00	0.75	0.00	0.10
50586	CHANNEL	2.811	0	08:07	2.02	0.03	0.19
50594	CHANNEL	0.205	0	08:00	0.64	0.00	0.08
50595	CHANNEL	0.309	0	08:03	1.80	0.03	0.18
50598	CHANNEL	0.167	0	08:00	0.23	0.00	0.14
50599	CHANNEL	0.165	0	08:01	0.19	0.00	0.15
50600	CHANNEL	2.110	0	08:08	1.13	0.02	0.25
50606	CHANNEL	0.213	0	08:01	0.49	0.00	0.09
50633	CHANNEL	0.462	0	08:00	1.62	0.00	0.08
50634	CHANNEL	0.037	0	08:00	0.26	0.00	0.05
50641	CHANNEL	0.331	0	08:00	1.27	0.00	0.07
50642	CHANNEL	0.148	0	08:00	0.86	0.00	0.06
50644	CHANNEL	0.462	0	08:01	1.22	0.00	0.09
50647	CHANNEL	0.164	0	08:01	1.45	0.00	0.09
50649	CHANNEL	2.630	0	08:02	1.72	0.02	0.18

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
50658	CHANNEL	1.601	0	08:01	1.69	0.01	0.14
50659	CHANNEL	0.441	0	08:00	1.79	0.01	0.12
50660	CHANNEL	0.827	0	08:00	1.30	0.01	0.12
50662	CHANNEL	1.591	0	08:01	1.45	0.01	0.15
50664	CHANNEL	2.710	0	08:01	1.34	0.01	0.21
50697A	CHANNEL	0.304	0	08:11	0.35	0.00	0.14
50737	CHANNEL	5.219	0	08:05	1.06	0.07	0.41
50738	CHANNEL	0.038	0	08:01	0.04	0.00	0.33
50739	CHANNEL	4.094	0	08:05	3.53	0.18	0.31
50741	CHANNEL	4.359	0	08:05	1.35	0.07	0.31
50755	CHANNEL	0.080	0	08:00	0.38	0.00	0.06
50760	CHANNEL	0.151	0	08:01	1.89	0.00	0.08
50763	CHANNEL	0.225	0	08:00	0.44	0.00	0.11
50764	CHANNEL	1.009	0	08:02	0.95	0.02	0.17
50765	CHANNEL	0.604	0	08:01	0.87	0.01	0.13
50767	CHANNEL	0.047	0	08:00	0.26	0.00	0.06
54721	CHANNEL	0.059	0	08:00	0.20	0.00	0.09
54722	CHANNEL	0.487	0	08:02	0.62	0.01	0.14
54723	CHANNEL	0.088	0	08:00	0.27	0.00	0.12

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
54724	CHANNEL	0.347	0	08:01	0.74	0.00	0.10
54725	CHANNEL	0.126	0	08:00	0.65	0.00	0.06
54726	CHANNEL	0.051	0	08:00	1.01	0.00	0.08
54728	CHANNEL	0.340	0	08:00	1.32	0.00	0.07
60002	CONDUIT	0.014	0	08:20	0.31	0.07	0.67
60003	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60011	CONDUIT	0.419	0	08:11	2.27	0.32	1.00
60014	CONDUIT	0.098	0	08:01	0.81	0.03	0.16
60015	CONDUIT	0.088	0	08:00	0.76	0.02	0.28
60016	CONDUIT	0.176	0	08:05	0.78	0.18	1.00
60017	CONDUIT	0.408	0	08:10	3.69	2.33	1.00
60018	CONDUIT	0.094	0	08:05	0.88	0.24	1.00
60019	CONDUIT	0.085	0	08:03	1.82	1.00	1.00
60020	CONDUIT	0.088	0	08:01	1.14	0.69	0.49
60021	CONDUIT	0.318	0	09:12	4.50	1.62	1.00
60022	CONDUIT	0.000	0	00:00	0.00	0.00	0.50
60023	CONDUIT	0.314	0	09:12	4.45	1.18	1.00
60024	CONDUIT	0.057	0	08:30	1.80	1.23	1.00
60025	CONDUIT	0.147	0	08:06	4.87	4.49	1.00

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60026	CONDUIT	0.118	0	08:00	1.72	1.41	0.94
60027	CONDUIT	0.118	0	08:00	1.87	0.74	0.87
60030	CONDUIT	0.000	0	09:43	0.00	0.00	0.01
60031	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60033	CONDUIT	0.017	0	08:00	1.32	0.13	0.24
60034	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60042	CONDUIT	3.030	0	08:02	4.06	1.43	1.00
60044	CONDUIT	0.491	0	08:02	2.10	0.20	0.32
60046	CONDUIT	11.436	0	08:08	4.58	1.27	0.95
60051	CONDUIT	0.335	0	08:02	1.84	1.12	1.00
60052	CONDUIT	0.177	0	08:04	0.82	0.57	1.00
60053	CONDUIT	1.786	0	08:03	2.39	1.03	1.00
60054	CONDUIT	9.130	0	08:07	4.27	1.20	1.00
60059	CONDUIT	0.033	0	08:00	2.13	0.09	0.20
60068	CONDUIT	0.195	0	09:39	1.44	1.10	0.80
60080	CONDUIT	0.389	0	08:46	2.47	1.78	1.00
60086	CONDUIT	9.126	0	08:07	4.27	1.20	1.00
60087	CONDUIT	0.180	0	08:10	1.13	1.08	1.00
60088	CONDUIT	0.008	0	08:02	0.68	0.32	0.38

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60092	CONDUIT	0.078	0	08:04	1.63	1.32	0.94
60093	CONDUIT	0.233	0	08:04	4.76	3.93	1.00
60094	CONDUIT	0.110	0	08:21	2.23	1.84	1.00
60095	CONDUIT	0.305	0	08:46	1.92	1.39	1.00
60097	CONDUIT	0.099	0	09:13	3.15	3.55	1.00
60099	CONDUIT	3.410	0	08:45	4.17	0.27	0.36
60100	CONDUIT	3.410	0	08:45	2.25	0.44	0.58
60100-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.10
60101	CONDUIT	4.214	0	08:04	2.83	1.05	1.00
60102	CONDUIT	0.567	0	08:01	3.56	1.21	1.00
60103	CONDUIT	2.216	0	08:02	3.48	0.67	1.00
60104	CONDUIT	11.013	0	08:02	4.33	1.08	1.00
60105	CONDUIT	0.602	0	08:04	2.14	0.96	1.00
60106	CONDUIT	0.016	0	08:00	1.03	0.49	0.50
60107	CONDUIT	0.282	0	08:02	2.40	0.55	0.53
60116	CONDUIT	0.018	0	08:00	1.25	0.15	0.26
60117	CONDUIT	0.019	0	08:00	0.44	0.02	0.20
60118	CONDUIT	0.370	0	08:09	1.81	3.82	0.89
60119	CONDUIT	0.048	0	08:02	1.07	0.23	0.33

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60120	CONDUIT	0.040	0	08:01	1.13	0.16	0.27
60121	CONDUIT	0.000	0	08:01	0.27	0.00	0.04
60122	CONDUIT	0.026	0	08:01	1.00	0.11	0.22
60123	CONDUIT	0.030	0	08:01	1.16	0.10	0.22
60124	CONDUIT	0.037	0	08:02	1.02	0.11	0.22
60125	CONDUIT	0.017	0	08:01	0.93	0.11	0.22
60126	CONDUIT	0.001	0	08:01	0.49	0.01	0.06
60127	CONDUIT	0.041	0	08:02	1.00	0.34	0.40
60129	CONDUIT	0.224	0	08:23	1.28	0.62	0.67
60130	CONDUIT	6.679	0	08:07	3.47	1.08	0.84
60131	CONDUIT	0.037	0	08:01	1.36	0.07	0.18
60132	CONDUIT	0.001	0	08:01	0.60	0.01	0.06
60133	CONDUIT	0.000	0	00:00	0.00	0.00	0.11
60134	CONDUIT	0.047	0	08:00	2.24	0.13	0.24
60135	CONDUIT	0.074	0	08:00	2.56	0.20	0.31
60136	CONDUIT	0.074	0	08:00	2.51	0.13	0.24
60137	CONDUIT	0.166	0	08:01	3.26	0.18	0.29
60138	CONDUIT	0.271	0	08:01	3.14	0.10	0.22
60139	CONDUIT	0.158	0	08:01	1.28	0.45	0.45

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60140	CONDUIT	0.149	0	08:00	1.91	0.48	0.49
60142	CONDUIT	1.355	0	08:01	2.53	3.50	1.00
60144	CONDUIT	1.301	0	08:03	2.95	0.58	1.00
60145	CONDUIT	1.303	0	08:03	2.95	2.05	1.00
60147	CONDUIT	0.340	0	08:57	1.45	0.47	1.00
60148	CONDUIT	0.891	0	08:03	2.02	0.89	1.00
60149	CONDUIT	0.831	0	08:03	1.88	1.02	1.00
60150	CONDUIT	0.065	0	08:01	0.93	0.40	1.00
60151	CONDUIT	0.733	0	08:03	1.70	0.93	1.00
60154	CONDUIT	0.036	0	08:00	1.08	0.67	0.80
60155	CONDUIT	0.020	0	08:00	1.97	0.27	0.36
60156	CONDUIT	0.044	0	08:00	1.41	0.32	0.70
60157	CONDUIT	0.150	0	08:01	1.39	1.15	1.00
60158	CONDUIT	0.142	0	08:01	1.35	1.12	1.00
60159	CONDUIT	0.146	0	08:01	0.95	0.87	1.00
60160	CONDUIT	0.288	0	08:05	1.81	1.38	1.00
60161	CONDUIT	0.335	0	08:06	1.67	1.26	0.87
60162	CONDUIT	0.450	0	08:04	2.99	0.58	0.77
60163	CONDUIT	0.076	0	08:02	0.98	0.21	0.27

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60164	CONDUIT	0.223	0	08:02	1.82	0.22	0.32
60166	CONDUIT	0.103	0	08:02	1.29	0.23	0.33
60168	CONDUIT	0.019	0	08:00	1.17	0.09	0.20
60170	CONDUIT	0.109	0	08:01	1.68	0.38	0.43
60171	CONDUIT	0.273	0	08:01	2.36	0.54	0.53
60172	CONDUIT	0.001	0	08:00	0.75	0.01	0.08
60173	CONDUIT	0.059	0	08:01	2.75	0.25	0.34
60174	CONDUIT	0.883	0	08:02	4.14	0.62	0.77
60175	CONDUIT	1.279	0	08:03	4.33	0.92	1.00
60176	CONDUIT	2.041	0	08:01	2.74	0.91	1.00
60178	CONDUIT	2.284	0	08:10	2.64	1.25	1.00
60180	CONDUIT	3.882	0	08:08	3.43	1.47	1.00
60181	CONDUIT	4.449	0	08:08	3.93	1.49	1.00
60183	CONDUIT	5.016	0	08:09	3.50	1.43	1.00
60184	CONDUIT	0.018	0	08:04	0.67	0.14	0.93
60185	CONDUIT	0.000	0	00:00	0.00	0.00	0.02
60186	CONDUIT	0.020	0	08:00	1.54	0.07	0.17
60187	CONDUIT	0.020	0	08:01	1.54	0.06	0.48
60188	CONDUIT	0.242	0	08:07	1.38	0.62	0.93

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60189	CONDUIT	0.214	0	08:01	2.54	0.77	1.00
60190	CONDUIT	0.135	0	08:09	0.85	0.67	1.00
60192	CONDUIT	3.711	0	08:04	3.12	0.52	0.65
60193	CONDUIT	4.775	0	08:04	3.46	0.68	0.76
60194	CONDUIT	0.067	0	08:18	1.02	0.69	1.00
60196	CONDUIT	0.112	0	08:05	1.42	0.07	0.18
60197	CONDUIT	11.374	0	08:07	4.47	1.26	1.00
60299	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60300	CONDUIT	0.063	0	08:01	1.49	0.34	0.60
60301	CONDUIT	0.000	0	00:00	0.00	0.00	0.31
60302	CONDUIT	0.220	0	08:05	1.39	0.57	1.00
60304	CONDUIT	0.695	0	08:01	2.46	2.53	1.00
60305	CONDUIT	0.423	0	08:02	1.49	1.54	1.00
60306	CONDUIT	0.313	0	08:02	1.18	1.14	1.00
60307	CONDUIT	0.747	0	08:01	3.60	0.44	0.65
60308	CONDUIT	0.741	0	08:01	2.80	0.60	0.58
60309	CONDUIT	0.369	0	08:01	1.40	0.85	0.69
60310	CONDUIT	0.051	0	08:02	0.99	0.53	0.47
60311	CONDUIT	0.471	0	09:26	1.62	0.60	1.00

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60312	CONDUIT	0.700	0	08:29	1.52	0.76	1.00
60314	CONDUIT	0.073	0	08:01	1.18	0.16	0.51
60315	CONDUIT	0.002	0	08:00	0.51	0.02	0.12
60316	CONDUIT	0.186	0	08:05	1.19	0.31	0.80
60317	CONDUIT	0.153	0	08:03	1.47	0.20	0.99
60318	CONDUIT	0.018	0	08:00	1.62	0.10	0.22
60320	CONDUIT	0.136	0	08:01	1.70	0.50	0.50
60321	CONDUIT	0.905	0	08:02	2.28	1.23	1.00
60322	CONDUIT	12.601	0	08:07	5.34	1.03	0.96
60323	CONDUIT	0.002	0	08:00	0.59	0.02	0.09
60324	CONDUIT	0.054	0	08:00	1.69	0.24	0.33
60325	CONDUIT	0.185	0	08:00	2.66	0.67	0.60
60326	CONDUIT	0.136	0	08:02	1.18	0.62	1.00
60327	CONDUIT	0.011	0	08:04	0.69	0.06	0.16
60329	CONDUIT	0.041	0	08:02	1.40	0.13	0.24
60330	CONDUIT	0.041	0	08:02	1.38	0.13	0.32
60331	CONDUIT	0.051	0	08:04	1.55	0.13	1.00
60332	CONDUIT	12.533	0	08:09	5.34	1.02	0.95
60333	CONDUIT	0.169	0	08:00	2.40	1.93	1.00

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60334	CONDUIT	0.076	0	08:02	2.41	0.09	0.20
60336	CONDUIT	0.017	0	08:00	1.87	0.23	0.63
60337	CONDUIT	0.010	0	08:00	1.62	0.13	0.62
60338	CONDUIT	0.301	0	08:13	1.89	1.79	1.00
60339	CONDUIT	0.471	0	08:02	2.24	1.35	0.93
60340	CONDUIT	0.296	0	08:13	1.93	1.24	1.00
60341	CONDUIT	0.480	0	08:03	1.52	1.17	0.83
60342	CONDUIT	0.570	0	08:03	1.97	0.96	0.76
60343	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60344	CONDUIT	0.575	0	08:03	1.99	0.97	0.76
60345	CONDUIT	0.694	0	08:03	3.44	0.52	0.76
60346	CONDUIT	1.130	0	08:05	3.63	0.84	1.00
60348	CONDUIT	0.876	0	08:01	4.05	1.26	1.00
60349	CONDUIT	2.242	0	08:01	3.52	1.25	1.00
60350	CONDUIT	0.025	0	08:04	0.44	0.13	0.78
60351	CONDUIT	0.010	0	08:03	0.70	0.06	0.30
60352	CONDUIT	0.010	0	08:02	0.41	0.25	0.28
60353	CONDUIT	0.000	0	00:00	0.00	0.00	0.15
60354	CONDUIT	0.024	0	08:00	0.91	0.61	0.78

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60355	CONDUIT	0.144	0	08:01	1.63	0.74	0.82
60356	CONDUIT	0.223	0	08:00	1.48	1.13	1.00
60357	CONDUIT	0.325	0	08:13	2.05	1.74	1.00
60358	CONDUIT	0.112	0	08:21	1.02	1.01	1.00
60361	CONDUIT	4.921	0	08:08	3.88	0.42	0.62
60362	CONDUIT	6.012	0	08:08	4.03	0.67	0.86
60363	CONDUIT	7.179	0	08:11	3.73	0.64	0.98
60364	CONDUIT	0.189	0	08:03	1.91	0.30	0.38
60366	CONDUIT	0.166	0	08:03	0.70	0.27	1.00
60367	CONDUIT	0.135	0	08:01	1.32	0.25	0.67
60368	CONDUIT	0.042	0	08:02	1.16	0.28	0.37
60369	CONDUIT	0.000	0	00:00	0.00	0.00	0.08
60370	CONDUIT	0.011	0	08:01	0.82	0.04	0.13
60371	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60372	CONDUIT	1.345	0	08:01	2.52	0.94	1.00
60373	CONDUIT	1.213	0	08:01	3.39	2.27	1.00
60374	CONDUIT	0.205	0	08:03	1.75	0.21	0.31
60375	CONDUIT	0.015	0	08:01	1.54	0.04	0.14
60376	CONDUIT	0.015	0	08:00	1.75	0.07	0.18

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60377	CONDUIT	0.015	0	08:00	1.27	0.11	0.23
60378	CONDUIT	6.761	0	08:07	5.72	0.53	0.54
60379	CONDUIT	0.209	0	08:02	3.29	0.59	0.56
60380	CONDUIT	0.475	0	08:01	3.26	0.21	0.32
60382	CONDUIT	0.659	0	08:02	3.52	0.30	1.00
60383	CONDUIT	1.396	0	08:13	1.91	0.49	1.00
60384	CONDUIT	0.245	0	08:02	1.64	1.29	0.89
60385	CONDUIT	0.303	0	08:02	2.12	0.71	0.63
60387	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60388	CONDUIT	0.049	0	08:02	0.62	0.11	0.40
60389	CONDUIT	0.050	0	08:02	1.88	0.18	0.29
60391	CONDUIT	0.310	0	08:02	2.69	0.37	0.43
60392	CONDUIT	0.129	0	08:07	1.48	0.08	0.19
60393	CONDUIT	0.123	0	08:05	1.46	0.08	0.19
60394	CONDUIT	0.123	0	08:06	1.46	0.08	0.19
60395	CONDUIT	0.327	0	08:03	1.54	0.37	0.42
60396	CONDUIT	0.328	0	08:03	1.69	0.32	0.39
60397	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60398	CONDUIT	0.035	0	08:00	1.43	0.16	0.27

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60399	CONDUIT	0.471	0	08:03	1.46	0.38	0.58
60401	CONDUIT	0.076	0	08:00	2.04	0.53	0.52
60402	CONDUIT	0.130	0	08:00	2.36	0.50	0.50
60405	CONDUIT	0.117	0	08:00	3.10	0.53	0.53
60406	CONDUIT	0.474	0	08:01	2.37	1.05	0.90
60407	CONDUIT	3.317	0	08:05	2.89	0.91	0.75
60408	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60409	CONDUIT	0.067	0	08:01	2.21	0.22	0.32
60411	CONDUIT	2.876	0	08:06	2.84	1.25	0.84
60417	CONDUIT	0.506	0	08:03	2.17	0.96	0.77
60418	CONDUIT	0.742	0	08:03	2.60	0.52	0.53
60420	CONDUIT	0.117	0	08:01	1.22	0.48	0.46
60421	CONDUIT	0.114	0	08:02	1.26	0.40	0.44
60422	CONDUIT	0.049	0	08:00	1.20	0.20	0.30
60423	CONDUIT	0.008	0	08:00	0.64	0.05	0.20
60424	CONDUIT	0.043	0	08:01	1.12	0.12	0.24
60425	CONDUIT	0.090	0	08:02	1.09	0.26	0.33
60426	CONDUIT	0.018	0	08:00	1.42	0.12	0.23
60427	CONDUIT	0.030	0	08:01	1.72	0.10	0.21

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60428	CONDUIT	0.114	0	08:04	1.43	0.07	0.18
60429	CONDUIT	0.113	0	08:03	1.43	0.07	0.18
60430	CONDUIT	0.114	0	08:02	1.77	0.09	0.20
60431	CONDUIT	0.074	0	08:03	1.65	0.10	0.22
60432	CONDUIT	0.062	0	08:00	1.65	0.54	0.53
60433	CONDUIT	0.065	0	08:01	2.13	0.22	0.32
60434	CONDUIT	0.071	0	08:01	2.60	0.11	0.23
60435	CONDUIT	0.035	0	08:00	1.53	0.09	0.20
60436	CONDUIT	0.076	0	08:01	1.57	0.26	0.35
60438	CONDUIT	0.153	0	08:01	1.86	0.81	0.70
60439	CONDUIT	0.205	0	08:02	1.72	0.72	0.77
60441	CONDUIT	0.155	0	08:01	1.43	0.56	0.65
60442	CONDUIT	0.394	0	08:02	2.51	0.79	0.68
60443	CONDUIT	3.727	0	08:05	2.88	0.75	0.70
60444	CONDUIT	0.048	0	08:00	1.65	0.38	0.43
60445	CONDUIT	0.017	0	08:00	1.38	0.12	0.24
60447	CONDUIT	0.071	0	08:00	1.98	0.27	0.67
60448	CONDUIT	0.298	0	08:03	2.70	1.23	1.00
60449	CONDUIT	0.422	0	08:03	2.70	1.00	0.96

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60451	CONDUIT	0.569	0	08:03	2.66	1.42	0.96
60452	CONDUIT	0.610	0	08:03	1.90	1.28	0.84
60453	CONDUIT	0.115	0	08:13	1.58	0.43	1.00
60455	CONDUIT	0.546	0	08:17	1.72	0.93	1.00
60456	CONDUIT	0.545	0	08:17	1.63	0.93	1.00
60457	CONDUIT	0.144	0	08:08	1.23	0.41	1.00
60458	CONDUIT	0.146	0	08:08	1.04	0.63	1.00
60459	CONDUIT	0.039	0	08:11	0.49	0.24	0.74
60463	CONDUIT	0.300	0	08:05	1.40	1.00	1.00
60464	CONDUIT	0.155	0	08:07	1.02	0.71	1.00
60466	CONDUIT	0.051	0	08:07	1.32	0.44	1.00
60467	CONDUIT	0.672	0	08:07	2.38	2.30	1.00
60472	CONDUIT	0.056	0	08:01	1.46	0.31	0.38
60474	CONDUIT	0.001	0	08:00	0.43	0.01	0.12
60475	CONDUIT	0.010	0	08:01	0.82	0.06	0.16
60478	CONDUIT	0.148	0	08:02	1.51	0.30	0.65
60479	CONDUIT	0.292	0	08:03	1.76	0.61	1.00
60480	CONDUIT	5.024	0	08:08	3.61	1.43	0.94
60482	CONDUIT	14.262	0	08:09	4.78	1.07	1.00

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60488	CONDUIT	0.429	0	09:26	1.50	0.79	1.00
60498	CONDUIT	0.045	0	08:01	1.35	0.46	0.48
60499	CONDUIT	0.036	0	08:00	1.76	0.24	0.33
60500	CONDUIT	0.032	0	08:00	1.11	0.38	0.43
60501	CONDUIT	0.079	0	08:00	1.64	0.74	0.65
60502	CONDUIT	0.101	0	08:00	2.70	0.53	0.52
60503	CONDUIT	0.209	0	08:00	1.43	0.62	0.65
60504	CONDUIT	0.330	0	08:01	1.75	0.73	0.64
60506	CONDUIT	0.330	0	08:01	1.67	0.87	0.66
60507	CONDUIT	0.076	0	08:01	2.01	0.18	0.29
60508	CONDUIT	0.128	0	08:08	2.01	0.05	0.55
60509	CONDUIT	0.130	0	08:07	2.29	0.04	0.15
60510	CONDUIT	0.061	0	08:01	0.99	0.24	0.33
60511	CONDUIT	0.070	0	08:02	0.83	0.32	0.34
60512	CONDUIT	0.134	0	08:02	1.15	0.27	0.43
60514	CONDUIT	0.116	0	08:00	2.28	0.43	0.47
60515	CONDUIT	0.116	0	08:00	3.02	0.30	0.38
60516	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60517	CONDUIT	0.236	0	08:01	2.49	0.29	0.63

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60518	CONDUIT	0.055	0	08:00	1.35	0.33	0.40
60519	CONDUIT	0.025	0	08:00	1.06	0.15	0.26
60523	CONDUIT	0.231	0	08:03	1.81	0.31	0.39
60524	CONDUIT	0.253	0	08:03	3.17	0.15	0.27
60525	CONDUIT	0.048	0	08:03	1.04	0.13	0.27
60526	CONDUIT	0.044	0	08:03	0.92	0.18	0.28
60527	CONDUIT	0.042	0	08:02	1.05	0.13	0.24
60528	CONDUIT	0.038	0	08:02	1.18	0.24	0.33
60529	CONDUIT	0.001	0	08:02	0.42	0.01	0.07
60532	CONDUIT	0.020	0	08:02	0.49	0.27	0.56
60534	CONDUIT	0.156	0	08:03	1.47	0.73	0.63
60535	CONDUIT	0.055	0	08:05	1.23	0.33	0.73
60536	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60537	CONDUIT	0.046	0	08:01	1.33	0.26	0.38
60538	CONDUIT	0.063	0	08:05	0.86	0.57	0.77
60539	CONDUIT	0.198	0	08:05	1.32	0.42	1.00
60540	CONDUIT	0.222	0	08:05	0.81	0.50	1.00
60541	CONDUIT	0.238	0	08:05	0.84	0.42	1.00
60542	CONDUIT	0.104	0	08:02	1.15	0.37	1.00

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60543	CONDUIT	0.190	0	08:06	0.88	0.52	1.00
60544	CONDUIT	0.070	0	08:02	0.97	0.06	0.17
60545	CONDUIT	0.069	0	08:03	0.87	0.09	0.18
60546	CONDUIT	0.012	0	08:02	0.73	0.02	0.10
60547	CONDUIT	0.000	0	00:00	0.00	0.00	0.07
60548	CONDUIT	5.483	0	08:07	2.76	1.13	0.89
60549	CONDUIT	0.020	0	08:02	0.16	0.02	0.55
60550	CONDUIT	0.084	0	08:00	2.33	0.05	0.16
60552	CONDUIT	6.249	0	08:06	3.25	1.20	0.84
60553	CONDUIT	6.323	0	08:06	3.25	0.70	0.86
60554	CONDUIT	6.385	0	08:07	3.18	1.12	0.90
60555	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60556	CONDUIT	0.596	0	08:03	2.03	0.29	0.37
60557	CONDUIT	0.420	0	08:02	1.89	0.17	0.30
60558	CONDUIT	0.195	0	09:40	1.35	0.59	0.51
60559	CONDUIT	0.024	0	08:01	1.25	0.21	0.32
60560	CONDUIT	0.041	0	08:00	1.42	0.04	0.14
60561	CONDUIT	0.081	0	08:01	1.74	0.06	0.16
60563	CONDUIT	1.573	0	08:14	2.59	1.92	0.91

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60566	CONDUIT	0.416	0	08:03	1.35	5.65	0.80
60567	CONDUIT	0.408	0	08:02	1.78	0.70	0.61
60568	CONDUIT	0.158	0	08:02	0.99	0.25	0.46
60569	CONDUIT	0.019	0	08:00	1.94	0.08	0.19
60570	CONDUIT	0.015	0	08:00	1.22	0.11	0.23
60571	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60572	CONDUIT	0.045	0	08:01	0.80	0.10	0.26
60573	CONDUIT	0.232	0	08:01	1.05	0.43	0.98
60574	CONDUIT	0.121	0	08:02	1.37	0.36	0.66
60575	CONDUIT	0.187	0	08:02	1.32	0.90	0.50
60576	CONDUIT	6.487	0	08:07	3.44	0.99	0.83
60577	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60578	CONDUIT	6.904	0	08:08	3.34	0.73	1.00
60579	CONDUIT	3.706	0	08:11	2.02	0.82	0.92
60580	CONDUIT	3.357	0	08:04	2.51	0.73	0.74
60582	CONDUIT	1.049	0	08:03	2.17	0.30	0.46
60583	CONDUIT	0.964	0	08:03	2.95	0.64	0.59
60584	CONDUIT	1.205	0	08:03	4.47	0.49	0.50
60585	CONDUIT	0.031	0	08:01	1.49	0.13	0.24

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60587	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
60588	CONDUIT	0.033	0	08:02	1.00	0.55	1.00
60589	CONDUIT	0.034	0	08:00	1.13	0.40	0.44
60590	CONDUIT	0.028	0	08:05	0.53	0.34	0.87
60803	CONDUIT	0.022	0	08:00	0.94	0.15	0.26
60804	CONDUIT	0.043	0	08:00	1.44	0.21	0.32
60805	CONDUIT	0.077	0	08:00	1.55	0.33	0.75
60807	CONDUIT	0.135	0	08:09	2.06	1.53	1.00
60809	CONDUIT	0.916	0	08:09	1.40	0.65	1.00
60811	CONDUIT	0.822	0	08:09	1.57	0.47	1.00
60814	CONDUIT	0.971	0	08:03	2.03	0.56	1.00
60815	CONDUIT	1.036	0	08:03	2.23	0.54	1.00
60842	CONDUIT	0.017	0	08:00	1.39	0.04	0.57
60913	CONDUIT	0.003	0	08:00	0.54	0.04	0.14
60915	CONDUIT	0.180	0	08:03	1.36	0.32	0.49
60916	CONDUIT	0.179	0	08:02	1.50	0.29	0.37
60931	CONDUIT	0.128	0	08:02	1.45	0.26	0.35
60932	CONDUIT	0.021	0	08:00	1.05	0.07	0.19
60933	CONDUIT	0.031	0	08:01	0.81	0.08	0.24

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60934	CONDUIT	0.068	0	08:02	1.20	0.20	0.31
60938	CONDUIT	1.240	0	08:03	2.17	0.89	1.00
60939	CONDUIT	0.573	0	08:03	1.98	0.69	1.00
60941	CONDUIT	0.017	0	08:00	0.89	0.10	0.64
60942	CONDUIT	0.025	0	08:04	0.88	0.12	0.23
60945	CONDUIT	0.026	0	08:03	0.86	0.43	0.44
60964	CONDUIT	0.130	0	08:02	1.31	0.68	0.78
60965	CONDUIT	0.691	0	08:04	3.19	1.85	1.00
60966	CONDUIT	0.697	0	08:04	2.46	1.69	1.00
60967	CONDUIT	0.072	0	08:03	1.04	0.72	1.00
60968	CONDUIT	0.090	0	08:03	1.28	0.90	1.00
60969	CONDUIT	0.183	0	08:02	0.85	0.58	1.00
60971	CONDUIT	0.086	0	08:03	1.61	0.57	1.00
60972	CONDUIT	0.126	0	08:02	1.23	0.83	1.00
60973	CONDUIT	0.068	0	08:03	1.14	0.69	1.00
60974	CONDUIT	1.806	0	08:03	2.42	1.18	1.00
60975	CONDUIT	2.019	0	08:03	2.70	1.17	1.00
60976	CONDUIT	0.921	0	08:04	5.79	4.57	1.00
60977	CONDUIT	3.011	0	08:06	2.18	0.74	1.00

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
60978	CONDUIT	2.158	0	08:03	2.89	3.03	1.00
60982	CONDUIT	3.015	0	08:06	3.48	1.80	1.00
60986	CONDUIT	0.058	0	08:03	0.93	0.36	1.00
61002	CONDUIT	1.483	0	08:06	1.31	0.53	1.00
61005	CONDUIT	0.108	0	08:10	1.76	0.65	1.00
61006	CONDUIT	0.132	0	08:10	1.53	0.72	1.00
61007	CONDUIT	1.157	0	08:04	2.14	0.43	1.00
61008	CONDUIT	1.455	0	08:03	1.66	0.38	1.00
61009	CONDUIT	0.289	0	08:10	1.86	0.83	1.00
61011	CONDUIT	0.267	0	08:10	3.11	1.08	1.00
61012	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61013	CONDUIT	0.032	0	08:10	0.89	0.20	0.54
61014	CONDUIT	0.730	0	08:10	1.24	0.57	1.00
61039	CONDUIT	0.126	0	08:10	1.84	0.39	0.81
61040	CONDUIT	0.143	0	08:09	1.34	1.16	1.00
61041	CONDUIT	0.741	0	08:08	1.21	0.52	1.00
61048	CONDUIT	0.195	0	08:09	1.40	0.44	1.00
61049	CONDUIT	0.294	0	08:05	2.04	0.05	1.00
61050	CONDUIT	4.037	0	08:04	2.28	0.81	1.00

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61051	CONDUIT	3.148	0	08:07	1.97	0.79	1.00
61053	CONDUIT	3.773	0	08:16	2.65	1.07	1.00
61054	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61055	CONDUIT	3.473	0	08:13	2.43	0.93	1.00
61056	CONDUIT	0.418	0	08:11	1.97	0.27	1.00
61140	CONDUIT	0.007	0	08:02	0.39	0.00	0.02
61142	CONDUIT	0.144	0	08:04	1.31	0.82	1.00
61143	CONDUIT	0.119	0	08:05	1.09	0.68	1.00
61146	CONDUIT	0.055	0	08:00	1.53	0.51	0.51
61147	CONDUIT	0.410	0	08:02	2.21	0.67	1.00
61148	CONDUIT	0.113	0	08:04	1.60	1.13	1.00
61149	CONDUIT	0.204	0	08:03	1.63	0.56	1.00
61150	CONDUIT	0.282	0	08:03	1.72	0.84	1.00
61151	CONDUIT	0.331	0	08:03	1.78	0.70	1.00
61152	CONDUIT	6.487	0	08:15	3.67	1.28	1.00
61154	CONDUIT	0.030	0	08:01	1.75	0.10	0.21
61155	CONDUIT	0.016	0	08:00	1.36	0.33	0.39
61156	CONDUIT	0.090	0	08:00	2.68	0.46	0.48
61157	CONDUIT	0.105	0	08:00	1.64	0.18	0.43

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61158	CONDUIT	0.066	0	08:00	1.68	0.31	0.50
61159	CONDUIT	0.144	0	08:04	1.93	0.42	1.00
61160	CONDUIT	0.331	0	08:01	1.67	0.78	1.00
61161	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61162	CONDUIT	0.071	0	08:01	2.18	0.45	0.47
61163	CONDUIT	0.100	0	08:01	2.10	0.41	0.65
61164	CONDUIT	0.634	0	08:04	1.00	0.64	1.00
61165	CONDUIT	0.015	0	08:00	1.53	0.08	0.20
61167	CONDUIT	6.230	0	08:15	3.53	1.37	1.00
61168	CONDUIT	6.140	0	08:24	3.79	0.71	1.00
61169	CONDUIT	1.536	0	09:04	2.91	1.47	1.00
61170	CONDUIT	0.093	0	08:06	1.34	1.17	1.00
61171	CONDUIT	0.084	0	08:02	1.38	0.22	0.32
61173	CONDUIT	0.022	0	08:00	1.25	0.19	0.30
61176	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61177	CONDUIT	0.323	0	08:01	3.23	0.44	0.47
61182	CONDUIT	0.209	0	08:01	1.48	0.71	0.63
61183	CONDUIT	0.240	0	08:02	1.60	0.79	0.65
61184	CONDUIT	0.000	0	00:00	0.00	0.00	0.00

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61187	CONDUIT	0.237	0	08:12	2.03	0.38	1.00
61188	CONDUIT	6.692	0	08:24	3.79	1.18	1.00
61192	CONDUIT	0.577	0	08:00	1.81	0.89	1.00
61193	CONDUIT	0.634	0	08:02	1.77	1.12	1.00
61194	CONDUIT	0.407	0	08:05	1.73	1.02	1.00
61195	CONDUIT	0.497	0	08:48	1.93	1.09	1.00
61196	CONDUIT	0.609	0	08:27	2.31	0.16	1.00
61197	CONDUIT	0.116	0	08:06	1.55	0.69	1.00
61199	CONDUIT	0.014	0	08:00	0.91	0.15	0.26
61200	CONDUIT	0.312	0	08:02	1.72	0.69	0.61
61201	CONDUIT	0.311	0	08:03	1.62	0.55	0.53
61202	CONDUIT	0.198	0	08:33	1.79	1.15	1.00
61203	CONDUIT	0.182	0	08:33	1.65	1.85	1.00
61204	CONDUIT	0.660	0	08:03	1.97	0.66	0.60
61205	CONDUIT	0.660	0	08:03	4.40	0.21	0.33
61206	CONDUIT	1.041	0	08:02	4.32	0.42	0.71
61208	CONDUIT	0.064	0	08:00	1.08	0.22	0.32
61209	CONDUIT	0.009	0	08:01	0.84	0.09	0.20
61210	CONDUIT	0.008	0	08:01	0.88	0.04	0.14

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61211	CONDUIT	0.017	0	08:01	0.29	0.03	0.24
61212	CONDUIT	0.350	0	08:00	1.55	0.75	1.00
61213	CONDUIT	0.028	0	08:00	1.59	0.10	0.22
61214	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61215	CONDUIT	0.009	0	08:00	0.83	0.10	0.22
61216	CONDUIT	0.019	0	08:03	0.09	0.04	0.57
61217	CONDUIT	0.194	0	08:02	1.67	0.27	0.36
61218	CONDUIT	0.441	0	09:30	2.23	0.90	1.00
61219	CONDUIT	0.667	0	09:29	2.39	1.51	1.00
61220	CONDUIT	0.308	0	08:01	1.96	0.55	0.54
61221	CONDUIT	0.203	0	08:01	2.26	0.39	0.43
61222	CONDUIT	0.022	0	08:01	1.13	0.12	0.23
61223	CONDUIT	0.001	0	08:01	0.40	0.01	0.06
61224	CONDUIT	0.061	0	08:00	2.28	0.34	0.40
61225	CONDUIT	0.031	0	08:01	1.59	0.12	0.23
61226	CONDUIT	0.054	0	08:00	1.86	0.20	0.31
61227	CONDUIT	0.117	0	08:01	1.35	0.55	0.54
61228	CONDUIT	0.055	0	08:00	1.58	0.26	0.35
61229	CONDUIT	0.053	0	08:00	1.60	0.25	0.34

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61230	CONDUIT	0.097	0	08:00	2.06	0.40	0.44
61231	CONDUIT	0.213	0	08:00	2.34	0.55	0.56
61232	CONDUIT	0.012	0	08:05	0.63	0.00	0.16
61233	CONDUIT	0.308	0	08:01	2.12	0.72	0.64
61234	CONDUIT	0.309	0	08:01	1.66	0.74	0.63
61235	CONDUIT	0.369	0	08:01	1.80	0.80	0.68
61236	CONDUIT	1.457	0	08:01	4.07	0.65	1.00
61238	CONDUIT	0.174	0	08:02	2.80	0.58	0.55
61239	CONDUIT	0.331	0	08:02	2.77	0.83	0.95
61241	CONDUIT	1.917	0	08:03	1.77	0.73	1.00
61244	CONDUIT	0.203	0	08:01	2.69	0.46	0.73
61245	CONDUIT	0.016	0	08:00	1.49	0.10	0.21
61246	CONDUIT	0.060	0	08:00	2.36	0.32	0.39
61247	CONDUIT	0.143	0	08:01	1.77	0.51	0.51
61248	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61250	CONDUIT	0.072	0	08:00	1.00	0.25	0.39
61251	CONDUIT	0.325	0	08:02	2.08	0.80	0.68
61252	CONDUIT	0.479	0	08:02	2.32	0.81	0.69
61253	CONDUIT	0.618	0	08:02	2.74	0.66	0.60

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61254	CONDUIT	0.723	0	08:02	2.82	0.77	0.67
61255	CONDUIT	0.723	0	08:02	2.95	0.72	0.65
61257	CONDUIT	0.171	0	08:01	1.75	0.65	0.59
61258	CONDUIT	0.181	0	08:01	1.46	0.61	0.56
61259	CONDUIT	0.015	0	08:00	1.37	0.10	0.22
61260	CONDUIT	0.048	0	08:00	1.62	0.17	0.33
61261	CONDUIT	0.067	0	08:00	0.90	0.20	0.65
61262	CONDUIT	12.681	0	08:11	4.09	0.99	0.84
61263	CONDUIT	9.016	0	08:07	4.22	1.19	1.00
61264	CONDUIT	0.126	0	08:01	2.39	0.46	0.71
61267	CONDUIT	6.144	0	08:24	3.48	1.24	1.00
61268	CONDUIT	0.084	0	08:03	0.76	0.45	0.91
61269	CONDUIT	0.090	0	08:02	1.20	0.72	0.66
61270	CONDUIT	0.076	0	08:02	1.24	0.11	0.23
61271	CONDUIT	0.078	0	08:05	0.72	0.47	1.00
61272	CONDUIT	3.975	0	08:20	2.78	1.13	1.00
61273	CONDUIT	0.221	0	08:06	1.42	1.09	1.00
61307	CONDUIT	1.905	0	08:11	1.95	0.47	1.00
61308	CONDUIT	1.799	0	08:11	2.01	0.31	1.00

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61309	CONDUIT	1.782	0	08:47	2.11	0.45	1.00
61312	CONDUIT	1.806	0	08:12	1.93	0.65	1.00
61313	CONDUIT	0.051	0	08:00	2.27	0.04	0.52
61314	CONDUIT	0.363	0	08:13	1.37	0.39	1.00
61315	CONDUIT	0.423	0	08:03	2.03	1.42	1.00
61316	CONDUIT	11.948	0	08:06	5.23	1.00	0.84
61317	CONDUIT	11.305	0	08:08	4.44	1.16	1.00
61318	CONDUIT	0.283	0	08:02	3.12	0.39	0.44
61319	CONDUIT	0.297	0	08:02	1.85	0.32	0.70
61322	CONDUIT	0.118	0	08:00	1.61	0.71	0.63
61323	CONDUIT	0.115	0	08:01	1.42	0.34	0.40
61333	CONDUIT	12.686	0	08:11	4.37	0.89	0.78
61334	CONDUIT	12.702	0	08:11	4.45	0.90	0.82
61335	CONDUIT	11.311	0	08:02	4.45	1.23	1.00
61355	CONDUIT	0.065	0	08:00	2.22	0.21	0.31
61356	CONDUIT	12.675	0	08:10	4.02	0.98	0.86
61360	CONDUIT	0.347	0	08:10	2.54	0.86	1.00
61361	CONDUIT	0.198	0	08:10	2.32	0.52	1.00
61362	CONDUIT	0.086	0	08:00	1.91	0.18	0.58

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61363	CONDUIT	0.010	0	08:01	1.50	0.08	0.19
61365	CONDUIT	0.011	0	08:03	1.00	0.10	0.22
61393	CONDUIT	0.058	0	08:01	1.07	0.13	0.25
61394	CONDUIT	0.058	0	08:00	1.40	0.20	0.31
61395	CONDUIT	0.002	0	08:03	0.38	0.01	0.06
61396	CONDUIT	0.002	0	08:01	0.44	0.01	0.07
61397	CONDUIT	0.041	0	08:01	1.05	0.12	0.24
61398	CONDUIT	0.045	0	08:01	1.10	0.02	0.15
61399	CONDUIT	0.095	0	08:15	1.14	0.04	0.57
61400	CONDUIT	0.161	0	08:02	0.60	0.06	0.95
61401	CONDUIT	3.571	0	08:05	2.71	0.78	0.80
61402	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61403	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61404	CONDUIT	0.006	0	08:00	0.96	0.02	0.11
61405	CONDUIT	0.008	0	08:01	0.77	0.03	0.15
61406	CONDUIT	0.034	0	08:01	2.34	0.08	0.19
61407	CONDUIT	0.034	0	08:01	2.37	0.08	0.19
61416	CONDUIT	0.009	0	08:00	1.04	0.03	0.13
61417	CONDUIT	0.069	0	08:00	1.89	0.28	0.36

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
61419	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
61428	CONDUIT	3.011	0	08:06	1.89	0.63	1.00
61429	CONDUIT	0.040	0	08:02	0.32	0.14	1.00
61430	CONDUIT	3.016	0	08:06	3.54	1.79	1.00
61431	CONDUIT	3.176	0	08:05	3.48	0.73	1.00
61432	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
9337	CHANNEL	0.206	0	08:03	0.35	0.09	0.11
9352	CHANNEL	0.159	0	08:00	0.40	0.02	0.27
9358	CHANNEL	0.096	0	08:00	0.53	0.03	0.10
9360	CHANNEL	0.135	0	08:00	0.29	0.00	0.05
9377	CHANNEL	0.519	0	08:01	0.67	0.02	0.17
9378	CHANNEL	0.258	0	08:03	0.44	0.01	0.14
9380	CHANNEL	0.635	0	08:04	0.48	0.05	0.43
9382	CHANNEL	0.521	0	08:05	0.48	0.04	0.22
9387	CHANNEL	0.194	0	08:01	0.66	0.02	0.14
9388	CHANNEL	2.019	0	08:04	1.23	0.04	0.21
9390	CHANNEL	2.203	0	08:04	0.77	0.04	0.35
9393	CHANNEL	0.013	0	08:02	0.01	0.00	0.18
9417	CHANNEL	0.392	0	08:06	0.48	0.01	0.13

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9418	CHANNEL	0.069	0	08:00	0.14	0.01	0.39
9422	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
9423	CHANNEL	0.000	0	00:00	0.00	0.00	0.12
9424	CHANNEL	0.000	0	00:00	0.00	0.00	0.17
9444	CHANNEL	0.079	0	08:00	0.65	0.00	0.05
9455	CHANNEL	0.187	0	08:00	0.64	0.00	0.08
9462	CHANNEL	0.475	0	08:01	1.10	0.01	0.09
9473	CHANNEL	0.285	0	08:02	0.60	0.00	0.10
9474	CHANNEL	0.098	0	08:01	0.29	0.00	0.08
9480	CHANNEL	0.512	0	08:01	0.95	0.00	0.11
9482	CHANNEL	0.576	0	08:02	0.63	0.01	0.15
9487	CHANNEL	0.040	0	08:01	0.15	0.00	0.10
9489	CHANNEL	0.694	0	08:02	0.65	0.02	0.17
9492	CHANNEL	0.579	0	08:02	0.91	0.01	0.12
9507	CHANNEL	0.047	0	08:00	0.27	0.00	0.07
9509	CHANNEL	0.082	0	08:00	0.40	0.00	0.22
9511	CHANNEL	0.872	0	08:00	1.02	0.01	0.13
9515	CHANNEL	3.591	0	08:11	0.87	0.11	0.29
9516	CHANNEL	1.487	0	08:04	0.32	0.02	0.32

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9517	CHANNEL	2.442	0	08:12	0.46	0.06	0.34
9518	CHANNEL	2.054	0	08:12	1.01	0.01	0.21
9519	CHANNEL	0.863	0	08:01	0.44	0.01	0.23
9522	CHANNEL	0.157	0	08:02	0.40	0.00	0.09
9526	CHANNEL	0.085	0	08:00	0.51	0.00	0.06
9535	CHANNEL	0.098	0	08:01	0.33	0.00	0.08
9540	CHANNEL	0.339	0	08:01	0.23	0.00	0.22
9544	CHANNEL	0.265	0	08:00	0.69	0.00	0.09
9546	CHANNEL	0.133	0	08:00	0.50	0.00	0.07
9557	CHANNEL	0.253	0	08:01	0.83	0.00	0.08
9558	CHANNEL	0.193	0	08:00	0.80	0.00	0.07
9561	CHANNEL	0.097	0	08:01	0.81	0.00	0.06
9574	CHANNEL	0.006	0	08:02	0.05	0.00	0.08
9576	CHANNEL	0.021	0	08:00	0.17	0.00	0.08
9580	CHANNEL	0.255	0	08:02	0.66	0.00	0.13
9584	CHANNEL	0.600	0	08:02	0.67	0.02	0.15
9585	CHANNEL	0.266	0	08:02	0.50	0.00	0.11
9586	CHANNEL	0.223	0	08:00	0.48	0.00	0.10
9588	CHANNEL	0.667	0	08:03	0.79	0.02	0.14

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9592	CHANNEL	0.885	0	08:03	1.28	0.01	0.12
9593	CHANNEL	0.723	0	08:03	1.10	0.01	0.12
9594	CHANNEL	0.164	0	08:00	0.41	0.00	0.10
9599	CHANNEL	0.609	0	08:01	1.13	0.01	0.11
9600	CHANNEL	0.159	0	08:00	0.39	0.00	0.09
9601	CHANNEL	0.249	0	08:00	0.55	0.00	0.10
9605	CHANNEL	0.114	0	08:00	0.43	0.00	0.07
9617	CHANNEL	0.224	0	08:01	0.64	0.00	0.08
9618	CHANNEL	0.271	0	08:00	0.75	0.00	0.09
9619	CHANNEL	0.318	0	08:01	1.02	0.00	0.08
9621	CHANNEL	1.151	0	08:17	0.59	0.00	0.26
9622	CHANNEL	0.590	0	08:00	0.49	0.00	0.17
9623	CHANNEL	1.233	0	08:38	0.44	0.02	0.81
9624	CHANNEL	1.122	0	08:12	0.34	0.03	0.56
9628	CHANNEL	1.626	0	08:01	0.33	0.02	0.70
9631	CHANNEL	0.279	0	08:23	0.62	0.01	0.19
9632	CHANNEL	0.682	0	08:02	0.88	0.01	0.17
9633	CHANNEL	0.509	0	08:00	1.04	0.00	0.11
9634	CHANNEL	0.253	0	08:01	0.46	0.00	0.11

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9641	CHANNEL	0.039	0	08:00	0.27	0.00	0.05
9643	CHANNEL	0.563	0	08:01	1.19	0.01	0.10
9648	CHANNEL	1.622	0	08:02	1.78	0.01	0.15
9649	CHANNEL	0.709	0	08:01	0.90	0.01	0.14
9650	CHANNEL	0.607	0	08:01	1.15	0.00	0.11
9651	CHANNEL	0.945	0	08:02	1.57	0.01	0.11
9661	CHANNEL	0.069	0	08:00	0.64	0.00	0.05
9664	CHANNEL	0.471	0	08:01	0.83	0.01	0.11
9665	CHANNEL	0.129	0	08:00	1.16	0.00	0.06
9666	CHANNEL	0.124	0	08:00	0.41	0.00	0.08
9671	CHANNEL	0.482	0	08:02	0.97	0.00	0.10
9672	CHANNEL	0.084	0	08:00	0.29	0.00	0.08
9674	CHANNEL	0.736	0	08:02	1.15	0.01	0.12
9680	CHANNEL	0.344	0	08:00	1.99	0.01	0.11
9681	CHANNEL	0.266	0	08:00	0.69	0.01	0.09
9685	CHANNEL	0.604	0	08:01	1.34	0.01	0.10
9686	CHANNEL	0.534	0	08:00	1.28	0.01	0.09
9687	CHANNEL	0.052	0	08:00	0.12	0.00	0.07
9689	CHANNEL	0.699	0	08:01	1.22	0.01	0.11

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9691	CHANNEL	0.928	0	08:01	1.09	0.01	0.14
9694	CHANNEL	0.935	0	08:00	1.50	0.01	0.12
9702	CHANNEL	0.329	0	08:00	0.51	0.01	0.12
9705	CHANNEL	0.485	0	08:01	0.64	0.02	0.13
9711	CHANNEL	0.306	0	08:00	0.72	0.00	0.09
9713	CHANNEL	0.627	0	08:00	1.05	0.01	0.11
9717	CHANNEL	0.240	0	08:00	0.63	0.00	0.09
9720	CHANNEL	0.973	0	08:01	1.00	0.02	0.16
9721	CHANNEL	0.518	0	08:00	0.72	0.01	0.13
9722	CHANNEL	0.393	0	08:00	0.33	0.00	0.10
9724	CHANNEL	0.988	0	08:01	1.65	0.01	0.11
9734	CHANNEL	0.035	0	08:01	0.23	0.00	0.05
9741	CHANNEL	0.808	0	08:01	1.10	0.01	0.13
9742	CHANNEL	0.979	0	08:02	1.37	0.01	0.13
9744	CHANNEL	1.895	0	08:03	2.20	0.02	0.15
9752	CHANNEL	0.105	0	08:00	0.42	0.00	0.07
9756	CHANNEL	0.558	0	08:00	0.89	0.01	0.12
9757	CHANNEL	0.111	0	08:00	0.30	0.00	0.09
9758	CHANNEL	0.411	0	08:00	0.73	0.01	0.11

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9759	CHANNEL	0.188	0	08:00	0.46	0.00	0.09
9760	CHANNEL	0.221	0	08:00	0.55	0.00	0.09
9762	CHANNEL	0.517	0	08:02	0.78	0.01	0.12
9764	CHANNEL	0.676	0	08:02	1.37	0.01	0.10
9768	CHANNEL	1.050	0	08:02	1.60	0.01	0.12
9769	CHANNEL	0.796	0	08:02	1.49	0.01	0.11
9770	CHANNEL	0.206	0	08:00	0.62	0.00	0.08
9782	CHANNEL	0.525	0	08:00	0.78	0.00	0.14
9783	CHANNEL	2.239	0	08:02	1.99	0.02	0.17
9788	CHANNEL	5.799	0	08:05	1.27	0.19	0.40
9799	CHANNEL	0.256	0	08:00	1.04	0.00	0.11
9800	CHANNEL	0.134	0	08:00	0.35	0.00	0.09
9802	CHANNEL	0.461	0	08:01	0.69	0.01	0.12
9807	CHANNEL	0.315	0	08:01	0.72	0.00	0.09
9809	CHANNEL	0.395	0	08:01	0.66	0.01	0.11
9811	CHANNEL	0.167	0	08:01	0.40	0.01	0.09
9812	CHANNEL	0.085	0	08:00	0.28	0.00	0.08
9821	CHANNEL	0.462	0	08:02	0.49	0.01	0.16
9822	CHANNEL	0.751	0	08:01	0.91	0.01	0.15

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9825	CHANNEL	0.172	0	08:01	0.48	0.01	0.09
9835	CHANNEL	3.407	0	08:12	0.47	0.18	0.72
9843	CHANNEL	0.651	0	08:09	0.11	0.06	0.94
9844	CHANNEL	2.873	0	08:10	0.48	0.23	0.98
9858	CHANNEL	0.108	0	08:01	0.42	0.00	0.08
9859	CHANNEL	0.165	0	08:01	0.66	0.01	0.07
9860	CHANNEL	0.266	0	08:02	0.65	0.01	0.10
9864	CHANNEL	0.171	0	08:00	0.60	0.00	0.08
9866	CHANNEL	0.496	0	08:01	1.09	0.01	0.10
9870	CHANNEL	2.625	0	08:01	2.52	0.02	0.16
9871	CHANNEL	0.254	0	08:00	0.42	0.00	0.12
9874	CHANNEL	1.094	0	08:01	0.60	0.02	0.23
9878	CHANNEL	2.434	0	08:01	2.55	0.02	0.15
9879	CHANNEL	1.390	0	08:00	1.70	0.01	0.14
9884	CHANNEL	0.807	0	08:00	1.13	0.01	0.13
9888	CHANNEL	2.341	0	08:02	1.50	0.03	0.21
9893	CHANNEL	2.294	0	08:03	1.10	0.05	0.24
9894	CHANNEL	0.121	0	08:13	0.38	0.00	0.13
9895	CHANNEL	0.087	0	08:03	0.13	0.02	0.30

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9896	CHANNEL	0.110	0	08:01	0.35	0.00	0.18
9898	CHANNEL	2.249	0	08:05	1.27	0.04	0.22
9906	CHANNEL	1.008	0	08:02	0.32	0.05	0.30
9907	CHANNEL	3.456	0	08:01	1.68	0.04	0.25
9908	CHANNEL	0.629	0	08:01	0.66	0.01	0.15
9909	CHANNEL	2.829	0	08:01	2.18	0.03	0.19
9916	CHANNEL	4.548	0	08:02	0.98	0.08	0.39
9917	CHANNEL	2.665	0	08:04	0.65	0.04	0.36
9924	CHANNEL	0.146	0	08:00	0.59	0.00	0.07
9927	CHANNEL	0.284	0	08:01	0.69	0.01	0.09
9930	CHANNEL	0.471	0	08:01	1.07	0.00	0.09
9938	CHANNEL	0.607	0	08:01	0.86	0.01	0.13
9941	CHANNEL	0.136	0	08:00	0.58	0.00	0.07
9943	CHANNEL	0.614	0	08:01	0.81	0.01	0.13
9944	CHANNEL	0.456	0	08:00	0.98	0.00	0.10
9948	CHANNEL	1.731	0	08:03	0.47	0.03	0.37
9949	CHANNEL	1.334	0	08:01	0.55	0.02	0.28
9952	CHANNEL	0.416	0	08:00	0.70	0.00	0.12
9955	CHANNEL	0.435	0	08:01	0.48	0.02	0.15

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
9957	CHANNEL	0.610	0	08:03	0.26	0.01	0.27
9958	CHANNEL	0.594	0	08:03	0.73	0.02	0.14
9961	CHANNEL	0.209	0	08:00	0.59	0.00	0.09
9965	CHANNEL	0.172	0	08:00	0.58	0.00	0.08
9967	CHANNEL	0.396	0	08:01	0.86	0.01	0.10
9971	CHANNEL	1.053	0	08:01	1.57	0.01	0.12
9972	CHANNEL	0.241	0	08:00	0.47	0.00	0.10
9973	CHANNEL	0.557	0	08:01	0.99	0.01	0.11
9977	CHANNEL	0.124	0	08:00	0.65	0.00	0.06
9979	CHANNEL	0.294	0	08:01	0.38	0.00	0.14
9983	CHANNEL	2.311	0	08:04	1.48	0.04	0.21
9984	CHANNEL	0.308	0	08:04	0.22	0.05	0.21
9985	CHANNEL	1.750	0	08:02	1.54	0.02	0.17
9986	CHANNEL	0.982	0	08:01	1.51	0.01	0.12
9991	CHANNEL	0.652	0	08:02	0.97	0.01	0.12
9992	CHANNEL	0.033	0	08:03	0.13	0.00	0.07
9995	CHANNEL	0.030	0	08:02	0.02	0.00	0.23
9996	CHANNEL	7.073	0	08:04	1.44	0.21	0.39
9997	CHANNEL	6.654	0	08:04	1.10	0.29	0.46

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
A796-IC	DUMMY	0.421	0	08:17			
A796K617	CONDUIT	5.174	0	08:05	3.05	0.89	0.93
A796K617-S	CHANNEL	0.891	0	08:01	0.66	0.02	0.25
A797A799	CONDUIT	0.000	0	00:00	0.00	0.00	0.38
A797A799-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
A797-IC	DUMMY	0.000	0	00:00			
A799A801	CONDUIT	0.054	0	08:02	0.72	0.62	0.89
A799A801-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
A799-IC	DUMMY	0.000	0	00:00			
A800A804	CONDUIT	4.277	0	08:03	3.72	0.40	0.54
A800A804-S	CHANNEL	0.003	0	08:02	0.01	0.00	0.07
A800-IC	DUMMY	0.836	0	08:00			
A801A803	CONDUIT	0.112	0	08:00	1.08	0.19	1.00
A801A803-S	CHANNEL	0.011	0	08:00	0.06	0.00	0.06
A801-IC	DUMMY	0.001	0	08:01			
A803A805	CONDUIT	0.435	0	08:00	2.58	0.83	1.00
A803A805-S	CHANNEL	0.717	0	08:00	1.28	0.01	0.11
A803-IC	DUMMY	0.453	0	08:00			
A804A816	CONDUIT	10.250	0	08:04	3.96	0.67	0.70

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
A804A816-S	CHANNEL	0.005	0	08:03	0.58	0.00	0.01
A804-IC	DUMMY	0.011	0	08:02			
A805A806	CONDUIT	0.496	0	08:01	2.35	0.83	1.00
A805A806-S	CHANNEL	0.612	0	08:00	1.48	0.01	0.09
A805-IC	DUMMY	0.102	0	08:00			
A806A809	CONDUIT	0.579	0	08:01	2.05	1.25	1.00
A806A809-S	CHANNEL	0.526	0	08:01	0.68	0.00	0.19
A806-IC	DUMMY	0.079	0	08:01			
A807A820	CONDUIT	0.001	0	08:02	0.02	0.00	0.50
A807A820-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
A807-IC	DUMMY	0.000	0	00:00			
A809A810	CONDUIT	0.773	0	08:01	2.24	1.25	1.00
A809A810-S	CHANNEL	0.155	0	08:03	0.14	0.00	0.24
A809-IC	DUMMY	0.363	0	08:09			
A810A817	CONDUIT	0.755	0	08:12	1.99	0.98	1.00
A810A817-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.08
A810-IC	DUMMY	0.133	0	08:03			
A813A803	CONDUIT	0.011	0	08:01	0.30	0.09	0.53
A813A803-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.06

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
A813-IC	DUMMY	0.000	0	00:00			
A816A833	CONDUIT	10.267	0	08:04	3.89	0.83	0.71
A816A833-S	CHANNEL	0.000	0	08:07	0.00	0.00	0.04
A816-IC	DUMMY	0.001	0	08:07			
A817A818	CONDUIT	0.757	0	08:12	1.81	0.58	1.00
A817A818-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
A817-IC	DUMMY	0.000	0	00:00			
A818A821	CONDUIT	0.761	0	08:12	1.72	1.51	1.00
A818A821-S	CHANNEL	0.000	0	08:02	0.00	0.00	0.13
A818-IC	DUMMY	0.000	0	08:02			
A820A829	CONDUIT	0.105	0	08:01	0.98	0.42	1.00
A820A829-S	CHANNEL	0.000	0	08:11	0.00	0.00	0.17
A820-IC	DUMMY	0.153	0	08:02			
A821A824	CONDUIT	0.903	0	08:12	2.04	0.35	1.00
A821A824-S	CHANNEL	0.780	0	08:00	0.70	0.01	0.18
A821-IC	DUMMY	0.159	0	08:00			
A822A818	CONDUIT	0.120	0	08:00	1.71	0.91	1.00
A822A818-S	CHANNEL	0.001	0	08:00	0.65	0.00	0.01
A822-IC	DUMMY	0.109	0	08:00			

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
A824A829	CONDUIT	1.584	0	08:00	2.49	1.13	1.00
A824A829-S	CHANNEL	1.026	0	08:01	1.19	0.01	0.22
A824-IC	DUMMY	0.080	0	08:01			
A826A813	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
A826A813-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
A826-IC	DUMMY	0.000	0	00:00			
A827A824	CONDUIT	0.710	0	08:01	2.51	2.12	1.00
A827A824-S	CHANNEL	0.147	0	08:00	0.27	0.01	0.13
A827-IC	DUMMY	0.097	0	08:00			
A829A864	CONDUIT	1.874	0	08:02	2.95	1.39	1.00
A829A864-S	CHANNEL	0.377	0	08:00	0.55	0.01	0.21
A829-IC	DUMMY	1.146	0	08:11			
A833A837	CONDUIT	10.590	0	08:04	3.34	0.86	0.91
A833A837-S	CHANNEL	0.543	0	08:00	0.34	0.00	0.32
A833-IC	DUMMY	0.102	0	08:00			
A837-IC	DUMMY	0.244	0	08:05			
A837OS002	CONDUIT	14.716	0	08:05	6.02	1.55	0.69
A838A827	CONDUIT	0.618	0	08:01	2.19	3.03	1.00
A838A827-S	CHANNEL	0.122	0	08:00	0.39	0.00	0.18

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
A838-IC	DUMMY	0.632	0	08:00			
A851A838	CONDUIT	0.340	0	08:46	1.20	1.91	1.00
A851A838-S	CHANNEL	0.644	0	08:00	1.19	0.01	0.11
A851-IC	DUMMY	0.068	0	08:01			
A864A837	CONDUIT	2.031	0	08:01	3.19	1.77	1.00
A864A837-S	CHANNEL	0.486	0	08:00	0.24	0.00	0.33
A864-IC	DUMMY	0.165	0	08:00			
A871A851	CONDUIT	0.325	0	08:46	1.50	2.78	1.00
A871A851-S	CHANNEL	0.562	0	08:01	1.01	0.01	0.16
A871-IC	DUMMY	0.198	0	07:59			
A880A871	CONDUIT	0.255	0	08:39	1.60	0.99	1.00
A880A871-S	CHANNEL	0.680	0	08:34	0.39	0.01	0.41
A880-IC	DUMMY	0.250	0	08:26			
A887A880	CONDUIT	0.204	0	08:00	1.85	1.57	1.00
A891A887	CONDUIT	0.102	0	08:00	2.29	3.33	1.00
Arnold1200relief	CONDUIT	3.054	0	08:03	3.82	0.77	0.67
Arnold750relief	CONDUIT	1.588	0	08:04	3.62	1.75	0.97
ArnoldBrookeInlet1	CONDUIT	1.484	0	08:02	5.46	0.85	0.71
BrookeTrunk1	CONDUIT	18.580	0	08:16	3.12	0.80	1.00

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Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
BrookeTrunk2	CONDUIT	18.571	0	08:17	3.12	1.03	1.00
BrookeTrunk3	CONDUIT	18.843	0	08:17	3.17	1.01	1.00
BrookeTrunk4	CONDUIT	18.842	0	08:17	3.17	1.06	1.00
BrookeTrunk5	CONDUIT	21.788	0	08:19	3.66	1.19	1.00
BrookeTrunk6	CONDUIT	33.061	0	08:23	5.56	1.72	1.00
BrookeTrunk7	CONDUIT	33.061	0	08:23	5.65	1.72	0.96
By-Pass	CONDUIT	7.990	0	08:02	4.75	0.46	0.57
ByPass1-2	CONDUIT	2.995	0	08:21	3.81	1.75	1.00
ByPass1-3	CONDUIT	2.995	0	08:21	3.85	1.25	0.99
ByPass1-4	CONDUIT	2.976	0	08:21	4.87	1.01	0.76
ByPass-ThornridgeEofBrooke	CONDUIT	0.261	0	08:18	2.07	0.69	0.84
C1	CHANNEL	0.584	0	08:22	0.16	0.01	0.27
C10	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
C2	CONDUIT	3.700	0	08:04	3.03	0.76	0.65
C2_2	CHANNEL	0.399	0	08:00	1.41	0.02	0.34
C2_3	CHANNEL	0.405	0	08:00	1.85	0.01	0.30
C2_4	CHANNEL	0.403	0	08:00	1.72	0.01	0.31
C3	CHANNEL	13.790	0	08:04	1.63	0.10	0.48
C4	CHANNEL	0.412	0	08:05	0.11	0.00	0.39

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
C5	CHANNEL	0.032	0	08:36	0.02	0.00	0.32
C6	CONDUIT	3.219	0	08:20	5.68	0.35	0.70
C9	CONDUIT	1.000	0	08:02	4.99	0.43	0.55
CB600	CONDUIT	0.265	0	08:17	2.57	0.29	1.00
Ex.1500	CONDUIT	2.555	0	08:10	2.09	0.41	1.00
Ex.600	CONDUIT	0.536	0	08:02	2.31	0.92	0.77
Existing1.95	CONDUIT	14.273	0	08:09	4.78	0.91	1.00
Existing2.1	CONDUIT	16.076	0	08:09	4.75	2.10	0.94
Existing2.25	CONDUIT	18.176	0	08:18	9.38	0.27	1.00
ExistingMintoSewer	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
G358A838	CONDUIT	0.000	0	08:01	0.00	0.00	0.50
G358A838-S	CHANNEL	0.000	0	00:00	0.00	0.00	0.05
G358-IC	DUMMY	0.000	0	00:00			
In1500	CONDUIT	2.305	0	08:10	2.12	0.43	1.00
In600	CONDUIT	0.536	0	08:01	2.75	0.74	0.65
K617A804	CONDUIT	6.039	0	08:05	3.50	2.81	0.95
K617A804-S	CHANNEL	0.081	0	08:01	0.20	0.00	0.09
K617-IC	DUMMY	0.655	0	08:01			
K618-IC	DUMMY	0.376	0	08:01			

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
K618K617	CONDUIT	0.376	0	08:01	5.32	6.05	1.00
K618K617-S	CHANNEL	0.646	0	08:00	0.33	0.01	0.25
K739-IC	DUMMY	0.000	0	00:00			
K740A800	CONDUIT	3.564	0	08:03	2.27	1.88	0.59
K740A800-S	CHANNEL	1.275	0	08:00	1.44	0.01	0.16
K740-IC	DUMMY	0.967	0	08:03			
minorChannel-18177	CONDUIT	3.701	0	08:45	3.05	0.64	0.42
minorChannel-18179	CONDUIT	3.413	0	08:45	2.74	0.23	0.43
minorChannel-18198	CONDUIT	1.426	0	08:53	3.20	0.15	0.26
minorChannel-18215	CONDUIT	1.600	0	08:24	2.68	0.20	0.22
minorChannel-27845	CONDUIT	0.114	0	09:02	3.63	2.75	1.00
minorChannel-27848	CONDUIT	0.698	0	08:29	1.45	0.68	1.00
minorChannel-27849	CONDUIT	0.697	0	08:29	1.43	0.79	1.00
minorChannel-27854	CONDUIT	0.725	0	08:36	40.50	0.98	1.00
minorChannel-27858	CONDUIT	1.205	0	08:03	2.73	0.53	1.00
minorChannel-27859	CONDUIT	1.204	0	08:03	2.73	1.89	1.00
minorChannel-27860	CONDUIT	1.204	0	08:03	2.73	1.08	1.00
minorChannel-27867	CONDUIT	0.330	0	08:01	1.87	0.65	1.00
minorChannel-27958	CONDUIT	0.037	0	17:00	1.19	1.89	0.99

Proposed-100YR-24HR-CHICAGO

Link	Type	Maximum |Flow| CMS	Day of Maximum Flow	Hour of Maximum Flow	Maximum |Velocity| m/sec	Max / Full Flow	Max / Full Depth
minorChannel-27960	CONDUIT	0.036	0	09:11	0.86	1.08	0.87
minorChannel-27965	CONDUIT	0.060	0	07:57	1.91	1.32	1.00
minorChannel-27966	CONDUIT	0.060	0	08:00	1.92	1.86	0.98
MintoNewSewer	CONDUIT	0.643	0	08:05	1.17	0.17	0.44
OL1	DUMMY	1.632	0	08:04			
OLFin	CHANNEL	4.376	0	08:08	>50.00	0.01	0.09
OLFout	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
OLFyonge	CHANNEL	0.000	0	00:00	0.00	0.00	0.05
Prop.Inlet	CONDUIT	13.096	0	08:09	9.29	0.33	0.56
Prop.Outlet	CONDUIT	10.094	0	08:19	4.92	0.57	0.57
ThornC7dicb	DUMMY	0.260	0	08:09			
ThornC7DitchE	CONDUIT	0.172	0	08:01	1.20	0.10	0.28
ThornC7DitchW	CHANNEL	0.091	0	08:03	1.05	0.08	0.58
ThornC7overflow	CHANNEL	0.000	0	00:00	0.00	0.00	0.02
ThornridgeBypass	CONDUIT	2.996	0	08:21	3.46	1.20	1.00
ThornridgeC4Overflow	CHANNEL	0.000	0	00:00	0.00	0.00	0.31
Trib2	CHANNEL	1.021	0	08:24	0.98	0.15	0.51
W1	CHANNEL	0.000	0	00:00	0.00	0.00	0.00
W2	CHANNEL	0.000	0	00:00	0.00	0.00	0.00

Appendix C – Conceptual Cost Estimates

Gallanough Park SWMF Class EA Addendum
Client: City of Vaughan
Project No: 2020-010
Date: 15-Jul-20
Prepared By: RJT

Conceptual Cost Estimates

Capital Cost

Alt. #	Description	Cost
1	Do Nothing	$0.00
2	Surface Storage	$1,723,620.00
3	Underground Storage	$4,452,368.75
4	Hybrid Storage	$3,203,865.50

Equivalent Annual Maintenance Cost

Alt. #	Description	Cost
1	Do Nothing	$0.00
2	Surface Storage	$2,500.00
3	Underground Storage	$22,000.00
4	Hybrid Storage	$22,500.00

Maintenance Cost Net Present Value Analysis (50 years, 3%)

Alt. #	Description	Cost
1	Do Nothing	$0.00
2	Surface Storage	$57,796.91
3	Underground Storage	$442,231.47
4	Hybrid Storage	$448,568.85

Total Value Analysis

Alt. #	Description	Cost
1	Do Nothing	$0.00
2	Surface Storage	$1,781,416.91
3	Underground Storage	$4,894,600.22
4	Hybrid Storage	$3,652,434.35

Gallanough Park SWMF Class EA Addendum
Client: City of Vaughan
Project No: 2020-010
Date: 15-Jul-20
Prepared By: RJT

Construction Costs - Alternative #2

Surface Storage Volume = 9578 m^3

Item No.	Description	Quantity	Units	Unit Price	Item Price
1	Mobilization, demobilization and project administration	1	L.S.	$100,000.00	$100,000.00
2	Traffic control	1	L.S.	$42,000.00	$42,000.00
3	Erosion control	550	m	$30.00	$16,500.00
4	Topsoil stripping and stockpiling	5000	m^2	$3.00	$15,000.00
5	Regrading of overland flow route from Tanjo	1	L.S.	$100,000.00	$100,000.00
6	Excavate and dispose of earth to create new pond	9580	m^3	$35.00	$335,300.00
7	Supply and place tee joint for inlet diversion	1	each	$100,000.00	$100,000.00
8	Supply and place new 2100 mm pipe	70	m	$5,000.00	$350,000.00
9	Supply and place inlet headwall	1	each	$40,000.00	$40,000.00
10	Supply and install backflow preventer	1	L.S.	$200,000.00	$200,000.00
11	Supply and place outlet control structure	1	each	$30,000.00	$30,000.00
12	Final grading and restoration	1	L.S.	$30,000.00	$30,000.00
13	Topsoil placement and Sodding	5000	m^2	$8.00	$40,000.00
14	Park features and walkway re-instatement	1	L.S.	$100,000.00	$100,000.00
				Construction Cost - Subtotal	$ 1,498,800.00
				15% Contingency	$ 224,820.00
				Construct Cost - Total	**$ 1,723,620.00**

Gallanough Park SWMF Class EA Addendum
Client: City of Vaughan
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Date: 15-Jul-20
Prepared By: RJT

Construction Costs - Alternative #3

Underground Storage Volume = 9,559 m^3

Item No.	Description	Quantity	Units	Unit Price	Item Price
1	Mobilization, demobilization and project administration	1	L.S.	$300,000.00	$300,000.00
2	Traffic control	1	L.S.	$42,000.00	$42,000.00
3	Erosion control	550	m	$30.00	$16,500.00
4	Topsoil stripping and stockpiling	5000	m^2	$3.00	$15,000.00
5	Regrading of overland flow route from Tanjo	1	L.S.	$100,000.00	$100,000.00
6	Excavate and dispose of excess earth for facility	10175	m^3	$35.00	$356,125.00
7	Shoring for excavation	1300	m^2	$150.00	$195,000.00
8	Underground storage facility, cast-in-place concrete using pre-fabricated forming system	9560	m^3	$225.00	$2,151,000.00
9	SWMF inlet / outlet connections	1	L.S.	$20,000.00	$20,000.00
10	200mm transfer pipes	20	m	$300.00	$6,000.00
11	Supply and place tee joint for inlet diversion	1	each	$100,000.00	$100,000.00
12	Supply and place new 2100 mm pipe	40	m	$5,000.00	$200,000.00
13	Supply and install Backflow Preventer	1	L.S.	$200,000.00	$200,000.00
14	Final grading and restoration	1	L.S.	$30,000.00	$30,000.00
15	Topsoil placement and sodding	5000	m^2	$8.00	$40,000.00
16	Park features and walkway re-instatement	1	L.S.	$100,000.00	$100,000.00
				Construction Cost - Subtotal	$ 3,871,625.00
				15% Contingency	$ 580,743.75
				Construct Cost - Total	**$ 4,452,368.75**

Gallanough Park SWMF Class EA Addendum
Client: City of Vaughan
Project No: 2020-010
Date: 15-Jul-20
Prepared By: RJT

Construction Costs - Alternative #4

Hybrid Storage Volume = 9,567 m^3 (4780 m^3 UG + 4785 m^3 Surface)

Item No.	Description	Quantity	Units	Unit Price	Item Price
1	Mobilization, demobilization and project administration	1	L.S.	$300,000.00	$300,000.00
2	Traffic Control	1	L.S.	$42,000.00	$42,000.00
3	Erosion Control	550	m	$30.00	$16,500.00
4	Topsoil stripping and stockpiling	5000	m^2	$3.00	$15,000.00
5	Regrading of overland flow route from Tanjo	1	L.S.	$100,000.00	$100,000.00
6	Excavate and dispose of earth to create hybrid facility	9872	m^3	$35.00	$345,520.00
7	Shoring for excavation	1300	m^2	$150.00	$195,000.00
8	Underground storage facility, cast-in-place concrete using pre-fabricated forming system	4782	m^3	$225.00	$1,075,950.00
9	SWMF inlet / outlet connections	1	L.S.	$20,000.00	$20,000.00
10	200mm transfer pipes	20	m	$300.00	$6,000.00
11	Supply and place tee joint for inlet diversion	1	each	$100,000.00	$100,000.00
12	Supply and place new 2100 mm pipe	40	m	$5,000.00	$200,000.00
13	Supply and install Backflow Preventer	1	L.S.	$200,000.00	$200,000.00
14	Final grading and restoration	1	L.S.	$30,000.00	$30,000.00
15	Topsoil placement and sodding	5000	m^2	$8.00	$40,000.00
16	Park features and walkway re-instatement	1	L.S.	$100,000.00	$100,000.00
				Construction Cost - Subtotal	$ 2,785,970.00
				15% Contingency	$ 417,895.50
				Construct Cost - Total	**$ 3,203,865.50**

Appendix D – Net Effects Analysis

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Tables C1 – C4 provide the details of the potential effects, mitigation measures, and net effects associates with each of the alternatives

Table C1 – Net Effect Analysis for Alternative #1 (Do Nothing)			
Evaluation Criteria	**Potential Effects**	**Mitigation/Compensation/Enhancement Measures**	**Net Effects**
Social			
Impacts to the existing park uses	• No effect	• N/A	• Full and present access to the Park will be maintained
Creation of new park uses	• No effect	• N/A	• No improvement or reduction in Park space or use
Potential for standing water	• No effect	• N/A	• No improvement or reduction for standing water in the Park
Local impacts caused by construction	• N/A	• N/A	• Local properties will continue to experience flooding during all storm events greater than the 2-year event
Economic Environment			
Capital construction cost	• N/A	• N/A	• N/A
Operation and maintenance cost	• No effect	• N/A	• Cost of maintaining Park will be maintained
Reduction in flood damages	• No effect	• N/A	• Risk of damages during events larger than the 2-year event will be maintained
Natural Environment			
Impacts on general water quality	• No effect	• N/A	• Untreated road runoff will continue to discharge sediment-laden water to the Don River • Poor water quality resulting from increased sediment can lead to poor aquatic health and habitat
Impacts to existing vegetation	• No effect	• N/A	• Existing vegetation in the Park will not be disturbed
Functional			
Ease of construction	• N/A	• N/A	• N/A
Ease of operations and maintenance	• No effect	• N/A	• Level of maintenance on Park will maintain
Risk to adjacent or upstream properties	• No effect	• N/A	• Flood risk is maintained
Risk to downstream properties	• No effect	• N/A	• Flood risk is maintained

Table C2 – Net Effect Analysis for Alternative #2 (Surface Storage)			
Evaluation Criteria	**Potential Effects**	**Mitigation/Compensation/Enhancement Measures**	**Net Effects**
Social			
Impacts to the existing park uses	• Reduced use of Park space after rainfall events due to saturated (wet) ground • Park to be inaccessible after major storm events as a result of the standing water level • Park use will be restricted during construction activities	• Hydrologic and hydraulic calculations will be optimized to minimize detention time of standing water in the Park • A low flow channel / pipe can be maintained/incorporated into the design to drain flows during events up to the 2-year storm around the pond	• Existing trails/access around the perimeter of the Park will not be impacted in terms of access and use. • The open space at the bottom of the Park will not be usable during the immediately after rainfall events greater than the 2-year storm.
Creation of new park uses	• Additional walking trails may be constructed • Reduction in available space for existing uses • Increased toboggan slopes may be constructed	• Surface storage grading may result in additional park uses (ie. Trails). • Design can incorporate a small soccer field	• Some potential for new park uses including additional walking trails and increased toboggan slopes.
Potential for standing water	• Potential for standing water after all events larger than the 2-year event.	• Warning signs can be installed around the Park to increase awareness of the standing water hazard in the pond area • Landscaping design can be incorporated into the design to reduce public access to the pond areas • A by-pass pipe can be maintained/implemented to direct minor storm events up to the 2-year event around the pond without utilizing pond storage	• Storm events less than the 2-year event should not result in standing water in the Park • Potential for standing water during larger storm events remain
Local impacts caused by construction	• Potential for noise, odour, sediment, and dust nuisances during construction, although it is expected to be short in duration • Some disturbance to traffic movements for local residents may occur • Some disturbance to private/public property	• Proper health and safety protocols will be followed during construction • Traffic management plan and restricted construction hours can be implemented to minimize and optimize disturbance • Implement noise, odour, sediment, and dust control plans	• Construction would be relatively short in duration • Adequate level of service can be provided through trail control measures • Minimal potential for noise, odour, sediment, and dust disturbances • Minimal disturbance to private / public properties may occur
Economic Environment			
Capital construction cost	• Cost for construction is approximately $1.7 million • Expensive underground chambers not required	• Cost may be optimized during the detailed design process	• Best value in terms of flood control improvement for money spent
Operation and maintenance cost	• The Park would require a higher level of maintenance due to input of stormwater runoff into the Park • Potential for debris entering the pond and clogging structures which will require maintenance	• Maintenance and operations would be considered during the detailed design stage • An operations and maintenance manual would be developed during the design phase	• Some maintenance will be required, however confined space entry would be minimized • Special equipment or personnel is not required for operations and maintenance
Reduction in flood damages	• The frequency of flooding events will be reduced as a result of the temporary storm flow detention	• Gallanough Park will detain and store storm runoff to decrease the frequency of flooding in the Thornhill Neighbourhood area • Storage operations would be optimized during detailed design	• Existing risk to the public and private properties is reduced • The Brooke Street Trunk Sewer will continue to surcharge and flood the surrounding area, however the level of storm intensity required to cause flooding with increased to the 25-year storm event from the 5-year event.

Natural Environment			
Impacts on general water quality	• Minimal effects to water quality are expected as a result of temporary detention • Underground storage facility can be equipped with an isolator row to capture debris/sediment • Some infiltration into the ground may occur during drawdown of the surface storage	• None	• Minimal water quality improvements expected through temporary detention • Minimal water quality improvements expected through temporary detention as the 'first flush' by-passes the pond • Infiltration may occur during ponded events
Impacts to existing vegetation	• Some trees will need to be removed to construct the storm infrastructure – inlet/outlet structures, sewers, overland flow path	• Landscaping can be implemented to compensate for the loss of existing vegetation • A tree preservation plan and restoration plan will be completed during the detailed design phase	• The loss of large diameter trees (greater than 0.3 m dbh) represents a net loss of vegetation in the Park • Tree removal and damages will be limited through a tree preservation plan • Vegetation compensation can be provided through landscaping and planting plans
Functional			
Ease of construction	• The site is easily accessible • Construction techniques are straight forward • Flow bypass operations on existing infrastructure will be required	• Standard construction management methods • Construction methodology plan will be developed to minimize flow bypass requirements	• Issues with construction are not anticipated
Ease of operations and maintenance	• Maintenance to be completed by municipal staff who are familiar with pond operations • Removal of accumulated sediment may be required to maintain park standards	• Operations and maintenance requirements will be considered during the detailed design phase	• Minimal operations and maintenance
Risk to adjacent or upstream properties	• Ponding in the Park could impact foundation drainage for some homeowners immediately adjacent to the Park	• Storage depth and volume can be adjusted during detailed design to eliminate potential for negative impacts	• Upstream properties will remain unaffected
Risk to downstream properties	• Flooding impacts on downstream private properties in Thornhill Neighbourhood are reduced	• Additional modelling and analysis will be completed to optimize the quantity control capabilities in the Park	• Thornhill Neighbourhood area will experience a reduction in flooding events • The extents of flooding will be reduced • Additional capacity in the Brooke Street Trunk Sewer will become available

Table C3 – Net Effect Analysis for Alternative #3 (Underground Storage)			
Evaluation Criteria	**Potential Effects**	**Mitigation/Compensation/Enhancement Measures**	**Net Effects**
Social			
Impacts to the existing park uses	• Park uses will be restricted during construction • No effects after construction	• No mitigation undertaken	• Local residents will continue to have full access to the Park and its present uses after construction
Creation of new park uses	• With new filled area, new park uses can be implemented	• Additional recreational activities can be implemented including trails, tobogganing hills, soccer field, etc.	• High potential for new park uses
Potential for standing water	• Low potential for standing water in the Park	• No mitigation undertaken • Facility sized for 100-year storage underground	• Limited potential for standing water
Local impacts caused by construction	• Some disturbance to private/public property • Some traffic movement disturbance to local residents • Potential for noise, odour, sediment, and dust nuisances • Construction would be longer in duration	• Standard construction health and safety protocols will be followed • Traffic management plan will be developed to minimize disturbance • Implement noise, odour, sediment and dust control plans	• Minimal disturbance to private/public property may occur • Adequate level of service to be provided through traffic control techniques • Minimal potential for noise, odour, sediment and dust • Construction would be longer in duration
Economic Environment			
Capital construction cost	• Cost of construction is approximately $4.4 million • Expensive unground tank forms are required	• Cost will be optimised through detailed design process	• The most expensive alternative in terms of capital cost
Operation and maintenance cost	• Sedimentation within the underground storage tank is possible • Inclusion of isolator row feature to contain maintenance area • Maintenance would be more complicated and expensive requiring confined space entry and special equipment	• Maintenance and operation considerations will be included at detailed design • Operations and Maintenance manual will be developed	• Maintenance cost would be high due to confined space entry requirements • Special equipment and personnel required for maintenance
Reduction in flood damages	• The frequency of flooding events will be reduced	• Thornhill Neighbourhood area will experience a decrease in flood frequency as a result of the temporary detention provided • Storage and flow control operations will be refined during detailed design	• Existing risk of danger to the public and private properties is reduced • The level of storm intensity that results in flooding is increased from the 5-year event to the 25-year event
Natural Environment			
Impacts on general water quality	• Limited improvement to water quality through sedimentation in the underground facility • Inclusion of isolator row to capture debris and sediment	• None	• Minimal improvements to water quality through sedimentation • Minimal water quality improvements expected through temporary detention as the 'first flush' by-passes the facility
Impacts to existing vegetation	• Tree removal will be required to construct new storm infrastructure (ie. inlet/outlet structures, sewers) and overland flow routes.	• Landscaping can be implemented to compensate the loss of existing vegetation	• The loss of large diameters trees (greater than 0.3 m dbh) represents a new loss of vegetation • Compensation can be provided through landscaping and replanting • Tree removal and damages will be limited through a tree preservation plan

Functional			
Ease of construction	• The site is easily accessible • Difficultly of construction is increased • Construction duration will increase	• Cost may be optimized through detailed design process	• More complicated construction methodologies • Longer construction duration
Ease of operations and maintenance	• Maintenance is more difficult due to the limited access of an underground facility • Maintenance activities may require confined space entry and special equipment and personnel • Inspections can be completed via surface inspection ports	• Reduce maintenance and operations requirements during design stage • Improve ease of operations and maintenance during design stage • Operations and Maintenance manual will be developed	• More difficult maintenance operations • Confined space entry likely required for maintenance
Risk to adjacent or upstream properties	• Ponding in the Park could impact foundation drainage for some homeowners adjacent to the Park	• Storage depth and volume can be optimized through detailed design process	• Upstream properties will remain unaffected
Risk to downstream properties	• Downstream flooding impacts are reduced	• Additional modelling and analysis will be completed through design to optimize quantity control capabilities	• Thornhill Neighbourhood area will experience a reduction in flooding events • Flooding extents will be reduced • Additional capacity in the Brooke Street Trunk Sewer will become available

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Table C4 – Net Effect Analysis for Alternative #4 (Hybrid Storage)			
Evaluation Criteria	**Potential Effects**	**Mitigation/Compensation/Enhancement Measures**	**Net Effects**
Social			
Impacts to the existing park uses	• The residents will have reduced access to the Park space after large rainfall events due to saturated grounds • The Park will be temporarily inaccessible after extreme storm events due to ponded water • Park uses will be restricted during construction	• Hydrologic and hydraulic calculations will be completed during the design phase to minimize detention time • Underground storage component would provide control for smaller events (ie. 10-year) without surface ponding • Grading required for dry pond component may provide additional park uses	• The trails along the perimeter of the Park will not be impacted in terms of access and use post-construction • The center of the Park will not be usable immediately after and during an rainfall event greater than the 10-year event • Events less than the 10-year will not impact park usage
Creation of new park uses	• Reduction in available space for existing uses • Increased toboggan slopes can be constructed • New walking trails may be constructed	• Grading required for dry pond may provide other park uses • Design can incorporate a small soccer field	• Potential for new park uses including walking trails and toboggan slopes
Potential for standing water	• Potential for standing water after storm events greater than 10-year return period	• Warning signs can be installed around the Park to increase awareness of the standing water hazard in the dry pond area • Landscaping can be implemented in the Park to reduce public access to the ponding areas • Underground storage would control flows up to the 10-year event without utilizing surface ponding	• Potential for periodic standing water after storm events remains • Flows less that the 10-year event should not result in standing water
Local impacts caused by construction	• Some disturbance to private / public property • Some disturbance to traffic movements for local residents • Potential for noise, odour, sediment and dust nuisances • Construction would be relatively short in duration	• Standard construction health and safety protocols will be followed • Traffic management plan will be developed to minimize disturbance • Implement noise, odour, sediment, and dust control plans to minimize disturbance	• Minimal disturbance to private / public property may occur • Adequate level of service can be provided through traffic control techniques • Minimal potential for odour, noise, sediment, and dust disturbances • Construction would be relatively short in duration
Economic Environment			
Capital construction cost	• Cost for construction is approximately $3.2 million • Expensive underground tank forms required for underground component	• Cost may be optimized through detailed design process	• The second most expensive alternative in terms of capital costs
Operation and maintenance cost	• Sedimentation is possible within the underground storage tank • Inclusion of isolator row feature to contain maintenance area • Maintenance is expensive as confined space entry and special equipment is required	• Maintenance and operations requirements would be considered during detailed design • An Operations and Maintenance manual would be prepared at design phase	• More expensive maintenance costs as confined space entry and special equipment is required
Reduction in flood damages	• The frequency of flooding events will be reduced	• Gallanough Park will store storm runoff to decrease the frequency of flooding in the Thornhill Neighbourhood area • Storage and flow control operations would be optimized during the design phase	• Existing risk of danger to the public and private properties is reduced • The Brooke Street Trunk Sewer will continue to surcharge however the frequency is reduced from the 5-year event to the 25-year event

Natural Environment			
Impacts on general water quality	• Limited improvement to water quality as a result of sedimentation in the underground facility • Inclusion of isolator row to capture debris and sediment	• None	• Minimal improvements to water quality through sedimentation • Minimal water quality improvements expected through temporary detention as the 'first flush' by-passes the facility
Impacts to existing vegetation	• Some trees will require removal to construct new storm infrastructure (ie. inlet/outlet structure, sewers)	• Landscaping can be implemented to compensate the loss of existing vegetation • A tree preservation plan will be developed during the detailed design phase	• The loss of large diameters trees (greater than 0.3 m dbh) represents a new loss of vegetation • Compensation can be provided through landscaping and replanting • Tree removal and damages will be limited through a tree preservation plan
Functional			
Ease of construction	• The site is easily accessible • Difficultly of construction is increased • Construction duration will increase	• Cost may be optimized through detailed design process	• More complicated construction methodologies • Longer construction duration
Ease of operations and maintenance	• Maintenance is difficult due to the limited access of an underground facility • Maintenance activities may require confined space entry and special equipment and personnel • Inspections will likely require confined space entry	• Reduce maintenance and operations requirements during design stage • Operations and Maintenance manual will be developed	• Difficult maintenance operations • Frequent confined space entry
Risk to adjacent or upstream properties	• Ponding in the Park could impact foundation drainage for some homeowners adjacent to the Park	• Storage depth and volume can be optimized through detailed design process	• Upstream properties will remain unaffected
Risk to downstream properties	• Downstream flooding impacts are reduced	• Additional modelling and analysis will be completed through design to optimize quantity control capabilities	• Thornhill Neighbourhood area will experience a reduction in flooding events • Flooding extents will be reduced • Additional capacity in the Brooke Street Trunk Sewer will become available

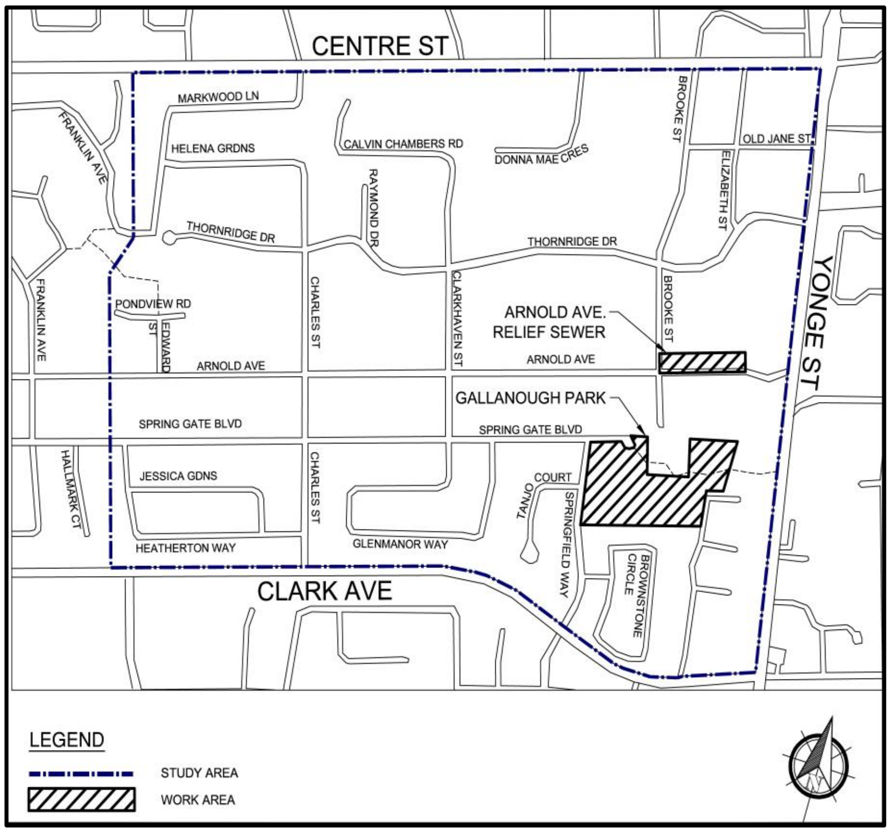
Appendix E – Public Notifications & Presentation Slides

Revised Notice of Completion

SCHEDULE 'B' MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

Stormwater Management Improvements in Gallanough Park and Surrounding Area

The Schedule 'B' Municipal Class Environmental Assessment (EA) process of the above-noted project included a published NOTICE OF COMPLETION dated November 18, 2010. The preferred solution was to construct a Dry Pond within Gallanough Park. By resolution of the City of Vaughan, **the revised preferred solution is to construct an Underground Storage Facility**.



This REVISED NOTICE OF COMPLETION and accompanying updated Project File will be available for public review in accordance with the requirements of the Environmental Assessment Act. Subject to comments received as a result of this Notice, and the receipt of necessary approvals, the City of Vaughan intends to proceed with the design and construction of this project.

THE FINAL PROJECT FILE REPORT (PFR) IS BEING RELEASED FOR PUBLIC AND AGENCY REVIEW AND COMMENT. The Final PFR can be accessed online at Gallanough Project Web Page and/or visit vaughan.ca and search **"Gallanough Park and Surrounding Area".** In light of the current state of emergency due to COVID-19, interested parties are strongly encouraged to access the Final PFR online. Should this not be possible, please contact the City of Vaughan Project Manager (noted below) to request a hard copy.

Anyone wishing to provide comments on the Final PFR must submit by December 14, 2020, to:

Frank Facchini, P.Eng.
Project Manager, Infrastructure Delivery
Infrastructure Development, City of Vaughan
2141 Major Mackenzie Drive
Vaughan, ON L6A 1T1
Phone: 905-832-8585 ext. 8986
Email: frank.facchini@vaughan.ca

If concerns regarding this project remain unresolved after consulting with the City of Vaughan, a Part II Order can be requested. The Part II Order Request Form can be accessed online at: ontario.ca/page/class-environmental-assessments-part-ii-order. Completed Part II Order Request Forms must be sent to the Minister of the Environment, Conservation and Parks, with a copy to the Director of the Environmental Assessment Branch and a written request to the City of Vaughan Project Manager, at the following addresses before December 14, 2020:

Office of the Minister
Ministry of the Environment, Conservation and Parks
777 Bay St., 5th Floor
Toronto, ON M7A 2J3
Minister.mecp@ontario.ca

Director, Environmental Assessment Branch
Ministry of the Environment, Conservation and Parks
135 St. Clair Ave West, 1st Floor
Toronto, ON M4V 1P5
EABDirector@ontario.ca

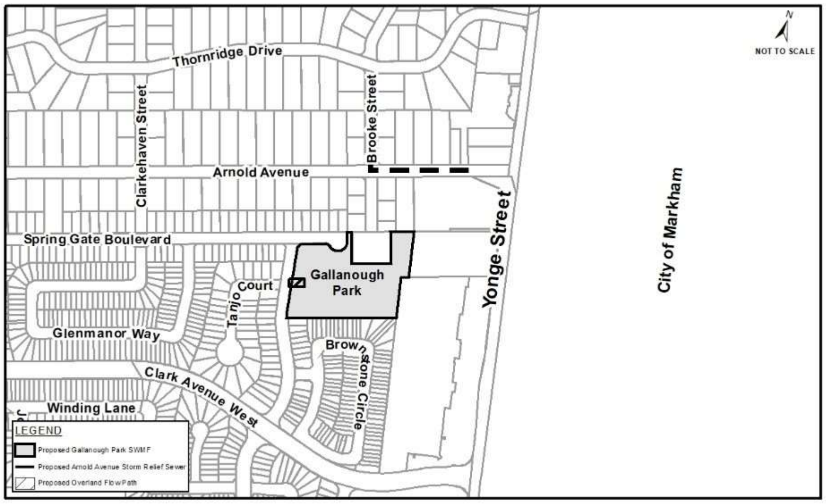
Where there are outstanding concerns regarding potential adverse impacts to constitutionally protected Aboriginal and Treaty Rights, Part II Order requests on those matters should be addressed in writing to the Minister and Director without the need for a Part II Order Form.

This Notice is issued on November 12, 2020.

Under the Freedom of Information and Protection of Privacy Act and the Environmental Assessment Act, unless otherwise stated in the submission, any personal information such as name, address, telephone number, and property location included in a submission will become part of the public record files for this matter and will be released, if requested, to any person.

NEWSLETTER No. 1

May 2020



Stormwater Management Improvements in Gallanough Park and Surrounding Area

LOCATION:

Gallanough Park
Arnold Avenue between Brooke St. and Yonge St.

PROJECT LEAD:

Frank Facchini, P.Eng.
Project Manager, Infrastructure Delivery
Infrastructure Development
T: 905-832-8585, ext. 8986
E: frank.facchini@vaughan.ca

MUNICIPAL SERVICES INSPECTOR:

T.B.D.

PLANNED PROJECT WORK

The City of Vaughan is planning stormwater improvements in your area to replace aging infrastructure. Further to the existing Class Environmental Assessment (EA) for the Stormwater Management Facility (SMF) within Gallanough Park and subsequent public consultation, the City has engaged the professional services of an engineering consultant to undertake an addendum to the EA with alternate options for the proposed stormwater improvements, and to complete the detailed design.

The design will include improvements within Gallanough Park and a storm relief sewer on Arnold Avenue, between Brooke Street and Yonge Street. These proposed improvements will help alleviate stormwater flooding in your area.

As part of the preliminary engineering works, the consultant will be collecting field data and undertaking investigation activities for the project which includes topographic surveys, geotechnical boreholes and other field investigations. The surveyors are required to determine ground elevations, property lines and the location of surface features within the City right-of-way.

TRAFFIC IMPACTS

All roads will remain open to traffic while the field investigation work is being carried out by the City-approved consultant, under the direction of the Infrastructure Delivery department.

MORE DETAILS TO FOLLOW

A notice with additional details about the EA addendum and a public meeting for the Gallanough Park SMF will follow in the coming weeks.

Thank you in advance for your cooperation. We look forward to completing these important infrastructure upgrades in your area. For more information about this project, please contact the Project Lead.

Note: This project is proceeding under Ontario Regulation 82/20, as amended. For more information, visit www.ontario.ca/page/list-essential-workplaces#section-10

VAUGHAN

Notice of Study Update

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT REVISION & DETAILED DESIGN
Stormwater Management Improvements in Gallanough Park and Surrounding Area

THE STUDY

The City of Vaughan has retained the services of Resilient Consulting and Planmac Engineering to finalize the Municipal Class Environmental Assessment and Detailed Design for stormwater management improvements in Gallanough Park and a storm relief sewer on Arnold Avenue, between Brooke and Yonge Street. These proposed improvements will help alleviate stormwater flooding in the study area, as shown on the key map on the reverse side.

THE PROCESS

In 2009, the City of Vaughan initiated a Municipal Class Environmental Assessment (EA), to develop plans and strategies to implement a stormwater management facility (SWMF) within Gallanough Park. The project was completed as a Schedule “B” undertaking, in compliance with the Municipal Engineers Association document, “Municipal Class Environmental Assessment”, October 2000, amended 2007. The EA was completed November 2010 with the recommendation of incorporating a dry pond within Gallanough Park.

Detailed design for the dry pond was initiated in September 2013. Based on community feedback received prior to the finalization of the SWMF, it was determined that a review of the original hydrologic/hydraulic stormwater modelling would be prudent to validate the current course of action, taking into account the tangible benefits associated with the proposed drainage improvements in the Thornhill community.

In 2019, the City’s Environmental Services division completed a comprehensive review of the hydrologic/hydraulic stormwater modelling and the proposed Gallanough Park SWMF project. It was confirmed that the proposed SWMF is still required and that alternative storage options should be considered.

Resilient Consulting and Planmac Engineering will finalize the Municipal Class EA, in consultation with stakeholders and the general public, including the selection of a preferred solution. An online presentation will be given in late summer/early fall 2020 providing information on the preliminary preferred solution and alternative solutions evaluated as part of the EA. Stakeholders and the general public will be notified at a later date of when the presentation will be and provided with the opportunity to comment on the findings. The detailed design for the preferred solution will be initiated in December 2020 and completed in summer 2021, with construction start proposed for fall 2021.

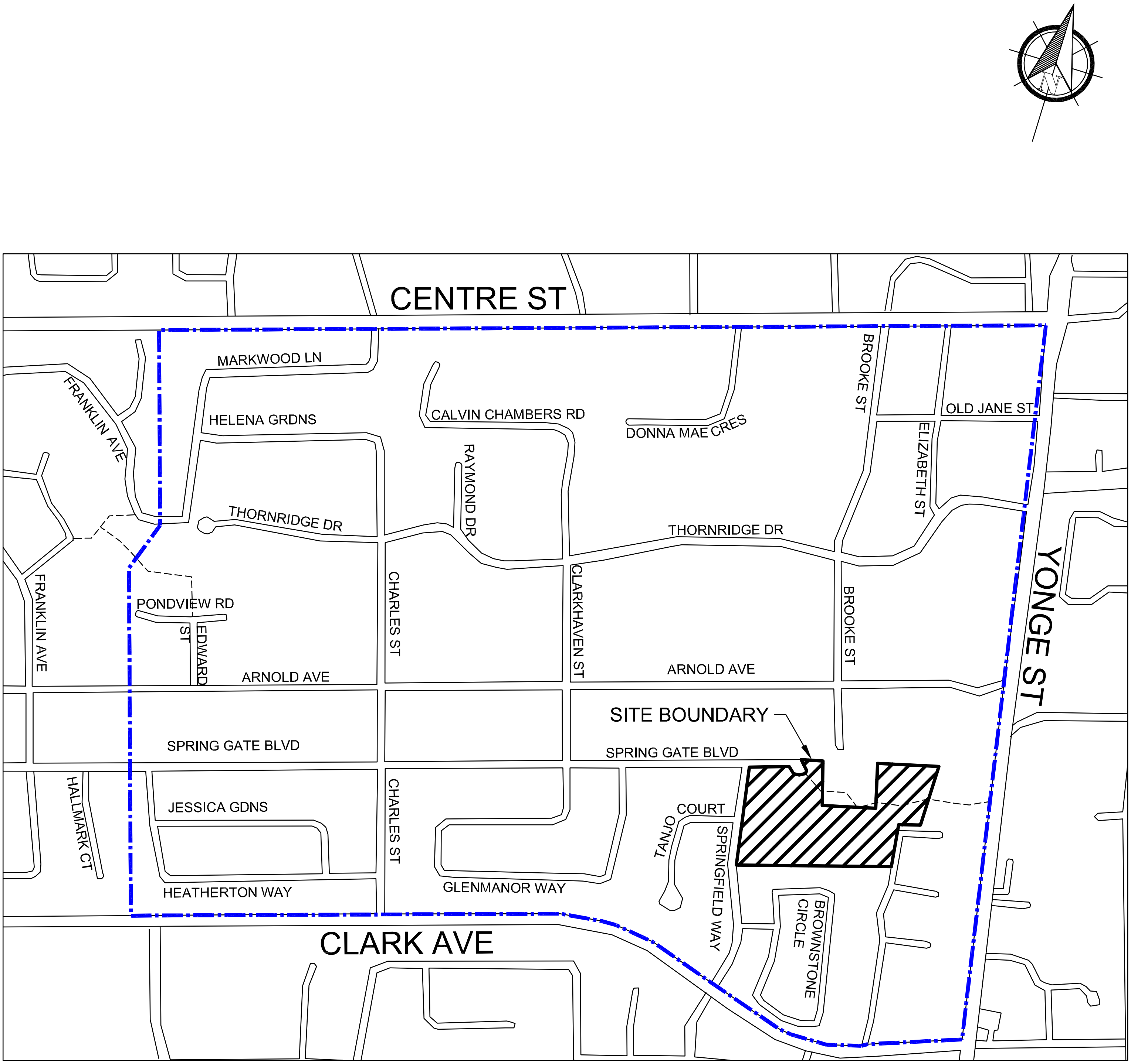
COMMENTS AND INFORMATION

If you have any comments or questions, please contact one of the Project Team members listed below:

Mark Bassingthwaite, P.Eng.
Consultant Project Manager
Resilient Consulting
P.O. Box 643
Whitby, ON L1N 5V3
Phone: (289) 943-4651
Email: Gallanough@resilientconsulting.ca

Frank Facchini, P.Eng.
Project Manager, Infrastructure Delivery
Infrastructure Development, City of Vaughan
2141 Major Mackenzie Drive
Vaughan, ON L6A 1T1
Phone: (905) 832-8585 ext. 8986
Email: frank.facchini@vaughan.ca

Comments and information are being collected to assist the City of Vaughan in meeting the requirements of the Ontario Environmental Assessment Act. Information will be collected in accordance with the Freedom of Information and Protection of Privacy Act and the Access to Information Act. With the exception of personal information, all comments will become part of the public record.



LEGEND

STUDY AREA

GALLANOUGH PARK

RESILIENT CONSULTING

LOCATION PLAN

GALLANOUGH PARK SWM IMPROVEMENTS
CITY OF VAUGHAN

DATE:	MAY 2020	PROJECT No.:	2020-010
SCALE:	N.T.S.	FIGURE No.:	LP-1

RESILIENT CONSULTING

Resilient Consulting
PO Box 643
Whitby, ON L1N 5V3

May 13, 2020

«First_Name» «Surname»
«Job_Title»
«Organization»
«Address»
«Town» «Postcode»

External Agency Letter Template

Dear «Title» «Surname»:

Re: Notice of Study Update
Schedule "B" Municipal Class Environmental Assessment Update
Stormwater Management Improvements in Gallanough Park and Surrounding Area

The City of Vaughan has retained the services of Resilient Consulting and Planmac Engineering to finalize the Municipal Class Environmental Assessment and Detailed Design for stormwater management improvements in Gallanough Park and a storm relief sewer on Arnold Avenue, between Brooke and Yonge Street. These proposed improvements will help alleviate stormwater flooding in the study area. The location of park is shown on the enclosed key map.

In 2009, the City of Vaughan initiated a Municipal Class Environmental Assessment (EA), to develop plans and strategies to implement a stormwater management facility (SWMF) within Gallanough Park. The project was completed as a Schedule "B" undertaking, in compliance with the Municipal Engineers Association document, "Municipal Class Environmental Assessment", October 2000, amended 2007. The EA was completed November 2010 with the recommendation of incorporating a dry pond within Gallanough Park.

Detailed design for the dry pond was initiated in September 2013. Based on community feedback received prior to the finalization of the SWMF, it was determined that a review of the original hydrologic/hydraulic stormwater modelling would be prudent to validate the current course of action, taking into account the tangible benefits associated with the proposed drainage improvements in the Thornhill community.

In 2019, the City's Environmental Services division completed a comprehensive review of the hydrologic/hydraulic stormwater modelling and the proposed Gallanough Park SWMF project. It was confirmed that the proposed SWMF is still required and that alternative storage options should be considered.

Resilient Consulting and Planmac Engineering will complete a Municipal Class EA, in consultation with stakeholders and the general public, in the selection of a preferred solution. An online presentation will be given in late summer/early fall 2020 providing information on the preliminary preferred solution and alternative solutions evaluated as part of the EA. Stakeholders and the general public will be notified at a later date of when the presentation will be and provided with the opportunity to comment on the findings. In completion of the EA, the detailed design will be initiated for the preferred solution in December 2020 and completed in summer 2021, with construction start proposed for fall 2021.

The purpose of this letter is to inform you of the re-initiation of the project and the plan moving forward to construct an effective SWMF for Gallanough Park. Consultation will be held throughout the project with updates on the EA and detailed design provided.

If you have any questions or comments, or if you would like to be added to the study's mailing list, please provide to the undersigned by **June 5, 2020**.

Information will be collected in accordance with the Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record. If you have any accessibility requirements in order to participate in this project please contact the undersigned.

Sincerely,

Mark Bassingthwaite, P.Eng.
Project Manager, Resilient Consulting
Gallanough@resilientconsulting.ca
P: 289-943-4651

cc: Frank Facchini, P.Eng., Project Manager, City of Vaughan
Rebecca Turbitt, Project Engineer, Resilient Consulting
Alastair Ross, Environmental Planner, Planmac Engineering
Mike Neumann, P.Eng., President, Planmac Engineering

Encl. Key Map

Resilient Consulting
PO Box 643
Whitby, ON L1N 5V3

May 13, 2020

«Title» «Name»
«Organization»
«Address»

Indigenous Community Letter Template

Dear «Title» «Surname»:

Re: Notice of Update
Schedule "B" Municipal Class Environmental Assessment Revision
Stormwater Management Improvements in Gallanough Park and Surrounding Area

The City of Vaughan has retained the services of Resilient Consulting and Planmac Engineering to finalize the Municipal Class Environmental Assessment and Detailed Design for stormwater management improvements in Gallanough Park and a storm relief sewer on Arnold Avenue, between Brooke and Yonge Street. These proposed improvements will help alleviate stormwater flooding in the study area. The location of park is shown on the enclosed key map.

In 2009, the City of Vaughan initiated a Municipal Class Environmental Assessment (EA), to develop plans and strategies to implement a stormwater management facility (SWMF) within Gallanough Park. The project was completed as a Schedule "B" undertaking, in compliance with the Municipal Engineers Association document, "Municipal Class Environmental Assessment", October 2000, amended 2007. The EA was completed November 2010 with the recommendation of incorporating a dry pond within Gallanough Park. On May 10, 2010, the Ministry of Tourism, Culture and Sport determined that the site has low archaeological potential given the previous disturbance on the site and therefore did not require an archaeological assessment.

Detailed design for the dry pond was initiated in September 2013. Based on community feedback received prior to the finalization of the SWMF, it was determined that a review of the original hydrologic/hydraulic stormwater modelling would be prudent to validate the current course of action, taking into account the tangible benefits associated with the proposed drainage improvements in the Thornhill community.

In 2019, the City's Environmental Services division completed a comprehensive review of the hydrologic/hydraulic stormwater modelling and the proposed Gallanough Park SWMF project. It was confirmed that the proposed SWMF is still required and that alternative storage options should be considered.

Resilient Consulting and Planmac Engineering will complete a Municipal Class EA, in consultation with stakeholders and the general public, in the selection of a preferred solution. An online presentation will be given in late summer/early fall 2020 providing information on the preliminary preferred solution and alternative solutions evaluated as part of the EA. Stakeholders and the general public will be notified at a later date of when the presentation will be and provided with the opportunity to comment on the findings. In completion of the EA, the detailed design will be initiated for the preferred solution in December 2020 and completed in summer 2021, with construction start proposed for fall 2021.

The purpose of this letter is to inform you of the re-initiation of the project and the plan moving forward to construct an effective SWMF for Gallanough Park. Consultation will be held throughout the project with updates on the EA and detailed design provided.

Should you wish to provide comments, or if you require further information regarding the study, please feel to contact me by phone at (289) 943-4651 or by email at Gallanough@resilientconsulting.ca. In addition, if you wish to meet in person to discuss this project, please feel free to contact me to arrange a meeting at your earliest convenience.

Information will be collected in accordance with the Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record. If you have any accessibility requirements in order to participate in this project please contact the undersigned.

Sincerely,

Mark Bassingthwaite, P.Eng.
Project Manager, Resilient Consulting
Gallanough@resilientconsulting.ca
P: 289-943-4651

cc: Frank Facchini, P.Eng., Project Manager, City of Vaughan
Rebecca Turbitt, Project Engineer, Resilient Consulting
Alastair Ross, Environmental Planner, Planmac Engineering
Mike Neumann, P.Eng., President, Planmac Engineering

Encl. Key Map

Resilient Consulting
PO Box 643
Whitby, ON L1N 5V3

May 13, 2020

Utility Company Letter Template

«Title» «Name»
«Organization»
«Address»

Dear «Title» «Surname»:

Re: Notice of Study Update
Schedule "B" Municipal Class Environmental Assessment (EA) Revision
Stormwater Management Improvements in Gallanough Park and Surrounding Area

Please be advised that Resilient Consulting and Planmac Engineering Inc. are undertaking a Municipal Class EA and Detailed Design on behalf of the City of Vaughan for stormwater management improvements in Gallanough Park and a storm relief sewer on Arnold Avenue, between Brooke and Yonge Street. These proposed improvements will help alleviate stormwater flooding in the study area. The location of study area is shown on the enclosed key map. The identification of utility assets and potential relocations as a result of this project are required.

Your cooperation in providing the above information is anticipated and appreciated. If you have any questions please call me at (289) 943-4651 or email me at Gallanough@resilientconsulting.ca.

Sincerely,

Mark Bassingthwaite, P.Eng.
Project Manager, Resilient Consulting
Gallanough@resilientconsulting.ca
P: 289-943-4651

cc: Frank Facchini, P.Eng., Project Manager, City of Vaughan
Rebecca Turbitt, Project Engineer, Resilient Consulting
Alastair Ross, Environmental Planner, Planmac Engineering
Mike Neumann, P.Eng., President, Planmac Engineering

Encl. Key Map

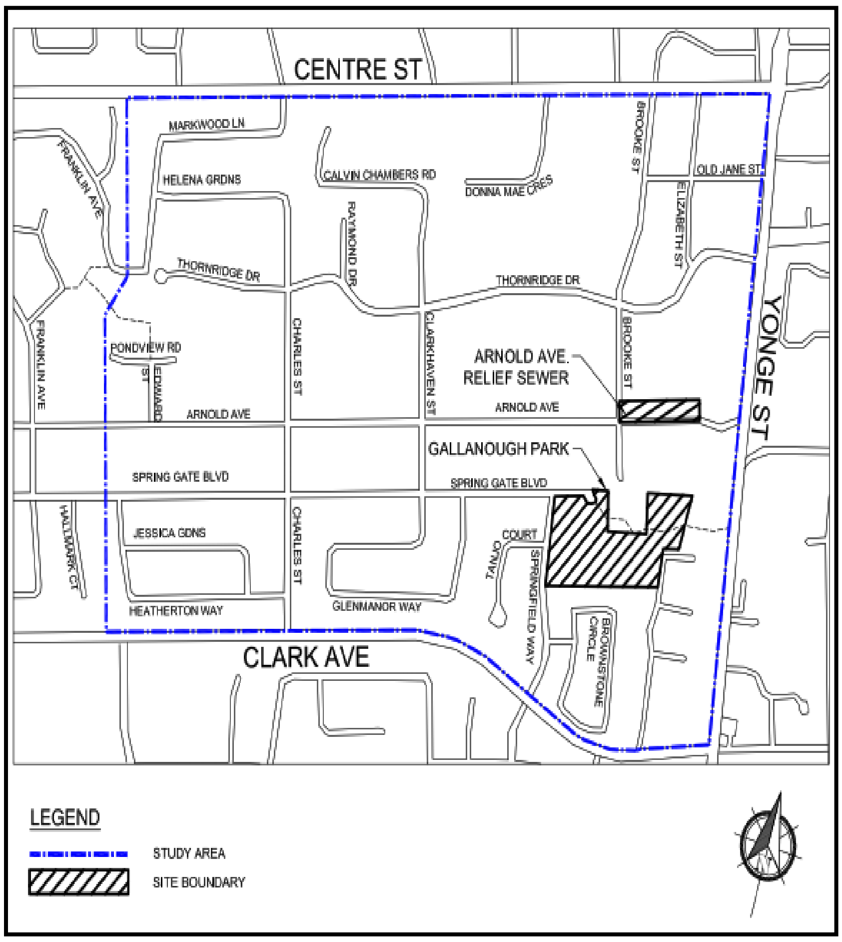
VAUGHAN

Notice of Public Information Materials
JULY 2020

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT REVISION & DETAILED DESIGN
Stormwater Management Improvements in Gallanough Park and Surrounding Area

THE STUDY

The City of Vaughan has retained the services of Resilient Consulting and Planmac Engineering to finalize the Municipal Class Environmental Assessment and Detailed Design for stormwater management improvements in Gallanough Park and a storm relief sewer on Arnold Avenue, between Brooke and Yonge streets. These proposed improvements will help alleviate stormwater flooding in the study area. The location of the park is shown on the adjacent map.



THE PROCESS

The study has followed the planning and design process for Schedule 'B' projects as described in the Municipal Class Environmental Assessment (EA) Document (October 2000 as amended in 2007, 2011 & 2015), published by the Municipal Engineer's Association. The EA Study will confirm the project need and justification, document existing environmental conditions, examine alternatives and potential impacts, as well as recommend mitigation measures.

PUBLIC CONSULTATION

Public consultation is vital to the design development. The City of Vaughan is providing citizens interested in this study the opportunity to get involved and provide input. You are encouraged to review the public information materials that will be available online after August 1, 2020 at: Gallanough Project Web Page and/or visit vaughan.ca and search **"Gallanough Park and Surrounding Area".**

The public information materials outline the study area's existing conditions and constraints, studies undertaken, design alternatives evaluated, the preliminary preferred design alternative, mitigation measures and next steps. Given the current COVID-19 circumstance, an in-person Public Information Centre (PIC) for this study will not take place at this time.

Public input and feedback on the public information materials are encouraged and would be appreciated by **August 31, 2020.** Kindly forward your comments to either of the contacts listed below:

Mark Bassingthwaite, P.Eng.
Consultant Project Manager
Resilient Consulting
P.O. Box 643
Whitby, ON L1N 5V3
Phone: 289-943-4651
Email: Gallanough@resilientconsulting.ca

Frank Facchini, P.Eng.
Project Manager, Infrastructure Delivery
Infrastructure Development, City of Vaughan
2141 Major Mackenzie Drive
Vaughan, ON L6A 1T1
Phone: 905-832-8585 ext. 8986
Email: frank.facchini@vaughan.ca

Comments and information regarding this project are being collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act for the purpose of meeting environmental assessment requirements. With the exception of personal information, all comments received will become a part of the public record.

Notice issued: July 27, 2020

Public Information Materials

Stormwater Management Improvements in Gallanough Park and Surrounding Area

Municipal Class EA Update
City of Vaughan

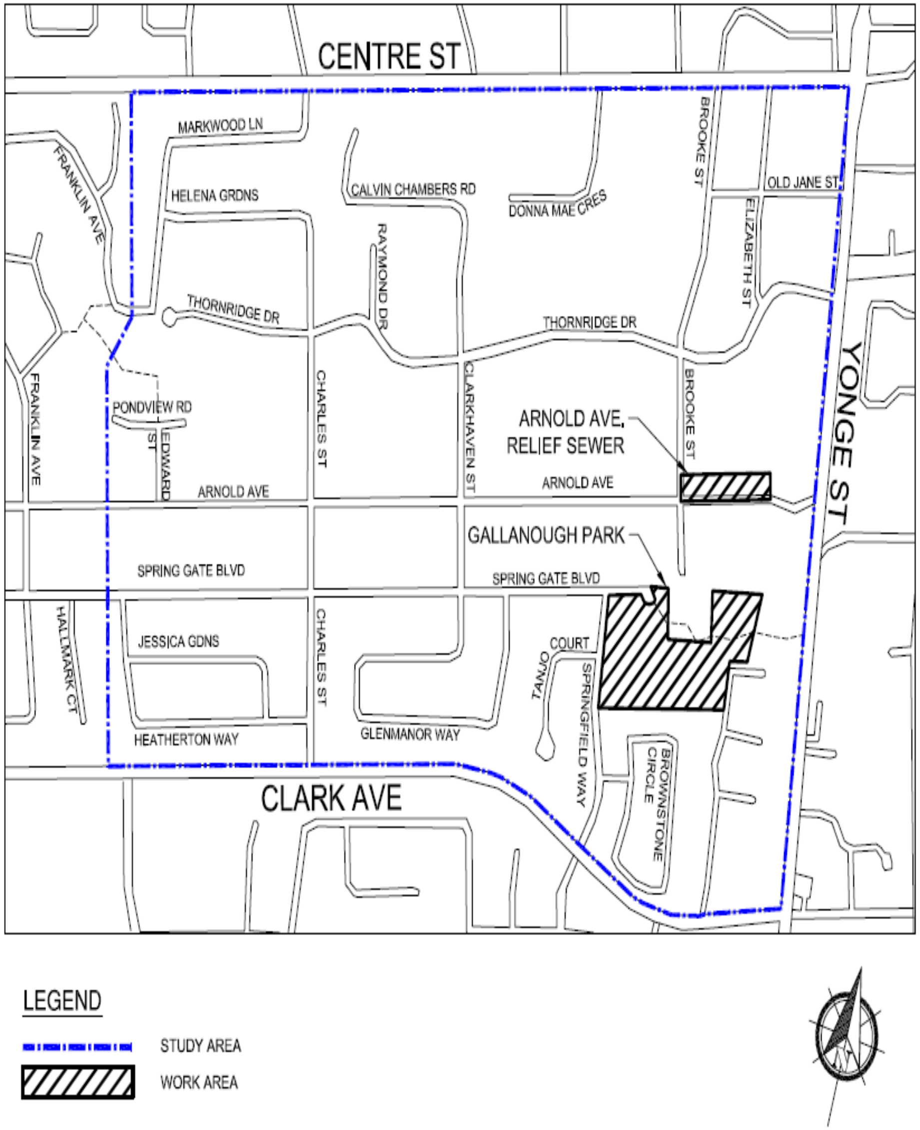
Published: August 1, 2020

Introduction

- Please review the following slides.
- We encourage your input and feedback.
- If you have any comments please complete the comment sheet provided with these slides and send via email to the following address on or before **August 31, 2020: gallanough@resilientconsulting.ca**
- There is an opportunity at any time during the Detailed Design process for interested persons to provide written input.
- Any comments received will be collected under the Environmental Assessment Act and, with the exception of personal information, will become part of the public record.

Background

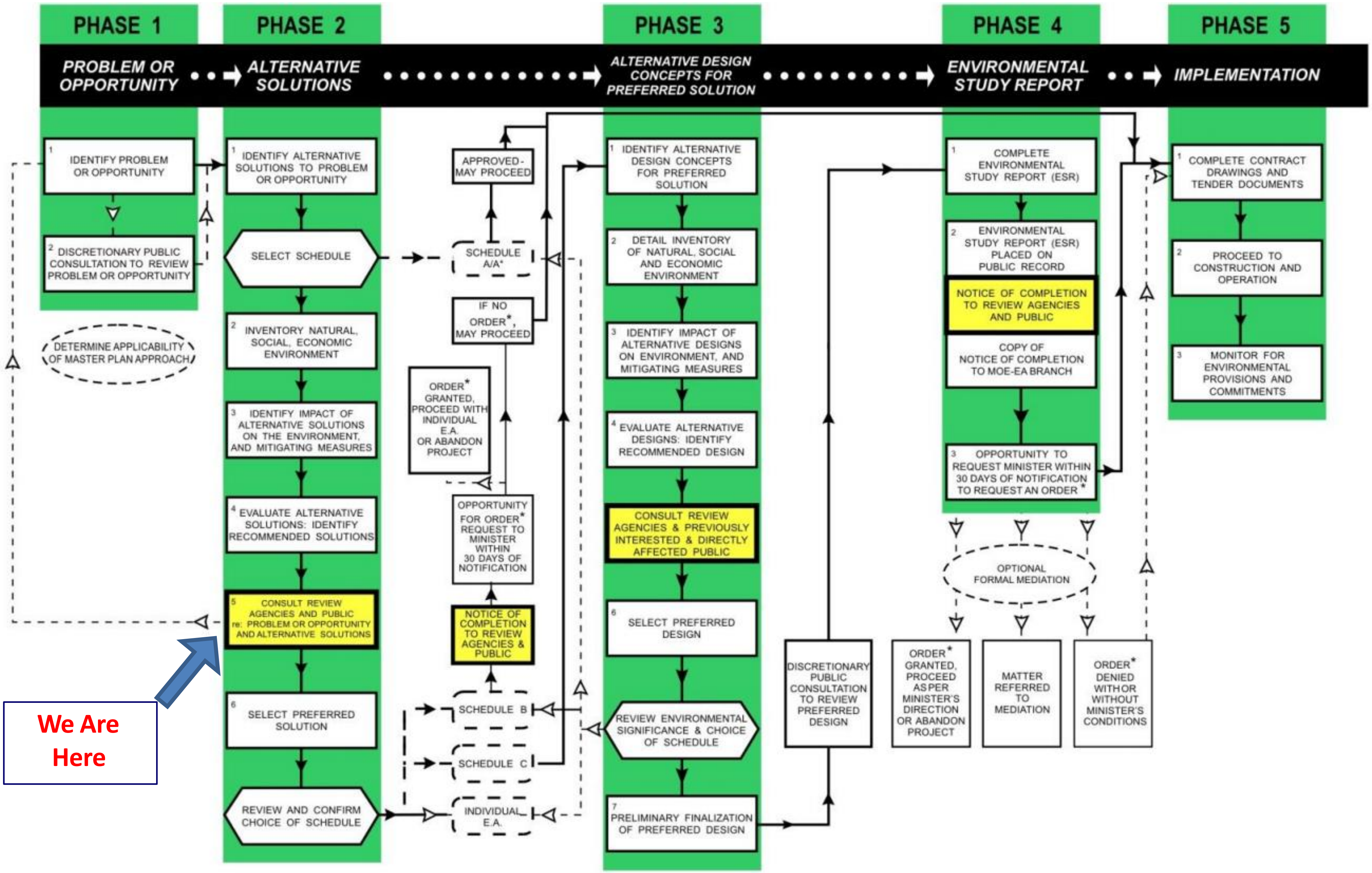
- In 2009, the City of Vaughan initiated a Municipal Class EA to develop plans and strategies to implement a stormwater management facility (SWMF) within Gallanough Park. The EA was completed November 2010 with the recommendation of incorporating a dry pond within Gallanough Park.
- Detailed design for the dry pond was initiated in September 2013. Based on community feedback received prior to the finalization, it was determined that a review of the original hydrologic/hydraulic stormwater modelling would be prudent to validate the current course of action.
- In 2019, the City's Environmental Services division completed further hydrologic/hydraulic stormwater modelling. It was confirmed that the proposed SWMF is still required and that alternative storage options should be considered.
- In April 2020, the City re-initiated the Schedule 'B' Municipal Class EA and retained Resilient Consulting and Planmac Engineering to complete the EA update.



What is a Municipal Class EA Study?

- The Municipal Class EA process is a decision-making and planning process that ensures that potential effects of a project are identified and managed prior to implementation.
- The Class EA process applies to routine public sector projects that have predictable and manageable environmental effects, such as municipal road, water and wastewater projects.
- The process requires the evaluation of possible solutions, design concepts, and recommends the best approach based on an evaluation of environmental effects and how to minimize them.
- The Class EA study is undertaken in accordance with the requirements of the Ontario Environmental Assessment Act, as prescribed by the Municipal Engineers Association Municipal Class Environmental Assessment process, 2000, as amended in 2007, 2011 and 2015)
- This study has been undertaken as a Schedule ‘B’ project which addresses Phases 1, 2 and 5 of the Class EA process (refer to the next slide).

Stormwater Management Improvements in Gallanough Park and Surrounding Area



Phase 1: Problem/Opportunity Statement

Problem

- The residential properties located north of Gallanough Park that front onto Brooke Street, Thornridge Drive, Clarkhaven Street, and Arnold Avenue have been frequently affected by flooding during heavy storms over the years. The City has investigated the drainage infrastructure in and around the affected area and has determined that flooding is partly caused by the surcharged Trunk Sewer along Brooke Street. Other causes are from deficient/deteriorated culverts and poor drainage practices resulting from residential redevelopment in the Thornhill Neighbourhood area.

Opportunity

- The project presents an opportunity to provide social and environmental benefits. Through stormwater management implementation at Gallanough Park, improvements (reduction) in the risk of flooding can be realized. The reduced risk of flooding will benefit the safety of the public and private properties. The enhancement will include the latest stormwater management technologies that will improve the drainage characteristics and result in reduced flooding downstream, reduced erosion potential in the receiving creeks and reduced pollution input to the environment.

Existing Conditions

Natural Environment

- The site consists of mostly open grassed areas with paved trails and large diameter trees along the perimeter. Gallanough Park has a bowl like appearance and a depressed shape because it was initially designed as a water holding area during development of the area.

- The area along Springfield Way on the west side of the Park is prone to frequent ponding due to the existing topography and previous modifications to the Park features.

- Overall, the drainage area has been modified over the years in a way that impedes drainage. Drainage ditches and swales have been filled by residents to create swimming pools or increase construction area.

Social Environment

- The surrounding area consists mainly of residential properties and has direct access to the Park. A library and a public school are also located adjacent to the Park with direct access.

- Gallanough Park is heavily used by surrounding residents in all seasons, including tobogganing in the winter, picnics, sports and camps in the summer, as well as for walking throughout the year. The Park's additional uses include those by the public library and school. A small soccer field is also present, which is uneven and drains poorly after rainfalls.

Existing Conditions

Existing Infrastructure

- The 3.0 m Brooke Street Trunk sewer begins at the north end of Gallanough Park and discharges to the Don River north of Centre Street.
- A 600 mm diameter concrete encased sanitary sewer is located inside in the trunk sewer conveying flows from sanitary sewers following the same alignment as the storm sewers.
- Chamber #9 is the starting manhole of the trunk sewer, collecting flows from three storm and three sanitary networks:

Incoming	Storm Diameter (mm)	Sanitary Diameter (mm)
West	2100	450
East	1500	300
South	600	200

- North of Gallanough Park, the sewer receives drainage at several low points along Brooke Street.

Background Studies

Previous Hydrologic and Hydraulic Analysis

- **December 2006** – Genivar undertook a Storm Drainage Improvement study in the Thornhill area following the process for a Schedule 'B' EA and concluded that the Brooke Street trunk sewer surcharges during major rainfall events.

- **May 2009** – W.G. Clarke completed hydrologic and hydraulic modelling downstream of Gallanough Park to assess flooding extents in support of the Thornhill Road Reconstruction study.

- **November 2010** – Clarifica, a division of Cole Engineering, completed the previous Gallanough Park EA including updated hydrologic/hydraulic modelling for existing and proposed conditions.

- **March 2014** – Cole Engineering create a comprehensive and discrete hydrologic / hydraulic model for the study area as part of the Vaughan City-Wide Drainage Study, Flood Vulnerable Site Report.

- **June 2016** – Cole's model was imported into PCSWMM as part of the Gallanough Park Stormwater Management Facility Modelling Review conducted by Amec Foster Wheeler.

Phase 2: Alternative Solutions

1. **Do Nothing**: this option involves no changes to the existing infrastructure. It is used as a benchmark comparison for the other options.

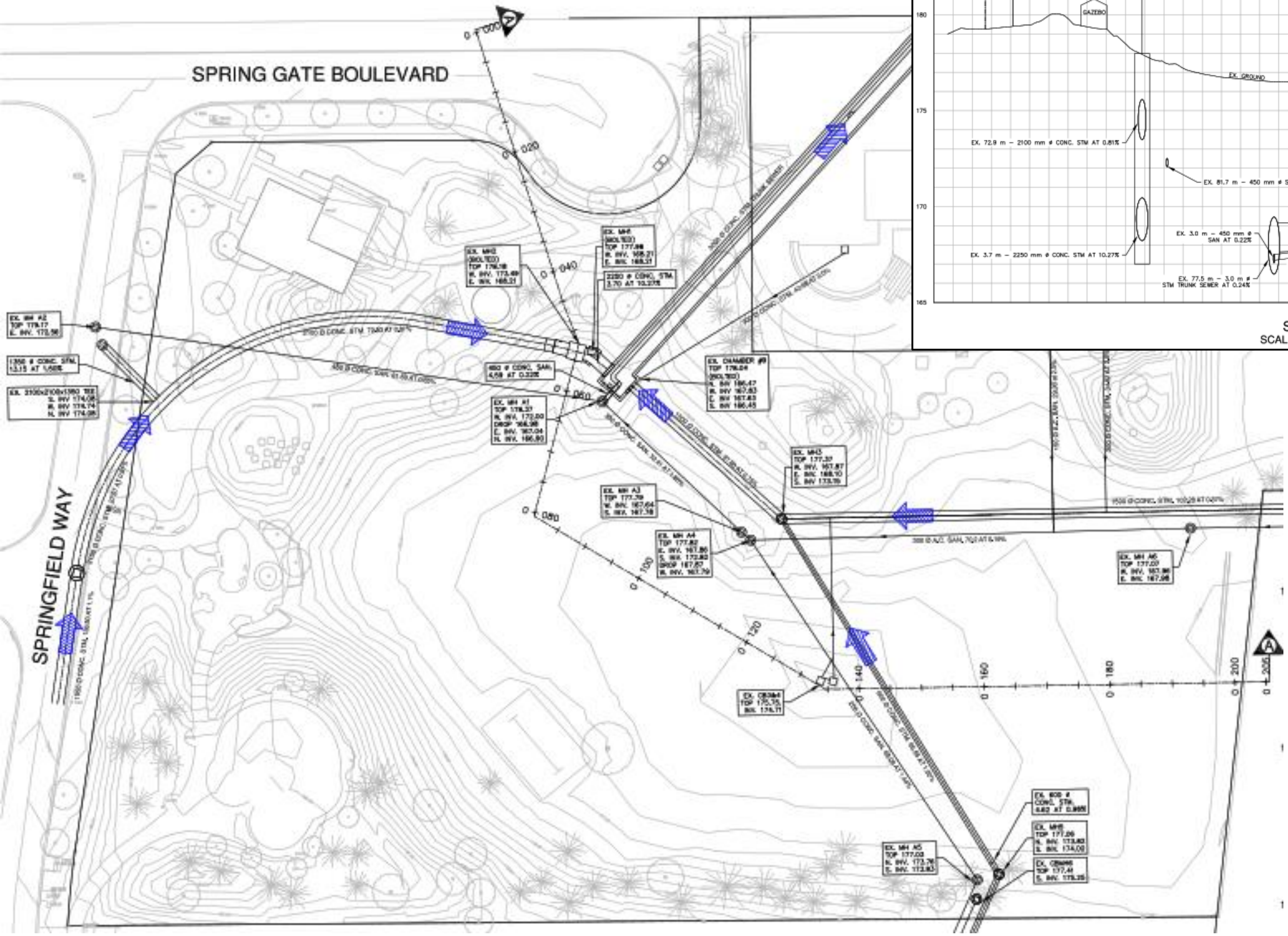
2. **Surface Storage**: this option involves excavations and infrastructure modifications to install inlet/outlet control structures to temporarily detain stormwater within the re-graded low point of the Park.

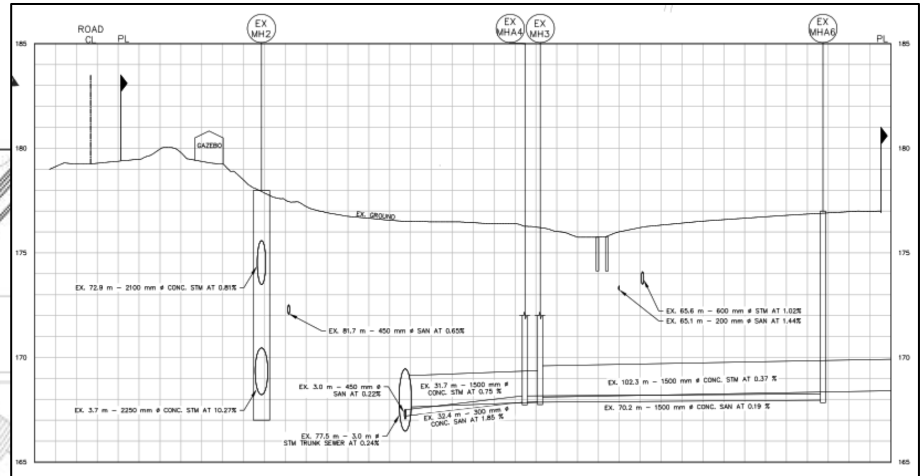
3. **Underground Storage**: this option involves infrastructure modifications to install inlet/outlet control structures to temporarily detain stormwater within the underground storage facility. Excavations will be required for installation of the tank system, however existing topography will be generally maintained.

4. **Hybrid Storage**: this options involves both excavations and infrastructure modifications to temporarily detain stormwater underground and at the surface. Inlet/outlet control structures will be installed to detain stormwater underground for events under the 10-year. Surface storage will only be utilized during events larger than the 10-year.

Please refer to the following drawings for illustrations of each alternative.

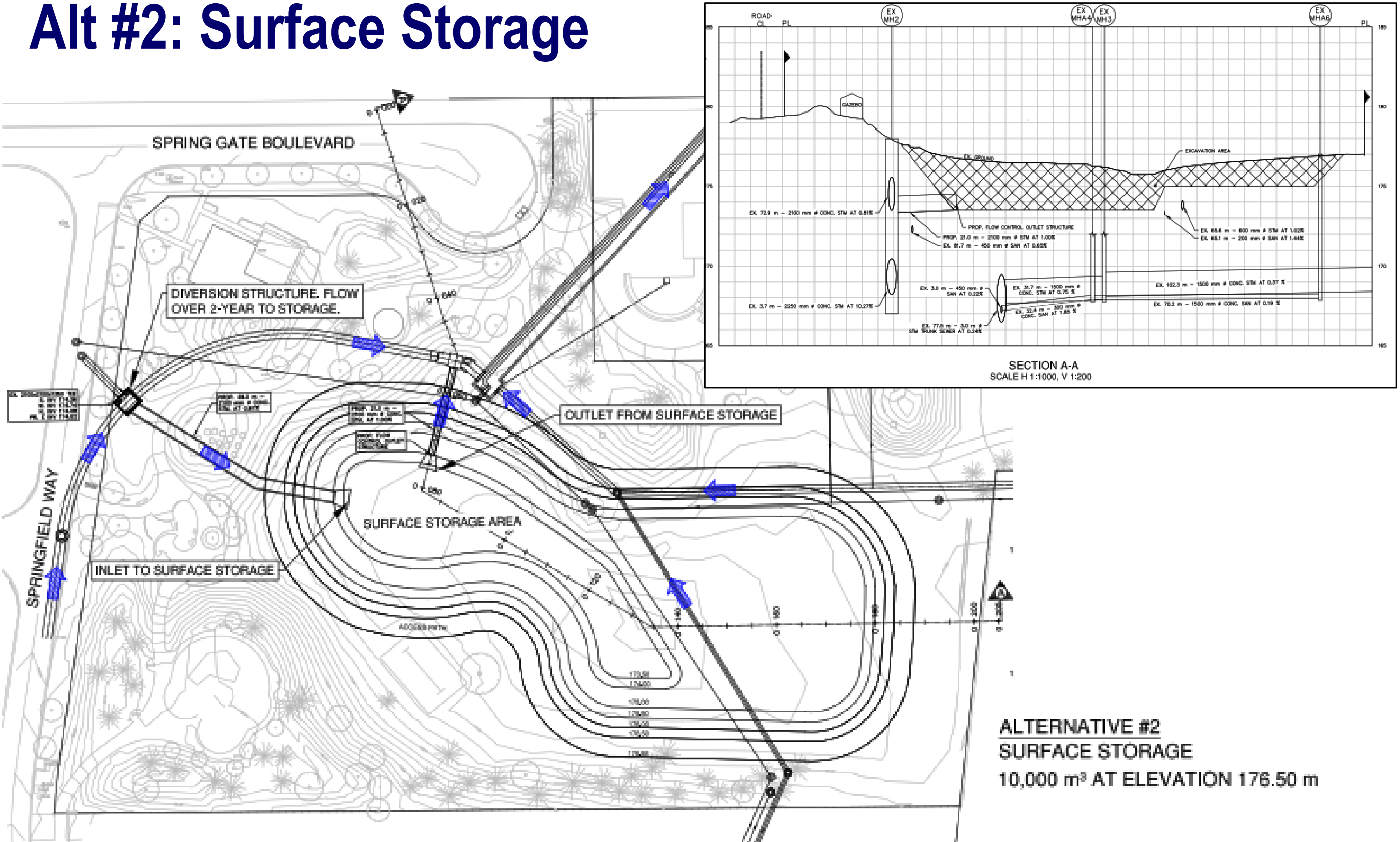
Alt #1: Do Nothing



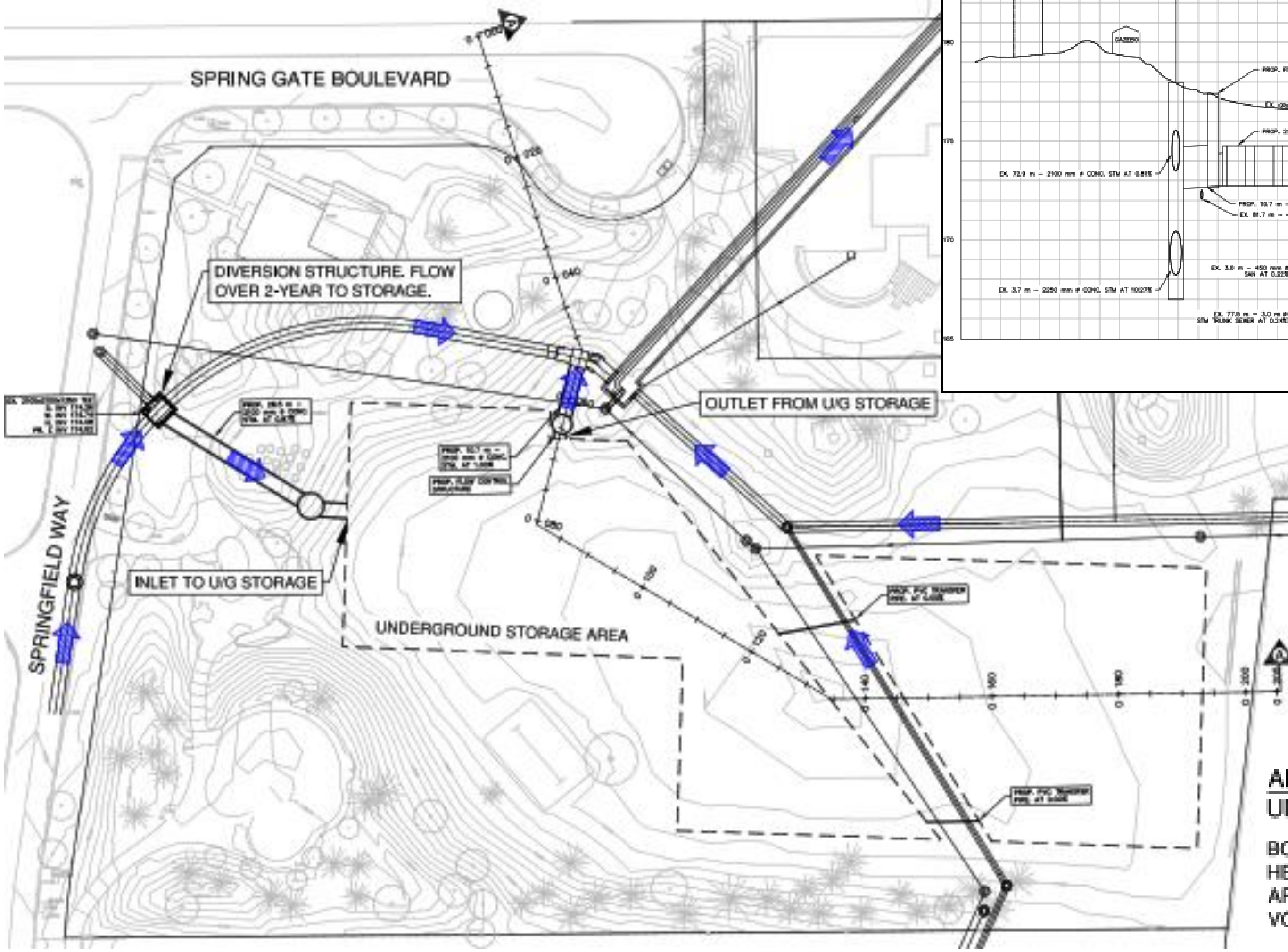


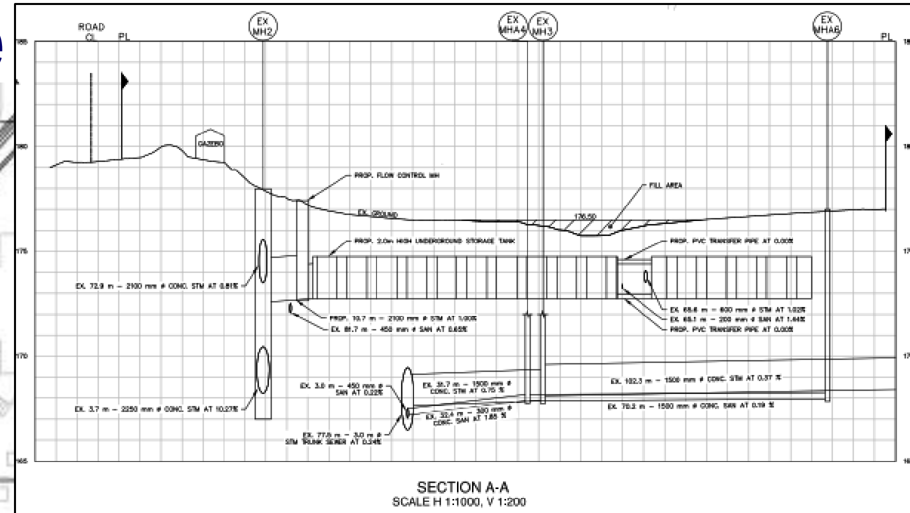
SECTION A-A
SCALE H 1:1000, V 1:200

Alt #2: Surface Storage



Alt #3: Underground Storage

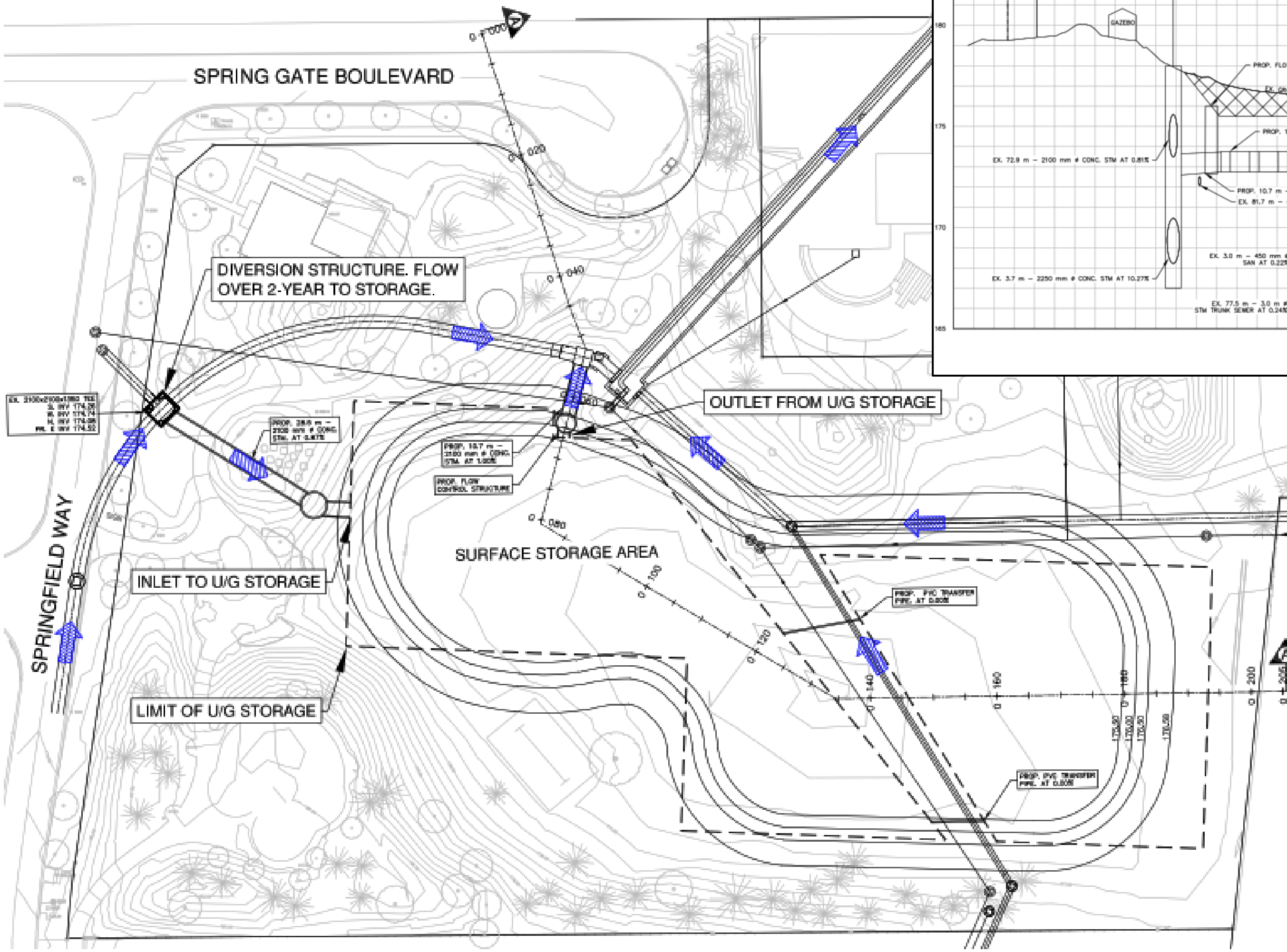


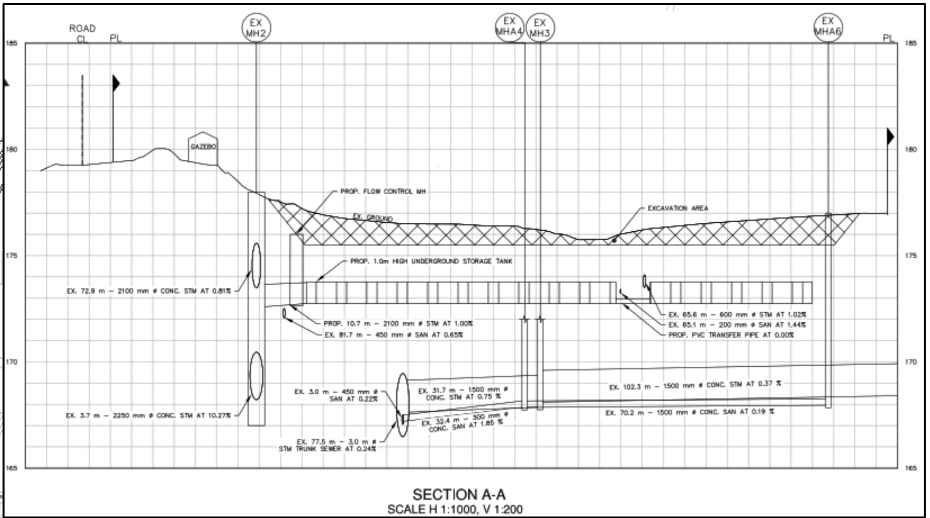


ALTERNATIVE #3
UNDERGROUND STORAGE SUMMARY

BOTTOM ELEV. – 172.75 m
HEIGHT – 2.0 m
AREA – 5,087 m²
VOLUME – 9,559 m³

Alt #4: Hybrid Storage





ALTERNATIVE #4
HYBRID STORAGE SUMMARY

UNDERGROUND:
BOTTOM ELEV. = 172.75 m
HEIGHT = 1.0 m
AREA = 5,087 m²
VOLUME = 4,782 m³

SURFACE:

ELEV (m)	AREA (m²)	VOLUME (m³)
175.50	4171.5	0
176.00	4750.1	2238
176.50	5406.9	4785

Evaluation Criteria

Social

- Impacts to existing Park uses
- Creation of new Park uses
- Potential of standing water
- Impacts to adjacent properties during and after construction

Natural Environment

- Impacts on general water quality
- Impacts to existing vegetation

Economic

- Capital construction cost
- Operation and maintenance cost
- Reduction in flood damages

Functional

- Ease of construction
- Ease of operations and maintenance
- Risk to adjacent or upstream properties
- Risk to downstream properties

High Negative Effect	Moderate Negative Effect	No Effect	Moderate Positive Effect	High Positive Effect

Evaluation Matrix

Blue shading denotes Preferred Alternative

Criteria	Do Nothing	Surface Storage	Underground Storage	Hybrid Storage
Social				
Impacts to existing Park uses	≠	✖	+	✕
Creation of new Park uses	✕	=	+	=
Potential for standing water	=	✖	+	✕
Impacts to adjacent properties during & after construction	≠	=	+	=
Economic				
Capital construction cost	+ $0	= $1.7 million	✖ $4.4 million	✕ $3.2 million
Operation & maintenance cost	=	+	✕	=
Reduction in flood damages	✖	+	+	+
Natural Environment				
Impacts on general water quality	✕	+	+	+
Impacts to the existing vegetation	+	✕	✕	✕
Functional				
Ease of construction	≠	=	=	=
Ease of operations & maintenance	=	=	✖	✕

Preferred Alternative

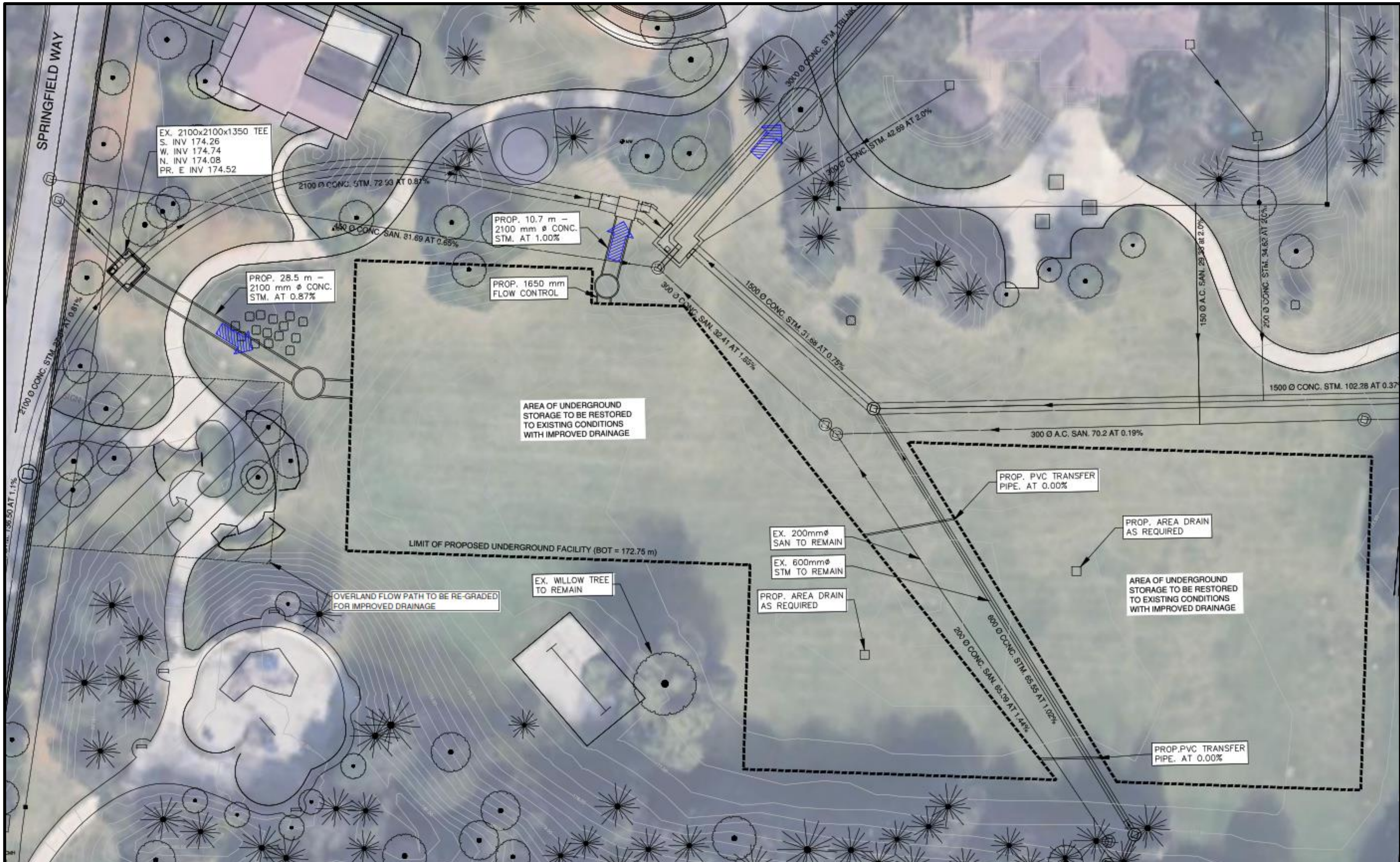
Based on the results of the evaluation, the Study Team believes the underground storage facility best satisfies the Problem/Opportunity Statement and provides the best long term solution for the City of Vaughan. The reasons for recommending this alternative are as follows:

- Water will be stored underground during all events up to and including the 100 year storm;
- The underground storage facility maintains and improves existing park uses and provides opportunity for additional uses;
- The underground facility provides an opportunity for park enhancements including collaboration with TRCA and the Sustainable Neighbourhood Action Program (SNAP);
- Alleviates downstream flood frequency and extents while not increasing flooding risk upstream; and,
- Preliminary resident input suggests the underground facility will be best received.

Preferred Alternative - Preliminary Design

- The main components of the Preferred Preliminary Design, as illustrated in the following image, are as follows:
  - Underground cast-in-place concrete stormwater storage tank, using a forming system to reduce costs;
  - 2100 mm diameter concrete storm inlet pipe;
  - 1650 mm outlet control structure; and,
  - 2100 mm diameter concrete storm outlet pipe.
- The Detailed Design, commencing in December 2020, will revisit the above components through further consultation with stakeholders and members of the general public to ensure the design minimizes environmental impact and meets the needs of the project. The form of underground storage may change depending on the detailed design process, but will maintain water levels below grade for at least the 100 year storm.

Preferred Alternative – General Plan



Underground Facility Options

STORMTECH CHAMBER

CUPOLEX RIALTO

STORMTRAP

Change in Preferred Alternative

- The Preferred Alternative selected during the 2010 EA was a dry pond and the Preferred Alternative selected as part of this EA Update is an underground storage facility.
- The reason for the change in Preferred Alternative was based upon community feedback received during the detailed design commencement in 2013.
- Upon completion of further hydraulic analysis/modelling and from undertaking this EA Update it is apparent that the underground storage facility offers additional benefits over the dry pond option that include:

  - Health & Safety: during heavy rainfall periods the dry pond would result in temporary standing water that may result in safety issues. This would not be the case with an underground facility.

  - Social Benefits: the underground storage facility maintains existing park uses, provides an opportunity for park enhancements and has no adverse impacts on the soccer fields or other park amenities given no infrastructure will be present above ground with the exception of the small drains.

- Additionally, technology in underground facility options, as presented on the previous slide, has progressed significantly since the original EA in 2010 resulting in more efficient stormwater systems, easier maintenance and operation, and an overall reduction in operational costs.

Environmental Considerations and Protection Measures

- Some mature trees growing along the perimeter of the Park will need to be removed to create an access route for the construction equipment. To avoid disturbance to breeding birds, vegetation removal will be scheduled prior to April 1 or after August 15 in line with the breeding bird season.
- A comprehensive erosion and sediment control plan will be developed during detailed design to mitigate the potential release of sediments from the site and into the storm sewer or catch basin.
- Excess fill will be generated during installation of the underground facility. During the design phase the existing material in the Park will be assessed for its disposal requirements. If any hazardous/biological waste is discovered, the appropriate agencies will be notified and the waste will be directed to the required facility. To reduce truck traffic in the area, excess fill will be re-used on site as appropriate.
- Affected property owners will be notified in advance by the Contractor (e.g. signage, notices), as to construction schedule/duration.
- The Contractor will be required to comply to local noise by-laws that restrict working hours.
- The Contractor will control dust using water and not chemical suppressants.

Detailed Design and Implementation

- Resilient Consulting and Planmac Engineering have been retained by the City of Vaughan to complete Phase 5 (Implementation) of the Municipal Class EA Process.

- This includes detailed design, production of contract drawings, complete any outstanding technical studies/surveys and obtain permitting, prepare contract documentation, and Construction Administration/Inspection.

- Studies and surveys either underway or pending include the following:
  - Geotechnical investigation;
  - Topographic survey;
  - Subsurface utilities investigation; and,
  - Tree inventory.

- At the completion of construction of the facility, disturbed areas will be restored with topsoil and sod to existing conditions. Future park enhancements by City, with input from SNAP, will be completed after the facility is in operation.

Next Steps

- Review and consider public comments.
- Finalize the Preliminary Design and Project File Report (PFR) Update, which documents the EA planning and consultation process.
- Publish the Revised Notice of Study Completion for a 30-day public review period of the PFR. Pending no “Part II Order” requests after 30 days, the project will progress to Detailed Design.
- Undertake additional studies, receive permitting and complete the Detailed Design.
- Prepare Construction Tender Document.
- Initiate Construction and Contract Administration.

Tentative Construction Schedule

- Contract Awarded: late Summer 2021*
- Construction Start: early Fall 2021
- Construction Completion: late Spring 2022

The construction schedule has been developed to allow park amenities to be available during the summer months when the park is most used throughout the year.

*Pending Capital Budget Approval by City Council

Gallanough Park Improvements
Public Open House

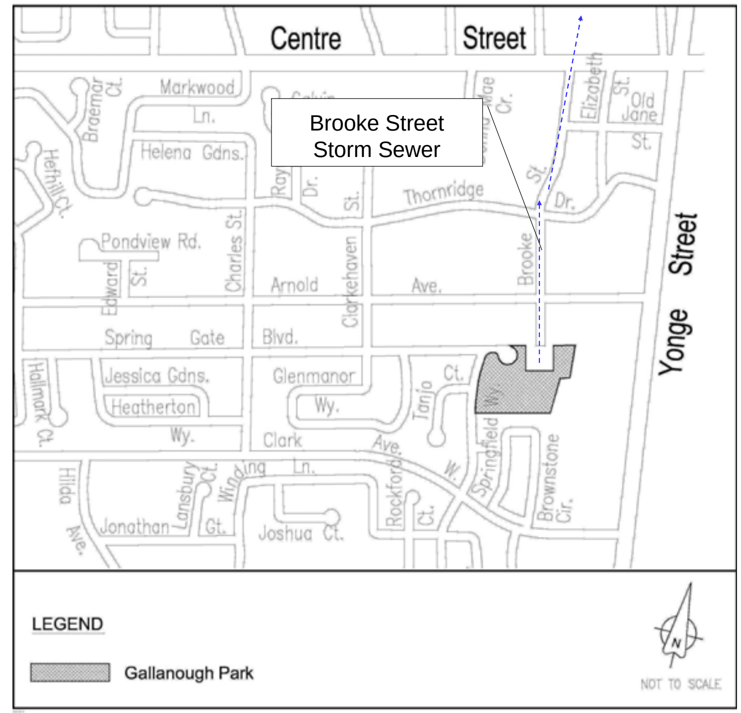
Gallanough Resource Centre
June 25, 2014

Project Background

- On August 19th, 2005 approximately 85% of the City of Vaughan experienced a large rainstorm event which was equivalent to the 1 in 100 year storm condition or worse. This storm caused considerable flood damage to both public and private properties.
- In 2006, as a result of this storm and other large storm events, the City of Vaughan undertook a study comparing alternatives which would reduce the risk of flooding in the Thornhill neighbourhood.

Project Background

- The outcome of the studies was a recommendation to improve the stormwater management system by temporarily storing more water in Gallanough Park during large storm events.
- This will result in increased capacity in the Brooke Street storm sewer, which will allow for more flow to be directed to the sewer at Thornridge Drive and Arnold Avenue, decreasing flood risk.
- These recommendations are consistent with the City of Vaughan's commitment to ensuring a safe community and protecting private property.



Key Map

Existing Gallanough Park

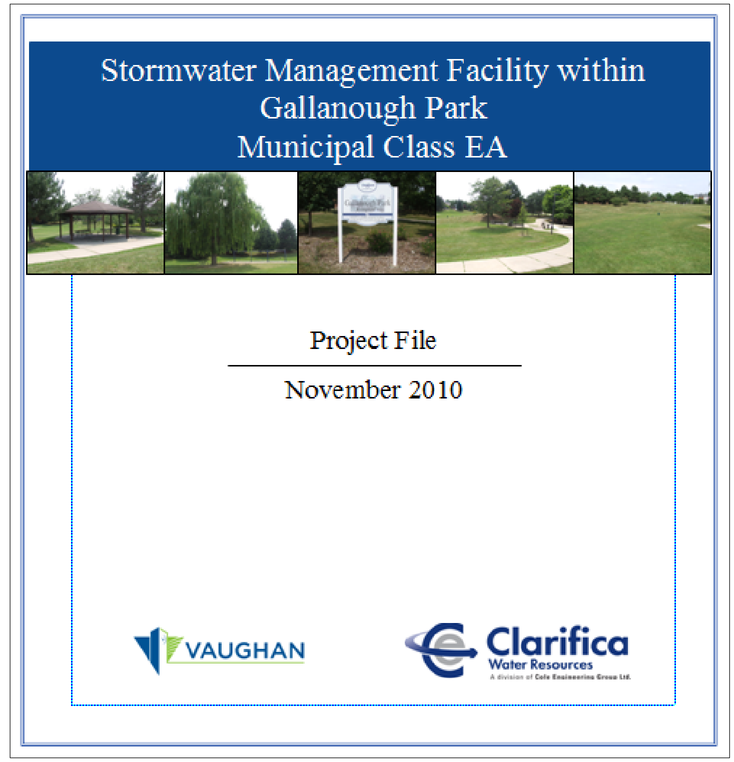
- Gallanough Park is currently bowl shaped, with play areas, trees and landscape features located around the top of the park and open space in the lower areas of the park.
- During major rainfall events, the Park currently temporarily stores runoff.
- Drainage in the area of the existing soccer field is poor.

Gallanough Park – Looking Southwest

Gallanough Park – Looking East

Class Environmental Assessment Summary

- In 2009, the City of Vaughan initiated a Class Environmental Assessment (EA) process for stormwater management improvements to Gallanough Park.
- The objective of the EA was to develop plans and strategies for minimizing the risk of flooding to local areas.
- The conclusion of the study was that the preferred alternative solution was to build an above ground stormwater management facility within the park, south of the Gallanough Memorial Library.


Stormwater Management Facility within
Gallanough Park
Municipal Class EA

Project File

November 2010

VAUGHAN

Clarifica
Water Resources

City of Vaughan Class Environmental Assessment - 2010

Previous Public Consultation

As a part of the EA process, as well as providing written comments, area residents participated in 2 events:

- A Design Charrette was held on January 28, 2010 with 13 community members were in attendance.

Gallanough Park Design Charrette - 2010

Gallanough Park PIC - 2010

- A Public Information Centre (PIC) was held on February 10, 2010 with over 18 community members were in attendance.

Proposed Design Summary

- Planned improvements to Gallanough Park include:
  - Lowering the central portion of the park;
  - Relocating the small soccer field to the flat area at the bottom of the park;
  - Improving soccer field drainage;
  - Adding a pathway to make the soccer field more accessible; and,
  - Addition of new landscaping and plantings to restore work area.
- The improvements have been designed to preserve important park features like the play area, landscape features, the large willow tree, and the gazebo.

Proposed Design Summary

- Improvements along Springfield Way will enabled the diversion of water on the road during large storms into the new storage facility.
- Smaller flows will continue to flow through storm sewers and not be stored within the Park.
- Once flows exceed roughly a 1 in 2 year peak flow, water will be stored temporarily in the Park.
- The temporary storage of water within the Park will increase capacity of the Brooke Street storm sewer.

Renderings - MHBC

View 10 – Aerial oblique view looking west

View 11 – Looking west from new soccer field

View 16 – Aerial oblique view looking east from area south of Arnold House

Courtesy of MHBC – Planning, Urban Design & Landscape Architecture

Key Features and Benefits

- Key existing park features will be maintained:
  - Playground area;
  - Gazebo;
  - Large willow tree; and,
  - Landscaping.
- In addition to this, other features and benefits include:
  - Reduced risk of flooding in the Thornhill neighbourhood north of the Park;
  - New features such as the addition of an access path to the relocated soccer field;
  - Improve drainage after rainfall events;
  - New landscaping, planting and naturalized areas; and,
  - Implementation of green infrastructure.

Next Steps

- The City is now moving forward with implementing the preferred solution
- Comments from the public open house will be considered in finalizing the design
- Construction is planned during winter 2015, with landscaping to be completed in spring of 2015.

Appendix F – Stakeholder Comments

Comments following Notice of Study Update & Letters

From: Suzanne Bevan
To: Alastair Ross; Eric Wang
Cc: Facchini, Frank; Mark Bassingthwaite; Rebecca Turbitt; Alison MacLennan; Manirul Islam
Subject: RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - TRCA (Eric Wang)
Date: May 14, 2020 11:18:28 AM
Attachments: image002.png
image003.jpg
image001.png

Hi Alastair,

Manirul Islam will be your contact for the EA. We will revisit the file/project and contact you with next steps.

Thank you,

Suzanne Bevan, B.Sc. (Hons), ENV SP
Senior Planner
Infrastructure Planning and Permits | Development and Engineering Services

T: (416) 661-6600 ext. 5759
C: (647) 924-5467
E: suzanne.bevan@trca.ca
A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 I trca.ca |

TRCA Logo

From: Alastair Ross <aross@planmac.com>
Sent: Thursday, May 14, 2020 9:26 AM
To: Eric Wang <Eric.Wang@trca.ca>
Cc: Facchini, Frank <Frank.Facchini@vaughan.ca>; Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>; Rebecca Turbitt <rturbitt@resilientconsulting.ca>; Alison MacLennan <Alison.MacLennan@trca.ca>; Suzanne Bevan <Suzanne.Bevan@trca.ca>
Subject: RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - TRCA (Eric Wang)

Morning Eric,

Thanks for passing on the information. We look forward to any comments you may have.

Thanks again,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From: Eric Wang <Eric.Wang@trca.ca>
Sent: May 13, 2020 5:10 PM
To: Alastair Ross <aross@planmac.com>
Cc: Facchini, Frank <Frank.Facchini@vaughan.ca>; Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>; Rebecca Turbitt <rturbitt@resilientconsulting.ca>; Alison MacLennan <Alison.MacLennan@trca.ca>; Suzanne Bevan <Suzanne.Bevan@trca.ca>
Subject: RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - TRCA (Eric Wang)

Hi Alastair,

Thank you very much for the information. I have cc'd Alison (Senior Engineer for the Vaughan area) and Suzanne Bevan (Senior EA Planner for York Region area) to inform them of this project update.

Thanks,

Eric Wang, P.Eng.
Senior Engineer, Water Resources
Engineering Services | Development and Engineering Services

T: (416) 661-6600 ext. 5921
E: eric.wang@trca.ca
A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 | trca.ca

From: Alastair Ross <aross@planmac.com>
Sent: Wednesday, May 13, 2020 3:35 PM
To: Eric Wang <Eric.Wang@trca.ca>
Cc: Facchini, Frank <Frank.Facchini@vaughan.ca>; Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>; Rebecca Turbitt <rturbitt@resilientconsulting.ca>
Subject: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study

Update Notice (MCEA) - TRCA (Eric Wang)

Dear Eric Wang,

Please find attached a Study Update Notice letter in connection with the proposed Municipal Class EA for the Stormwater Management Improvements in Gallanough Park and Surrounding Area in the City of Vaughan.

Thanks,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
☎: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From:	Alastair Ross
To:	Ab Falconi
Cc:	Facchini, Frank; Mark Bassingthwaite; Rebecca Turbitt; gallanough@resilientconsulting.ca
Subject:	RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - York Region Catholic District School Board
Date:	May 14, 2020 9:31:00 AM
Attachments:	image001.jpg

Morning Ab,

Thanks for sharing the information. We look forward to any comments you may have.

Thanks again,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From: Ab Falconi <ab.falconi@ycdsb.ca>
Sent: May 13, 2020 5:29 PM
To: Alastair Ross <aross@planmac.com>
Cc: Facchini, Frank <Frank.Facchini@vaughan.ca>; Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>; Rebecca Turbitt <rturbitt@resilientconsulting.ca>
Subject: Re: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - York Region Catholic District School Board

Good afternoon,

Thank you for the notice letter. I will share with our planning team as well.

All the best,

Ab

On Wed, May 13, 2020 at 3:45 PM Alastair Ross <aross@planmac.com> wrote:

Dear Ab Falconi,

Please find attached a Study Update Notice letter in connection with the proposed Municipal Class EA for the Stormwater Management Improvements in Gallanough Park and Surrounding Area in the City of Vaughan.

Thanks,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
☎: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

--

Ab Falconi
Director of Education
York Catholic District School Board

Phone: 905-713-1211
Email: ab.falconi@ycdsb.ca

From:	Joshua Cipolletta
To:	gallanough@resilientconsulting.ca
Cc:	Alastair Ross
Subject:	Re: Stormwater Management Improvements in Gallanough Park
Date:	May 28, 2020 11:30:43 AM

Hi Mark,

Thank you for the information provided to us regarding the Stormwater Management Improvements in Gallanough Park. We have no comments regarding this Study Update and no longer need to be involved in the ongoing process of the study.

Thank you and have a great day,
Joshua

On Thu, May 14, 2020 at 4:33 PM Alastair Ross <aross@planmac.com> wrote:

> Hi Joshua,
>
> Not a problem, please find attached.
>
> We look forward to any comments you may have.
>
> Thanks,
>
> Alastair
>
> ---
>
> **From:** Joshua Cipolletta <joshua.cipolletta@ycdsb.ca>
> **Sent:** May 14, 2020 4:25 PM
> **To:** Alastair Ross <aross@planmac.com>
> **Subject:** Stormwater Management Improvements in Gallanough Park
>
> Hi Alastair,
>
> Could you please resend me the Study Update Notice letter regarding the proposed Municipal Class EA for the Stormwater Management Improvements in Gallanough Park and Surrounding Area in the City of Vaughan. It seems that the attachment was lost in our email chain.
>
> Thanks,
>
> Joshua
>
> --
> *Due to the COVID-19 pandemic I am working remotely and may take longer to reply to your*

> *message.*
> *Thank you for your patience.*
>
> Joshua Cipolletta
> Planner
> York Catholic District School Board
> 320 Bloomington Road West
> Aurora, ON
> L4G 0M1
> 905-713-1211 x 12333
>
>

--
Due to the COVID-19 pandemic I am working remotely and may take longer to reply to your message.
Thank you for your patience.

Joshua Cipolletta
Planner
York Catholic District School Board
320 Bloomington Road West
Aurora, ON
L4G 0M1
905-713-1211 x 12333

From: Alastair Ross
To: Luk, Gilbert; gallanough@resilientconsulting.ca
Cc: Frank.Facchini@vaughan.ca; Mark Bassingthwaite; Rebecca Turbitt; gallanough@resilientconsulting.ca
Subject: RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - York Region District School Board
Date: May 14, 2020 1:55:00 PM
Attachments: image001.jpg

Hi Gilbert,

Thank you for the response.

You have been included on the email list and will receive all future notifications relating to the project.

Thanks again,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From: Luk, Gilbert <gilbert.luk@yrdsb.ca>
Sent: May 14, 2020 1:46 PM
To: gallanough@resilientconsulting.ca
Subject: RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - York Region District School Board

Hello,

We have received the subject notice for a study update to SWM facilities in Gallanough Park. Thornhill Public School is located adjacent to the park with municipal address 7554 Yonge Street.

Due to proximity of the school to Gallanough Park, we will like to be added to the email list to receive updates on the study update to ensure there are no negative impacts to the school and its operations

Thank you,

Gilbert Luk
Planning & Property Development Services
Tel: (905) 727-0022 ext 2439

From: Alastair Ross [mailto:aross@planmac.com]
Sent: Wednesday, May 13, 2020 3:41 PM
To: Director <director@yrdsb.ca>
Cc: Facchini, Frank <Frank.Facchini@vaughan.ca>; Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>; Rebecca Turbitt <rturbitt@resilientconsulting.ca>
Subject: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - York Region District School Board

Dear Louise Sirisko,

Please find attached a Study Update Notice letter in connection with the proposed Municipal Class EA for the Stormwater Management Improvements in Gallanough Park and Surrounding Area in the City of Vaughan.

Thanks,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
☎: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From:	Alastair Ross
To:	Jawaid, Maria (MNRF)
Cc:	Frank.Facchini@vaughan.ca; Mark Bassingthwaite; Rebecca Turbitt; gallanough@resilientconsulting.ca
Subject:	RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - MNRF (Maria Jawaid)
Date:	May 14, 2020 1:20:00 PM
Attachments:	image001.jpg image002.png

Hi Maria,

Thank you for the response. I will pass it on to our design team.

Thanks again,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
☎: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From: Jawaid, Maria (MNRF) <Maria.Jawaid@ontario.ca>
Sent: May 14, 2020 11:36 AM
To: Alastair Ross <aross@planmac.com>
Subject: RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - MNRF (Maria Jawaid)

Hi Alastair,

Thanks for your email. Upon review of the notice and mapping, MNRF has no comments or concerns with this project.

Thanks,

Maria Jawaid (she/her)
District Planner | Aurora District
Ministry of Natural Resources and Forestry
50 Bloomington Road, 4th Floor, Aurora, ON | L4G 0L8
☎ 905-713-7367 | maria.jawaid@ontario.ca

From: Alastair Ross <aross@planmac.com>
Sent: May-13-20 1:15 PM
To: Jawaid, Maria (MNRF) <Maria.Jawaid@ontario.ca>
Cc: Facchini, Frank <Frank.Facchini@vaughan.ca>; Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>; Rebecca Turbitt <rturbitt@resilientconsulting.ca>
Subject: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - MNRF (Maria Jawaid)

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Dear Maria,

Please find attached a Study Update Notice letter in connection with the proposed Municipal Class EA for the Stormwater Management Improvements in Gallanough Park and Surrounding Area in the City of Vaughan.

Thanks,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From:	Adriana Gomez
To:	Alastair Ross
Cc:	Facchini, Frank; Mark Bassingthwaite; Rebecca Turbitt; Patricia Lewis; MacKenzie, Alanna; Behrooz, Morteza; Wright, Michael
Subject:	RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Sustainable Neighbourhood Action Program (SNAP) Thornhill
Date:	May 25, 2020 3:54:25 PM
Attachments:	image003.png image004.jpg image005.png

Hi Alastair,

Thank you for reaching out and for your efforts in coordinating the various initiatives.
We are very interested in coordinating SNAP engagement with the EA engagement, and hopefully have joined meetings that achieve everyone's objectives and avoid community burn out or confusion.
We are trying to figure out with Vaughan's staff the best way to do so, and the timing.

You'll hear back from staff soon.

Thank you again,

Adriana Gomez
Senior Program Manager, Sustainable Neighbourhoods
Education and Training Division

T: (416) 661-6600 ext. 5708
C: (416) 723-4870
E: adriana.gomez@trca.ca
A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 | trca.ca

From: Alastair Ross <aross@planmac.com>
Sent: Wednesday, May 20, 2020 3:48 PM
To: Adriana Gomez <Adriana.Gomez@trca.ca>
Cc: Facchini, Frank <Frank.Facchini@vaughan.ca>; Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>; Rebecca Turbitt <rturbitt@resilientconsulting.ca>; Patricia Lewis <Patricia.Lewis@trca.ca>; MacKenzie, Alanna <alanna.mackenzie@vaughan.ca>
Subject: RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Sustainable Neighbourhood Action Program (SNAP) Thornhill

Hi Adriana,

Thank you for the information.

Frank has informed us of SNAP's contribution to date and we look forward to receiving the landscape design principles and recommendations. Our objective is to ensure that the preferred stormwater management solution will not conflict with future landscaping/park revitalization plans.

With regards to stakeholder engagement, as noted within the Notice of Study Update, our plan is to provide an online presentation to stakeholders and the general public in late summer/early fall 2020 (likely August/September 2020) providing information on the preliminary preferred solution and alternative solutions evaluated as part of the EA. This will provide stakeholders and the general public with the opportunity to comment on the findings and provide input to the design.

This approach appears to align with SNAP's proposed online engagement process and "live session." Do SNAP have a date in mind for which they intend to do this? The reason for our August/September 2020 date for a presentation is to provide sufficient time to conduct required assessments and the alternatives evaluation this summer. As suggested, it may be worth consolidating our efforts into one presentation and we would be happy to provide slides and input regarding the EA and the preliminary preferred alternative for stormwater management improvements in Gallanough Park and the surrounding area.

We plan to complete the EA and publish the revised Project File Report (containing the preferred solution) for a 30-day public review in November 2020. Pending no Part II Order requests the detailed design of the preferred solution will initiate December 2020.

Please let me know your thoughts and we could also possibly arrange a call with Frank to discuss.

Thanks,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
☎: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From: Adriana Gomez <Adriana.Gomez@trca.ca>
Sent: May 14, 2020 9:17 AM
To: Alastair Ross <aross@planmac.com>
Cc: Facchini, Frank <Frank.Facchini@vaughan.ca>; Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>; Rebecca Turbitt <rturbitt@resilientconsulting.ca>; Patricia Lewis <Patricia.Lewis@trca.ca>; MacKenzie, Alanna <alanna.mackenzie@vaughan.ca>
Subject: RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Sustainable Neighbourhood Action Program (SNAP) Thornhill

Thank you for the notice Alastair. It is really exciting to have you on board!

Please include me and my colleague Patricia Lewis cced above in your list serve.

As you probably know TRCA is working with multiple divisions from the City of Vaughan and the local community in the development of a Sustainable Neighbourhood Action Plan (SNAP) for Thornhill, the study area where the Gallanough Project is taking place. We are hoping the Gallanough Project will help achieve some key environmental, socio-economic and resiliency objectives identified in the SNAP for the overall neighbourhood.

One of the signature projects of our action plan will be the revitalization of Gallanough Park for which the SNAP has developed some initial draft design principles and recommendations (based on robust community and stakeholder engagement) and will also develop a conceptual landscape design that addresses both community and technical priorities for the neighbourhood, including ecological function, physical connections, beautification and community amenities. This design will have to be closely coordinated with your technical recommendations for stormwater management. You will be receiving these design principles and recommendations at some point from Frank.

Community consultation will also have to be coordinated. We are currently planning an on-line engagement process, which will likely include a “live session” with the community to discuss the Gallanough project. We would like you to participate in this session and can include any questions or discussion points with the community that you think are relevant for the EA. We are happy to explore timelines that work best for you. In the same way, it would be great if you could include us in the development of your engagement strategy, to make sure that it is coordinated with the overall Neighbourhood Action Plan workplan and engagement strategy and that we avoid replication or community burn out.

We believe that the Gallanough Park will be a fantastic example of an integrated project that can achieve multiple objectives. We are hoping it will be highly innovative; a demonstration project to be showcased across our jurisdiction for replication. We are very excited to work with you to make this a reality!

Looking forward to meeting you soon,

Adriana Gomez
Senior Program Manager, Sustainable Neighbourhoods
Education and Training Division

T: (416) 661-6600 ext. 5708
C: (416) 723-4870
E: adriana.gomez@trca.ca
A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 | trca.ca

From: Alastair Ross <aross@planmac.com>
Sent: Wednesday, May 13, 2020 3:39 PM
To: Adriana Gomez <Adriana.Gomez@trca.ca>
Cc: Facchini, Frank <Frank.Facchini@vaughan.ca>; Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>; Rebecca Turbitt <rturbitt@resilientconsulting.ca>
Subject: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Sustainable Neighbourhood Action Program (SNAP) Thornhill

Dear Adriana Gomez,

Please find attached a Study Update Notice letter in connection with the proposed Municipal Class EA for the Stormwater Management Improvements in Gallanough Park and Surrounding Area in the City of Vaughan.

Thanks,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
☎: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From:	Alastair Ross
To:	Abinan.Thevakumaran@HydroOne.com
Cc:	Frank.Facchini@vaughan.ca; mbassingthwaite@resilientconsulting.ca; rturbitt@resilientconsulting.ca; gallanough@resilientconsulting.ca
Subject:	RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Hydro One
Date:	May 14, 2020 9:54:00 AM
Attachments:	image001.jpg

Morning Abinan,

Thank you for the information. I have taken note of the email address for any future markup requests.

Thanks again,

Alastair

Alastair Ross, **MSc, CEnv (UK)**
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
☎: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From: Abinan.Thevakumaran@HydroOne.com <Abinan.Thevakumaran@HydroOne.com>
Sent: May 14, 2020 7:58 AM
To: Alastair Ross <aross@planmac.com>
Cc: Frank.Facchini@vaughan.ca; mbassingthwaite@resilientconsulting.ca; rturbitt@resilientconsulting.ca
Subject: RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Hydro One

Good Morning,

For any future inquiries, markup requests need to be submitted to "CENTRAL FBC PLANNING CentralFBCplanning@HydroOne.com" in order to get a technician scheduled to look at the work.

I have reviewed the plan and can comment on this request as a one-time exception.

After reviewing our records, Hydro One Networks Inc. has no distribution plant (44,000 volts and under) in the area indicated on the attached drawing.

Thanks,

Abinan (Abi) Thevakumaran
Hydro One Networks Inc.
Area Distribution Engineering Tech
Newmarket Operations & Metro Lines – Design Services
Tel: (905) 713 1215 x2214
Cell: (905) 868 5811
Email: Abinan.Thevakumaran@HydroOne.com

From: Alastair Ross [mailto:aross@planmac.com]
Sent: Wednesday, May 13, 2020 4:35 PM
To: TPUCC DRAWINGS; THEVAKUMARAN Abinan
Cc: Facchini, Frank; Mark Bassingthwaite; Rebecca Turbitt
Subject: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Hydro One

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Dear Abinan Thevakumaran,

Please find attached a Study Update Notice letter in connection with the proposed Municipal Class EA for the Stormwater Management Improvements in Gallanough Park and Surrounding Area in the City of Vaughan.

Thanks,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
☎: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

This statement applies to the initial email as well as any and all copies (replies and/or forwards) of the initial email

From:	Alastair Ross
To:	Utility Circulations
Cc:	Frank.Facchini@vaughan.ca; Mark Bassingthwaite; Rebecca Turbitt; gallanough@resilientconsulting.ca
Subject:	RE: Aptum Technologies (Canada) Inc. (formerly Cogeco Peer 1) CLEARANCE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Cogeco
Date:	May 15, 2020 4:44:00 PM
Attachments:	image001.jpg

To Whom It May Concern,

Thank you for the prompt response and information. I will forward to our design team for their record.

Thanks again,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
☎: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From: Utility Circulations <UtilityCirculations@aptum.com>
Sent: May 15, 2020 3:47 PM
To: Alastair Ross <aross@planmac.com>
Subject: Aptum Technologies (Canada) Inc. (formerly Cogeco Peer 1) CLEARANCE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Cogeco

RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Cogeco
Sent By: Alastair Ross
Received on: 5/13/2020 4:30:02 PM

Hello,

Aptum Technologies (Canada) Inc. (formerly Cogeco Peer 1) ONLY has underground infrastructure in the following Ontario Municipalities:

Barrie, Brampton, Essa, Markham, Mississauga, Richmond Hill, Vaughan.
City Of Toronto (East York, Etobicoke, North York, Scarborough, Toronto, York).

Based on the information provided (original message and documents attached),
Aptum Technologies (Canada) Inc. (formerly Cogeco Peer 1) has NO OBJECTION to the proposed work.

Standards to be adhered to:
o If within 1 meter of proposed plant, hand dig.
o Minimum clearances will be maintained according to the PUCC clearance standards.
o Location is only approximate, and test pits should be performed if exact location and depth is required.

o Locates must be completed prior to start of construction.

Aptum Technologies (Canada) Inc. (formerly Cogeco Peer 1) is NOT interested in a Joint Build.

The sent date of this email is the date of the clearance. Clearance is valid for six (6) months.
THIS EMAIL IS YOUR SIGN-OFF

Electronically signed:

Aptum Technologies (Canada) Inc. (formerly Cogeco Peer 1); Mark-Ups Team

Comment from the Ontario Provincial Police

From: Alastair Ross
To: Schmidt, Kerry (OPP)
Subject: RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Ontario Provincial Police
Date: May 25, 2020 9:10:00 AM
Attachments: image001.jpg

Thanks for the reply Kerry.

Is there anyone in the Vaughan region locally who may have interest in this project? If so, could you please relay to the relevant contact?

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
☎: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From: Schmidt, Kerry (OPP) <Kerry.Schmidt@opp.ca>
Sent: May 24, 2020 1:49 PM
To: Alastair Ross <aross@planmac.com>
Subject: RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Ontario Provincial Police

Thank you for the email but I don’t think it applies to my responsibilities.

Kerry Schmidt
OPP Highway Safety Division
416-460-4701

From: Alastair Ross [mailto:aross@planmac.com]
Sent: 13-May-20 3:52 PM
To: Schmidt, Kerry (OPP) <Kerry.Schmidt@opp.ca>
Cc: Facchini, Frank <Frank.Facchini@vaughan.ca>; Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>; Rebecca Turbitt <rturbitt@resilientconsulting.ca>
Subject: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study

Update Notice (MCEA) - Ontario Provincial Police

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Dear Sgt. Schmidt,

Please find attached a Study Update Notice letter in connection with the proposed Municipal Class EA for the Stormwater Management Improvements in Gallanough Park and Surrounding Area in the City of Vaughan.

Thanks,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
☎: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From:	Mark-Ups
To:	Alastair Ross
Subject:	RE: EGD 24322311 - Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Enbridge _ GENERAL LOCATE
Date:	May 27, 2020 1:37:52 PM
Attachments:	24322311.zip Booklets.zip

Attached is the information you had requested.
The information provided is for General Location Only. You must resubmit your detailed design for our review.
Should you require anything further please contact us at Mark-Ups@enbridge.com.

Kind Regards,

Lauren Li
Drafting CADD Tech I
Attachment & Construction Services
—
ENBRIDGE GAS INC.
TEL: 416-758-4469, 866-326-2924 | FAX: 416-753-6941
500 Consumers Road North York, Ontario M2J 1P8

enbridgegas.com
Integrity. Safety. Respect.

From: Alastair Ross <aross@planmac.com>
Sent: Wednesday, May 13, 2020 4:33 PM
To: Mark-Ups <Mark-Ups@enbridge.com>; Lauren Li <Lauren.Li@enbridge.com>
Cc: Facchini, Frank <Frank.Facchini@vaughan.ca>; Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>; Rebecca Turbitt <rturbitt@resilientconsulting.ca>
Subject: EGD 24322311 - Stormwater Management Improvements in Gallanough Park and Surrounding
Area - Study Update Notice (MCEA) - Enbridge

Dear Lauren Li,

Please find attached a Study Update Notice letter in connection with the proposed Municipal Class EA
for the Stormwater Management Improvements in Gallanough Park and Surrounding Area in the City of

Vaughan.

Thanks,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
?: (705) 719 7981
??: (226) 567 3284
?: aross@planmac.com

From:	Harvey, Joseph (MHSTCI)
To:	mbassingthwaite@resilientconsulting.ca
Cc:	Minkin, Dan (MHSTCI); Barboza, Karla (MHSTCI); Frank.Facchini@vaughan.ca; Alastair Ross
Subject:	Project Update - Stormwater Management Improvements in Gallanough Park and Surrounding Area
Date:	June 4, 2020 2:10:20 PM
Attachments:	2020-04-06_GallonoughStormwater_MHSTCI_Ltr.pdf

Mark Bassingthwaite,

Please find attached, a letter acknowledging the receipt of your notice of project update. Contact us with any further questions or concerns.

Joseph Harvey
On behalf of

Dan Minkin
Heritage Planner
Heritage Planning Unit
Dan.Minkin@ontario.ca

Ministry of Heritage, Sport, Tourism and Culture Industries

Programs and Services Branch
401 Bay Street, Suite 1700
Toronto, ON M7A 0A7
Tel: 416.314.7147

Ministère des Industries du Patrimoine, du Sport, du Tourisme et de la Culture

Direction des programmes et des services
401, rue Bay, Bureau 1700
Toronto, ON M7A 0A7
Tél: 416.314.7147

June 4, 2020 EMAIL ONLY

Mark Bassingthwaite, P. Eng.
Project Manager
Resilient Consulting
PO Box 643
Whitby, ON L1N 5V3
mbassingthwaite@resilientconsulting.ca

MHSTCI File	**:**	**0012400**
Proponent	**:**	**The City of Vaughan**
Subject	**:**	**Project Update – Municipal Class EA**
Project	**:**	**Stormwater Management Improvements in Gallanough Park and Surrounding Area**
Location	**:**	**City of Vaughan**

Dear Mark Bassingthwaite:

Thank you for providing the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) with the Project Update for the above-referenced project. MHSTCI's interest in this Environmental Assessment (EA) project relates to its mandate of conserving Ontario's cultural heritage, which includes:

- Archaeological resources, including land and marine;
- Built heritage resources, including bridges and monuments; and,
- Cultural heritage landscapes.

Under the EA process, the proponent is required to determine a project's potential impact on cultural heritage resources.

Project Summary
The City of Vaughan has retained the services of Resilient Consulting and Planmac Engineering to finalize the Municipal Class Environmental Assessment and Detailed Design for stormwater management improvements in Gallanough Park and a storm relief sewer on Arnold Avenue, between Brooke and Yonge Street. This project re-initiates a 2009 Schedule "B" study pursuant to the Municipal Engineers Association Municipal Class Environmental Assessment, October 2000, amended 2007.

Identifying Cultural Heritage Resources
While some cultural heritage resources may have already been formally identified through prior project related EA work, additional screening and evaluation should be undertaken to account for any new impacts or alterations to the project study area occurring as a result of this initiative.

Indigenous communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Indigenous communities includes a discussion about known or potential cultural heritage resources that are of value to these communities. Municipal Heritage Committees, historical societies and other local heritage organizations may also have knowledge that contributes to the identification of cultural heritage resources.

Archaeological Resources
This EA project may impact archaeological resources and should be screened using the MHSTCI *Criteria for Evaluating Archaeological Potential* to determine if an archaeological assessment is needed. MHSTCI archaeological sites data are available at *archaeology@ontario.ca*. If the EA project area exhibits archaeological potential, then an archaeological assessment (AA) should be undertaken by an archaeologist licenced under the *OHA*, who is responsible for submitting the report directly to MHSTCI for review.

Built Heritage and Cultural Heritage Landscapes
The MHSTCI *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* should be completed to help determine whether this EA project may impact cultural heritage resources. If potential or known heritage resources exist, MHSTCI recommends that a Heritage Impact Assessment (HIA), prepared by a qualified consultant, should be completed to assess potential project impacts. Our Ministry's *Info Sheet #5: Heritage Impact Assessments and Conservation Plans* outlines the scope of HIAs. Please send the HIA to MHSTCI The City of Vaughn for review, and make it available to local organizations or individuals who have expressed interest in review.

Environmental Assessment Reporting
All technical cultural heritage studies and their recommendations are to be addressed and incorporated into EA projects. Please advise MHSTCI whether any technical cultural heritage studies will be completed for this EA project, and provide them to MHSTCI before issuing a Notice of Completion or commencing any work on the site. If screening has identified no known or potential cultural heritage resources, or no impacts to these resources, please include the completed checklists and supporting documentation in the EA report or file.

Thank you for consulting MHSTCI on this project and please continue to do so throughout the EA process. If you have any questions or require clarification, do not hesitate to contact Dan Minkin.

Joseph Harvey
On behalf of

Dan Minkin
Heritage Planner
Heritage Planning Unit
Dan.Minkin@ontario.ca

Copied to: Frank Facchini., Project Manager, City of Vaughan
Alastair Ross, Environmental Planner, Planmac Engineering

It is the sole responsibility of proponents to ensure that any information and documentation submitted as part of their EA report or file is accurate. MHSTCI makes no representation or warranty as to the completeness, accuracy or quality of the any checklists, reports or supporting documentation submitted as part of the EA process, and in no way shall MHSTCI be liable for any harm, damages, costs, expenses, losses, claims or actions that may result if any checklists, reports or supporting documents are discovered to be inaccurate, incomplete, misleading or fraudulent.

Please notify MHSTCI if archaeological resources are impacted by EA project work. All activities impacting archaeological resources must cease immediately, and a licensed archaeologist is required to carry out an archaeological assessment in accordance with the *Ontario Heritage Act* and the *Standards and Guidelines for Consultant Archaeologists*.

If human remains are encountered, all activities must cease immediately and the local police as well as the Registrar, Burials of the Ministry of Government and Consumer Services (416-326-8800) must be contacted. In situations where human remains are associated with archaeological resources, MHSTCI should also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the *Ontario Heritage Act*.

Ministry of Tourism and Culture
Cultural Services Unit, 4th Fl.
400 University Ave
Toronto, ON M7A 2R9

Ministre du Tourisme et de la Culture
400, avenue University
Toronto, ON M7A 2R9

Ontario

May 10, 2010

Pat Marcantonio
Senior Engineering Assistant – City of Vaughan
2141 Major Mackenzie Dr
City of Vaughan, ON L6A 1T1

Dear Mr. Marcantonio:

Subject : Class EA for a Stormwater Management Facility within Gallanough Park
Location : City of Vaughan

As part of the process under the Environmental Assessment Act, the Ministry of Tourism and Culture has an interest in the conservation of cultural heritage resources including:

- Archaeological resources;
- Built heritage resources; and
- Cultural heritage landscapes.

We have reviewed your project and, based on provincial criteria, have determined that the site has low archaeological potential and therefore does not require an archaeological assessment.

However, should deeply buried archaeological finds be discovered during construction activities, this office should be notified without delay and a licensed archaeologist may be required to monitor the site directly.

In the event that human remains are found, the local police must be notified immediately, followed promptly by notification to this office.

Please do not hesitate to contact the undersigned if you have any questions.

Yours truly,

Alejandro Cifuentes
Heritage Planner
(416)314-7159
Alejandro.cifuentes@ontario.ca

c.: Winston Wong, Heritage Planner, Ministry of Tourism and Culture.
Mark Bassingthwaite, Project Manager, Cole Engineering Group.

Comment from MECP

From:	Alastair Ross
To:	O"Leary, Emilee (MECP); Facchini, Frank
Cc:	gallanough@resilientconsulting.ca; Desautels, Solange (MECP); Dugas, Celeste (MECP); Mark Bassingthwaite; Rebecca Turbitt
Subject:	FW: MECP Comments_Notice of Commencement_Stormwater Management Improvements in Gallanough Park and Surrounding Area (Vaughan)
Date:	June 5, 2020 10:43:00 AM
Attachments:	MECP Comments Notice of Commencement SWM in Gallanough Park and Surrounding Area.pdf image001.jpg

Morning Emilee,

Thanks very much for the information.

We will follow the guidance outlined in the attached and ensure to provide a copy of the Draft Project File Report to MECP for review.

Thanks again,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From: O'Leary, Emilee (MECP) <Emilee.OLeary@ontario.ca>
Sent: June 5, 2020 10:34 AM
To: frank.facchini@vaughan.ca
Cc: Gallanough@resilientconsulting.ca; Desautels, Solange (MECP) <Solange.Desautels@ontario.ca>; Dugas, Celeste (MECP) <Celeste.Dugas@ontario.ca>; O'Leary, Emilee (MECP) <Emilee.OLeary@ontario.ca>
Subject: MECP Comments_Notice of Commencement_Stormwater Management Improvements in Gallanough Park and Surrounding Area (Vaughan)

Dear Project Team,

Attached please find the response from the Ministry of the Environment, Conservation and Parks to the notice of commencement for the Stormwater Management Improvements in

Gallanough Park and Surrounding Area addendum project proposed by the City of Vaughan.

Please kindly acknowledge receipt

Thank you,

Emilee O'Leary
Regional EA Coordinator - Central Region
Environmental Assessment Branch
Ministry of the Environment, Conservation and Parks

Ministry of the Environment, Conservation and Parks

Environmental Assessment Branch

1st Floor
135 St. Clair Avenue W
Toronto ON M4V 1P5
Tel.: 416 314-8001
Fax.: 416 314-8452

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Direction des évaluations environnementales

Rez-de-chaussée
135, avenue St. Clair Ouest
Toronto ON M4V 1P5
Tél.: 416 314-8001
Téléc.: 416 314-8452

June 5, 2020 File No.: EA 01-06-04

Frank Facchini (BY EMAIL ONLY)
City of Vaughan
2141 Major Mackenzie Drive
Vaughan ON L6A 1T1

Re: **Stormwater Management Improvements in Gallanough Park and Surrounding Area**
City of Vaughan
Municipal Class EA – Addendum to Schedule B, stormwater management
Response to Notice of Commencement

Dear Frank Facchini,

This letter is in response to the Notice of Commencement for the above noted project. The Ministry of the Environment, Conservation and Parks (MECP) acknowledges that the City of Vaughan has indicated that the study is following the approved environmental planning process for an addendum to a Schedule B project under the Municipal Class Environmental Assessment (Class EA).

The **updated** attached "Areas of Interest" document provides guidance regarding the ministry's interests with respect to the Class EA process. Please identify the areas of interest which are applicable to the project and ensure they are addressed. Proponents who address all the applicable areas of interest can minimize potential delays to the project schedule.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge, real or constructive, of the existence or potential existence of an Aboriginal or treaty right and contemplates conduct that may adversely impact that right. Before authorizing this project, the Crown must ensure that its duty to consult has been fulfilled, where such a duty is triggered. Although the duty to consult with Aboriginal peoples is a duty of the Crown, the Crown may delegate procedural aspects of this duty to project proponents while retaining oversight of the consultation process.

The proposed project may have the potential to affect Aboriginal or treaty rights protected under Section 35 of Canada's *Constitution Act* 1982. Where the Crown's duty to consult is triggered in relation to the proposed project**, the MECP is delegating the procedural aspects of rights-based consultation to the proponent through this letter.** The Crown intends to rely on the delegated consultation process in discharging its duty to consult and maintains the right to participate in the consultation process as it sees fit.

Based on information provided to date and the Crown`s preliminary assessment the proponent is required to consult with the following communities who have been identified as potentially affected by the proposed project.

- Mississaugas of the Credit First Nation
- Huron-Wendat Nation, if there are potential archeological impacts

Steps that the proponent may need to take in relation to Aboriginal consultation for the proposed project are outlined in the "Code of Practice for Consultation in Ontario's Environmental Assessment Process".

Additional information related to Ontario's Environmental Assessment Act is available online at: www.ontario.ca/environmentalassessments.

Please also refer to the attached document "A Proponent's Introduction to the Delegation of Procedural Aspects of consultation with Aboriginal Communities" for further information.

The proponent must contact the Director of the Environmental Assessment Branch under the following circumstances subsequent to initial discussions with the communities identified by MECP:

- Aboriginal or treaty rights impacts are identified to the proponent by the communities
- The proponent has reason to believe that the proposed project may adversely affect an Aboriginal or treaty right
- Consultation has reached an impasse
- A Part II Order request or elevation request is expected

The Director of the Environmental Assessment Branch can be notified either by email with the subject line "Potential Duty to Consult" to enviropermissions@ontario.ca or by mail or fax at the address provided below:

Email:	enviropermissions@ontario.ca Subject: Potential Duty to Consult
Fax:	416-314-8452
Address:	Environmental Assessment Branch 135 St. Clair Avenue West, 1st Floor Toronto, ON, M4V 1P5

The MECP will then assess the extent of any Crown duty to consult for the circumstances and will consider whether additional steps should be taken, including what role the proponent will be asked to play in them.

A Part II Order Request Form must be used to request a Part II Order. The Part II Order Request Form is available online on the Forms Repository website (http://www.forms.ssb.gov.on.ca) by searching "Part II Order" or "012-2206E" (the form ID number). Please include reference to this in the Notice of Completion for this project.

A draft copy of the report should be sent to this office prior to the filing of the final report, allowing a minimum of 30 days for the ministry's technical reviewers to provide comments.

Please also ensure a copy of the final notice is sent to the ministry's Central Region EA notification email account (eanotification.cregion@ontario.ca) after the draft report is finalized.

Should you or any members of your project team have any questions regarding the material above, please contact me at emilee.oleary@ontario.ca .

Yours truly,

Emilee O'Leary
Regional Environmental Assessment Coordinator

cc Solange Desautels, Supervisor, Environmental Assessment Services, MECP
Celeste Dugas, Manager, York Durham District Office, MECP
Mark Bassingthwaite, Consultant Project Team, Resilient Consulting

Attach: Areas of Interest
A Proponent's Introduction to the Delegation of Procedural Aspects of Consultation with Aboriginal Communities

AREAS OF INTEREST

It is suggested that you check off each applicable area after you have considered / addressed it.

☐ **Species at Risk**

- The Ministry of the Environment, Conservation and Parks has now assumed responsibility of Ontario's Species at Risk program. For any questions related to subsequent permit requirements, please contact SAROntario@ontario.ca.

☐ **Excess Materials Management**

- In December 2019, MECP released a new regulation under the Environmental Protection Act, titled "On-Site and Excess Soil Management" (O. Reg. 406/19) to support improved management of excess construction soil. This regulation is a key step to support proper management of excess soils, ensuring valuable resources don't go to waste and to provide clear rules on managing and reusing excess soil. New risk-based standards referenced by this regulation help to facilitate local beneficial reuse which in turn will reduce greenhouse gas emissions from soil transportation, while ensuring strong protection of human health and the environment. The new regulation is being phased in over time, with the first phase set to come into effect on July 1, 2020. Please visit https://www.ontario.ca/page/handling-excess-soil.

- Activities involving the management of excess soil should be completed in accordance with O. Reg. 406/19 and the MECP's current guidance document titled "Management of Excess Soil – A Guide for Best Management Practices" (2014).

- All waste generated during construction must be disposed of in accordance with ministry requirements

☐ **Planning and Policy**

- Ontario has released "A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019)" which replaces the "Growth Plan for the Greater Golden Horseshoe (2017)". More information, including the Plan, is found here: https://www.placestogrow.ca.

- Parts of the study area may be subject to the A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019), Oak Ridges Moraine Conservation Plan (2017), Niagara Escarpment Plan (2017), Greenbelt Plan (2017) or Lake Simcoe Protection Plan (2014). Applicable policies should be referenced in the report, and the proponent should describe how the proposed project adheres to the relevant policies in these plans.

- The **Provincial Policy Statement (2020)** contains policies that protect Ontario's natural heritage and water resources. Applicable policies should be referenced in the report, and the proponent should describe how the proposed project is consistent with these policies.

☐ **Source Water Protection (all projects)**

The *Clean Water Act*, 2006 (CWA) aims to protect existing and future sources of drinking water. To achieve this, several types of vulnerable areas have been delineated around surface water intakes and wellheads for every municipal residential drinking water system that is located in a source protection area. These vulnerable areas are known as a Wellhead Protection Areas (WHPAs) and surface water Intake Protection Zones (IPZs). Other vulnerable areas that have been delineated under the CWA include Highly Vulnerable Aquifers (HVAs), Significant Groundwater Recharge Areas

(SGRAs), Event-based modelling areas (EBAs), and Issues Contributing Areas (ICAs). Source protection plans have been developed that include policies to address existing and future risks to sources of municipal drinking water within these vulnerable areas.

Projects that are subject to the Environmental Assessment Act that fall under a Class EA, or one of the Regulations, have the potential to impact sources of drinking water if they occur in designated vulnerable areas or in the vicinity of other at-risk drinking water systems (i.e. systems that are not municipal residential systems). MEA Class EA projects may include activities that, if located in a vulnerable area, could be a threat to sources of drinking water (i.e. have the potential to adversely affect the quality or quantity of drinking water sources) and the activity could therefore be subject to policies in a source protection plan. Where an activity poses a risk to drinking water, policies in the local source protection plan may impact how or where that activity is undertaken. Policies may prohibit certain activities, or they may require risk management measures for these activities. Municipal Official Plans, planning decisions, Class EA projects (where the project includes an activity that is a threat to drinking water) and prescribed instruments must conform with policies that address significant risks to drinking water and must have regard for policies that address moderate or low risks.

- In October 2015, the MEA Parent Class EA document was amended to include reference to the Clean Water Act (Section A.2.10.6) and indicates that proponents undertaking a Municipal Class EA project must identify early in their process whether a project is or could potentially be occurring with a vulnerable area. **Given this requirement, please include a section in the report on source water protection.**

  - The proponent should identify the source protection area and should clearly document how the proximity of the project to sources of drinking water (municipal or other) and any delineated vulnerable areas was considered and assessed. Specifically, the report should discuss whether or not the project is located in a vulnerable area and provide applicable details about the area.

  - If located in a vulnerable area, proponents should document whether any project activities are prescribed drinking water threats and thus pose a risk to drinking water (this should be consulted on with the appropriate Source Protection Authority). Where an activity poses a risk to drinking water, the proponent must document and discuss in the report how the project adheres to or has regard to applicable policies in the local source protection plan. This section should then be used to inform and be reflected in other sections of the report, such as the identification of net positive/negative effects of alternatives, mitigation measures, evaluation of alternatives etc.

- While most source protection plans focused on including policies for significant drinking water threats in the WHPAs and IPZs it should be noted that even though source protection plan policies may not apply in HVAs, these are areas where aquifers are sensitive and at risk to impacts and within these areas, activities may impact the quality of sources of drinking water for systems other than municipal residential systems.

- In order to determine if this project is occurring within a vulnerable area, proponents can use this mapping tool: http://www.applications.ene.gov.on.ca/swp/en/index.php. The mapping tool will also provide a link to the appropriate source protection plan in order to identify what policies may be applicable in the vulnerable area.

- For further information on the maps or source protection plan policies which may relate to their project, proponents must contact the appropriate source protection authority. **Please consult with the local source protection authority to discuss potential impacts on drinking water. The contact for this project is Jennifer Stephens at (416) 661-6600 ext 5568 or**

jstephens@trca.on.ca. Please document the results of that consultation within the report and include all communication documents/correspondence.

More Information
For more information on the *Clean Water Act*, source protection areas and plans, including specific information on the vulnerable areas and drinking water threats, please refer to Conservation Ontario's website where you will also find links to the local source protection plan/assessment report.

A list of the prescribed drinking water threats can be found in section 1.1 of Ontario Regulation 287/07 made under the *Clean Water Act*. In addition to prescribed drinking water threats, some source protection plans may include policies to address additional "local" threat activities, as approved by the MECP.

- [ ] **Climate Change**

Ontario is leading the fight against climate change through the Climate Change Action Plan. Recently released, the plan lays out the specific actions Ontario will take in the next five years to meet its 2020 greenhouse gas reduction targets and establishes the framework necessary to meet its long-term targets. As a commitment of the action plan, **the province has now finalized a guide, "Considering Climate Change in the Environmental Assessment Process" (Guide).**

The Guide is now a part of the Environmental Assessment program's Guides and Codes of Practice. The Guide sets out the MECP's expectation for considering climate change in the preparation, execution and documentation of environmental assessment studies and processes. The guide provides examples, approaches, resources, and references to assist proponents with consideration of climate change in EA. **Proponents should review this Guide in detail.**

- The MECP expects proponents to:

  1. Consider during the assessment of alternative solutions and alternative designs, the following:
     a. the project's expected production of greenhouse gas emissions and impacts on carbon sinks (climate change mitigation); and
     b. resilience or vulnerability of the undertaking to changing climatic conditions (climate change adaptation).
  2. Include a discrete section in the report detailing how climate change was considered in the EA.

How climate change is considered can be qualitative or quantitative in nature and should be scaled to the project's level of environmental effect. In all instances, both a project's impacts on climate change (mitigation) and impacts of climate change on a project (adaptation) should be considered.

- The MECP has also prepared another guide to support provincial land use planning direction related to the completion of energy and emission plans. The "Community Emissions Reduction Planning: A Guide for Municipalities" document is designed to educate stakeholders on the municipal opportunities to reduce energy and greenhouse gas emissions, and to provide guidance on methods and techniques to incorporate consideration of energy and greenhouse gas emissions into municipal activities of all types. We encourage you to review the Guide for information.

- [ ] **Air Quality, Dust and Noise**

- If there are sensitive receptors in the surrounding area of this project, an air quality/odour impact assessment will be useful to evaluate alternatives, determine impacts and identify appropriate mitigation measures. The scope of the assessment can be determined based on the potential effects of the proposed alternatives, and typically includes source and receptor characterization and a quantification of local air quality impacts on the sensitive receptors and the environment in the study area. The assessment will compare to all applicable standards or guidelines for all contaminants of concern. A quantitative Air Quality Impact Assessment is not required for this project.

- **If a quantitative Air Quality Impact Assessment is not required for the project, the report should still contain:**

    - A discussion of local air quality including existing activities/sources that significantly impact local air quality and how the project may impact existing conditions;
    - A discussion of the nearby sensitive receptors and the project's potential air quality impacts on present and future sensitive receptors;
    - A discussion of local air quality impacts that could arise from this project during both construction and operation; and
    - A discussion of potential mitigation measures.

- As a common practice, "air quality" should be used an evaluation criterion for all road projects.

- Dust and noise control measures should be addressed and included in the construction plans to ensure that nearby residential and other sensitive land uses within the study area are not adversely affected during construction activities.

- The MECP recommends that non-chloride dust-suppressants be applied. For a comprehensive list of fugitive dust prevention and control measures that could be applied, refer to *Cheminfo Services Inc. Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities.* report prepared for Environment Canada. March 2005.

- The report should consider the potential impacts of increased noise levels during the operation of the completed project. The proponent should explore all potential measures to mitigate significant noise impacts during the assessment of alternatives.

Ecosystem Protection and Restoration

- Any impacts to ecosystem form and function must be avoided where possible. The report should describe any proposed mitigation measures and how project planning will protect and enhance the local ecosystem.

- All natural heritage features should be identified and described in detail to assess potential impacts and to develop appropriate mitigation measures. The following sensitive environmental features may be located within or adjacent to the study area:
    - Areas of Natural and Scientific Interest (ANSIs)
    - Rare Species of flora or fauna
    - Watercourses
    - Wetlands
    - Woodlots

We recommend consulting with the Ministry of Natural Resources and Forestry (MNRF), Fisheries and Oceans Canada (DFO) and your local conservation authority to determine if special measures or additional studies will be necessary to preserve and protect these sensitive features. In addition, you may consider the provisions of the Rouge Park Management Plan if applicable.

Surface Water

- The report must include enough information to demonstrate that there will be no negative impacts on the natural features or ecological functions of any watercourses within the study area. Measures should be included in the planning and design process to ensure that any impacts to watercourses from construction or operational activities (e.g. spills, erosion, pollution) are mitigated as part of the proposed undertaking.

- Additional stormwater runoff from new pavement can impact receiving watercourses and flood conditions. Quality and quantity control measures to treat stormwater runoff should be considered for all new impervious areas and, where possible, existing surfaces. The ministry's Stormwater Management Planning and Design Manual (2003) should be referenced in the report and utilized when designing stormwater control methods. **A Stormwater Management Plan should be prepared as part of the Class EA process** that includes:

    - Strategies to address potential water quantity and erosion impacts related to stormwater draining into streams or other sensitive environmental features, and to ensure that adequate (enhanced) water quality is maintained
    - Watershed information, drainage conditions, and other relevant background information
    - Future drainage conditions, stormwater management options, information on erosion and sediment control during construction, and other details of the proposed works
    - Information on maintenance and monitoring commitments.

- Ontario Regulation 60/08 under the *Ontario Water Resources Act* (OWRA) applies to the Lake Simcoe Basin, which encompasses Lake Simcoe and the lands from which surface water drains into Lake Simcoe. If the proposed sewage treatment plant is listed in Table 1 of the regulation, the report should describe how the proposed project and its mitigation measures are consistent with the requirements of this regulation and the OWRA.

- Any potential approval requirements for surface water taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, except for certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the Water Taking User Guide for EASR for more information. Additionally, an Environmental Compliance Approval under the OWRA is required for municipal stormwater management works.

Groundwater

- The status of, and potential impacts to any well water supplies should be addressed. If the project involves groundwater takings or changes to drainage patterns, the quantity and quality of groundwater may be affected due to drawdown effects or the redirection of existing contamination flows. In addition, project activities may infringe on existing wells such that they must be reconstructed or sealed and abandoned. Appropriate information to define existing groundwater conditions should be included in the report.

- If the potential construction or decommissioning of water wells is identified as an issue, the report should refer to Ontario Regulation 903, Wells, under the OWRA.

- Potential impacts to groundwater-dependent natural features should be addressed. Any changes to groundwater flow or quality from groundwater taking may interfere with the ecological processes of streams, wetlands or other surficial features. In addition, discharging contaminated or high volumes of groundwater to these features may have direct impacts on their function. Any potential effects should be identified, and appropriate mitigation measures should be recommended. The level of detail required will be dependent on the significance of the potential impacts.

- Any potential approval requirements for groundwater taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, with the exception of certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the Water Taking User Guide for EASR for more information.

Contaminated Soils

- Since the removal or movement of soils may be required, appropriate tests to determine contaminant levels from previous land uses or dumping should be undertaken. If the soils are contaminated, you must determine how and where they are to be disposed of, consistent with *Part XV.1 of the Environmental Protection Act* (EPA) and Ontario Regulation 153/04, Records of Site Condition, which details the new requirements related to site assessment and clean up. Please contact the appropriate MECP District Office for further consultation if contaminated sites are present.

- Any current or historical waste disposal sites should be identified in the report. The status of these sites should be determined to confirm whether approval pursuant to Section 46 of the EPA may be required for land uses on former disposal sites.

- The location of any underground storage tanks should be investigated in the report. Measures should be identified to ensure the integrity of these tanks and to ensure an appropriate response in the event of a spill. The ministry's Spills Action Centre must be contacted in such an event.

- The report should identify any underground transmission lines in the study area. The owners should be consulted to avoid impacts to this infrastructure, including potential spills.

Servicing and Facilities

- Any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste must have an Environmental Compliance Approval (ECA) before it can operate lawfully. Please consult with the Environmental Permissions Branch to determine whether a new or amended ECA will be required for any proposed infrastructure.

- We recommend referring to the ministry's environmental land use planning guides to ensure that any potential land use conflicts are considered when planning for any infrastructure or facilities related to wastewater, pipelines, landfills or industrial uses.

Mitigation and Monitoring

- Contractors must be made aware of all environmental considerations so that all environmental standards and commitments for both construction and operation are met. Mitigation measures should be clearly referenced in the report and regularly monitored during the construction stage of the project. In addition, we encourage proponents to conduct post-construction monitoring to ensure all mitigation measures have been effective and are functioning properly.

- Design and construction reports and plans should be based on a best management approach that centres on the prevention of impacts, protection of the existing environment, and opportunities for rehabilitation and enhancement of any impacted areas.

- The proponent's construction and post-construction monitoring plans must be documented in the report, as outlined in Section A.2.5 and A.4.1 of the MEA Class EA parent document.

Consultation

- The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all stakeholder consultation efforts undertaken during the planning process. This includes a discussion in the report that identifies concerns that were raised and **describes how they have been addressed by the proponent** throughout the planning process. The report should also include copies of comments submitted on the project by interested stakeholders, and the proponent's responses to these comments (as directed by the Class EA to include full documentation).

Class EA Process

- If this project is a Master Plan: there are several different approaches that can be used to conduct a Master Plan, examples of which are outlined in Appendix 4 of the Class EA. The Master Plan should clearly indicate the selected approach for conducting the plan, by identifying whether the levels of assessment, consultation and documentation are sufficient to fulfill the requirements for Schedule B or C projects. Please note that any Schedule B or C projects identified in the plan would be subject to Part II Order Requests under the Environmental Assessment Act, although the plan itself would not be.

- The report should provide clear and complete documentation of the planning process in order to allow for transparency in decision-making.

- The Class EA requires the consideration of the effects of each alternative on all aspects of the environment. The report should include a level of detail (e.g. hydrogeological investigations, terrestrial and aquatic assessments) such that all potential impacts can be identified, and appropriate mitigation measures can be developed. Any supporting studies conducted during the Class EA process should be referenced and included as part of the report.

- Please include in the report a list of all subsequent permits or approvals that may be required for the implementation of the preferred alternative, including but not limited to, MECP's PTTW, EASR Registrations and ECAs, conservation authority permits, species at risk permits, and approvals under the *Impact Assessment Act*, 2019.

- Ministry guidelines and other information related to the issues above are available at http://www.ontario.ca/environment-and-energy/environment-and-energy. We encourage you to review all the available guides and to reference any relevant information in the report.

A PROPONENT'S INTRODUCTION TO THE DELEGATION OF PROCEDURAL ASPECTS OF CONSULTATION WITH ABORIGINAL COMMUNITIES

DEFINITIONS

The following definitions are specific to this document and may not apply in other contexts:

Aboriginal communities – the First Nation or Métis communities identified by the Crown for the purpose of consultation.

Consultation – the Crown's legal obligation to consult when the Crown has knowledge of an established or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. This is the type of consultation required pursuant to s. 35 of the *Constitution Act, 1982*. Note that this definition does not include consultation with Aboriginal communities for other reasons, such as regulatory requirements.

Crown – the Ontario Crown, acting through a particular ministry or ministries.

Procedural aspects of consultation – those portions of consultation related to the process of consultation, such as notifying an Aboriginal community about a project, providing information about the potential impacts of a project, responding to concerns raised by an Aboriginal community and proposing changes to the project to avoid negative impacts.

Proponent – the person or entity that wants to undertake a project and requires an Ontario Crown decision or approval for the project.

I. PURPOSE

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that may adversely impact that right. In outlining a framework for the duty to consult, the Supreme Court of Canada has stated that the Crown may delegate procedural aspects of consultation to third parties. This document provides general information about the Ontario Crown's approach to delegation of the procedural aspects of consultation to proponents.

This document is not intended to instruct a proponent about an individual project, and it does not constitute legal advice.

II. WHY IS IT NECESSARY TO CONSULT WITH ABORIGINAL COMMUNITIES?

The objective of the modern law of Aboriginal and treaty rights is the *reconciliation* of Aboriginal peoples and non-Aboriginal peoples and their respective rights, claims and interests. Consultation is an important component of the reconciliation process.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. For example, the Crown's duty to consult is triggered when it considers issuing a permit, authorization or approval for a project which has the potential to adversely impact an Aboriginal right, such as the right to hunt, fish, or trap in a particular area.

The scope of consultation required in particular circumstances ranges across a spectrum depending on both the nature of the asserted or established right and the seriousness of the potential adverse impacts on that right.

Depending on the particular circumstances, the Crown may also need to take steps to accommodate the potentially impacted Aboriginal or treaty right. For example, the Crown may be required to avoid or minimize the potential adverse impacts of the project.

III. THE CROWN'S ROLE AND RESPONSIBILITIES IN THE DELEGATED CONSULTATION PROCESS

The Crown has the responsibility for ensuring that the duty to consult, and accommodate where appropriate, is met. However, the Crown may delegate the procedural aspects of consultation to a proponent.

There are different ways in which the Crown may delegate the procedural aspects of consultation to a proponent, including through a letter, a memorandum of understanding, legislation, regulation, policy and codes of practice.

If the Crown decides to delegate procedural aspects of consultation, the Crown will generally:

- Ensure that the delegation of procedural aspects of consultation and the responsibilities of the proponent are clearly communicated to the proponent;
- Identify which Aboriginal communities must be consulted;
- Provide contact information for the Aboriginal communities;
- Revise, as necessary, the list of Aboriginal communities to be consulted as new information becomes available and is assessed by the Crown;
- Assess the scope of consultation owed to the Aboriginal communities;
- Maintain appropriate oversight of the actions taken by the proponent in fulfilling the procedural aspects of consultation;
- Assess the adequacy of consultation that is undertaken and any accommodation that may be required;
- Provide a contact within any responsible ministry in case issues arise that require direction from the Crown; and
- Participate in the consultation process as necessary and as determined by the Crown.

IV. THE PROPONENT'S ROLE AND RESPONSIBILITIES IN THE DELEGATED CONSULTATION PROCESS

Where aspects of the consultation process have been delegated to a proponent, the Crown, in meeting its duty to consult, will rely on the proponent's consultation activities and documentation of those activities. The consultation process informs the Crown's decision of whether or not to approve a proposed project or activity.

A proponent's role and responsibilities will vary depending on a variety of factors including the extent of consultation required in the circumstance and the procedural aspects of consultation the Crown has delegated to it. Proponents are often in a better position than the Crown to discuss a project and its potential impacts with Aboriginal communities and to determine ways to avoid or minimize the adverse impacts of a project.

A proponent can raise issues or questions with the Crown at any time during the consultation process. If issues or concerns arise during the consultation that cannot be addressed by the proponent, the proponent should contact the Crown.

a) What might a proponent be required to do in carrying out the procedural aspects of consultation?

Where the Crown delegates procedural aspects of consultation, it is often the proponent's responsibility to provide notice of the proposed project to the identified Aboriginal communities. The notice should indicate that the Crown has delegated the procedural aspects of consultation to the proponent and should include the following information:

- a description of the proposed project or activity;
- mapping;
- proposed timelines;
- details regarding anticipated environmental and other impacts;
- details regarding opportunities to comment; and
- any changes to the proposed project that have been made for seasonal conditions or other factors, where relevant.

Proponents should provide enough information and time to allow Aboriginal communities to provide meaningful feedback regarding the potential impacts of the project. Depending on the nature of consultation required for a project, a proponent also may be required to:

- provide the Crown with copies of any consultation plans prepared and an opportunity to review and comment;
- ensure that any necessary follow-up discussions with Aboriginal communities take place in a timely manner, including to confirm receipt of information, share and update information and to address questions or concerns that may arise;
- as appropriate, discuss with Aboriginal communities potential mitigation measures and/or changes to the project in response to concerns raised by Aboriginal communities;
- use language that is accessible and not overly technical, and translate material into Aboriginal languages where requested or appropriate;
- bear the reasonable costs associated with the consultation process such as, but not limited to, meeting hall rental, meal costs, document translation(s), or to address technical & capacity issues;
- provide the Crown with all the details about potential impacts on established or asserted Aboriginal or treaty rights, how these concerns have been considered and addressed by the proponent and the Aboriginal communities and any steps taken to mitigate the potential impacts;
- provide the Crown with complete and accurate documentation from these meetings and communications; and
- notify the Crown immediately if an Aboriginal community not identified by the Crown approaches the proponent seeking consultation opportunities.

b) What documentation and reporting does the Crown need from the proponent?

Proponents should keep records of all communications with the Aboriginal communities involved in the consultation process and any information provided to these Aboriginal communities.

As the Crown is required to assess the adequacy of consultation, it needs documentation to satisfy itself that the proponent has fulfilled the procedural aspects of consultation delegated to it. The documentation required would typically include:

- the date of meetings, the agendas, any materials distributed, those in attendance and copies of any minutes prepared;
- the description of the proposed project that was shared at the meeting;
- any and all concerns or other feedback provided by the communities;
- any information that was shared by a community in relation to its asserted or established Aboriginal or treaty rights and any potential adverse impacts of the proposed activity, approval or disposition on such rights;
- any proposed project changes or mitigation measures that were discussed, and feedback from Aboriginal communities about the proposed changes and measures;
- any commitments made by the proponent in response to any concerns raised, and feedback from Aboriginal communities on those commitments;
- copies of correspondence to or from Aboriginal communities, and any materials distributed electronically or by mail;
- information regarding any financial assistance provided by the proponent to enable participation by Aboriginal communities in the consultation;
- periodic consultation progress reports or copies of meeting notes if requested by the Crown;
- a summary of how the delegated aspects of consultation were carried out and the results; and
- a summary of issues raised by the Aboriginal communities, how the issues were addressed and any outstanding issues.

In certain circumstances, the Crown may share and discuss the proponent's consultation record with an Aboriginal community to ensure that it is an accurate reflection of the consultation process.

c) Will the Crown require a proponent to provide information about its commercial arrangements with Aboriginal communities?

The Crown may require a proponent to share information about aspects of commercial arrangements between the proponent and Aboriginal communities where the arrangements:

- include elements that are directed at mitigating or otherwise addressing impacts of the project;
- include securing an Aboriginal community's support for the project; or
- may potentially affect the obligations of the Crown to the Aboriginal communities.

The proponent should make every reasonable effort to exempt the Crown from confidentiality provisions in commercial arrangements with Aboriginal communities to the extent necessary to allow this information to be shared with the Crown.

The Crown cannot guarantee that information shared with the Crown will remain confidential. Confidential commercial information should not be provided to the Crown as part of the consultation record if it is not relevant to the duty to consult or otherwise required to be submitted to the Crown as part of the regulatory process.

V. WHAT ARE THE ROLES AND RESPONSIBILITIES OF ABORIGINAL COMMUNITIES' IN THE CONSULTATION PROCESS?

Like the Crown, Aboriginal communities are expected to engage in consultation in good faith. This includes:

- responding to the consultation notice;
- engaging in the proposed consultation process;
- providing relevant documentation;
- clearly articulating the potential impacts of the proposed project on Aboriginal or treaty rights; and
- discussing ways to mitigates any adverse impacts.

Some Aboriginal communities have developed tools, such as consultation protocols, policies or processes that provide guidance on how they would prefer to be consulted. Although not legally binding, proponents are encouraged to respect these community processes where it is reasonable to do so. Please note that there is no obligation for a proponent to pay a fee to an Aboriginal community in order to enter into a consultation process.

To ensure that the Crown is aware of existing community consultation protocols, proponents should contact the relevant Crown ministry when presented with a consultation protocol by an Aboriginal community or anyone purporting to be a representative of an Aboriginal community.

VI. WHAT IF MORE THAN ONE PROVINCIAL CROWN MINISTRY IS INVOLVED IN APPROVING A PROPONENT'S PROJECT?

Depending on the project and the required permits or approvals, one or more ministries may delegate procedural aspects of the Crown's duty to consult to the proponent. The proponent may contact individual ministries for guidance related to the delegation of procedural aspects of consultation for ministry-specific permits/approvals required for the project in question. Proponents are encouraged to seek input from all involved Crown ministries sooner rather than later.

Comment from Bell Canada

From:	Alastair Ross
To:	Skaria, Reju
Cc:	Mark Bassingthwaite; Rebecca Turbitt
Subject:	FW: MU 85477 - Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Bell Canada
Date:	June 5, 2020 9:49:00 AM
Attachments:	image001.jpg image002.png image003.jpg MU 85477.dgn MU 85477.dwg MU 85477.pdf

---

Hi Reju,

Thanks very much for this. I have passed onto our Design Team.

Thanks again,

Alastair

Alastair Ross, **MSc, CEnv (UK)**
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
☎: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From: Skaria, Reju <Reju.Skaria@Telecon.ca>
Sent: June 5, 2020 9:00 AM
To: Alastair Ross <aross@planmac.com>; Gallanough@resilientconsulting.ca
Subject: RE:MU 85477 - Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Bell Canada

Hi ,

Please see the attached markup drawing and document for the requested location.

CAD Technician - MOC, Engineering - Central Canada
Thank You,

Reju Skaria

Technicien CAD, Ingénierie - Centre du Canada
CAD Technician - MOC, Engineering - Central Canada

From: Elbe, Brian <brian.elbe@bell.ca>
Sent: Thursday, May 14, 2020 6:57 AM
To: MOC (Bell) <bell.moc@Telecon.ca>
Cc: Facchini, Frank <Frank.Facchini@vaughan.ca>; Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>; Rebecca Turbitt <rturbitt@resilientconsulting.ca>; Alastair Ross <aross@planmac.com>
Subject: RE: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Bell Canada

Good Morning MOC,

Please see the attached mark up request.

Thank you,

Brian Elbe
Structures Manager, York and Durham Regions
Floor 3 West Tower Building E
5115 Creekbank Rd
Mississauga, Ontario
L4W 5R1
Office 905-614-3814
Cell 416-559-7090

From: Alastair Ross <aross@planmac.com>
Sent: Wednesday, May 13, 2020 4:37 PM
To: Elbe, Brian <brian.elbe@bell.ca>
Cc: Facchini, Frank <Frank.Facchini@vaughan.ca>; Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>; Rebecca Turbitt <rturbitt@resilientconsulting.ca>
Subject: [EXT]Stormwater Management Improvements in Gallanough Park and Surrounding Area -

Study Update Notice (MCEA) - Bell Canada

Dear Brian Elbe,

Please find attached a Study Update Notice letter in connection with the proposed Municipal Class EA for the Stormwater Management Improvements in Gallanough Park and Surrounding Area in the City of Vaughan.

Thanks,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

92 Caplan Avenue, Suite 115
Barrie, ON L4N 9J2
www.planmac.com
☎: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From:	Akram, Shoaib
To:	Alastair Ross
Cc:	Amanda Kailan
Subject:	R201930_Clark Ave
Date:	June 9, 2020 2:29:22 PM
Attachments:	image001.jpg image002.jpg R201930_Clark Ave.dwg R201930_Clark Ave_Rogers response Letter.pdf

Hi,

Please find attached completed markup request.

***** Please use “REGEN” command for proper line style *****

Thank you.

Regards,

Shoaib Akram

CAD, Engineering - Central Canada
CAO, Ingénierie - Centre du Canada

T 289-657-8019
7777 Weston Rd, Woodbridge (Ontario) L4L 0G9

telecon.ca

From: Alastair Ross <aross@planmac.com>
Sent: Wednesday, May 13, 2020 4:31 PM
To: #RCS_OPE York_York Circulations <YorkCirculations@rci.rogers.com>
Cc: Facchini, Frank <Frank.Facchini@vaughan.ca>; Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>; Rebecca Turbitt <rturbitt@resilientconsulting.ca>
Subject: Stormwater Management Improvements in Gallanough Park and Surrounding Area - Study Update Notice (MCEA) - Rogers

Dear Helen Macapagal,

Please find attached a Study Update Notice letter in connection with the proposed Municipal Class EA for the Stormwater Management Improvements in Gallanough Park and Surrounding Area in the City of Vaughan.

Thanks,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

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: (226) 567 3284
: aross@planmac.com

From: Alastair Ross
To: Josie Ilari
Subject: RE: 2020-DP-4090--PLANMAC (Alastair Ross)--Arnold Ave--VN--Email Sent
Date: August 5, 2020 9:34:00 AM
Attachments: image001.jpg

Morning Josie,

Thanks very much for this. This is very helpful.

Thanks again,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

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: (226) 567 3284
: aross@planmac.com

From: Josie Ilari <josie.ilari@alectrautilities.com>
Sent: August 5, 2020 9:32 AM
To: Alastair Ross <aross@planmac.com>
Subject: 2020-DP-4090--PLANMAC (Alastair Ross)--Arnold Ave--VN--Email Sent

Good Morning,

Please find attached Alectra markup response.

We normally send these through ShareFile but we are currently having some issues.

Josie
RecordsEast.Info@alectrautilities.com

Please note: Alectra has implemented a set of precautionary procedures surrounding the COVID-19 outbreak to protect the health of our employees and the public. We are replacing all in-person meetings with conference calls and visitor access to our facilities will be restricted until further notice.

Comment from Local Resident

From: Mark Bassingthwaite
To:
Cc: Gallanough Area SWM Improvements; Alastair Ross; Facchini, Frank; Rebecca Turbitt
Subject: RE: stormwater management
Date: June 4, 2020 11:49:47 AM

Thank you ,

We will record your comment, and I would also encourage you to participate in the engagement activities this summer/fall.

Regards
Mark

Mark Bassingthwaite, P.Eng.
Resilient Consulting
PO Box 643
Whitby, ON L1N 5V3
mbassingthwaite@resilientconsulting.ca
P: 289-943-4651
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@resilientccorp

From:
Sent: Thursday, June 4, 2020 11:48 AM
To: Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>
Subject: RE: stormwater management

Thanks for the response
No further questions

I am thinking an underground solution would be best

Sent from my Bell Samsung device over Canada's largest network.

-------- Original message --------
From: Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>
Date: 2020-06-04 9:39 a.m. (GMT-05:00)
To:
Cc: Rebecca Turbitt <rturbitt@resilientconsulting.ca>, "frank.facchini" <frank.facchini@vaughan.ca>, Gallanough Area SWM Improvements <gallanough@resilientconsulting.ca>, Alastair Ross

<aross@planmac.com>
Subject: RE: stormwater management

Hello ,

Thanks for your additional questions. Our responses to the additional questions are provided below in *italics*:

1) Was there a flaw in the original construction of the Brooke street trunk sewer?

The Brooke Street trunk sewer was designed and constructed in the late 1970's. Design information is not available for the sewer, and at that time drainage design practices and standards were not consistent. Since this time, stormwater drainage design practices have improved, and now utilize minor (pipe) and major (overland flow) systems to reduce flooding potential. Based on analysis of the existing sewer completed through various reports, the Brooke Street trunk sewer does not have sufficient capacity to reduce flooding in the area north of Gallanough Park without implementing the facility in Gallanough Park.

2) Is there a proposed design for the park that is available to the public?

During the EA Update phase of the project, alternative designs will be developed at a preliminary level. The alternatives will be presented to the public as part of the engagement activities through this summer and fall.

3) Is what is being proposed the best option or is it a good option with a lower cost.? I.e. if cost was not a factor would you propose something else?

During the EA Update phase of the project, we are developing alternative designs at a preliminary level. The alternatives will be evaluated through the EA Update and cost will be one of the numerous criteria used in the evaluation. The least cost alternative will not necessarily be selected, and public input to the alternatives selection is very important. As an example, if the public prefers an underground facility for aesthetic/park use reasons, that input will be considered in the evaluation process.

Please feel free to let me know if you have any further questions!

Regards
Mark

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From:
Sent: Wednesday, June 3, 2020 8:06 AM
To: Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>
Subject: RE: stormwater management

Mark

Thank you for the very detailed explanation for my questions on the project.

It seems that the problem is with the Brooke Street trunk sewer and to solve that problem , the park has to be compromised.

Questions..

1) Was there a flaw in the original construction of the Brooke street trunk sewer?

2) Is there a proposed design for the park that is available to the public?

3) Is what is being proposed the best option or is it a good option with a lower cost.? I.e. if cost was not a factor would you propose something else?

---------- Original Message ----------
From: Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>
Date: June 2, 2020 at 4:35 PM

Hello ,

Thank you for your questions on the project. I am the consulting team Project Manager and we are working closely with the City on this project. With respect to your questions, below are our responses in *italics*:

1) How is this project justified? Who said WE NEED THIS? I would welcome it if justified.

The Brooke Street trunk sewer, which conveys drainage north along Brooke to the Don River tributary, is subject to significant surcharging. During major storm events there is surface flooding at Arnold Avenue and Brooke Street, due to flows from and stormwater cannot enter the trunk sewer because it is surcharged. This surface flooding has affected numerous properties in the West Thornhill Area.

The City of Vaughan has conducted multiple studies and investigations in response to flooding complaints in the Thornhill area. These studies included the Thornhill Storm Drainage Improvement Study (Genivar, 2008), which recommended that a stormwater management facility be constructed in Gallanough park, with the objective of reducing peak flows in the Brooke Street trunk sewer, which frees up capacity to convey flows from the area north of Gallanough Park. This will reduce flooding in this area.

Recently, the City retained Amec Foster Wheeler in 2016 to conduct a thorough review of the Gallanough Park Stormwater Management Facility (SWMF) Modelling to verify the requirements and size of the SWM facility. AMEC found that the Gallanough Park SWMF is required to retain flows from the upstream catchment area to alleviate strain on the Brooke Street Trunk Sewer.

2) Will there be a safety issue for people using the new park? especially when the catch basin fills with water.

At this time, the City is considering the configuration of the facility and water may be stored above ground, underground or a combination of the two. Regardless of the alternative selected, the facility will be designed as per current design standards and regulations to ensure that safety is not a concern. Should an underground facility be selected as the preferred alternative during the EA process, sufficient underground storage will be provided to ensure that water is not backed-up to the surface through the catch basins. Should an above ground or hybrid facility be selected, water depths will follow the requirements of the regulatory agencies to ensure the safety risk is maintained or improved.

3) Will this project give justification for more property tax increases.?

This project is currently not being funded from property tax. The construction phase is planned to be funded from the City's Stormwater Reserve and the Federal Disaster Mitigation Adaptation Fund grant. This project should not have an impact on residential property taxes.

4) What street(s) will benefit from this? Is it mainly Brooke?

Areas north of Gallanough Park, including Brooke Street, which drain into the Brooke Street trunk sewer, will benefit from the project. The project serves to reduce flows and create capacity in the Brooke Street trunk sewer for flows from these areas, reducing the likelihood of flooding.

Please note that we are in the early phases of the Environmental Assessment Update. We will be developing public engagement materials and engaging with the public through this summer and fall.

Please feel free to contact Frank Facchini from the City or myself with any further questions on the project.

Regards
Mark

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@resilientccorp

From:
Sent: Saturday, May 30, 2020 8:57 AM
To: frank.facchini <frank.facchini@vaughan.ca>; Gallanough Area SWM Improvements <gallanough@resilientconsulting.ca>
Subject: stormwater management

Project team

I am on . I am an original owner and in over 35 years there was only one problem. That was the summer we had a record rainfall and lots of flooding on one day. Can not remember the year. But there was no damage to my house.

Questions

1) How is this project justified? Who said WE NEED THIS? I would welcome it if justified.

2) Will there be a safety issue for people using the new park? especially when the catch basin fills with water.

3) Will this project give justification for more property tax increases.?

4) What street(s) will benefit from this? Is it mainly Brooke?

Comments Received following the Online Public Information Materials

Comment 1

From:
To: Facchini, Frank
Subject: [External] Gallanough Park Stormwater Management Improvements
Date: August 30, 2020 1:23:35 PM

Dear Mr. Facchini:

Please be advised that we reside immediately across the street from Gallanough Park. We advocate the preferred underground solution that has been recommended and we encourage all affected Vaughan citizens to support this as well. Our thanks to you, your colleagues and the consultants for the comprehensive and detailed information package provided to enable us to confirm our preference for this option. We sincerely trust and hope that this lengthy project will be carefully, consistently and constantly supervised for safety, noise, debris, and the freedom to allow the customary vehicular and pedestrian traffic, at what is already an incredibly busy intersection at Spring Gate Boulevard and Springfield Way.

We wish everyone charged with the important responsibility of fulfilling this project the very best of luck.

Respectfully yours,

Comment 2

From:
Sent: August 29, 2020 10:26 PM
To: Facchini, Frank
Subject: [External] Gallanough Park Stormwater Management Plan

Mr. Facchini,

My family has lived at and enjoyed the part, especially when our children were growing up.

I have reviewed the Gallanough Park Stormwater Management Plan and am in favour of the Underground Storage Plan.

Although it is more expensive, it will be safer for the community both during and after a significant rainfall and will preserve the Park for the neighbourhood to use and enjoy.

Yours truly,

Comment 3

From:
Sent: August 31, 2020 8:36 PM
To: Facchini, Frank
Subject: [External] Spring Farm Rainwater runoffs

Hi Frank,

I am writing to let you know, I am so happy that the drains for the rain water Runoff are going underground. The project will protect the houses and the environment making it a lot safer for us, the residents.

Thank you in advance for all the hard work and consideration!

Resident on ,

Comment 4

From: Facchini, Frank <Frank.Facchini@vaughan.ca>
Sent: August 28, 2020 10:54 AM
To: 'Gallanough Area SWM Improvements'
Subject: FW: [External] Gallanough Park - Stormwater Management

From:
Sent: Friday, August 28, 2020 10:35 AM
To: Facchini, Frank <Frank.Facchini@vaughan.ca>
Subject: [External] Gallanough Park - Stormwater Management

Dear Mr. Facchini,

As a long-term resident of and daily visitor to Gallanough Park, I have been following the Stormwater Management issue for several years with great concern. That said, I have now read the "Stormwater Management Improvements Gallanough Park and Surrounding Area" Report on the City of Vaughan website published August 1, 2020 and am thrilled that the City is looking at alternatives to the "Surface Storage" option - in particular the "Underground Storage" option.

I would like to take this opportunity to express my 100% support for this new option, as I know my family and my neighbours do. Looking at the Evaluation Matrix on page 16 of the Report confirms that the Underground option is the best option of the 4 presented.

Thank you for your attention to this matter. Please contact me should you need to.

Sincerely,

Comment 5

From: Facchini, Frank <Frank.Facchini@vaughan.ca>
Sent: August 28, 2020 1:14 PM
To: 'Gallanough Area SWM Improvements'
Subject: FW: [External] Gallanough Park

Follow Up Flag: Follow up
Flag Status: Flagged

From:
Sent: Friday, August 28, 2020 1:01 PM
To: Facchini, Frank <Frank.Facchini@vaughan.ca>
Subject: [External] Gallanough Park

Hi Frank

Just want to say again that the under ground solution is the best and only solution to solve the waster issue problems in the SFRA area in my opinion.

I know that is also what you are recommending and hopefully the City will approve that option.

Stay safe.

Comment 6

From: Facchini, Frank <Frank.Facchini@vaughan.ca>
Sent: August 27, 2020 3:41 PM
To: 'Gallanough Area SWM Improvements'
Subject: FW: [External] Gallanough Park and Surrounding Area

Follow Up Flag: Follow up
Flag Status: Completed

From:
Sent: Thursday, August 27, 2020 3:18 PM
To: Facchini, Frank <Frank.Facchini@vaughan.ca>
Subject: [External] Gallanough Park and Surrounding Area

Dear Frank,

I was very pleased to read that the City of Vaughan,s EA alternative assessment has concluded the preferred stormwater management infrastructure for the Gallanough Park is an Underground detention reservoir.

Our household strongly supports this project as the best solution to protect our homes from flooding, as well as preserve and keep the Gallanough Park safe.

Based on the 450 residents who signed my petition asking the City of Vaughan to construct an underground reservoir in Gallanough Park, and opposed the dry pond initiative, it is obvious that the majority of the community support the idea as well.

Thank you.
Kind Regards,

Comment 7

From: Alastair Ross <aross@planmac.com>
Sent: August 27, 2020 10:22 AM
To: ; gallanough@resilientconsulting.ca
Cc: Facchini, Frank; Mark Bassingthwaite; Rebecca Turbitt
Subject: RE: Storm water park

Follow Up Flag: Follow up
Flag Status: Completed

Hi ,

Thanks very much for reviewing the online materials and for the positive feedback.

I will forward on to our design team.

Thanks again,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

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-----Original Message-----
From:
Sent: August 26, 2020 4:04 PM
To: gallanough@resilientconsulting.ca
Subject: Storm water park

We are very happy with new park storm water

Comment 8 - *Phone Conversation*

From: Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>
Sent: August 26, 2020 9:58 AM
To: Facchini, Frank
Cc: Alastair Ross; Rebecca Turbitt
Subject: FW: Link to Video

From: Mark Bassingthwaite
Sent: Wednesday, August 26, 2020 9:52 AM
To:
Cc: aross@planmac.com; Facchini, Frank <Frank.Facchini@vaughan.ca>; Rebecca Turbitt <rturbitt@resilientconsulting.ca>; Gallanough Area SWM Improvements <gallanough@resilientconsulting.ca>
Subject: Link to Video

Hi ,

Thanks for the call today. As discussed, here is a link to the Eastgate Park video, produced by the City of Mississauga:

https://youtu.be/-rzI_6uuyn0

As well, I will contact Frank at the City to discuss the condition of the connections between the Brooke Street Trunk storm sewer and the sanitary sewer within it.

Feel free to call or email with any more questions. Please be sure to submit comments/feedback on the preferred alternative so that we can document support for the plan.

Comment 9

From: Mark Bassingthwaite
To:
Cc: Alastair Ross; Facchini, Frank; Rebecca Turbitt; Gallanough Area SWM Improvements
Subject: RE: Stormwater Management at Gallanough and surrounding area
Date: September 22, 2020 4:54:10 PM
Attachments: image001.jpg

Hi ,

When discussing flooding, it is very difficult to guarantee that there will never be flooding. As noted, the inlet to the relief sewer at Brooke Street will be designed to capture the peak flow from the area to the west (including Brooke Street itself) during a 100 year return period event. In practical terms, the probability of this flow being exceeded in any year is 1%, and conversely, the chance of the flow not being exceeded during any given year is 99%. Hopefully this provides assurance regarding the proposed level of service.

No works are planned as part of this project that would affect drainage from the properties east of Brooke. Where properties along Arnold drain to the Arnold storm sewer system, they will continue to drain to either the new relief sewer or the existing storm sewer.

In terms of design details of the inlet, to preserve competitive and open bidding, the City typically doesn't share details of construction projects until they are publicly tendered.

Floodlines will not be produced as part of this study, as the plan is to capture the flow from the 100 year event.

Regards
Mark

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Whitby, ON L1N 5V3
mbassingthwaite@resilientconsulting.ca
P: 289-943-4651
www.resilientconsulting.ca
@resilientccorp

From:
Sent: Monday, September 21, 2020 6:04 PM
To: Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>
Cc: Alastair Ross <aross@planmac.com>; Facchini, Frank <Frank.Facchini@vaughan.ca>;
Rebecca

Turbitt <rturbitt@resilientconsulting.ca>; Gallanough Area SWM Improvements <gallanough@resilientconsulting.ca>
Subject: Re: Stormwater Management at Gallanough and surrounding area

Hi Mark

Thanks for your reply.

I understand your methodology but my is still concerned.

Can you assure my that the New inlet structure for the New Relief Sewer will be designed in such a way that there will be minimal, if any, flow contributions from lands outside their watershed, comprising the properties along Arnold St., from Brook, and their rear neighbours? In addition, can you provide details of the inlet design, when available, that include final grading and design flood lines.

Regards,

On Mon, Sep 21, 2020 at 8:53 AM Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca> wrote:

> Hi ,
>
> The proposed inlet structure for the new relief sewer will receive flows from the watercourse to the west of Brooke Street. The contributing drainage area is approximately 15 ha. The inlet structure will be sized to capture peak flows for a 100 year return period event from this area. Therefore we anticipate that any overflow at the intake would be very infrequent. For more urban drainage areas under 125 ha, the Regional Storm (Hurricane Hazel) typically produces lower peak flows than a 100 year return period event using a 24 hour Chicago pattern which is our design event for the intake structure.
>
> Existing drainage routes located on private property east of Brooke, including your sister's property, will not be altered by the proposed work, but will no longer receive flow contributions from the area west of Brooke during events up to and including the 100 year return period event. We have not calculated any water levels east of Brooke, but they will be significantly lower than in existing conditions. There are no plans to undertake works in private property in this area.
>
> Please feel free to contact us with further questions.
>
> Regards
> Mark

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@resilientccorp

From:
Sent: Friday, September 18, 2020 11:05 AM
To: Alastair Ross <aross@planmac.com>
Cc:
Facchini, Frank <Frank.Facchini@vaughan.ca>; Mark Bassingthwaite <mbassingthwaite@resilientconsulting.ca>; Rebecca Turbitt <rturbitt@resilientconsulting.ca>
Subject: Re: Stormwater Management at Gallanough and surrounding area

Alastair

I assume that the diverted overland flows will not be directed to the rear lots even during a Regional Storm event. In other words there will not be any emergency relief valve for the 1 in 100 year storm. Otherwise, there will be catastrophic damage from flooding at my sister's property. Ideally it would be nice if there was a high level relief drain at the rear of her property to protect against the Major storm event. Have you calculated the high water elevation at the rear drainage ditch, if the flows are diverted?

Regards,

On Thu, Sep 17, 2020 at 4:36 PM Alastair Ross <aross@planmac.com> wrote:

> Dear ,
>
> Thanks for the follow up questions.
>
> No works are proposed to directly connect the backyard drainage system to the Gallanough Park SWMF or Arnold Avenue relief sewer for properties north of Arnold Avenue and East of Brooke Street. The Gallanough Park SWMF will act to lower existing water elevations in the Brooke Street Trunk sewer to allow acceptance of diverted flows. The properties north of

Arnold Avenue will experience reduced flooding by diverting flows at Brooke Street to the Arnold Avenue Relief sewer. Runoff generated from the properties bound by Arnold Avenue, Brooke Street and Thornridge Drive will continue to convey in the backyard drainage system to the stormwater management facility constructed as part of the Minto Development at the north-west corner of Arnold Avenue and Yonge Street.

In summary, and their neighbours will experience reduced flood frequency and extents as a result of the flow diversion at Brooke Street to the Arnold Avenue Relief Sewer. Without this diversion and relief, storm flows would continue easterly across Brooke Street through the backyards of the properties north of Arnold Avenue.

Thanks,

Alastair

Alastair Ross, MSc, CEnv (UK)
Environmental Planner / Project Coordinator

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☎: (705) 719 7981
: (226) 567 3284
: aross@planmac.com

From:
Sent: September 16, 2020 8:47 AM
To: Alastair Ross <aross@planmac.com>
Subject: Re: Stormwater Management at Gallanough and surrounding area

ask if they plan on constructing any works to drain the water from the rear of the properties along the north side of Arnold St. to the new retention pond? or the storm sewer in the road allowance?

On Mon, Sep 14, 2020 at 9:45 AM Alastair Ross <aross@planmac.com> wrote:

> Good Morning ,
>
> Thanks for reaching out and for providing details on the flooding your property experiences. The flooding in your area is of great concern to us and is one of our target areas to improve with the proposed works.

Yes, the storm relief sewer proposed in front of your house will assist with alleviating the flooding experienced at the back of your property during larger storm events. The purpose of this relief sewer is to convey flows from the watercourse in your backyard while reducing flow to the Brooke Street trunk sewer. Just west of your property, a new storm sewer inlet at Brooke Street is proposed that will convey flows from Tributary 2, upstream of your property, to the Arnold Avenue relief sewer. This will reduce flows conveyed through the back of your property and ultimately reduce the frequency and extents of flooding experienced.

It has been noted that there is a catch basin / lead on your neighbours property. Is this the sewer that you have noted?

Regards,

Alastair

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C: (226) 567 3284
E: aross@planmac.com

-----Original Message-----
From:
Sent: August 28, 2020 3:33 PM
To: frank.facchini@vaughan.ca; gallanough@resilientconsulting.ca
Cc:

Subject: Stormwater Management at Gallanough and surrounding area

Hello Frank and Mark.

This is in response to the Notice of Public Information dated July 2020.

My home is at so it is in front of the proposed relief sewer. My critical issue has to do with the water flooding at the back of my property. Currently the water runs west to east from the drain at Brooke and Arnold behind the houses into my backyard. During a large storm the water behind my home can sometimes go as high as 5 feet and threatens to get into my home. But it looks like the proposed drainage is at the front of my home. Will your proposal address my problem?

Are you aware that there is an old sewer that is in front of my neighbor west of my house?

I am copying my who is a professional engineer and is very familiar with the area - in fact he worked on the original drain at Brooke in the 1970's!

Thank you! I look forward to hearing back.

Regards,

Comment 10

From: Alastair Ross
Sent: September 4, 2020 4:52 PM
To: '
Cc: Frank.facchini@vaughan.ca; Mark Bassingthwaite; Rebecca Turbitt; Gallanough@resilientconsulting.ca
Subject: RE: Feedback re: Gallanough Park

Dear ,

Thank you for your response and feedback.

We are sorry to hear of your disappointment in the proposed stormwater management improvements in the area. As you will be aware from review of the online information, the current stormwater system has existing deficiencies that require upgrading to address existing flooding and future issues. The preferred alternative of an underground storage facility will help to reduce stress on the overall stormwater management system of the area including surrounding streets such as Arnold Avenue and Brooke Street that have been affected by hardscaping and subsequent flooding.

With regards to existing trees and landscaping, tree removal will be minimized as much as possible to compensate for the required works. The City of Vaughan's Parks Delivery team in consultation with Thornhill's Sustainable Neighbourhoods Action Plan (SNAP) will be responsible for any future planting in the park following project completion. SNAP are actively seeking input from the general public with regards to park improvements, planting and sustainable initiatives in Thornhill's public parks. SNAP can be reached via contacting their Senior Program Manager for Sustainable Neighbourhoods, Adriana Gomez (Adriana.gomez@trca.ca) or via their website (https://trca.ca/conservation/sustainable-neighbourhoods/snap-neighbourhood-projects/thornhill-snap/). Additionally, the project team are working with SNAP to coordinate what can be placed above the underground facility (i.e. plantings, structures, etc.) as part of the construction of this project.

We would be happy to hear of any further feedback you may have and thank you again for your input.

Regards,

Alastair

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Environmental Planner / Project Coordinator
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C: (226) 567 3284
Email: aross@planmac.com

-----Original Message-----
From:
Sent: August 30, 2020 11:04 PM
To: Gallanough@resilientconsulting.ca
Cc: Frank.facchini@vaughan.ca
Subject: Feedback re: Gallanough Park

I am very disappointed that the City decided to proceed with the storm water project at the Gallanough Park. I am not surprised that the floods occur at the streets you mentioned. These are large homes and have zero respect for the environment. The City allows them to remove trees and replace grass with non permeable materials (brick and Stone).

In any case, now that the City has made the unfortunate decision to move forward with the project. I am hoping you will seriously consider leaving the few trees that are left, at the park, untouched. If you must remove any of these beautiful mature trees please follow the example of the City of Toronto, don't kill them!!! Transplant them!!

Also, please plant the new trees to replace those that were lost due the Emerald Ash Borer. This was supposed to have been done in 2016.

Should need to discuss my suggestions please do not hesitate to contact me.

Comments Received Following the 2014 Public Information Centre

COMMENT FORM

Public Open House – Gallanough Park Improvements

Wednesday June 25, 2014
at the Gallanough Resource Centre

We are interested in hearing any comments you may have associated with this project. Thank-you for clearly writing your comments in the space provided below. If you require additional space, please continue your comments on the back of this sheet.

My family and I don't want this project be done.

Comments and information regarding this project are being collected to assist the City of Vaughan in defining the detailed design process. This material will be maintained on file for use during the project and may be included in project documentation. Information collected will be used in accordance with the Freedom of Information and Privacy Act. With the exception of personal information, all comments will become part of the public record.

Please submit your written comments before leaving the event. If you require more time to comment, please mail / fax in the comment sheet by July 15, 2014 to:

Pat Marcantonio, C.E.T.
Project Manager
City of Vaughan
Engineering Services
2141 Major Mackenzie Drive
Vaughan, ON L6A 1T1
Phone: 905-832-8585 ext.8468
Email: pat.marcantonio@vaughan.ca

Mark Bassingthwaite, P.Eng.
Project Manager
Cole Engineering Group Ltd.
70 Valleywood Drive
Markham, ON L3R 4T5
Phone: 905-940-6161
Fax: 905-940-2064
E-mail: mbassingthwaite@coleengineering.ca

PLEASE CLEARLY PRINT YOUR NAME AND CONTACT INFORMATION BELOW:

First Name:
Last Name:
Telephone:
Fax:

Street:
City / Town:
Postal Code:
E-mail:

COLE ENGINEERING

VAUGHAN

COMMENT FORM

Public Open House – Gallanough Park Improvements

Wednesday June 25, 2014
at the Gallanough Resource Centre

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NOT SAVE A DRY/WET POND SO CLOSE TO A ELEMENTARY SCHOOL, JUST A FEW METRES AWAY - SAFETY? KIDS MAY RUN AWAY WHILE RAINING, WATER WILL BE ACCUMULATED, TERRIBLE ACCIDENTS MAY HAPPEN - IT TAKES LESS THAN 2 MINUTES FOR A KID TO DIE. IF THIS PROJECT HAPPENS, PLEASE REMOVE PLAYGROUND, NOT SAFE NEITHER AS THIS PARK IS WAY TOO SMALL TO ACCOMODATE A POND - I CAN'T FIGURE IN MY MIND HOW SUCH A SMALL PARK, SO CLOSE TO A ELEMENTARY SCHOOL CAN ACCOMODATE A POND (DRY POND THAT FOR SURE WILL ACCUMULATE WATER) JUST A VERY SHORT RUN A KID CAN FALL INTO TO POND

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Pat Marcantonio, C.E.T.
Project Manager
City of Vaughan
Engineering Services
2141 Major Mackenzie Drive
Vaughan, ON L6A 1T1
Phone: 905-832-8585 ext.8468
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HAVE DRY/WET POND; IN OTHER PARKS AS THAT ARE AS SMALL AS THIS ONE? and WITH A SCHOOL SO CLOSE???

COLE ENGINEERING

VAUGHAN

COMMENT FORM

Public Open House – Gallanough Park Improvements

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The residents of the Gallanough Park area have major concerns regarding safety of our young children with an above ground pond and the disease spread of open water and west Nile Disease. I do not feel that the residents received clear communications about the plans.

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The trees that are "X"ed on south-east section act as a screen to the park from my property. A 5-6' tree will not act as a screen - My fence is that tall.

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Keep existing playground with tobogganing slope. Do not plant unnessesary trees.

We get used to see open field, so keep the same way. Also it will keep predators away from our children.

Let everyone know how long the construction will be. I'm here for 1.5 hour and still do not have this info.

No need to make access road to the field, all cars can access on grass, just as what they do now to service the park. If you keep minimum changes in appearance the better.

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What is your plan about saving all mature trees. Have you considered replanting the trees as they did in the City of Toronto?

Have you considered the wildlife who has habitat that will be disturbed in the middle of winter) What is your plan to protect them?

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I would like to be informed of the Sept council mtg
Questions
1. How do we mitigate drowning risk? Especially when supervision ratios at schools are low
2. How do we ensure kids are not in the park when it is starting to be used for storage
3. How will we ensure that contaminants aren't left on the ground after storage?
4. How will we ensure there isn't standing water? Will there be a warranty period?
5. Ministry guidelines are minimum 5 ha, minimum 3m buffer, and a 1m deep permanent pool / sediment bay. Why aren't these being conformed to?
6. Can I see the latest studies that show what happens in a 100 yr storm?
7. Can I see the scoring / weights for determining the recommended alternative?

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Absolute Bull [redacted]

You're putting our kids at risk!!

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Pleas dont Wreck are park leav it How It is!
This park Bellongs to us!!!!!!

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