



Appendix E
Groundwater Data

Table 1: Water Well Record Summary within 500 m of Beach Boulevard Community, Hamilton, Ontario



Water Well Record No.	Date Constructed	Well Depth (m)	Depth to Water (m)	Easting	Northing	Primary Well Use	Final Status
2808249	1994-01-10	135.6		597268.3	4794579.0	Not Used	Test Hole
6814488	2006-04-19	7.4	1.0	598969.0	4791364.0	No Description	Monitoring
7035263	2006-09-12	3.0	0.9	597354.0	4794900.0	No Description	Abandoned
7040377	2006-08-17	9.1	0.6	598533.0	4792747.0	No Description	Dewatering
7040782	2006-08-28	9.1	3.0	598392.0	4792449.0	Not Used	Monitoring
7104521	2008-04-02	4.5	1.5	598560.0	4791367.0	Monitoring	Monitoring
7104522	2008-04-02	4.5	0.4	598596.0	4791242.0	Monitoring	Monitoring
7104523	2008-04-02	4.5	2.0	598702.0	4791331.0	Monitoring	Monitoring
7104535	2008-04-02	4.5	0.4	598652.0	4791252.0	Monitoring	Monitoring
7118421	2008-12-11	0.0	1.0	599141.0	4790401.0	Monitoring	Monitoring
7118421	2008-12-11	0.0	1.0	599230.0	4790278.0	Monitoring	Monitoring
7118421	2008-12-12	2.5	1.0	599489.0	4790715.0	Monitoring	Monitoring
7118421	2008-12-11	0.0	1.0	599216.0	4790262.0	Monitoring	Monitoring
7118421	2008-12-11	0.0	1.0	599379.0	4790685.0	Monitoring	Monitoring
7118421	2008-12-12	0.0	1.0	599123.0	4790290.0	Monitoring	Monitoring
7118421	2008-12-12	0.0	1.0	599428.0	4790582.0	Monitoring	Monitoring
7118421	2008-12-11	0.0	1.0	599468.0	4790694.0	Monitoring	Monitoring
7127686	2009-01-25	3.0	2.1	598399.0	4792600.0	Monitoring	Test Hole
7127686		0.0	2.1	598445.0	4792617.0	Monitoring	Test Hole
7127686	2009-01-25	0.0	2.1	598405.0	4792605.0	Monitoring	Test Hole
7132895	2009-06-19	4.6		597967.0	4793993.0	Test Hole	Test Hole
7135894	2009-12-01	0.0		598503.0	4791215.0	Monitoring	No Description
7135894	2009-12-01	0.0		598574.0	4791225.0	Monitoring	No Description
7135894	2009-12-01	6.0		598574.0	4791225.0	Monitoring	No Description
7136435	2009-10-11	4.5	3.0	597973.0	4794108.0	Monitoring	Test Hole
7136435	2009-10-11	0.0	3.0	597977.0	4794096.0	Monitoring	Test Hole
7136435	2009-10-11	0.0	3.0	597963.0	4794103.0	Monitoring	Test Hole
7136435	2009-10-11	0.0	3.0	598002.0	4794098.0	Monitoring	Test Hole
7137314	2009-11-09	0.0	3.0	597950.0	4794128.0	Monitoring	Test Hole
7137314	2009-11-09	0.0	3.0	597956.0	4794114.0	Monitoring	Test Hole
7137314	2009-11-23	4.5	3.0	597948.0	4794127.0	Monitoring	Test Hole
7137314	2009-11-09	0.0	3.0	597984.0	4794136.0	Monitoring	Test Hole
7139456	2009-03-24	4.9		597217.0	4794644.0	Not Used	Test Hole
7139456	2009-03-24	0.0		597215.0	4794636.0	Not Used	Test Hole
7139456	2009-03-24	0.0		597217.0	4794644.0	Not Used	Test Hole
7143082	2009-12-15	0.0	N/A	598483.0	4792630.0	Other	Test Hole
7143082	2009-12-15	0.0	N/A	598488.0	4792638.0	Other	Test Hole
7143082	2009-12-14	21.9	N/A	598477.0	4792641.0	Other	Test Hole
7143777	2010-02-22	0.0		598624.0	4792111.0	Monitoring	Test Hole
7143777	2010-02-22	3.0		598257.0	4792903.0	Monitoring	Test Hole
7146145	2010-05-03	4.6		597970.0	4793997.0	No Description	Decommissioned
7150491	2010-07-29	4.0	3.1	597965.0	4794090.0	Monitoring	Monitoring
7150492	2010-07-29	4.6		597974.0	4794094.0	Monitoring	Monitoring



Table 1: Water Well Record Summary within 500 m of Beach Boulevard Community, Hamilton, Ontario



Water Well Record No.	Date Constructed	Well Depth (m)	Depth to Water (m)	Easting	Northing	Primary Well Use	Final Status
7158844	2011-02-01	7.0	2.0	597446.0	4795070.0	Dewatering	Dewatering
7181533	2012-02-14	6.0	1.0	599415.0	4791268.0	Monitoring	Monitoring
7195117	2012-12-07	4.6		598509.0	4791226.0	Monitoring	Monitoring
7195118	2012-12-07	4.6		598499.0	4791232.0	Monitoring	Monitoring
7196185	2013-01-02	6.0		597953.0	4794124.0	Monitoring and Test Hole	Test Hole
7196186	2013-01-03	4.5		597952.0	4794131.0	No Description	Test Hole
7196187	2013-01-02	6.0		597761.0	4794112.0	Monitoring and Test Hole	Test Hole
7196188	2013-01-02	6.0		597958.0	4794121.0	Monitoring and Test Hole	Test Hole
7196189	2013-01-02	6.0		597959.0	4794116.0	Monitoring and Test Hole	Test Hole
7196190	2013-01-02	7.5		597957.0	4794111.0	Monitoring and Test Hole	Test Hole
7196191	2013-01-03	2.3		597971.0	4794116.0	Monitoring	Test Hole
7196192	2013-01-03	5.5		597972.0	4794129.0	Monitoring	Test Hole
7213162	2013-10-21	6.1		598556.0	4791882.0	Monitoring	Monitoring
7216610	2014-01-25	15.2	2.3	597971.0	4794111.0	Monitoring	Monitoring
7216611	2014-01-20	15.2	2.3	597960.0	4794124.0	Monitoring	Monitoring
7218058	2014-01-20	9.1		598363.0	4792188.0	Monitoring	Monitoring
7218593	2013-11-15			597734.0	4794470.0	No Description	No Description
7218664	2013-11-05	9.0	2.7	599063.0	4791448.0	Test Hole	Monitoring
7218819	2014-03-11	9.1	3.3	598546.0	4792181.0	Monitoring	Monitoring
7232292	2014-10-07	0.0		598556.0	4791882.0	No Description	Abandoned
7249796	2015-07-31	9.1	N/A	598272.0	4792555.0	Monitoring	Monitoring
7251747	2015-08-11	7.6	2.1	597308.0	4794891.0	Monitoring	Monitoring
7251881	2015-07-16	4.6		599177.0	4790524.0	Monitoring	Monitoring
7251882	2015-06-10	4.6		598954.0	4790354.0	Monitoring	Monitoring
7254439	2015-11-02	15.2		598369.0	4792161.0	Monitoring	Monitoring
7265099	2016-04-04			598799.0	4791860.0	No Description	No Description
7281078	2016-10-07			598690.0	4791801.0	No Description	No Description
7291864	2017-06-22	4.5		598741.0	4791782.0	Monitoring	Monitoring
7291865	2017-06-22	4.5	1.2	598763.0	4791769.0	Monitoring	Monitoring
7291866	2017-06-22	4.5		598713.0	4791818.0	Monitoring	Monitoring
7291867	2017-06-23	4.5		598708.0	4791819.0	Monitoring	Monitoring
7291868	2017-06-22	4.5		598737.0	4791792.0	Monitoring	Monitoring
7291874	2017-06-23	4.5		598713.0	4791819.0	Monitoring	Monitoring
7325275	2018-11-21			597330.0	4794973.0	No Description	No Description
7328763	2019-01-17	4.3	0.0	598278.0	4792747.0	Monitoring	Monitoring and Test Hole
7331627	2019-02-13			598720.0	4791819.0	No Description	No Description
7331638	2019-03-08			598715.0	4791820.0	No Description	No Description
7334023	2019-05-08	4.5	1.8	598706.0	4791836.0	Other	Extraction
7334032	2019-05-09	3.8	0.3	598752.0	4791835.0	Other	Extraction
7334084	2019-05-09	3.8	0.3	598744.0	4791845.0	Other	Extraction
7334137	2019-05-10	3.0	0.9	598770.0	4791863.0	Other	Extraction
7334164	2019-05-09	3.0	0.9	598765.0	4791871.0	Other	Extraction
7334170	2019-05-08	3.8	0.3	598740.0	4791859.0	Other	Extraction





LEGEND:

- - - Study Boundary
- - - 500m Buffer
- Wells



CLIENT:
CITY OF HAMILTON



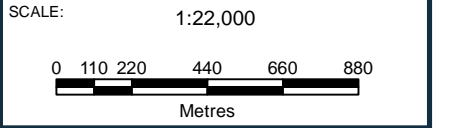
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SITE BOUNDARY AND WELL LOCATIONS

PROJECT:
**FLOOD REMEDIATION
MASTER PLAN FOR
BEACH BOULEVARD COMMUNITY**

PROJECT NO: WW20101053.1000.4	DATE: JUNE 2021
REV NO: 0	DWN BY: AF

DATUM: NAD83 CSRS 2010	PROJECTION: UTM ZONE 17 N
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FIGURE:
FIGURE 1



Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



LEGEND:

- Study Boundary
- 500m Buffer
- Beaches
- Sand Plains



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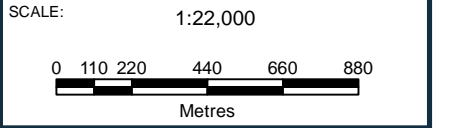
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PROJECT:
**FLOOD REMEDIATION
MASTER PLAN FOR
BEACH BOULEVARD COMMUNITY**

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REV NO: 0	DWN BY: AF

DATUM: NAD83 CSRS 2010	PROJECTION: UTM ZONE 17 N
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FIGURE:
FIGURE 2



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LEGEND:
- - - Study Boundary
- - - 500m Buffer



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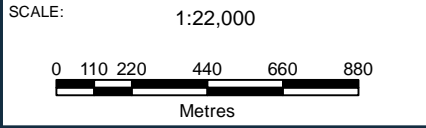
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**TOPOGRAPHY
 (5M CONTOUR INTERVAL)**

PROJECT:
**FLOOD REMEDIATION
 MASTER PLAN FOR
 BEACH BOULEVARD COMMUNITY**

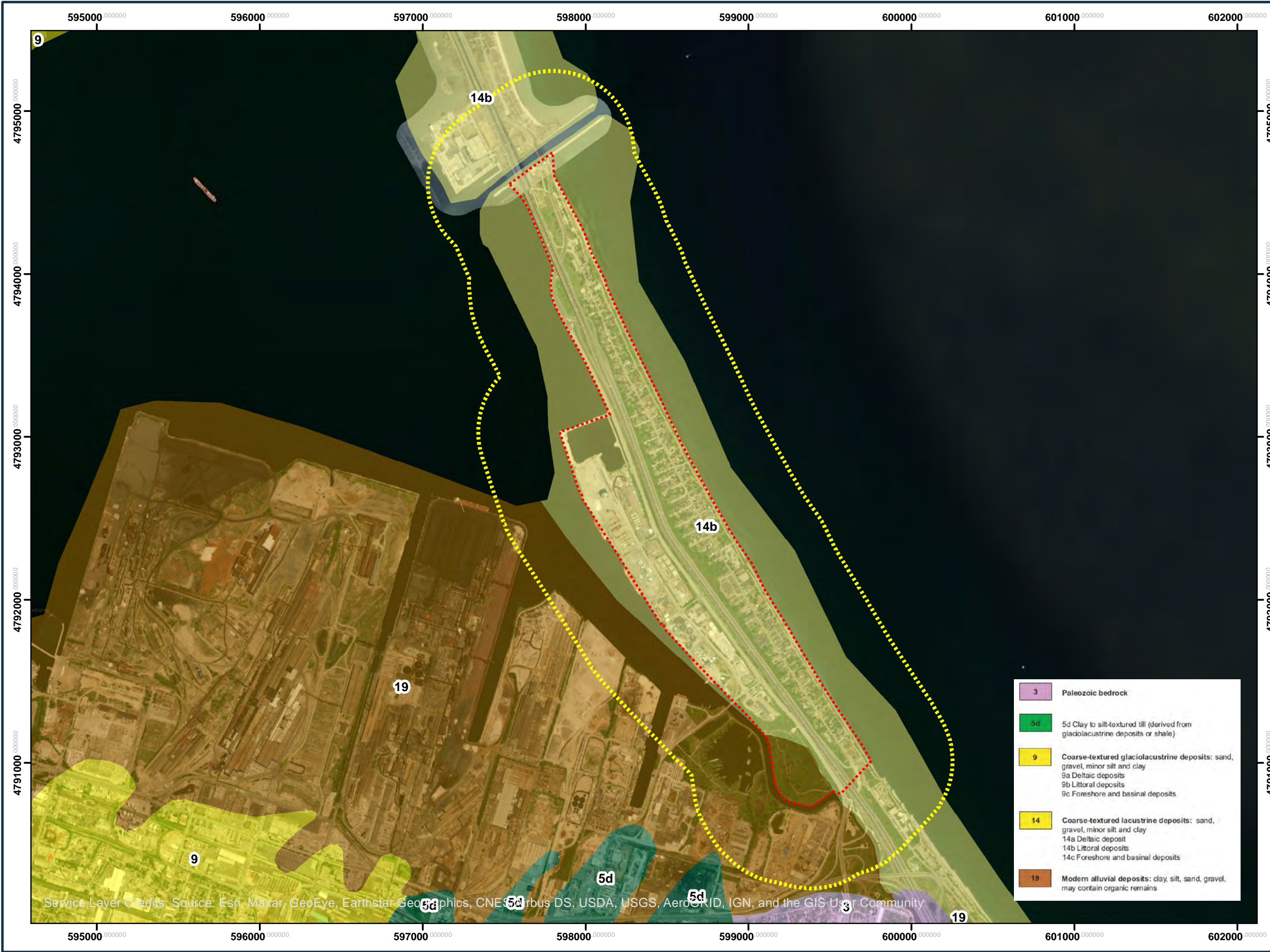
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REV NO: 0	DWN BY: AF

DATUM: NAD83 CSRS 2010	PROJECTION: UTM ZONE 17 N
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FIGURE:
FIGURE 3



Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



LEGEND:

- Study Boundary
- 500m Buffer

Surficial Geology

- 3 Paleozoic bedrock
- 5d Clay to silt-textured till (derived from glaciolacustrine deposits or shale)
- 9 Coarse-textured glaciolacustrine deposits: sand, gravel, minor silt and clay
- 14b Coarse-textured lacustrine deposits: sand, gravel, minor silt and clay; Littoral deposit
- 19 Modern alluvial deposits: clay, silt, sand, gravel, may contain organic remains



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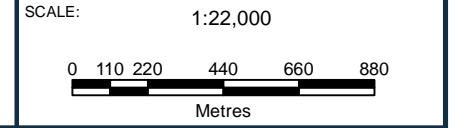
TITLE:
SURFICIAL GEOLOGY

PROJECT:
**FLOOD REMEDIATION
MASTER PLAN FOR
BEACH BOULEVARD COMMUNITY**

PROJECT NO: WW20101053.1000.4	DATE: JUNE 2021
REV NO: 0	DWN BY: AF

DATUM: NAD83 CSRS 2010	PROJECTION: UTM ZONE 17 N
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FIGURE:
FIGURE 4



	3 Paleozoic bedrock
	5d 5d Clay to silt-textured till (derived from glaciolacustrine deposits or shale)
	9 Coarse-textured glaciolacustrine deposits: sand, gravel, minor silt and clay 9a Deltaic deposits 9b Littoral deposits 9c Foreshore and basinal deposits
	14 Coarse-textured lacustrine deposits: sand, gravel, minor silt and clay 14a Deltaic deposit 14b Littoral deposits 14c Foreshore and basinal deposits
	19 Modern alluvial deposits: clay, silt, sand, gravel, may contain organic remains

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



ORDOVICIAN (443.7 Ma to 488.3 Ma)
UPPER ORDOVICIAN

55	Shale, limestone, dolostone, siltstone
55a	Queenston Fm.
55b	Georgian Bay Fm.; Blue Mountain Fm.; Billings Fm.; Collingwood Mb.; Eastview Mb.
55c	Liskeard Gp.
55d	Red Head Rapids Fm.
55e	Churchill River Gp.
55f	Bad Cache Rapids Gp.

LEGEND:

- Study Boundary
- 500m Buffer

Bedrock Geology

- 55a Shale, limestone, dolostone, siltstone; Queenston Fm.



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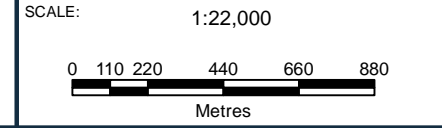
TITLE:
BEDROCK GEOLOGY

PROJECT:
**FLOOD REMEDIATION
 MASTER PLAN FOR
 BEACH BOULEVARD COMMUNITY**

PROJECT NO: WW20101053.1000.4	DATE: JUNE 2021
REV NO: 0	DWN BY: AF

DATUM: NAD83 CSRS 2010	PROJECTION: UTM ZONE 17 N
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FIGURE:
FIGURE 5



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