

Alternative Site Analysis

Fundamental Issues

ALTERNATIVE SITE ANALYSIS

PROPOSED UPPER'S QUARRY
City of Niagara Falls

Date:

October 2021 (revised August 2023)

Prepared for:

Walker Aggregates Inc.

Prepared by:

**MacNaughton Hermsen Britton Clarkson Planning
Limited (MHBC)**

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Our File: 9811V

What are the issues?

- ▶ Main purpose not to look for an alternate site
 - ▶ *“The main purpose of the ASA is to assess compliance with Policy 2.5.4.1 of the Provincial Policy Statement (PPS).”*
 - “...alternatives have been considered by Walker and found to be unsuitable.”*

- d. These lands are highly fragmented by not only Garner Road and Kalar Road (in a north-south fashion), but also by a hydro corridor and a TransCanada pipeline;
- e. Site Area 2 contains both Class 2 and 3 soils and overall has a higher agricultural priority than the other two alternative sites.

In conclusion, Walker is proposing the Upper's Quarry to secure a future supply of bedrock resource. Other alternatives have been considered within the market area by the applicant and found other sites to be unsuitable in comparison to the proposed site for the reasons identified above. As a result, it is concluded that the proposed Upper's Quarry is consistent with Policy 2.5.4.1 of the Provincial Policy Statement.

Respectfully submitted,

MHBC



Debra Walker, BES, MBA, MCIP, RPP
Partner



Brian Zeman, BES, MCIP, RPP
Partner / President

What are the issues?

- ▶ Main purpose not to look for an alternate site
- ▶ No Geologist Involved

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- ▶ Main purpose not to look for an alternate site
- ▶ No geologist involved
- ▶ Walkers defined the study area

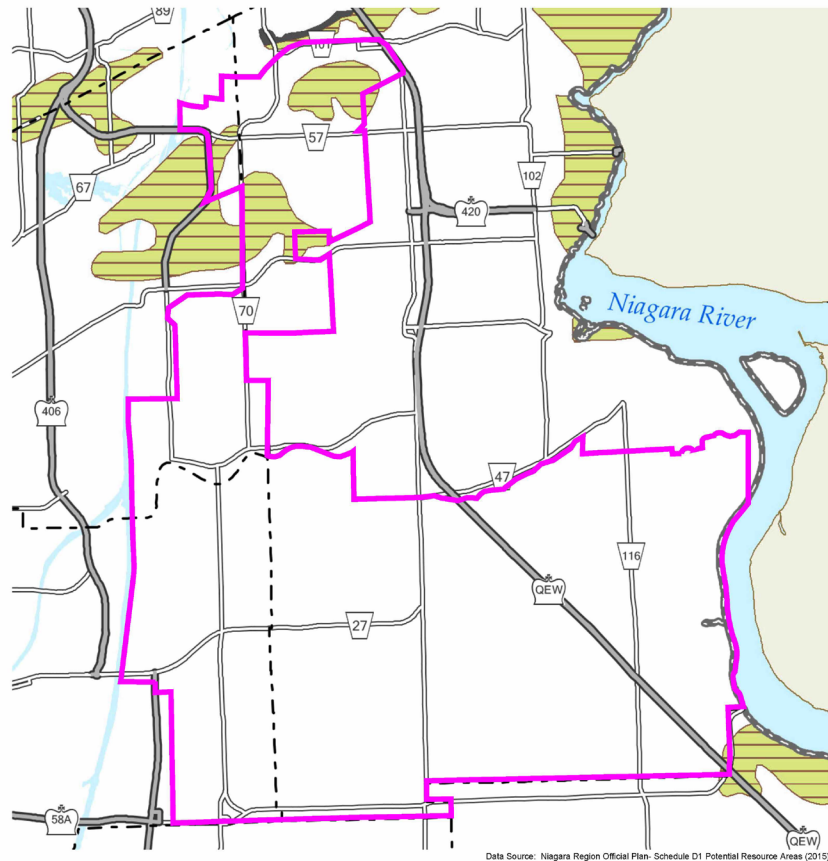


Figure 6
Potential Resource
Areas Within Study Area

Niagara Region Official Plan
Schedule D1- Potential
Resource Areas: Stone

Upper's Quarry,
City of Niagara Falls,
Region of Niagara, Ontario

LEGEND

- Alternative Site Analysis Study Area
- General Good Agriculture Area (In Study Area)
- Potential Resource Areas- Stone
- Outcrop- Stone within 3' of Surface
- Niagara Region
- Municipal Boundary
- Provincial Road
- Regional Road

DATE: February 6, 2023

SCALE 1:100 000

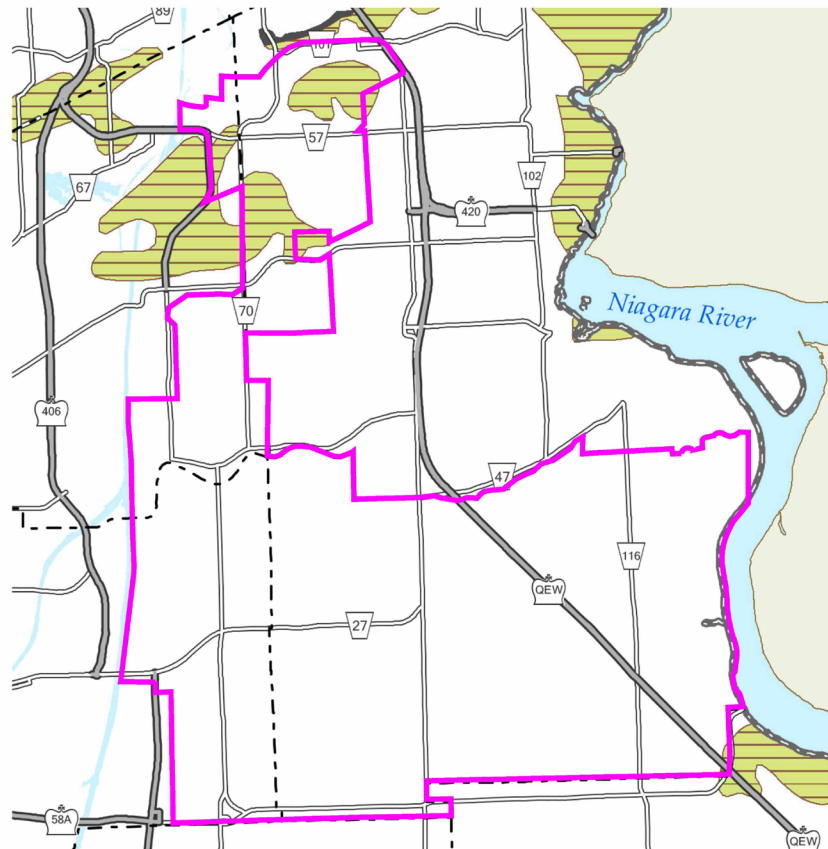


MHBC PLANNING
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What are the issues?

- ▶ Main purpose not to look for an alternate site
- ▶ No geologist involved
- ▶ Walkers defined the study area
- ▶ Search limited to

“Potential Resource Area – Stone”



Data Source: Niagara Region Official Plan- Schedule D1 Potential Resource Areas (2015)

Figure 6
Potential Resource Areas Within Study Area

Niagara Region Official Plan
Schedule D1- Potential Resource Areas: Stone

Upper's Quarry,
City of Niagara Falls,
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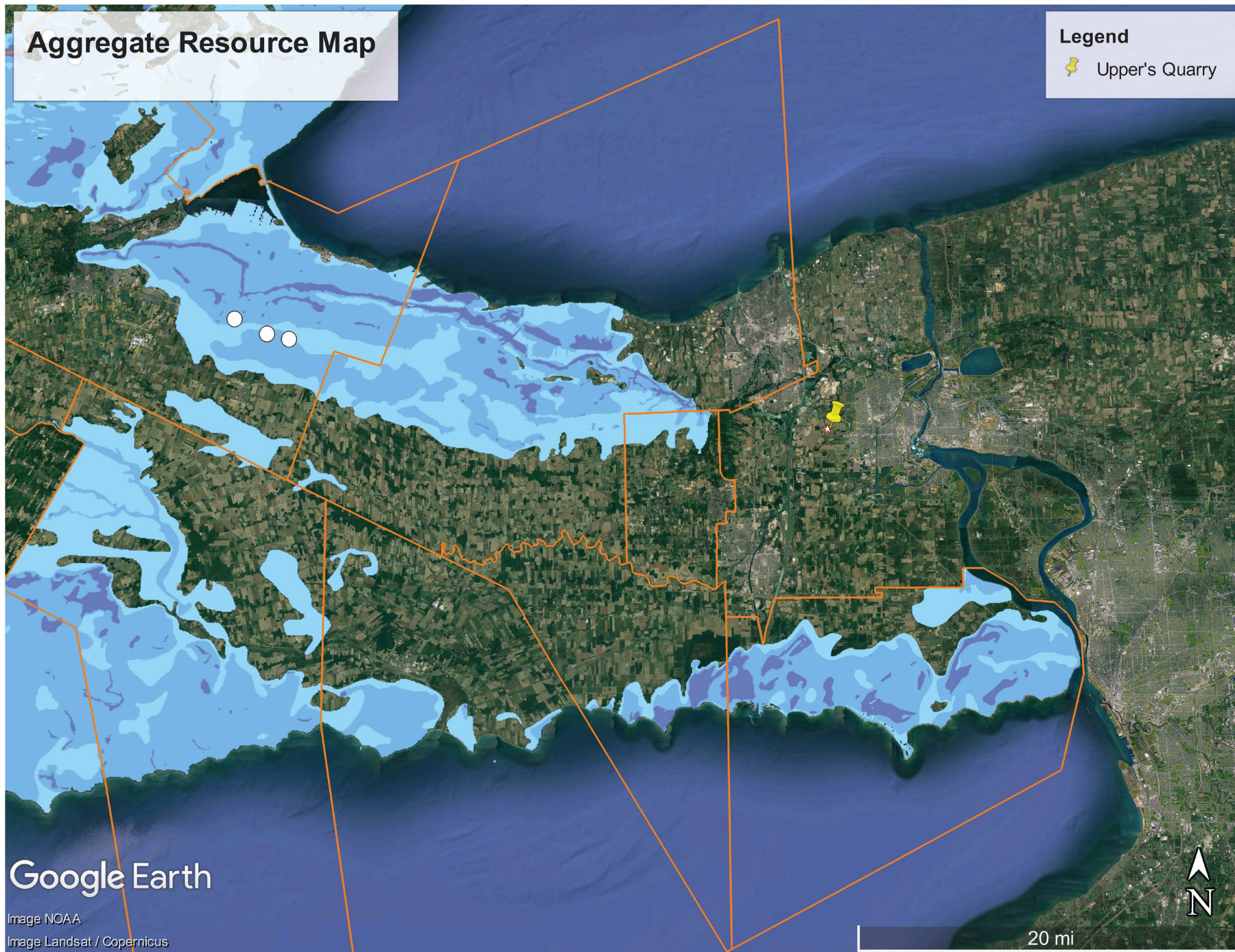
What are these shapes
and
Where did they come from?



Aggregate Resource Map

Legend

 Upper's Quarry



Google Earth

Image NOAA
Image Landsat / Copernicus

20 mi

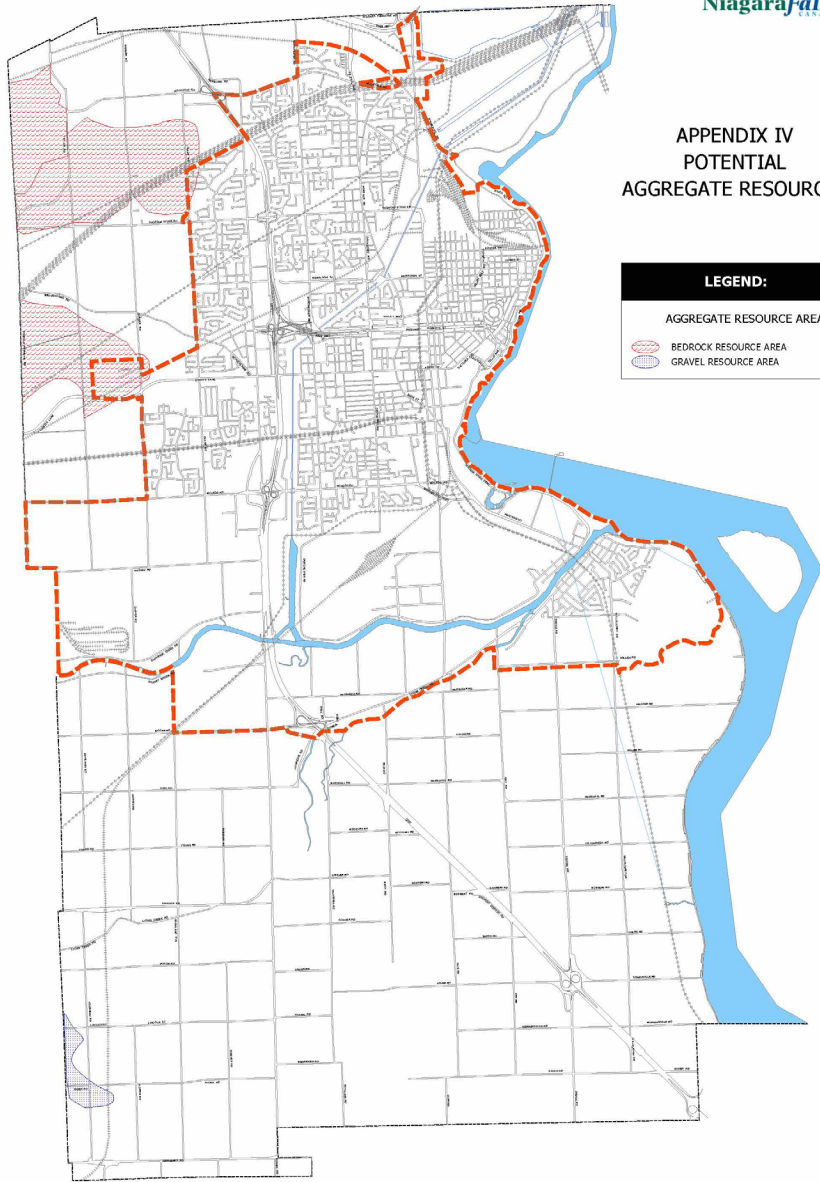


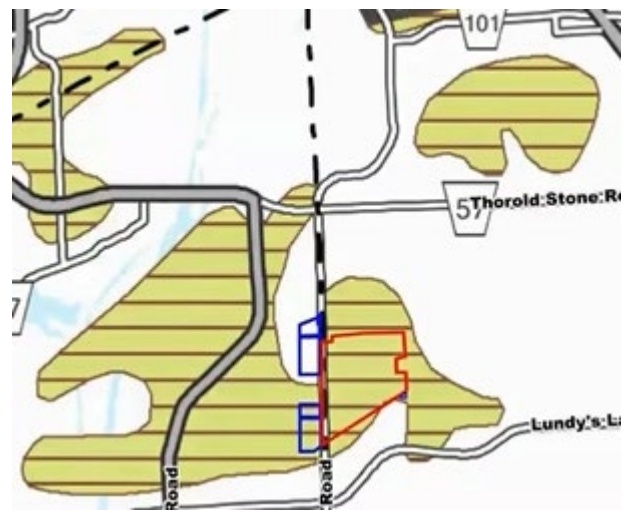
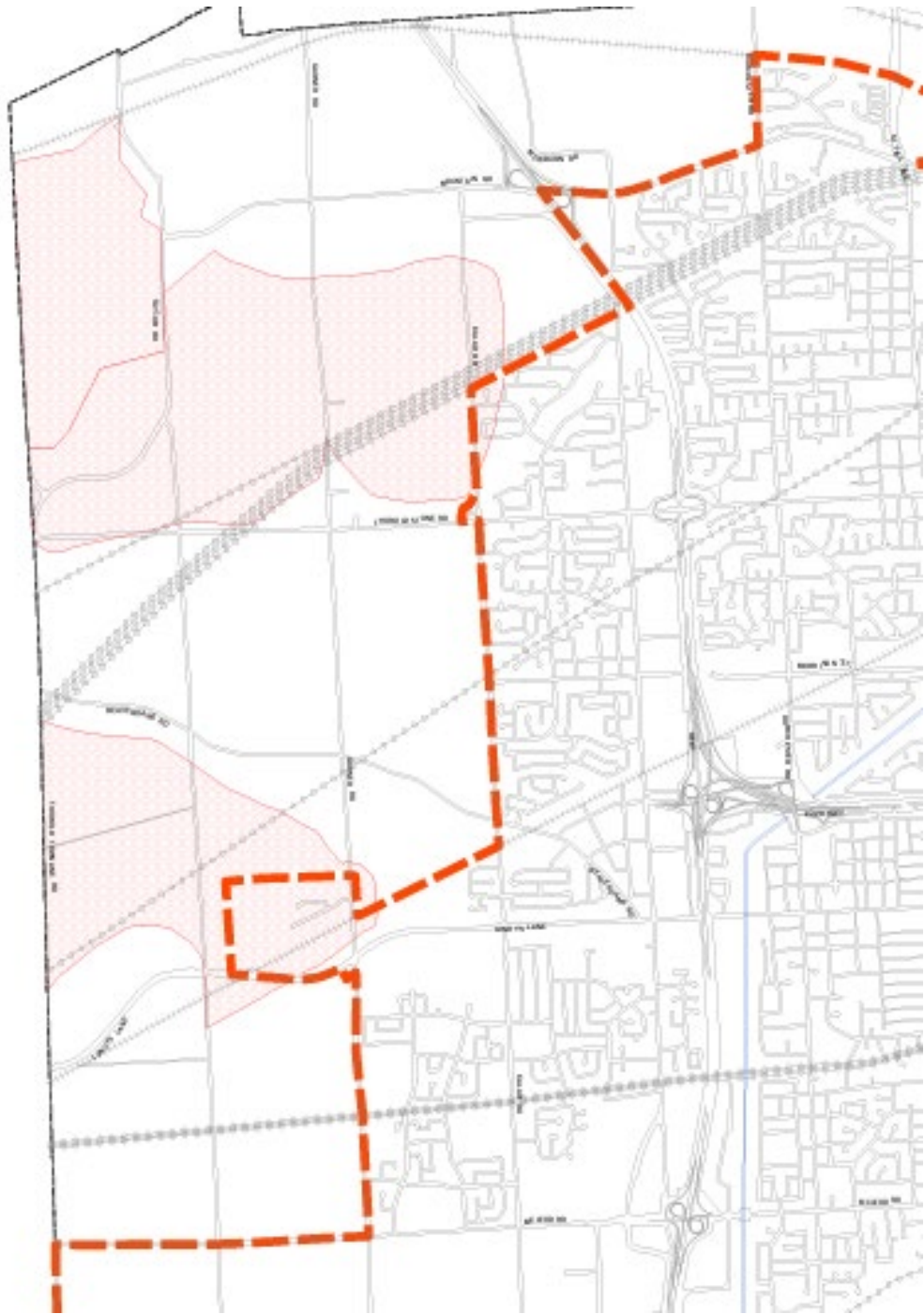
APPENDIX IV
POTENTIAL
AGGREGATE RESOURCES

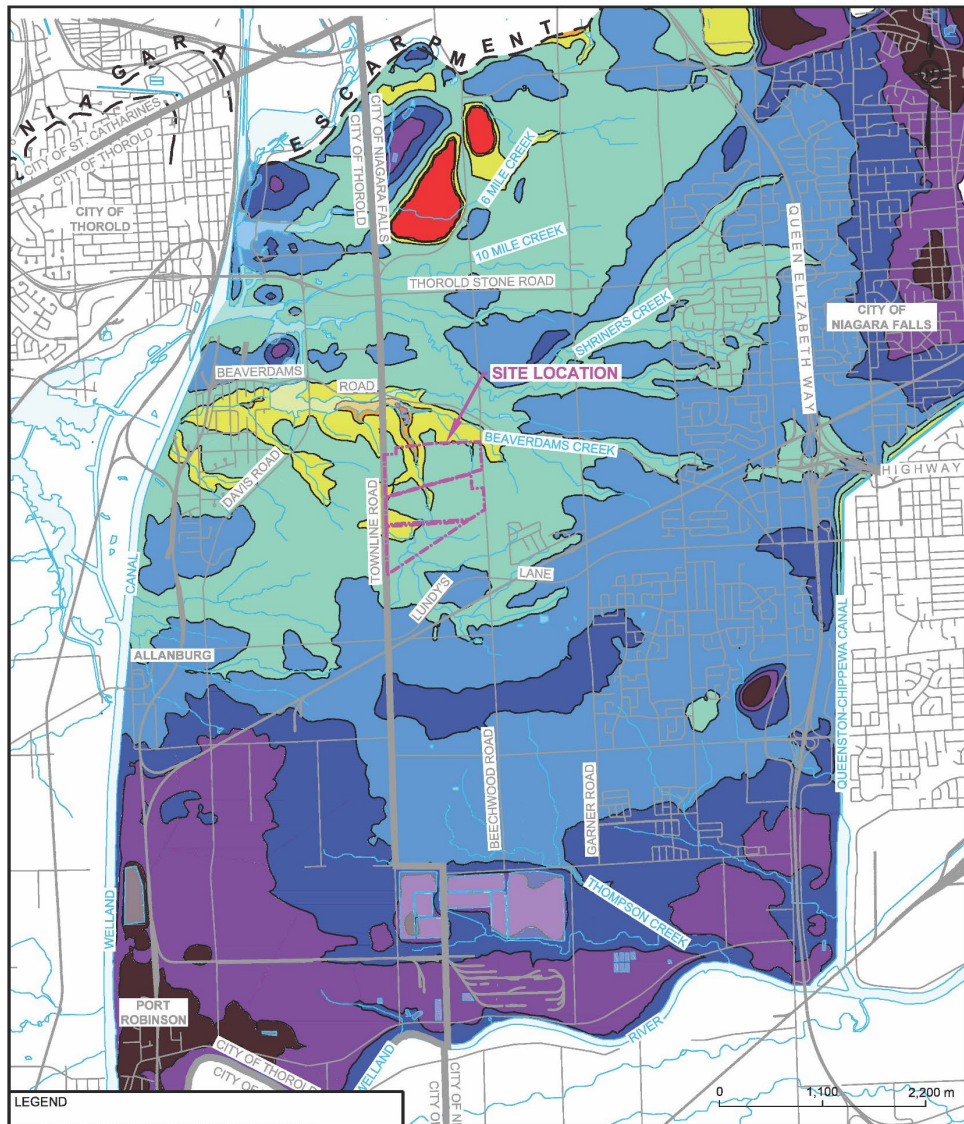
LEGEND:

AGGREGATE RESOURCE AREAS

-  BEDROCK RESOURCE AREA
-  GRAVEL RESOURCE AREA







LEGEND

INTERPOLATED OVERBURDEN THICKNESS (m)

	< 1		20 - 25
	1 - 2		> 25
	2 - 5		
	5 - 10		
	10 - 15		
	15 - 20		

INTERPOLATED OVERBURDEN THICKNESS

LEVEL 2 WATER REPORT
 PROPOSED UPPER'S QUARRY
 THOROLD / NIAGARA FALLS, ON
 For Walker Aggregates Inc.

DATE: OCTOBER 2021 PROJECT: 161-11633-00

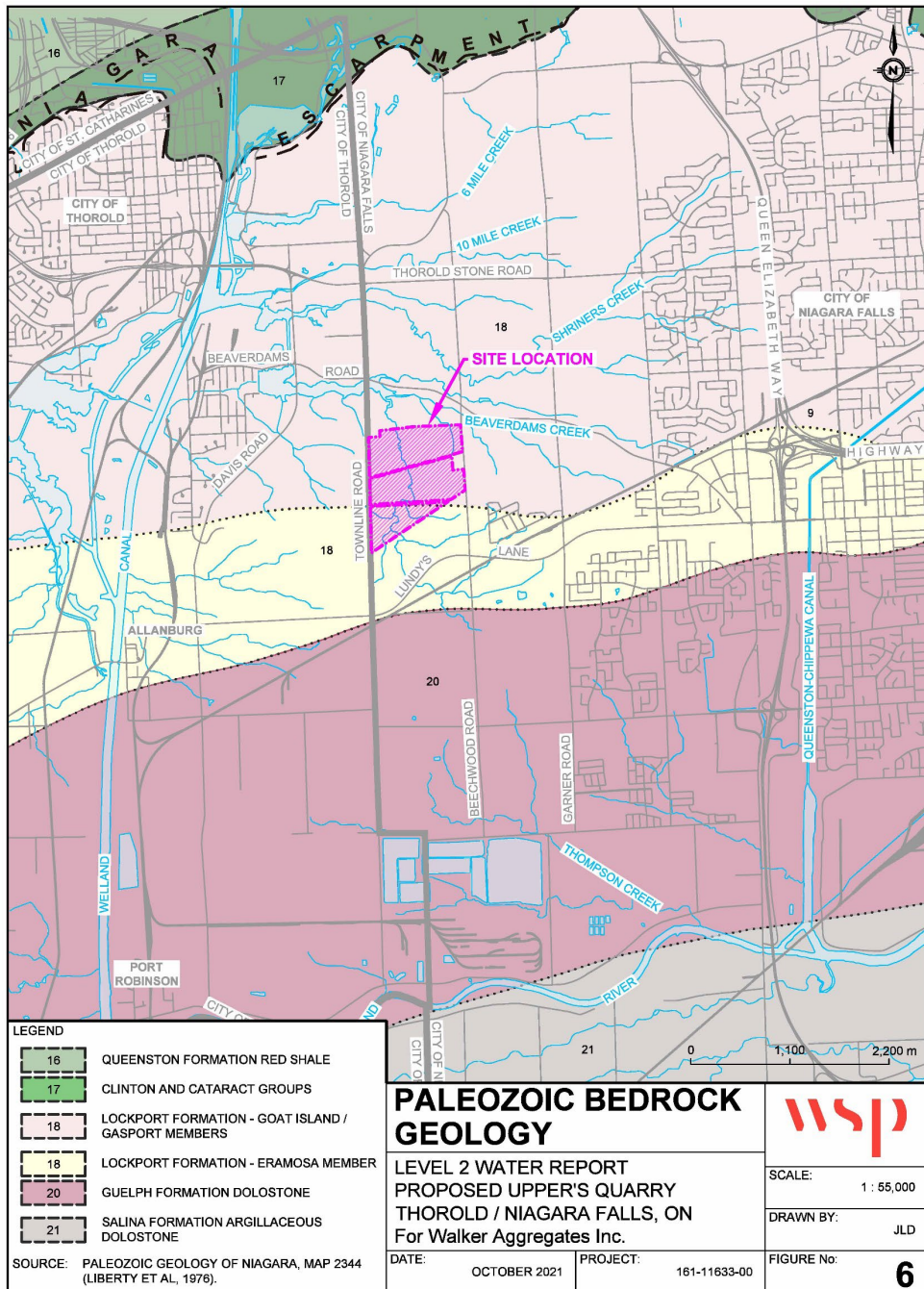
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DRAWN BY: JLD

FIGURE No: **5**

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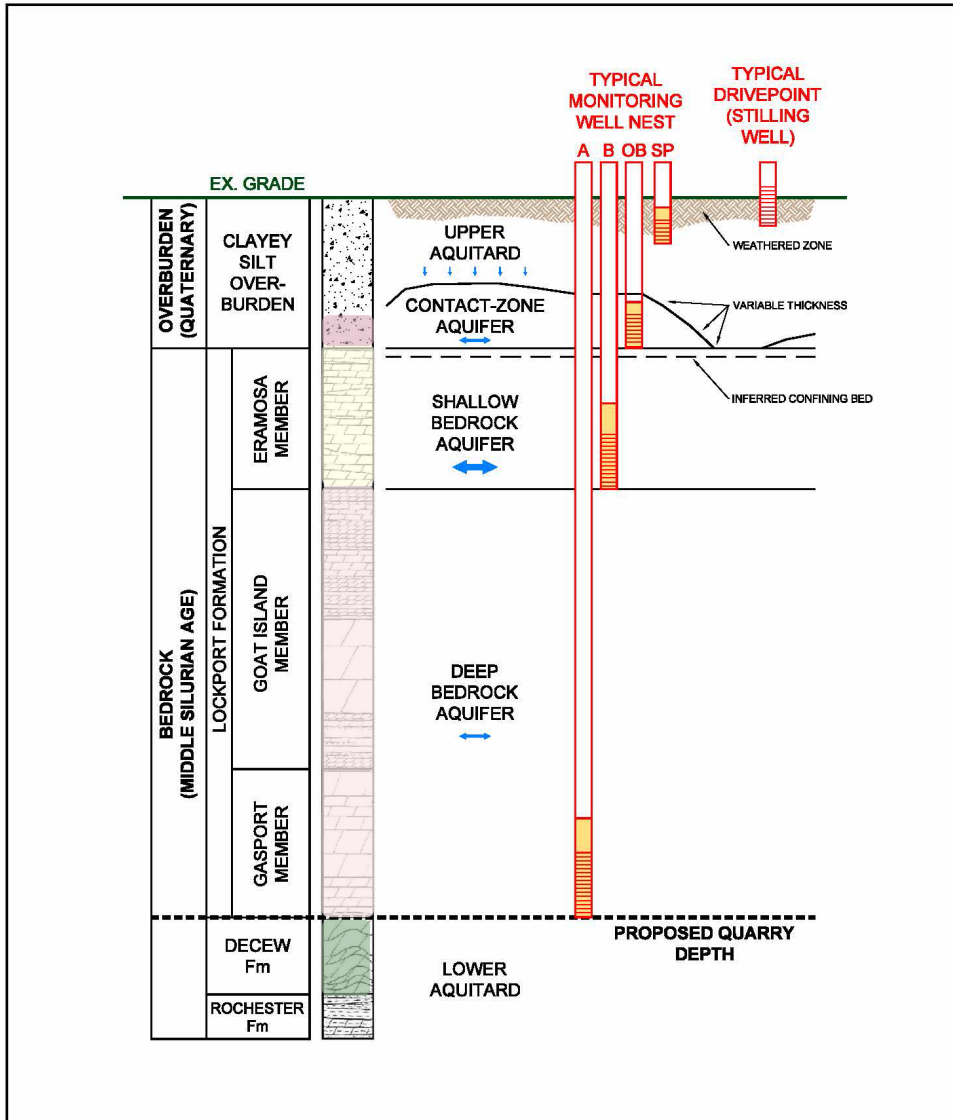


LOCKPORT FM
 Goat Island & Gasport Mbrs

LOCKPORT FM
 Eramosa Mbr

GUELPH FM.
 (dolostone)

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LEGEND

→ INFERRED GROUNDWATER FLOW

NOTES:

1. ARROW SIZE INDICATES RELATIVE MAGNITUDE OF INFERRED FLOW.
2. TYPE SECTIONS AFTER LINCOLN QUARRY AND THOROLD QUARRY, LIMESTONE INDUSTRIES OF ONTARIO, VOLUME III (MNR, 1989)

CONCEPTUAL MODEL SCHEMATIC DIAGRAM

LEVEL 2 WATER REPORT
 PROPOSED UPPER'S QUARRY
 THOROLD / NIAGARA FALLS, ON
 For Walker Aggregates Inc.

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wsp

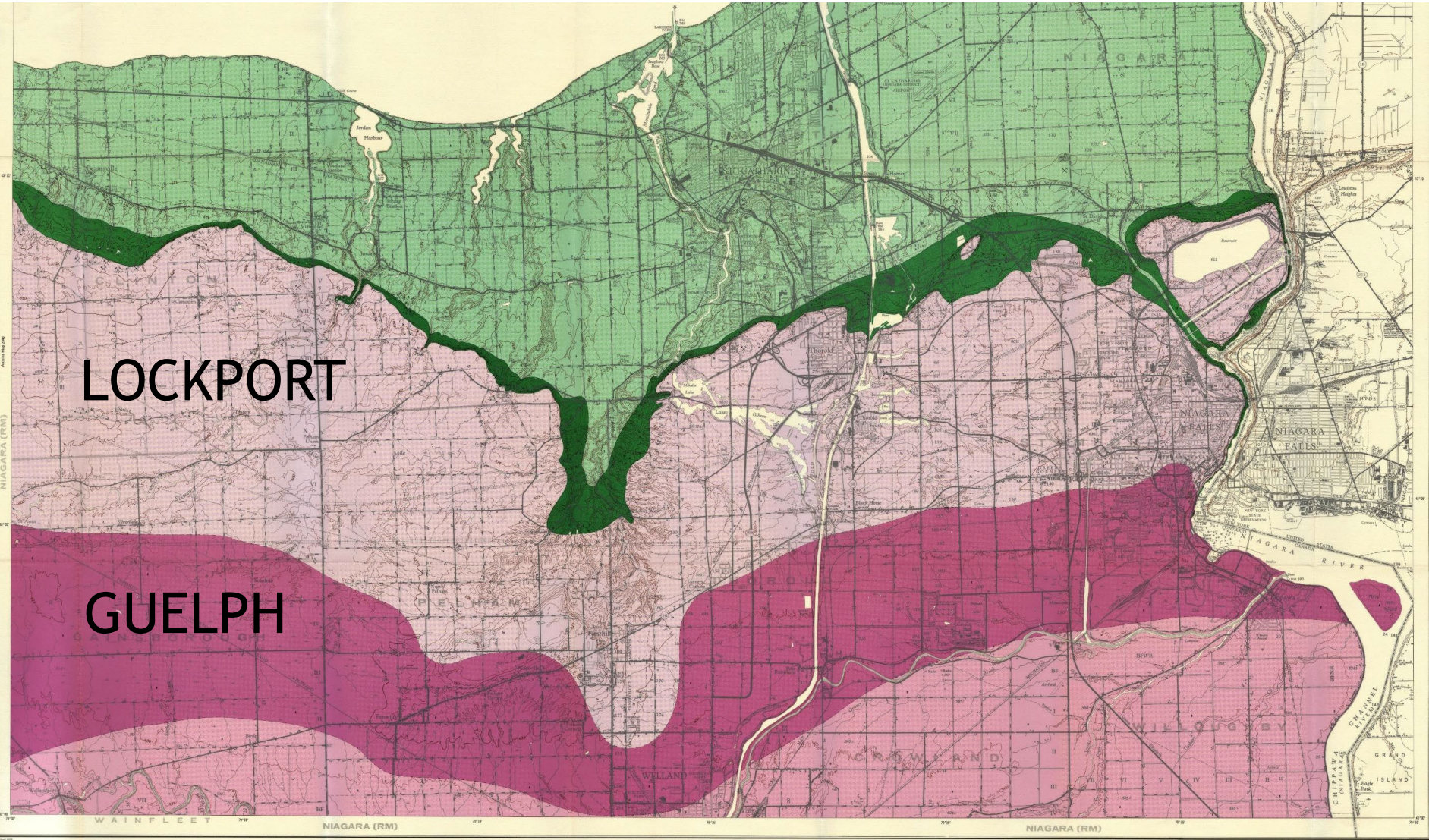
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FIGURE No: **2A**

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Map 2944
PALEOZOIC
NIAGARA
SOUTHERN ONTARIO
 Scale 1:50,000



LEGEND

PALEOZOIC

DEVONIAN

NIAGARA

Salina Formation

Lockport Formation

Clinton Group

Devonian

Silurian

Ordovician

Geological boundaries, observed

Geological boundaries, position approx.

Geological boundaries, position inferred

Quarry

REFERENCES

SOURCES OF INFORMATION

Map 2944
PALEOZOIC
NIAGARA
SOUTHERN ONTARIO
 Scale 1:50,000