Proposed Site Location
Madison County Organic Materials Recovery Center
Lystek International Limited
6663 Buyea Rd, Canastota, NY 13032
Madison County Organic Materials Recovery Center

PROJECT SUMMARY

PROJECT LOCATION: 6663 Buyea Rd,
Canastota, NY
Madison County

PROJECT DESCRIPTION:
The proposed Madison County Organic Materials Recovery Center (OMRC) will be designed, constructed, owned and operated by Lystek International Limited (Lystek) on land purchased from the Madison County Industrial Development Agency. The developer Lystek will construct the facility to accept biosolids, including 1% to 35% solids content material generated from the wastewater treatment process. Anticipated materials to be accepted include:

- Primary Sludge
- Waste Activated Sludge (WAS)
- Anaerobically digested sludge
- Aerobically digested sludge
- Non-digested sludge
- Other suitable non-hazardous liquid organic materials

The facility will be designed to process up to 150,000 wet tons of biosolids annually. The general process description is the material will arrive in dump trailers, after the trucks are weighed to determine quantity the material will be dumped in a receiving bay. The material will be conveyed to an on-site feed hoppers and then on an as needed basis to one of three reactors. The reactor processes the biosolids using heat and an alkali, together with mechanical shear, to convert the biosolids into a Class A fertilizer product during a minimum 30 minute processing cycle at a minimum temperature of 160 degrees F. 100% of the material received in the facility is processed through the reactors and ultimately pumped into an on-site covered storage lagoon. During the winter months, the material is stored on site in the covered lagoons. During or prior to the growing season, finished fertilizer product (LysteGro) is hauled offsite and applied via subsurface injection to area farmland or other entities needing organic fertilizer (i.e. various crop and turf farms).

This proposed project involves preparing design plans, securing New York State Department of Environmental Conservation permits, required license from the New York State Department of Agriculture and Markets, as well as construction of the required infrastructure to build the OMRC.

PROJECT COST: approximately $8 million capital investment

PROJECT IMPACTS:
This project is necessary to provide an environmentally friendly REGIONAL acceptance location for biosolids and other suitable organics. The targeted biosolids currently are disposed of at landfills or
sludge incinerators within New York State or at outside state facilities. The ultimate goal of this project is to process suitable organic feedstock into a renewable fertilizer to be used at farmland throughout NYS thus capturing the nutrient value of the previously discarded material and to utilize the organic fraction and micronutrients to sustain and restore soil health.

The project will be funded entirely by the developer, Lystek International Limited and potentially some grant funding.

**ASSESSMENT OF POTENTIAL IMPACTS:**

This project, a supplemental activity of a previously prepared Generic Environmental Impact Statement (GEIS) for the Madison County ARE Park, is subject to review under the State Environmental Quality Review (SEQR) regulations (6 NYCRR Part 617). This project does meet or exceed thresholds contained in the Type I list under Part 617.4 (exceeds 10 acres in size). The project is not contained in the Type II list. Therefore, it is considered a Type I Action.

Based upon current information, those resource areas where the potential for impacts due to the project are greatest are discussed briefly in additional detail below:

**D. 2 Project Operation**

**a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)**

The proposed action would entail the disturbance and excavation of overburden soils during the site preparation phase including construction of the storage lagoon and building foundations.

No significant, long-term adverse effects associated with hazardous materials are expected from the construction and operation of the proposed project. Therefore, the proposed project would not result in potential significant adverse impacts from hazardous materials during construction or operation.

**d. Will the proposed action generate liquid wastes?**

Post Construction, the proposed project will accept biosolids, 1 to 35% total solids. Biosolids and other suitable non-hazardous feedstocks will be accepted at the facility for conversion into Class A fertilizer. All of the organic materials received will be converted into Class A product, no residue will remain. Almost all of the materials to be received are currently being landfilled or incinerated, so the reuse of this potentially valuable resource will be a net positive impact on the environment as a full resource recovery project.

**f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations?**

**During Construction:** Emissions from construction equipment will be generated during the construction phase of the proposed project. Gaseous emissions from diesel-fuel burning equipment and dust generated by earth-moving operations are the primary sources of these emissions are considerations related to public health. To mitigate the potential impacts of these emissions, control
measures will be employed during the project’s construction phase. These measures may include applications of water, or other approved methods, will be undertaken when visible dust is present on-site.

The implementation of effective construction phase controls will ensure that these emission-control measures will manage any emissions to ensure there are no potentially adverse public health impacts.

**Post Construction:** Post development, additional emissions will be developed and implemented with the operation of the Organic Materials Recovery Center (OMRC).

A preliminary investigation has been completed of the additional emission sources associated with this project and has concluded that an air permit will not be required from the NYSDEC for the new facilities; rather an equipment registration will be required. During development of the final design, air emissions will continue to be evaluated. Should an Air Discharge Permit be required per 6 NYCRR Part 201, application will be made at that time.

It is expected that overall air quality impacts is a net positive since operation of the OMRC is in an enclosed building with odor control equipment, finished product is stored in a covered lagoon, and fertilizer application at the farm is accomplished by sub-surface injection. In fact the entire receiving, processing and distribution systems are fully enclosed and protected following the receiving of materials at the facility.

**j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services?**

The project will not result in any significant increases to traffic. Anticipated truck traffic from this project is 10 to 20 trucks/day and thus will only result in a minor increase in traffic on the local road network. Additionally, traffic generated during construction is not anticipated to exceed this amount. During application of this product on farmland, traffic will increase as the finished product is hauled from the storage lagoon to the farm. While this is an increase in short term traffic during the land application program, commercial fertilizer traffic needed for the farm will be decreased since the OMRC Class A product is a replacement for crop fertilizer. Also note that the above trucking loads, although still small, are an overestimate as some of the materials to be received are already some of the baseload flow to the adjacent landfill, which may be redirected to this facility in future.

**D.2 Project Operations**

**m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction operation, or both?**

Construction impacts, though usually temporary, can include disruptive and noticeable effects during a proposed project. The duration and magnitude of the construction activities generally determine their significance. Construction of the proposed project would take approximately 12 months depending upon construction start date. However, this is again a conservative over-estimate as the period of any potential impacts is really only during the site development phase when the site is regraded and shaped for its subsequent use and this period should be no more than 4 months in length. Also note that the topography of this site is such that there is extensive natural screening and most of the site is well
below the adjacent road level and well screened by the topography and the existing tree screening along the road.

Major construction activities would primarily involve proposed excavation activities to allow for the construction of the storage lagoon, internal road system, and building foundation.

Impacts associated with construction of the proposed project would be temporary and short-term in nature and would not result in long-term effects on the use of these facilities by the community. Due to the temporary and short-term nature of construction activities and the measures that would be implemented in order to control noise, the proposed project would not be anticipated to result in potential significant construction impacts. A construction control plan defining all on-site controls during the construction phase will be developed and enforced.

9. Does the proposed action have the potential to produce odors for more than one hour per day?

The collection and processing of organic waste is often a source of unpleasant odors. Dissolved organic materials and particles, nitrogenous compounds (including ammonia) and phosphorous, and the sludge which is part of the treatment process may directly or indirectly cause unpleasant odors. However as noted above, the entire process train is an enclosed system immediately following the materials receiving until its final end use. Any residual odors within the facility will be collected, managed and treated with the use of an engineered odor control system.

E. Site and Setting of Proposed Action

9. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species?

The project site is former clay borrow pit, the clay was excavated for landfill liner construction at the Madison County Landfill located adjacent to the west. Vegetation along the road right of way and immediate buffer zone will be protected and, if required, restored following the proposed construction activities. A restoration plan will be developed and will generally be re-vegetated with native vegetation. Proposed construction activities would not result in significant, long term impacts to vegetation but rather a net increase in vegetative areas since the existing open pit borrow area is currently largely vegetation free.

E.2 Natural Resources On or Near Project Site

h.v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?

Adherence to best management practices for soil erosion and sediment control would avoid or minimize impacts to water quality as a result of the temporary construction project. Silt fencing will be used to control sediment transport during grading activities and sediment filter bags will be utilized for dewatering during excavation. A sediment control plan will be a construction control program that will be incorporated as one of the site controls.
With the implementation of planned mitigation and restoration measures, construction of the proposed project would not result in significant adverse impact to natural resources.

E.3 Designated Public Resources On or Near Project Site

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places?

The term “historic resources” encompasses districts, buildings, structures, sites and objects of historical, aesthetic, cultural and archaeological importance. Historic resources include both architectural and archaeological resources. A significant archaeological effort was made during the ARE Park GEIS process. The proposed OMRC will utilize the findings of the GEIS process for this project. In addition, since the majority of the site is a former clay borrow pit with excavations depth of 10’ to 50’, archeological remains are not possible within the project site as it has been fully worked prior to this project. Therefore, the proposed project will not result in potential significant adverse impacts to archaeological, cultural or historical resources.