

REPORT OF FINDINGS AND RECOMMENDATIONS

OF THE WARREN COUNTY SOLID WASTE ADVISORY COUNCIL SUB-COMMITTEE

ON

**THE VIVARIA ECOLOGICS, LLC APPLICATION FOR INCLUSION IN THE WARREN COUNTY SOLID
WASTE MANAGEMENT PLAN AS A CLASS C RECYCLING CENTER TO COMPOST FOOD WASTE**

DATED: January 23 2023

Sub-Committee Members: Lin Gabel, Lynn Rutkowski, Robert Finke, Ellen Nerbak

Staff: David Dech, Solid Waste/Recycling Coordinator, Planning Director
Ryan Conklin, Assistant Planning Director
Chris McCormick, County Health Officer

On August 8, 2022, Vivaria Ecologics, LLC (Vivaria) submitted an application for inclusion in the Warren County Solid Waste Management Plan as a Class C Recycling Center to compost food waste pursuant to the Food Waste Recycling and Food Waste-to-Energy Production Law. The law requires large food waste generators that generate an average projected volume of 52 tons of food waste or more per year to source separate and recycle their food waste. Large food waste generators must comply with the law if they are located within 25 road miles of an authorized food waste recycling facility, generate a projected average of 52 tons or more of food waste per year, and fit into one of the following categories: commercial food wholesaler, distributor, industrial food processor, supermarket, resort, conference center, banquet hall, restaurant, educational or religious institution, military installation, prison, hospital, medical facility, or casino. There are only two “authorized” food waste recycling facilities in the State. They are located in Elizabeth and Trenton. There is at least one other facility that composts food waste. The nearest is Ag Choice in Andover Township, Sussex County.

Vivaria is seeking to become an “authorized food waste recycling facility”. The first step in the process is for the site to be included in the County’s Solid Waste Management Plan as a Class C recycling center.

The definition of food waste in the Food Waste Recycling and Food Waste-to-Energy Production Law is “Food processing vegetative waste, food processing residue generated from processing and packaging operations, overripe produce, trimmings from food, food product over-runs from food processing, soiled and unrecyclable paper generated from food processing, and used cooking fats, oil, and grease. Plate waste and food donated by the establishment is not considered food waste and shall not be included when estimating or measuring the amount of food waste generated.”

Vivaria is owned/founded by Christina PioCosta-Lahue of the Freedom Group. Ms. PioCosta-Lahue’s team of professionals are Mark Peck, Esq; Wayne DeFeo, DeFeo Associates; Baraka Poulin, Sales Engineer of ECS (Engineered Compost Systems); Craig Coker, Coker Composting and Consulting; and Kenneth Hart, LSRP, of ELM. The Traffic Engineer retained by Vivaria is Craig Peregoy of Dynamic Engineering.

General Description of Site

Vivaria Ecologics LLC is proposing to construct and operate a Class C Recycling Center that would receive up to 17,000 tons of food waste and 33,000 tons of wood chips for a total of 50,000 tons per year. The wood chips are to be used as a bulking agent. The Class C Recycling Center would operate as a compost facility utilizing aerated static compost technology. The facility will ramp up operations reaching its maximum capacity in three years. At maximum capacity it is estimated that the operation will generate 153 truck trips per day. It will operate from 8:00 a.m. to 4:00 p.m. Monday through Friday.

The property is rectangular in shape and is located on Block 1204, Lot 24 on Blau Road, contains 42 acres and is currently farmed. The property is bordered by the Dover and Delaware freight rail line, the Rockport Game Farm properties, and a single-family residential subdivision development known as Grandview. Approximately half of the site nearest the railroad is proposed for the compost operation while the other half adjacent to Grandview will remain in farming and serve as a buffer. A 10’ berm is proposed that would bisect in half and be designed to provide a visual screen for the residents of Grandview. The half containing the active compost area would be approximately 1,100 feet from

Grandview. Located across Blau Road from the site are a plastic fabricator, a Church, and a moving company. The next page shows the site and vicinity.

Site and Vicinity Map



Summary of Review Process

On September 1, 2022, the SWAC heard Vivaria’s first presentation. Mr. Peck and Mr. DeFeo explained the application and proposed operation and answered questions from members of SWAC and the public. A portion of the public belong to a group called the New Jersey Land and Community Preservation Alliance (NJLCPA) and are represented by Daniel Marchese, Esq. Minutes of the meeting are posted on the Warren County website.

The October 6, 2022 meeting was adjourned due to the lack of seating for all members of the public to sit. Minutes of the meeting are posted on the Warren County website.

The next meeting was held at the Warren Technical School on November 3, 2022. During this meeting, the SWAC heard presentations from Vivaria’s traffic engineer, Craig Perego of Dynamic Engineering, Nathan Mosley of Shropshire Associates LLC (NJLCPA traffic engineer), Scott Reyes, a concerned resident who presented information about other composting facilities operations, and Allison Molnar a concerned resident who presented information about endangered species. The presentation materials from this meeting are posted on the Warren County website. Minutes of this meeting have not been approved by the SWAC yet and therefore are not posted.

The Mansfield Township Committee submitted a letter dated December 5, 2022 setting forth its position and comments regarding the application. This letter and the letter dated March 15, 2022 are posted on the website.

Vivaria submitted a letter dated December 22, 2022 as a response to comments made at the November 3, 2022 SWAC meeting. It is posted on the county website.¹

All materials that have been introduced publicly are posted on the Warren County website at <https://www.warrencountynj.gov/government/planning-department/recycling-and-solid-waste/solid-waste-advisory-council>

The SWAC formed a sub-committee to review the application in greater detail and provide its recommendation to the full SWAC at a subsequent public meeting. The sub-committee consists of Ellen Nerbak, Lin Gabel, Lynne Rutkowski, Bob Finke, and Warren County staff consisting of Chris McCormick from the Health Dept, Ryan Conklin, Assistant Planning Director and David Dech, Solid Waste Coordinator/Planning Director. The SWAC sub-committee met four times to discuss details of the application on September 1, October 27, December 13 2022 and January 19, 2023. In addition, the Sub-Committee conducted a field visit with the Applicant of the Blau Road site and Ag Choice in Andover Township on September 28, 2022.

Recommendations

After careful evaluation of the application, additional research, site visits, comments from the Township of Mansfield, other agencies, and the public, the Sub-Committee of the Warren County Solid Waste Advisory Council does not recommend including the Vivaria Ecologics LLC site in the Warren County Solid Waste Management Plan. The reasons for not recommending inclusion are as follows:

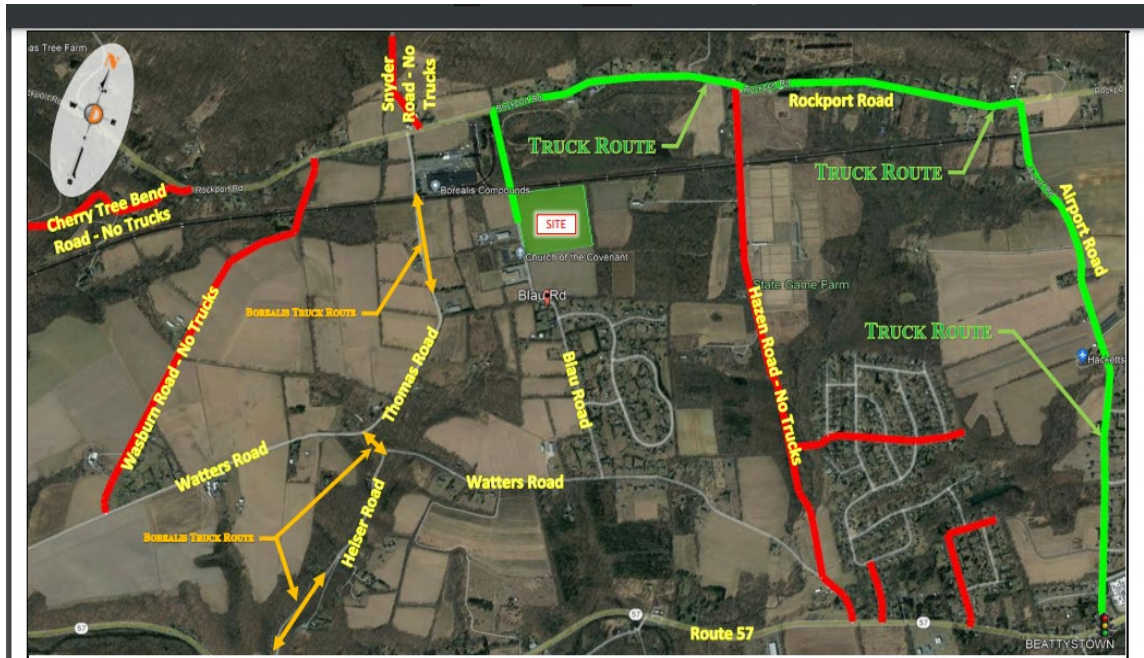
1. The site is inappropriate for the capacity proposed. Although the applicant provided examples of where similar composting operations are currently taking place, most, if not all, are co-located on sites that contain other compatible uses such as landfills, recycling facilities, wastewater treatment plants, etc. They are located adjacent to or near major transportation corridors, and/or buffered with acres of undeveloped property. The Blau Road site is located in area that contains no other noxious uses.
2. The Blau Road site is located between 1.75 miles and 3.5 miles from Rt. 57 the nearest “major” highway. Vivaria proposed the Airport/Rockport/Blau Road truck route which is the longest, 3.5 miles, passes by more residential areas, overcomes greater topography, and encounters more geometric roadway deficiencies in handling truck movements. This route was not well received by the Township or the residents. There was discussion that the Heiser/Watters/Thomas/Rockport/Blau Road route that is used and signed for Borealis be

¹ A response letter was submitted by Mr. Marchese on behalf of NJLCPA on January 19, 2023 at approximately 10:20 pm. The letter was not received by the subcommittee prior to its meeting earlier that night. While the letter has been distributed to all members of the SWAC, it was not considered by the subcommittee and is not considered as part of these recommendations.

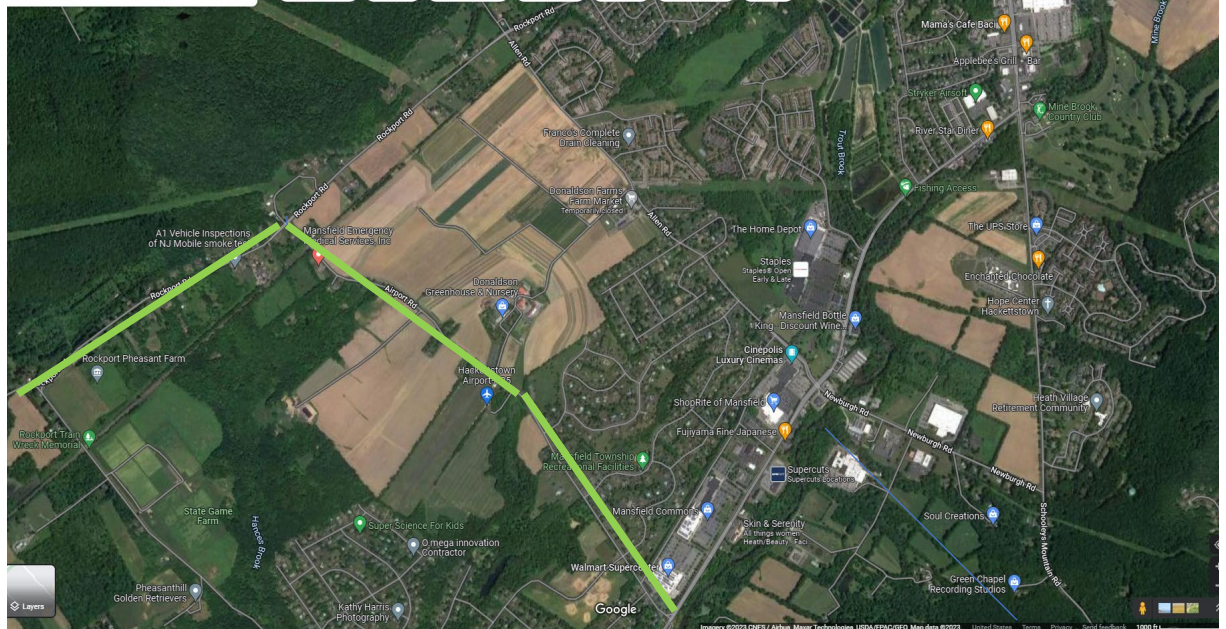
used instead. It is 2.5 miles in length from Rt 57. While this route may be better, the route cannot be legally enforced as trucks will be free to travel on any roadway except for those that contain weight or height restrictions. The shortest unrestricted route is the Heiser/Watters/Blau Road, which is 2.25 miles in length from Rt 57. The Hazen/Watters/Blau Road route is 1.75 miles from Rt 57. However, the portion of this route that utilizes Hazen Road is weight restricted at 10 tons.

The section of Blau Road that would be used on the shorter routes is very narrow, 22 ft, and passes through the Grandview development. Other than assurances by Vivaria and wayfinding signage, there is no guarantee that trucks will travel on a preferred truck route. Truckers are free to travel on roadways not subject weight or height restrictions. And in the age of GPS, they will be directed to use the shortest route, i.e., Blau Road regardless of weight or height restrictions.

Shown below is a map from the Vivaria Traffic Study showing the proposed truck route, the Borealis truck route and the roadways in this portion of the Township that are weight restricted



The map below shows the Airport Road section of the truck route and its surroundings on the north side of the roadway.



3. The site is located in the Township’s Industrial Zone and may be permitted if it met all of the requirements as a conditional use. Notwithstanding the fact that the NJDEP has jurisdiction over the site’s design and operations as provided in N.J.A.C 7:26A et. seq. the sub-committee reviewed the Vivaria application for compliance with the requirements of the Township code. It found that it would not satisfactorily meet all of the provisions as a conditional use. However, and more importantly jurisdictionally, N.J.A.C. 7:26-4.5(a)15 ii, requires that food waste be composted in a fully enclosed structure with complete walls and roof and shall have an air management system pursuant to N.J.A.C. 7:27 that is capable of removing odors and noxious compounds. The application and concept plan does not provide for the composting process to take place in an enclosed structure. Only the tipping area of unprocessed material is indoors. The active composting area is outdoors which does not comply with NJDEP regulations. The SWAC cannot endorse an application that it knowingly violates at least one component of the NJDEP regulations. The SWAC has not reviewed the application for compliance with other NJDEP regulations that may pertain to the site and its operations.

It is noted that the Township has jurisdiction over certain matters concerning the facility in accordance with N.J.A.C. 7:26A-4.1(a)11 where it states that “The operation and related activities of all classes of recycling centers shall be in conformance with municipal ordinances, including, but not limited to ordinances concerning ingress and egress, traffic patterns, parking, signage, operational hours, noise, dust, and structure height.”

If the SWAC were to recommend inclusion in the Solid Waste Management Plan, and the Board of Commissioners approved, the site plan and application that is ultimately filed with the NJDEP to obtain its General Approval must be submitted to Mansfield Township for approval.

4. A food waste compost facility of the proposed capacity is not needed to address the anticipated requirement to reduce food waste generated within the county. The Vivaria application states that the majority of food waste will be imported from food waste generators located outside of Warren County. The application states that there are 96 generators that produce more than 52 tons per year of food waste within 25 miles of the site. Nine generators that produce more than 104 tons of food waste are said to be in Warren County but are not identified. The application estimates that 3,416 tons of food waste would be generated from these nine facilities. Based on a 2021 Tonnage Report approximately 1,730 tons of food waste was sent to Ag Choice from Mars-Wrigley. After deducting for Mars, the average comes to 210 tons of food waste per generator. And based on other tonnage reports on file, the supermarkets in Warren County seem to generate between 60 to 90 tons of food waste per year. And as a comparison from a website source, the average fast-food restaurant generates 200,000 pounds (100 tons) of food waste per year (Statistic Brain, 2013). Other than Mars, what are the generators that produce so much waste in Warren County? Furthermore, the number of generators that would generate between 52 and 104 tons per year from Warren County is not provided and are not named.

Apparently, some of the major generators in Warren County already seem to have contracts with other food waste recyclers such as Ag Choice in Andover Township. These include M&M Mars, Shoprite, Weiss Market, Walmart, and Stop n Shop. Labels on the collection containers indicate the following recyclers: Ag Choice, Organix, Quest, and Landfill Diversion Innovations. It appears that most of the supermarkets in the County are already recycling their food waste under existing contracts thereby diminishing the demand to have a facility at Blau Road.

The maps attached to this report show the coverage areas of the Vivaria application, Ag Choice, and the two “authorized facilities”, Waste Management CORE in Elizabeth and Trenton Renewal Power in Trenton. Ag Choice is permitted to compost food and other permissible wastes up to 38,000 tons per year. While not an “authorized” facility, the 25-mile coverage area of Ag Choice encompasses most of the County’s 22 municipalities except for Harmony, Franklin, Greenwich, Lopatcong, Phillipsburg, Alpha and Pohatcong which are in the southern reaches. Also, it is noted that when mapping the road mileage food waste generators located as far as away as Andover, Netcong, Roxbury, Chester, Mendham Twp., Whitehouse, Flemington/Raritan Twp., Frenchtown, and Milford would be within the 25-mile road mile radius. Many of the areas in Morris and Hunterdon County are more populated and contain larger and more restaurants, supermarkets, schools, and other institutions etc. than Warren County.

There is another food waste composting facility in Hopewell Township, Mercer County known as Community Food Cycle. It operates as a RDD project and is approved to receive 5 tons per day of food waste, Monday through Friday which equates to 1,300 tons per year. It uses in-vessel composting and Bokashi fermentation which is aerobic and reportedly does not off-gas methane.

5. The Food Waste Recycling and Food Waste-to-Energy Production Law requires large food waste generators that generate an average projected volume of 52 tons of food waste or more per year to source separate and recycle their food waste. Large food waste generators must comply with the Law if they are located within 25 road miles of an authorized food waste recycling facility. The law does not require counties to amend their Solid Waste Management Plans to provide for an “authorized food waste recycling facility”.

The application makes the argument that if this compost facility is approved, it will address the County’s future food waste reduction requirements. As stated above the Food Waste Recycling and Food Waste-to-Energy Production Law does not require counties to amend their plans to include an “authorized food waste recycling facility”. However, there is one other statute and a bill that is pending that would obligate the County to plan for food waste reduction in the future. The statute is P.L. 2017 c. 136 (S3027) and establishes a goal of reducing the amount of food waste generated annually in the State by 50% of the amount generated in 2017 by 2030. The NJDEP and the NJ Dept of Agriculture were tasked to develop a plan to achieve this goal. The NJDEP released a Draft Food Waste Reduction Plan but has not been adopted as of this writing.

The bill is S-2730 and would require Counties to develop a food waste reduction plan to reduce food waste by 50% by 2030 within 2 years after the bill becomes effective. Potential measures to reduce food waste include, but need not be limited to, measures to increase the donation of surplus edible food, the source separation and recycling of food waste, composting and anaerobic digestion of food waste, and public awareness campaigns. The Bill is now in the Senate Budget and Appropriations Committee.

Until the NJDEP adopts a Food Waste Reduction Plan to reduce food waste by 50% statewide and adopts regulations to implement the Food Waste Reduction Plan, and if S-2730 is adopted, the County is under no obligation to prepare and adopt a food waste reduction plan or amend its Solid Waste Management Plan to include a food waste recycling facility to reduce and/or recycle its food waste.

Nevertheless, according to the draft NJ Food Waste Reduction Plan, 22% of the waste disposed of is food waste. Using this percentage, Warren County would have generated approximately 12,720 tons of food waste in 2017. Using this estimation, 6,360 tons of food waste would need to be recycled or reduced. Vivaria’s application to compost 17,000 tons of food waste is over 2.5 times the amount of waste that Warren County would be required to reduce.

The Solid Waste Management Plan’s specific purpose is to implement the State’s recycling goals by identifying and implementing methods to collect, dispose and recycle solid waste generated within the County. The current Solid Waste Management Plan was adopted by the Board of County Commissioners and certified by the New Jersey Department of Environmental Protection on February 17, 2022. The Plan’s Introduction reads:

“In accordance with the requirements of Public Law 1975, Chapter 326, Laws of New Jersey, each county in the state is designated as a solid waste management district and is responsible for the preparation and implementation of a plan for the collection and disposal of its solid waste. In addition, each county has the responsibility of evaluating and modifying the county plan, as necessary, on a biennial basis following the adoption of the plan.”

The Recycling Section of the Warren County Solid Waste Management Plan, under Purpose, reads:

“In accordance with the New Jersey Mandatory Source Separation and Recycling Act, the adopted 2006 New Jersey Statewide Solid Waste Management Plan, and the Recycling Enhancement Act, all counties/districts are required to prepare a Recycling Plan that will attain the State’s recycling goals of 60% for total solid waste and 50% for municipal solid waste through the collection, processing and marketing of designated traditional and non-traditional recyclable materials.”

Clearly, the County has no obligation to provide for the disposal and/or recycling of wastes from outside of Warren County.

6. The County’s Solid Waste Management Plan does not identify food waste as a designated recyclable. However, the Plan contains the following regarding food waste, page 46:

Food waste

“According to the U.S. Environmental Protection Agency as much as 40 percent of the food that is grown, processed, and transported is never eaten. As depicted in Table 7-A food waste accounts for between 21 to 25% of the municipal solid waste stream discarded. In the past the State explored ways to develop a food waste recycling program through Rutgers University. Food waste can be used as alternative fuels and for organic fertilizer production. In July 2017 the Governor signed S-3027 that sets the goal to reduce the amount of food waste in New Jersey by 50 percent within the next 13 years. The law gives the state Department of Environmental Protection, in consultation with the Department of Agriculture, one year to develop and begin implementing a plan to accomplish the goal. When the NJDEP finalizes the food waste plan, Warren County will participate in reducing/recycling food waste to the extent practicable.”

The County Plan does recommend that restaurants and homeowners compost and recycle as much food waste and cooking grease as possible to keep it out of the waste stream. When the NJDEP adopts its Food Waste Reduction Plan and if S-2730 is adopted and becomes law, Warren County will develop its own Food Waste Reduction Plan which will consider the alternatives suggested in the bill.

7. One of the benefits that is to be afforded the Township is a host fee of 50 cents per ton of food waste that is delivered. However, the applicant reported that no scale will be on site to weigh incoming loads. There is no other method to accurately measure the amount of food

waste delivered. Furthermore, a scale is needed to accurately report tonnages of food waste recycled into compost to the respective municipal coordinators. A scale is needed to accurately report weights to municipal recycling coordinators, in accordance with State law.

8. Vivaria has not previously owned or operated a composting site. Because of the lack of experience, there are concerns about the on-site management of the facility that could lead to excessive odors, vermin, and over capacity.
9. There are concerns with ground water quantity and quality. Composting operations require water to maintain an acceptable moisture content in the piles. Vivaria is not proposing to install a well and instead will be relying on the stormwater retention ponds to supply the water necessary for the operation. Two issues arise. The first is that it is more than likely that Vivaria will need to drill its own well to supply potable water to its employees, ensure that there is adequate water for fire suppression, and to ensure that there is enough water to maintain moisture content in the piles. Nearby residents have expressed concerns over available water supply stating that their wells are over 400 feet deep. So, the additional draw down from Vivaria is potentially problematic. The Applicant has not provided any information regarding the potential impact on wells and water availability.

Regarding water quality, stormwater runoff will be collected and stored in the retention ponds. Given that the area relies on potable groundwater there is the concern that the groundwater supply may become contaminated.

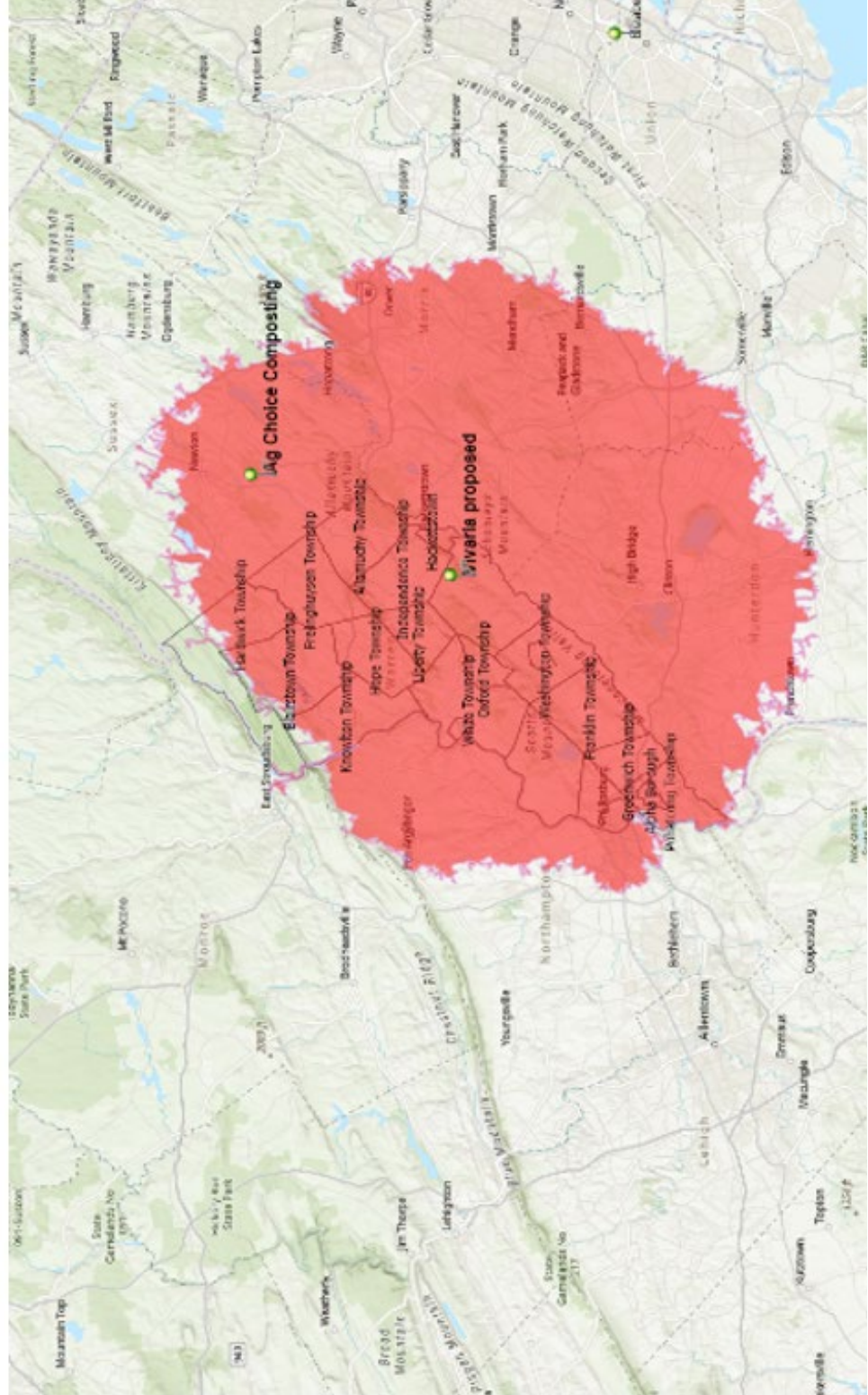
10. The other consideration regarding capacity is the volume of wood chips and the number of trucks delivering the wood chips. The total throughput capacity is 50,000 tons per year with 17,000 tons being food waste and the remaining 33,000 tons being wood chips. It was reported that wood chips are typically delivered in smaller trucks. Smaller trucks equate to more trucks. And, if wood chip stock piles are not used quickly enough or allowed to sit, the pile heats up and the risk of fire increases. This reverts back to the discussion on truck traffic, capacity, water availability, and on-site management concerns.
11. Mansfield Township in letters dated March 15, 2022 and December 5, 2022 has expressed its opposition to the facility for several reasons. The letter is attached.
12. County residents and those who belong to the New Jersey Land Preservation and Conservation Alliance have provided commentary at public meetings, and have provided professional reports and commentary are opposed to the compost facility

Summary Conclusion

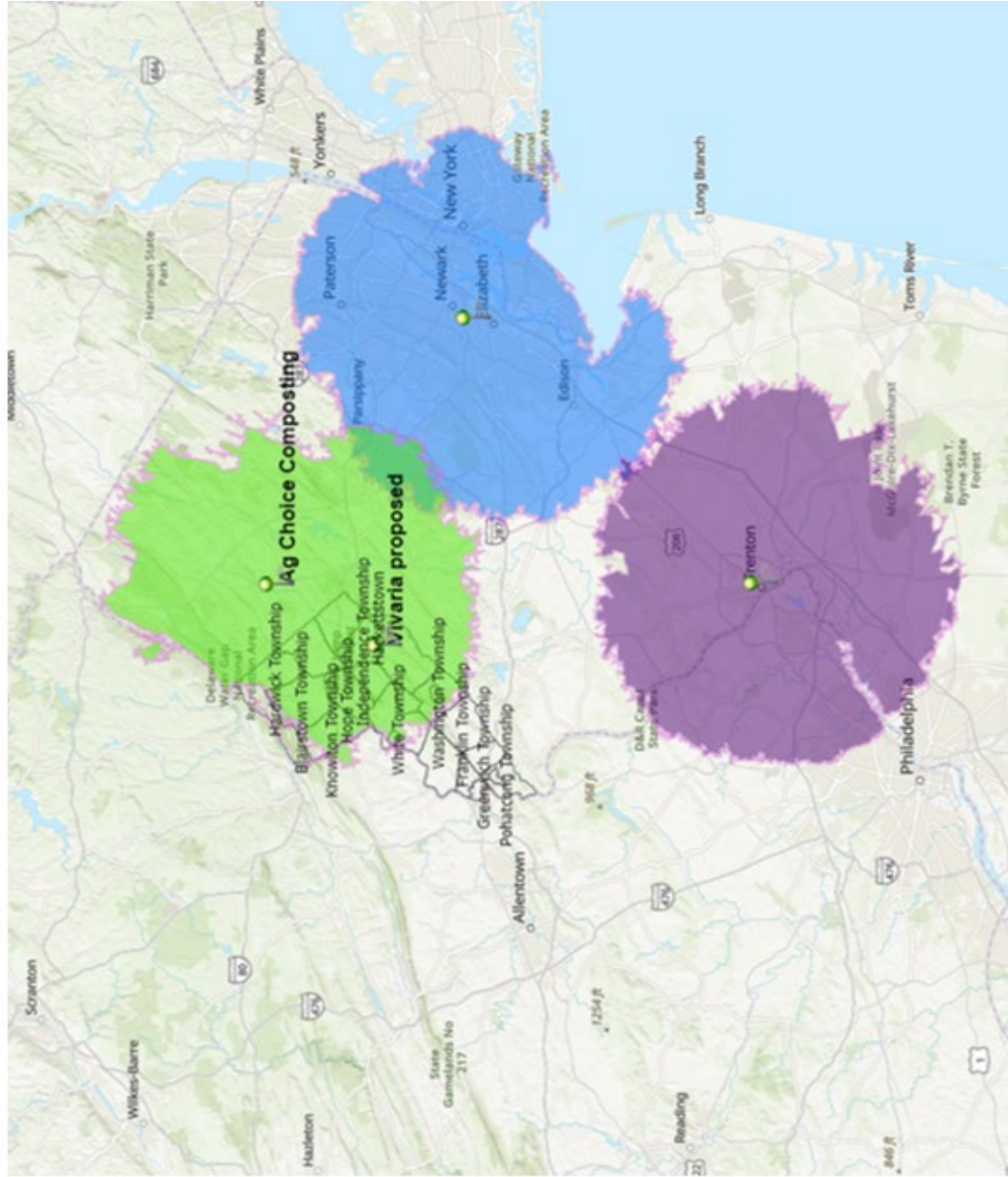
In conclusion, when considering all of the above facts and issues and applying them to the Evaluation Criteria set forth in the Warren County Solid Waste Management Plan's Procedural and Evaluation Guidelines to Modify Existing and Include New Solid Waste and Recycling Facilities in the Warren County

Solid Waste Management Plan, the SWAC Sub-Committee recommends against including Vivaria in the County's Solid Waste Management Plan. Until the time comes when/if S-2730 becomes law, all counties will be required to prepared and adopt a food waste reduction and recycling plan. At that time, the County will undertake the proper study and analysis to identify appropriate strategies and methods to reduce the amount of food waste generated and disposed of in Warren County. It is more prudent to wait and conduct the proper evaluation to address the County's needs.

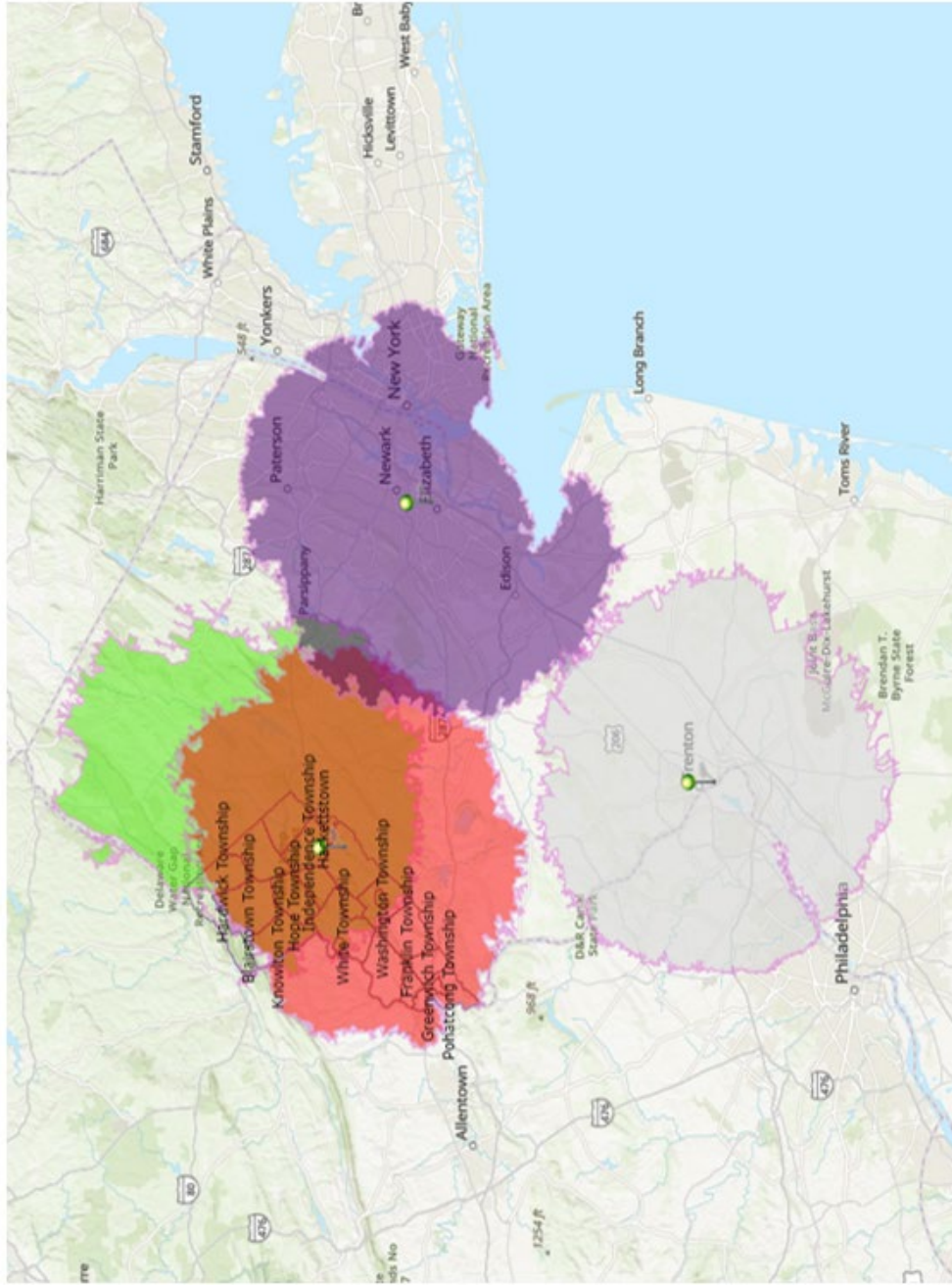
25 Road Mile Coverage Area for Vivaria Eclogics



25 Road Mile Coverage Area of Ag Choice, Waste Management Core Elizabeth, and Trenton Renewable Power



25 Road Mile Coverage Areas for Ag Choice, Waste Management Core Elizabeth, Trenton Renewable Power, and Proposed Viviana



TOWNSHIP OF MANSFIELD
100 PORT MURRAY ROAD
PORT MURRAY NEW JERSEY 07865



RECEIVED

December 5, 2022

DEC - 8 2022

Warren County Solid Waste Advisory Council
165 Country Road 519, South
Suite 111
Belvidere, NJ 07823
ATT: Mr. David Dech

WARREN COUNTY
PLANNING BOARD

Subject: Proposed Food Processing Center in Mansfield Township

Dear Members;

The Mansfield Township Committee would like to go on record as opposing any approval that would allow such a facility within the Township. A letter dated March 15, 2022 was mailed to Commissioner Sarnoski from the Township Attorney stating the same.

There are numerous reasons for opposing this proposal. Instead of going into a lengthy description please see the below bullet points.

Water – The water table is very low for residents in the surrounding area. There are 416 wells in a one-mile radius of the property.

NJ Highlands & Wetlands – This area is immediately adjacent to the property in the North. This is protected land that is the habitat to the local ecosystem.

Leachate Reuse – Their plan indicates the use of a small containment tank. This plan lacks the prevention of leachate from seeping into the groundwater and contaminating the community wells and water table for the wildlife.

Traffic – Two (2) traffic studies were completed. However, neither study addressed the effect on neighboring municipalities. Other issues include:

1. Number of trucks per day
2. Size of the trucks
3. Volume the trucks carry
4. Truck route
5. Crossing over lines of traffic and cutting onto the shoulder
6. Sight distance on some roads
7. Additional traffic when schools are in session – did not count for school employees and students driving to the high school
8. Bus stops along the route(s)
9. The size of the roads and the additional wear and tear
10. The cost to repair roads – this will fall on township residents
11. Vivaria Ecologics will have no control over truck drivers regarding the route they take, speed that they travel, and other safety issues
12. The safety and well-being of the children and residents of Mansfield Township was not taken into consideration
13. This will put an extra burden on the Township Police Department

Odors and other air pollutants – How does the facility plan to regulate odors and air pollutants in an open-air operating facility and meet the state law requirements?

Contaminated material – It was stated that Vivaria will turn away loads that have plastic and other nonfood related waste material. How can this be determined without dumping the entire load?

Examples of other facilities - Vavaria provided examples of other Food Processing facilities. These facilities were located near other like facilities and had public water. The proposed site is 20 out of 42 acres and the examples are 670 to 3,136 acres. Surrounding areas are nonresidential and noncommercial businesses. Each example also showed close existing highway infrastructure to support their operation.

Regulations – Zoning, Recycling, and Environmental Impact Statements/Assessments are among some of the regulations that have not been addressed.

Vavaria also stated that Mansfield will see an increase in recycling rates due to the receipt of food waste from within the Township. As of 2021, there are three (3) supermarkets that report food waste recycling in their annual recycling reports. Out of the three (3) there would potentially be two (2) that would have to utilize this new facility. All three (3) supermarkets are located along a highway and some have a large container onsite to store material until a scheduled pick-up. Therefore, the township would not see an increase.

If the S.W.A.C. members wish clarification regarding the above opposing reasons, we would be happy to provide further explanations.

In conclusion, prior to and during the S.W.A.C. meetings, the applicant and their professionals have not always been forthcoming with facts. The entire proposal is based on approximate numbers, not concrete figures. Comments made by the company have been speculative at best.

When making your decision, please keep in mind that Mansfield will have no control over this facility. Residents would have to depend on the D.E.P. for enforcement. Also, this proposed facility will not only effect Mansfield Township it will also affect neighboring townships.

Thank you in advance for your consideration and understanding in this matter.

Sincerely,

Mansfield Township Committee

