BARTON

Sustaining Our Business & Local Jobs for the Future

Request for a Mining Permit Modification – October 2021

Ruby Mountain Quarry in North River, NY

Why We're Here?

Barton Mines is reaching a crossroad in its 143-year history in the Adirondack Region. Current permit parameters allow only ~8 years of Ruby Mountain operation.

Barton is seeking APA and DEC approvals to modify existing mining permits in order to sustain the life of the business, local jobs, and our many economic benefits to the regional community for generations to come while **minimizing impacts to our neighbors and the environment.**

How We Got Here?

Barton's management team and outside technical experts have worked diligently over the past three years to develop a proposal that meets operational needs in a **responsible manner and incorporates feedback from our neighbors** to minimize community impacts.

Agenda & Senior Team

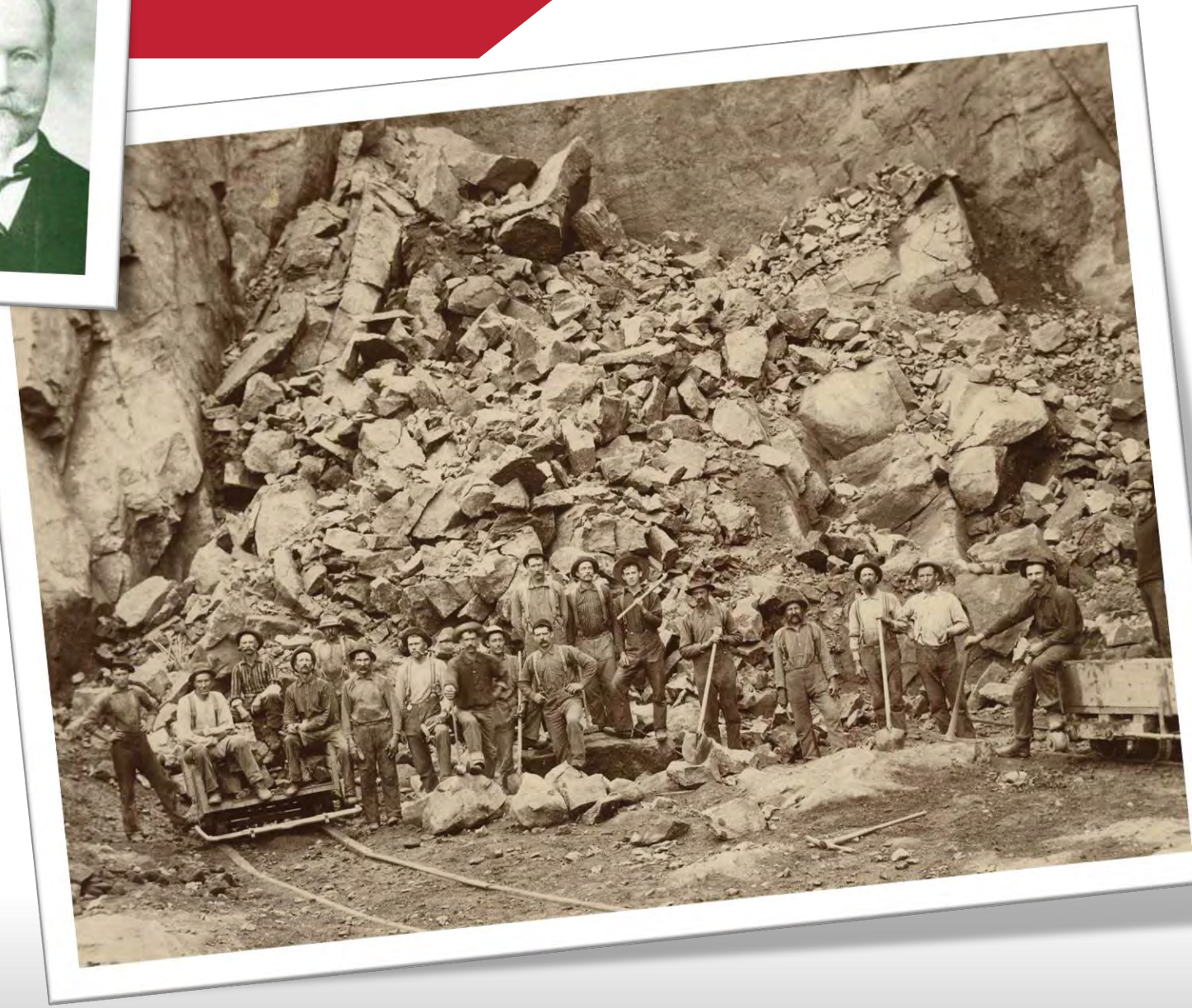
1) Company Overview & Challenge
2) Proposed Mine Permit Solutions
3) Team Members Available For Questions

Chuck Barton	Chief Operating Officer
Rob Albano	VP of Human Resources and HSE
Mario Cangemi	Director of Health, Safety and Environment
Doug Drumm	Director of Operations
Jeff Kinblom	Director of Engineering
Trevor Thomas, PE	Principal, H2H Geoscience Engineering
Richard Hisert, PhD PG	Principal, H2H Geoscience Engineering
Bernard Melewski	Legal Counsel
John Brodt	Vice President, Behan Communications

The Barton Mines Story

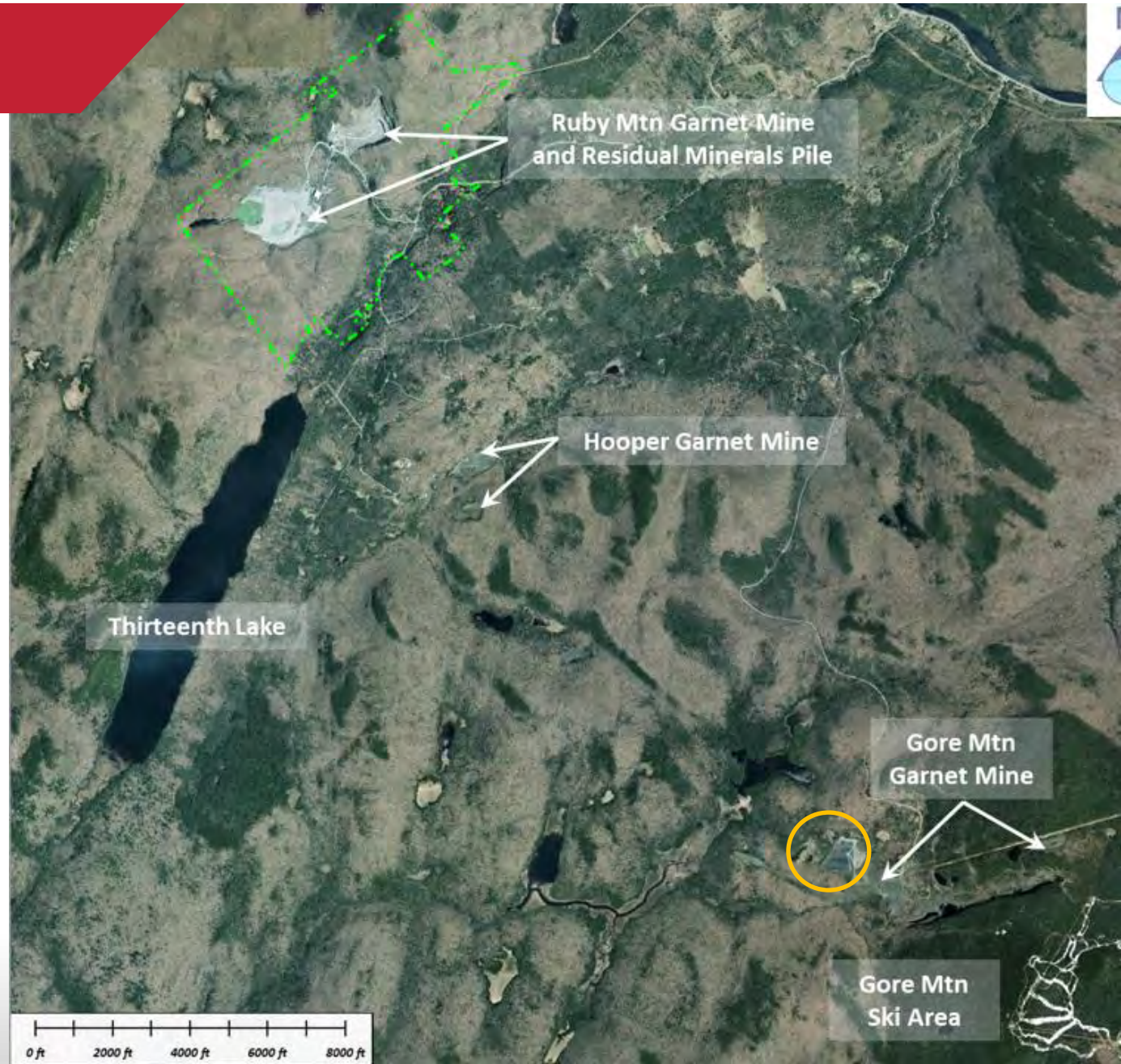
Company History

- Established in 1878 by Henry Hudson Barton
- 143 years of continuous operation
- Began mining garnet for use as sandpaper abrasive for building post-Civil War America
- Still owned by the family, six generations later



Historical Mining

- Barton's Gore Mountain Garnet Mine operated from ~1878 to 1982.
- Hooper's Garnet Mine operated from 1898 to 1928 and then merged with Barton.
- Barton's current Ruby Mountain Mine began operation in 1983 and is one of four large hard-rock garnet mines in the world today.
- Garnet was adopted as the New York State gemstone in 1969.



Barton Today: Products For Manufacturing

World's highest-quality, best-performing crushed garnet abrasives for use in:

1. Extract garnet ore from rock

2. Turn garnet ore into abrasive products

Waterjet Cutting

Abrasive Blasting

Specialty Finishing

Barton Today: Our Company

- **One of North Country's largest private employers**
  - ~75 in Johnsburg & Indian Lake areas
  - (plus ~30 in Glens Falls headquarters)

- **$15+ million annual impact on regional economy**
  - ~$8M for wages/benefits
  - ~$7M in local purchases/services
  - $400K in local taxes (property and school)
  - $25K contributions to local non-profits

Barton Today: Our Vision & Values

To be the global leader in the garnet abrasives industry, providing the highest quality and most innovative abrasive solutions and services.

Permit Modification Alignment

OUR CORE VALUES

CULTURE

Employees are our most important asset.
Our goals are achieved through creative collaboration and teamwork.
We take pride in our rich history and family legacy.

INTEGRITY

Our actions are respectful, honest, and build trust.
We are **mindful of our surroundings and practice environmental stewardship**.
Our **workplace is healthy and safe**.

EXCELLENCE

Customers are our priority.
Our products and services are the highest quality.
We strive to exceed our goals and create value.

Barton Today: Exceeding Industry Standards

Safety Program Annual Injury Rate	8 Year Average
Mining Industry	2.2
Barton Mines	0.7

Injury Rate 68%

Less Than Industry;

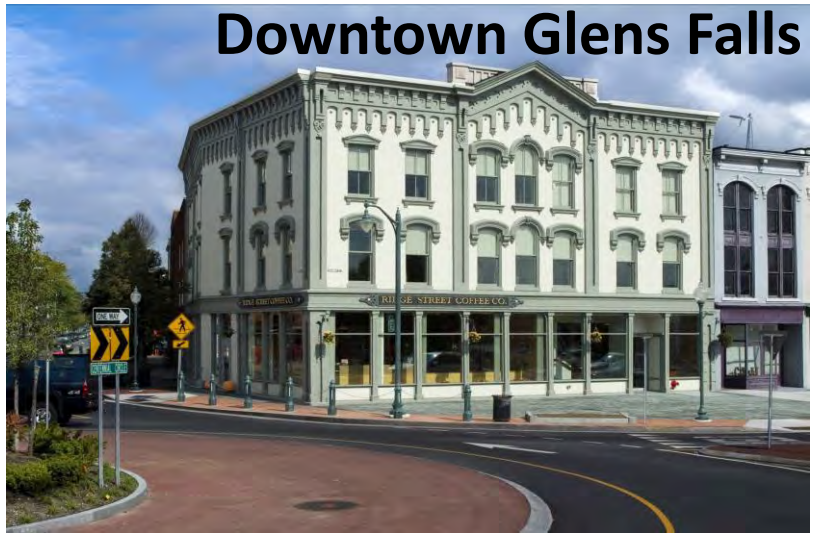
Currently 650 days

Injury-Free

Gore Mountain Site

Solar Electricity Farm

7 Acres / 2 Megawatts



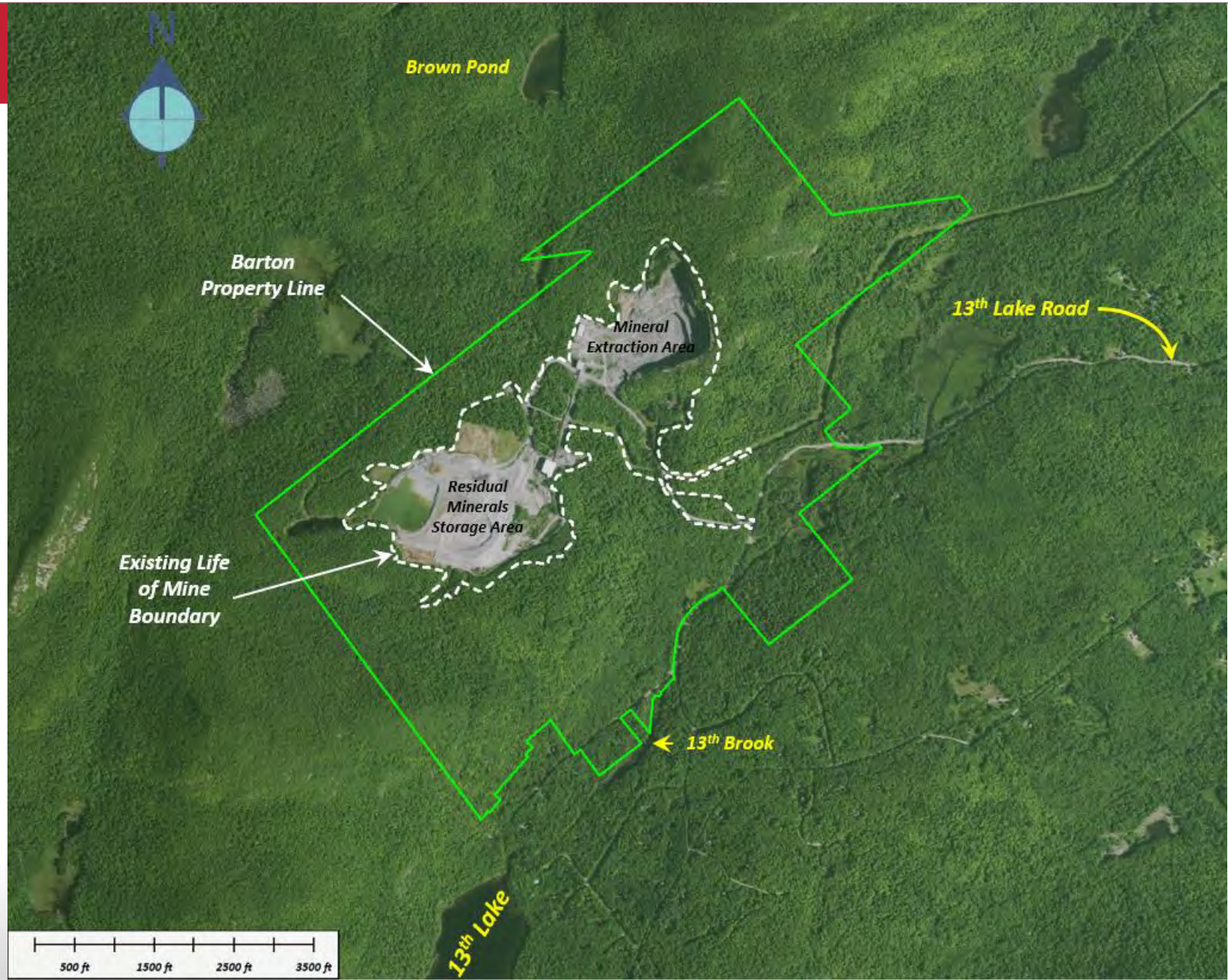
Downtown Glens Falls

LEED Platinum

“Green” HQ Building

Ruby Mtn Mine Site

Current mine permit in compliance per APA and DEC



Barton Today: Our Mining & Mineral Processing

Quarry Mineral Composition

High Quality Garnet

No Heavy Metals

Non-Hazardous

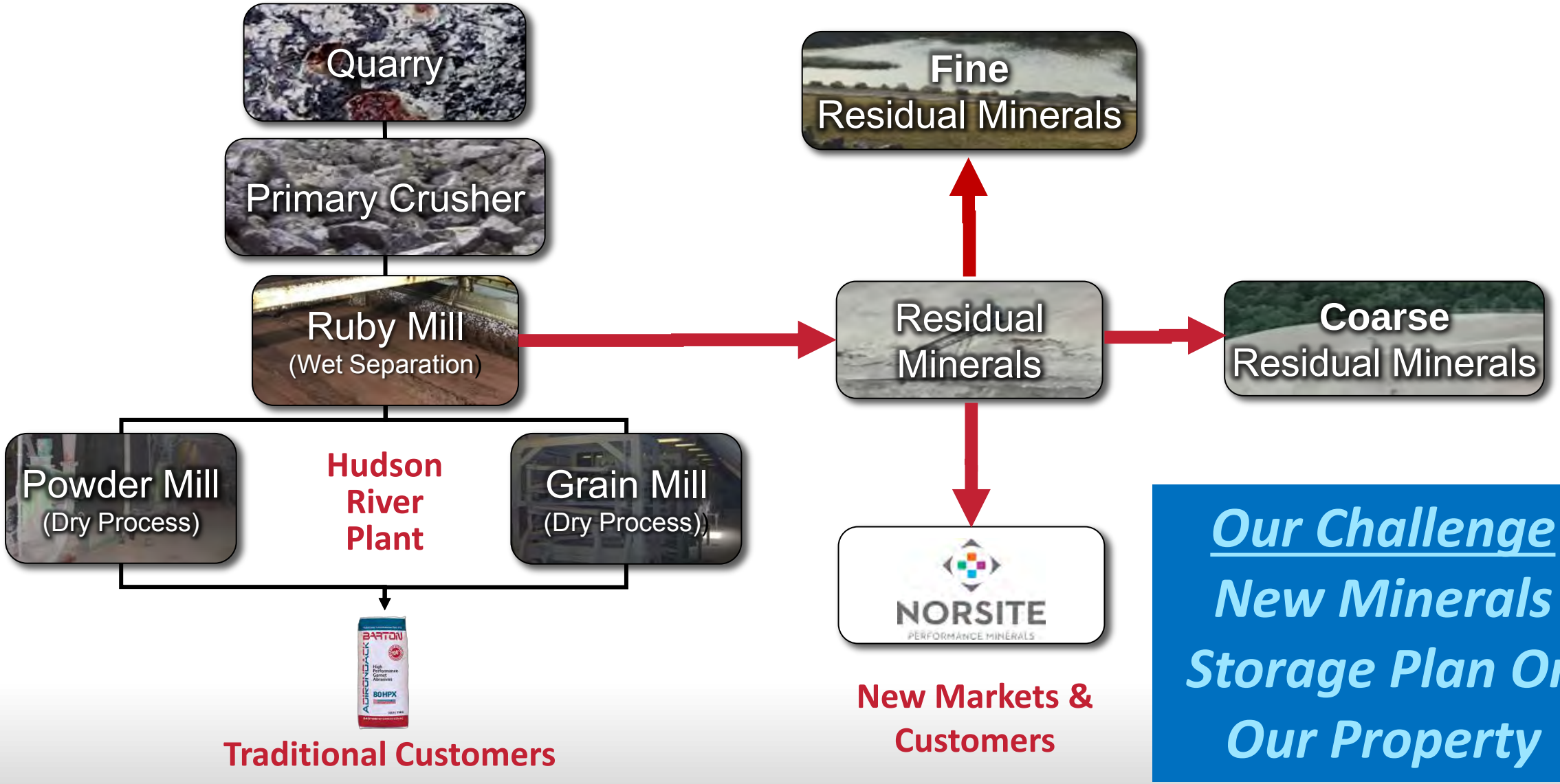
OUR PROCESS

1. Extract garnet ore from rock

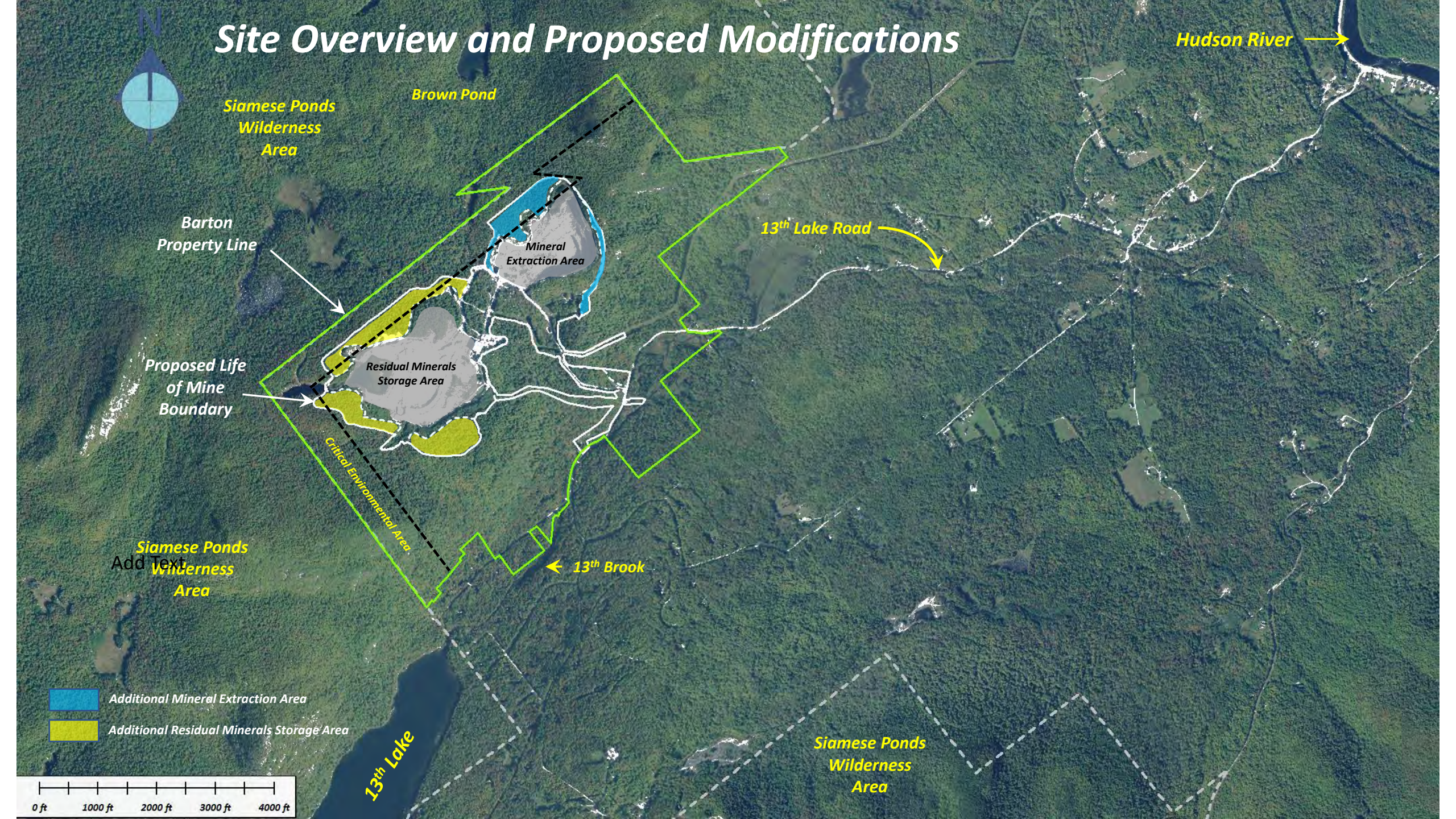
2. Turn garnet ore into abrasive products

3. Store the leftover residual minerals

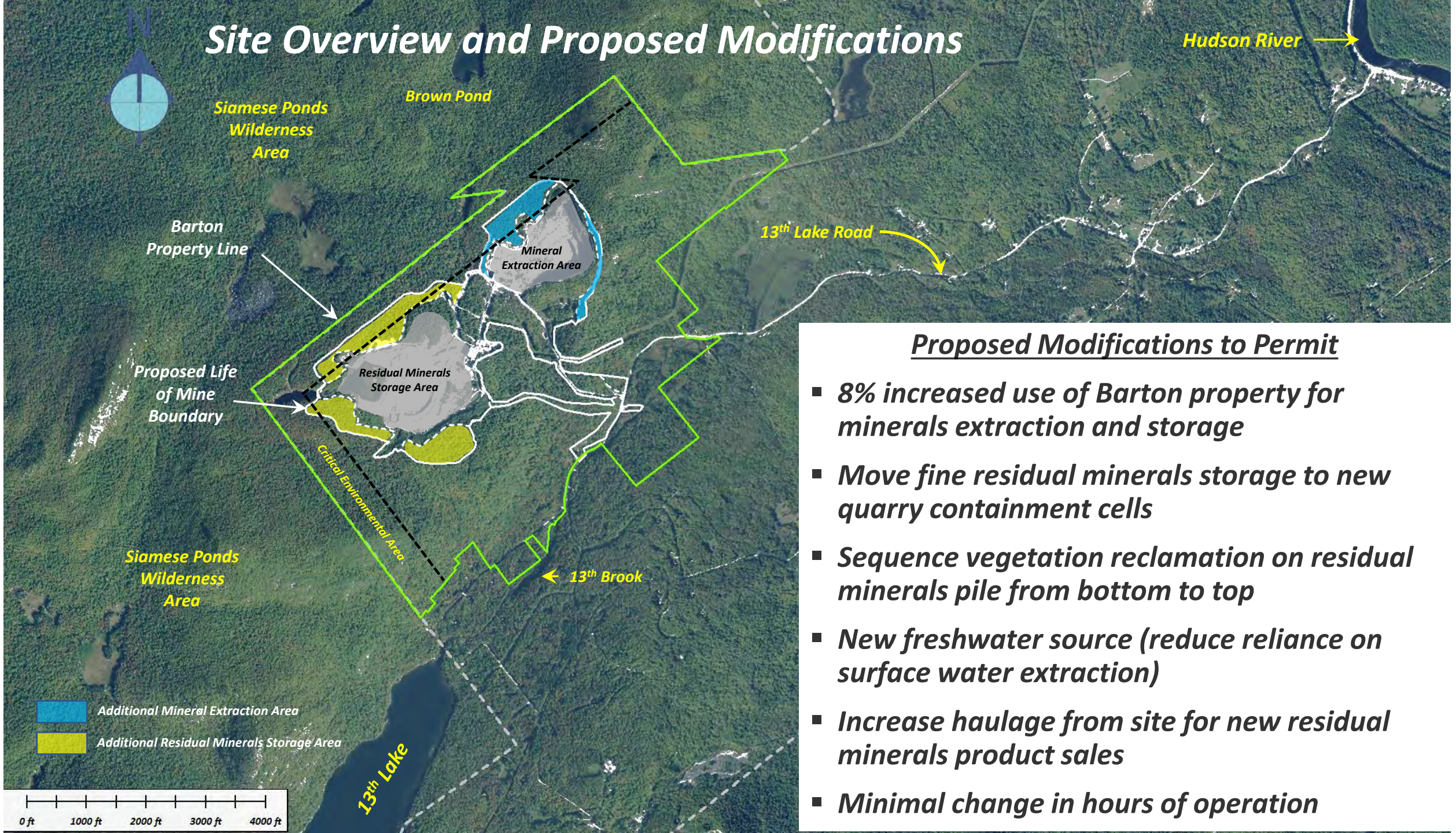
Barton Today: Our Mining & Mineral Processing



Our Mine Permit Modification Proposal


Site Overview and Proposed Modifications
N
Hudson River
Siamese Ponds Wilderness Area
Brown Pond
Barton Property Line
13th Lake Road
Mineral Extraction Area
Residual Minerals Storage Area
Proposed Life of Mine Boundary
Critical Environmental Area
Siamese Ponds Wilderness Area
Add Text
13th Brook
Additional Mineral Extraction Area
Additional Residual Minerals Storage Area
13th Lake
Siamese Ponds Wilderness Area
0 ft
1000 ft
2000 ft
3000 ft
4000 ft

Site Overview and Proposed Modifications



Proposed Modifications to Permit

- *8% increased use of Barton property for minerals extraction and storage*
- *Move fine residual minerals storage to new quarry containment cells*
- *Sequence vegetation reclamation on residual minerals pile from bottom to top*
- *New freshwater source (reduce reliance on surface water extraction)*
- *Increase haulage from site for new residual minerals product sales*
- *Minimal change in hours of operation*

Project Complexity

Project elements are interconnected and require delicate balance to achieve the objectives of extending the life and efficiency of the operation, while minimizing impacts.

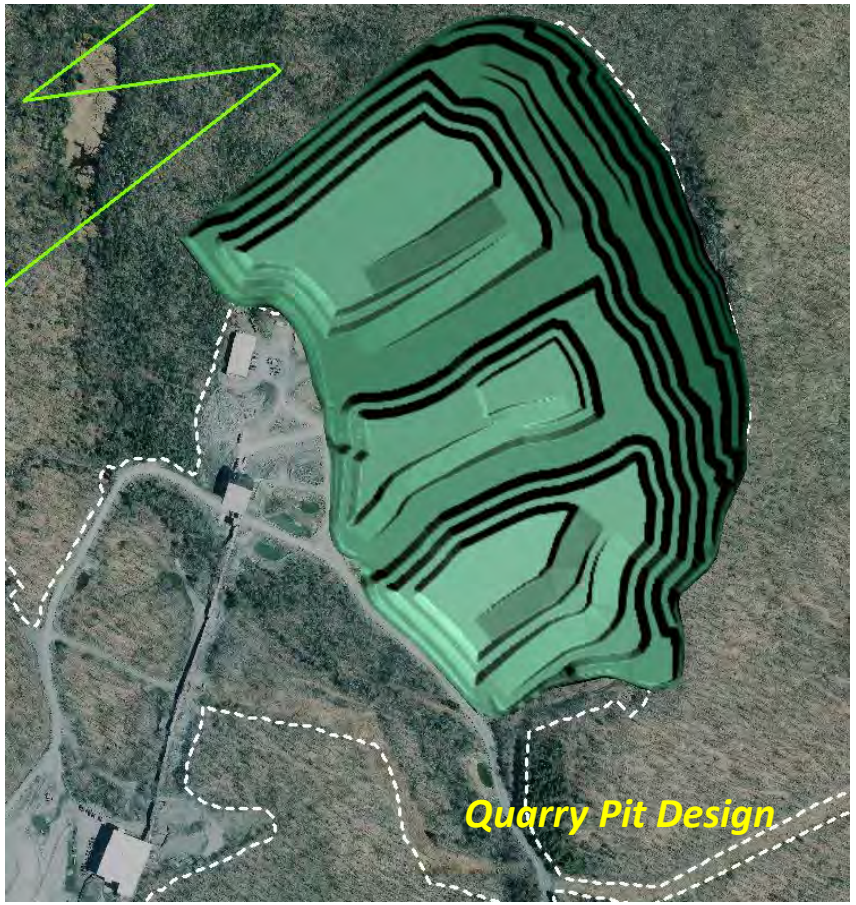
Project Elements

- *Geologic Conditions*
- *Economics / Life of Operation*
- *Ore Quality*
- *Geotechnical Conditions*
- *Quarry Footprint and Depth*
- *Sequencing Over Time*
- *Minerals Storage Footprint and Height*
- *Stormwater Management*
- *Wetlands and Stream Impacts*
- *Market Demands*
- *Visual Impacts*
- *Sound Impacts*
- *Dust Impacts*
- *Transportation Impacts*

Future Residual Minerals Solution

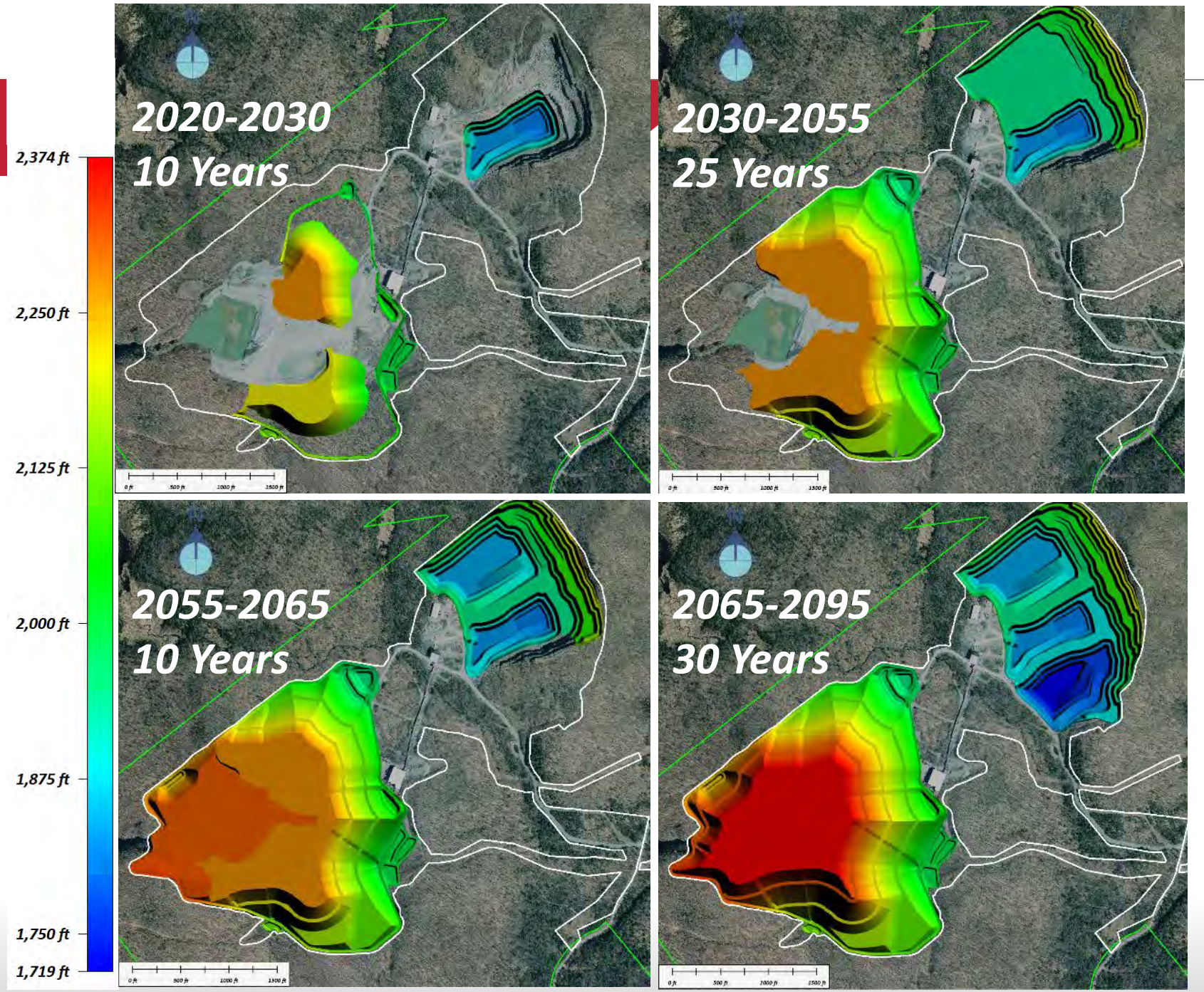
- End storage of fine residuals within coarse residuals and create new containment in quarry.
- Extend footprint of coarse-grained pile by ~40 acres and height by 100 feet over ~75 years. **No change in current pile height until 2054.**
- Sequence residual pile vegetation reclamation from bottom up.

In-quarry residual storage will reduce pile size and visibility, but reduce life of mine by over 50 years.



Mine Phases

75 Years of Quarry and Residual Minerals Evolution



Potential Impacts and Mitigation

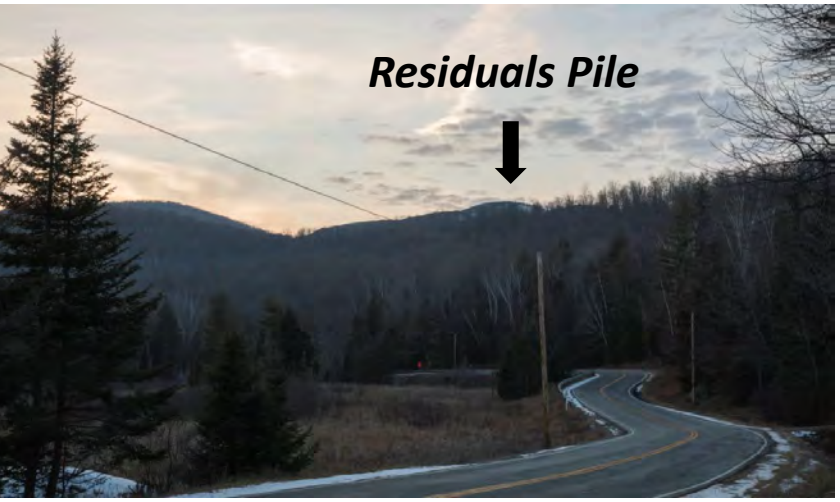
Potential impacts were evaluated through detailed independent investigations.
All studies coordinated with APA and DEC including Pre-Application Meeting and Technical Scoping Sessions

- ***Wetlands and Stream – Iterative mine site plan design for avoidance of stream impact (no jurisdictional wetlands)***
- ***Visual – Iterative mine site plan and reclamation plan to delay impacts and reclaim concurrently***
- ***Sound – Compliant with permit conditions (no mitigative measures necessary)***
- ***Dust - Iterative mine site plan design and measures to reduce (reclamation, bio-degradable dust suppressant coating)***
- ***Stormwater Management – Phased stormwater control system to match phased mine site plan***
- ***State Historical Preservation Office / Endangered Species – No impacts***
- ***Transportation – Minimal traffic impacts identified (no mitigative measures necessary)***

Impact Analysis: Viewshed

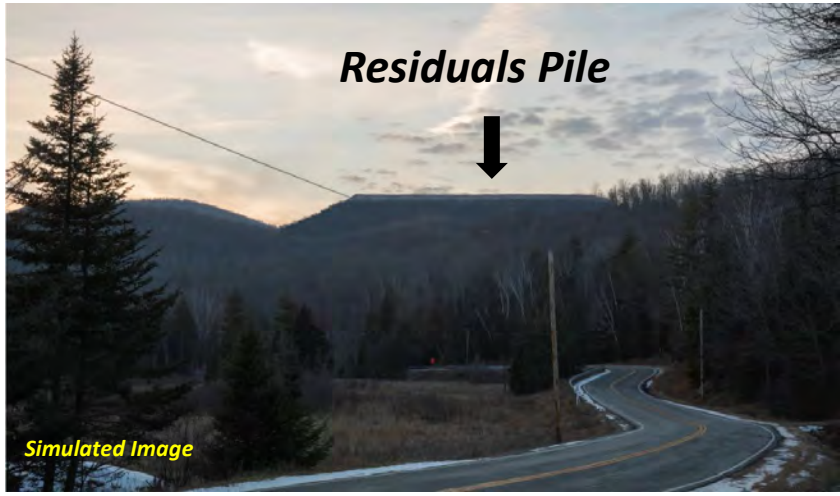
PHOTO LOCATION: WESTBOUND ALONG 13TH LAKE ROAD

Current Pile



Currently Permitted Pile

End of Phase 3 (45 Years)



- Barton operations currently visible from 16 public locations; this will not increase

- Only 2 of 16 locations will see changes in mine or residual pile views:
  - — Westbound on 13th Lake Road for ~1,000 feet
  - — Top of Gore Mountain

Current View From Ruby Mtn Quarry - Residual Minerals Storage

Vegetation
Test Sites

Dust Control Measures

Barton has successfully trialed an **eco-friendly dust control treatment** on the sides of the residual minerals pile in addition to other measures such as **vegetation reclamation**.

Impact Analysis: Sound

- **Currently in permit compliance for sound levels leaving the site. Barton continues to pursue innovative noise control opportunities.**
- Modifications under this permit will not appreciably increase sound levels leaving the site.
- No new or different methods of mining will be introduced under this permit.

Site Lighting

Our proposed modifications will require **no increase in lighting** on our property; all current lighting is required by the federal Mine Safety & Health Administration.

Barton continues to pursue innovative light control opportunities.

Future Truck Traffic: Our Proposal

- Sales of new residual mineral products will require additional truck trips between mine and processing plant.
- Currently averaging five total truck trips per day between mine site and finishing plant on Route 28.
- Seeking permitted increase to 16 trips/day as needed. Gradual increase with sales.
- A study showed an increase of 1-2 truck trips per hour will have **no appreciable effect on traffic flow** or traffic-related noise.

Operating Hours: Our Proposal

Proposed changes in permitted operating hours:

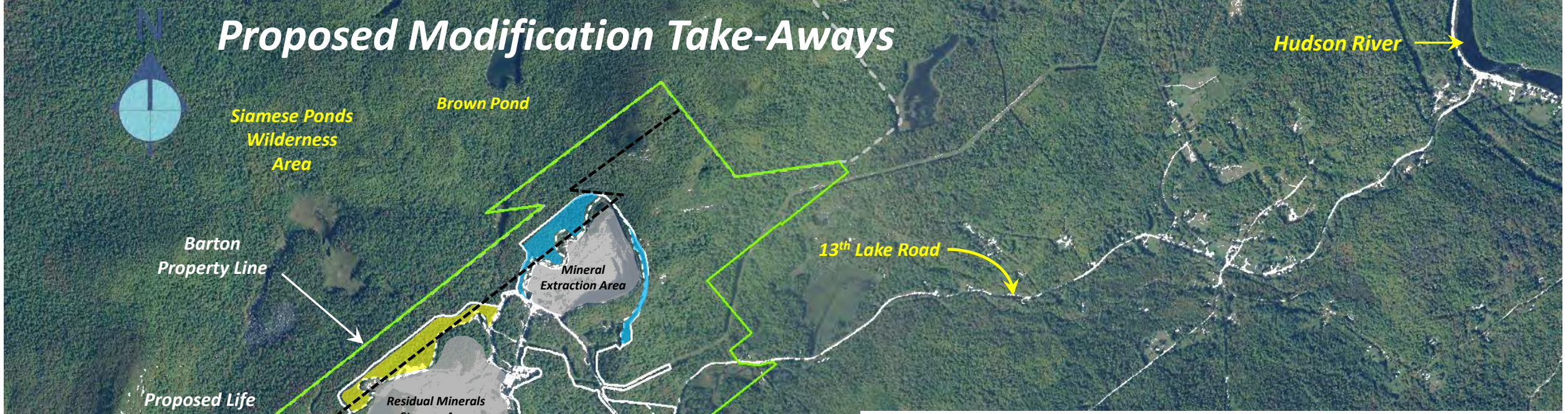
- Current weekday **quarry mining hours** are 7:00 AM to 3:30 PM. We have requested a *1-hour extension* to 4:30 PM to provide flexibility for variable weather and operating conditions.

- Current weekday **off-site hauling hours** are 7:00 AM to 10:00 PM. We have proposed a *5-hour reduction* to end by 5:00 PM.

Other Project Components: Our Proposal

- Install **new on-site well** to reduce reliance on water from 13th Brook.
- Install **larger run-of-stream culvert** on road crossing over Brown Pond Brook on Barton property.
- **Improve entranceway** to Ruby Mtn site from 13th Lake Road.
- **Expand stormwater controls** across our property in conjunction with changes in site operations and to continue compliance.

Proposed Modification Take-Aways



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Next Steps

Once our application is deemed complete by the APA and DEC, the permit will be available for public comment prior to a regulatory determination.

The recording of the meeting will be posted on www.barton.com/mine-permit-information

We are available to answer your questions about our permit application and operations at permitquestions@barton.com or (518) 615-2041.

For questions tonight…..

Questions? Please see….

Chuck Barton	Chief Operating Officer
Rob Albano	VP of Human Resources and HSE
Mario Cangemi	Director of Health, Safety and Environment
Jeff Kinblom	Director of Engineering
Trevor Thomas, PE	Principal, H2H Geoscience Engineering

Please Wear Your Masks and Practice Social Distancing

Thank You!