

# EVERYONE 12+ IS NOW ELIGIBLE!

Everyone 12 and older in SC is now  
eligible for the COVID-19 vaccine!  
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**1-866-365-8110**

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## Proposed Enoree Development Site Quarry **PUBLIC MEETING**



To avoid echoing or feedback, all lines are muted.



At the end of the presentation, we will unmute and call upon those who would like to speak.



This virtual meeting will be recorded and posted on our webpage.

# Option to Call In

If you are experiencing audio problems, join the virtual hearing by phone:

Phone number: **1 (864) 558-7311**

Access Code: **870 563 145#**



Exits the hearing. (If you accidentally exit the hearing, you can rejoin.)



# Proposed Enoree Development Site Quarry

Mine Operating Permit  
Application I-002335

Spartanburg County

**PUBLIC MEETING**



# Agenda

- Gathering Time & Instructions for Participating Remotely
- Introductions & Opening Remarks
- DHEC Presentations
- Questions & Answers Period
- Closing Remarks
- Meeting Adjourned

# Mining Topics

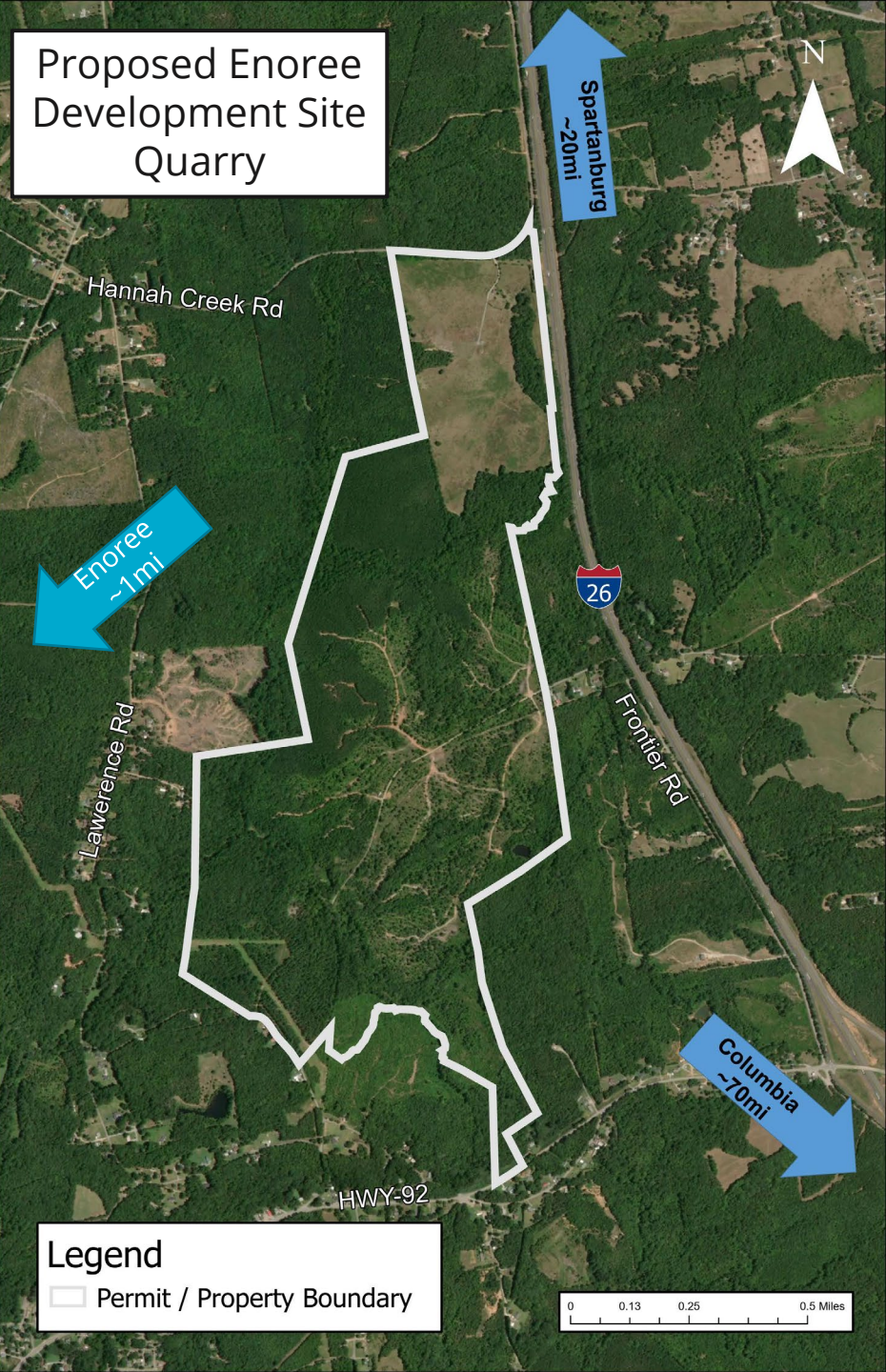
- Mine Permitting Process
- General Information
- Proposed Permitted Area
- Reclamation
- Next Steps
- Addressing Concerns



# Proposed Site

TMS#: 4-50-00-007  
4-55-00-076  
4-55-00-077

Total Area: 542.9ac  
Land Use: Mostly Undeveloped  
Owner: Luck Stone Corporation  
(under purchase agreement)

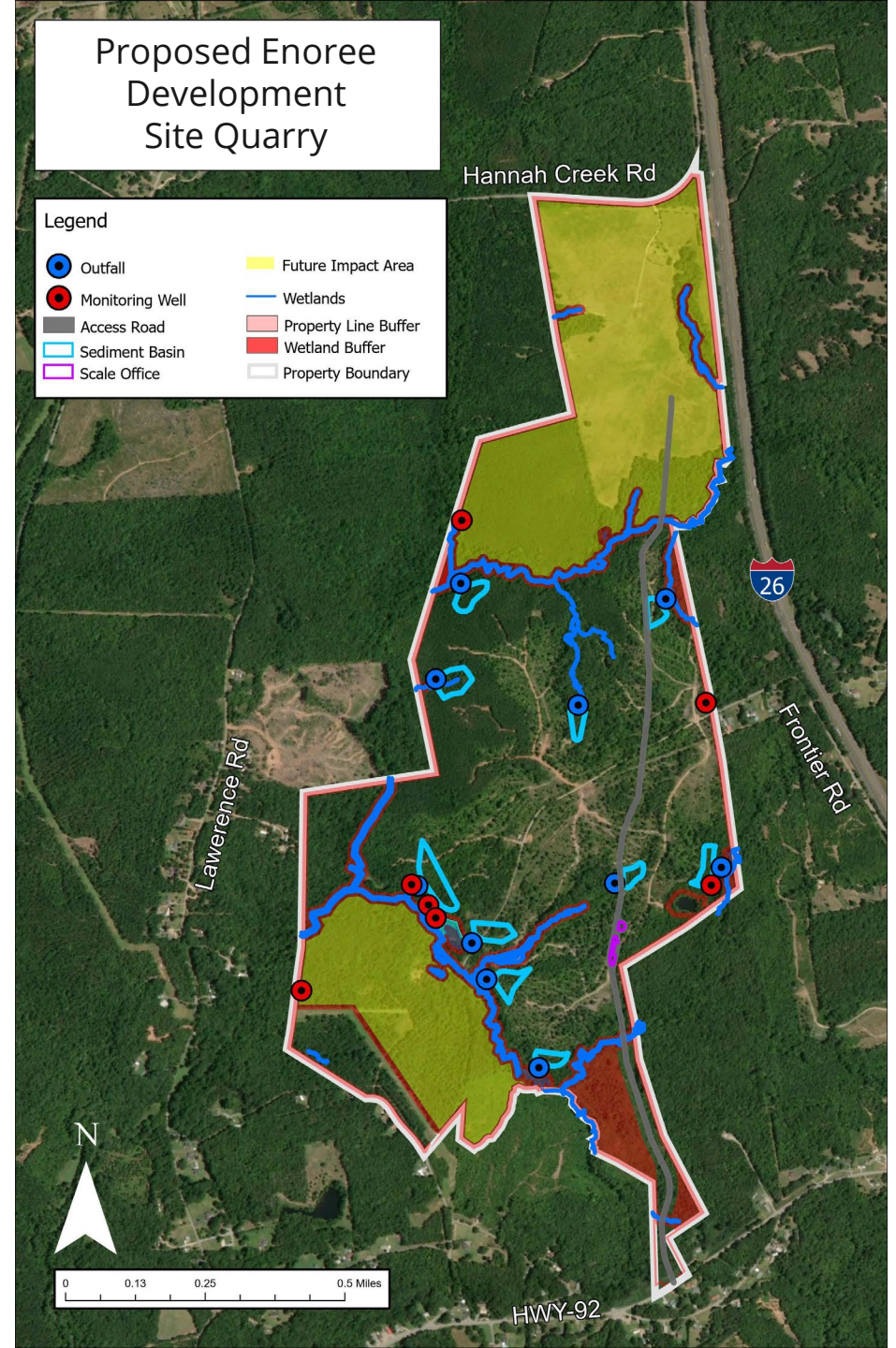




# Proposed Permitted Area

Total Area: 542.9ac  
Affected Area: 255.8ac  
Buffer: 104.6ac  
Future Reserves: 182.5ac

Buffer Area is defined as setback or areas that will not be disturbed beyond the pre-mine natural state.



# Proposed Permitted Area

Total Area: 542.9ac

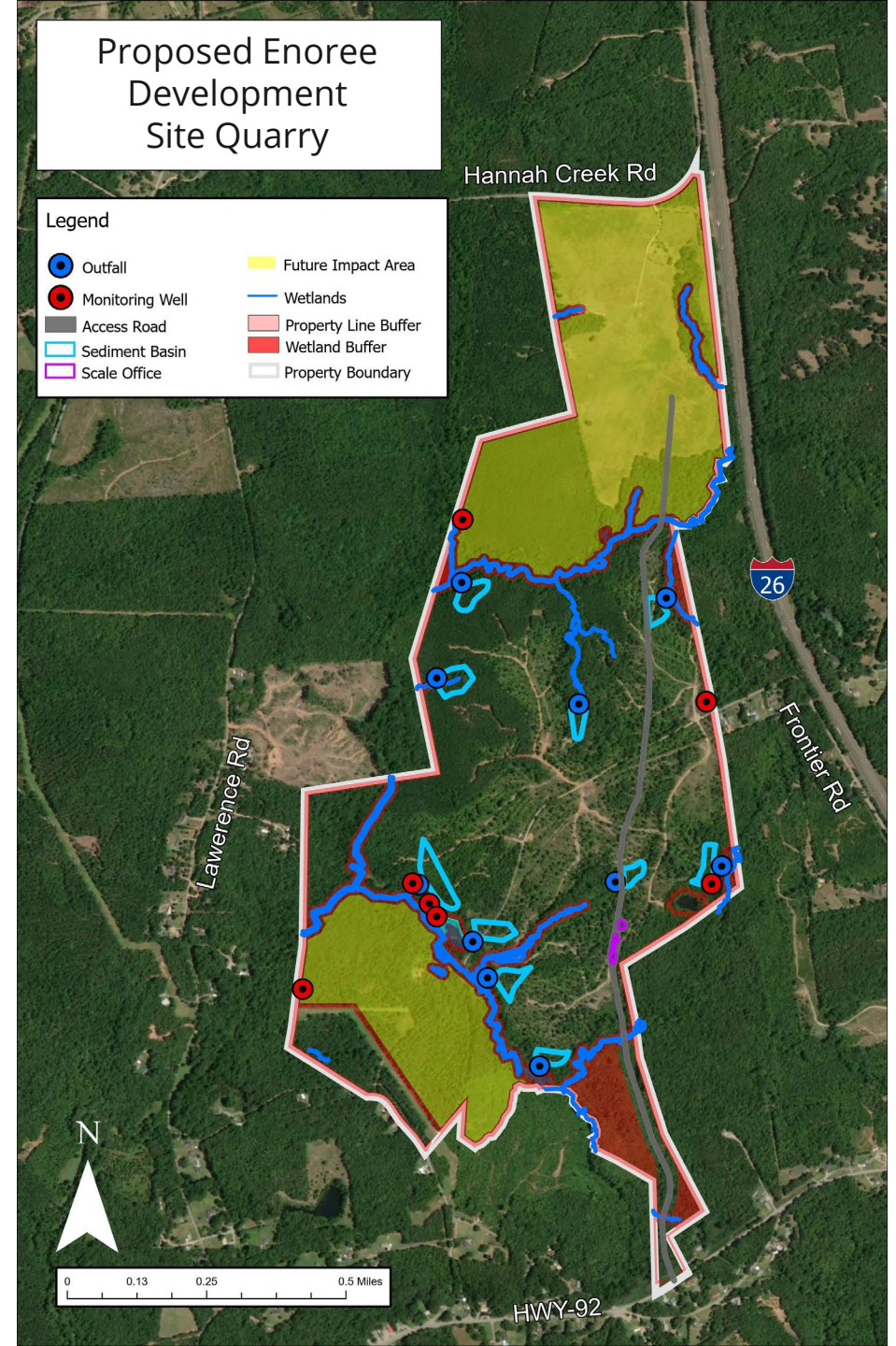
Affected Area: 255.8ac

Buffer: 104.6ac

Future Reserves: 182.5ac

Prior to the initiation of activity in future reserves, the operator shall:

- submit detailed mine and reclamation plans to DHEC for approval
- Receive approval from USACE to disturb wetlands or stream channels
- Adjust reclamation costs to cover proposed activities



# Proposed Permitted Area

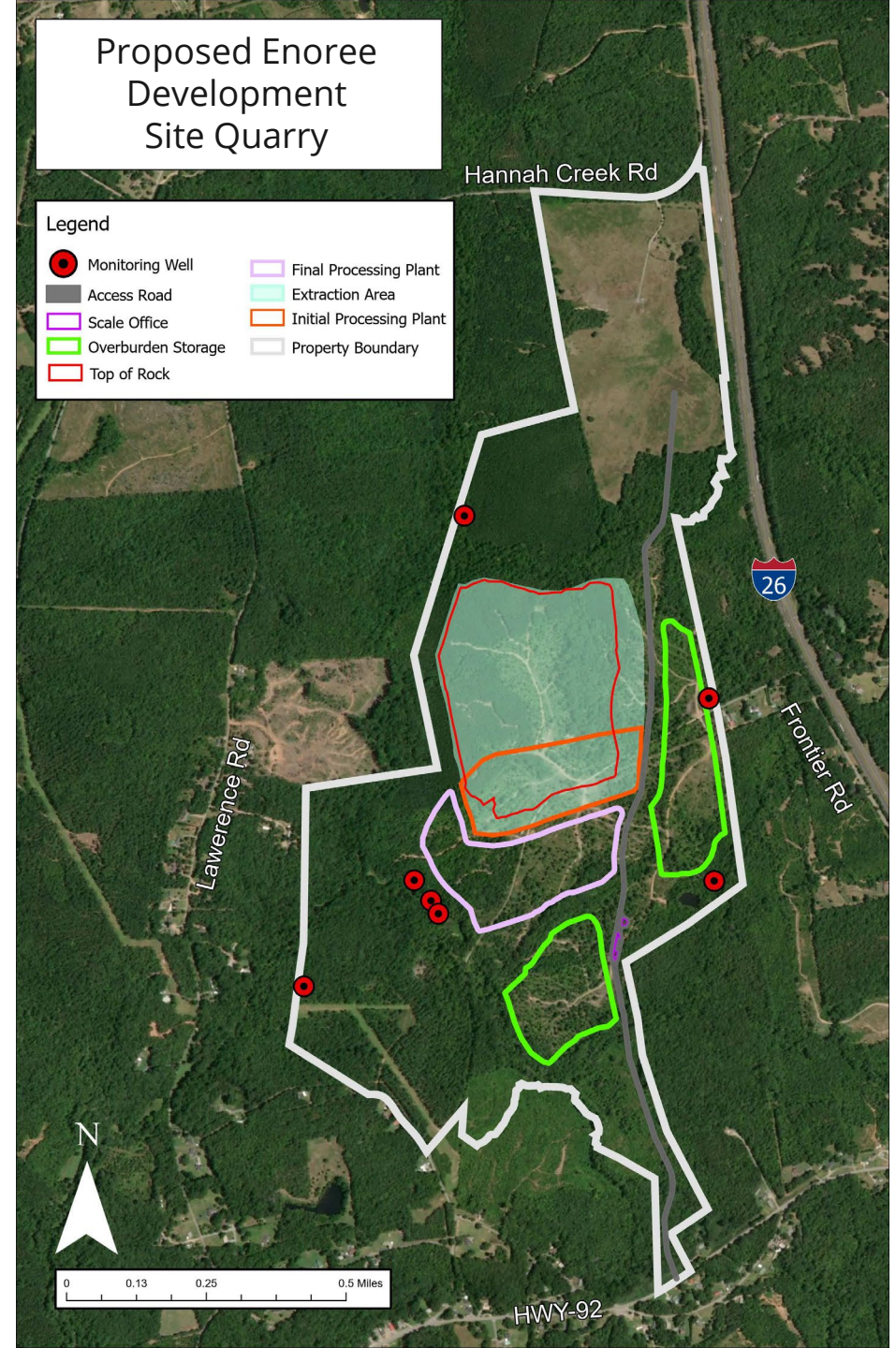
Total Area: 542.9ac

Affected Area: 255.8ac

Buffer: 104.6ac

Future Reserves: 182.5ac

- Green - Overburden Stockpile Area
- Teal - Pit Area
- Orange – Initial Plant Area
- Purple - Office, Scale House, Maintenance Area, Haul Road, and Final Plant Area



# Proposed Mining Process

- Installation of BMPs
- Clearing of trees and vegetation
- Topsoil removed and stockpiled for future reclamation
- Overburden stockpiled and reclaimed as soon as feasible
- Pit developed and dewatered, as needed
- Granite processed and stockpiled in plant area



Silt fence



Brush Barrier



Stormwater Basin



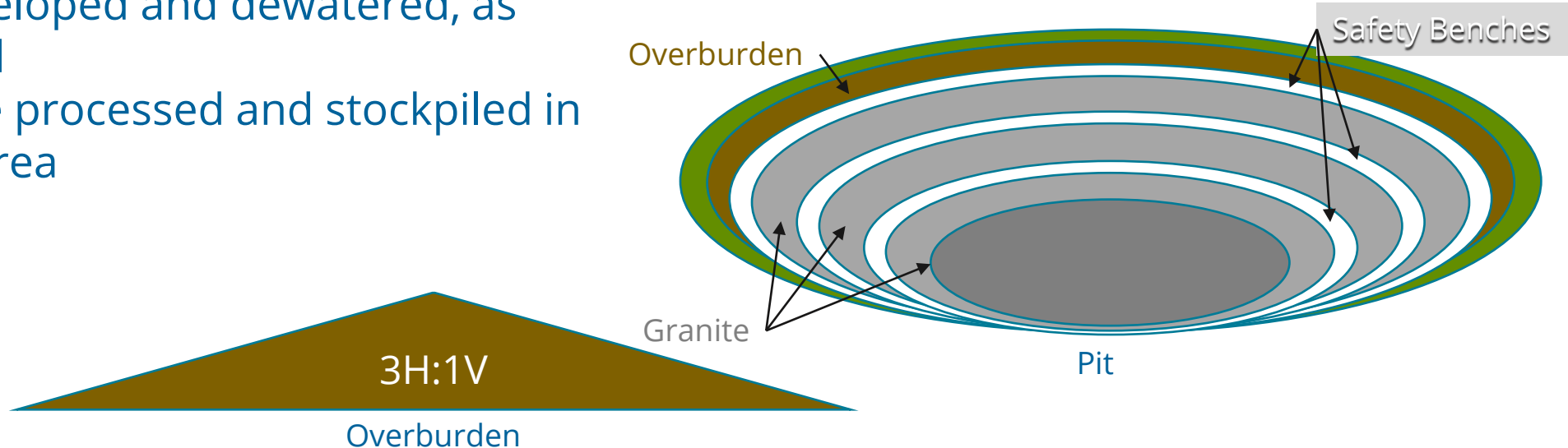
Water Truck



Check Dams

## Proposed Mining Process

- Installation of BMPs
- Clearing of trees and vegetation
- Topsoil removed and stockpiled for future reclamation
- Overburden stockpiled and reclaimed as soon as feasible
- Pit developed and dewatered, as needed
- Granite processed and stockpiled in plant area





Example of a granite quarry excavating ore

## Proposed Mining Process (cont.)

- Maximum proposed depth: 560ft.
- Applicant requests permission to blast
  - Landowners with structures within a half mile of blasting will be offered a pre-blast survey
- Applicant may request to mine permitted future reserve areas (requires DHEC approval)

# Reclamation

**Reclamation** is the planned process for restoring the affected land to a useful purpose while protecting natural resources of the surrounding area.

- Reclamation plan included in application
  - Will be reclaimed to ponds and grasslands
  - Land is sloped and graded during the mining process
  - Stockpiled topsoil used to enhance vegetation
- Reclamation bond is required prior to permit issuance to ensure that reclamation is completed



Emergency Water Reservoir  
Loudon County, Virginia



Example of a reclaimed granite quarry

# Other DHEC Requirements

- Bureau of Air Quality
  - Air Synthetic Minor Construction Permit
- Bureau of Water
  - National Pollution Discharge Elimination System (NPDES) General Permit
  - Stormwater Pollution Prevention Plan (SWPPP)

# Agency Responses

- SC Department of Natural Resources (DNR)
  - conducted site visit with applicant and DNR on June 23, 2021
  - recommendations received on June 25, 2021
  - DNR offered no objection beyond these recommendations

## Common Concerns

- General blasting concerns.
- Dewatering will lessen the groundwater supply for nearby residents.
- Increased truck traffic will be unsafe for neighborhood residents.

# Blasting

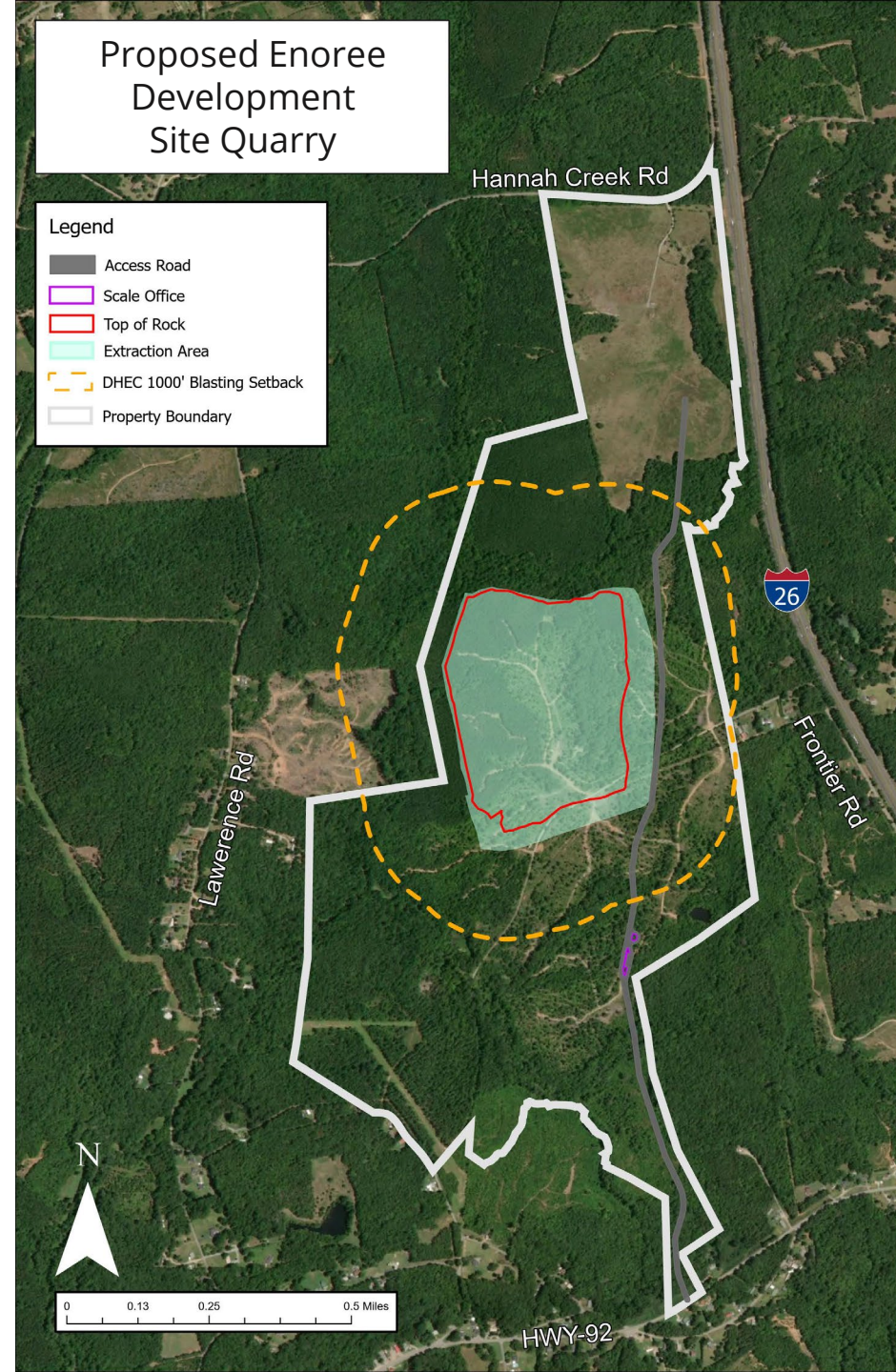
Typically, 2-4 times a month

“...a safe particle velocity maximum of 2.0in/sec is recommended for all houses.”

--U.S. Bureau of Mines

DHEC limits maximum particle velocity to 1.0in/sec.

All residences >1,000ft from blasting



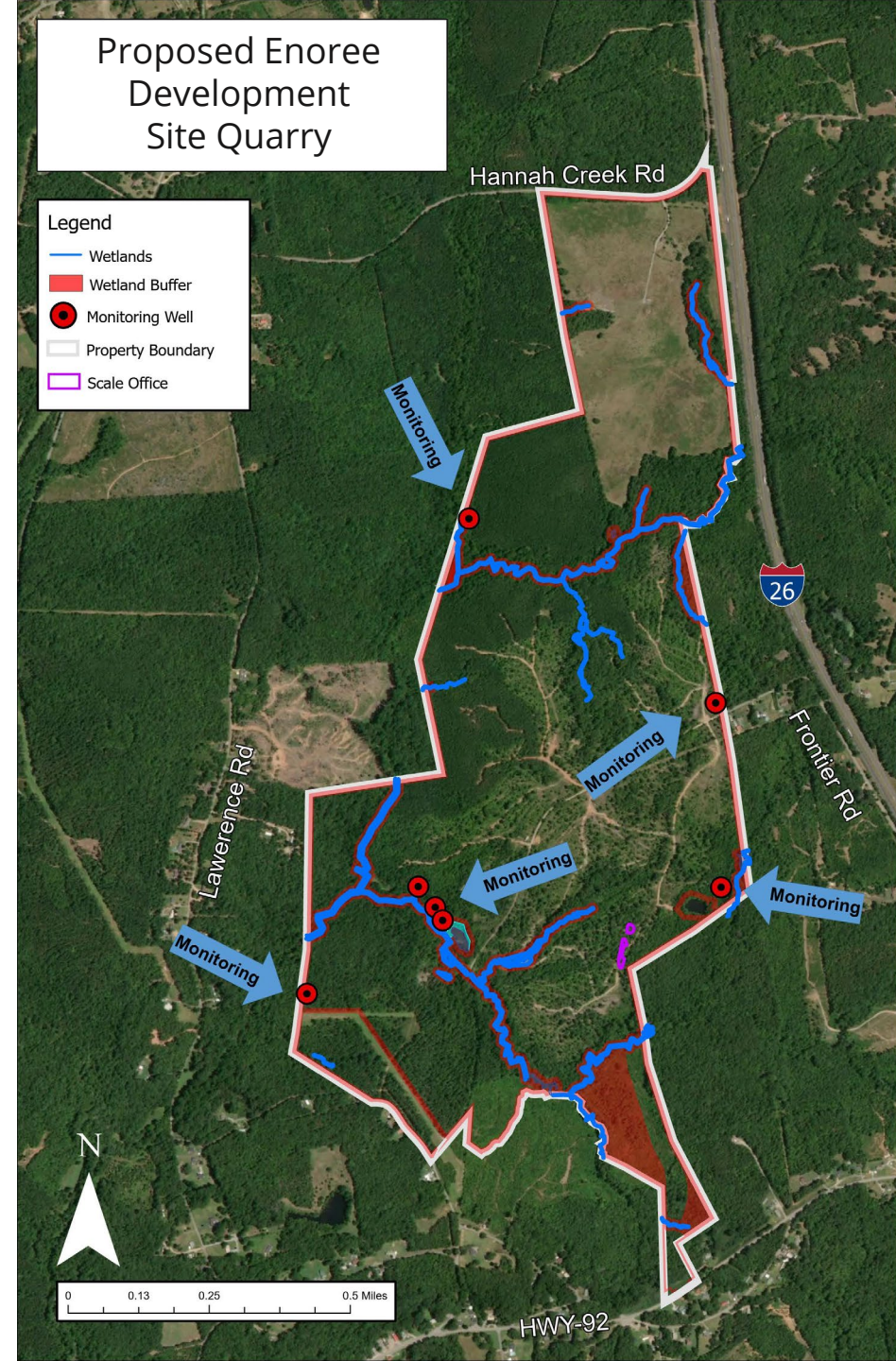
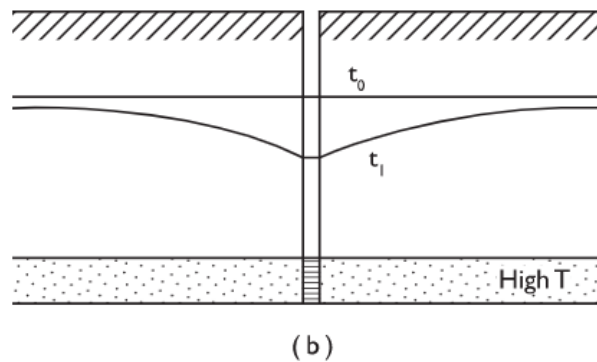
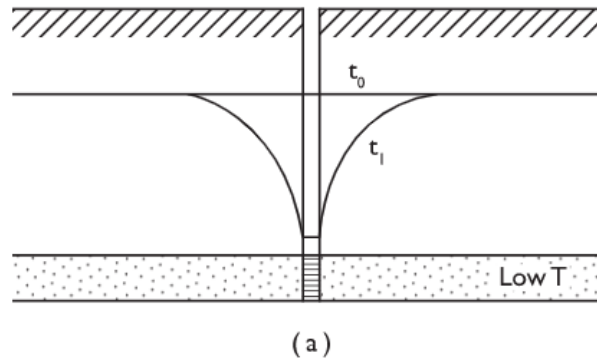
## Common Concerns

- General blasting concerns.
- Dewatering will lessen the groundwater supply for nearby residents.
- Increased truck traffic will be unsafe for neighborhood residents.

# Dewatering

Maximum Depth: 560ft.

Primary Dewatering Layer: Granite



## Common Concerns

- General blasting concerns.
- Dewatering will lessen the groundwater supply for nearby residents.
- Increased truck traffic will be unsafe for neighborhood residents.



## Increased Truck Traffic

- S.C. Mining Act does not grant DHEC authority to regulate truck traffic outside the permit boundary.
  - DHEC can only evaluate physical effects of mining, such as blasting or undermining.
- SC DOT, SC Public Service Commission, or Spartanburg County Department of Public Works have jurisdiction
  - SC DOT **District 3**  
252 S. Pleasantburg Drive  
Greenville, SC 29607  
864-241-1010
  - SC Public Service Commission  
[contact@psc.sc.gov](mailto:contact@psc.sc.gov) | 803-896-5100
  - Spartanburg Public Works  
Director: Travis W. Brown  
[twbrown@spartanburgcounty.org](mailto:twbrown@spartanburgcounty.org) | 864-595-5320

# Next Steps

- DHEC will review all comments received and conclude the technical review.
- DHEC will make a final permitting decision and provide notification to everyone on mailing list.
  - If approved, a written response to all comments received will be included
- Final decision date begins 15-day appeal period.



South Carolina Department of Health and Environmental Control

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# **Draft Synthetic Minor Air Construction Permit**

Bureau of Air Quality

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# Project Overview

- 550 tons per hour Stone Processing Plant
  - Process Equipment
    - Crushers
    - Screens
    - Conveyors
  - Additional sources of dust generated onsite
    - Plant and Customer Haul Roads
    - Storage Piles

# Draft Air Construction Permit

- Primary Pollutant: particulate matter (dust)
- Permit compliance demonstration includes minimization and control of dust
- Weekly recorded inspection of water spray systems to ensure proper operation and dust control
- Potential (worst case) emissions wet suppression (the controlled emissions) are below major thresholds

# Particulate Matter

- Mixture of solid particles and liquid droplets
- PM<sub>10</sub>: Inhalable particles, with diameters 10 microns ( $\mu\text{m}$ ) and smaller
- PM<sub>2.5</sub>: Fine inhalable particles, with diameters 2.5 microns ( $\mu\text{m}$ ) and smaller

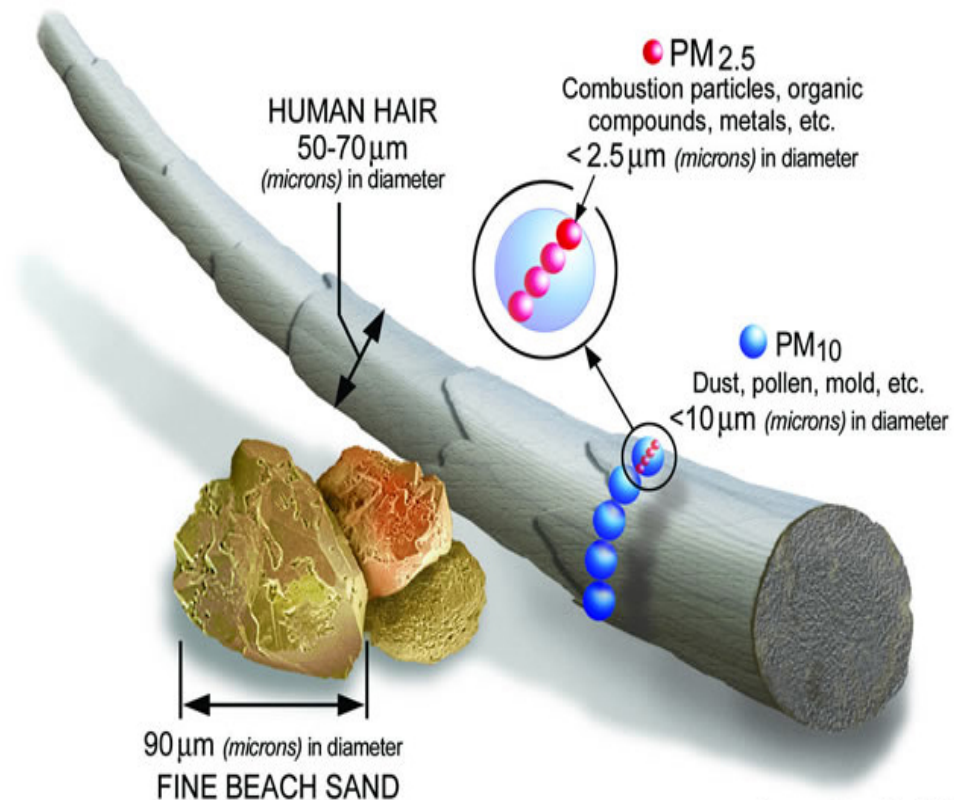


Image courtesy of the U.S. EPA

# Opacity Limits

- Federal Regulation Opacity Limits
  - Required to test equipment for compliance with opacity limit
    - 7% opacity limit for screens and conveyors
    - 12% opacity limit for crushers
- State Opacity Limits
  - 20% facility-wide opacity limit (includes dust from process equipment, storage piles, and on-site truck traffic)

# Example Simulated Opacities

20% Opacity



30% Opacity



40% Opacity



50% Opacity





# Air Quality Analysis

| Air Pollutant          | Max Facility Predicted Concentration ( $\mu\text{g}/\text{m}^3$ ) | Location Background Concentration ( $\mu\text{g}/\text{m}^3$ ) | Total Concentration ( $\mu\text{g}/\text{m}^3$ ) | State/Federal Standard ( $\mu\text{g}/\text{m}^3$ ) | Meets Standard? |
|------------------------|---|--|--|---|-----------------|
| PM <sub>10</sub> 24-hr | 50.3  | 34   | 84   | 150   | Yes             |

- PM<sub>10</sub>: The total concentration (facility predicted + background) is below the National Ambient Air Quality Standard (~56% of standard)
- PM<sub>2.5</sub>: Controlled emissions for each source is less than 1.14 pounds per hour and exempt from modeling

# Onsite Dust Control

- Dust control plan to be submitted prior to operation
  - Addresses truck traffic, storage piles, and process equipment
    - Crusher, screens, and conveyors equipped with a water spray system
    - Onsite truck traffic dust is controlled by the use of water trucks

# Air Construction Permit

- Applicable State and Federal Regulations that were established to be protective of the environment and public health, including the health of sensitive populations such as asthmatics, children, and the elderly
- Recordkeeping, reporting and/or testing requirements to demonstrate compliance
- Synthetic minor construction permit will restrict the facility to less than 250.0 tons per year of PM and less than 100.0 tons per year of PM<sub>10</sub> to avoid major thresholds

# Contact Information

## **Mareesa Singleton, Permit Writer**

Air Permitting Division  
Bureau of Air Quality  
803-898-4113  
[singlemj@dhec.sc.gov](mailto:singlemj@dhec.sc.gov)

## **Steve McCaslin, Air Permitting Director**

Air Permitting Division  
Bureau of Air Quality  
803-898-3839  
[mccaslsd@dhec.sc.gov](mailto:mccaslsd@dhec.sc.gov)

# Next Steps for Draft Air Permit

- DHEC will review all comments received
- DHEC will make a final permitting decision and provide notification and a written response to all comments to everyone on mailing list
- Final decision date begins 15-day appeal period

# How to Comment

Submit comments by mail or email through

**September 17, 2021** to:

Jeremy Eddy, PG  
DHEC/BLWM  
2600 Bull Street  
Columbia, SC 29201  
[eddyje@dhec.sc.gov](mailto:eddyje@dhec.sc.gov)

Additional information can be found at:

[www.scdhec.gov/LuckStoneEnoree](http://www.scdhec.gov/LuckStoneEnoree)

# How to Participate

To indicate you would like to speak:

- Unmute your line
- Click the 'Hand Raise' icon



Hand Raise  
(click this icon to  
indicate you would like  
to speak)



Muted  
(no one in the meeting  
can hear you)



Unmuted  
(everyone in the  
meeting can hear you)



If you have called into  
the meeting, press \*6  
to unmute



# DHEC Staff

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