

BARTON

Sustaining Our Business & Local Jobs for the Future

Request for a Mining Permit Modification – November 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.**

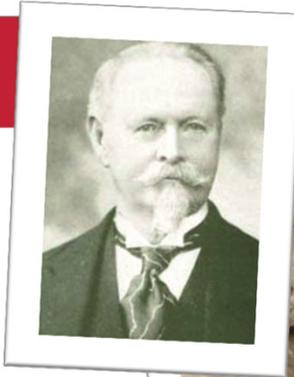
How We Got Here?

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.

The Barton Mines Story

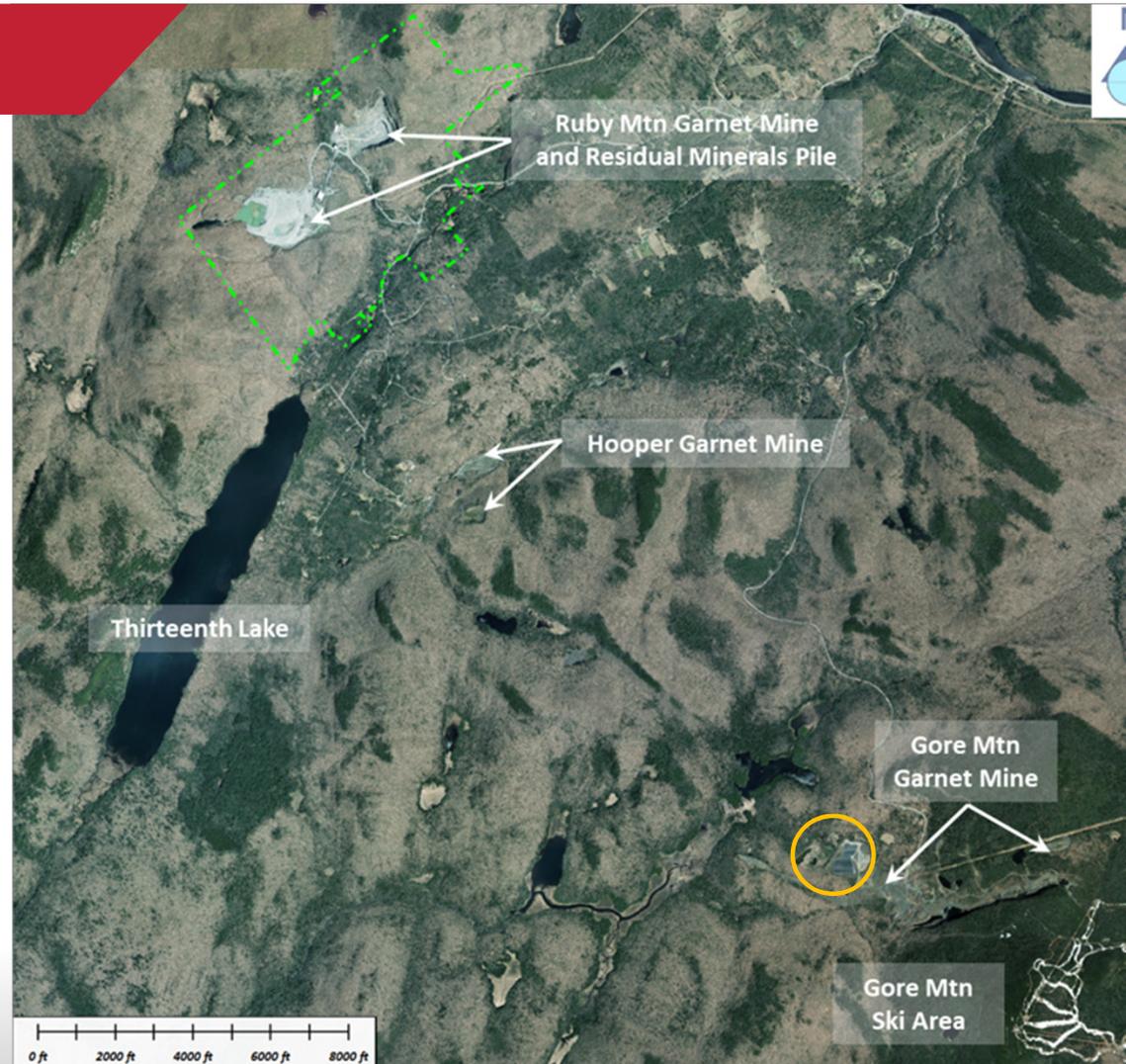
Company History

- 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:



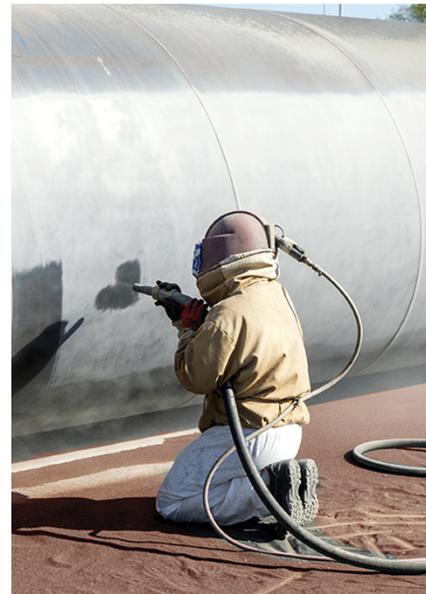
- 1.** Extract garnet ore from rock



- 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
- **NEW Business Growth Opportunity**
 - Norsite Performance Minerals



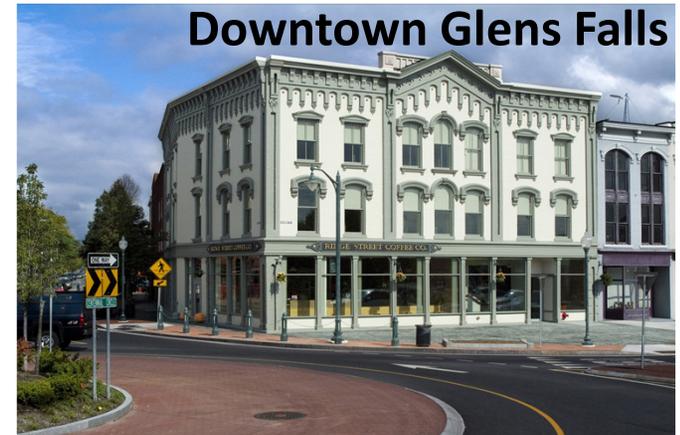
Barton Today: Exceeding Industry Standards

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

Injury Rate 68%
Less Than Industry;
Currently 670 days
Injury-Free



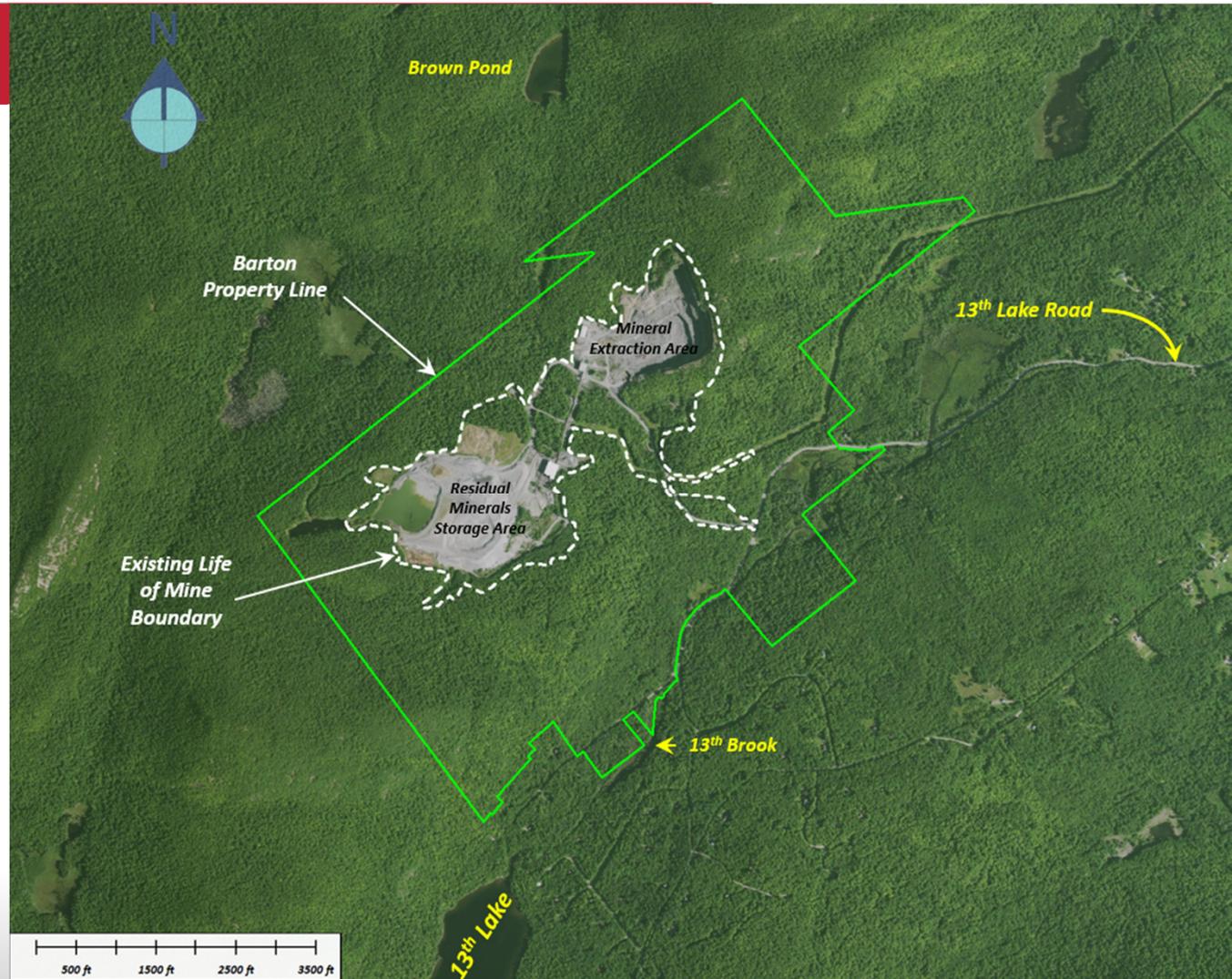
Solar Electricity Farm
7 Acres / 2 Megawatts



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

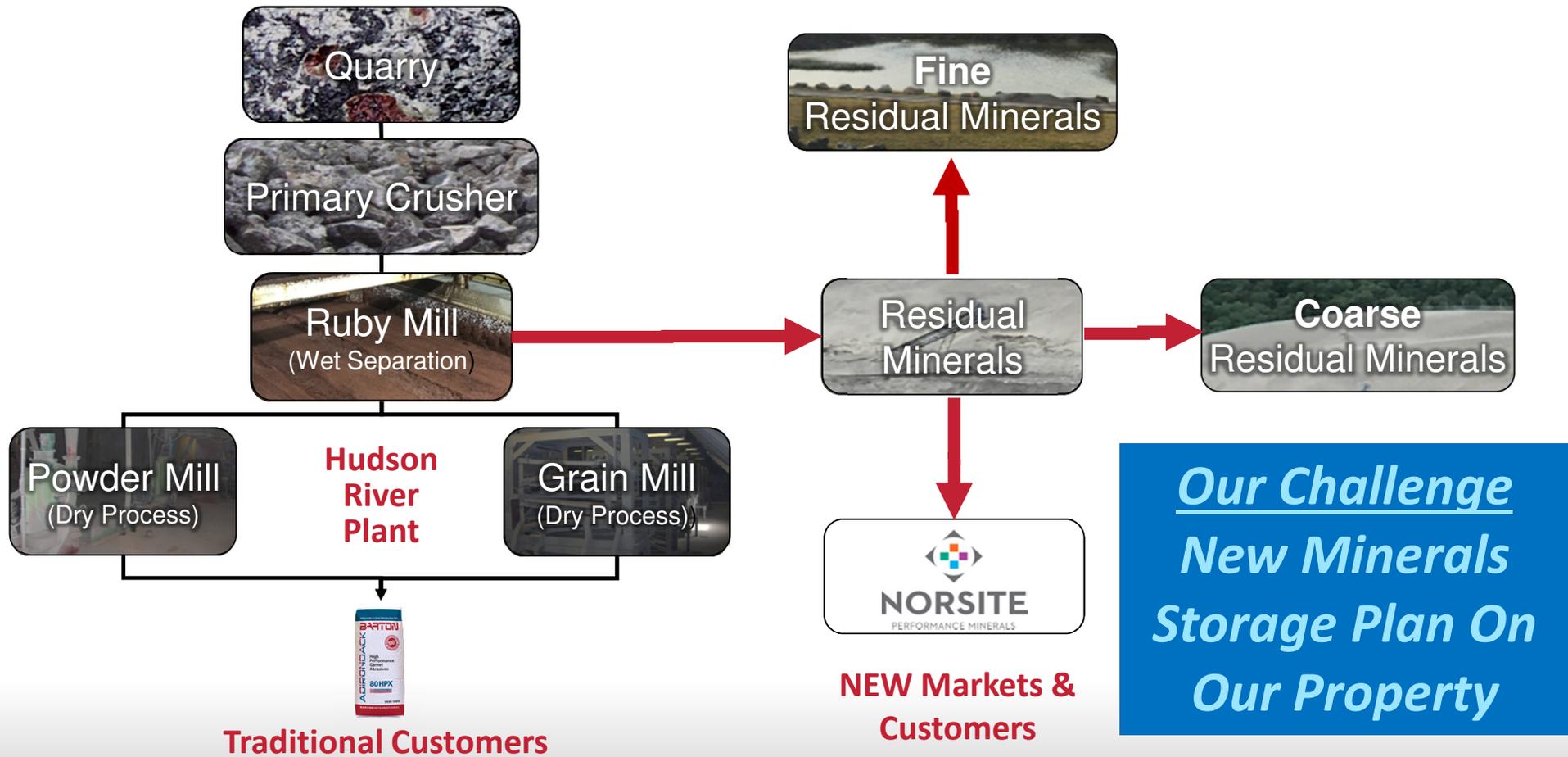


2. Turn garnet ore into abrasive products



3. Store the leftover residual minerals

Barton Today: Our Mining & Mineral Processing



Our Mine Permit Modification Proposal

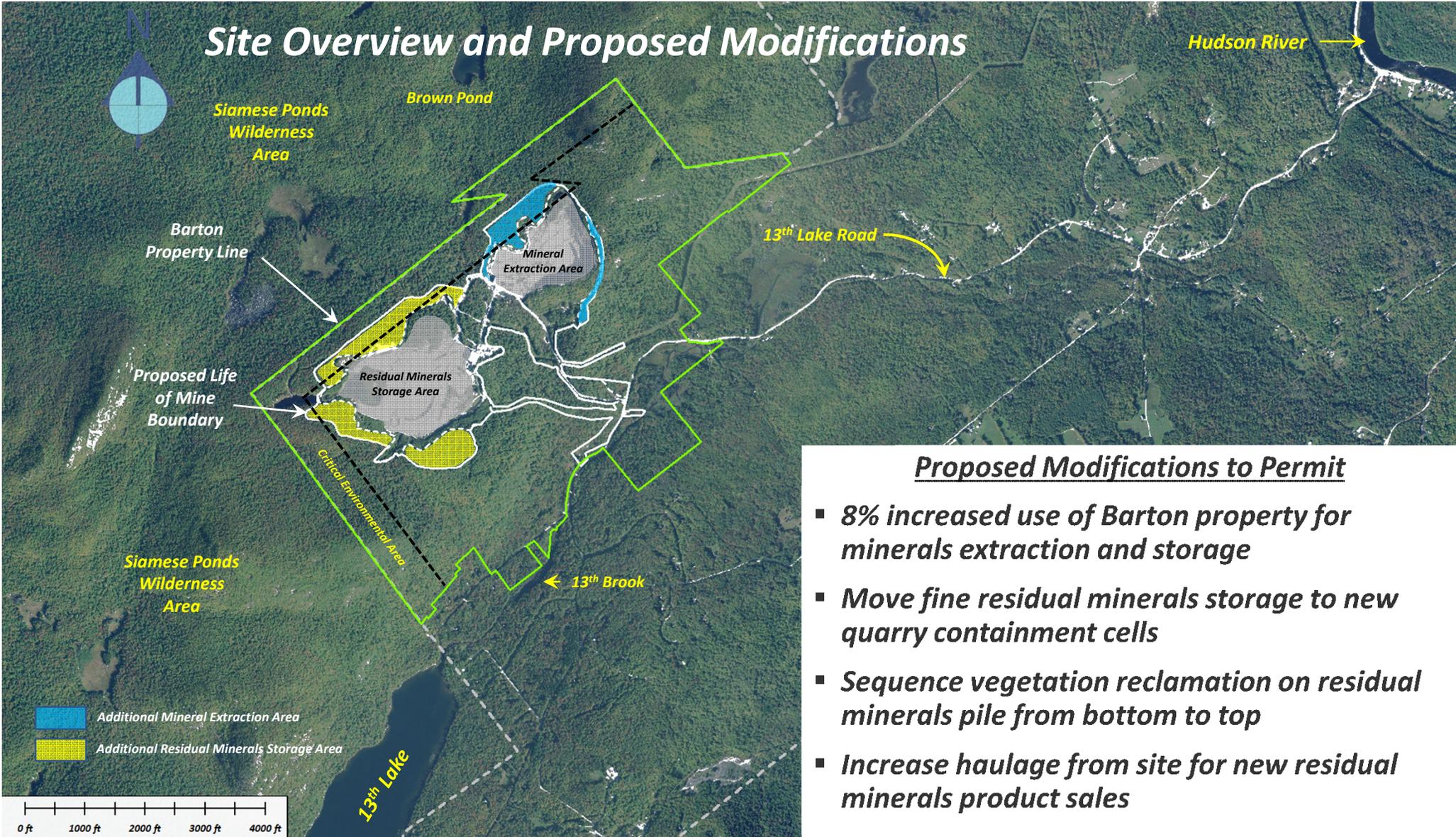
Project Complexity

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*

Site Overview and Proposed Modifications



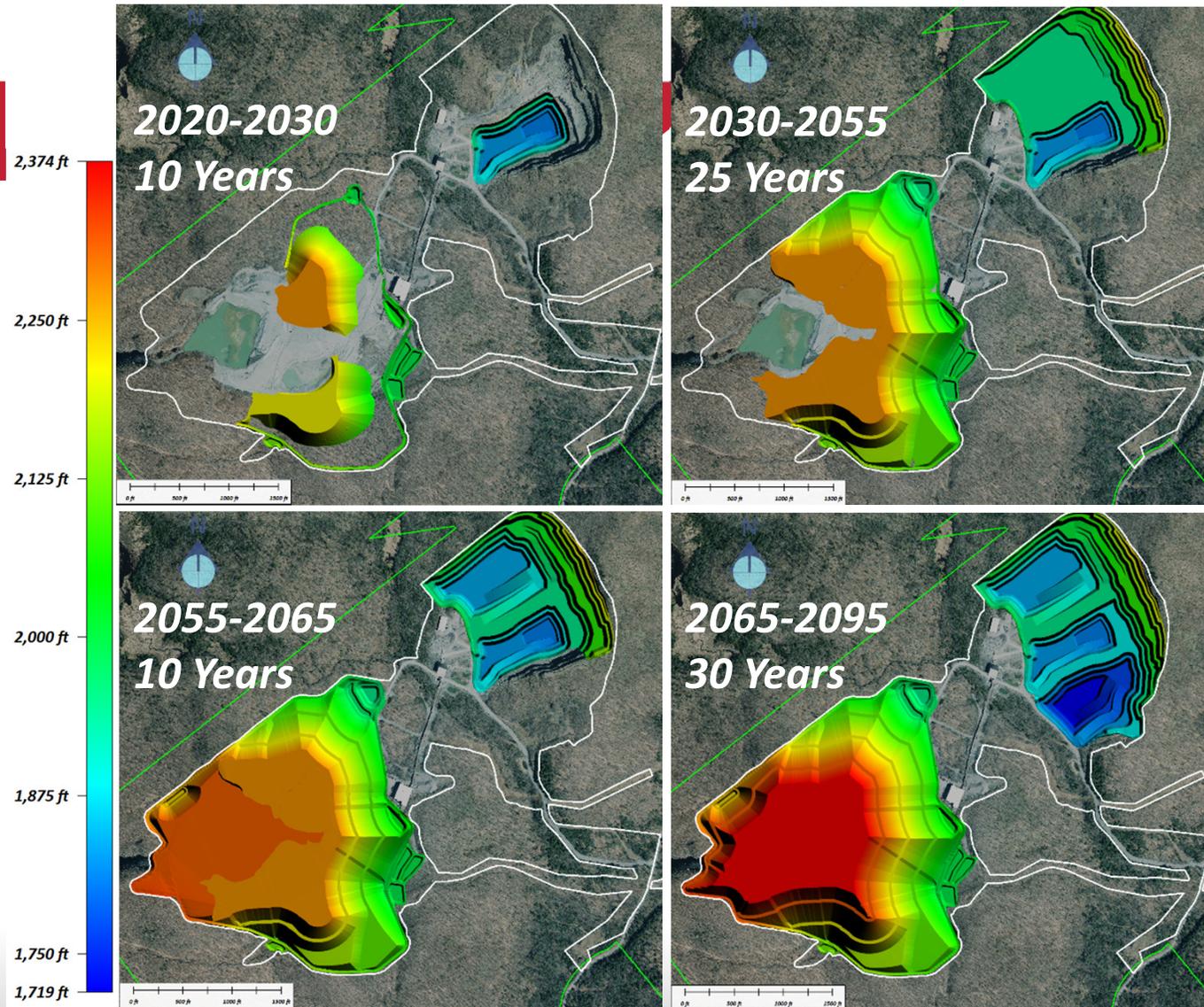
Proposed Modifications to Permit

- 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
- Increase haulage from site for new residual minerals product sales

Mine Plan & Phases

- 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.



Impact Analysis: Viewshed

PHOTO LOCATION: WESTBOUND ALONG 13TH LAKE ROAD

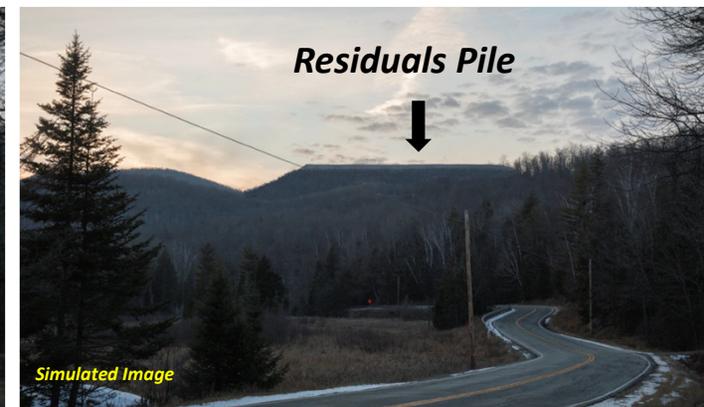
Current Pile



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

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.



Barton Economic Activity For Next 75 Years

Ruby Mtn Mining Permit Modification Will Enable

- Continuation of **~75 jobs** in Johnsburg & Indian Lake areas
- Continuation of **\$15+ million annual regional economic activity**
- **Economic growth opportunity** with Norsite Performance Minerals

Next Steps

Proposed application is being reviewed by APA and DEC for completeness. APA comments have been received. When all comments are received, Barton will add the necessary additional information to the application. When deemed complete by the APA and DEC, the permit will be available for public comment prior to a regulatory determination.

Any questions?

Barton Mines would deeply appreciate support from the Warren County Economic Growth and Development Committee.

Thank you!

Supplemental Slides

Senior Team

Chuck Barton	Chief Operating Officer
Rob Albano	VP of Human Resources and HSE
Mario Cangemi	Director of Health, Safety and Environ.
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



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.

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.

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)*

Current View From Ruby Mtn Quarry - Residual Minerals Storage



**Vegetation
Test Sites**

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.



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**.



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.

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.



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.