

STERLING

Sterling Environmental Engineering, P.C.

June 1, 2022

Town of Moreau Planning Board
351 Reynolds Road
Moreau, New York 12828

via email: biclerk@townofmoreau.org

Subject: Saratoga Biochar Solutions, LLC
Site Plan Application
STERLING File #2020-20

Dear Planning Board,

During the May 12, 2022 Public Hearing, comments were made related to potential noise impacts to residential receptors from the proposed development by Saratoga Biochar Solutions, LLC (SBS) within the Moreau Industrial Park. Potential impacts from noise were reviewed over the course of several Planning Board meetings and specifically discussed with the New York State Department of Environmental Conservation (NYSDEC) during the conference call with Planning Board members on January 12, 2022. Based on the discussions with NYSDEC, the noise assessment was revised to remove the noise attenuation allowance that was included for existing vegetation between the industrial park and residential receptors. Potential impacts from noise were further assessed in the supplemental submission to the Planning Board on February 21, 2022. Based on this supplemental information and additional discussion during the March 7, 2022 meeting, the Planning Board issued a Negative Declaration that indicated "no or small impact may occur" related to potential noise levels.

We understand from the Public Hearing and Planning Board comments that Facility noise remains a concern with respect to ongoing operations, compliance monitoring, and enforcement. Sterling Environmental Engineering, P.C. (STERLING) submits this additional information clarifying previously submitted information and providing additional context for the Planning Board's consideration for the Site Plan review. STERLING routinely performs noise studies for operating solid waste management facilities to document compliance with NYSDEC regulations and local noise ordinances. Noise studies are performed in accordance with the NYSDEC Program Policy "Assessing and Mitigating Noise Impacts" and involve taking actual noise measurements at Facility noise sources and at the property lines in the direction of offsite receptors.

Physical Setting and GEIS Review:

The proposed Facility is located within the Moreau Industrial Park, which was subject to a Generic Environmental Impact Statement (GEIS) in 1991. The GEIS specifically assessed potential impacts from noise based on anticipated industrial use and proximity to residential receptors. The closest identified residential receptors at the time were along Fort Edward Road and Sisson Road, which is consistent with current conditions.

The GEIS evaluated long-term noise from industrial activities expected to occupy the Industrial Park. The GEIS acknowledged that industrial noise levels are quite variable, but are generally enclosed operations with internalized noise that is not expected to exceed 90 decibels at the noise source. The proposed SBS Facility will be enclosed, and as shown in the following table, all equipment is expected to have sound

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levels less than 90 decibels. The calculated combined sound level conservatively assumes all equipment for the full buildout of three process lines operates simultaneously. The phasing plan for Facility construction is to construct and operate one process line followed by subsequent construction of the second and third process lines. Certain equipment, such as the wood grinder, will operate intermittently and only during daytime hours.

Process Equipment Sound Levels

Item	Description	Quantity	Assumed Reference Sound Pressure Level dB(A)
1	Front End Loader	1	79
2	Process Input Conveyor	3	70
3	Wood Grinder	1	84
4	Rotary Dryer	3	85
5	Dryer Fan	3	79
6	Air Pollution Control Extraction Fans	6	85
7	Transfer Conveyor	3	70
8	Pyrolysis Reactor	3	85
9	Product Conveyor	3	70
Sound Level With All Processing Equipment Operating			96.5

Table from March 31, 2022 Engineering Report submitted to NYSDEC

The Industrial Park GEIS assessed expected noise levels at the nearest residential receptors based on the conservation easement and vegetative buffer between the Industrial Park and the nearest residences. The GEIS concludes that there will be no significant impacts from noise due to the separation distance and the minimum preserved buffer that will be maintained through conservation easement. The separation distance and vegetated conservation easement remains consistent with current conditions. The GEIS acknowledges that each specific industrial activity will be subject to review through the Site Plan process and particular mitigation methods may be required in conjunction with Site Plan approval.

Site Plan Review Considerations

As indicated in the submitted Site Plan documents, all noise generating equipment will be located indoors or otherwise shielded with a physical barrier for noise mitigation. The only piece of equipment that will not be located inside the processing portion of the Facility is the Wood Grinder that is located in the Wood Feedstock Receiving, Storage, and Processing Area. This location only receives wood waste and is "open air" to facilitate ventilation. As shown on the submitted architectural renderings, the open air ventilation will be provided by a gap between the lower and upper wall panels. There will be a physical barrier within the direct line of site surrounding the wood grinder for noise mitigation.

From a practical standpoint, the Facility needs to operate in a manner that provides a safe working environment for onsite employees. The Occupational Safety and Health Administration (OSHA) requires that employers implement a Hearing Conservation Program if noise exposure is at or above 85 decibels over an 8-hour workday. To be protective of employees working in the office and scale house, the Facility will need to mitigate all noise sources to levels less than 85 decibels immediately outside of the processing areas. A byproduct of this mitigation for onsite workers will be lower noise levels for potential offsite impacts. The noise assessment included in the Facility Engineering Report conservatively assesses all equipment operating at the same time at full buildout of all three process lines and does not apply any

noise attenuation credit for the existing vegetation. The Engineering Report concludes that the amount of noise mitigation required can be readily achieved through common building materials.

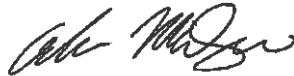
During operation, the Facility is required to comply with NYSDEC noise limits contained at 6 NYCRR 360.19(j) and the Town of Moreau Noise Control Local Law Chapter 100. The NYSDEC limits the maximum sound level to 62 decibels from 7:00 AM to 10:00 PM and 52 decibels from 10:00 PM to 7:00 AM as measured beyond the Facility property line at the closest location authorized for residential purpose. The Town of Moreau Noise Control Local Law generally prohibits “unreasonably loud or unnecessary noise”, but does not establish numeric noise limits except for the specific activities of “Sound Reproduction” and “Places of Public Entertainment”. For context, the NYSDEC Program Policy identifies 60 decibels as equivalent to an “air conditioning unit at 20 feet” and 50 decibels as “light auto traffic at 50 feet”.

The Facility operating permit will contain a standard condition to perform an annual noise survey to determine compliance with the noise limits. The Planning Board can impose its own monitoring requirements as part of the Site Plan approval. For example, a noise survey could be required within 30 days of Facility startup with all noise generating equipment in operation. Further, SBS is committed to only operating the wood grinder on weekdays between 9 AM and 5 PM; never overnight or on weekends or holidays.

We look forward to continuing the Site Plan review with the Planning Board.

Very truly yours,

STERLING ENVIRONMENTAL ENGINEERING, P.C.



Andrew M. Millspaugh, P.E.

Vice President

Andrew.Millspaugh@sterlingenvironmental.com

Email

cc: Raymond Apy
Bryce Meeker
Lee Wulfekuhle
Jim Martin
Karla Buettner
Matthew Dreimiller
Todd Kusnierz
Adam Seybolt
Ann Purdue
Erik Bergman
John Arnold
Meredith Mathias
Mike Shaver

