



South Carolina Department of Health and Environmental Control

Luck Stone Saluda Public Meeting

November 30, 2023

Tonight's Meeting

- Share Information on the proposed Luck Stone Saluda Mine, DHEC's role and environmental permitting processes.
- Answer your questions
- Convene a formal public hearing to record oral comments
- No decision made tonight
 - Notice of the decision shared with those who signed in tonight

Public Meeting

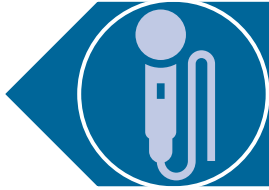
- Presentation & Information sharing
- Opportunity for your questions & facilitated discussions

Public Hearing

- Formal proceeding
- Oral comments received
- Not interactive
- Time-limited

Written Comments may be submitted until Friday, December 15,
2023

How to Provide Comments



Recorded comments at
tonight's public hearing



Email harrissl@dhec.sc.gov or
AirPNComments@dhec.sc.gov



By US Mail: Sarah Harris
DHEC Bureau of Land & Waste Management
2600 Bull Street
Columbia, SC 29201



The ePermitting Portal
"Luck Stone – Luck Saluda"

Written Comments may be submitted until Friday, December 15,
2023

Mining Topics

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

Aug. 17, 2023

- DHEC-Mining and Reclamation Program (**DHEC-MR**) Receives Application
- Begins Administrative Review

Oct. 26, 2023

- DHEC-MR Publishes Initial Public Notice & Hearing Notice
- Begins Technical Review

Nov. 30, 2023

- DHEC holds a Public Hearing/Meeting
- **Comment Period Ends December 15, 2023**
- Technical Review Continues

TBD

- DHEC to Make Mine Permitting Decision
- Summary Response to Comments
- **15 Day Appeal Period**

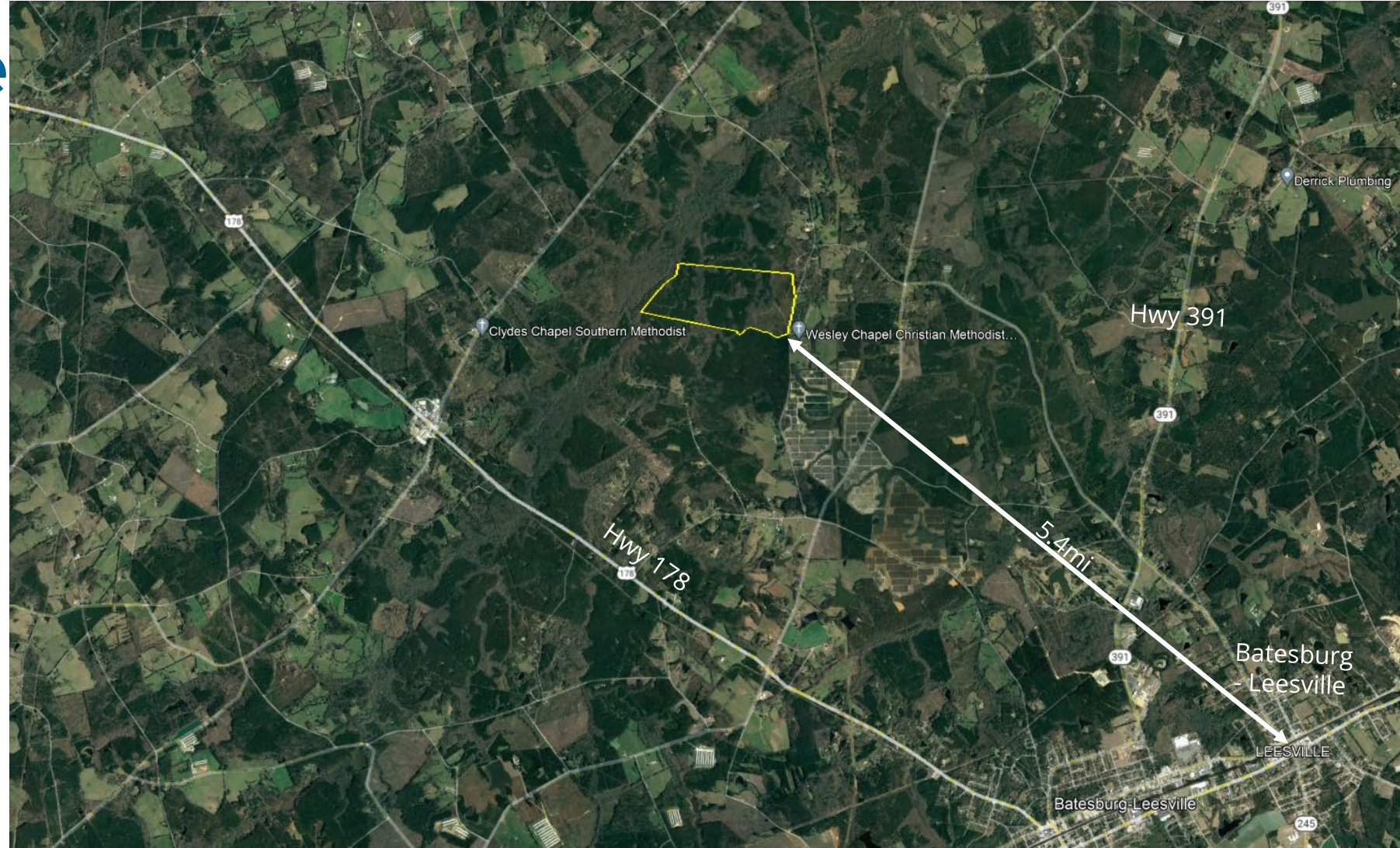
Proposed Site

TMS#: 174-00-00-006

Total Area: 331.0

Current Land Use:
Timber/Undeveloped

Owner: Luck Stone
Corporation (under
purchase agreement)



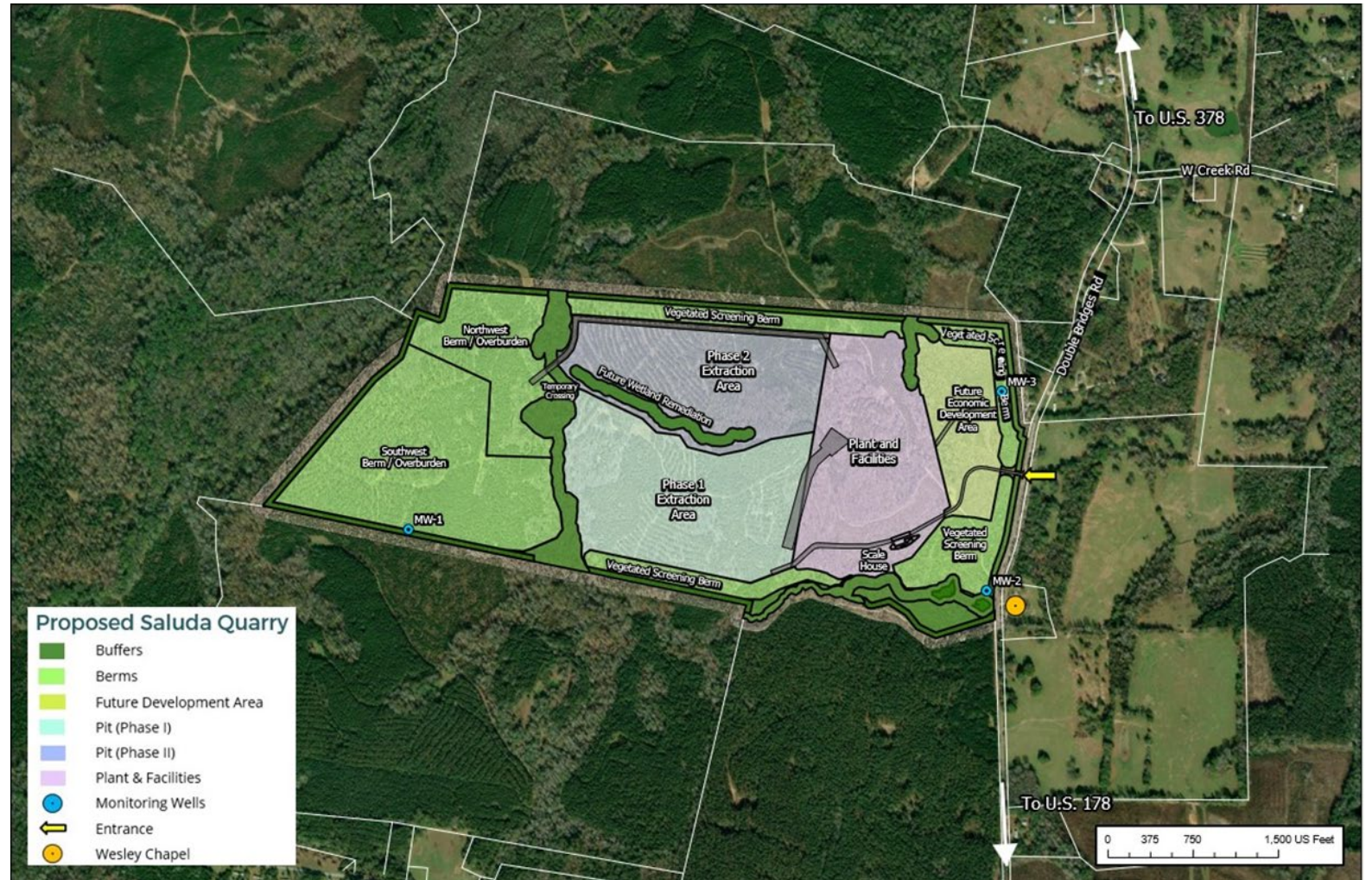
Proposed Permitted Area

Total Area: 331.0ac

Affected Area: 284.1ac

Buffer: 46.9ac

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



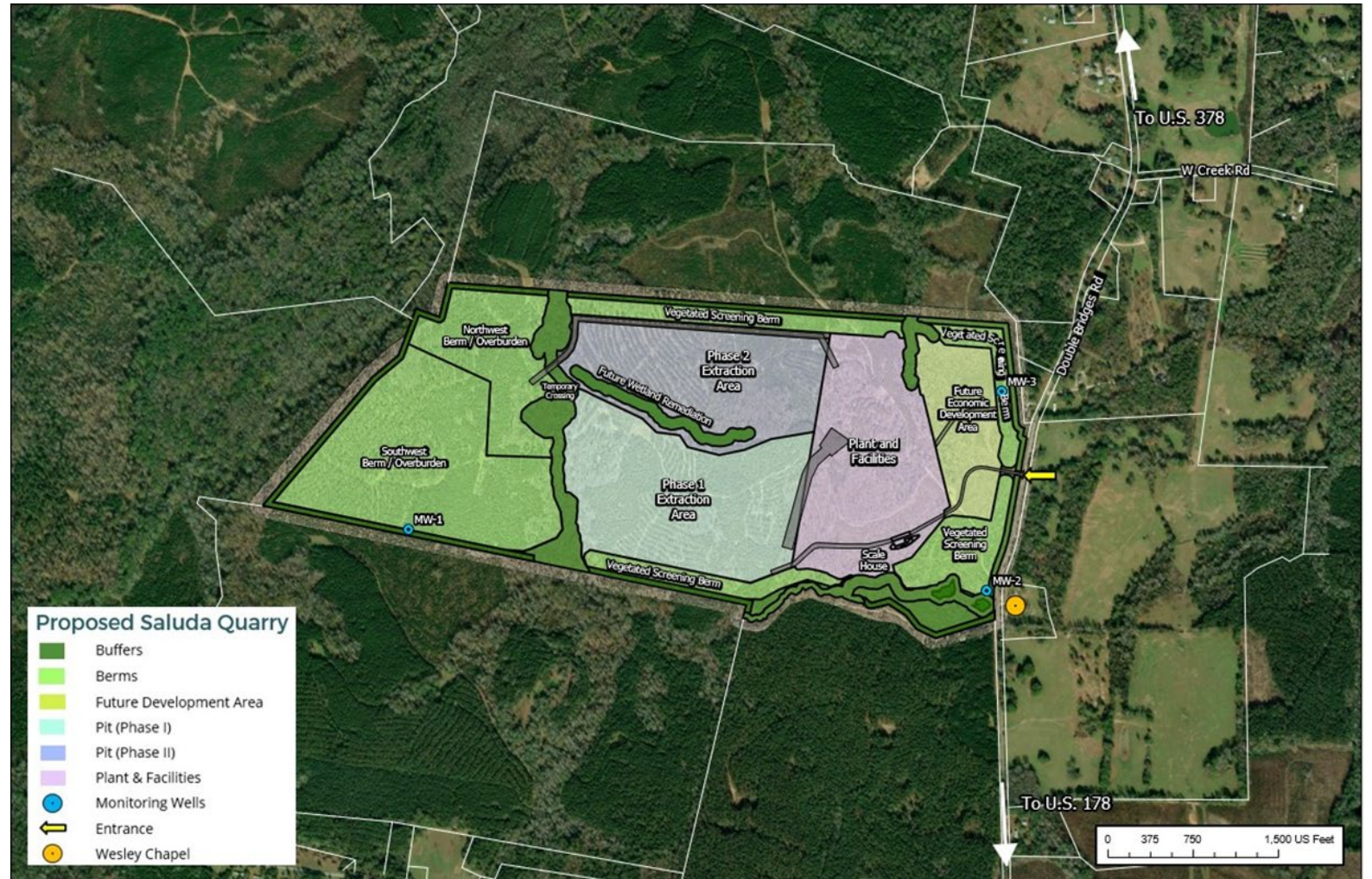
Proposed Permitted Area

Total Area: 330.1 ac

Affected Area: 284.1 ac

Buffer: 46.9 ac

- Dark Green – Buffers
- Bright Green – Berms
- Yellow – Future Development Area
- Light Teal – Pit (Phase I)
- Dark Blue – Pit (Phase II)
- Pink – Plant & Facilities



Proposed Mining Process

- Installation of Best Management Practices (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



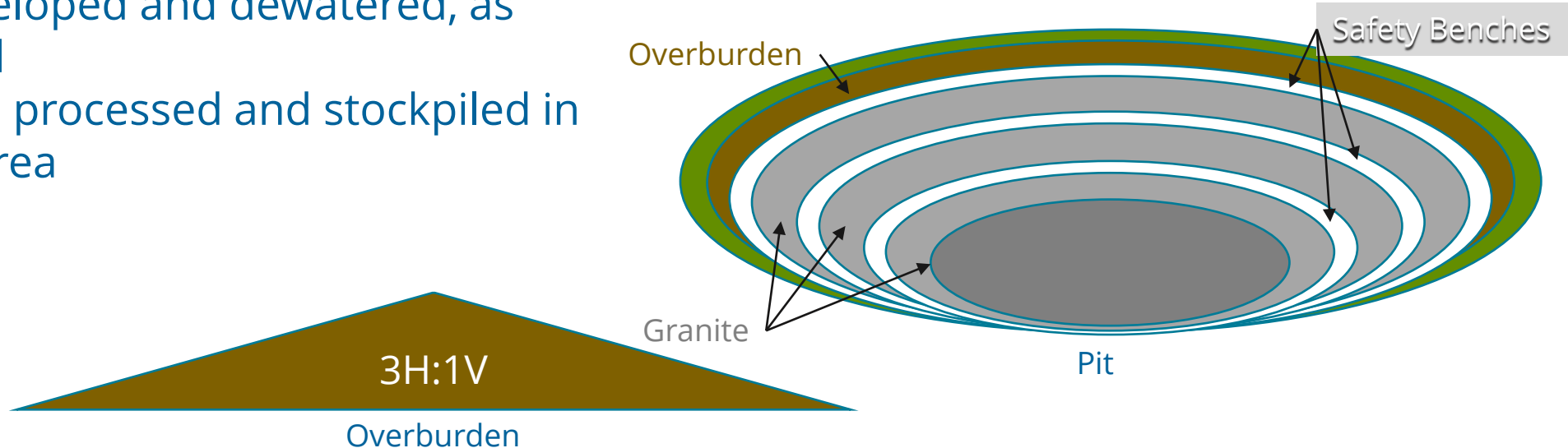
Water Truck



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.)

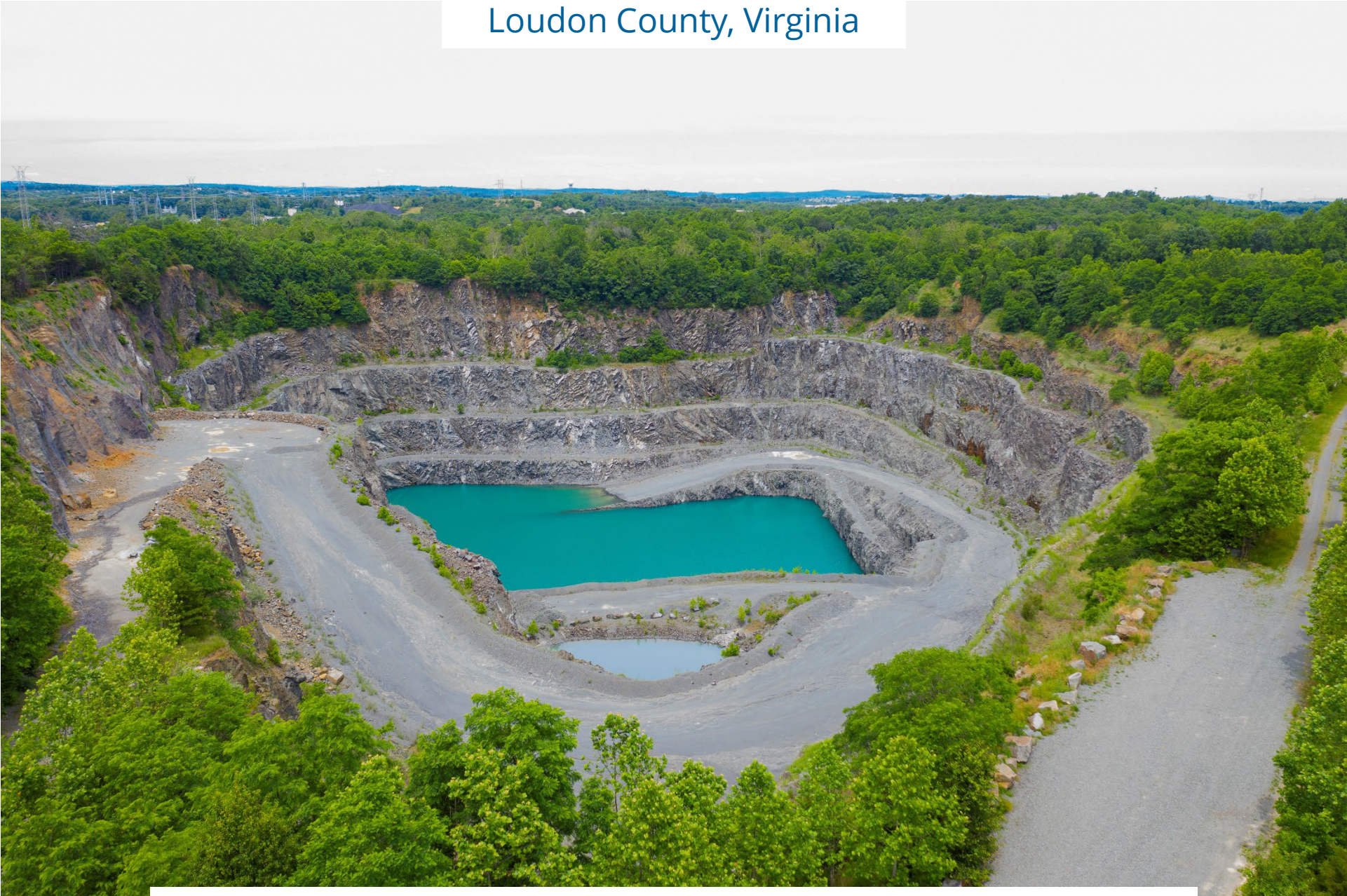
- Maximum proposed depth: 590ft.
- Applicant requests permission to blast
 - Landowners with structures within a half mile of blasting will be offered a pre-blast survey

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
- If approved, 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)
 - 401/404 Permit – Wetland Mitigation

Agency Notifications

- MSHA- Mine Safety and Health Administration
- USFW- US Fish and Wildlife
- DNR – SC Department of Natural Resources
- SHPO-State Historic Preservation Office
- SCDOT – SC Department of Transportation
- Saluda County Administrator

Common Concerns

- General blasting concerns
- Dewatering
- Dust
- Noise
- Public Safety
- Concerns DHEC cannot consider during permitting

Blasting

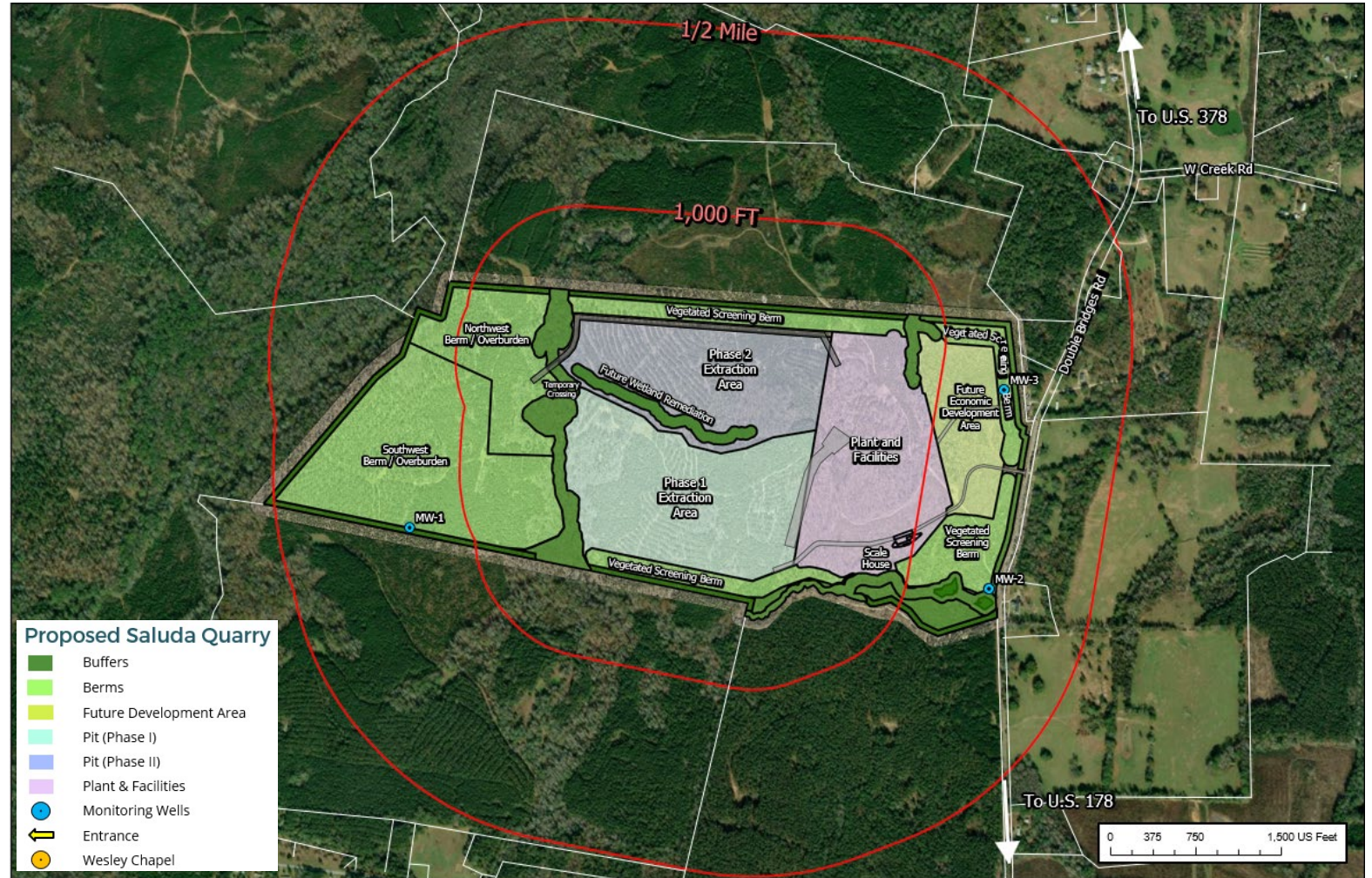
Typically, 2-4 times a month

“...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.

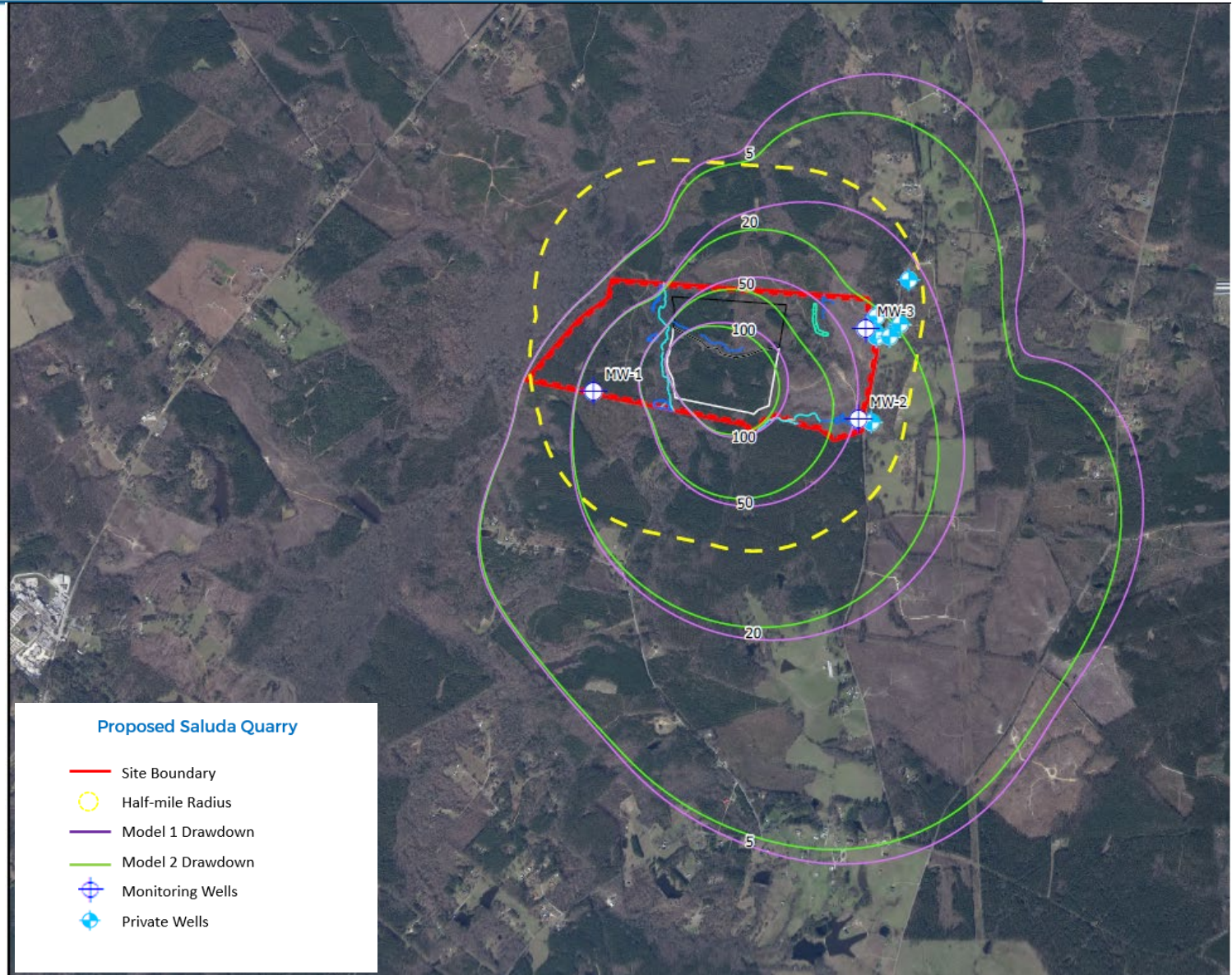
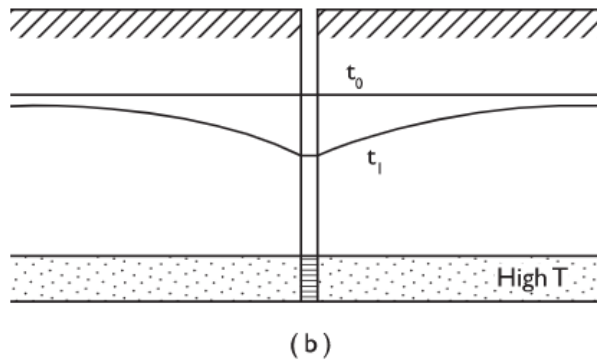
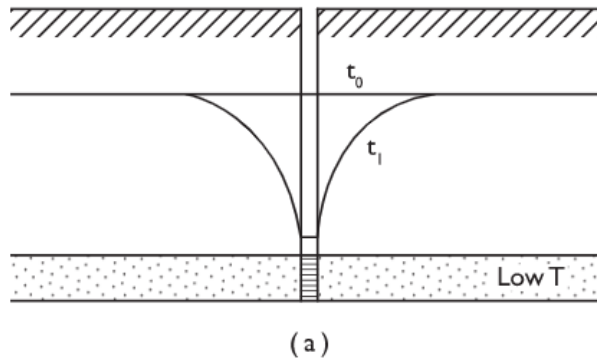
All residences >1,000ft from blasting



Dewatering

Maximum Depth: 590ft.

Primary Dewatering Layer:
Granite



Dust

- Water trucks
- Dust suppressants/crusting agents
- Vegetative cover
- Speed limits on haul roads

Noise

- Equipment
- Topography
- Buffers/berms
- Noise standards for worker safety

Public Safety

- Controlled Access
- Gated Entry/Warning Signs
- Natural & Constructed Barriers

Other Concerns

- 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 District 2: (864) 445-3411
 - SC Public Service Commission: Rob Bockman (803) 896-5142
 - Saluda County Commission of Public Works: John Lorick (864) 445-2090
- Property Value/Zoning – Land use previously determined by local government.

Next Steps

- DHEC will review all comments received and conclude the technical review.
- 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.
- 15-day appeal period begins.

How to Comment

Submit comments by mail or email through

December 15, 2023 to:

Sarah Harris
DHEC/BLWM
2600 Bull Street
Columbia, SC 29201
harrissl@dhec.sc.gov

Additional information can be found at:

www.scdhec.gov/LuckStoneSaluda



DHEC Staff

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Brett Caswell Environmental Engineer

Bureau of Environmental Health Services Regional Office

Travis Fuss Area Director

Gregory O'Quinn Program Manager

Luck Stone Corporation - Luck Saluda Draft Synthetic Minor Air Construction Permit

Bureau of Air Quality

Project Overview

- 500 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 with wet suppression (the controlled emissions) are below major thresholds

Particulate Matter

- Mixture of solid particles and liquid droplets
- PM₁₀: Inhalable particles, with diameters 10 microns (μm) and smaller
- PM_{2.5}: Fine inhalable particles, with diameters 2.5 μm and smaller

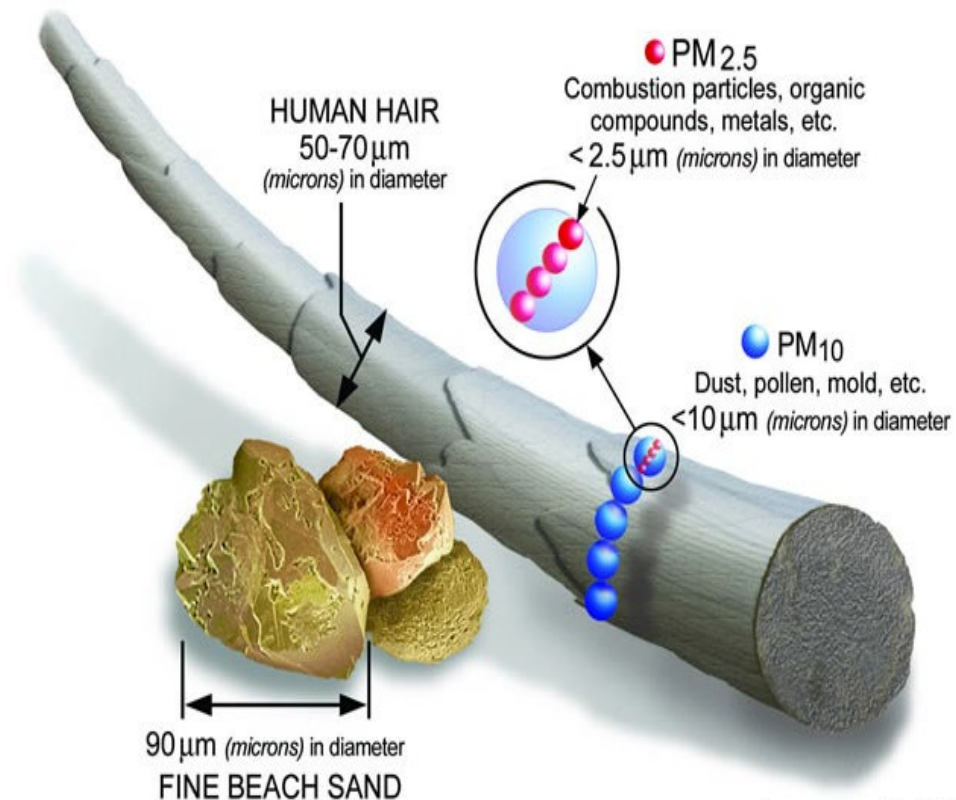


Image courtesy of the U.S. EPA

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 ₁₀ 24-hr	85.9	34	120	150	Yes

- PM₁₀: The total concentration (facility predicted + background) is below the National Ambient Air Quality Standard (~80% of standard)
- PM_{2.5}: 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 onsite truck traffic, storage piles, and process equipment
 - Crusher, screens, and conveyors equipped with a water spray system
 - Onsite truck traffic dust is controlled by water trucks

Draft Synthetic Minor Air Construction Permit

- State and Federal Regulations are established to be protective of the environment and public health
- Recordkeeping, reporting and/or testing requirements to demonstrate compliance
- Restricts emissions to less than 250.0 tons per year (tpy) of PM and less than 100.0 tpy of PM₁₀ to avoid major source thresholds

Next Steps

- Review all comments received during the public comment period
 - Ends December 15, 2023
- Make a final permitting decision, provide notification and a written response to all comments to everyone on mailing list
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Contact Information

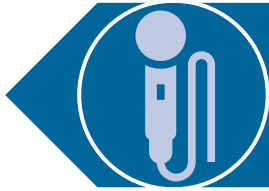
Mareesa Singleton, Permit Writer

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Steve McCaslin, Air Permitting Director

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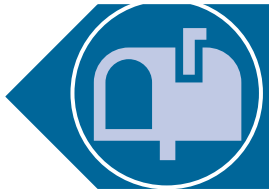
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