THE PROPOSED UPPER'S QUARRY

Public Information Session
March 1, 2023

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Information Session Overview

Purpose

The purpose of this meeting is to provide information and answer questions relating to the Application for the Proposed Upper's Quarry.

Format

- Overview presentation to provide an overview of the project, the application process, and how participants can submit formal comments (1 hour)
- Moderated question & answer session (1 hour)

Walker - 130 Years in Niagara

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Helping Build Niagara - New Niagara South Hospital

Photo Source: https://www.niagarahealth.on.ca/site/home

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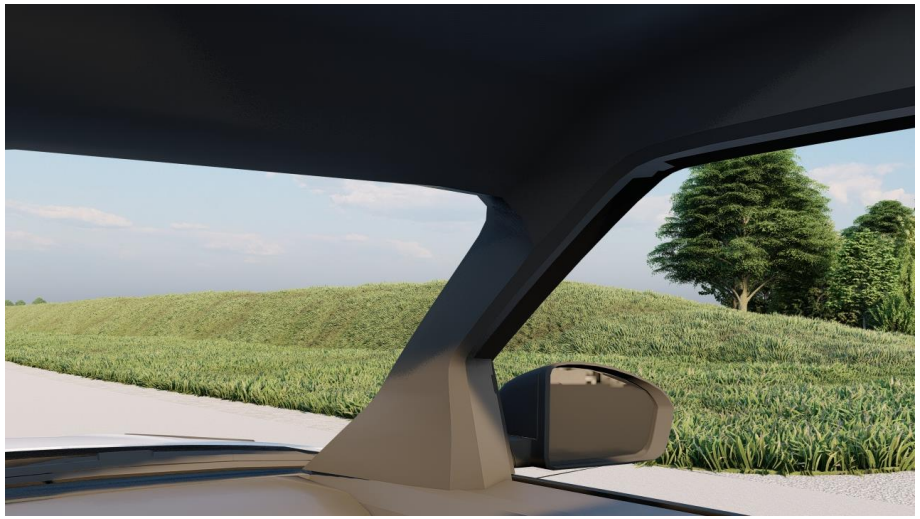
Quarry Roadside - Example: Vineland Quarry

Uppers Quarry - Surrounding Roads

(Renderings for illustrative purposes)



Rehabilitation - After Operations

Our Commitment to You

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Thank you

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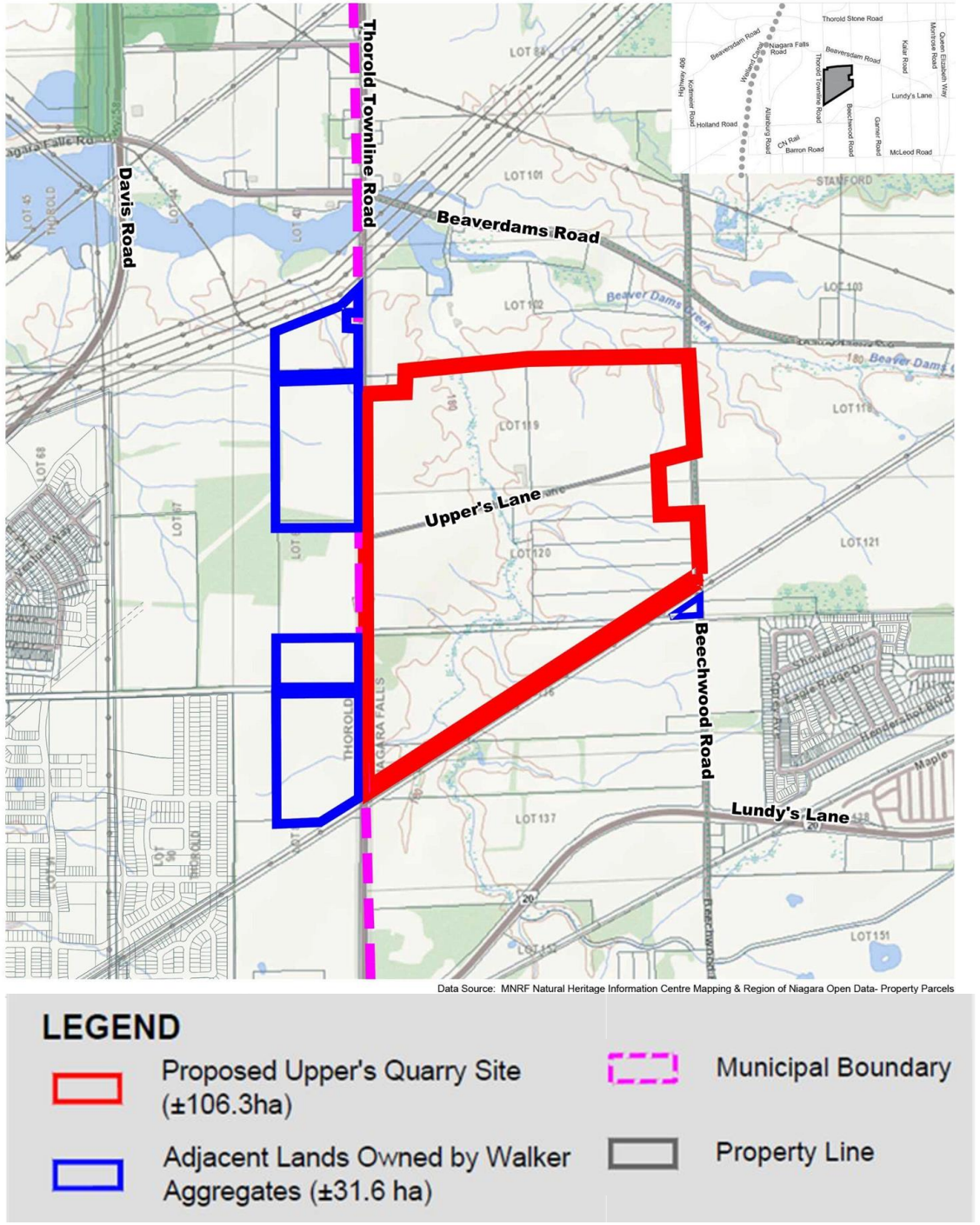
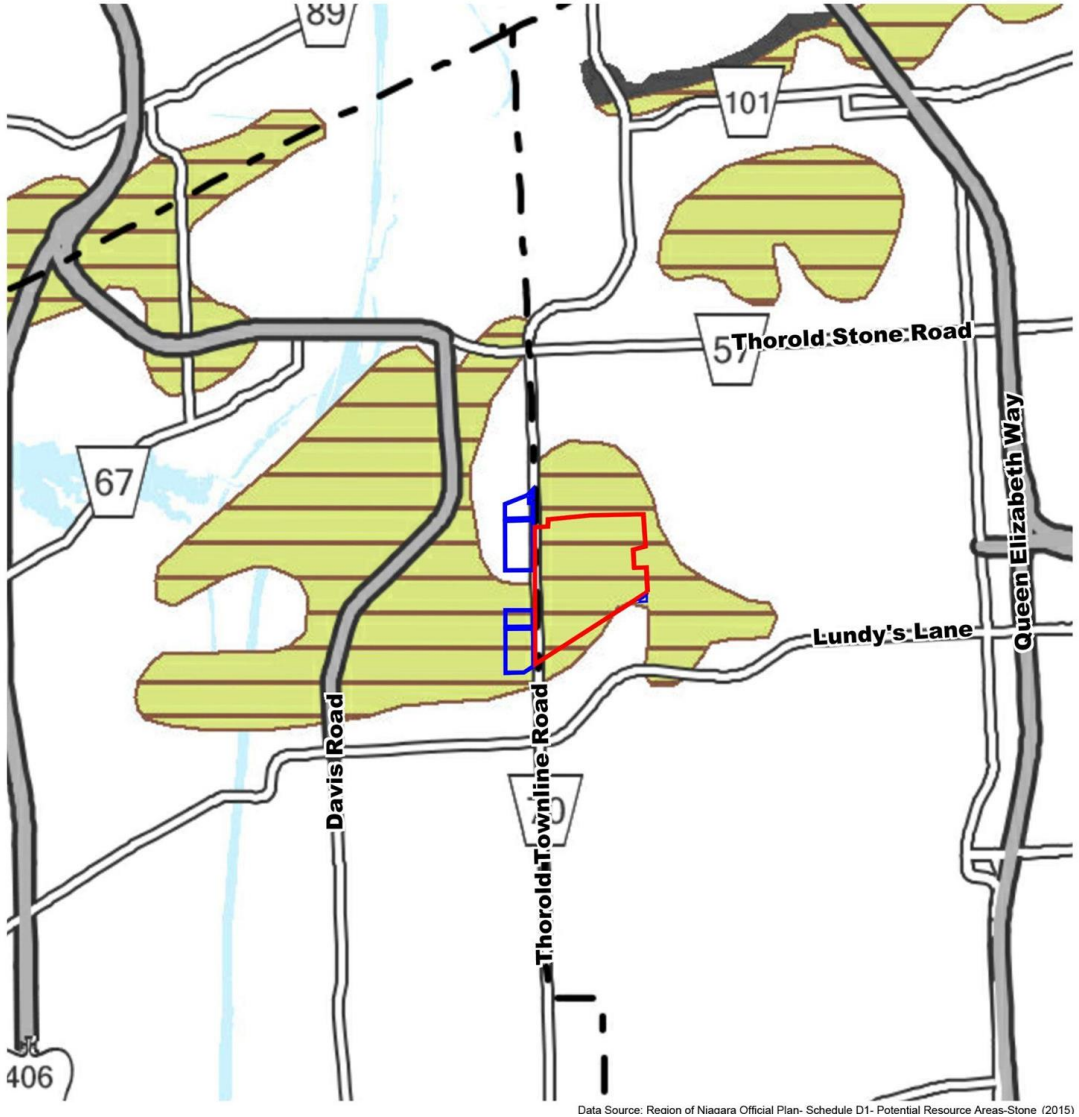
Project Overview

Application details:

- This application is for a new quarry
- This application proposes a Class A licence to excavate no more than 1,800,000 tonnes of aggregate each year (annual limit) from a below the ground water table quarry.
- The proposed quarry site is 106.3 hectares in size and is proposed to be located at Part Lots 119, 120, 136 and 137 in the former Township of Stamford,now in the City of Niagara Falls, Region of Niagara.



Resource Area - Stone



Niagara Region Official Plan

Schedule D1: Potential Resource Areas-Stone

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

LEGEND

- Proposed Upper's Quarry Site
- Adjacent Lands owned by Walker Aggregates
- Potential Resource Areas-Stone

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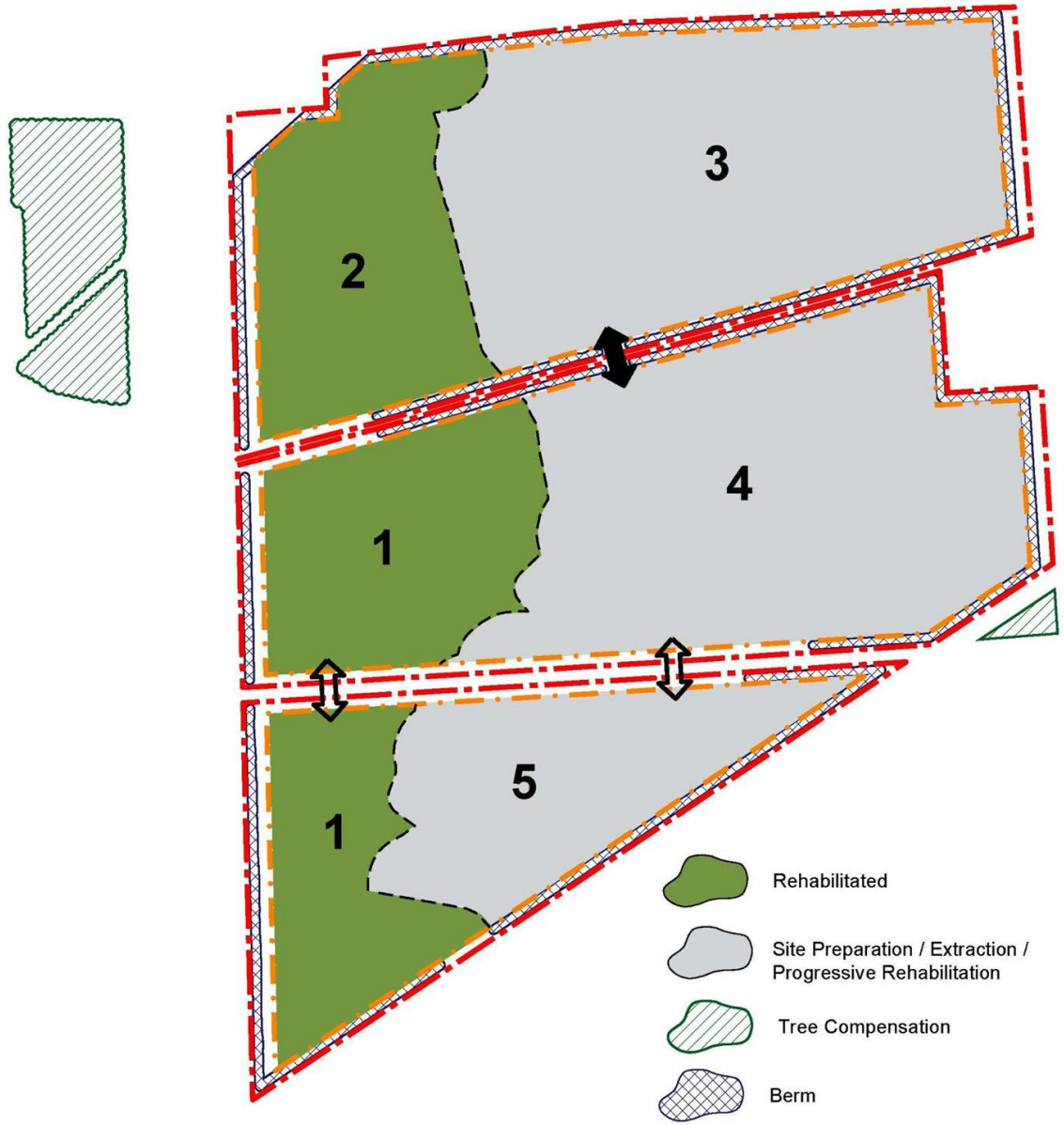
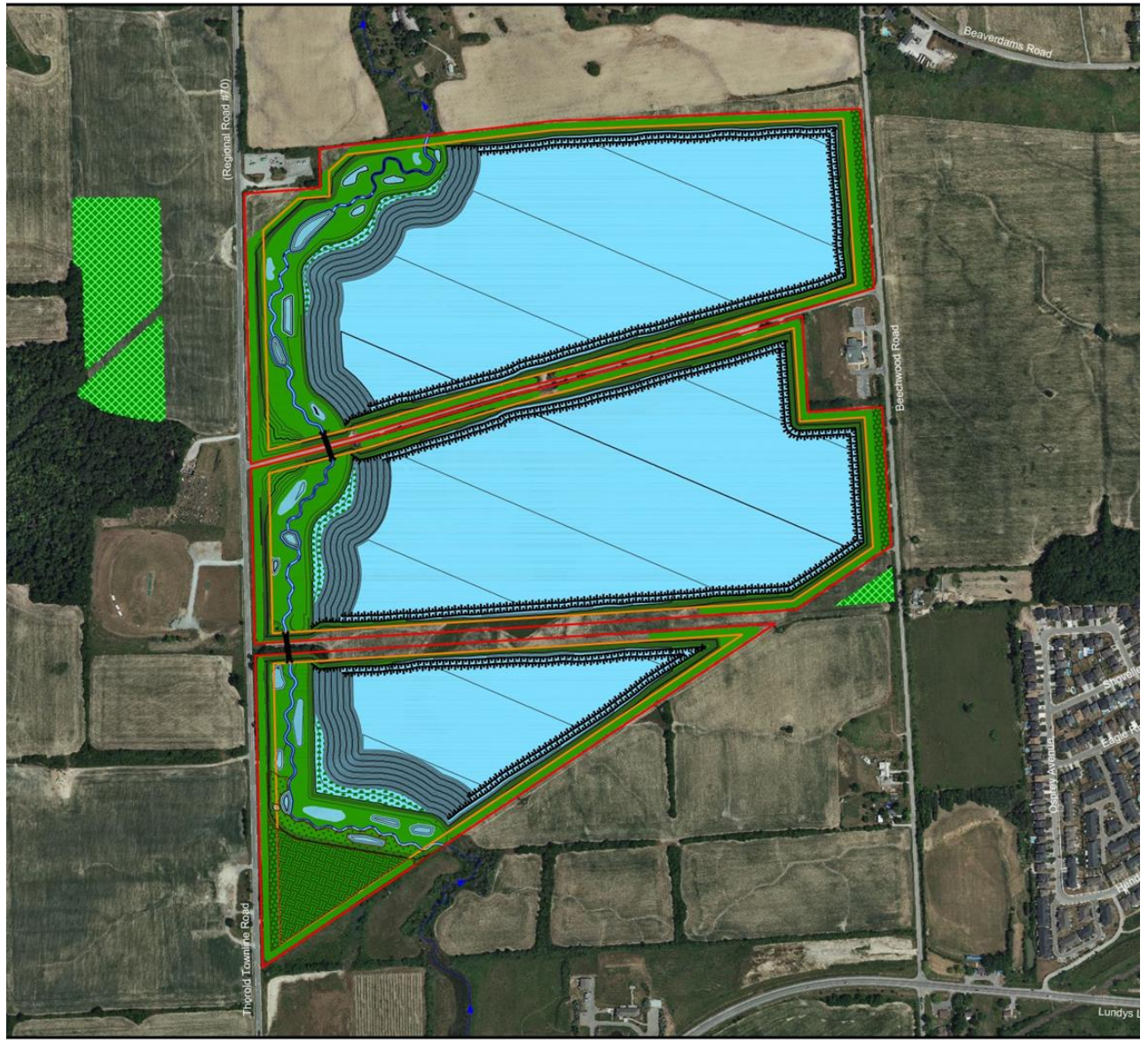
Operational Plan

Extraction and Rehabilitation Sequence (Phases 1 and 2)

Extraction and Rehabilitation Sequence (Phases 3, 4 and 5)



Final Rehabilitation



Application process & technical studies summary

The licensing process is guided by multiple acts, regulations and policies which require Walker to conduct multiple studies about the natural environment, community safety and cultural heritage.

In the next section the technical consultants will provide a summary of their studies:

- Overview of the Application Process and Regulatory Requirements
- Hydrogeology (Water) Study
- Natural Environment Study
- Traffic Study
- Air Quality Assessment
- Acoustical Assessment

Proposed Amendments / Licence

Numerous conditions must be satisfied in order to proceed including meeting provincial and regional government regulations that demonstrate that there are no environmental impacts that cannot be satisfactorily mitigated.

		Existing Designation / Zone	Proposed Designation / Zone required to permit the proposed mineral aggregate operation
Planning Act	**Niagara Region Official Plan**	Good General Agriculture Area & Environmental Conservation Area	Add Site Specific Policy
	City of Niagara Falls Official Plan	Good General Agriculture, Environmental Protection Area & Environmental Conservation Area	Extractive Industrial
	City of Niagara Falls Zoning By-law	Agriculture (A and A-467) & Hazard Land (HL)	Extractive Industrial (EI) with site specific exceptions
Aggregate Resources Act	A **Class A Licence** to permit a below ground water table quarry		

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Planning Act Process

Amendments to the Region and City Official Plans and City Zoning By-law are required to permit the proposed quarry

PLANNING ACT: REGIONAL/LOCAL OFFICIAL PLAN AND ZONING AMENDMENT PROCESS (Region of Niagara and City of Niagara Falls)									
Preconsultation with the Region and City	Applicant prepares all Required Technical Reports	Applications submitted to the City and Region	City and Region circulate the application / review initiated	Region/City holds Public Open House	JART and other Agency Review (ongoing to Staff Recommendation Report)	Council public meeting(s)	Region and City staff prepare a report(s) with recommendation to approve, modify or deny the applications	Council makes a decision	OLT approval period (20 days after decision)

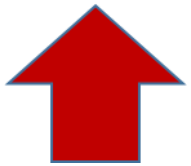
We are here

Acronyms:
JART - Joint Agency Review Team
OLT - Ontario Land Tribunal
MNRF - Ministry of Natural Resources and Forestry

Aggregate Resource Act Process

An application for a Class A licence to operate a quarry is required through the Ministry of Natural Resources and Forestry (MNRF)

AGGREGATE RESOURCE ACT Licence Application Process							
Preconsultation with MNRF	Preparation of technical reports, Site Plan and Summary Statement	Applications submitted to MNRF	Applications deemed complete by MNRF	Applicant initiates the Notification and Consultation process	Applicant works to address comments and resolve issues raised by the comment period	Applicant documents the process and submits to the MNRF	MNRF makes a decision on the application or, if there are unresolved objectors, MNRF refers to the application Ontario Land Tribunal



We are here

Joint Agency Review Team (JART)

Role:

Coordinated technical review and engagement / consultation on behalf of these agencies

The JART consists of staff from:

- Niagara Region
- City of Niagara Falls
- Aggregate Advisor (retained by JART)
- Niagara Peninsula Conservation Authority

Technical Studies & Expert Review

* Further Detailed Review / Permit Approvals will be required post planning and licence approvals as per Site Plans

Studies / Plans	JART (Region, City, NPCA, Aggregate Advisor)	Peer Review	Provincial / Federal Ministry / Agency
Planning Justification Report	✓		
Alternative Site Analysis	✓	✓	
Archaeological Assessments	✓		MNRF, Ministry of Culture, Sport and Tourism*
Cultural Heritage Impact Assessment	✓		
Water Study / Water Table Report	✓	✓	MNRF, MECP*
Environmental Impact Study / Fisheries Assessment	✓	✓	MNRF, MECP, DFO
Agricultural Impact Assessment	✓		MNRF, OMAFRA
Acoustic Assessment	✓	✓	MNRF, MECP*
Air Quality Assessment	✓	✓	MNRF, MECP*
Blasting Impact Assessment	✓	✓	MNRF, MECP*, TCPL*
Traffic Impact Study	✓	✓	MNRF
Economic Benefits	✓		
ARA Site Plans	✓	✓	MNRF

Acronyms:

MNRF – Ministry of Natural Resources and Forestry

MECP – Ministry of Environment, Conservation and Parks

DFO – Department of Fisheries and Oceans

OMAFRA – Ministry of Agriculture, Rural Affairs

TCPL – TransCanada Pipeline

Submitting Comments on the Application

Any person(s) wishing to comment on this application must send, in writing, their comments to dwalker@mhbcplan.com **and** send a copy to ARAapprovals@ontario.ca

If email is not available, comments can also be mailed to:

- Walker Aggregates Inc. (c/o MHBC Planning, attn.: Debra Walker, 7050 Weston Road, Suite 230, Woodbridge, ON L4L 8G7), **and**
- The Aggregates Section, Ministry of Natural Resources and Forestry, 300 Water Street, Peterborough ON K9J 3C7

Deadline for comments is **April 03, 2023**

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Hydrogeology (Water) Study - Methodology

Quarry dewatering and discharge to the natural environment is regulated under the **Ontario Water Resources Act**

- ***Uppers Quarry must remedy any interference with existing water well users***
- ***Limits for discharge quality and Trigger Mechanism and Contingency Plan***
- ***Annual monitoring and reporting requirements***

- The Level 1 & 2 Water Study confirms that the proposed quarry will meet these regulations

Study Area – from Welland Canal (west) to Power Canal (east), Welland River (south) to Niagara Escarpment (north)

- Site baseline monitoring program in place since 2012
- Includes 60 monitoring wells, 8 private drinking water wells and 11 surface water stations, all electronically monitored
- Hydraulic testing program using groundwater wells
- Numerical groundwater model created to predict future impacts

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Hydrogeology (Water) Study – Findings & Mitigation

Predicted Impacts to Groundwater Users

- Much of study area is currently serviced or planned for municipal servicing
- Potential impacts limited to un-serviced area between the urban boundaries of the City of Niagara Falls and City of Thorold
- Degree of potential impact decreases with distance from the proposed quarry
- Potentially impacted private water wells can be deepened within the existing aquifer ***at Walker's expense*** to provide similar quantity / quality as the existing water well

Mitigation

- Detailed Private Drinking Well Interference and Mitigation Plan will be implemented proactively prior to quarry operation
- Long-term groundwater monitoring program (quality and quantity) will be completed during operational and rehabilitation phases with annual reporting
- Limited quantities of fuel stored on site are subject to Spill Action Plan

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Level 1 & 2 Water Study – Findings & Mitigation

Predicted Impacts to Surface Water Features (creeks and wetlands)

- Negligible impacts to surface water features due to thick clay soil (up to 10 m / 30')
- Quarry dewatering discharge predicted to improve downstream surface water quality

Mitigation

- Long-term surface water monitoring program (quality and quantity) and annual reporting
- Discharge quality limits and Trigger Mechanism and Contingency Plan for quarry discharge

Lake Filling (Rehabilitation)

- Dewatering discontinued and quarry allowed to fill naturally over time by combination of groundwater discharge and precipitation

Mitigation

- Continued monitoring during lake-filling

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Environmental Impact Study - Methodology

- Surveyed site and assessed conditions at site, 120 m adjacent lands and regional area
- On-site surveys conducted in 2017, 2019 and 2021
- Aquatic, vegetation and wildlife surveys
- Variety of experts involved in assessments

Environmental Impact Study – Findings

On Site and Adjacent Natural Heritage Features

- Wetlands (non-provincial significance)
- Significant Woodlot (meets regional criteria for significance but not provincial criteria for significance)
- Significant Wildlife Habitat - Habitat of Species of Conservation Concern (monarch butterfly and eastern wood-pewee – 1 siting in large offsite woodlot).

- Fish habitat (supporting warm water species and Northern Pike spawning)
- Habitat of endangered and threatened species (barn swallow)

Environmental Impact Study - Mitigation

Feature	Mitigation
Wetlands	• 7.0 ha of wetland replaced by 11.0 Ha– prior to removal • Enhanced habitat (more diverse and connected), integrated with aquatic fish habitat
Woodland	• 2.0 ha Woodlot replaced with 8.3 ha deciduous woodland (4.3 ha off-site and 4.0 ha onsite) • Enhanced species and contiguous to existing 14 ha woodland
Fish Habitat	• Watercourse realignment in place before existing watercourse removed • Enhanced spawning habitat, and refuge pools • Sediment and erosion control (fencing, barriers) • Compliance with DFO Guidelines for blasting and no net loss policy
Barn Swallow	• Barn swallow habitat replacement with net benefit to species • Registered under Endangered Species Act Registration

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Environmental Impact Study - Mitigation

Feature	Mitigation
Deer Congregation Area (woodlot)	• 2.0 ha woodlot considered narrow for deer congregation with limited winter shelter for species • Off-site compensation allows for immediate planting • Increasing 14 ha woodland (off-site) to 18 ha and additional 4.3 ha woodland (on-site)
Monarch	• Habitat protected in buffer and milkweed plantings along re-aligned riparian corridor (plants growing near the water) • Milkweed plant communities to be cleared outside April to September active window for species
Eastern Wood-Pewee	• Enhancement planting adjacent to existing 14 ha woodland (where species was observed)
Migratory Birds	• Tree clearing will be conducted outside of active window for nesting where possible • Where preferred timing windows cannot be met, nest searches will be conducted within 48 hours prior to tree clearing.

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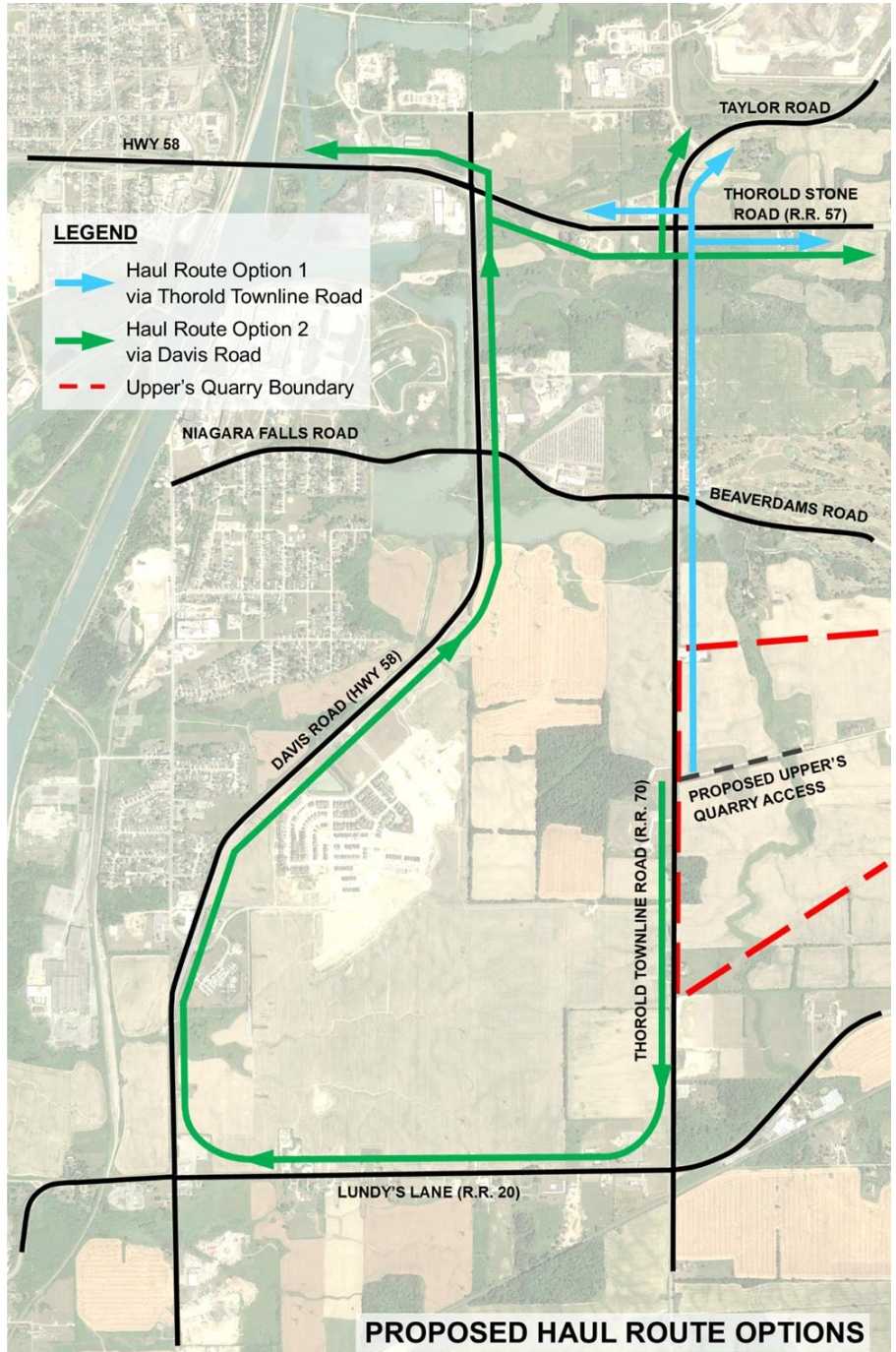
Environmental Impact Study - Monitoring

- Base flow monitoring of existing watercourse and other surface water features (wetlands) – existing and proposed (WSP)
- Fish community and fish habitat monitoring
- Habitat replacement monitoring (barn swallow, plantings)
- Extraction limits demarcated
- Ongoing monitoring of sediment and erosion control measures
- Reported annually



Traffic Impact Study - Methodology

- Liaised with reviewing agencies to confirm Traffic Impact Study Terms of Reference
- Study reviewed haul route options using Upper's Lane to Thorold Townline Road (a Regional Road) only
  - North to Thorold Stone Road
  - South to Lundy's Lane to Thorold Stone Road via Davis Road
- Proposed Haul Route will NOT make use of Beechwood Road
- Thorold Townline Road is an existing haul route
- Planned function of Thorold Townline Road is to accommodate truck traffic and larger volumes of traffic to connect areas within and outside Region
- Considers existing traffic and future traffic projections (based on planned growth) and considers planned improvements

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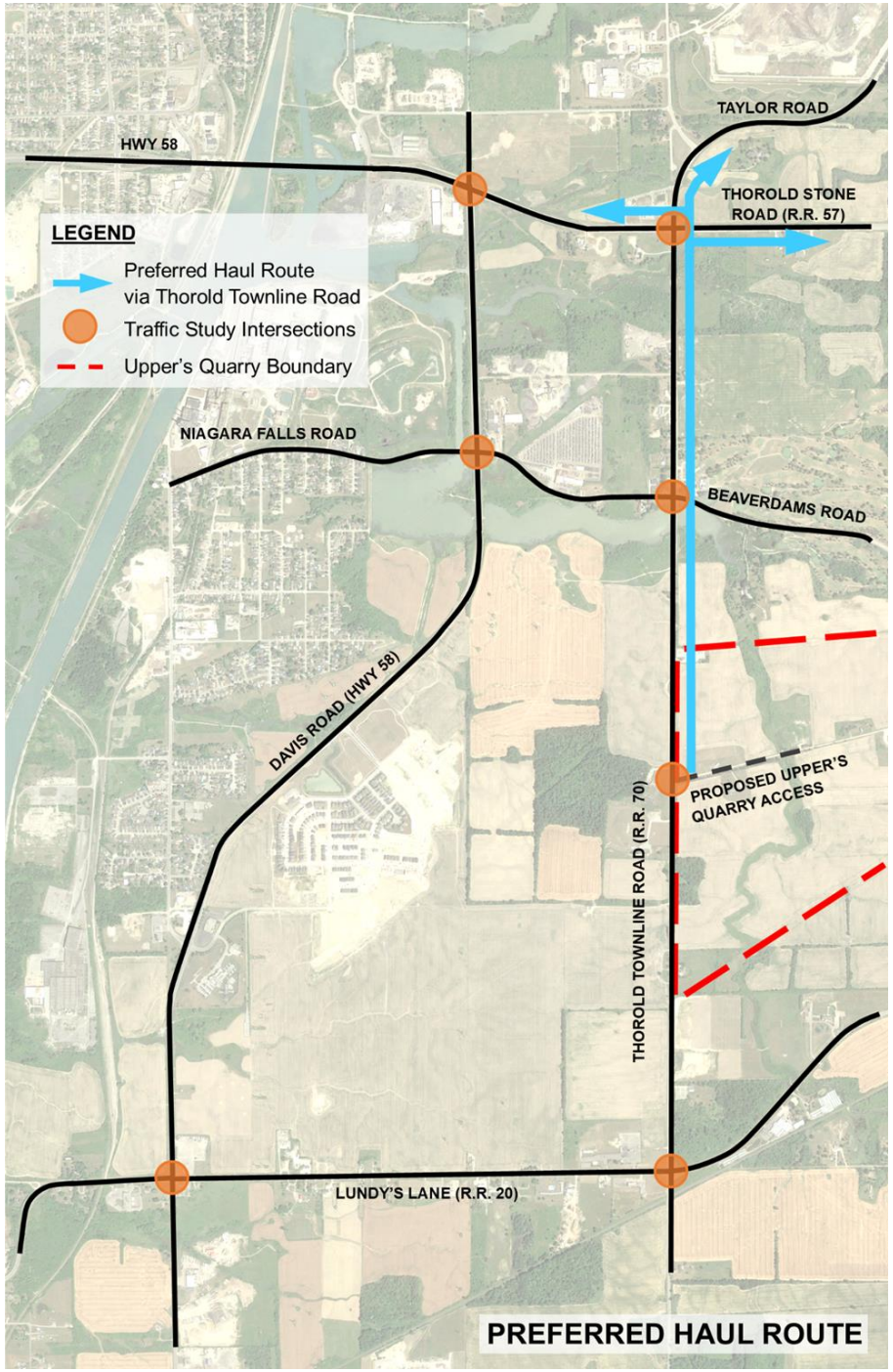

Traffic - Preferred Haul Route

- Utilizes Thorold Townline Road north of the site.
  - 30% via Taylor Road
  - 30% via Thorold Stone Road to QEW
  - 40% via Thorold Stone Road to Hwy 406
- The proposed quarry haul route to the north does not preclude local deliveries to the south on the existing Regional Thorold Townline Road haul route
- The proposed aggregate maximum annual extraction limit combined with the proposed asphalt maximum annual shipping limit will generate an estimated scenario of **96** new **two-way** truck trips during the a.m. peak hours of June, the typical highest haulage month of activity for quarries.

Number of New Trucks In/Out of Site	New Truck Trips (Per Hour)	
	AM	PM
Inbound	38	38
Outbound	58	38
Total	**96**	**76**

- Future truck trips in the 2035 planning horizon are estimated to contribute to a maximum of **10%** and **1%** of total vehicle volumes along Thorold Townline Road and Thorold Stone Road respectively.

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Traffic Impact Study - Findings

- Based on the haul route evaluation, north to Thorold Stone Road via Thorold Townline Road is the preferred haul route with the least traffic impact to the study area
- A sightline assessment confirmed that drivers of both trucks and passenger vehicles would have acceptable sightlines at the Upper's Lane access
- Study area intersections operate well or at acceptable levels under all planning horizons
- Traffic study references other recommended improvements attributed to existing and forecasted conditions (not triggered by quarry) including traffic lights at Thorold Townline Road at Beaverdams Road

Recommended improvements (triggered by quarry):

1. Access design at Upper's Lane and Thorold Townline Road intersection will be constructed prior to quarry becoming active
2. Access design includes:
    - Deceleration and acceleration lanes northbound at intersection
    - Slip around lane southbound

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Air Quality Assessment - Methodology

- The Air Quality Assessment uses a highly conservative approach where the operations modelled reflect the peak day of the peak year in the life of the quarry.
- This approach ensures that the assessment over-predicts the potential impacts.
- Certain equipment / operations will require an Environmental Compliance Approval from Ministry (if quarry is approved).
- An asphalt plant automatically requires an Environmental Compliance Approval.

Air Quality Assessment - Findings

- The primary contaminant is dust, which in this quarry is comprised almost entirely of dolostone, a form of limestone that is a naturally occurring material through the Niagara Peninsula
- Dolostone dust has very low levels of silica or other compounds
- The Ministry of the Environment Conservation and Parks Ontario has prescribed limits for all contaminants generated by the quarry.
- These limits are specifically developed to protect human health, including sensitive populations at schools, daycares, long-term care homes and hospitals.
- This includes any potential contaminants associated with an asphalt plant
- Dust is also further regulated under the Aggregate Resources Act

Air Quality Assessment - Mitigation

Mitigation:

- Apply water or provincially approved suppressant to internal haul roads and processing areas as often as required
- Dust collection / suppression on equipment within 300 metres of a sensitive receptor
- Best Management Practices Plan for fugitive dust emissions (based on maximum production rates):
    - Blasting operations within 300 metres of receptor required to have a small blast area (not exceeding 200 m2 of area)
    - Aggregate extraction, processing and shipping not to exceed 9,000 tonnes/day
    - Disturbed soils are revegetated as soon as possible, or capped with clay
    - Speed limits for all on-site roads reduce dust from moving vehicles
    - Conveyors are used instead of trucks whenever possible

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Acoustical Assessment - Methodology

- Province has prescribed noise standards that apply
- Noise sources: quarry equipment/activity, conveyor, asphalt plant, internal haul routes and shipping truck routes
- Certain equipment / operations will require Environmental Compliance Approval from Ministry (if quarry is approved)

Acoustical Assessment - Mitigation

Mitigation:

- Minimum 3 metre tall vegetated perimeter berms around proposed quarry site (small hills planted with trees and various grasses/plants)
- Primary crusher to stay within 30 metres of working face to maximize shielding
- Input into quarry design (direction of extraction and phasing)
- Minimum 8 metre tall barrier within 40 metres of processing plant secondary crushers when in Phases 4 and 5
- Best Management Practices, including:
    - Construction limited to City's Noise By-law
    - Muffler systems on internal combustion engines
    - Noise complaint procedures set out to verify noise control measures. If complaint is verified, alternative noise control measures will be implemented.

Walker Commitment

Vision: Our vision is to build a sustainable future working in partnership with our communities.

Mission: We support communities through what we do, how we do it, and by caring about our people, our neighbours and environment. It’s our legacy and our future

Q & A Overview

- Please keep the meeting purpose in mind
- There are two ways to ask questions and make comments during this session: Chat or Raise Hand features
- We will endeavor to address all comments in the time allowed

Please Note - The questions and answers in this session are **not** considered official comments regarding to the application. We will provide details further in this presentation for official commenting.

Q & A – Zoom features

- Select **Raise Hand** – look for hand icon at the top or bottom of your screen
- When you are called upon to speak, please unmute your line by clicking **Unmute**
- After speaking, select the hand icon once more to **Lower Hand**
- Attendees who have dialed in or switch to the dial in opting during the event may raise their hand by pressing ***9** and unmute their line by pressing ***6**

- Select **Chat** – look for the conversation bubble at the top or bottom of your screen
- Type your question and select **Send**
- Attendees who have dialed in or switch to the dial in opting during the event will have the opportunity to ask questions during the Q&A session

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Q & A - Panel

Walker:

- Kevin Kehl, Project Manager
- Chris Breen, V.P. Government & Community Relations

Technical Consultants:

- Debra Walker, Planning & Regulatory, MHBC
- Leigh Davis, Hydrogeology (water), WSP
- Kevin Fitzpatrick, Hydrogeology (water), WSP
- Dan Eusebi, Natural Environment, Stantec
- Sean Geddes, Fisheries Biologist, Stantec
- Michael Dowall, Traffic, TYLin
- Brian Sulley, Air Quality, RWDI
- Slavi Grozev, Noise, RWDI

How to Submit Official Comments

Applicant Contact Information:
Walker Aggregates Inc.
(c/o MHBC Planning, attn.: Debra Walker,
7050 Weston Road, Suite 230, Woodbridge, ON L4L 8G7)
Email / Phone (MHBC): dwalker@mhbcplan.com or 905-761-5588 (x216)

Providing Comments on the Application:

Any person(s) wishing to comment on this application must send, in writing, their comments to the Applicant (at the email address above) **and** send a copy to: ARAapprovals@ontario.ca

If email is not available, comments can be mailed to: (i) the applicant at the mailing address above **and** (ii) the Aggregates Section, Ministry of Natural Resources and Forestry, 300 Water Street, Peterborough ON K9J 3C7

The last day on which comment(s) may be filed with the **Applicant** and **Ministry** is:
The **3rd day of April, 2023.**

Note: If you choose to participate in the Aggregates Resources Act (ARA) notification and consultation process, all personal information (PI) you provide may be subject to the Freedom of Information and Protection of Privacy Act (FIPPA), whether provided to the Applicant or MNRF at any point during the consultation process. The MNRF collects your PI under the authority of s. 11, s.13.1, s.23, s. 35 and other provisions of the ARA and maintains it for the purposes of ensuring consultation and other requirements in the ARA are met. Under the authority of s. 11(2),s.13.1(3), s.23(7), s.35(2) of the ARA, your name and address will form part of the public record (that is available to the general public as described in s 37 of FIPPA) and will appear with your comments, unless you request in your submission that your name and address be kept confidential. If you have any questions about the collection and use of your personal information, please contact Ministry of Natural Resources and Forestry, Natural Resources Information and Support Centre (NRISC) 300 Water Street Peterborough ON K9J 3C7 Toll free: 1-800-667-1940.

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THANK YOU

For more information or to contact us:

Visit: www.uppersquarry.ca

Toll-Free Phone: 1-844-907-3731

Email: info@uppersquarry.ca