



**northeastern**  
BIOCHAR SOLUTIONS



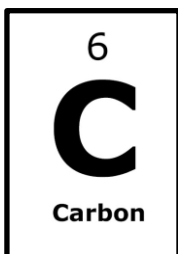
**SARATOGA**  
biochar solutions

# Carbon Fertilizer Manufacturing Public Participation Meeting

**Saratoga Biochar Solutions, LLC**

NYSDEC Application No. 5-4144-00187/00001

**March 28<sup>th</sup> & 29<sup>th</sup>, 2023**





## AGENDA

- Address Local Media Misinformation
- Saratoga Biochar Solutions (“SBS”) Project Overview
- Potential Project Impacts, and Impact Mitigation Measures
- Status of Moreau Site Plan and NYSDEC Permitting Process
- Project Benefit: Alignment with New York’s Climate Leadership and Community Protection Act (CLCPA)
- Access to DEC Permit Application, Project Information, Project Contact
- Public Q&A / Comments (2 - 3 minutes per person)



## Recent Local Media Misinformation:

- This is a DEC mandated public information meeting, not a public hearing.
- SBS does not propose to land apply biosolids, nor will SBS handle or process biosolids outside of the proposed facility.
- SBS is not an ethanol refinery and is not anything like an ethanol refinery.
- PFAS can and will be destroyed in SBS's process. PFAS can also be captured in a properly designed air emissions control system such as SBS proposes to install.



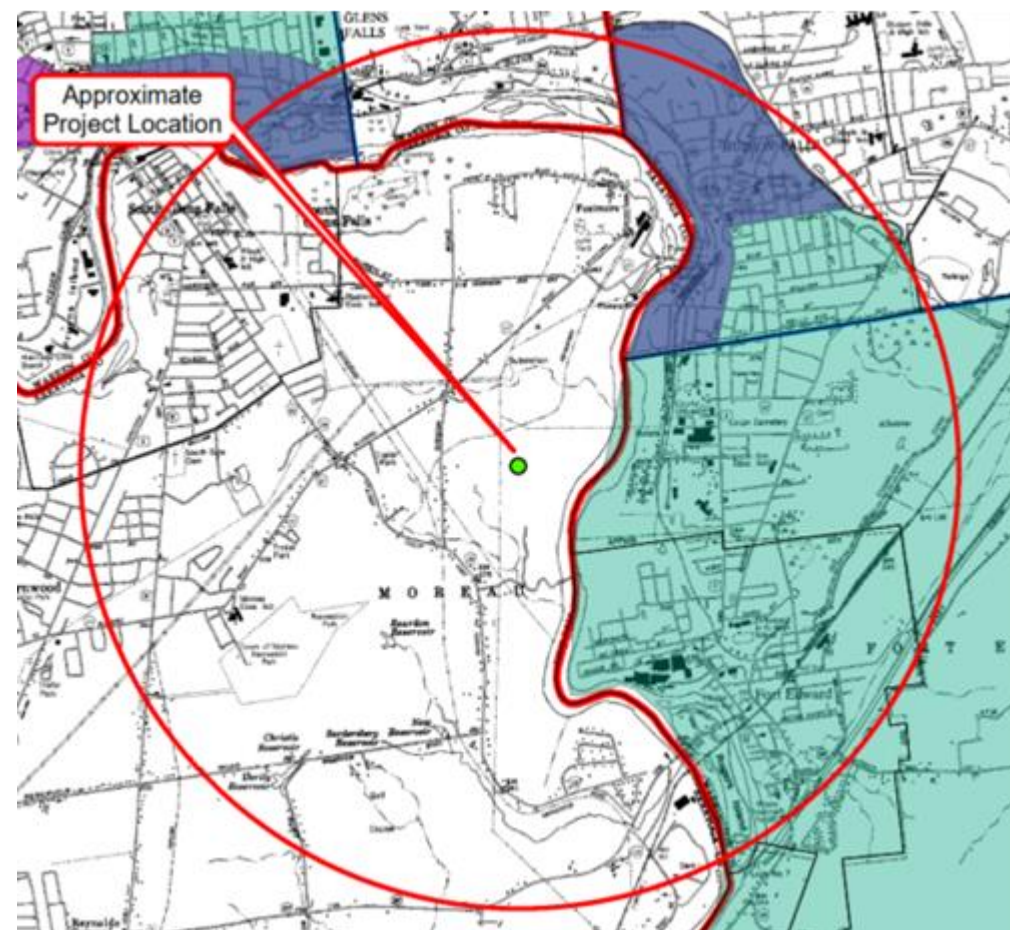
## Recent Local Media Misinformation (continued):

- SBS technology is not “new and untested.”
  - Thermal treatment, thermal oxidation, and industrial air emissions control equipment have been in existence for many decades.
  - SBS has field tested biosolids thermal treatment with its manufacturer partners, and has tested gases released from the process, and the Carbon Fertilizer output, with 3<sup>rd</sup> party independent laboratories.
  - State of the art biosolids to biochar thermal processing facilities exist. Logan, Australia is one very good example.
- SBS has retained experienced science and engineering talent for the design of its processing system, emissions controls, facility design and material handling.



## Project Overview:

- Build and operate a Carbon Fertilizer manufacturing facility on 5.89 acres within Moreau Industrial Park.
- Receive only non-hazardous biosolids feedstock from local/regional municipal wastewater treatment facilities, and clean wood waste feedstock, to manufacture Carbon Fertilizer for beneficial use.
- Construct the facility in three phases over five years.
- Application was submitted October 2021 to NYSDEC for Solid Waste Management Facility and State Air Facility permits.
- Moreau Planning Board approved site plan, with 16 environmental health & safety conditions, August 2022.





## Project Purpose:

### Recover Resources



### Sequester Carbon



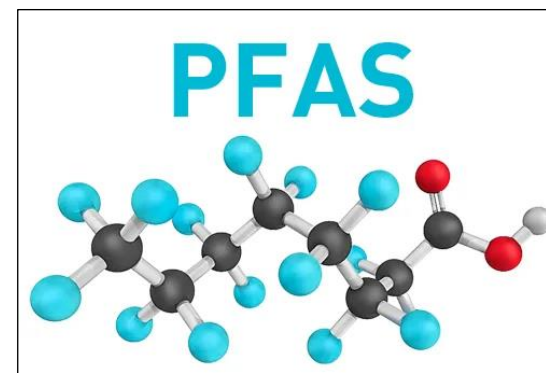
### Displace Dirty Industries



### Restore Soil



### Destroy Contaminants

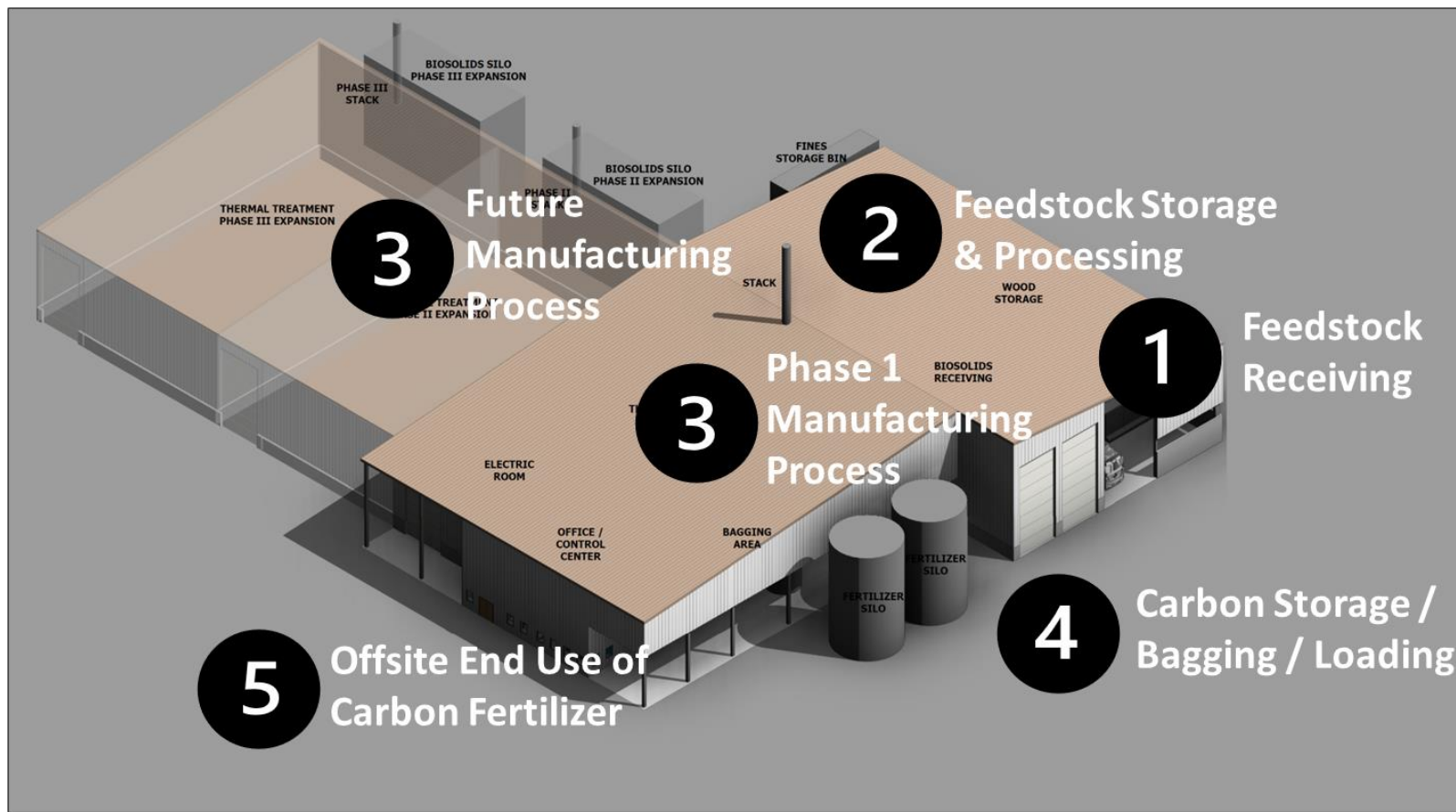


### Protect Human Health





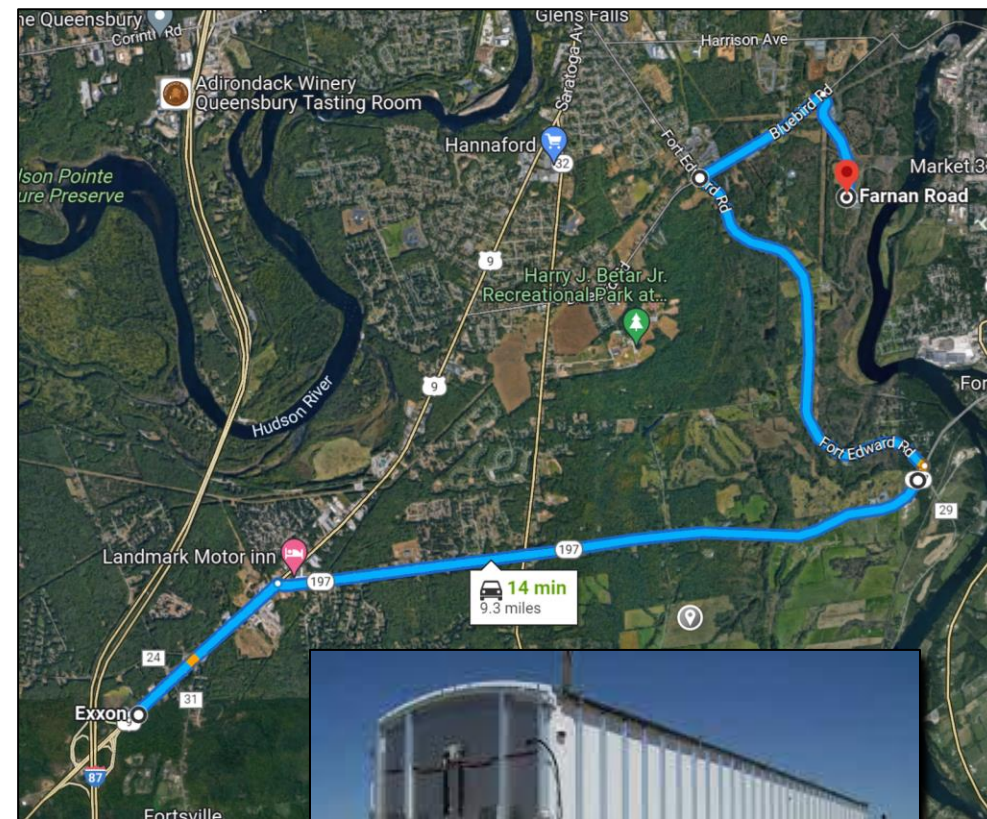
## Scope of Work - Facility Layout:





## Facility Transport:

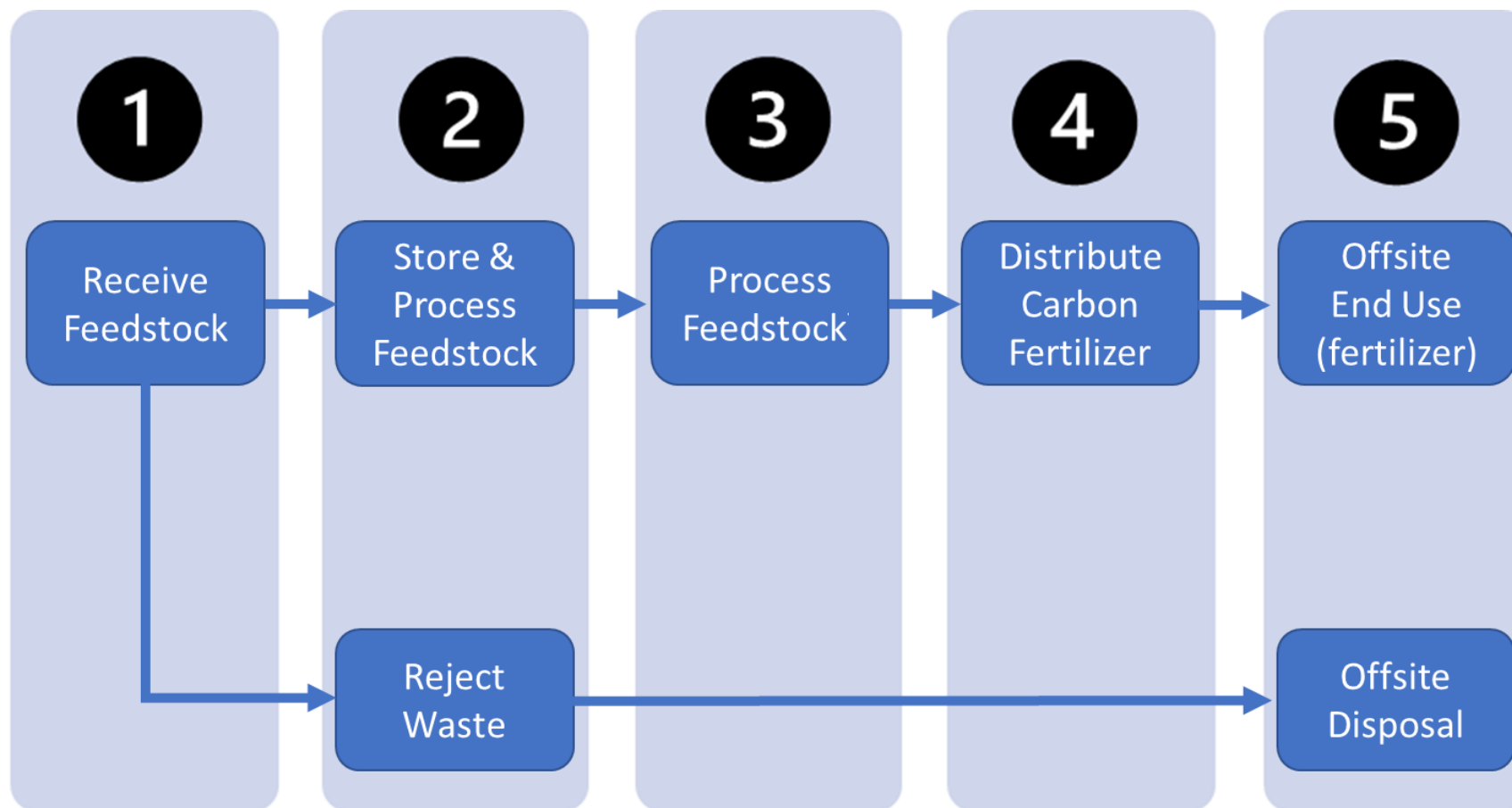
- Single hauler to provide biosolids deliveries.
- Truck traffic limits:
  - 6:00 AM - 6:00 PM Monday through Saturday.
  - **Maximum 50 trucks per day at full facility buildout.**
  - Moreau Industrial Park Generic Environmental Impact Study indicated truck route capacity of over **1,200 per hour** during peak times.
- Trucks follow established industrial park truck route.
- Biosolids trucks deposit (tip) into sealed concrete indoor covered pits for temporary storage.
- Ambient air from receiving area and pits is treated by the emission control equipment for odor removal.





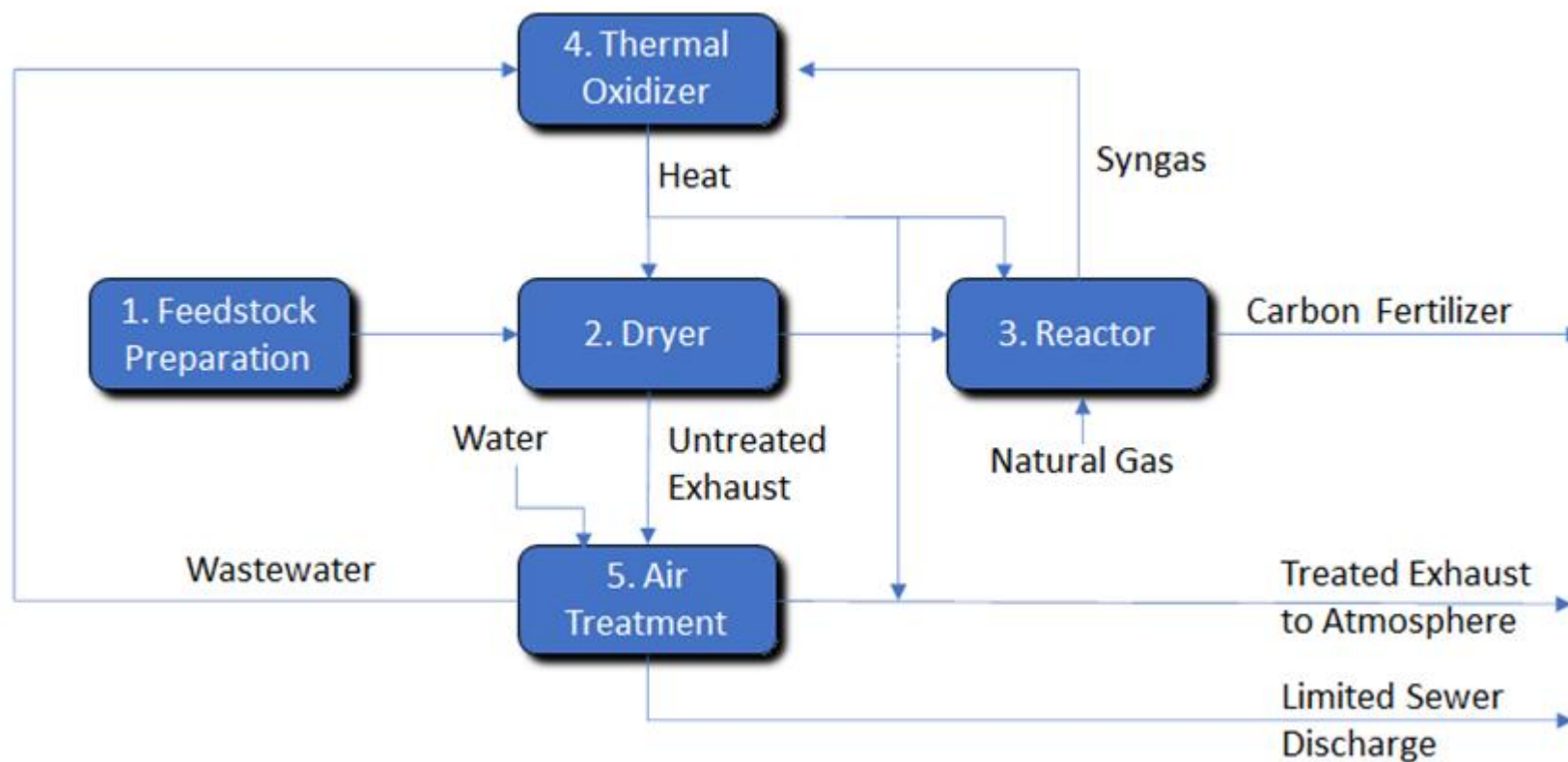


## Facility Process:





## Facility Process (cont.):





## Project Schedule (Estimate):

- Environmental and Building permitting complete by April-May 2023
- Phase-1 construction to begin Sept.-Nov. 2023, and complete by Dec. 2024
- Equipment installation to occur October-December 2024
- Facility startup December 2024
- Phase-1 of facility operating at its capacity by May of 2025
- Phase-2 construction, installation and startup 2025-2026
- Phase-3 construction, equipment installation and startup 2026-2027
- Expected operating life of facility 2024-2054



## Potential Impacts:

1. Impacts on Land: The project complies with applicable zoning and land use standards within the Moreau Industrial Park. No zoning variances were needed or applied for.
2. Impacts on Plants and Animals: A Generic Environmental Impact Statement (GEIS) for the Moreau Industrial Park confirms no presence of threatened or endangered species.
3. Impact on Energy: The facility minimizes energy use by recovering waste heat and utilizing renewable synthesis gas (“syngas”) for energy.
4. Impacts on Air: Three stacks will emit regulated process air emissions.
5. Impacts on Noise, Odor, and Light: Facility equipment and processes have potential to generate fugitive noise and odor.



## Impact Mitigation:

### 1. Air Emissions:

- a) Air pollution control system consisting of advanced thermal oxidizer, cyclone separator, wet scrubbers and bio-scrubbers to maintain air emissions below regulatory thresholds.
- b) Construction in phases to confirm emissions permit compliance before adding more capacity.
- c) Emissions monitoring, testing and reporting.

### 2. Noise and Odor:

- a) Enclosed building with negative air pressure ventilation contains / manages noise and odors.
- b) Noise and odor mitigation and continuous monitoring are required by Town of Moreau.
- c) Biosolids receiving, handling, and processing all performed indoors.
- d) Air pollution control system removes odors from exhaust air, guaranteed by manufacturer.



## Local Site Plan Review Timeline:

- July 2021: Submitted Site Plan Application to Town of Moreau Planning Board
- August 2021 through August 2022: Nine Planning Board Meetings
- December 2021: First Planning Board Public Hearing
- March 2022: Planning Board Completed the State Environmental Quality Review with a Negative Declaration
- May 2022: Second Planning Board Public Hearing
- August 2022: Received Site Plan Approval with 16 Conditions



## NYSDEC Permit Application Status:

- October 2021: Submitted Solid Waste and Air Permit Applications.
  - Compliance with 6 NYCRR 360.16 and 6 NYCRR 201
  - Consistent with State / LSWM Plans - diverts waste from landfills
  - Consistent with NY CLCPA
- October 2021 to Present: Technical Review & Requests for Information.
- August 2022: NYSDEC Notification to perform Enhanced Public Participation.
- NYSDEC has not yet deemed the applications complete.
- Once deemed complete, notice will be published in the Environmental News Bulletin and Newspaper.
- Notice will include instructions and deadline for public comment period.



## Social and Health Project Benefits:

### NYS's Climate Leadership and Community Protection Act (CLCPA)

- Effective Jan 2020, among the most ambitious climate laws in the world.
  - CLCPA Scope: <https://climate.ny.gov/Our-Climate-Act/Draft-Scoping-Plan>
- NYS will reduce GHG emissions and ensure climate justice.
  - Draft Scoping Plan released for public comment, December 2021.
  - Public comment period closed Summer of 2022.
  - Final scoping plan issued December 2022.
  - Guidance and regulations being developed, dates TBD.
  - Compliance with CLCPA expected NOW.
- **Saratoga Biochar is a low emissions facility that is CARBON NEGATIVE!**





## CLCPA Consistency Assessment (CLCPA Section 7(2))

[Actions/Projects] “Must not interfere with attainment of NYS GHG goals”

- SBS helps New York State attain CLCPA goals as a CARBON NEGATIVE facility!
  - **UPDATE:** Final independent life cycle greenhouse gas analysis by EcoEngineers (Feb 2023):
    - SBS avoids GHG emissions from biosolids disposal and fertilizer manufacturing while its product, Carbon Fertilizer, sequesters carbon in soil where it is needed.
    - Lifecycle GHG footprint yields a net GHG reduction of 137%.
- SBS reduces biosolids disposal in landfills by diverting over 57,000 dry tons biosolids per year, which is equivalent to:
  - 22% of current quantity being landfilled in and out-of-state
  - 15% of the total quantity generated in New York State
  - 61% of biosolids exported to out-of-state landfills
  - 98% of biosolids currently combusted through incineration



## Information Access:

- Document Repository and Project Website:
  - [www.saratogabiochar.com/PPP](http://www.saratogabiochar.com/PPP)
  - [www.saratogabiochar.com](http://www.saratogabiochar.com)
- Project Social Media
  - <https://www.facebook.com/SaratogaBiochar>



## How to Submit Comments:

- Contact NYSDEC

Region 5 Warrensburg Sub-Office  
232 Golf Course Road, Warrensburg, NY 12885  
[DEP.R5@dec.ny.gov](mailto:DEP.R5@dec.ny.gov)

- Project Identification

**Project:** Carbon Fertilizer Manufacturing Facility  
**Applicant:** Saratoga Biochar Solutions, LLC  
**Facility:** Carbon Fertilizer Manufacturing Facility  
**NYSDEC Application Number:** 5-4144-00187/00001



## Saratoga Biochar Project Contact:

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