

August 2018

## HYDROLOGICAL REVIEW SUMMARY

The form is to be completed by the Professional that prepared the Hydrological Review.  
 Use of the form by the City of Toronto is not to be construed as verification of engineering/hydrological content.

Refer to the Terms of Reference, Hydrological Review:

[Link to Terms of Reference Hydrological Review](#)

|  |  |
|--|--|
| <b>For City Staff Use Only:</b>                        |  |
| <b>Name of ECS Case Manager (Please print)</b>         |  |
| <b>Date Review Summary provided to to TW, EM&amp;P</b> |  |

**IF ANY OF THE REQUIREMENTS LISTED BELOW HAVE NOT BEEN INCLUDED IN THE HYDROLOGICAL REVIEW, THE REVIEW WILL BE CONSIDERED INCOMPLETE.  
 THE GREY SHADED BOXES WILL REQUIRE A CONSISTANCY CHECK BY THE ECS CASE MANAGER.**

**Summary of Key Information:**

| SITE INFORMATION  |  | Page # & Section # of Review | Review Includes this Information City Staff (Check) |
|---|--|------------------------------|---|
| Site Address  | Toronto, Ontario   |                              |   |
| Postal Code   | M6R 3B5  |                              |   |
| Property Owner (on request for comments memo)   |  |                              |   |
| Proposed description of the project (if applicable) (point towers, number of podiums) | The development will include 7 mixed use buildings ranging 5-38 storeys with central green space |                              |   |
| Land Use (ex. commercial, residential, mixed, institutional, industrial)              | Residential/commercial   |                              |   |
| Number of below grade levels for the proposed structure                               | 2-3 levels of underground parking  |                              |   |
| HYDROLOGICAL REVIEW INFORMATION   |  |                              |   |
| Date Hydrological Review was prepared:  | June 27, 2022  |                              |   |
| Who Performed the Hydrological Review (Consulting Firm)                               | SLR Consulting   |                              |   |
| Name of Author of Hydrological Review   | Amanda Malatesta, P.Geo., Craig Johnston, P.Geo.   |                              |   |

## HYDROLOGICAL REVIEW SUMMARY

| SITE INFORMATION   |   | Page # & Section # of Review                                    | Review Includes this Information City Staff (Check)        |
|--|---|---|--|
| <p>Check the directories on the website for Professional Geoscientists and/or Professional Engineers of Ontario been checked to ensure that the Hydrological Report has been prepared by a qualified person who is a licensed Professional Geoscientist as set out in the Professional Geoscientist Act of Ontario or a Professional Engineer?</p> <p>PEO: <a href="#">Professional Engineers of Ontario</a><br/>           APGO: <a href="#">Association of Professional Geoscientists of Ontario</a></p> | <p><a href="#">Amanda Malatesta, P.Geo. - 3247</a><br/> <a href="#">Craig Johnston, P.Geo. - 0538</a></p> | N/A   |  |
| <p>Has the Hydrological Review been prepared in accordance with all the following:</p> <ul style="list-style-type: none"> <li>• Ontario Water Resources Act</li> <li>• Ontario Regulation 387/04</li> <li>• Toronto Municipal Code Chapter 681-Sewers</li> </ul>   | <p><a href="#">yes</a></p>  |   |  |
|  |   | <b>Page # &amp; Section # of every occurrence in the Review</b> | <b>Review Includes this Information City Staff (Check)</b> |

## HYDROLOGICAL REVIEW SUMMARY

| SITE INFORMATION  |  | Page # &<br>Section # of<br>Review | Review<br>Includes this<br>Information<br>City Staff<br>(Check) |
|---|--|------------------------------------|---|
| <p>Total Volume (L/day) Short Term Discharge of groundwater (construction dewatering) <b>with safety factor included</b></p>  | <p>What safety factor was used?                    1.5</p> <p>Calculated range: 360,000 L/day to 1,950,000 L/day</p> |                                    |   |
| <p>Total Volume (L/day) Short Term Discharge of groundwater (construction dewatering) <b>without safety factor included</b></p>   | <p>Calculated range: 240,000 L/day to 1,300,000 L/day</p>  |                                    |   |
| <p>Total Volume (L/day) Long Term drainage of groundwater (from foundation drainage, weeping tiles, sub slab drainage) <b>with safety factor included</b></p> <p>If the development is part of a multiple tower complex, include total volume for each separate tower</p> | <p>What safety factor was used?</p> <p>N/A</p>   |                                    |   |
| <p>List the nearest surface water (river, creek, lake)</p>  | <p>Wendigo Creek, in High Park, approximately 700 m west of the Site</p>   |                                    |   |

## HYDROLOGICAL REVIEW SUMMARY

| SITE INFORMATION   |  | Page # & Section # of Review                         | Review Includes this Information City Staff (Check)   |
|--|--|--|---|
| Lowest basement elevation  | Parking Level 3 -101.70 masl   |  |   |
| Foundation elevation   | Foundation has not been designed. Further information to be provided in the next submission following detailed design. |  |   |
| Ground elevation   | Ranges between 111.62 masl and 112.93 masl   |  |   |
| STUDY AREA MAP   |  | Page # & Section # of every occurrence in the Review | Review Includes this Information City Staff (Check)   |
| Study area map(s) have been included in the report.                                      | <input checked="" type="checkbox"/> Yes  | Figure 1<br>Figure 2                                 | N/A   |
| Study area map(s) been prepared according to the Hydrological Review Terms of Reference. | <input checked="" type="checkbox"/> Yes  | See all Figures                                      | N/A   |
|  |  |  |   |
| WATER LEVEL AND WELLS  |  | Page # & Section # of every occurrence               | Review Includes this Information (City Staff Initial) |

## HYDROLOGICAL REVIEW SUMMARY

| SITE INFORMATION  |   | Page # &<br>Section # of<br>Review                                  | Review<br>Includes this<br>Information<br>City Staff<br>(Check)   |
|---|---|---|---|
|   |   | in the<br>Review  |   |
| The groundwater level has been monitored using all wells located on site (within property boundary).  | Yes   |   |   |
| The static water level measurements have been monitored at all monitoring wells for a minimum of 3 months with samples taken every 2 weeks for a minimum of 6 samples.<br><br>The intent is for the qualified professional to use professional judgement to estimate the seasonally high groundwater level. | Wells were installed in May 2022; Biweekly water level monitoring is ongoing and will continue until the end of August 2022 |   |   |
| All water levels in the wells have been measured with respect to masl.  | yes - all wells were surveyed   |   |   |
| A table of geology/soil stratigraphy for the property has been included.  | Cross section and borehole logs included  |   |   |
| GEOLOGY AND PHYSICAL HYDROLOGY  |   | Page # &<br>Section # of<br>every<br>occurrence<br>in the<br>Review | Review<br>Includes this<br>Information<br>(City Staff<br>Initial) |
| The review has made reference to the soil materials including thickness, composition and texture, and bedrock environments.   | Yes   |   |   |
| Key aquifers and the site's proximity to nearby surface water has been identified.  | <input checked="" type="checkbox"/> Yes   |   | N/A   |

## HYDROLOGICAL REVIEW SUMMARY

| SITE INFORMATION  |   | Page # & Section # of Review                         | Review Includes this Information City Staff (Check) |
|---|---|--|---|
| <b>PUMP TEST/SLUG TEST/DRAWDOWN ANALYSIS</b>  |   | Page # & Section # of every occurrence in the Review | Review Includes this Information City Staff (Check) |
| A summary of the pumping test data and analysis is included in the review.  | N/A   |  |   |
| The pump test been carried out for at least 24 hours if possible. If not, has a slug test been conducted?   | No - single well response tests were conducted. Construction dewatering assumes the use of cut off walls keyed into very low permeability till (10E-08 m/s) |  |   |
| Have the monitoring well(s) have been monitored using digital devices? If yes how frequently?   | Yes, data loggers deployed in 6 wells. Data collection set to every 12 hours.   |  |   |
| If a slug or pump test has been conducted has the static groundwater level been monitored at all monitoring well(s) multiple times to measure recovery?<br><br>-prior to the slug or pumping test(s)?<br>-post slug or pumping test(s)? | <input checked="" type="checkbox"/> <b>Yes</b><br><br>Measurements collected before, during and after testing. Slug Test were completed May 19-24, 2022     |  | N/A   |
| The above noted slug or pump tests have been included in the report.  | <input checked="" type="checkbox"/> <b>Yes</b>  |  |   |
| <b>WATER QUALITY</b>  |   | Page # & Section # of every occurrence in the Review | Review Includes this Information City Staff (Check) |

## HYDROLOGICAL REVIEW SUMMARY

| SITE INFORMATION  | Page # & Section # of Review   | Review Includes this Information City Staff (Check) |
|---|--|---|
| <p>The report includes baseline water quality samples from a laboratory. The water quality must be analyzed for all parameters listed in Tables 1 and 2 of Chapter 681 Sewers of the Toronto Municipal Code (found in Appendix A) and the samples must have to be taken unfiltered within 9 months of the date of submission.</p> | <p>Yes, groundwater samples were collected unfiltered from 2 monitoring wells screened in the upper sand unit and screened in the Silty Sand/Clayey Silt Till</p> <p>Due to a Lab error, the following parameters were not included: Fluoride, Total Kjeldahl Nitrogen (TKN), Animal Vegetable Oil &amp; Grease, Mineral/Synthetic Oil &amp; Grease</p> <p>Further Groundwater sampling will be submitted with updated groundwater levels at next submission</p> |   |
| <p>The water quality data templates in Appendix A have been completed for each sample taken for both sanitary/combined and storm sewer limits.</p>  | <p>For sanitary discharge- See the sanitary/combined sewer parameter limit template</p> <p style="text-align: center;">Yes</p> <p>For storm discharge- See the storm sewer parameter limit template</p>  |   |
| <p>Qualified professional to list all sample parameters that have violated the Bylaw limits for each sample taken for the sanitary/combined Bylaw limits</p> <p><b>If there are any sample parameter Exceedances the groundwater can't be discharged as is.</b></p>   | <p>None</p>  |   |
| <p>Qualified professional to list all sample parameters that have violated the Bylaw limits for each sample taken for the storm Bylaw limits.</p> <p><b>If there are any sample parameter exceedances the groundwater can't be discharged as is.</b></p>  | <p>Manganese</p>   |   |
| <p>The water quality samples have been analyzed by a Canadian laboratory accredited and licensed by Standards Council of Canada and/or Canadian Association for Laboratory Accreditation.</p>   | <p><input checked="" type="checkbox"/> Yes</p>   | <p>N/A</p>  |

## HYDROLOGICAL REVIEW SUMMARY

| SITE INFORMATION  |   | Page # & Section # of Review                         | Review Includes this Information City Staff (Check) |
|---|---|--|---|
| List of Canadian accredited laboratories:<br><a href="#">Standards Council of Canada</a>  |   |  |   |
| A chain of custody record for the samples is included with the report.  | Yes   |  |   |
| Has the chain of custody reference any filtered sample? If yes, the report has to be amended and re-submitted to include only non-filtered samples. | No - samples were not filtered                                |  |   |
| List any of the sample parameters that exceed the Bylaw limits with the reporting detection limit (RDL) included.                                   | Manganese = 72 mg/L<br>DL = 2.0 mg/L                          |  |   |
| A true copy of the Certificate of Analysis report, is included with the report.   | Yes   |  |   |
| EVALUATION OF IMPACT  |   | Page # & Section # of every occurrence in the Review | Review Includes this Information City Staff (Check) |
| Does the report recommend a back-up system or relief safety valve(s)?   | <input type="radio"/> Yes <input checked="" type="radio"/> No |  |   |
| Does the associated Geotechnical report recommend a back-up system or relief safety valve(s)?   | <input type="radio"/> Yes <input checked="" type="radio"/> No |  |   |
| The taking and discharging of groundwater on site has been analyzed to ensure that no negative  | <input checked="" type="radio"/> Yes                          |  | N/A   |



## HYDROLOGICAL REVIEW SUMMARY

| SITE INFORMATION  | Page # &<br>Section # of<br>Review  | Review<br>Includes this<br>Information<br>City Staff<br>(Check) |
|---|---|---|
| impacts will occur to: the City sewage works in terms of quality and quantity (including existing infrastructure), the natural environment, and settlement issues.  |   |   |
| Has it been determined that there will be a negative impact to the natural environment, City sewage works, or surrounding properties has the study identified the following: the extent of the negative impact, the detail of the precondition state of all the infrastructure, City sewage works, and natural environment within the effected zone and the proposed remediation and monitoring plan? | <input type="radio"/> Yes<br><b>If yes, identify impact:</b><br><br><input checked="" type="radio"/> No | N/A   |

Summary of Additional Information and Key Items (if applicable):

## HYDROLOGICAL REVIEW SUMMARY

### ALL SAMPLE RESULTS IN MG/L

#### Appendix A:

**SANITARY/COMBINED**

**Sample Location:**

| Inorganics                     | mg/L       | Sample Result |           | Sample Result with upper RDL included |  | ug/L       |
|--------------------------------|------------|---------------|-----------|---------------------------------------|--|------------|
|                                |            | BH 6          | BH 203    |                                       |  |            |
| <b>Parameter</b>               |            |               |           |                                       |  |            |
| BOD                            | 300        | <2            | 2         | 2                                     |  | 300,000    |
| Fluoride                       | 10         | *             | *         | -                                     |  | 10,000     |
| TKN                            | 100        | *             | *         | -                                     |  | 100,000    |
| pH                             | 6.0 - 11.5 | 7.86          | 7.99      | -                                     |  | 6.0 - 11.5 |
| Phenolics 4AAP                 | 1          | <0.0010       | <0.0010   | 0.001                                 |  | 1,000      |
| TSS                            | 350        | 14            | 14        | 10                                    |  | 350,000    |
| Total Cyanide                  | 2          | <0.0050       | 0.011     | 0.01                                  |  | 2,000      |
| <b>Metals</b>                  |            |               |           |                                       |  |            |
| Chromium Hexavalent            | 2          | <0.50         | 0.57      | 0.0005                                |  | 2,000      |
| Mercury                        | 0.01       | <0.00010      | <0.00010  | 0.0001                                |  | 10         |
| Total Aluminum                 | 50         | 0.32          | 0.28      | 0.0049                                |  | 50,000     |
| Total Antimony                 | 5          | <0.0005       | 0.00062   | 0.0005                                |  | 5,000      |
| Total Arsenic                  | 1          | 0.01          | <0.001    | 0.001                                 |  | 1,000      |
| Total Cadmium                  | 0.7        | <0.000090     | <0.000090 | 0.00009                               |  | 700        |
| Total Chromium                 | 4          | <0.0050       | <0.0050   | 0.005                                 |  | 4,000      |
| Total Cobalt                   | 5          | <0.0050       | 0.0062    | 0.005                                 |  | 5,000      |
| Total Copper                   | 2          | 0.0011        | 0.0048    | 0.0009                                |  | 2,000      |
| Total Lead                     | 1          | 0.0071        | 0.0031    | 0.0005                                |  | 1,000      |
| Total Manganese                | 5          | 0.072         | 0.031     | 0.002                                 |  | 5,000      |
| Total Molybdenum               | 5          | *             | *         | -                                     |  | 5,000      |
| Total Nickel                   | 2          | <0.0010       | 0.0013    | 0.001                                 |  | 2,000      |
| Total Phosphorus               | 10         | 0             | <0.1      | 0.10                                  |  | 10,000     |
| Total Selenium                 | 1          | <0.002        | <0.002    | 0.002                                 |  | 1,000      |
| Total Silver                   | 5          | <0.00009      | <0.00009  | 0.0009                                |  | 5,000      |
| Total Tin                      | 5          | <0.001        | <0.001    | 0.001                                 |  | 5,000      |
| Total Titanium                 | 5          | 0.011         | 0.012     | 0.005                                 |  | 5,000      |
| Total Zinc                     | 2          | <0.005        | 0.026     | 0.005                                 |  | 2,000      |
| <b>Petroleum Hydrocarbons</b>  |            |               |           |                                       |  |            |
| Animal/Vegetable Oil & Grease  | 150        | *             | *         | -                                     |  | 150,000    |
| Mineral/Synthetic Oil & Grease | 15         | *             | *         | -                                     |  | 15,000     |

\* = Parameter not available

## HYDROLOGICAL REVIEW SUMMARY

| Volatile Organics             |             | Sample Result |         | Sample Result with upper RDL included |  |             |
|-------------------------------|-------------|---------------|---------|---------------------------------------|--|-------------|
|                               |             | BH 6          | BH 203  |                                       |  |             |
| <u>Parameter</u>              | <u>mg/L</u> |               |         |                                       |  | <u>ug/L</u> |
| Benzene                       | 0.01        | <0.0004       | <0.0004 | 0.0004                                |  | 10          |
| Chloroform                    | 0.04        | <0.0004       | <0.0004 | 0.0004                                |  | 40          |
| 1,2-Dichlorobenzene           | 0.05        | <0.0008       | <0.0008 | 0.0008                                |  | 50          |
| 1,4-Dichlorobenzene           | 0.08        | <0.0008       | <0.0008 | 0.0008                                |  | 80          |
| Cis-1,2-Dichloroethylene      | 4           | <0.001        | <0.001  | 0.0010                                |  | 4,000       |
| Trans-1,3-Dichloropropylene   | 0.14        | <0.0008       | <0.0008 | 0.0008                                |  | 140         |
| Ethyl Benzene                 | 0.16        | <0.0004       | <0.0004 | 0.0004                                |  | 160         |
| Methylene Chloride            | 2           | <0.004        | <0.004  | 0.0040                                |  | 2,000       |
| 1,1,2,2-Tetrachloroethane     | 1.4         | <0.0008       | <0.0008 | 0.0008                                |  | 1,400       |
| Tetrachloroethylene           | 1           | <0.0004       | <0.0004 | 0.0004                                |  | 1,000       |
| Toluene                       | 0.016       | <0.0004       | <0.0004 | 0.0004                                |  | 16          |
| Trichloroethylene             | 0.4         | <0.0004       | <0.0004 | 0.0004                                |  | 400         |
| Total Xylenes                 | 1.4         | <0.0004       | <0.0004 | 0.0004                                |  | 1,400       |
| <b>Semi-Volatile Organics</b> |             |               |         |                                       |  |             |
| Di-n-butyl Phthalate          | 0.08        | <0.002        | <0.002  | 0.002                                 |  | 80          |
| Bis (2-ethylhexyl) Phthalate  | 0.012       | <0.002        | <0.002  | 0.002                                 |  | 12          |
| 3,3'-Dichlorobenzidine        | 0.002       | <0.0008       | <0.0008 | 0.00080                               |  | 2           |
| Pentachlorophenol             | 0.005       | <0.001        | <0.001  | 0.001                                 |  | 5           |
| Total PAHs                    | 0.005       | <0.001        | <0.001  | 0.001                                 |  | 5           |
| <b>Misc Parameters</b>        |             |               |         |                                       |  |             |
| Nonylphenols                  | 0.02        | <0.005        | <0.005  | 0.005                                 |  | 20          |
| Nonylphenol Ethoxylates       | 0.2         | <0.001        | <0.001  | 0.001                                 |  | 200         |

Sample Collected:

Temperature:

## HYDROLOGICAL REVIEW SUMMARY

**STORM**

**Sample Location:**

| Inorganics                  |             | Sample Result |           | Sample Result with upper RDL included |  |             |
|-----------------------------|-------------|---------------|-----------|---------------------------------------|--|-------------|
| <u>Parameter</u>            | <u>mg/L</u> | BH 6          | BH 203    |                                       |  | <u>ug/L</u> |
| pH                          | 6.0 - 9.5   | 7.86          | 7.99      | -                                     |  |             |
| BOD                         | 15          | <2            | 2         | 2                                     |  | 15,000      |
| Phenolics 4AAP              | 0.008       | <0.0010       | <0.0010   | 0.001                                 |  | 8           |
| TSS                         | 15          | 14            | 14        | 10                                    |  | 15,000      |
| Total Cyanide               | 0.02        | <0.0050       | 0.011     | 0.01                                  |  | 20          |
| <b>Metals</b>               |             |               |           |                                       |  |             |
| Total Arsenic               | 0.02        | 0.01          | <0.001    | 0.001                                 |  | 20          |
| Total Cadmium               | 0.008       | <0.000090     | <0.000090 | 0.00009                               |  | 8           |
| Total Chromium              | 0.08        | <0.0050       | <0.0050   | 0.005                                 |  | 80          |
| Chromium Hexavalent         | 0.04        | <0.00050      | 0.00      | 0.0005                                |  | 40          |
| Total Copper                | 0.04        | 0.0011        | 0.0048    | 0.0009                                |  | 40          |
| Total Lead                  | 0.12        | 0.0071        | 0.0031    | 0.0005                                |  | 120         |
| Total Manganese             | 0.05        | 0.072         | 0.031     | 0.002                                 |  | 50          |
| Total Mercury               | 0.0004      | <0.00010      | <0.00010  | 0.0001                                |  | 0.4         |
| Total Nickel                | 0.08        | <0.0010       | 0.0013    | 0.001                                 |  | 80          |
| Total Phosphorus            | 0.4         | 0.16          | <0.1      | 0.10                                  |  | 400         |
| Total Selenium              | 0.02        | <0.002        | <0.002    | 0.002                                 |  | 20          |
| Total Silver                | 0.12        | <0.00009      | <0.00009  | 0.0009                                |  | 120         |
| Total Zinc                  | 0.04        | <0.005        | 0.026     | 0.005                                 |  | 40          |
| <b>Microbiology</b>         |             |               |           |                                       |  |             |
| E.coli                      | 200         | <10           | 30        | 10                                    |  | 200,000     |
| <b>Volatile Organics</b>    |             |               |           |                                       |  |             |
| <u>Parameter</u>            | <u>mg/L</u> |               |           |                                       |  | <u>ug/L</u> |
| Benzene                     | 0.002       | <0.0004       | <0.0004   | 0.0004                                |  | 2           |
| Chloroform                  | 0.002       | <0.0004       | <0.0004   | 0.0004                                |  | 2           |
| 1,2-Dichlorobenzene         | 0.0056      | <0.0008       | <0.0008   | 0.00008                               |  | 6           |
| 1,4-Dichlorobenzene         | 0.0068      | <0.0008       | <0.0008   | 0.00008                               |  | 7           |
| Cis-1,2-Dichloroethylene    | 0.0056      | <0.001        | <0.001    | 0.0010                                |  | 6           |
| Trans-1,3-Dichloropropylene | 0.0056      | <0.0008       | <0.0008   | 0.00008                               |  | 6           |
| Ethyl Benzene               | 0.002       | <0.0004       | <0.0004   | 0.0004                                |  | 2           |
| Methylene Chloride          | 0.0052      | <0.004        | <0.004    | 0.0040                                |  | 5           |
| 1,1,2,2-Tetrachloroethane   | 0.017       | <0.0008       | <0.0008   | 0.00008                               |  | 17          |
| Tetrachloroethylene         | 0.0044      | <0.0004       | <0.0004   | 0.0004                                |  | 4           |
| Toluene                     | 0.002       | <0.0004       | <0.0004   | 0.0004                                |  | 2           |
| Trichloroethylene           | 0.0076      | <0.0004       | <0.0004   | 0.0004                                |  | 8           |
| Total Xylenes               | 0.0044      | <0.0004       | <0.0004   | 0.0004                                |  | 4           |

August 2018


## HYDROLOGICAL REVIEW SUMMARY

| Semi-Volatile Organics       |        | Sample Result |          | Sample Result with upper RDL included |  |     |
|------------------------------|--------|---------------|----------|---------------------------------------|--|-----|
|                              |        | BH 6          | BH 203   |                                       |  |     |
| Di-n-butyl Phthalate         | 0.015  | <0.002        | <0.002   | 0.002                                 |  | 5   |
| Bis (2-ethylhexyl) Phthalate | 0.0088 | <0.002        | <0.002   | 0.002                                 |  | 8.8 |
| 3,3'-Dichlorobenzidine       | 0.0008 | <0.0008       | <0.0008  | 0.00080                               |  | 0.8 |
| Pentachlorophenol            | 0.002  | <0.001        | <0.001   | 0.001                                 |  | 2   |
| Total PAHs                   | 0.002  | <0.001        | <0.001   | 0.001                                 |  | 2   |
| PCBs                         | 0.0004 | <0.00005      | <0.00005 | 0.0001                                |  | 0.4 |
| <b>Misc Parameters</b>       |        |               |          |                                       |  |     |
| Nonylphenols                 | 0.001  | <0.005        | <0.005   | 0.005                                 |  | 1   |
| Nonylphenol Ethoxylates      | 0.01   | <0.001        | <0.001   | 0.001                                 |  | 10  |

Sample Collected:  
Temperature:

Consulting Firm that prepared Hydrological Report: SLR Consulting

Qualified Professional who completed the report summary: Amanda Malatesta (P.Ge.)  
Print Name

Qualified Professional who completed the report summary:  June 30, 2022  
Signature Date & Stamp

## HYDROLOGICAL REVIEW SUMMARY

### Appendix A:

**SANITARY/COMBINED**

**Sample Location:**

| Inorganics                     |                    | Sample Result | Sample Result with upper RDL included |                    |
|--------------------------------|--------------------|---------------|---------------------------------------|--------------------|
| <b><u>Parameter</u></b>        | <b><u>mg/L</u></b> | -             |                                       | <b><u>ug/L</u></b> |
| BOD                            | 300                |               |                                       | 300,000            |
| Fluoride                       | 10                 |               |                                       | 10,000             |
| TKN                            | 100                |               |                                       | 100,000            |
| pH                             | 6.0 - 11.5         |               |                                       | 6.0 - 11.5         |
| Phenolics 4AAP                 | 1                  |               |                                       | 1,000              |
| TSS                            | 350                |               |                                       | 350,000            |
| Total Cyanide                  | 2                  |               |                                       | 2,000              |
| <b>Metals</b>                  |                    |               |                                       |                    |
| Chromium Hexavalent            | 2                  |               |                                       | 2,000              |
| Mercury                        | 0.01               |               |                                       | 10                 |
| Total Aluminum                 | 50                 |               |                                       | 50,000             |
| Total Antimony                 | 5                  |               |                                       | 5,000              |
| Total Arsenic                  | 1                  |               |                                       | 1,000              |
| Total Cadmium                  | 0.7                |               |                                       | 700                |
| Total Chromium                 | 4                  |               |                                       | 4,000              |
| Total Cobalt                   | 5                  |               |                                       | 5,000              |
| Total Copper                   | 2                  |               |                                       | 2,000              |
| Total Lead                     | 1                  |               |                                       | 1,000              |
| Total Manganese                | 5                  |               |                                       | 5,000              |
| Total Molybdenum               | 5                  |               |                                       | 5,000              |
| Total Nickel                   | 2                  |               |                                       | 2,000              |
| Total Phosphorus               | 10                 |               |                                       | 10,000             |
| Total Selenium                 | 1                  |               |                                       | 1,000              |
| Total Silver                   | 5                  |               |                                       | 5,000              |
| Total Tin                      | 5                  |               |                                       | 5,000              |
| Total Titanium                 | 5                  |               |                                       | 5,000              |
| Total Zinc                     | 2                  |               |                                       | 2,000              |
| <b>Petroleum Hydrocarbons</b>  |                    |               |                                       |                    |
| Animal/Vegetable Oil & Grease  | 150                |               |                                       | 150,000            |
| Mineral/Synthetic Oil & Grease | 15                 |               |                                       | 15,000             |

\* = Parameter not available

## HYDROLOGICAL REVIEW SUMMARY

| Volatile Organics             |             | Sample Result | Sample Result with upper RDL included |             |
|-------------------------------|-------------|---------------|---------------------------------------|-------------|
| <b>Parameter</b>              | <b>mg/L</b> | -             |                                       | <b>ug/L</b> |
| Benzene                       | 0.01        |               |                                       | 10          |
| Chloroform                    | 0.04        |               |                                       | 40          |
| 1,2-Dichlorobenzene           | 0.05        |               |                                       | 50          |
| 1,4-Dichlorobenzene           | 0.08        |               |                                       | 80          |
| Cis-1,2-Dichloroethylene      | 4           |               |                                       | 4,000       |
| Trans-1,3-Dichloropropylene   | 0.14        |               |                                       | 140         |
| Ethyl Benzene                 | 0.16        |               |                                       | 160         |
| Methylene Chloride            | 2           |               |                                       | 2,000       |
| 1,1,2,2-Tetrachloroethane     | 1.4         |               |                                       | 1,400       |
| Tetrachloroethylene           | 1           |               |                                       | 1,000       |
| Toluene                       | 0.016       |               |                                       | 16          |
| Trichloroethylene             | 0.4         |               |                                       | 400         |
| Total Xylenes                 | 1.4         |               |                                       | 1,400       |
| <b>Semi-Volatile Organics</b> |             |               |                                       |             |
| Di-n-butyl Phthalate          | 0.08        |               |                                       | 80          |
| Bis (2-ethylhexyl) Phthalate  | 0.012       |               |                                       | 12          |
| 3,3'-Dichlorobenzidine        | 0.002       |               |                                       | 2           |
| Pentachlorophenol             | 0.005       |               |                                       | 5           |
| Total PAHs                    | 0.005       |               |                                       | 5           |
| <b>Misc Parameters</b>        |             |               |                                       |             |
| Nonylphenols                  | 0.02        |               |                                       | 20          |
| Nonylphenol Ethoxylates       | 0.2         |               |                                       | 200         |

Sample Collected:  
Temperature:

## HYDROLOGICAL REVIEW SUMMARY

**STORM**

**Sample Location:**

| Inorganics                  |             | Sample Result | Sample Result with upper RDL included |             |
|-----------------------------|-------------|---------------|---------------------------------------|-------------|
| <b>Parameter</b>            | <b>mg/L</b> |               |                                       | <b>ug/L</b> |
| pH                          | 6.0 - 9.5   |               |                                       |             |
| BOD                         | 15          |               |                                       | 15,000      |
| Phenolics 4AAP              | 0.008       |               |                                       | 8           |
| TSS                         | 15          |               |                                       | 15,000      |
| Total Cyanide               | 0.02        |               |                                       | 20          |
| <b>Metals</b>               |             |               |                                       |             |
| Total Arsenic               | 0.02        |               |                                       | 20          |
| Total Cadmium               | 0.008       |               |                                       | 8           |
| Total Chromium              | 0.08        |               |                                       | 80          |
| Chromium Hexavalent         | 0.04        |               |                                       | 40          |
| Total Copper                | 0.04        |               |                                       | 40          |
| Total Lead                  | 0.12        |               |                                       | 120         |
| Total Manganese             | 0.05        |               |                                       | 50          |
| Total Mercury               | 0.0004      |               |                                       | 0.4         |
| Total Nickel                | 0.08        |               |                                       | 80          |
| Total Phosphorus            | 0.4         |               |                                       | 400         |
| Total Selenium              | 0.02        |               |                                       | 20          |
| Total Silver                | 0.12        |               |                                       | 120         |
| Total Zinc                  | 0.04        |               |                                       | 40          |
| <b>Microbiology</b>         |             |               |                                       |             |
| E.coli                      | 200         |               |                                       | 200,000     |
| <b>Volatile Organics</b>    |             |               |                                       |             |
| <b>Parameter</b>            | <b>mg/L</b> |               |                                       | <b>ug/L</b> |
| Benzene                     | 0.002       |               |                                       | 2           |
| Chloroform                  | 0.002       |               |                                       | 2           |
| 1,2-Dichlorobenzene         | 0.0056      |               |                                       | 6           |
| 1,4-Dichlorobenzene         | 0.0068      |               |                                       | 7           |
| Cis-1,2-Dichloroethylene    | 0.0056      |               |                                       | 6           |
| Trans-1,3-Dichloropropylene | 0.0056      |               |                                       | 6           |
| Ethyl Benzene               | 0.002       |               |                                       | 2           |
| Methylene Chloride          | 0.0052      |               |                                       | 5           |
| 1,1,2,2-Tetrachloroethane   | 0.017       |               |                                       | 17          |
| Tetrachloroethylene         | 0.0044      |               |                                       | 4           |
| Toluene                     | 0.002       |               |                                       | 2           |
| Trichloroethylene           | 0.0076      |               |                                       | 8           |
| Total Xylenes               | 0.0044      |               |                                       | 4           |



August 2018

## HYDROLOGICAL REVIEW SUMMARY

| Semi-Volatile Organics       |        | Sample Result | Sample Result with upper RDL included |     |
|------------------------------|--------|---------------|---------------------------------------|-----|
| Di-n-butyl Phthalate         | 0.015  |               |                                       | 5   |
| Bis (2-ethylhexyl) Phthalate | 0.0088 |               |                                       | 8.8 |
| 3,3'-Dichlorobenzidine       | 0.0008 |               |                                       | 0.8 |
| Pentachlorophenol            | 0.002  |               |                                       | 2   |
| Total PAHs                   | 0.002  |               |                                       | 2   |
| PCBs                         | 0.0004 |               |                                       | 0.4 |
| <b>Misc Parameters</b>       |        |               |                                       |     |
| Nonylphenols                 | 0.001  |               |                                       | 1   |
| Nonylphenol Ethoxylates      | 0.01   |               |                                       | 10  |

Sample Collected:  
Temperature:

Consulting Firm that prepared Hydrological Report: \_\_\_\_\_

Qualified Professional who completed the report summary: \_\_\_\_\_  
Print Name

Qualified Professional who completed the report summary: \_\_\_\_\_  
Signature
Date & Stamp