



## Division of Surface Water Response to Comments

**Project: Mt. Perry Nutrient Storage**

### **Agency Contacts for this Project**

Division Contact: Steve Lear, Division of Surface Water, 740-380-5225,  
Stephen.Lear@epa.ohio.gov

Public Involvement Coordinator: Jessica Langdon, 614-644-2160,  
Jessica.Langdon@epa.ohio.gov

In the fall of 2021, Ohio EPA opened a comment period, held a virtual information session, and held an in-person public hearing to receive comments from the public regarding this proposed draft NPDES permit. After receiving requests from the community, Ohio EPA extended the comment period an additional seven days to give citizens more time to comment on the draft permit. This document summarizes the comments and questions received at (the virtual and public hearings and/or during the associated comment period), which ended on November 3, 2021.

Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format.

Ohio EPA is subject to Ohio's public records laws. Any document can be made available upon request. The public can make a request at:

<https://epa.ohio.gov/about/media-center/access-public-records>

## **Drinking Water Wells, Streams, Wetlands**

**Comment 1:** Several commenters expressed concern over the potential for the storage lagoon to contaminate ground water, drinking water, streams, and wetlands.

**Response 1:** Ohio EPA's rules governing the placement and construction of this type of structure include requirements to protect against environmental contamination such as requiring a liner and setback or isolation distances between the storage lagoon and sensitive resources. The lagoon is required to have a liner that meets the engineering specifications in Ohio Administrative Code (OAC) 3745-42-13(H). The liner provides a barrier to deter migration of material from the lagoon to ground water. A ground water monitoring network has been required as an additional safety measure to provide early detection should an issue arise.

The approved engineering plans for this facility meet Ohio's regulations. A PTI application cannot be legally denied if all the required criteria are met. The facility will continue to be inspected throughout construction to ensure it is built as required.

**Comment 2:** Several commenters asked what happens if ground water, drinking water, streams or wetlands are contaminated, who is liable and how is it made right? To what specification will cleanup be required?

**Response 2:** Ground water monitoring wells are located close to the lagoon. Samples are required to be regularly collected and the data submitted to Ohio EPA for review. Ground water monitoring verifies the liner is working as designed or provides an early warning should an issue arise. In the event data samples indicate a lagoon leak to the ground water, appropriate lagoon repair and ground water remediation by the owner of the lagoon would occur. Because ground water moves slowly, the monitoring network would detect contamination and remediation would occur prior to threatening any drinking water wells. Ground water remediation techniques generally involve a pump and treat system that pumps the impacted ground water through an appropriate treatment system.

If a spill associated with the lagoon occurs, the owner of the lagoon is responsible to take immediate measures to limit the spill and mitigate any impact from it. Ohio EPA's Office of Emergency Response is available to quickly respond to spills and can be reached by calling the 24-hour emergency spill hotline at (800) 282-9378. Mitigative actions include actions that limit the spread of the contamination, removal of the material, and aeration and cleanup of any impacted waters. The determination of when clean-up actions may cease is based on site specific factors. Some examples include when levels return to background or are safe for human health and the environment.

**Comment 3: Why was the well on the Kroff farmhouse, the other house across the road and the two cabins not on the well report for depth? This is the property owner of the lagoon.**

**Response 3:** These were not on the original well report document because the Ohio Department of Natural Resources (ODNR) database was searched based on the road names (Coopermill and Krofft) and not the county road designations (CR34 and CR67) respectively. The information for the missing wells was sent to the applicant so they could update the report.

**Comment 4: Several commenters asked who pays if drinking water wells need treatment or city water connections are needed.**

**Response 4:** The storage pond was designed and is being installed based on the local hydrogeology to be protective of ground water. As a precaution, the NPDES permit requires reporting sampling results from the monitoring wells surrounding the storage ponds. Should monitoring indicate an issue, the owner of the storage pond will be required to repair and remediate the ground water before it migrates off site. In the extremely, unlikely event that contamination from the lagoon impacts area drinking water wells, Ohio EPA would coordinate with Ohio Department of Health, the lagoon owner, and the impacted residents to address the situation.

**Comment 5: Are they aware that 100 percent of everyone's drinking water is underground?**

**Response 5:** Ohio EPA is aware many of Ohio's residents obtain their drinking water from ground water sources.

**Comment 6:** **There is a wetland just down the road from this site! Shouldn't that be a concern also for the EPA? And a creek that runs past them both, how can they be certain that those won't get contaminated as well?**

**Response 6:** The PTI approval for the site requires appropriate isolation distances from wetlands and streams and requires the level of material in the lagoon remain well below the top of the lagoon embankments.

**Comment 7:** **Are you providing testing for our water prior to ANY of this taking place?**

**Response 7:** No. Ohio EPA is not required to perform any drinking water testing prior to the construction of the Mount Perry Nutrient Storage Pond. Ohio EPA is requiring the applicant to line the lagoon and monitor ground water in the immediate vicinity of the lagoon and to remediate any issues should they occur.

**Comment 8:** **What is the static water level of all wells in the area?**

**Response 8:** Static water level is not something that an applicant is required to provide. There are two water well logs very close to the location of the Mt. Perry pond which indicate water is available in the shallow bedrock and/or the unconsolidated material. Well Log 85216 shows a static level of 15 feet. Well Log 1010416 shows a static level of 10 feet.

**Comment 9:** **Will the EPA respond to allegations of well contamination raised at the 10/20/21 meeting? Especially if this contamination is a result of water runoff from fields that were treated with crap from Quasar? What is your response to this and how is it safe and healthy for neighboring farms, wells, and wildlife?**

**Response 9:** Our Agency is aware of the spill in question. It did not go unreported. Quasar reported the spill to Ohio EPA's Spill Hotline when it occurred. Ohio EPA's emergency protocols were followed regarding this spill

incident. Please note, Ohio EPA does not regulate private water systems. Private wells fall under the jurisdiction of the local health department. Any information that documents a compromised well should be shared with the local health department. Ohio EPA does work collaboratively with local health departments to investigate pollution sources if a local health department were to determine that private wells in an area were experiencing unexpected contaminants in their drinking water wells. Ohio EPA reviews complaints as the Agency receives them. Ohio EPA then determines jurisdiction and available facts surrounding any incident and responds appropriately.

**Comment 10: Can you guarantee all water from creek to wells will be safe and no chemicals in the water?**

**Response 10:** Ohio EPA bases its permits on applicable rules, regulations, science, and data. Ohio EPA cannot guarantee any site will be free from risk. The nutrient storage pond does meet the separation distances from all water sources and has a requirement to monitor for leaks and spills.

**Comment 11: “The Big Engine” water aquifer is the aquifer that Perry County residents get their well water from. Most of us in the rural areas do not have access to the public water system. What is the depth of that aquifer in the location where the nutrient pond is located? How does this project impact the drinking water for residents in that area?**

**Response 11:** At the location where the pond is being built, the aquifer (also known as the Black Hand Sandstone) is located at an elevation of 600’ to 400’ Mean Sea Level (MSL). With the pond’s approximate surface elevation of 840’ MSL, the top of the Black Hand is at least 240’ below ground surface (bgs). The aquifer’s approximate thickness in this part of Perry County is 200’. There is a well log (Stevens) located near the Mt. Perry pond site which likely taps the Black Hand aquifer. It is identified as “Sand” in the well log at 322’ below grade. (Note that this well is probably located on a hill, which explains why it would be deeper than the 240’ cited above.)

**Comment 12:** Is a shallow hydrostratigraphic present above the clay sand that is not interconnected with the Big Engine?

**Response 12:** There are two water well logs very close to the location of the Mt. Perry pond which indicate water is available in the shallow bedrock and/or the unconsolidated material.

**Comment 13:** How are area drinking water wells to be monitored?

**Response 13:** Ohio EPA is requiring a Ground Water Monitoring Plan to monitor the ground water near the storage lagoon. This monitoring will occur much closer to the facility than drinking water wells in the area. The Ground Water Monitoring Plan will include details of how samples are to be collected as well as detailing quality assurance procedures. This plan and ground water monitoring results will be reviewed and approved by Ohio EPA's Division of Drinking and Ground Waters.

**Specific comments received that are summarized and addressed in the above section:**

- Is this an appropriate place for an open sewer lagoon – A place with extremely close proximity to streams to carry spills to larger rivers and beyond?
- Is this an appropriate place for an open sewer lagoon – A place, in which the 20 million gallon pit of sewage, will lie a mere 35 feet above the only source of clean water aquifer for the area?
- Why was this lagoon permitted to be constructed in an area where the potential for the contamination of the aquifer that supplies safe/clean drinking water for this area? May I use the analogy of a vaccination? "Once it's injected you can't take it out." This is the only readily available source of safe drinking water in this area. What's the plan in the event that, "God Forbid", our only source of safe drinking water is contaminated?
- If ground water can be contaminated, can that affect ground wells in the area and from how far away? I have a 120+ foot deep well. I live less than 4 miles away. I am concerned about future contamination. What proof can you give me that my water (and air) won't be affected?
- This is human waste not a nutrient - There are many health concerns in regard to the facility being developed there. What will it do to the water table to the area

resident with their well water? It would bring health concerns to all residents in the area. The nearby creeks and streams will be damaged.

- If the water gets screwed up, who is paying for my new filtration units? I will need in order to use my water.
- What if our wells, springs, whatever, for our consumption, livestock get taken away from us? How can anybody replace that?
- Natural spring on Andy Beardmore land, who is going to be responsible for it being contaminated?
- What happens if water is contaminated? Who is liable? How is it made right?
- Who will be responsible if and when the well is contaminated?
- Who is going to pay for a destroyed water well that's over \$10,000 in the ground?
- Once our wells have been contaminated will the EPA make Quasar, the responsible party clean up the water and wells? The pump alone in my well is \$1,000, since 1987 we've invested over 10,000 in this well and is our only source of water.
- What will this lagoon do to my well? My well hits 420 feet deep. Will it be contaminated? Will a \$20,000 investment be wasted? Who's going to pay for it? Not Quasar, I'm sure, and sure as hell not Jeff Kroft.
- What is being done to ensure that wells from the surrounding area will not be contaminated? I would like you to explain, in detail, the preventative measures in place to prevent the leaching of the biosolids into the ground.
- If they put the biosolid pond in, will it affect our drinking water?
- The EPA was also not aware of wells in the area that residents use for drinking water — probably because they are too old to have been recorded with ODNR.
- How does it affect our wetlands area?
- The EPA was also not aware of wells in the area that residents use for drinking water — probably because they are too old to have been recorded with ODNR.

- Lives a few hundred feet from site, Coopermill Rd. separated her property with the proposed lagoon. Who is responsible for clean if it floods and spills into her yard? Who is responsible for providing her family clean water for her to drink and wash dishes if her well is compromised from runoff or overflow?
- If a spill does happen, who is responsible for cleanup and to what specification?
- Who will be responsible for remediation if and when there is a breach of the ponds dam or seepage into the ground water and aquifer?
- Who will be held responsible for any drainage into area streams?

### **Other Environmental Impact Concerns**

**Comment 14:** Several commenters asked: how will the local wildlife, aquatic life, and human health be affected by the biosolids in this lagoon?

**Response 14:** Biosolids are nutrient-rich materials generated by the treatment of wastewater sludge and other organics that meet standards set by U.S. EPA and Ohio EPA for beneficial use as fertilizer or soil conditioner. The standards were specifically developed to protect human health and the environment, including the health of animals, crops, soils, wildlife, and aquatic life. To date, research and risk assessments have shown that the low concentrations of contaminants that may be present in biosolids have not caused adverse effects to human health or the environment. U.S. EPA continues to assess emerging contaminants, including those that may be present in biosolids, and is updating regulations and guidance as needed. Recent information has shown that some deer tissue samples surrounding known hotspots of the emerging contaminant perfluorooctane sulfonic acid (PFOS) in Michigan and Maine have detectable levels of the chemical. It should be noted that this sampling was done in response to a known unusually high source of PFOS and is not representative of the majority of biosolids.

Overall, the beneficial use of the biosolids is considered protective of human health, wildlife, and the environment when biosolids are treated and managed in accordance with regulations. Anyone who has health concerns should discuss them with a medical physician.

**Comment 15:** Three commenters asked for an environmental impact study regarding the storage lagoon. Specifically, has or will an environmental impact study on the soil, water, odor control, and wildlife going to be or been done regarding this project?

**Response 15:** The term 'environmental impact study' (EIS) has a specific legal definition under the National Environmental Policy Act which does not require such a study be done for this type of project. Therefore, an 'EIS' as may be done for federal or federally funded projects is not available. Projects such as this one do not require project-specific impact analyses. Instead, the project application and engineering plans need to demonstrate that the facility has been designed and can be operated to comply with the Division of Surface Water (DSW) rules and associated permit conditions. The rules, and the permits issued under those rules, are designed to be protective of what DSW has the authority to regulate. Other comments ask what the impacts are to various environmental aspects such as soil, water, odor, and wildlife. Please refer to the responses to those comments for further information.

**Comment 16:** What is the environmental impact of applying Class B biosolids to fields? What are the long-term effects of biosolids on the watershed?

**Response 16:** The use of biosolids has been found to be an effective organic fertilizer that enriches soils and increases crop yields more effectively than commercial fertilizers. When biosolids are applied in accordance with the regulations, there is a very low risk of negative impacts to the watershed or animals that graze on biosolids-amended soils. The Clean Water Act requires U.S. EPA to identify emerging pollutants that may be found in biosolids, determine whether pollutants found present risks, and to regulate those pollutants that pose unacceptable risks. U.S. EPA is continually performing risk assessments on pollutants that may be present in biosolids (including PFAS). Ohio EPA closely follows U.S. EPA's progress with risk assessments and will update its rules accordingly if U.S. EPA recommends additional requirements for the treatment, sampling, or land application of biosolids. Information on U.S. EPA's risk assessments of pollutants in biosolids can be found at: <https://www.epa.gov/biosolids/risk-assessment-pollutants-biosolids>.

**Comment 17:** We are close to Waste Management and the landfill; Is there any consideration given to that? The close proximity of potential saturation pressure to the area, environment water quality, wildlife.

**Response 17:** Ohio EPA is the permit authority for both the landfill and the storage pond. Both permits will be protective of human health and the environment. Ohio EPA will follow all state and federal regulations when considering any permit. In this permitting scenario the location of both facilities is not regulated by Ohio EPA.

**Comment 18:** How does this lagoon impact climate change?

**Response 18:** The beneficial use of biosolids has been shown to be a factor in mitigating climate change. The Water Environment Federation (WEF) states “management of biosolids has been shown to mitigate climate change by reducing organic waste and associated methane gas production in landfills, sequestering carbon in soils, reducing the need for nonrenewable energy resources, and off-setting energy-intensive and greenhouse gas generating fertilizer production.” Land application of biosolids returns carbon, nitrogen, and organic matter back to the soil which improves soil health allowing more carbon to be stored in the soil. The carbon that is returned to the soil and stored there would otherwise be released to the atmosphere as the greenhouse gas, carbon dioxide. Healthy soils require less need for synthetic fertilizers thereby reducing carbon emission from their manufacture, transport, and application.

Additionally, anaerobic digester facilities that generate biosolids by treating sewage sludge, food wastes, manure, and other organic materials capture the methane gas. The methane gas can be used to heat the treatment facilities or used for other forms of energy. This process reduces the amounts of organics that are taken to the landfill which decreases methane emissions from landfills. The biosolids stored at these facilities have been processed to a point that methane emissions from the storage pond will be considered de minimis.

**Comment 19:** We have black bear, eagles, and variety of other wildlife here. What do we do if we find an animal that has passed and not from hunters or cars?

**Response 19:** Ohio EPA does not track wildlife morbidity or mortality. Ohio ODNR offers an [online](#) resource citizens can report wildlife sightings and help Ohio biologists track a number of different species, including black bear, bobcat, river otter, ruffed grouse, turkey, and more. ODNR may also be contacted with wildlife related questions at 1-800-WILDLIFE. Regulation-compliant biosolids are not known to cause animal mortality.

**Comment 20:** What is the long-term effect of land that has had long-term exposure to PFAS chemicals?

**Response 20:** Ohio EPA assumes this question is in relation to land application of biosolids that may contain PFAS, not from a direct exposure to PFAS from a known source. The land application of typical biosolids has not been shown to cause accumulation of PFAS over time. A University of Arizona study published in June 2021 found that “long-term land application of biosolids resulted in low incidence of soil PFAS analytes” and that biosolids-amended soils had similar PFAS levels as soils that had not received biosolids. It should be noted that any PFAS found in biosolids that is not directly impacted by a known source, is from domestic sources used in homes that constitute a direct exposure. The levels of PFAS in non-industrially impacted biosolids has decreased in recent years after the use of PFOS and PFOA in products was phased out of production.

(Pepper, I.L, Brusseau, M.L., Prevatt, F.J., & Escobar, B.A. (2021). Incidence of PFAS in soil following long-term application of class B biosolids. *Science of the Total Environment* 793.)

**Comment 21:** How will this affect the livestock and wildlife being used for meat if they drink contaminated water? Will it then be transferred to the people eating it making them sick?

**Response 21:** Ohio EPA construction and permit requirements are protective of human health and the environment and are designed to prevent contamination to any waters of the state. The pond will have an

engineered liner designed to prevent any material from leaving the pond.

Ohio EPA recommends seeking guidance from the Ohio Department of Agriculture (ODA) and or a veterinarian if your livestock are consuming contaminated water. The Mount Perry Nutrient Pond is being permitted and constructed to be protective of all water sources.

**Comment 22:** **What are the effects on dairy cattle, beef cattle, sheep and horses? (These animals are grazing on fields that this has been spread on and eating feed that is raised on fields that have had this applied to.)**

**Response 22:** Regulation-compliant biosolids application as a soil amendment and fertilizer has been practiced for decades with no documented harm to human health or the environment. The Clean Water Act requires U.S. EPA to identify emerging pollutants that may be found in biosolids, determine whether pollutants found present risks, and to regulate those pollutants that pose unacceptable risks. U.S. EPA is continually performing risk assessments on pollutants that may be present in biosolids (including PFAS). Ohio EPA closely follows U.S. EPA's progress with risk assessments and will update our rules accordingly if U.S. EPA finalizes additional requirements for the treatment, sampling, and land application of biosolids. Information on U.S. EPA's risk assessments of pollutants in biosolids can be found at: <https://www.epa.gov/biosolids/risk-assessment-pollutants-biosolids>.

**Comment 23:** **What impact will this pond have on erosion of the area?**

**Response 23:** During and after construction the site is required to meet stormwater pollution minimization practices as outlined in their permits. Erosion problems should be minimal or nominal. Ohio EPA staff have observed erosion problems during the construction phase due to contractors performing work without implementing best management practices. Violation letters have been issued and the contractors quickly resolved the violations.

**Comment 24: Will this facility cause health risk or risk of pathogens in nearby households?**

**Response 24:** The Mt. Perry Nutrient Storage Pond permit allows storage of biosolids that have been treated to meet, at a minimum, Class B biosolids requirements. Quasar Energy Group meets this requirement by using the anaerobic digestion process. Anaerobic digestion is a recognized treatment technology used to reduce pathogens so that biosolids can be used to provide crop nutrients through land application. Site restrictions followed during land application of these biosolids prevent human contact with the small volume of pathogens that may remain in Class B biosolids. For the storage pond, public access will also be restricted to prevent human contact.

A long-term study by the University of Arizona found "... the risks to human health posed by many microbiological entities within biosolids have been shown to be low if current EPA regulatory guidelines are followed. In addition, risks from indirect exposures such as aerosolized pathogens or contaminated groundwaters appear to be particularly low."

(Pepper, I.L., Zerzghi, H., Brooks, J.P., & Gerba, C.P. (2008). Sustainability of Land Application of Class B Biosolids. *Journal of Environmental Quality*, 37, 58-67.)

**Specific comments received that are summarized and addressed in the above section:**

- Benthic feedback, sludge and pH issues, floating sludge and odors, algae overgrowth, low dissolved oxygen, pathogens in class b sludge, popping sludge.
- How will these biosolids affect the America eagles as they dive down and ingest rodents/snakes that have come in contact with this lagoon full of sludge?
- How will our children be affected? How will we all be affected? How will our health be affected?
- How will this affect the crawdads in the creek?
- I would like to know what effects this will have on my children and ground water.

- What is the impact on the worms and insects over time, and the birds and mammals that eat them, there are a couple of pairs of nesting bald eagles in that location near the wetlands, How will it affect the eagles eggs?
- What will the lagoon do to the surrounding wildlife? Will we lose our pair of eagles? Will the meat I hunt every fall to feed my family be tainted? Will we see loss of deer population, turkey population, hawks, cranes? What about the bobcat population that is increasing in the area? The possibility that bears have been in the area.
- What is the environmental Impact of having this applied to fields?
- What will be the impact on wildlife?
- Water run off affecting frogs and fish.
- Effects it will have on the wetlands and eagles in the area.
- How does this lagoon impact the local population?
- Please provide me with an environmental impact study regarding the large biowaste pond on Kroft Road.
- What are the effects on cattle, sheep, and horses that graze on fields where biosolids are applied or eat feed that is raised on fields where biosolids are applied?
- What about the animals in the area, if the creek gets contaminated and then a deer drinks out of it, a hunter kills the deer and uses it for meat then the hunter and his family are also contaminated. Has a soil perk test been done?
- I am writing in opposition of the draft permit for the Mount Perry Nutrient Storage Facility. I am also requesting the EPA to perform an environmental impact study before this, or any biosolid storage facility permit is issued in Perry County. Perry County already has two landfills, as well as countless acid mine runoff issues located within its borders. Therefore, I don't believe Perry County to be an acceptable location for such a facility and would ask for the EPA to deny the permit.

The area chosen for the facility is prone to flooding regularly. Please ensure the protection of the residents' environment. Thank you for your consideration in this matter.

- Do we call the EPA and ODNR so tests can be run? Finding a random dead animal is heart breaking. You see a dead deer and think poor Bambi. I think that's six months of food gone to waste.
- Anytime humans consume (eat, touch, or breathe) fecal matter/heavy metals/hazardous chemicals/medical wastes it is deadly if untreated or not stopped. Why do we have to wait for that to happen? Why start it in the first place?
- Live in area and bought a farm right behind Kroft's farm for hunting. Will move if lagoon goes in dues to concerns for health and runoff. Saw dirty water coming from field tiles after rain.

### **Biosolids**

**Comment 25:** Do residents living close to the field get notified prior to the application of biosolids? If so, how far in advance are they to be notified? What is the radius that includes people that should be notified?

**Response 25:** When fields are authorized by Ohio EPA for the beneficial use of Class B biosolids, the authorization is public noticed in the local paper as an action of Ohio EPA's director. All authorized biosolids fields are shown on Ohio EPA's biosolids map which can be found at [Biosolids: Permitted Beneficial Use Sites](#). OAC 3745-40-11 requires that signs be placed at fields at least one week prior to the delivery of Class B biosolids to an authorized field and remain in place for at least 30 days after the completion of land application. Signs are in place to notify the public of the use of biosolids. Please note that when Exceptional Quality (EQ) biosolids are land applied on agricultural fields, prior authorization is not required, nor is the placement of signs.

**Comment 26:** Is the food that is grown in biosolids fields tracked and does the food go into the same system as crops grown in non-biosolid fields?

**Response 26:** Biosolids regulations do not require that crops grown on biosolids-amended soils be tracked after they are harvested. However, OAC 3745-40-08(E) does require certain time periods to pass after Class B biosolids are used at a field before crops can be harvested. For example, food crops that have harvested parts that may touch the biosolids or soil mixture cannot be harvested for at least 14 months after the beneficial use of biosolids. Food crops with harvested parts below the surface cannot be harvested for 20 or 38 months depending on the method of application. In Ohio, the primary crops grown on fields amended with Class B biosolids are feed crops which cannot be harvested for 30 days after biosolids application.

**Comment 27:** Exactly how is that waste broken down so that any diseases aren't spread? Do you know that it's the farmers with the grain and livestock that puts food on the tables of families in this state and the country? Do you not realize that without good clean drinking water for all, it affects everyone not just us Mount Perry citizens?

**Response 27:** Federal and state biosolids regulations require that one of eight treatment processes known to be effective for reducing pathogen levels be used for biosolids to be eligible for land application. Quasar Energy Group uses an anaerobic digestion process which heats the sewage sludge and other organic feedstocks to at least 100°F for a minimum of 15 days. Additionally, this treatment process reduces the volatile solids content of the sludge to meet federal and state requirements to make the biosolids less attractive to vectors such as flies and mice that could spread pathogens. The rigorous treatment processes at wastewater plants and site restrictions that are required for biosolids to be land applied have been shown for decades to be effective at preventing the spread of diseases through all potential exposure pathways such as consumption of crops grown in biosolids-amended soils or drinking water from wells near fields where biosolids have been used.

**Comment 28:** How long do you have to wait before planting the field?

**Response 28:** Ohio's biosolids regulations, OAC 3745-40, do not set time constraints for when crops can be planted after the beneficial use of biosolids. There are harvesting restrictions set forth in OAC 3745-40-08E. In Ohio, the

primary crops grown on fields amended with Class B biosolids are feed crops such as corn, beans, and hay. Feed crops shall not be harvested for 30 days after the beneficial use of biosolids. Likewise, animals shall not be allowed to graze for 30 days after the beneficial use of biosolids.

**Comment 29:** **Humans and livestock are prohibited from being on the property that has had biosolids spread on it. Why is that and why 30 days? What steps are you taking to protect the wildlife from entering those hazardous areas?**

**Response 29:** Site restrictions, such as limiting public access to fields and not allowing animals to graze for 30 days after land application, are in place to prevent contact with the small volume of pathogens that may remain in Class B biosolids. Any pathogens remaining will be destroyed by heat, sunlight, drying, and other microorganisms present in the soil. Thirty days ensures enough time to allow this further destruction of pathogens to occur. Fields where biosolids have been beneficially used are not classified as hazardous areas so there are no required restrictions for wildlife.

**Comment 30:** **They were spreading biosolids on fields and EPA said to stay out. We're in a flood zone. Where did it go after it was spread? Is there a minimum number of acres required for land application that's not in a floodplain?**

**Response 30:** OAC 3745-40-08 requires best management practices (BMPs) be followed to prevent runoff of biosolids after land application. These BMPs include injection or incorporation of biosolids into the soil on fields where soils designated as frequently flooded are found, injection or incorporation of biosolids when the forecast indicates there is at least a 50 percent chance that 0.5 inches of rain will occur within 24 hours after beneficial use, no land application on frozen, snow-covered, or saturated ground. Quasar Energy Group is required to inject or incorporate biosolids at most of the fields approved for land application of biosolids from their facilities. Use of these BMPs prevents runoff of biosolids. The biosolids assimilate with the soil so that the nutrients are available for the next crop. OAC 3745-40 does not specifically prohibit land application in areas prone to flooding or require specific acreage based on floodplains due to the BMPs that are required.

**Comment 31: How often are you allowed to spread biosolids on the same field?**

**Response 31:** There is not a time restriction on how often biosolids can be land applied on a field, however, the amount of biosolids that may be applied and when application occurs is based on the nutrient needs of the crops and soil phosphorus levels. Land application of biosolids may occur every crop year, e.g., once every spring biosolids can be applied to provide nutrients for the crops that will be grown until the next spring. Biosolids may also be applied to supply enough phosphate for multiple years of crops in which case biosolids could not be applied again until the planned multi-year crop cycle is complete.

**Comment 32: Should Class B biosolids ever be placed close to a residential community whether rural or urban?**

**Response 32:** Title 40 of the Code of Federal Regulations Part 503 (40CFR503) and OAC 3745-40 allow the use of Class B biosolids on agricultural fields. Often these fields are near residential communities. OAC 3745-40 requires isolation distances be maintained between where the biosolids are land applied and occupied buildings. OAC 3745-40 further requires that fields be authorized by Ohio EPA for the beneficial use of Class B biosolids and that signs be placed to notify the public of the use of biosolids in these locations.

**Comment 33: How is the farmer going to regulate which fields he is spreading biosolids on with the fields he is spreading animal manure? Can beneficial use sites have livestock manure applied on same sites for same crop year? If so, who records what is applied where if EPA and ODA do not correlate together to ensure land is not over applied on?**

**Response 33:** The generator of the biosolids is responsible for tracking all sources of nutrients used at a field. OAC 3745-40-08(A)(4) states that for all authorized Class B biosolids beneficial use sites, the agronomic rate shall include all sources of nitrogen and phosphate such as commercial fertilizer or manure in addition to the biosolids. For each field where biosolids are applied during the calendar year, the agronomic rate calculations are submitted with the generator's annual sludge reports.

Ohio EPA has an agronomic rate calculation worksheet available that allows for the use of other nutrient sources to be included when calculating the agronomic rate of biosolids. Ohio EPA and ODA coordinate as necessary to evaluate the use of both biosolids and manure.

**Comment 34: How is the health department not a part of the soil testing making sure the biosolids aren't over saturating our farmer's fields?**

**Response 34:** Ohio EPA is delegated by U.S. EPA to oversee the biosolids program in Ohio. Ohio's biosolids regulations are implemented by Ohio EPA and require soil sampling and application of biosolids at the agronomic rate which means applying the correct amount of nutrients needed for the planned crops so over-application does not occur. Ohio Department of Health and local health departments do not have authority to regulate soil sampling for biosolids land application.

**Comment 35: With land application of effluent, why is the soil test not required to have the recommended amounts of max phosphorus to be applied and if the soil is less than a pH of 7 then the heavy metals become more volatile, so why is it not required to have the soil pH in the test prior to application? The Quasar records provided only had nitrates and phosphorus results.**

**Response 35:** OAC 3745-40-08 requires soil testing of the fields used for the beneficial use of biosolids. Soil pH and soil phosphorus samples are required to be less than three years old at the time of application. The soil pH must be at least 5.5. If the soil pH is less than 5.5, then liming material shall be added such that the biosolids and soil mixture pH is calculated to reach 5.5 or greater. All soil samples results reviewed by Ohio EPA to date contained the required monitoring data. The soil phosphorus level determines the agronomic rate that may be used. For instance, if the soil phosphorus is between 40 and 100 ppm Bray-Kurtz extraction (58 and 130 ppm Mehlich extraction), then the most limiting rate of either the nitrogen rate or multi-year phosphate rate shall be used.

**Comment 36: Who regulates the soil slope application rates? Is it variable rate technology or prescription rated when applied due to topographic**

**maps or just what the operator thinks is correct? Is there a minimum number of acres that need to be applied that are not over a 6 percent slope?**

**Response 36:** OAC 3745-40-08 requires that the appropriate rate be calculated based on the nutrients in the biosolids, crop nutrient needs, and soil phosphorus test levels. The technology used to apply the biosolids is not specifically regulated by Ohio EPA. For land that is over 15 percent slope (or 20 percent slope for pastureland), OAC 3745-40-08 requires that biosolids be injected or incorporated into the soil within 24 hours of land application and that operations be done on the contour. There is not a minimum number of acres required to be under 6 percent slope.

**Comment 37: What are the months or dates biosolids are allowed to be applied to approved fields?**

**Response 37:** There are no dates when biosolids cannot be land applied, rather OAC 3745-40-08 prohibits the beneficial use of biosolids on frozen ground, snow-covered ground, or saturated soil. If the biosolids can be injected or incorporated, then the ground would not be considered frozen. Surface application of biosolids is also prohibited when the forecast indicates there is at least a 50 percent chance that 0.5 inches of rain will occur within 24 hours after beneficial use. Beneficial use of biosolids is planned primarily around the weather and crop cycles for optimum use of the nutrients.

**Comment 38: How much of the biosolids are tied to the land application? Is there any other thing that they are tied to such as tree farms?**

**Response 38:** Almost 300,000 dry tons of sewage sludge are generated in Ohio each year. About 40 percent of this sludge is further treated to meet Class B or EQ biosolids requirements and is beneficially used on crops or at permitted tree farms. The EQ biosolids can be used on home gardens and for landscaping. About 35 percent of all sludge generated in Ohio is sent to landfills. Landfills only have a certain amount of capacity for sewage sludge so more and more facilities are seeking beneficial use options. About 25 percent of the sludge in Ohio is incinerated. This percentage has dropped in recent years due to aging incineration equipment and the desire to beneficially use biosolids. There are only two wastewater treatment facilities in Ohio that have the equipment to

incinerate sludge. All of the biosolids generated by Quasar Energy Group is beneficially used to provide nutrients to crops or trees.

**Comment 39: Have any biosolid lagoons in Ohio had any violations against them? If any, what lagoons and what violations?**

**Response 39:** The Wiles Biosolids Storage Pond in Wayne County is operated by Quasar Energy Group. Quasar was issued a violation for not maintaining proper runoff controls during construction of the pond and late submittal of a required ground water monitoring report. Quasar has been issued five violations for off-site odors attributed to the Wiles Storage Pond. These violations and related correspondence are available through Ohio EPA's eDocument system.

Biosolids storage ponds located at Emerald BioEnergy in Morrow County are operated by Renergy, Inc. Three violations have been issued by Ohio EPA to Renergy, Inc. for exceeding the maximum design levels of the ponds. One violation was issued to Renergy, Inc. for nuisance odors that were attributed to the entire facility. These violations and related correspondence are available through Ohio EPA's [eDocument](#) system.

**Comment 40: Have the facilities that will be permitted to take biosolids to the lagoon had any violations for anything from the EPA in the past five years? If so, what were they and were any self-reported? What is the safety record of the company that installs and operates the lagoons? Have they had spills? Do they have problems?**

**Response 40:** The permit allows Class B or EQ biosolids from Quasar Energy Group's permitted anaerobic digestion facilities to store biosolids at the Mt. Perry Nutrient Storage Facility. See Response 39 for details regarding violations issued for the Wiles Storage Pond. Zanesville Energy received two violations in 2021, one for land application issues discovered after a citizen complaint and the other for land applying at an unauthorized field which was discovered during a review of the annual sludge report. Three Creek BioEnergy received a violation in 2021 for improper maintenance of the facility that is currently not in operation. Collinwood BioEnergy received a violation for field storage in 2018 based on a complaint. Collinwood BioEnergy received a violation in 2019 regarding field storage, land application, and record keeping issues discovered during an inspection. Please note that violations issued by the local air agency

to Collinwood BioEnergy are not included here. All violations and related correspondence are available through Ohio EPA's eDocument system.

There was an accidental spill of biosolids at the Zanesville Energy facility and another spill caused by a truck accident when biosolids were being transported from the Zanesville Energy facility. Both spills were reported by Quasar and remediated per the instructions of Ohio EPA's emergency responder on the scene.

**Comment 41: How can you be sure that the biosolids being land applied will not contaminate the ground and get in the water systems/peoples wells?**

**Response 41:** Regulation-compliant biosolids application as a soil amendment and fertilizer has been practiced for decades with no documented harm to human health or the environment, including the soil and ground water. Continued research and risk assessments have shown that the low concentrations of contaminants that may be present in biosolids have not caused adverse effects to human health or the environment. U.S. EPA continues to assess emerging contaminants, including those that may be present in biosolids, and is updating regulations and guidance as needed.

U.S. EPA risk assessments have found that biosolids pose little risk to ground water due to the requirement to apply at the agronomic rate needed to meet the nutrient needs of crops. When biosolids are land applied, the use of isolation distances from wells is another factor that further minimizes the risk of contamination of ground water systems.

**Comment 42: Several commenters had questions about Per- and Polyfluoroalkyl Substances (PFAS) that may be present in Class B biosolids, including what the PFAS test results for Class B biosolids are and do the facilities that will send biosolids to the storage facility have to test for PFAS and certify that the biosolids are free of "forever chemicals".**

**Response 42:** Ohio EPA does not require biosolids to be sampled for PFAS. As stated previously, regulation-compliant biosolids application as a soil amendment and fertilizer has been practiced for decades with no documented harm to human health or the environment. The Clean Water

Act requires U.S. EPA to identify emerging pollutants that may be found in biosolids, determine whether pollutants found present risks, and to regulate those pollutants that pose unacceptable risks. U.S. EPA is continually performing risk assessments on pollutants that may be present in biosolids (including PFAS). Ohio EPA closely follows U.S. EPA's progress with risk assessments and will update our rules accordingly if decisions are made to include additional requirements for the treatment, sampling, and land application of biosolids. More information about PFAS can be found at [U.S. EPA's Biosolids site](#) and [North East Biosolids and Residuals Association's site](#).

**Comment 43:** There was an order to stop land applying biosolids in Lapeer, Michigan because it was found to contain PFAS. Are biosolids in Ohio tested for PFAS?

**Response 43:** The source of PFOS found in the Flint River in Michigan was traced back to the Lapeer wastewater treatment plant (WWTP) that treated process water from an industry that used PFOS-containing chemicals. There is no federally established concentration limit for PFOS in biosolids, but Michigan Department of Environment felt the levels found in the biosolids were high enough to suspend land application of the biosolids from the Lapeer WWTP while more studies were performed.

Ohio EPA does not require biosolids to be sampled for PFAS since U.S. EPA has not established concentration limits or guidance that could be used to evaluate data results. Ohio EPA closely follows U.S. EPA's progress with risk assessments and will update our rules accordingly if U.S. EPA recommends additional requirements for the treatment, sampling, and land application of biosolids.

**Comment 44:** What about the proximity of the nearest homes? They will be the ones in the closest exposure to these pollutants and will be at risk for increased health hazards (CDC: <https://www.cdc.gov/niosh/docs/2002-149/pdfs/2002-149.pdf>).

**Response 44:** The link provided with the comment is guidance provided by the CDC for workers who come into direct contact with Class B biosolids before the recommended 30- day no-public-trespassing period has passed after biosolids land application. Nearby residents should not have direct contact with biosolids in the pond or after land application.

**Comment 45:** The federal EPA issued four grants totaling \$6 million to study elements not yet listed in biosolids and long-term effects they would have on humans and livestock. If this is true, how can you tell us this is safe to have in our environment? What about studies including the wildlife?

**Response 45:** Biosolids research is an ongoing process. As new contaminants emerge, studies are performed to determine if any risks to human health or the environment exist based on the levels of contaminants and the potential exposure pathways. To date, no new pollutants limits have been added by U.S. EPA based on ongoing research. The referenced grants were issued to study contaminants that may be found in biosolids primarily from products people use in their homes every day. Even if there was a direct exposure to biosolids, the microconstituents that may be present are likely at levels much lower than levels experienced in daily domestic use of these chemicals.

A long-term study by the University of Arizona observed more total birds at biosolids amended sites than at the control sites with no biosolids usage. The study “observed no differences in white-tailed deer (*Odocoileus virginianus*) use of biosolids and control areas when examining information from two types of deer surveys. Long-term biosolids application to cool-season grasslands alters plant communities and favors use of those areas by some grassland birds.”

(Washburn, B. E., & Begier, M. J. (2011). Wildlife responses to long-term application of biosolids to grasslands in North Carolina. *Rangeland Ecology & Management*, 64(2), 131-138.)

**Comment 46:** What is the cancer rate living near these ponds and fields with this biosolids on them? Almost every house in Mount Perry has been touched by cancer.

**Response 46:** Ohio EPA does not track cancer rates or cancer clusters. Please contact the Ohio Department of Health or your local health department to discuss matters concerning cancer clusters. Here is a cancer cluster fact sheet by the Ohio Department of Health: [Cancer-Cluster-Fact-Sheet-Sept17.pdf \(ohio.gov\)](#).

**Comment 47:** Several commenters had questions about pollutants other than the nine metals for which sampling is required and stated that any

**number of 80,000 chemicals are discharged from industrial plants as well as hormones and pesticides that enter sewage systems. What has been done to assess the impact other pollutants may have on the community?**

**Response 47:** Assessing potential risk from pollutants found in biosolids is the top priority for U.S. EPA's Biosolids Program. U.S. EPA conducts biennial reviews to identify pollutants found in biosolids and obtain data (e.g., fate and transport, toxicity, etc.) that may be used in assessing potential risk. The Agency also obtains data through its national sewage sludge surveys and collaboration with states and stakeholders. Pollutants identified in biosolids in biennial review reports and national sewage sludge surveys will be prioritized for risk screening. If the pollutant exceeds a level of concern during the initial risk screen, then a refined risk assessment will be conducted to determine the potential risk to public health and the environment. If risk is determined, then U.S. EPA may regulate the pollutant of concern per the Clean Water Act. More information about U.S. EPA's biosolids risk assessments can be found at [Biosolids | US EPA](#).

**Comment 48:** **Two commenters expressed concern that the U.S. EPA, Office of Inspector General Report No. 19-P-0002 released on November 15, 2018, identified 352 pollutants in biosolids (61 considered hazardous), while only nine pollutants are required to be sampled. The commenters want to know how these pollutants in biosolids, including specific medications that require special handling in medical settings, are being monitored and how biosolids are considered safe for the environment if it is not known what is in them?**

**Response 48:** The U.S. EPA's Office of Inspector General (OIG) report that was issued in November 2018 listed 352 pollutants found in biosolids that need further assessment by U.S. EPA.

The scientific community has been researching trace contaminants in biosolids for decades and their behaviors in biosolids and soil are very well understood. The USDA National Institute of Food and Agriculture (NIFA) Research Committee W4170 which includes researchers from the Ohio State University issued a response to the OIG report in June 2020 stating, "sufficient data and research are available to conclude that current biosolids regulations are protective of human health and the

environment. Of course, as with any regulation intended to protect public health and the environment, they must always be dynamic and evolve with updated science. That fact does not imply that they are not protective while research is ongoing". The full report can be read here: <https://www.nimss.org/system/ProjectAttachment/files/000/000/502/original/W4170%20Response%20to%20OIG%20Report%20July%2023%202020%20final.pdf>.

It is important to note that the OIG report did not consider the concentration of the pollutants named in the report or the pathways to exposure from biosolids. The presence of a chemical in biosolids does not equate instantly to risk to human health or the environment.

U.S. EPA provided corrective actions for each recommendation listed in the OIG report. On July 25, 2019, the OIG issued a letter stating that all recommendations are now considered resolved. More information about U. S. EPA's risk assessment of biosolids in response to the OIG report can be found at <https://www.epa.gov/biosolids/risk-assessment-pollutants-biosolids>. Results from these assessments will be used to develop new regulatory standards, if necessary.

**Comment 49: For Class B biosolids, if two different batches with different chemicals/viruses are mixed could that create a new super virus/chemical such as muriatic acid and chlorine bleach can create mustard gas?**

**Response 49:** Ohio EPA has not found any research that indicates that mixing different Class B biosolids could create a super virus or chemical. Class B biosolids have been treated to significantly reduce the levels or pathogens which include viruses.

**Comment 50: What were the results for the Covid 19 test on Biosolids being spread? Are you testing these ponds? Are you testing Class B biosolids for COVID-19?**

**Response 50:** Biosolids are not required to be tested for Coronavirus, which causes COVID-19. Wastewater treatment plants, including anaerobic digesters like those operated by Quasar Energy Group, treat viruses and other pathogens. Coronavirus is a type of virus that is particularly susceptible to disinfection. Standard treatment and disinfectant processes at

wastewater treatment plants are known to be effective. Therefore, U.S. EPA has not recommended that biosolids be tested for Coronavirus. U.S. EPA and the World Health Organization (WHO) have indicated there is no evidence to date that COVID-19 virus has been transmitted via sewerage systems, with or without wastewater treatment. You can find more information at: <https://www.epa.gov/coronavirus/can-i-get-covid-19-wastewater-or-sewage>.

**Comment 51: What is the analysis for heavy metals and other toxins?**

**Response 51:** The Class B biosolids that will be stored in the pond must meet the metals limits found in the permit and OAC 3745-40-04. At this time, Class B biosolids are not required to be sampled for other pollutants. The Clean Water Act requires the U.S. EPA to identify emerging pollutants that may be found in biosolids, determine whether pollutants found present risks, and to regulate those pollutants that pose unacceptable risks. U.S. EPA is continually performing risk assessments on pollutants that may be present in biosolids. Ohio EPA closely follows U.S. EPA's progress with risk assessments and will update our rules accordingly if decisions are made to include additional requirements for the treatment, sampling, and land application of biosolids. More information about U.S. EPA's risk assessments can be found at <https://www.epa.gov/biosolids/basic-information-about-biosolids#pollutants>.

**Comment 52 The neighbors right across the road from the lagoon being constructed have already had to battle E.coli due to Kroff's spraying of biosolids on his fields around their house and the feces sinking into the ground and contaminating their water supply.**

**Response 52:** According to U.S. EPA research, it is extremely unlikely for the land application of biosolids to be a source of pathogenic contamination of ground water. During biosolids treatment, the concentration of pathogens is significantly reduced, and bacterial levels are typically less than those in manure. Researchers have found that the smallest pathogen viruses are very strongly bound to biosolids and are not easily released even after rainfall. Any pathogens that may remain in the biosolids will be destroyed by heat, sunlight, drying, and other microorganisms present in the soil before the possibility of leaching to ground water. Additionally,

isolation distances from wells are required to prevent the potential of runoff into wells that may not be properly sealed.

There are three fields approved for biosolids application in the vicinity of the house at 14455 Coopermill Road referenced in the comment. According to Ohio EPA's records, no biosolids have been applied to the approved field west of the house. Biosolids have not been applied to the approved field across the street since 2017, and for the field north of the address, biosolids were last applied in 2016. The field directly uphill and behind the house is not approved for the land application for biosolids.

Private wells fall under the jurisdiction of the local health department. Ohio EPA does work collaboratively with local health departments to investigate pollution sources if a local health department were to determine that private wells in an area were experiencing unexpected contaminants in their drinking water wells. The Perry County Health Department has not contacted Ohio EPA that well contamination is a concern in this area. Ohio EPA encourages the homeowner to contact the Perry County Health Department if they have concerns about their well.

**Comment 53:** Has anybody talked to Ohio EPA about this spillage? Have you been notified, or has it been swept under the carpet?

**Response 53:** Ohio EPA assumes the spillage referred to in this question is in relation to the overturned biosolids truck incident that occurred on May 9, 2014. This spill was reported by Quasar to Ohio EPA's Spill Hotline when it occurred in 2014. Ohio EPA emergency personnel responded and monitored the cleanup of the spill. Ohio EPA received questions on the 2014 spill outside of the public comment period this responsiveness summary is for.

**Comment 54:** We know this stuff spills on the road. We've seen it, and we have pictures. We also know that due to the nature of our topography and our land, it literally flows out of the fields when it's being applied. In

**fact, this happens on the road that I live on. It flows directly down the access point from the field, completely covers the road, and enters the ditch on the opposite side.**

**Response 54:** Other than in fall 2021, Ohio EPA had not been contacted regarding concerns about biosolids in Perry County flowing out of fields or across roads. For the fall 2021 concerns, either Ohio EPA or other state agencies investigated and were unable to confirm that runoff or a spill had occurred. Ohio EPA encourages residents to contact the Agency with any future concerns so they can be investigated. You can submit a complaint [here](#). Please note that while there may be stormwater runoff from fields, it does not mean that it contains biosolids. Biosolids land applied by Quasar Energy Group are required to be injected into the fields which is an added measure to further prevent the potential for runoff.

**Comment 55:** **On Oct. 22, 2021, the Quasar plant was hurling truck after truck to apply to fields. That afternoon and all night, we got more than an inch of rain. How much of that class B biosolids went into our water system? The EPA should have the records of what fields it was applied to.**

**Response 55:** OAC 3745-40-08 states that biosolids may be beneficially used when the weather forecast indicates there is at least a 50 percent chance that 0.5 inches of rain will occur within 24 hours after beneficial use, if the biosolids are injected or immediately incorporated into the soil. Records provided by Quasar Energy Group show that biosolids were injected at Ohio EPA Site 64-00192 on October 21 and 22, 2021. Online historical weather data indicates less than 0.5 inches of rainfall in the 24 hours after land application was completed on October 22, 2021. Given that less than 0.5 inches of rain occurred and the biosolids were injected, the best management practices were performed as required thereby reducing the likelihood that any biosolids ran off from the field.

**Comment 56:** **Would not a 20-million-gallon lagoon be considered stockpiling class B biosolids?**

**Response 56:** Stockpiling in terms of biosolids refers to field storage which is defined as storage of biosolids at an authorized beneficial use site for no more than 90 days and only in the amount required to meet the calculated

agronomic rate for the site and any contiguous sites. The Mount Perry pond is designed and proposed to be permitted as a regional storage facility to hold a larger amount of biosolids than is needed at one field. This is not considered stockpiling or field storage. The permit prohibits storage of biosolids in the pond for more than two years per OAC 3745-40-07(G).

**Comment 57: What about the soil sample records for land application from this lagoon?**

**Response 57:** OAC 3745-40-08 requires soil sampling for pH and phosphorus to be less than three years old at the time biosolids are beneficially used. For each field where biosolids are applied during the calendar year, the dates and results of soil phosphorus testing are submitted with the generator's annual sludge reports.

**Comment 58: We request that the EPA obtain soil samples of the land currently being used for effluent spreading and determine if it is being done within allowable limits.**

**Response 58:** OAC 3745-40-08 requires soil sampling for pH and phosphorus to aid in calculating the appropriate agronomic rate. This soil sampling is required to be less than three years old at the time of beneficial use. Agronomic rates are required to be calculated for each field and are based on the nutrients present in the biosolids, the soil phosphorus results, crop needs, and field conditions. The agronomic rates calculations are submitted annually to Ohio EPA for review to ensure that land application is being performed at allowable rates.

**Comment 59: Jeff Krofft currently spreads the byproducts of the East Fultonham Quasar all over the area around his farm where it lays dormant on the surface for months. Aren't there tillage regulations for getting the material underground and covered in a timely manner? If there is biosolids standing on top of the field, what is the course of action that should be taken?**

**Response 59:** For the authorized fields where Class B biosolids from Zanesville Energy located near East Fultonham are land applied, the authorizations require

that the biosolids be injected or incorporated into the soil. If biosolids are left on the surface of a field, that is a violation of the field authorization. In the future, please notify Ohio EPA if biosolids are not properly injected into the soil so that we may perform an inspection.

**Comment 60:** In this Perry County permit there are six locations plus facilities with 582 permit stations allowed to dump here. Are these the same facilities used in the Wiles storage pond of 9 million gallons the EPA just approved? Are they moving biosolids from storage pond to storage pond when they are getting close to their two-year turnaround at these locations? Is it because they are either producing more than can be applied to fields or they don't have enough fields to apply to? Are they just shuffling this class B biosolids around to different locations?

**Comment 60:** The Mt Perry Storage Facility is being built to provide flexibility for the planning of land application of Class B biosolids generated by Quasar Energy Group, specifically Zanesville Energy located in East Fultonham. The Wiles Storage Pond in Wayne County primarily serves Buckeye Biogas also located in Wayne County and Collinwood BioEnergy located in Cuyahoga County. Generally, transporting liquid biosolids from Wiles Storage Pond to the Mt Perry Storage Facility would be cost prohibitive. While the proposed permitting structure would allow a transfer of biosolids from Buckeye Biogas or the Wiles Storage Pond to the Mt Perry storage facility, it would be rare for this to occur.

Regarding the amount of biosolids generated in relation to authorized acreage, Zanesville Energy is designed to treat 12.6 million gallons of feedstocks per year. Quasar Energy Group averages an application rate of about 10,000 gallons per acre resulting in about 1,300 acres needed for land application each year. Zanesville Energy has over 5,100 acres authorized for land application of Class B biosolids. Therefore, there is enough authorized acreage to land apply the amount of biosolids typically generated each year at Zanesville Energy. The storage facility proposes to allow land application to occur at more optimum times.

**Comment 61:** Where are the land application sites this lagoon will use for 20 million gallons in two years located? EPA has not identified the emergency plan and location of those fields.

**Response 61:** All fields authorized for the beneficial use of Class B biosolids in Ohio can be found on Ohio EPA's interactive biosolids map located at [Biosolids Application Sites](#). This map is searchable by facility name, county, or address. Ohio EPA assumes the emergency plan question is about the storage capacity of the pond and ensuring that the pond remains below the maximum operating level. The permit requires a storage evaluation to be submitted each year that verifies there is enough capacity to store biosolids generated during the winter months when land application is not possible. The permit also requires submittal of the level of the pond each month as well as the amount of biosolids received at the pond and the amount removed. These reports will allow Ohio EPA and Quasar to closely monitor the levels to prevent a breach.

**Comment 62:** Will worms in the banks of the lagoon be harmed? What are the effects of Class B biosolids on worms?

**Response 62:** The U.S. EPA and Ohio EPA regulations were developed to protect human health and the environment, including the health of crops, soils, wildlife (including worms), and aquatic life. To date, research and risk assessments have shown that the beneficial use of typical biosolids has not caused adverse effects to human health or the environment.

**Comment 63:** With all the trees on the hill above the lagoon, how will all the leaves that fall and blow into the lagoon effect the class B biosolids break down and will any chemicals from the lagoon harm any of the trees?

**Response 63:** Leaves are often added to organic fertilizers such as compost and biosolids so it is not expected that leaves blowing into the pond will negatively affect the biosolids. There are no known effects that the storage of biosolids will have on nearby trees.

**Comment 64:** What material can be received at this lagoon? List all materials.

**Response 64:** The permit states that Class B or EQ biosolids may be stored in the Mt. Perry Nutrient Storage Facility. This includes biosolids from Quasar Energy Group anaerobic digesters and other NPDES facilities with a

582-reporting station that documents the biosolids classification achieved (Class B or EQ) and the amount of treated biosolids that will be transferred to a regional storage facility. Any other materials to be stored in the pond would need to be authorized by Ohio EPA. If the permittee submits a request for other materials to be authorized, Ohio EPA will perform a thorough review of the material to ensure its addition to the biosolids for land application is protective of human health and the environment. Such materials may include other nutrient rich organics that do not contain pathogens or other pollutants.

**Comment 65: Where are future proposed facilities being considered? Where are the facilities being built?**

**Response 65:** At this time, Ohio EPA has not been notified or received applications for new anaerobic digester facilities or biosolids storage pond locations.

**Comment 66: How many 20-million-gallon class B lagoons are in the state and what are their locations?**

**Response 66:** There are two biosolids storage ponds in Ohio with volumes over 20 million gallons. One is located at Emerald BioEnergy in Morrow County and the other is located at Haviland Energy in Paulding County.

**Comment 67: Are there any health risk studies on any areas where there are already Class B biosolids lagoons?**

**Response 67:** Wastewater treatment and storage lagoons are prevalent world-wide. Improperly designed, installed, or maintained lagoons can have negative environmental impacts. The geosynthetic liner and ground water monitoring system is a proven ground water protection technology in Ohio and the world. A professional engineer familiar with these systems will need to certify installation after it is complete. Ohio EPA is not aware of any health risk studies specific to areas with Class B biosolids lagoons.

**Comment 68: Are any animals or insects known to dig in biosolid lagoons?**

**Response 68:** Ohio EPA is unaware of animals or insects that are known to dig in a wastewater or biosolids lagoon. The general terms and conditions found in Part III, of NPDES permits requires regular maintenance and operation to upkeep the facility. The PTI for the Mt. Perry Storage Facility also

requires the pond to be maintained to discourage vectors such as rodents or insects.

**Comment 69: Were biosolids involved in the algae episode of Lake Erie? If so, what was done about it?**

**Response 69:** Some of the factors that can contribute to algal blooms in lakes include sunlight; low-water or low-flow conditions; calm water; warmer temperatures; and excess nutrients (phosphorus or nitrogen). The primary sources of nutrient pollution are runoff of fertilizers or animal manure, sewage treatment plant discharges, stormwater runoff, car and power plant emissions, and failing septic tanks.

Ohio has a nutrient reduction strategy that documents ongoing nutrient reduction activities and identifies areas where more work is needed. Additionally, the [H2Ohio plan](#) includes targeted solutions to help reduce phosphorus runoff and prevent algal blooms through increased implementation of agricultural best practices and the creation of wetlands. The use of best management practices is required for the land application of biosolids to prevent nutrient runoff. These practices are continually being evaluated to ensure they are protective.

**Comment 70: There have been biosolids spread on the fields half mile from my house. Long after 30 days, there was still a considerable amount of biosolids on the surface of those fields. Is it being applied correctly? Does the EPA follow up or monitor the people that are applying biosolids for correct application?**

**Response 70:** Class B biosolids from Quasar Energy Group facilities that are land applied are required to be injected or incorporated into the soil. Biosolids remaining on the surface would be a violation of the site authorization conditions. If biosolids remain on the surface, please contact Ohio EPA so that appropriate action can be taken. Ohio EPA investigates any reports of improper land application. Ohio EPA is required by U.S. EPA to inspect all biosolids facilities every five years but often does so more frequently. Biosolids facilities also must submit an annual sludge report that includes documentation of land application procedures.

**Comment 71: What type of insects are attracted to class B biosolids? Are any insects carriers of any known disease that live or are attracted to class B biosolids?**

**Response 71:** Class B biosolids have been treated to reduce the attractiveness of the biosolids to vectors such as insects, birds, and rodents. OAC 3745-40

requires that one of ten vector attraction reduction methods be used. In the case of Quasar Energy Group, the anaerobic digestion treatment process used reduces the volatile solids in the biosolids to a level that is considered by 40CFR503 and OAC 3745-40 to be effective treatment to reduce the attractiveness of biosolids to vectors.

**Comment 72: What effects on Canada geese do class B biosolids have when they land near or on the lagoon or the fields that animals cannot graze on for 30 days after being applied?**

**Response 72:** The U.S. EPA and Ohio EPA regulations were developed to protect human health and the environment, including the health of crops, soils, wildlife (including geese) and aquatic life. See Response 29 for more details on the 30-day site restriction. The grazing restriction applies to animals that humans are expected to be in contact with such as horses to reduce the potential for pathogen exposure from animals to humans. People generally do not have contact with wildlife. If they do, there are general safe hygiene practices that apply after direct contact with wild animals such as handwashing that would greatly reduce any exposure to pathogens.

**Comment 73: Is the land tied to this lagoon by EPA fields permits for emergency dumping all signed by the landowner, not the leasing farmer? Are detailed field tile maps included?**

**Response 73:** The application for authorizing fields for the beneficial use of Class B biosolids requires the beneficial use site owner or a person authorized by the land holder to certify that consent is given for the land application of biosolids at the property. If the leasing agreement with the landowner authorizes the farmer to use biosolids, then the farmer may be eligible to sign the application. There is not an authorization for emergency dumping. All biosolids must be applied in accordance with the regulations at agronomic rates at times conducive to growing crops. Field tile maps are not required to be submitted to Ohio EPA. OAC 3745-40 does require monitoring of field tiles before, during, and after land application and records of this monitoring to be maintained. Each land applier must also maintain a standard operating procedure for land applying at tiled fields.

**Comment 74: Most field tiles are probably less than 24" below ground. They are chiseling the biosolids in at the fields. What's to keep them going in the field tiles? Are they required to plug these field tiles before they apply biosolids at the fields?**

**Response 74:** Site specific requirements for applying Class B biosolids in fields with subsurface tile drainage are found in in OAC 3745-40-08(D)(5). These requirements mirror those found in Natural Resources Conservation Service (NRCS) Conservation Practice Standard for Nutrient Management (Code 590) for manure application. The maximum rate that may be applied at a field with subsurface tile drainage is 0.5 inches or 13,000 gallons per acres. Records must be maintained to show that field tile outlets were monitored before, during, and after land application of biosolids. If biosolids reach the outlet, beneficial use must cease, and the flow shall be stopped or captured.

**Comment 75:** **How did my name get on that list? It's strange because I didn't sign anything.**

**Response 75:** Ohio EPA assumes this question is about fields that are approved for the beneficial use of Class B biosolids. Ohio EPA has confirmed that all fields approved for Class B biosolids from Quasar facilities in Madison Township have the proper signature except a few acres of two fields. These acres are in the process of being deauthorized. Applications for approval of fields for beneficial use of Class B biosolids require the signature of the property owner or person authorized by the land holder to give consent for the land application of biosolids. If the leasing agreement with the landowner authorizes the farmer to use biosolids, then the farmer may be eligible to sign the application.

**Comment 76:** **Who is tasked with sampling and testing and recording the contents of the Class B biosolids?**

**Response 76:** Each treatment facility that sends Class B biosolids to the Mt. Perry Storage Facility will be required to sample the biosolids and report the results to confirm that Class B biosolids requirements have been met prior to storage in the pond. The Mt. Perry Storage Facility permit also requires sampling the biosolids again each month that biosolids are removed for land application. The samples are analyzed using the approved methods outlined in OAC 3745-40-09 at certified labs. The permit requires monthly sampling on the pond material that is reported through Ohio EPA's electronic monitoring report system. The permit also requires an annual sludge report be submitted which summarizes treatment, sampling data, and land application records for the year.

**Comment 77:** **Are there long-term studies of the beneficial use of biosolids from U.S. EPA?**

**Response 77:** U.S. EPA and other researchers have performed numerous long-term studies on various topics regarding the use of biosolids. Ohio EPA can help narrow your search to the topic(s) of interest. Overall, U.S. EPA has found that regulation-compliant biosolids application as a soil amendment and fertilizer has been practiced for decades with no documented harm to human health or the environment.

**Comment 78: What value is there in adding sewage sludge to the anaerobic digestion process?**

**Response 78:** Anaerobic digestion is a proven treatment for sewage sludge. When sewage sludge is broken down during anaerobic digestion, methane gas is released and captured for use as an energy source. The digestion process also reduces the solids content of the sludge which in turn reduces transportation costs. The sewage sludge also provides valuable crop nutrients to the final biosolids generated during digestion which can be applied to crops to increase yields.

**Comment 79: What's in the material? Where does it originate from? One site or multiple, Quasar and/or others?**

**Response 79:** The permit allows for the storage of Class B biosolids, primarily from three anaerobic digester facilities operated by the permittee. The anaerobic digesters are allowed to accept feedstocks for treatment such as food waste, sewage sludge, manure, and other organics that are approved by Ohio EPA. Class B biosolids from publicly owned treatment works may also be stored at the Mt. Perry Pond if the facility is permitted to transfer biosolids to a regional storage facility.

**Comment 80: What is the N-P-K analysis for the material (sewage sludge)?**

**Response 80:** Biosolids generators are not required to specify a guaranteed nitrogen, phosphorus, and potassium (N-P-K) analysis like commercial fertilizers. The N-P-K content of biosolids varies among different treatment facilities and may vary slightly from month to month at a facility. The biosolids application rate is required to be calculated based on the most recent results of the N and P in the biosolids. Therefore, the calculated agronomic rate will change accordingly. Biosolids guidance estimates the average N-P-K of biosolids to be 5 - 2.5 - 0.3.

**Comment 81: Are there any safety data sheets on what's in it or what it consists of?**

**Response 81:** The feedstocks for anaerobic digestion as listed in the permit are organic in nature. None of these feedstocks or the resulting biosolids are required to have safety data sheets since they are not classified as potentially hazardous substances.

**Comment 82: Who will apply the material, and how will they be certified?**

**Response 82:** Class B biosolids may be applied by the beneficial user who may be the permittee or contracted by the permittee. Many contract applicators are certified livestock managers through the Ohio Department of Agriculture. The biosolids must be applied in accordance with OAC 3745-40-08. The permittee is responsible for ensuring the beneficial use of biosolids meets the requirements.

**Comment 83: How will the material be applied, how will the application be monitored, and what are the consequences of not applying it correctly? Where and at what rate will the material be applied?**

**Response 83:** Biosolids are applied by the permittee or the contracted land applicator using standard industry injection or incorporation equipment. The permittee is required to monitor the land application and certify correct application on the annual sludge report. If Ohio EPA determines the beneficial use of biosolids results in violation(s) of OAC 3745-40, then a notice of violation (NOV) will be issued to the permittee. Class B biosolids can only be applied at fields that are approved by Ohio EPA. Approved fields are shown on [Ohio EPA's interactive map](#). Agronomic rates are required to be calculated for each field and are based on the nutrients present in the biosolids, the soil phosphorus results, crop needs, and field conditions.

**Comment 84: Are biosolids required to be injected? If biosolids remain on the surface of the field, what is the course of action that should be taken?**

**Response 84:** Biosolids, in general, are not required to be injected unless injection is used to meet the Vector Attraction Reduction treatment requirement. However, Quasar Energy Group has the additional requirement to inject all biosolids when land applied unless special approval is issued by Ohio EPA to allow surface application. Fields where surface application is approved are carefully reviewed by Ohio EPA based on site-specific conditions. If any odor complaints are received due to surface application, Ohio EPA may retract the surface application approval and require biosolids to only be injected at that field. If injection is required as

a specific condition of an authorization to use biosolids on a field and biosolids are left on the surface, a violation will be issued. To resolve that violation, the biosolids would need to be incorporated, i.e., disced into the soil or removed.

**Specific comments received that are summarized and addressed in the above section:**

- How are residents notified of biosolids land application being applied to fields near them?
- When and how will the local residents be notified of land applications of Class B biosolids?
- The Permitted Facilities and others that will be allowed to transfer Class B biosolids to this storage lagoon, they will be tested/certified and recorded to "Not contain any forever chemicals (PFAS and or PFOS and PFOA)?
- Are the Class B biosolids being tested for polyfluoroalkyl substances (PFAS)? It needs to be tested before being placed in lagoon. And tested when it leaves the lagoon. Not in the NPDES permit.
- How will wildlife be kept from foraging on the fields where the biosolids effluent is spread?
- There are Canada geese that land in these fields how can you be certain that when they land on the contaminated field where this Class B biosolids have been spread that they won't take it south and make other animals sick as well?
- Does anybody in this group know if this stuff spilled? If you are keeping it hush-hush? Are you getting paid under the table to keep us?
- Here's a suggestion - EXPERIMENT ON YOUR OWN FAMILY! YOUR OWN FOOD SOURCE!!
- Kroft farm a long time ago, had EPA signs in the field to stay out. Signs aren't going to stay in that field because there's deer, racoons, and corn that comes out of there. What's the safety? What are we going to do there?
- Is it true that you have identified 350 pollutants with about 61 considered hazardous, but only nine are sampled? What are you doing to monitor all the other

chemicals and toxic waste that are in biosolids? How can you guarantee the safety of the biosolids being placed in our environment when you don't know what is in it?

- The hazardous material in the biosolids according to the U.S. Environmental Protection Agency Office of Inspector General Report No. 19-P-0002 from November 15, 2018, is alarming to me as a pharmacy professional. The medications listed on this list are handled in way that includes protective gloves and gowns when administered to patients and handled by pharmacy staff. The disposal of these medications is very specific as directed by The [National Institute for Occupational Safety and Health \(NIOSH\)](#). NIOSH considers a drug to be hazardous if it exhibits one or more of the following characteristics in humans or animals: carcinogenicity, teratogenicity or developmental toxicity, reproductive toxicity, organ toxicity at low doses, genotoxicity, or structure and toxicity profiles of new drugs that mimic existing hazardous drugs. The drugs that have been identified in the biosolids in the OIG Report No. 19-P-0002 are: carbamazepine for seizures, cyclophosphamide a chemotherapy, hormones used in birth control pills estradiol, ethynyl estradiol, norethindrone, norgestimate, levonorgestrel and progesterone, sodium valproate for seizures, testosterone a hormone and warfarin a blood thinner. This biosolid material will leach into the ground water and stream. That means these hazardous drugs will be in the soil and water. I do not want these types of substances potentially affecting our soil, water wells, and streams. We have children that deserve clean water without the threat of a hazardous product potentially reaching their water supply or stream where they may play or fish. (Report was attached – 66 pages.)

### **Floodplain**

**Comment 85:** Is this location which is proven to overflow from run off on higher land an appropriate place for this storage facility?

**Response 85:** The storage pond meets the siting criteria established in OAC Chapter 3745-42 for a regional biosolids storage facility. Additionally, only precipitation from the top of the pond berm and interior slope will run into the pond. Pursuant to plans in the approved PTI, permanent diversion swales will be constructed to direct offsite precipitation around the structure and prevent this precipitation from entering the storage pond and raising the operating level of the pond.

**Comment 86:** This proposed site is known by all the locals to flood even though the pond itself isn't in the FEMA floodplain. Also, the farmers know the soil, know the flow of the hillsides, and

**absolutely believe that this is not a good location. The issuance of this permit would deny the experience of these farmers and residents that combined have decades of knowledge from living on and working this land.**

**Response 86:** The storage pond meets the siting criteria established in OAC Chapter 3745-42. The facility has been designed utilizing the publicly available data and other data gathered by onsite investigations. This information was presented in the permit application for Ohio EPA's review.

**Comment 87: What are the consequences when the lagoon floods over when we get heavy rain. Will waterways in the immediate area be monitored regularly and who will monitor them?**

**Response 87:** The facility's design approved by the PTI, and conditions required by the permit are in place to prevent overflows or contamination of the local waterways. No discharge from this storage facility is being requested or permitted. Therefore, no monitoring of the local streams is required for this facility.

**Comment 88: Is the lagoon at the same level as the flood plain?**

**Response 88:** The elevation of the 100-year flood is 825 ft mean sea level. The proposed elevation of the top of the embankment is 848 ft. MSL and the permitted Maximum Operating Level for the facility is 1.75 ft below the top of the dam.

**Comment 89: How will the pond affect the flood plain since the pit is deeper than the flood plain?**

**Response 89:** The proposed bottom of the storage pond is 823 ft. mean sea level. The elevation of the 100-year flood is 825 ft mean sea level. The proposed elevation of the top of the embankment is 848 ft. MSL and the Maximum Operating Level for the facility is 1.75 ft below the top of the dam. Ohio EPA requires the construction of the proposed facility meet state and federal regulations. Ohio EPA does not regulate the floodplain. Ohio EPA recommends contacting the floodplain manager of Perry County with any questions related to the floodplain and this project.

**Comment 90: Is the area for the proposed pond in the floodplain? Please present a graphic showing the current floodplain and proposed facility location with proximity to the floodplain noted. Also**

**indicate how the location of the floodplain has changed over time.**

**Response 90:** Ohio EPA's review of the PTI application and publicly available data indicated the facility is being constructed outside the FEMA mapped floodplain and above the elevation of the 100-year flood. This document can be requested by following the instructions at: <https://epa.ohio.gov/about/media-center/access-public-records>.

**Comment 91:** **What are the plans for when the area floods as this area is a floodplain?**

**Response 91:** According to information in PTI application 1401950 the storage pond embankment will be constructed above the 100-year flood elevation and outside the floodplain. Therefore, no specific plans are required to operate during a flood.

**Specific comments received that are summarized and addressed in the above section:**

- All that rain is going to funnel down that hillside into the lagoon. Its already in a floodplain. It's also right beside Painters Run Creek which connects into all the other waterways. What's going to be the solution when the fish start dying in the creeks and rivers?
- Has the subject area been reviewed to determine whether it is part of the floodplain? Perry County Soil & Water have indicated that part of the property where the nutrient pond will be installed is in the floodplain, which is where the NPDES permit is requesting to store biosolids and land apply.
- This facility is being built on a floodplain.

### **Roads and Transportation**

**Comment 92:** **Several commenters asked about the suitability of the local roads to handle the heavy truck traffic that may be associated with the Mt. Perry Nutrient Storage Facility.**

**Response 92:** Ohio EPA does not have jurisdiction over the use of public roads.

**Comment 93: Why do the tankers not have to be clearly marked that they are carrying biosolids?**

**Response 93:** Ohio EPA does not regulate the transportation and shipping of commercial products. Ohio State Highway Patrol enforces Federal Motor Carrier Safety Regulations and Public Utility Commission of Ohio Safety Rules that pertain to commercial motor carriers. Biosolids are not classified as hazardous waste so hazardous waste labels are not required.

**Comment 94: Does the EPA regulate how biosolids get transported to the lagoon or fields for land application and what routes must be taken? If not, who regulates that?**

**Response 94:** Ohio EPA does not regulate the transportation and shipping of commercial products. The Ohio State Highway Patrol and local authorities should be contacted regarding local roads that should not be traveled by tanker trucks. Ohio EPA does, however, require that permittees have a spill contingency plan in place to enact if there is a tanker truck accident that could result in a spill of biosolids.

**Comment 95: How are weight limits ensured and will frost laws be enforced (50 percent weight limit reduction from January 15 to April 15)?**

**Response 95:** Ohio EPA does not regulate the transportation and shipping of commercial products. Ohio State Highway Patrol enforces Federal Motor Carrier Safety Regulations and Public Utility Commission of Ohio Safety Rules that pertain to commercial motor carriers. Local government officials may also be contacted regarding the weight limit for a specific road.

**Comment 96: How many trucks per day of what weight limits will be used?**

**Response 96:** The NPDES permit does not specify the number, type, or weight limits of trucks. The permit does require that Quasar Energy Group submit a monthly tracking sheet that includes the volume of each biosolids load received at the pond and the volume of biosolids removed from the pond each day. Ohio EPA's understanding is that typically 6,000-gallon tanker trucks will be used to haul biosolids to and from the storage facility. The weight of each load may differ based on the total percent solids of the biosolids which can range from five percent to seven percent. Ohio EPA does not regulate the weight of the trucks. The Ohio State Highway Patrol and local authorities should be contacted regarding weight limits.

**Comment 97:** Will county or township require bonds to pay for maintenance and repair of local roads that may be caused by tanker trucks hauling biosolids?

**Response 97:** Ohio EPA does not have jurisdiction over the use of public roads. Local government officials should be contacted regarding this comment.

**Comment 98:** What trucking companies will be permitted to haul the biosolids? How much insurance are they required to have? What are their accident records, and can the county or township impose driving record limitations based on accident history?

**Response 98:** Ohio EPA does not have jurisdiction over the use of public roads and does not require this information in their permitting process. Local government officials should be contacted regarding this comment.

**Comment 99:** Who is going to be held responsible for the uptick in accidents that are sure to happen with numerous large heavy tanker trucks and personal vehicles and Amish horse and buggies?

**Response 99:** Ohio EPA does not regulate the transportation and shipping of commercial products. The Ohio State Highway Patrol should be contacted to address this comment.

**Specific comments received that are summarized and addressed in the above section:**

- Are the trucks supposed to have a placard?
- Is this an appropriate place for a biosolids storage lagoon? A place with inadequate roads and bridges to handle the heavy-duty traffic required to operate these this lagoon?
- How will this affect the growing Amish community? If they are in their buggies and a big tanker truck comes by and causes an accident?
- Do you have a haul route plan for incoming and outgoing Class B biosolids?
- What is the effect of road infrastructure, potholes, bridges etc.?
- How will dust issues or roadway issues be handled if there are complaints from the truck traffic causing excessive dust or deteriorating the roadways?

- Are the county roads wide enough to accommodate this type of traffic?
- This storage pond that the NPDES permit is for is located on a county road in Madison Township. How will the roads be maintained for this type of truck traffic?
- Can the county/township require accident history to follow individuals from company to company?
- Who is going to be held responsible for damages to the roads and bridges and pay for repairs?
- Can the township require a separate bond for township roads? Although not allowed current trucking from the Quasar facility frequently use back roads across the township.

### **Site Operation**

**Comment 100:** **If there are high winds, will this lagoon create waves? If the level is close to the freeboard, the waves could go over the top. There will be no lights and no one there to see if this is happening at night. What is the plan to prevent overflow from rain, wind, and waves?**

**Response 100:** It is possible that high winds could create small waves within the storage pond. With the required freeboard of 1.75 feet, waves will not be generated high enough to overflow the top of the berm. Pursuant to plans in the approved PTI, permanent diversion swales will be constructed to direct offsite precipitation around the structure and prevent this precipitation from entering the storage pond and raising the operating level of the pond. Only runoff from the top of the dam and the interior slope will be directed into the pond. This amount of rainfall was considered in the design of the pond and calculation of the required freeboard. A permanent marker is required to be established indicating the maximum operating level (MOL) on the curb of the inlet scour ramp and should be visible with a flashlight. Maintaining the operating level below the MOL is considered normal operation of the facility and does not require an emergency action plan. The permittee is required to report levels of the facility to Ohio EPA each month. This will allow ample time to ensure that the MOL is not exceeded.

**Comment 101:** **What's to happen when this lagoon is filled to its maximum permitted level, and we have a significant rain event, and the fields are so saturated from this rain that it would be impossible to remove any of the material from the lagoon and it's in danger of over topping the dike/dam? Where is this runoff to go?**

**Response 101:** The facility is permitted to operate below the Maximum Operating Level (MOL). Once the MOL is reached, actions are required to ensure that the MOL is not exceeded. See the above response for more details on MOL and rain events.

**Comment 102:** **If a dam failure happens what is the area that will be flooded? What measures will be taken in case of a heavy rain and snow event if this lagoon is suddenly over filled and flowing in the road and in the nearby creek?**

**Response 102:** The facility is required to be inspected for structural integrity every month. Any damage should be detected early to allow for repairs. In the unlikely event of a dam failure, some downstream areas could be flooded. The use of the Maximum Operating Level (MOL) is to prevent overtopping of the structure by precipitation. Pursuant to PTI condition 29, once the MOL of the pond is reached, actions must be taken to ensure the MOL is not exceeded.

**Comment 103:** **When unloading in the winter with ice or snow cover, will they know the freeboard level and what about the odor when unloading on ice?**

**Response 103:** A permanent marker is required to be established indicating the maximum operating level (MOL) on the curb of the inlet scour ramp and should be visible in winter conditions. Generally, biosolids will flow down the unloading apron and enter under the surface and will not accumulate on top of any ice that may form. See Response 135 regarding odors.

**Comment 104:** **Several commenters asked if the lagoon would freeze over and if the pressure from the ice or the freeze/thaw effects would move the lagoon walls.**

**Response 104:** The surface of the pond can be expected to form ice. The ice pressure should not be any greater than that of any other water impoundment that forms ice. The ice would tend to move upward in the same way that ice cubes are formed in an ice tray.

**Comment 105:** **Do you have a spill prevention and response plan?**

**Response 105:** The Prevention/Contingency Plan for Spills at Mt. Perry Nutrient Storage contained in the PTI application is to be implemented for any spills. This document can be made available upon request at:

<https://epa.ohio.gov/wps/portal/gov/epa/about/media-center/access-public-records>.

**Comment 106: Is there a reclamation team for spills?**

**Response 106:** Ohio regulations do not require that the permittee maintain a team specifically to respond to spills, however, they are required to have a spill response plan. See the above response for more details on the spill plan. Ohio EPA has emergency responders that coordinate necessary remediation actions if spills occur.

**Comment 107: What is the plan if truck spillage occurs on the 0.5 stoned surface turnaround?**

**Response 107:** The Prevention/Contingency Plan for Spills at Mt. Perry Nutrient Storage is to be implemented if a spill occurs. Note that the turnaround is sloped toward the pond; any spillage can be washed into it. Additionally, Part II, Item G of the NPDES permit prohibits the storing or stockpiling of any biosolids outside of the storage pond at the facility.

**Comment 108: What's the plan to unload and load vehicles when the area is saturated from freeze/thaw and large amounts of rain?**

**Response 108:** An access drive and turnaround for this facility will be used for loading and unloading biosolids. The detailed engineering plans show that the drive and turnaround will be gravel to prevent saturation of the area used by vehicles.

**Comment 109: In the permit, it says that no grass or weeds can grow, so what will be applied to kill off the vegetation? If those chemicals get into the lagoon, does that change the chemical makeup of the biosolids?**

**Response 109:** The approved PTI and NPDES require control and removal of vegetation around the perimeter and within the pond be performed regularly during the growing season. These permit conditions state that vegetation must be controlled to allow visual inspections and access to the pond as well as preventing roots from damaging the liner. The methods utilized to control the vegetation are not specified in regulations or in the permit. Generally mowing, not chemicals, is used to control vegetation.

**Comment 110: Where will sewage be collected from to be treated, list locations?**

**Response 110:** No sewage sludge will be treated onsite. Only Exceptional Quality (EQ) or Class B biosolids as defined in OAC 3745-40 may be stored in the

Mt. Perry Nutrient Storage facility. The following facilities are authorized to store biosolids at this facility as listed in Part II, E of the NPDES permit:

Zanesville Energy, LLC, NPDES Permit No. 01N00264

Buckeye Biogas, LLC, NPDES Permit No. 31N00380

Collinwood BioEnergy, LLC, NPDES Permit No. 31N00371

Three Creek BioEnergy LLC, NPDES Permit No. 31N00373

Collinwood Bioenergy, LLC, NPDES Permit No. 31N00371

Other NPDES facilities with a 582 reporting station that documents the classification achieved (Class B or EQ) and the amount of treated biosolids that will be transferred to a regional storage facility.

**Comment 111: Are the monitoring/inspection results public information including monitoring well results? If so, where would information be found to review?**

**Response 111:** These results are considered public information. Ohio EPA is subject to Ohio's public records laws. Documents can be made available upon request at: <https://epa.ohio.gov/about/media-center/access-public-records>.

**Comment 112: Paragraph R. of the permit states that the Mt. Perry Nutrient Storage Facility has 30 days from notification from EPA that there are contaminants of the ground water to submit a corrective action plan. What about all the harm caused in the time from last water sample to the one that identified the contamination? What does "immediately implemented upon authorization from the Ohio EPA mean"? Hours, days, weeks, or months?**

**Response 112:** The monitoring wells will be placed close to the storage structure to provide detection prior to the offsite migration of the materials. Migration of contaminants in ground water are characteristically slow and the placement of the monitoring wells close to the structure maximizes the time between detection and implementing corrective plans. Well users would not be exposed to contaminants until the water reached the specific well site. "Immediately implemented upon authorization from the Ohio EPA" means once Ohio EPA ground water specialists have approved the proposed plans for remediation, they must be implemented immediately.

**Comment 113: Will any of the root systems from trees grow into the lagoon and open water paths to the lagoon?**

**Response 113:** The trees near the storage pond have been removed. A condition of the PTI is that nearby vegetation be controlled during the growing season. If not properly controlled and large trees were allowed to grow, the root system could grow into the soil surrounding the pond and possibly over time open paths for water migration. That is why the vegetation must be properly controlled.

**Comment 114: Water balance, rate of monthly precipitation and for evaporation for lagoon. Is there any?**

**Response 114:** Ohio EPA has chosen to use the Maximum Operating Level as a control since the storage pond is subject to adding or removing biosolids independent of the precipitation. Biosolids entering the pond and being removed are also tracked by the hauling manifests.

**Comment 115: Is there a leak detection system installed?**

**Response 115:** The ground water monitoring plan is developed to monitor for migration of material from the storage pond. These wells are installed to monitor the first significant zone of saturation below the storage facility.

**Comment 116: How will biosolids be unloaded into the storage facility?**

**Response 116:** The biosolids will be unloaded by direct discharge onto the sloped portion of the concrete scour ramp and typically below the surface of the lagoon. The ramp will extend a minimum of 15 ft along the bottom of the pond. The ramp is a minimum width of 40 feet and curbed on both sides.

**Comment 117: Do you have an operation and closure plan?**

**Response 117:** The approved PTI requires the PTI conditions be complied with for the proper operation of the Mt. Perry Nutrient Storage Facility. In the event, the Mt. Perry Nutrient Storage Facility is no longer actively operating such that the volume of the pond is not being replaced at least every two years, the pond must be closed in accordance with an approved PTI.

**Comment 118: Who records data and where can it be found?**

**Response 118:** Monitoring results required by the NPDES are submitted to Ohio EPA via the electronic Discharge Monitoring Report (eDMR) at the frequency specified in the permit. Other reports required by the NPDES permit are submitted through the designated email. All other records shall be maintained for a minimum of five years. This data is

considered public record and can be made available upon request at:  
<https://epa.ohio.gov/about/media-center/access-public-records>.

**Comment 119: What are the plans for pest control, including flies and mosquitos?**

**Response 119:** PTI condition #7 requires vectors to be controlled. The control methods utilized are left to the permittee. Additionally, Class B biosolids that will be stored in the pond have been treated to reduce the attractiveness of the biosolids to vectors such as insects, birds, and rodents. OAC 3745-40 requires that one of ten vector attraction reduction methods be used. In the case of Quasar Energy Group, the anaerobic digestion treatment process used reduces the volatile solids in the biosolids to a level that is considered by 40CFR503 and OAC 3745-40 to be effective treatment to reduce the attractiveness of biosolids to vectors.

**Comment 120: What are the possibilities of airborne pathogens being caused by this facility?**

**Response 120:** Federal and State biosolids regulations require that one of eight treatment processes known to be effective for reducing pathogen levels be used for biosolids to be eligible for land application. Quasar Energy Group uses an anaerobic digestion process which heats the sewage sludge and other organic feedstocks to at least 100°F for a minimum of 15 days. This process has been found to remove 94 to 99 percent of pathogens and has been determined by U.S. EPA to be an effective process to significantly reduce pathogens to generate Class B biosolids. As for any of the remaining pathogens becoming airborne, in 2012, U.S. EPA published the results of a study, *Multimedia Sampling During the Application of Biosolids on a Land Test Site*. This study evaluated the surface application of anaerobically digested Class B biosolids for the potential of pathogens to be transmitted via airborne particles. One of the key results of this research study was “Airborne particles were collected using impingers, impactors, and GRIMM samplers. These samples were analyzed for microbial analytes and particulate mass. Two types of microbes, THB and fungi, were detected during both the control trial and the biosolids application test, especially at sampling points near the spreader. However, no specific bacterial pathogens (i.e., E. coli, Salmonella spp., S. aureus, Clostridium perfringens, and Enterococcus spp.), indicator microorganisms (i.e., fecal coliforms and coliphage), or enteric viruses were detected.”

**Comment 121: Who monitors the pathogens and effluents to make sure they aren't becoming mobile to downstream farms or airborne?**

**Response 121:** The permit holder must monitor and demonstrate that all biosolids stored at this site meet Class B or Exceptional Quality biosolids requirements prior to being taken to the pond. These requirements include meeting the pathogen reduction treatment specified by OAC 3745-40 and 40CFR503. The lagoon is non-discharging system and should not discharge to local waterways.

**Comment 122: What type of equipment will be at lagoon? Precipitation gauge, attemperator gauge, water temperature sensor, wind speed and direction, liquid level sensor?**

**Response 122:** The PTI and NPDES permit do not require that this equipment be kept at the storage facility although the permittee may choose to keep some or all of it on site. A method to monitor freeboard at certain defined levels is required.

**Comment 123: How is rainwater handled?**

**Response 123:** Ohio EPA issued a construction stormwater permit 0GC03664\*AG on Dec. 9, 2020, to regulate stormwater during facility construction. The plans in the approved PTI 1401950 specify the measures to be taken to control stormwater during facility operation. A permanent diversion swale will be constructed and maintained to prevent stormwater from flowing into the facility.

**Comment 124: Are there nearby streams that could be impacted by any runoff and if so, how will those be protected?**

**Response 124:** Ohio EPA has issued a general stormwater construction permit to be followed during construction of the storage facility to prevent negative impacts to the nearby streams. The NPDES permit does not authorize any discharge from the storage facility to waters of the state.

**Comment 125: What steps will be taken to ensure that there is no runoff when the materials are dumped into the nutrient pond?**

**Response 125:** The detailed plans in approved PTI 1401950 show the top of the embankment being sloped to direct runoff into the pond. Trucks unloading biosolids into the storage pond will utilize a concrete apron that directs material into the pond.

**Comment 126: How many gallons will be stored at full capacity?**

**Response 126:** As stated in the approved PTI, at the Maximum Operating Level (MOL) the pond is currently designed to store 20,595,952 gallons.

**Comment 127: How many days of storage is that from the Fultonham plant?**

**Response 127:** The Mt Perry Storage Facility will be permitted to store Class B biosolids from several facilities, not just from Zanesville Energy located in East Fultonham. There are no set daily rates that can be taken to the facility, rather, the operating level will be monitored and may not be exceeded. If the pond was dedicated only to storage of biosolids from Zanesville Energy, at the current permitted treatment rate, the pond would provide 600 days of storage.

**Comment 128: What is the input/output rate for the facility? How often will material be added or taken away and what amounts?**

**Response 128:** Ohio EPA enforces the MOL of the pond. The input /output rate for the facility is not limited by Ohio EPA, however the NPDES permit requires that a monthly report be submitted to Ohio EPA that details the volume of biosolids received and removed from the facility each day.

**Comment 129: Is there an emergency management plan in place with local fire departments in case of an accident? If not, when this is an industrial facility?**

**Response 129:** The Division of Surface Water does not regulate local emergency management plans. This type of emergency management plan is regulated by the Ohio Fire Code enforced by Ohio's Fire Marshal under the Ohio Department of Commerce and is not a requirement for Ohio EPA's permit process. More information can be found here: <https://com.ohio.gov/divisions-and-programs/state-fire-marshal/state-fire-marshal>.

**Comment 130: In the PTI permit condition S13, what does it mean? Please provide more detail.**

**Response 130:** This permit condition states the operation and maintenance plan (required in PTI condition 12) should detail how the liner is protected while operating the mixing system. The mixing system is utilized to mix the biosolids prior to pumping biosolids out of the storage pond. Mixing must be accomplished to ensure the solid and liquid portions are removed from the storage pond to prevent the pond from filling with solids.

**Comment 131: Can the county/township require on-site or prepositioned resources to address spills or require bonds to cover catastrophic spills?**

**Response 131:** Ohio EPA recommends that local officials be contacted regarding this comment and their authority.

**Comment 132: What are the plans for reclamation if the permit is not renewed?**

**Response 132:** Condition 9 in the approved PTI states: The Mt. Perry Nutrient Storage Facility is not approved for disposal of material. In the event, the Mt. Perry Nutrient Storage Facility is no longer actively operated such that the volume of the pond is not being replaced at least every two years, the pond must be closed in accordance with an approved PTI.

**Additional comments received that are summarized and addressed in the above section:**

- The freeboard level is too close to the top. If we get 1 or 2 inches of rain that could push the biosolid over the lagoon wall.
- Where will the sewage be treated on site or prior to being transported to site?
- Will the lagoon ice over? How is ice pressure against the lagoon wall factored in?
- Explain the freezing and thawing effects of biosolids and the lagoon. Will it not move the dirt banks?
- With this being open air, I would also like to know the potential hazards of breathing that stench every day. When driving by the Quasar digester on SR. 22 in Fultonham, you must have your windows up to avoid the disgusting odor emanating from the facility. To me, none of this appears to be good for the environment.

### **Odor/Air Quality**

**Comment 133: What does the EPA consider a nuisance odor?**

**Response 133:** Odors from biosolids land application or storage and their impact can be subjective in nature and may vary widely depending on numerous factors, including but not limited to, environmental conditions, facility design and management, and how sensitive a person is to a particular odor. Ohio EPA's Division of Surface Water determines an odor

associated with biosolids to be a nuisance if the odor is persistent offsite, pervasive, and strong enough to interfere with the reasonable use of property or is injurious to public health.

**Comment 134: Who do community members complain to about odors?**

**Response 134:** Complaints may be submitted by contacting Ohio EPA Division of Surface personnel or using the online form at the following link: <https://epa.ohio.gov/help-center/contact-us/submit-a-complaint>.

**Comment 135: Several commenters asked how will odors be controlled?**

**Response 135:** PTI 1401950 and the NPDES permit require that all necessary corrective actions be immediately implemented to alleviate any nuisance odors that are generated. The permittee shall also minimize the generation and impact of odors to the extent practicable including scheduling events that may generate additional odors to avoid peak residential outdoor times. The permit also requires an operational plan to be submitted within 14 days of the effective date of the permit. This operational plan is required to include odor mitigation measures. Ohio EPA will perform site visits as needed to evaluate odors. If the visits verify nuisance odors that consistently occur off site of the facility, then Ohio EPA will take further action.

**Comment 136: In the PTI condition 25, what are all the necessary corrective actions? Please provide a detailed response.**

**Response 136:** The corrective action is the action the permittee deems necessary to alleviate the nuisance odor. Ohio EPA does not typically specify what must be done to alleviate the odor, only that action must be taken that remedies the nuisance odor.

**Comment 137: Why isn't a cover required for odor control?**

**Response 137:** Ohio EPA's current regulations regarding the design of biosolids storage facilities do not mandate that they be covered.

**Comment 138: What is the typical response time of the EPA for odor control calls and what is the procedure for checking it? Or are odors self-regulated to industrial standard? If a call is made about odor, it should be an automatic violation.**

**Response 138:** Ohio EPA response time to complaints of nuisance odors may vary; however, Ohio EPA strives to take action on a complaint within 24 hours

of receiving it. Often complaints may be resolved over the phone or may require a site visit. Staff make every effort to visit sites where odor complaints are received on the same day of the odor observation. Staff may also choose to visit the site later when weather conditions will be similar to the time the odor was observed. During an odor check, staff will visit the area the odor was observed and any nearby potential odor sources. Staff that investigate odor complaints are trained to identify types of odors and to use an intensity scale for rating odors. If multiple odor complaints are received that appear to be associated with one facility, a routine odor survey plan may be developed that outlines areas to check, weather conditions, and timing of site visits.

**Comment 139: Have there been any background odor checks of the area so that the existing nearby manure pond will not be blamed for any future odors?**

**Response 139:** Ohio EPA has not performed any odor checks of the existing manure pond since the pond is not regulated by Ohio EPA. Ohio EPA will perform Mt. Perry Nutrient Storage Facility site visits to evaluate odors if complaints are reported and as necessary. Ohio EPA staff are trained to identify different types of odors. Odors from manure and anaerobically digested biosolids are distinctly different. If Ohio EPA staff verify nuisance odors that consistently occur off site and are attributed to the nutrient storage facility, Ohio EPA will take further action.

**Comment 140: The odor from these biosolids is bad. We could not enjoy being outside for several weeks due to the odor when Mr. Krofft spread some of these biosolids.**

**Response 140:** Odors due to the land application of biosolids generally dissipate within a few days after completion of land application. Quasar Energy Group is required to inject or incorporate biosolids to further reduce the potential of odors after land application. Often land application may be delayed due to weather so the actual days of land application may be extended. This could cause a delay in the dissipation of odors. If odors are experienced for more than three days after land application is complete, please contact Ohio EPA so that we may investigate.

**Comment 141: What range is the furthest odor complaints across the state of lagoons go out?**

**Response 141:** Ohio EPA is not tracking distances of odor complaints. Ohio EPA investigates each odor complaint it receives to try to pinpoint the source of the odor of the complaint. Inspectors will create a “surveillance route”

if needed to check sites around the proposed source to map the potential of how far out the odor may go and then ask the company to take corrective actions to address the odor if it is due to the lagoon operation.

**Comment 142:** One commenter requested that Ohio EPA do air modeling prior to issuing the final permit to simulate local weather patterns to determine the area potentially affected by nuisance odors from this facility.

**Response 142:** Air emissions from biodigester lagoons are expected to be small and below the thresholds we use to decide if modeling is needed. The Air Dispersion Modeling Engineering Guide can be found at [https://epa.ohio.gov/static/Portals/27/engineer/eguides/EG69\\_11-14-18\\_final.pdf](https://epa.ohio.gov/static/Portals/27/engineer/eguides/EG69_11-14-18_final.pdf).

The applicant submitted an Odor Mitigation Strategy on April 14, 2021, as part of the Mt. Perry Nutrient Storage Pond Permit-to-Install 1401950 review process. This document examined the wind dynamics and local topography. A table from the report is included below that shows the monthly wind direction percentages.

*Figure 11 - Monthly Wind Percentages*

Month	North	South	East	West	Total
January	14%	30%	13%	43%	100%
February	19%	26%	13%	42%	100%
March	25%	25%	14%	36%	100%
April	23%	27%	17%	33%	100%
May	22%	31%	16%	31%	100%
June	20%	35%	7%	38%	100%
July	21%	23%	14%	42%	100%
August	26%	22%	14%	38%	100%
September	24%	32%	18%	26%	100%
October	20%	35%	15%	30%	100%
November	16%	36%	12%	36%	100%
December	15%	28%	15%	42%	100%

**Comment 143:** How would the low-lying area that has high density fog affect the odors that may come from the lagoon?

**Response 143:** Meteorological conditions such as wind speed and direction, relative humidity, and temperature can impact how odors may be experienced.

If odors are generated, certain combinations of weather conditions may cause them to concentrate in low-lying areas.

**Comment 144:** Several commenters expressed concern about the potential for nuisance odors from the facility and brought up the history of nuisance odors at other similar facilities.

**Response 144:** In the approved permit, the permittee must implement the Odor Mitigation Strategy (OMS) for the purpose of reducing nuisance odors. Items to be included in this plan are outlined in the permit to install 1401950. Should a nuisance odor be generated at the storage facility, or a beneficial use site, Mt. Perry Nutrient Storage must do all necessary corrective actions to eliminate nuisance odors, which shall be immediately implemented. Ohio EPA will perform site visits to evaluate odors as complaints are reported and as necessary. If the visits verify nuisance odors that consistently occur off site of the facility, then Ohio EPA will take further action.

**Comment 145:** Given their horrible track record at preventing nuisance odors from their facilities, I request the director make the following conditions to the permit:

- a. The lagoon be always covered with HDPE or some other method of coverage that will effectively eliminate odors gassing from the lagoons.
- b. A gas collection and burning system be installed to burn methane and other gases collected under the cover.
- c. Operational requirements that minimize odors during loading and off-loading of trucks.
- d. Wheel cleaners or other methods for ensuring the trucks do not track mud and waste materials onto Coopermill Road.
- e. Restrictions for hours of operation that prevent the lagoon from being disturbed or receiving wastes prior to holidays where it is reasonably expected that most residents will be outside with family gatherings
- f. A hotline for reporting complaints and spills that will have fast response to prevent roll-overs and other incidents from contaminating the many creeks, ditches, and waterways in the area.
- g. Weekly operational inspections and reports by the operator of the facility that are posted and easily accessible to the residents of the township. The reports should focus on odor, operations, and the state of the containment systems and berms, as well as the gas collection and burning system.

- h. Conditions that will allow Ohio EPA to quickly suspend operations at the facility and seek remedy should the nuisance odors, spills, or other releases from the facility create a situation where residents are deprived of use and pleasure of their property.**

**Response 145:** Responses for each requested condition are as follows:

- a. As noted in Response 137, a cover is not required.
- b. Since a cover is not required, a gas collection system is not needed.
- c. The Odor Mitigation Strategy submitted on April 14, 2021, as part of the Mt. Perry Nutrient Storage Pond Permit-to-Install 1401950 application included a section for minimizing odors when unloading biosolids from trucks that stated, "A hose with Camlock fitting will attached to the discharge port of a tanker truck, so that the other end of the hose is located just under the surface of the pond. This will prevent any surface disturbance, which can potentially lead to the generation of odors. The tanker may be moved forward or backward to raise or lower the hose to keep it under the surface while also avoiding head pressure issues that may prevent emptying the vehicle. Boom tankers are prohibited from unloading directly onto the ramp or surface of the storage pond. If boom tankers become necessary for unloading contingencies may be made to maintain the "no surface disturbance" policy. An example of such a contingency is using a secondary tank to unload into. A hose would then feed material under the surface into the pond."
- d. The following condition has been added to the permit: Part II. HH. *The access road shall be maintained by proper control measures, to minimize tracking of mud and other debris onto the public road. Control measures include, but are not limited to, proper grading and sufficient quantities of aggregate material as needed.*
- e. The permit includes a condition in Part II. J. for the permittee to minimize the generation and impact of odors from the storage pond to the extent practicable, including scheduling events that may generate additional odors to avoid peak residential outdoor times.
- f. The following condition has been added to the permit: Part II. II. *A customer service number or other contact method that allows quick responses shall be established and maintained where residents can contact Quasar Energy Group directly with concerns and report complaints.*
- g. Part II. M. has been modified to also require a summary of complaints received and the actions taken to address the complaints to be submitted to Ohio EPA monthly. Part II. S. has been modified to require that the monthly storage pond inspection records, be

submitted to Ohio EPA monthly. Both of these reports will be added to Ohio EPA's eDocument system. Odor observances and complaints are required by Part II. L. to be maintained and made available to Ohio EPA upon request.

- h. Part II. I. requires necessary corrective actions to be immediately implemented to alleviate nuisance odors.

**Comment 146: How are the odor issues here not going to be the same as from the facility in Bath Township?**

**Response 146:** The facility located in Bath Township, Greene County includes an anaerobic digester to treat various feedstocks including food waste and hog manure in addition to an open final storage tank. This facility has not accepted sewage sludge since October 2020. The facility is also adjacent to a large hog operation. Possibilities for the generation of odors at the facility in Bath Township include operations that will not be present at the Mt. Perry Storage Facility such as the feedstock receiving area and the adjacent hog farm.

**Comment 147: Are we going to have odors issues like Sunny Farms Landfill? The same system to correct that odor issue should be the start on any new permit being issued.**

**Response 147:** Biosolids storage ponds may produce some odor but likely not to the level of the significant odors associated with Sunny Farms Landfill. The odors from Sunny Farms Landfill were a result of very high air emission rates. The emissions from the storage ponds are expected to be very low. The Sunny Farms Landfill control system involved installing multiple wells into the landfill mass to collect gas so that it could be routed to control devices. That type of system would not work for a biosolids storage pond. No rule requires air pollution controls for biosolids storage ponds because of the expected low emissions of air-regulated pollutants.

**Comment 148: How often is air quality tested?**

**Response 148:** Ohio EPA's Division of Air Pollution Control has determined that emissions from biosolids storage ponds do not reach or exceed regulated thresholds, therefore air quality testing around biosolids storage ponds is not required.

**Comment 149: Can you assure that our air quality won't be affected by an open lagoon?**

**Response 149:** The information the Agency has indicates that the emissions are too small to cause any type of adverse health or welfare impacts.

**Comment 150: How do we know how bad it's going to smell?**

**Response 150:** Biosolids may emit a distinctive odor. The odorous compounds generated and detected most often are ammonia, amines, and reduced sulfur-containing compounds. The presence of biosolids odors does not mean that the biosolids pose harm to human health and the environment.

**Comment 151: Are fine amounts for odor violations in the permit? If not, why not?**

**Response 151:** Penalty amounts are not specified in the permit but rather are contained in the Ohio Revised Code. The decision to pursue a civil penalty for a violation is ultimately within the director's discretion. The director does not have the ability to automatically assess a penalty for violations of this permit outside of a settlement. Only a court may assess a civil penalty directly in the context of a lawsuit.

**Comment 152: Can the county/township require that the lagoon be covered to reduce gases escaping or only certain time frames for discharge into lagoon for odor control (certain hours or days)?**

**Response 152:** Ohio EPA recommends the local county/township governments be contacted regarding their jurisdiction for such an action.

**Comment 153: How is odor controlled during transportation?**

**Response 153:** Ohio EPA does not regulate the transportation of biosolids on public roadways.

**Comment 154: Can there be requirements put in the permit to only allow for certain timeframes that the material is discharged into the nutrient pond to reduce potential odor issues?**

**Response 154:** Part II, I. of the NPDES permit requires Quasar Energy Group to minimize the generation and impact of odors to the extent practicable including scheduling events that may generate additional odors to avoid peak residential outdoor times.

**Specific comments received that are summarized and addressed in the above section:**

- Has there been an odor test on the already existing animal manure pond?
- Has a base test of odor control been done yet with at least two months of data? To know what odor we have now, so they cannot say it's from the manure lagoon when they dump biosolids.
- This area of our township is a series of narrow valleys. Inversions are common. The wind comes over the ridges and either eddies around in all directions or moves through from one valley to the next. I am primarily concerned with the odors coming from the lagoons. My family and I currently spend many hours outside around our pond, hiking and hunting in our woods, and enjoying the beautiful scenery. The odor from these lagoons will make that impossible.
- What is the response time for an odor violation?
- Can there be requirements put in the permit that the nutrient pond has to be covered when materials are in the pond to reduce potential odor issues?
- How will odors be remediated?
- It's a well-known fact that these lagoons produce a foul smell, noted by lawsuits and complaints from other areas of the state where these types of facilities are located. Why would there be one installed in a low-lying valley where the foul smell will be concentrated and channeled throughout the area? We have been told that there is nothing that can be done about an odor, since at this time there is NO odor. Why be reactive rather than proactive?
- Quasar has a track record of being unable to contain and control nuisance odors. They are looking to get rid of this waste material from their processes as inexpensively as possible. However, dumping it in a manner that creates nuisance odors and eliminates or severely restricts neighbors' use and enjoyment of their property is irresponsible and is pushing Quasar's cost of doing business off on us. Quasar must be held accountable for making sure they do not interfere with the use and enjoyment of neighboring properties. Quasar must spend the resources necessary to take responsibility for their own cost-of-doing business, by spending the additional funds necessary to ensure odors are minimized by the design and operations of the facility.

### **Ground Water Monitoring**

**Comment 155: How often will the ground water monitoring wells be sampled?**

**Response 155:** The NPDES permit requires a minimum of eight samples per well taken at least six weeks apart within two years of the effective date of the permit. A minimum of two samples per year thereafter, are required.

**Comment 156: What are the ground water monitoring wells tested for?**

**Response 156:** The parameters to be tested and units, are given in Part 1, B. of the NPDES permit. The parameters are: Water Temperature – F, Turbidity - J.U., Conductivity - Umho/Cm, pH - S.U., Alkalinity, Total (CaCO<sub>3</sub>) - mg/l, Nitrogen, Ammonia (NH<sub>3</sub>) - mg/l, Nitrogen, Nitrite (NO<sub>2</sub>) - mg/l, Nitrogen, Nitrate (NO<sub>3</sub>) - mg/l, Nitrogen Kjeldahl, Total - mg/l, Phosphorus, Total (P) - mg/l, Calcium, Total (Ca) - mg/l, Magnesium, Total (Mg) - mg/l, Sodium, Total (Na) - mg/l, Potassium, Total (K) - mg/l, Chloride, Total - mg/l, Sulfate, (SO<sub>4</sub>) - mg/l, Coliform, Total - #/100 ml, E. coli - #/100 ml.

**Comment 157: Metals monitoring should be required in each of the monitoring wells. With field tile in the area of the lagoon and field tile in the adjacent fields and being a flood plain this is a direct path to Ohio water ways.**

**Response 157:** Ohio EPA rules for monitoring biological waste facilities do not focus on all possible contaminants that might be found in the pond waste, just those known to be common in that waste.

A ground water monitoring system for ponds like those being constructed at Mt. Perry are required by Ohio rules to safeguard the public and the environment in the unlikely event of spills/releases from the pond. The way the monitoring system works is to regularly test for common contaminants (called indicator parameters). A short list of indicator parameters allows for an efficient operation of the monitoring system, quicker lab analysis turnaround, and keeps the cost of monitoring lower than if all suspected pond contaminants are tested during each sampling event. If an increase in these indicator parameters is observed during the routine monitoring of the pond, leakage may be suspected. At that point, a separate investigation into the suspected ground water contamination event would be launched. This investigation would increase the number of monitoring wells and contaminants analyzed in the local ground water. The increased list of chemical parameters tested would include some

metals and other suspected contaminants, based on an analysis of the pond waste.

**Comment 158: Why do they get to do their own well reports?**

**Response 158:** It is not clear which reports the comment pertains. The well logs are developed by the consultants contracted to drill and develop the monitoring wells. The sampling of the monitoring wells may be conducted by the permittee or a contractor. The samples will be analyzed by an identified lab and then submitted on the Ohio EPA eBusiness website by the lab or other delegated person.

**Comment 159: How is it okay for them to have 2" wells drilled when I as a well driller am not allowed to drill any smaller than 5"?**

**Response 159:** Monitoring well diameter is discussed on pages 7-9 of Ohio EPA Division of Drinking and Ground Waters (DDAGW) Technical Manual for Ground Water Investigations Chapter 7 Monitoring Well Design and Installation. This document may be found at [https://epa.ohio.gov/static/Portals/28/documents/TGM-07\\_final0208W.pdf](https://epa.ohio.gov/static/Portals/28/documents/TGM-07_final0208W.pdf).

These recommendations are for monitoring wells only and do not include wells used for residential or commercial drinking water sources.

**Comment 160: As a well driller I have to use 5/32nds for screening. Why don't they?**

**Response 160:** Recommended screen slot sizes are discussed in Ohio EPA DDAGW Technical Manual for Ground Water Investigations Table 7.1 Common filter pack characteristics for typical screen slot sizes. This document can be found at: [https://epa.ohio.gov/static/Portals/28/documents/TGM-07\\_final0208W.pdf](https://epa.ohio.gov/static/Portals/28/documents/TGM-07_final0208W.pdf).

**Comment 161: More test wells need to be in place with EPA and township trustee present during drilling with full video documentation of wells to protect our water system. This is notice of formal complaint that the well logs might not be accurate.**

**Response 161:** Ohio EPA's review clearly stated that a minimum of three wells meet the requirements of the applicable regulations. Additional monitoring wells are not required. It is unclear what the basis is for questioning the

accuracy of the well logs. The review of the well logs by Ohio EPA hydrogeologists did not find any reason to question the validity of the submitted reports.

**Comment 162: Can the installation of more ground water monitoring wells be added as a condition of the permit?**

**Response 162:** Ohio EPA can require the installation of additional ground water monitoring wells if it is deemed to be necessary. No additional ground water monitoring wells for this site are required as of the date of this response.

**Comment 163: Where is the ground water data that was collected before, during, and after construction began on the lagoon? It's not on eDoc system.**

**Response 163:** No ground water data has been required or submitted to date because a final ground water monitoring program has not been authorized. The Mt. Perry Nutrient Storage Pond cannot be put into operation until this plan is approved and initial ground water monitoring data is submitted to the Ohio EPA as required by PTI 1401950 condition 17 is as follows: Biosolids are prohibited from being transferred to and stored within the Mt. Perry Nutrient Storage Pond until the initial monitoring of all the ground water monitoring wells are sampled and reported, in accordance with the authorized ground water monitoring program, to Ohio EPA. The term "monitoring well" shall be construed as a direct push installation technology or comparable monitoring technology assuming data provided is adequate. The initial monitoring is required to establish the natural background of pollutant concentrations in the ground water.

Once the initial monitoring data is submitted to Ohio EPA, it should be available on eDocs or by submitting a [public records request](#).

**Comment 164: What depth is the ground water?**

**Response 164:** The depth to the water table changes throughout the year. The well logs for August 2021 included the following information: HMW-1 surface elevation 858.89 ft. Well is dry but will continue to be monitored. Total depth is 30 ft. HMW-2 surface elevation 832.72 ft. Ground water at 16 ft. below ground surface. HMW-3 Surface elevation 824.91 ft. Well is dry but will continue to be monitored. Follow up monitoring on November 24, 2021, is shown below.

Measurable water was observed in the wells on November 24, 2021 as follows:

Well	Top of Casing (ft.)	Ground Elevation (ft.)	Total Well Depth from Top of Casing (ft.)	Depth to Water from Top of Casing (ft.)	Standing Water (ft.)	1 Well Volume (gal.)	Groundwater Elevation (ft.)
HMW-1	862.14	858.89	34.25	29.1	5.15	0.84	833.04
HMW-2	835.37	832.72	23.65	6.11	17.54	2.86	829.26
HMW-3	828.22	824.91	24.31	4.85	19.46	3.17	823.37

**Comment 165: How will ground water monitoring wells be installed?**

**Response 165:** According to information submitted by the applicant, the monitoring wells were installed using the Geoprobe method by which 4-foot sections of probe piping was driven into the ground and the information from each section transferred to the well log. The probes were driven until water was reached or the 30-foot depth was reached. Two inch PVC was used for the well and the 10-foot section of screen was placed where the water-bearing zone was either found in the 4-foot sections or where it would cover the zone at the approximate bottom of the proposed storage pond. Sand was used to pack around the length of the screen installed and then the rest of the length up to the top of the well was plugged with bentonite. This description is just a summary of the more detailed procedure as found in the current Ground Water Monitoring Plan submitted by the applicant. The well logs can also be found in this plan.

**Comment 166: Was bentonite used in the test well and how much? It's not on the well log.**

**Response 166:** The November 11, 2021, Ground Water Monitoring Plan submittal specifies that bentonite plugs were utilized in well construction. Bentonite plugs were used in all three of the ground water monitoring wells drilled by the applicant. RW-1 has a plug that runs 17 feet from the 1-foot mark to the 18-foot mark on the well log. RW-2 has a plug that runs 8 feet from the 1-foot mark to the 9-foot mark on the well log. RW-

3 has a plug that runs 7 feet from the 1-foot mark to the 8-foot mark on the well log. The well logs can be found in the current Ground Water Monitoring Plan submitted by the applicant.

**Comment 167: How can we trust that the monitoring is being done correctly?**

**Response 167:** Self-monitoring and reporting in the form of sampling required by permits is a common regulatory framework that relies on oversight by a regulatory agency through agency inspections and review. In general, all facilities permitted by Ohio EPA DSW submit required monitoring data at the frequency specified in their permit through Ohio EPA's eReporting system or reports required by the permit. This electronic system automatically notifies staff if data is missing or exceeds any limit set forth in the permit. Permittees are also inspected on a routine basis and any issues that are noted during an inspection may require further follow-up in the form of a notice of violation. Many permittees are also required to submit annual reports that are reviewed to ensure compliance. If any requirements have not been met or are incomplete during any of these reviews, staff will work with the permittee to resolve any compliance issues. Intentional falsification of information required by the NPDES permit is a criminal offense Ohio EPA takes very seriously. The potential penalties associated with enforcement provide strong incentives for permittees to report data accurately.

**Comment 168: Who monitors the wells? Can we require 3<sup>rd</sup> party monitoring?**

**Response 168:** The ground water wells will be monitored as required in the NPDES permit. The permittee can sample these wells or may choose to have a third-party conduct any of the monitoring. Ohio EPA will review monitoring reports submitted for the facility.

**Specific comments received that are addressed in the above section:**

- Did the test wells water have anything in the water?
- Exactly how many checks are being performed with this water?
- There needs to be more ground water monitoring wells. The EPA thinks so also.
- In phase one, four background sampling events were to be completed before operations begin. What are the water test results for all four times? Please provide lab reports.

## **Storage Pond Construction**

**Comment 169:** Are the engineer drawings available for review to public? Could you send them electronically?

**Response 169:** The engineering drawings are available and can be sent electronically. Ohio EPA is subject to Ohio's public records laws. Documents can be made available upon request at:  
<https://epa.ohio.gov/about/media-center/access-public-records>.

**Comment 170:** How will the pond be constructed? What will be the liner material? How will the seepage be prevented through the sides of the lagoon?

**Response 170:** The pond will be constructed as detailed in the Modified Permit-to-Install (PTI) approved Feb. 11, 2022. The applicant has been approved to upgrade the liner from recompacted clay to a more protective HDPE 60 mil synthetic geomembrane. This type of geomembrane has a permeability coefficient of  $1.5 \times 10^{-13}$  cm/s and will be installed on the interior of the storage pond including the sides. The liner system will consist of a minimum six-inch sub-base, geomembrane liner, and geomembrane anchorage. A copy of the PTI can be made available upon request at:  
<https://epa.ohio.gov/about/media-center/access-public-records>.

**Comment 171:** Why is the dike being constructed with no requirement to be "keyed" in to try to prevent the possibility of a slip layer and the failure of the dike?

**Response 171:** The typical berm section on Sheet C3.0 of the detailed engineering plans in the approved PTI 1401950 shows a center key trench is required to be constructed around the entire perimeter of the berm.

**Comment 172:** Regarding the construction of the retaining dike, is that the topsoil that was stripped? The removal of the field drainage tile was not seen. Was this step not required per the PTI?

**Response 172:** The detailed plan sheet referenced both the dike and removal of the field tile and, as such, is a requirement of the PTI. Detailed Site Plan sheet C2.0 coded note 4 states:

*Exploratory trench, following the installation of temporary sediment and erosion controls, the contractor shall excavate a 48" deep field tile exploratory trench 50 feet outside the storage basin as noted in the*

*drawing. If the tile is draining away from the basin, the contractor shall permanently plug the tile by:*

- A. Sealing with a plastic cap if the pipe is intact.*
- B. Packing clayey soils or backfilling with concrete if the pipe is broken.*

*If the tile is draining toward the basin, the tile will be re-routed around the basin and reconnected using the type/size tile with fittings in a manner acceptable to the owner. All tiles inside of the 50' setback shall be completely removed. Documentation must be provided by contractor and included in the field document.*

**Comment 173:** Several commenters expressed concern about construction activities on Nov. 3, 2021, citing photos of the site that make it look like the water table was hit during construction since there was still water being pumped.

**Response 173:** It is not uncommon during construction that water is “produced” or released from the soil from an unconfined aquifer or perched water table. All construction being performed is above the confined water bearing aquifer.

**Comment 174:** They dewatered this lagoon again before they gave a plan to the EPA for dewatering after two violations had occurred previously and they were aware of the violations before they dewatered on Nov. 3, 2021.

**Response 174:** The Nov. 1, 2021, Notice of Violation (NOV) required the applicant to revise the Stormwater Pollution Prevention Plan (SWPPP) and respond within 14 days. Ohio EPA received the response on Nov. 5, 2021, along with an updated SWPPP. A second NOV was issued for the events on Nov. 3, 2021.

**Comment 175:** On Nov. 3, 2021, in photo, you can see a blue drain line near the dozer pumping water to this upper silt pond, which is overflowing, even after they put in extra silt screens in the silt sumps. They are now just pumping it into the cornfield, but the silt is still making it to Painter Run Creek further downstream. It is also going into the field tile in that field which happens to be in the floodplain. Photos sent in another email shows it flooding the cornfield.

**Response 175:** The applicant is allowed to dewater the construction site if they have adequate sediment containment structures. The discharge from the dewatering cannot introduce sediments into the Painters Creek. (NOVs

have been sent to the applicant for the instances where they have violated the terms of their Construction Stormwater General Permit. Both of these issues have been resolved by the applicant.

**Comment 176:** I was informed that a second hose was pumping water out on the Oct. 18, 2021, on the other side of the lagoon where we could not see it. That is why video documentation, and an on-site inspector is so important. Did the permit holder document how much water was pumped out? This is not the first time it rained, and they were compacting soil.

**Response 176:** The Construction Stormwater Permit issued to the applicant for this project allows them to follow best management practices to dewater the site. This permit does not require the permit holder to document the volume of water discharged.

**Comment 177:** On Nov. 2, 2021, they were pushing and packing mud in the lagoon. You can also see where it is pumping up water where the fresh mud was moved around in the bottom of the lagoon floor. How is the density and moisture content test not conducted? Only one person was working that day and we are supposed to take their word that it was done. That's why on-site inspectors are needed when any work is being done.

**Response 177:** The PTI requires the applicant to provide notice to Ohio EPA when the work on the liner will begin. When the work on the liner begins, then testing will be required. The work will be overseen by the on-site engineer for the construction company. Ohio EPA staff will continue to visit the site during this phase of construction. Engineering plans that document how the lagoon was installed, certified by a professional engineer, are required to be submitted after the lagoon has been constructed. Note that a geomembrane, not clay, liner is now required to be installed.

**Comment 178:** All of the rain we have had in October 2021 will cause uneven settlement in the lagoon and lead to structural issues. Photos taken of lagoon construction will be kept on file, in case of seepage, or structural failure. Ohio EPA and Quasar are now on notice of this statement.

**Response 178:** The rain received at the site delayed the original schedule provided by the applicant. The original schedule had the liner work being done from Oct. 15, 2021, through Nov. 4, 2021. As of Jan. 17, 2022, liner construction had not been started.

**Comment 179:** We have pictures of the dirt being moved in the lagoon bottom liner. If the lagoon bottom allows any seepage or any water wells or streams in the area get contaminated, photo evidence for lawsuit will show that they were not in compliance with the approved engineering plans.

**Response 179:** The comment was received within the public comment period which ended Nov. 4, 2021. As of Jan. 17, 2022, liner construction had not been started. Excavation of the lagoon was being performed prior to November 4, but no liner work had commenced.

**Comment 180:** You can see erosion all around the wall of the lagoon inside and outside.

**Response 180:** The applicant was still constructing the embankments after the end of the public comment period the above comment was received in and erosion of the walls will be addressed at the end of wall construction. The applicant also has implemented best management practices to minimize the migration of sediment during construction.

**Comment 181:** How will freezing and thawing affect the lagoon settling the estimated 6 inches? This is bare dirt and clay. What is the depth frost will get into the ground and does frost not raise structure? This lagoon is built in the air not in a hole like a lake.

**Response 181:** The Feb. 11, 2022, approved Modification to PTI 1401950 requires a synthetic geomembrane liner be constructed. Several of the permit conditions address freezing and thawing as follows:

- PTI condition 6: Monthly inspections of the storage facility must be conducted, including the synthetic geomembrane liner and anchorage. If any damage is found it must be repaired and records of the repairs maintained.
- PTI condition 19.i.c: The synthetic liner shall be designed based on considerations for potential freeze and thaw damage and potential exposure to ultraviolet rays.
- PTI Condition 19.ii: The synthetic liner system (subgrade, geomembrane liner and geomembrane anchorage) shall be constructed in accordance with the Geomembrane Specifications revised Jan. 18, 2022, and certified by an Ohio Professional

Engineer on Jan. 18, 2022. These Geomembrane Specifications shall be considered conditions of this PTI and contain:

- a. Solmax Premium HDPE Specifications
- b. Specifications and Technical Requirements for the Manufacturing and Installation of Polyethylene Geomembranes
- c. Appendix A Solmax Technical Data Sheet HDPE 7000 60 mil Black Smooth
- d. Appendix B GRI GM9 "Cold Weather Seaming of Geomembranes"
- e. Appendix C Plan set for Mt. Perry Nutrient Storage

**Comment 182: Freeboard should be at minimum 2 feet or 24 inches.**

**Response 182:** The PTI requires that when freeboard is at 2.25 feet, the permittee must inform Ohio EPA and take action to ensure the Maximum Operating Level (MOL) is not exceeded.

**Comment 183: Will EPA be present for final survey of lagoon? 4.8 acres is close to being a lake. Pins need to be set on top of the freeboard.**

**Response 183:** Ohio EPA is not required to perform construction inspections. The applicant must follow the approved plans and certify the construction upon completion. However, as with other impoundments, Ohio EPA performs site visits during key construction points such as liner construction. Ohio EPA has been generally inspecting the site weekly during active construction of the storage pond. The PTI requires a marker to indicate when there is 1.75 feet, 2.25 feet, and 2.75 feet of freeboard.

**Comment 184: Several commenters asked if the natural flow of surface water or ground water will be impacted by the construction of the lagoon.**

**Response 184:** The storage pond does not intersect any surface waterways. PTI 1401950 approved the installation of drainage swales to direct surface water around the structure which will change the flow of that portion of the surface drainage. The ground water monitoring plan is still under review and once finalized will discuss the ground water on site and the plan to monitor it.

**Comment 185: Describe how the site is designed to prohibit surface runoff from adjacent areas?**

**Response 185:** The pond is a non-discharging system. The stormwater from upland areas at the storage pond will be intercepted by permanent drainage swales and the runoff directed around the pond. Other areas not outlined above, will be required to minimize the discharge of sediment laden runoff by implementing best management practices.

**Comment 186:** **If they have already approved their water displacement plan, how much goes around those banks? Is that going to erode the banks of this lagoon?**

**Response 186:** Ohio EPA does not require a water displacement plan. Permanent drainage swales are to be designed, constructed, and maintained to direct runoff around the storage pond and away from the embankments. This will prevent runoff from contributing to the liquid in the storage pond and prevents erosion of the embankment from that runoff.

**Comment 187:** **The location and topography of the area also lends itself to a lot of runoff water. With the area being in the rolling hills and valleys of Perry County, how can this type of mass storage and mass spreading be allowed on such an area where the likelihood of contaminating streams into Jonathon Creek and on down to the Muskingum River be allowed? What is the process for monitoring such issues? Surely it will not be left to the farmer/plant operator to self-monitor.**

**Response 187:** The stormwater from upland areas at the storage pond will be intercepted by permanent drainage swales and the runoff directed around the pond. Ohio EPA is required to authorize each area that will have Class B biosolids applied. Site restrictions and best management practices are required by OAC 3745-40-08 to prevent runoff to surface waters and include adhering to isolation distances, not applying on frozen or saturated ground, not applying when heavy rains are forecasted, and injected the biosolids when applied on slopes over 15 percent. Self-monitoring and reporting in the form of sampling required by permits and meeting biosolids site restrictions set forth in rule is a common regulatory framework that relies on oversight by a regulatory agency through agency inspections and review.

**Comment 188:** **Boring B-6A pushed boulder at 6 feet, how many boulders were encountered during construction?**

**Response 188:** The applicant was not required to note such information per the permit issued. No evidence of boulders around the construction site has been noticed during the weekly visits to the site.

**Comment 189:** Did ground water seepage occur during lagoon excavation? Was a gravity drainage system or other conventional dewatering procedure used?

**Response 189:** As of the Nov. 9, 2021, site visit, no ground water seepage has been observed. The only dewatering done on the site has been stormwater from the interior of the storage pond area.

**Comment 190:** So far during construction of the lagoon there were two violations of silt going into the creek in a one-week time frame. After the first time, Ohio EPA informed Quasar how to not get silt into the creek. The next day they were at it again. They called it self-regulated. So, if this company does not listen to the EPA during construction because they know no fines will be given for violations, they will just keep on doing it after they become operational. So now we know this lagoon will be self-regulated if it becomes operational. Why are no third-party inspectors on site to ensure this is being built correctly? It's funny gas lines have third party inspectors when being installed. But it looks like our water is not a priority.

**Response 190:** The applicant was instructed that sediment could not be discharged when they were dewatering the site and NOV's have been issued. The on-site construction engineer is responsible for following the requirements of both the Permit-To-Install and the Construction Stormwater Permit issued for the site.

This site is not self-regulated. The authority for the laws is from Ohio Revised Code (ORC) 6111 and the rules to regulate these sites are in OAC 3745-40 and OAC 3745-42. Ohio EPA has specific requirements for siting, permitting, construction, sampling, and reporting for regional biosolid storage facilities. Permits issued by Ohio EPA must meet minimum standards prior to issuance. Self-monitoring and reporting in the form of sampling required by permits is a common regulatory framework that relies on oversight by a regulatory agency through agency inspections and review. The facility is designed and will be permitted to prevent contamination of ground water and surface waters.

**Comment 191:** Could the water leaching in at the front of the lagoon be from shallow ground water where bore holes were not drilled, and the front half of the lagoon area was not soil and water tested? Could there be a natural spring there and that is why all the field tile was needed in that area?

**Response 191:** Ohio EPA is not aware of any water leaching from the site. There are drainage tiles that serve the farmland north of the construction site that have been observed discharging stormwater into Painters Run Creek.

**Comment 192:** **Why didn't they start at the beginning of the where the field tile is and dig till they get it all up because if field tile is under the dam of the lagoon that will create a void. No field tiles should be left in the ground. Video needs to be taken of the removal with an Ohio EPA inspector on site the whole time for this. The contractor did not report this or where the dam was where dirt was pushed and was not dug down there because that is the lowest area of the lagoon. This would be the area from the main entrance and the whole truck turn around pad and that part of the dam wall. They only cleared the topsoil off and then pushed dirt. Photos sent.**

**Response 192:** According to the plans submitted by the applicant, an exploratory trench 48 inches deep and 50 feet from the inside of the storage basin would be dug to find field tile. If any field tile was found and it was draining away from the basin it would be plugged. In November 2021, the trench could still be seen on the east side of the storage basin, but on the west side it had been covered over by the berm constructed on that side. There is no further action required regarding field tiles. Ohio EPA does not require video to be taken of construction. The on-site construction engineer is responsible for following the requirements of the PTI. The PTI also requires a professional engineer registered in the state of Ohio to certify that construction of the pond was completed in accordance with the approved plans and specifications and provide as-built plans to Ohio EPA before the facility can be placed into service.

**Comment 193:** **Were any animals harmed or killed during the construction of this lagoon? Ground hogs, coon, rabbits, squirrel etc.**

**Response 193:** No animal carcasses have been observed during the weekly visits to the site.

**Comment 194:** **Were any creeks or streams disturbed? Did foreign material or silt get in the water system and the natural flow of water? If so, was it reported by the permit holder?**

**Response 194:** The permit holder has not reported any violations of either their Construction Stormwater Permit or their Permit-To-Install. They have been issued two Notice of Violation (NOV) letters for not providing adequate discharge controls during dewatering of the construction site. Both violations have been resolved.

**Comment 195: Were any foreign materials used in construction of this lagoon?**

**Response 195:** Material specifications can be found in the approved PTI available by following the instructions at <https://epa.ohio.gov/about/media-center/access-public-records>.

**Comment 196: Was any dirt hauled into this construction site?**

**Response 196:** Ohio EPA is not aware of any soil being hauled onto the construction site.

**Comment 197: Was any dirt or clay hauled away or removed from this 10-acre site during construction of lagoon?**

**Response 197:** Ohio EPA was informed by the applicant that Mr. Krofft did remove some of the stockpiled soil from the site.

**Comment 198: Is an all-weather access road provided to the lagoon?**

**Response 198:** Yes. The plans submitted with the Permit-To-Install Application show the profile detail of the access drive and turnaround.

**Comment 199: What are the required buffer zones from the driveways and lagoon?**

**Response 199:** The applicable isolation distances for the construction of the storage pond can be found in OAC 3745-40-07 Table D-1. Driveways do not require an isolation distance.

**Comment 200: Is there any subsurface encroachment of ground water?**

**Response 200:** The modified PTI 1401950 approved Feb. 11, 2022, contains plans for a synthetic geomembrane liner, and the steps taken to minimize any ground water flow into the facility area.

**Comment 201: There has been known ground slippage in this location where the nutrient pond is to be built. If there is more slippage of the ground, how will this impact the integrity of the nutrient pond and storage of the contents?**

**Response 201:** Ohio EPA reviewed soil borings from the area of the storage pond. These soil parameters were utilized in the design and review of the facility. Ohio EPA believes the application addresses all site concerns.

**Comment 202: What locations at the proposed lagoon were requested to supplement the original geology report?**

**Response 202:** The original geology report contained eight borings. Based on publicly available data and the eight site-specific soil borings the Division of Drinking and Ground Waters accepted these descriptions and identifications as accurate for the proposed site.

**Comment 203: Can you describe any fencing and signage requirements?**

**Response 203:** The plans in the approved PTI state fencing will be installed immediately upon removal of temporary sediment and erosion control measures and will completely enclose the permanent facility. Gates shall be installed at each access road into the facility. A detail of the facility entrance signage is presented in the plans for the approved PTI and indicates that the sign will state that this is an Ohio EPA authorized Class B biosolids storage facility and include a contact phone number.

### Soils

**Comment 204: Is this an appropriate place for an open sewer lagoon, a place that the EPA has stated has problems with sandy subsoil areas?**

**Response 204:** This is not an open sewer lagoon. This facility is for the storage of Class B biosolids. The storage pond meets the siting criteria established in OAC 3745-40 for a regional biosolids storage facility and will include a liner protective of ground water.

**Comment 205: Have there been on-site soil studies conducted? If so, please provide the results of those studies, or any other studies used to indicate this suitability of the soil on site, particularly for the construction of the clay liner.**

**Response 205:** The application for the PTI included soil borings to determine the characteristics of the soil in the project area. The soil information can be found in the PTI application. The PSI (Oct. 20, 2020, Revised Dec. 2, 2020) Subsurface Exploration Report for PSI Project No.01423-2199 was submitted with the PTI application. Laboratory test results are provided in section 3.1 of the PSI document.

Pursuant to the modified PTI approved Feb. 11, 2022, a synthetic geomembrane liner will be used at this facility.

**Comment 206: What type of soil is predominant at the site?**

**Response 206:** According to the Custom Soil Resources Report for Perry County, Ohio by the U.S. Department of Agriculture, Natural Resources Conservation Service submitted with the PTI application, the predominant soil type at the site is Glenford Silt loam. The report shows that the soil type at the eastern edge of the project site is Homewood-Westmoreland silt loams.

**Comment 207: What is the depth of the bedrock?**

**Response 207:** Borings B-4 and B-6A both had a bottommost formation of weathered siltstone at a depth of about 13 to 18.5 feet below the existing surface grades.

**Comment 208: Many commenters questioned specifications and construction activities associated with the clay liner.**

**Response 208:** On Feb. 11, 2022, PTI 141950 was modified to utilize a synthetic geomembrane liner in lieu of the recompacted soil liner. The PTI conditions applicable to the recompacted soil liner were removed and replaced with Geomembrane Specifications described in the Modified PTI condition 19.ii. The recompacted clay liner will no longer be constructed.

**Comment 209: With the soil structures we have, and everything there, why can't we use that data? Why can't we use the appearances, everything that's been done?**

**Response 209:** More detail is needed to provide a concise answer to this question. Publicly available data and data gathered by consultants has been utilized to develop these plans and permits.

**Comment 210: Please consider stopping this project. It is being constructed in a floodplain and the contractors are using substandard materials and techniques. Poor compaction and non-clay sub grade material to name a few. There are plenty of alternate sites in both Perry and Muskingum Counties that are not located in flood prone areas and in less populated areas. Check with your own soils techs who have been to this site.**

**Response 210:** The Geotechnical Subsurface Exploration Report did not list any findings that precluded the use of the soils on site in the construction of the storage pond. The actual material used for the liner will be tested at least once for each lift completed during a particular day to ensure the Moisture Content and Density are acceptable for use. The location of the facility was determined by the applicant. Ohio EPA was not involved

in choosing the location for the facility. The location meets the siting criteria in OAC 3745-40-07 required for these types of facilities. Ohio Department of Natural Resources and local authorities regulate floodplain management.

**Comment 211: On B-4A, how can you have stiff to very stiff, and moist to wet, sandy silt with little clay, gravel and rock fragments? If something is moist, it's not stiff.**

**Response 211:** The consultant has provided general notes (two pages) that define terms used in the material descriptions of the borings. Please note at the bottom of the boring description sheet a note states transitions may be gradual. The general notes sheet (page 2) for consistency of fine grained soils indicates the Medium stiff (firm) and stiff consistencies describe fine grain soil consistency based on the  $Q_u$  (unconfined compressive strength) in TSF and the  $N$  (number of blows/foot). Where  $N$  is the Standard "N" penetration of blows per foot of a 140-pound hammer falling 30 inches on a 2-inch O.D. split spoon. The Moisture Condition Description is defined by the given criteria in this table. Moist is damp but no visible moisture and Wet is visible free water and noted as usually below the water table. The additional columns on B-4A further define the standard penetration test data based on moisture and  $N$ . The moisture content is also noted and in this case the interval in question varies from 23 percent to 27 percent moisture with the higher moisture content displaying less unconfined compressive strength.

**Comment 212: No assessment of the presence of moisture, mold, or other biological contaminants in or around any structure, or any service to prevent or lower the risk of amplification. Mold amplification will likely occur.**

**Response 212:** This comment comes from the PSI Report on the Geotechnical Subsurface Exploration. This reports states PSI was not contracted to investigate the presence of moisture, mold, or other biological contaminants. There are no structures in the construction area to evaluate for the presence of mold. Ohio EPA regulations pertaining to regional biosolid storage facilities do not require assessment of mold or whether amplification will occur.

**Comment 213: Per the PSI report, no environmental assessment for the presence of wetlands or hazardous or toxic materials in the soil, surface water, ground water, or air was conducted on this site of the lagoon.**

**Response 213:** The PSI report specifies that the stated items were not within their scope of services and are not included in their report. PSI was contracted to complete a Geotechnical Subsurface Exploration. Publicly available maps and listings were submitted with the permit application as follows: Titled National Flood Hazard Layer FIRMette by FEMA, National Wetlands Inventory – U.S. Fish & Wildlife Service, Ground Water Resources of Perry County by Spahr - ODNR's Division of Water Resources, Water Data from U.S. Geological Survey, water wells and well logs and drilling reports from ODNR's Division of Water Resources, Ground Water Pollution Potential of Perry County by Spahr & Straub, ODNR's Division of Water Resources, Drinking Water Source Protection Areas: Ohio EPA - Division of Drinking and Ground Waters, Karst Map, ODNR's oil & gas wells – ODNR's Division of Oil & Gas Resources, County Distribution of Federally-Listed Threatened, Endangered, Proposed, and Candidate Species Jan. 29, 2018.

**Comment 214:** Why were the boring hole locations moved and only half of the proposed site of the lagoon was bored? The upper half was where the only testing that was done. What is the soil sample of the lower half of the site near the flood plain and Painters Run Creek? In PSI report.

**Response 214:** Pursuant to the PSI Report, the boring locations were moved by the Client. No reason is given in the Report. According to the Custom Soil Resources Report for Perry County, Ohio by the U.S. Department of Agriculture, Natural Resources Conservation Service submitted with the PTI application the soil type of the area near Painters Run and the road is Glenford Silt loam. This is the same soil type as the majority of the construction area except the eastern edge of the project limits.

**Comment 215:** How has the EPA determined that this soil information is valid for this project?

**Response 215:** During the review of the Permit-To-Install Application, no issues were found with the Geotechnical Subsurface Exploration Report. The soils showed no issues based on the borings taken. The liner for the pond will now be a 60-mil synthetic liner so the compaction questions surrounding the site clay soils is no longer a question to be answered.

**Specific comments received that are summarized and addressed in the above section:**

- What impact has this lagoon had on the natural flow of drainage and has it impacted the natural flow of creeks or streams?

- Does this lagoon change the natural flow of any water ways, above or below ground?
- This is after work was done for the day on 3 November 2021. You can see how deep they went and it is still pumping water. Look close at the dozer tracks. Now what does the rest of the lagoon bottom looks like. What depth are they at here? It looks like they might be in the water table.
- Don't know how deep they went in bottom of lagoon but it looks like they hit water table in photo where it's still pumping
- Soil material used in this lagoon liner was placed and compacted after rains and could not meet optimum moisture content. This lagoon needs an independent inspector to test each lift in the construction.
- On 21 October 2021, we had rain at the lagoon. On 22 October, they were sheep huffing in the so called clay liner for a couple hours in the morning. How are they meeting the moisture compaction rate? Are there photos or video of the test?
- The moisture content of this soil can cause significant reduction in soil strength and support capabilities. We have pictures of grading on wet pumping and a general deterioration of those soils in the presence of water.
- Was anyone from the EPA present for the soil compaction test of the liner of the lagoon to include the side walls? Or is this self-regulated?
- Why is a liner not required with sandy soil?
- What will be the engineered plan to protect the sides of excavated earth in lagoon? Sewage/water will seep in and out from the sides just as it would in the bottom.
- Is it possible to install ditches around the lagoon so natural occurring precipitation can flow around it?
- Were any large boulders or rocks dug up at this site? If so, how big and provide pictures?
- Is the storage facility going to be fenced off or what precautions are taken to keep wildlife from tracking through the biosolids?

- What is the soil makeup of the area near the road and Painters Run where the lower half of the site was not bore tested by the six bore sites on the blueprints? Is it sandy gravel and low water table?
- With the Glenford soil types being the majority of this excavation site; it is known for this soil type to be wet too extremely wet. How is this soil type conducive if the clay liner was to be compromised? Would it allow the contamination of a larger area than clay? Why not require a better soil type for a backstop material?
- Has the liquid or plastic limit and shrinkage limit been tested on this clay?
- How does compacting soil in colder temperatures effect the soil compaction test and moisture content of the soil?
- The blueprints for the lagoon say the lagoon can settle 6 inches. Could the settling put a crack in the clay liner and allow seepage into the disturb ground that replaced the clay that was dug out to build the lagoon elevation? If you compact the dirt to that equation, you gave us then the lagoon should not settle 6 inches? That is a prime example of why we need 5 inch monitoring wells, not 2 inch and more than just 2 wells downhill and 1 uphill.
- Does all the pumping weaken the clay properties or soil properties of the liner of the lagoon?
- The leaves blowing in from the woods and are being compaction into the liner what happens when the leaves dissolve and leave a void in the liner?
- Is there an engineer tech on site monitoring each lift of engineered liner? All dirt or clay needs to be removed and placed back under video recording with a recording of the moisture test.
- The PSI report says moisture contents ranging from 11 to 36 percent. The PTI does not state what the moisture needs to be.
- Was the clay, rock and sandy material screened to get the best clay at the lagoon? If not, then why?
- What is the life span of the clay at the lagoon?
- How is the clay already existing in Mount Perry soil good enough to line a 20-million-gallon lagoon? Referring to Bill Wilson from the meeting. It'll take 160 million pounds of clay to line it correctly. Why do they get to take short cuts?

- I do not believe the soil present at the site of the lagoon is acceptable for this construction. Please provide the information used to indicate that this soil can be used for this application as lagoon liner.
- How does the ion exchange CA and NA affect the lifespan of the clay?
- Has moisture and compaction testing been done and conducted with each lift, or each day of moving dirt? And are those test areas survey in for records to show the compaction of this soil? If liner seepage occurs, the EPA has been notified during construction that this is a self-regulated lagoon being built. No inspectors are on site to ensure the work is being done to permit standard.
- They were sheep hoofing in the so-called clay on the 18, 19, 20 of October when on the 18, 19 they were pumping all that water out, how did they meet the moisture content tent for compaction? This entire build needs to be video and saved, in this day age everything needs to be video documented.
- They have not shown that the material on site is suitable for use to construct the lagoon. The sandy gravel clay.
- Have there been on-site soil studies conducted? If so, please provide the results of those studies, or any other studies used to indicate this suitability of the soil on site, particularly for the construction of the clay liner.
- All the field tile in the fields for pond and deep roe storage.
- How has Ohio EPA determined that this soil information is valid for this project?
- How many violations has Quasar had on this construction site before it was completed?
- Why is the minimum freeboard not more than two feet?

### **Property Value/Taxes**

**Comment 216:** Several commenters expressed concern about the possibility of decreasing value of property near the Mt. Perry Nutrient Storage Facility.

**Response 216:** The potential impact on local property values is not a criterion that Ohio EPA has the legal authority to evaluate when reviewing the PTI and NPDES applications for this project. PTI and NPDES applications are

evaluated for compliance with specific criteria established in Ohio's rules and regulations and can only be approved if those criteria are met.

**Comment 217: How are property owners in proximity to the lagoon compensated for devalued property values? How is proximity determined?**

**Response 217:** By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Under Ohio law, Ohio EPA does not have the authority to consider property valuation.

**Comment 218: Does the property where the lagoon is to be located become a commercial property with an appropriate commercial tax?**

**Response 218:** Ohio EPA does not regulate the tax rate. Local officials with jurisdiction over taxes should be consulted.

**Specific comments received that are summarized and addressed in the above section:**

- What will this do to the property value if this is developed?
- These biosolids produce chemicals and those will cause the property values to lower.
- What will our property values drop to?
- The question/statement about the monetary investment for this lagoon being a consideration in the issuing the PTO. Was it ever given any thought or consideration to the significantly Large Monetary Value of the local population stands to lose due to depression of property values and use of their property? The County stands to lose even more Tax money due to the reduction of Property Taxes from the resulting Property Values being reduced.

### **NPDES Permit and Process**

**Comment 219: Was an acute whole effluent toxicity test conducted or a wet test of the streams? Has that been conducted? If not, why not? If it was done, where is it?**

**Response 219:** Neither of these tests were conducted on the stream. The NPDES permit does not authorize discharges from the storage pond nor was one requested in the permit application. Toxicity testing is a requirement for discharging wastewater systems and this is non-discharging system.

**Comment 220: Where is the SOP for composite samples?**

**Response 220:** The NPDES permit for this facility requires a standard operating procedure (SOP) for composite biosolid sampling to be submitted to Ohio EPA for acceptance within 30 days of the effective date of the NPDES permit. Composite samples of the biosolids are required to consist of six grab samples that are collected at times and locations to be representative of the facility's biosolids. The SOP will outline how, when, and where required samples will be taken to ensure they are representative of the entire pond. This plan will be available on Ohio EPA's eDocument system once it has been reviewed and accepted by Ohio EPA.

**Comment 221: Why weren't "heavy metals" testing included in the NPDES?**

**Response 221:** Testing for heavy metals is included in the NPDES requirements. Facilities that generate biosolids must meet metal concentration limits in OAC 3745-40-4(D) prior to beneficial use. These metals include Arsenic, Cadmium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, and Zinc. If metals limits are not met, the material must be landfilled or re-treated. It will not be eligible to be taken to the Mt. Perry Nutrient Storage Facility. The permit for the storage facility requires sampling for the nine metals again prior to biosolids leaving the storage facility as outlined Part I.B. at station 01N00285581.

**Comment 222: There are the eight major heavy metals that the U.S. EPA mandates to test for in sludge and one of them that's not listed in the permit for Quasar to test for is chromium? Is this a typo or is it not required for this project?**

**Response 222:** See Response 221. OAC 3745-40-04 and 40CFR503 do not require biosolids to be sampled for Chromium.

**Comment 223: Why was that site chosen? In the middle of farmland?**

**Response 223:** This is the site that was submitted to Ohio EPA in the application for the regional biosolid storage facility. No reasons were conveyed to Ohio EPA for picking this site. Based on information received, Ohio EPA determined that the site meets criteria for this type of structure.

**Comment 224: What stage of the process is this permit in?**

**Response 224:** The permit-to-install for the project was issued on May 19, 2021. The final NPDES permit was effective on March 1, 2022.

**Comment 225: Who approved this?**

**Response 225:** If the question being asked is about PTI 1401950 and NPDES permit 0IN00285 the following answer applies. The director of Ohio EPA approved the Permit-to-Install 1401950 on May 19, 2021, and the final NPDES permit 0IN00285 on March 1, 2022.

**Comment 226: Who was this plan presented to?**

**Response 226:** If the comment is referring to the application for the NPDES permit, it was submitted, as required, to Ohio EPA Division of Surface Water.

**Comment 227: When is the deadline for the permit to be signed for usage?**

**Response 227:** Generally, a permit decision is made within 180 days of receiving a complete application. In this case, consideration of, and response to, the extensive comments made by the public has resulted in a longer review time than is typical. A permit decision was made once Ohio EPA completed review of all requested information and comments.

**Comment 228: Is there a deadline for Ohio EPA to respond to questions since there is a deadline to submit questions? Where will the responses be posted? Will all answers be available to the community or just to the person asking the question?**

**Response 228:** There is no regulatory timeframe to respond to questions received during public comment periods. A response to all comments received was issued with the final version of the permit and is available as a public document.

**Comment 229: Please let me know when the EPA meeting will be held regarding this project as it is my understanding that the permit to build has been approved; however, the permit for use has not been approved.**

**Response 229:** No additional public meetings are scheduled for this project. Ohio EPA held a virtual hearing on Oct. 13, 2021, regarding this application for a NPDES Biosolids Storage Permit. Additionally, a public hearing was held on Oct. 20, 2021. This document summarizes the comments and questions received at the virtual and public hearings and/or during the

associated comment period, which ended on Nov. 4, 2021. At this time no additional public meetings are scheduled.

**Comment 230: How did we not know about this?**

**Response 230:** Ohio EPA followed the required public notice requirements which included public noticing the final action of the permit-to-install as well as the draft NPDES permit in the local newspaper.

**Comment 231: Was a stormwater permit issued?**

**Response 231:** Yes, Ohio EPA issued construction stormwater permit 0GC03664\*AG on Dec. 9, 2020, to regulate stormwater during facility construction.

**Comment 232: One commenter questioned the reliability of self-regulation on the size and scope of this permit.**

**Response 232:** This facility will not be self-regulated but will perform self-monitoring and reporting. ORC 6111 provides authority for Ohio EPA to regulate wastewater treatment works, including storage of biosolids, and OAC Chapters 3745-40 and 42 contain the rules to regulate these facilities. Ohio EPA has specific requirements for siting, permitting, and construction regarding regional biosolids storage facilities per OAC 3745-40-07 and OAC 3745-42-13. All sampling, monitoring frequencies, record retention, and reporting requirements are found in OAC 3745-40-09. The permits issued by Ohio EPA must meet minimum standards prior to issuance and provide a mechanism that requires permittees to be protective of human health and the environment. Self-monitoring and reporting in the form of sampling required by permits is a common regulatory framework that relies on oversight by a regulatory agency through agency inspections and review.

**Comment 233: If biosolids get into Painters Run Creek then into Jonathan Creek and the Maysville watershed, how will everyone be notified of water contamination?**

**Response 233:** Biosolids removed from the facility will be land applied for agronomic benefit following the best site restrictions found in OAC 3745-40 which prevent runoff or discharge to surface and ground waters. If an accidental discharge of biosolids were to occur this would be treated as a spill that would be triaged by Ohio EPA emergency responders. The responders would notify anyone who may be directly impacted by the spill including public water systems.

**Comment 234:** The farmer only has 1021.796 acres of land. How can they process 20 million gallons of biosolids on that amount of land?

**Response 234:** Class B biosolids from this facility will be eligible for land application on any field authorized for biosolids from any Quasar facility, not just fields owned by the farmer. Quasar's Zanesville Energy facility alone has over 5,100 acres authorized for land application of Class B biosolids.

**Comment 235:** What kind of enforcement can be done if there are violations of the permit conditions?

**Response 235:** Ohio EPA regulates thousands of permits. When a facility is in any type of non-compliance the goal of the Agency is for the offending facility to return to compliance. Ohio EPA can provide technical and non-technical assistance, issue violation letters, issue administrative orders (with and without penalty) and refer cases to the Ohio Attorney General's office for enforcement. More information regarding Ohio EPA's enforcement process can be found at:  
<https://epa.ohio.gov/divisions-and-offices/surface-water/dsw-programs/enforcement-program>.

**Comment 236:** Has any email communication, phone communication, text messages of any citizens questions that have been submitted to Ohio EPA been sent to the permit holder or any of his legal team or representatives?

**Response 236:** Ohio EPA has not sent specific questions from citizens to the permit holder or any of their legal team or representatives.

**Comment 237:** Since the landowner is not a responsible party to test the water quality, who will and how often?

**Response 237:** The permittee is the responsible party to fulfill the monitoring requirements in the NPDES permit. The permittee is also required to perform any monitoring required by approved PTI 1401950, which includes the monitoring required by the ground water monitoring plan. The frequency of monitoring for each parameter and locations are outlined in the NPDES and the approved ground water monitoring plan.

**Comment 238:** How long will this lagoon be permitted?

**Response 238:** NPDES permits are issued for a term not to exceed five years and are eligible for renewal after undergoing review and approval by Ohio EPA. When the facility is no longer actively being operated, all biosolids will

have to be removed from the storage pond and the facility closed by an approved PTI.

**Comment 239: What is the real effect this has on Ohio EPA to deny the project or deter the project?**

**Response 239:** It is unclear as to what this comment is referencing. The Ohio EPA's role is to review applications it receives for various permits as set forth in regulations and make decisions based on those regulations and information received in the permitting process. In the case of this project, ORC Chapter 6111 and OAC Chapters 3745-40 and 42 are the applicable chapters of Ohio law.

**Comment 240: What can our governor do for us? What can the Ohio EPA director do for us?**

**Response 240:** The governor appoints the Ohio EPA director, who has specific duties and obligations that are set forth in Ohio law and regulation relative to permit applications and permitting decisions.

**Comment 241: How many people make the decision to issue the permit? What is the number of people that must sign off on this and who are those people?**

**Response 241** The director of Ohio EPA has the sole authority to approve or deny this permit. That decision is made based on all information gathered during the permit process including public comments and the recommendations of those reviewing the information submitted. The permit goes through technical review by environmental specialists and engineers, including in this case a hydrogeological expert and biosolids lead staff, further review by permitting supervisors and managers, as well as legal review before review by the director.

**Comment 242: If this project will be approved, do the citizens get to ask for special conditions, for example to require eight test wells, a third party that reports weekly with verification of that third party, and PFAS testing of the biosolids?**

**Response 242:** All available information from the permit applications, additional information required during the permitting process, as well as citizen comments and information gathered as a result of these comments were utilized to decide whether to issue this NPDES permit. The NPDES permit contains requirements and conditions necessary to ensure all regulations are met. Regarding the specific changes requested in these

comments, the number of monitoring wells required to be protective was determined based on Ohio EPA's Division of Drinking and Ground Waters' review of the hydrogeological study that was performed as part of the development of the Ground Water Monitoring Plan. Third party testing is not typically required as self-monitoring and reporting is a common regulatory framework that relies on oversight by a regulatory agency. Ohio EPA performs compliance sampling and laboratory audits as part of its oversight of the self-monitoring program. Currently, PFAS testing of biosolids is not required by 40CFR503. Ohio's biosolids regulations will be updated accordingly should U.S. EPA decide to add limits for additional parameters such as PFAS based on ongoing risk assessments.

**Comment 243: Are they going to call the results monthly on the three well tests? How about can we get a third party?**

**Response 243:** The NPDES permit requires a minimum of eight samples per well taken at least six weeks apart within two years of the effective date of the permit. A minimum of two samples per year thereafter, are required. The permittee is responsible to collect samples, have the samples analyzed, and report the results to Ohio EPA as specified in their permits. They may choose to conduct this work themselves or contract the work to a third party.

**Comment 244: Upon request, all records will be given to the EPA within 48 hours, if they are maintaining records like they are supposed to be then this should not be a problem. Needs to be in the NPDES permit or the PTI permit.**

**Response 244:** PTI 1401950 Condition 8 lists the records that must be maintained and made available to Ohio EPA for review upon request.

Condition 8. The following records shall be maintained and made available to Ohio EPA for review upon request:

1. Hauling manifests that document the generator, date, and volume in gallons of biosolids that were transported to the Mt. Perry Nutrient Storage Facility;
2. Hauling manifests that document the date, and volume in gallons of biosolids that were transported from the Mt. Perry Nutrient Storage Facility for beneficial use, transfer to another NPDES permitted facility, or disposal within a landfill;
3. The completed Mt. Perry Nutrient Storage Inspection Forms and the actions taken to address observed issues;

4. Any complaints, and the actions taken to address them, related to the Mt. Perry Nutrient Storage Facility; and
5. The analytical results as required by the NPDES permit used to demonstrate the stability of Class B biosolids generated from each contributing anaerobic digester facility.

Additionally, the NPDES permit requires that the information required by PTI Condition 8 numbers 1, 2, and 3 be submitted monthly to Ohio EPA either in report form or in the monthly discharge monitoring reports.

**Comment 245:** In NPDES R. permit, they have 30 days to submit a correction action plan. Shouldn't that plan already be on file to address what will happen if pollutants are in the ground water? That 30 days gives more time to pollute our ground water.

**Response 245:** Part II, Item R of the NPDES permit 0IN00285 requires a plan to be developed to respond to the specific conditions being presented. A plan of this type cannot be developed until there is an occurrence. A generalized plan developed in advance of a release may not be the best plan for the actual occurrence. If site specific information is not used, the plan may not be effective to correct the situation.

**Comment 246:** In the NPDES F. What other materials shall be authorized?

**Response 246:** Part II, Item F of the NPDES permit 0IN00285 states that EQ or Class B biosolids may be stored in the facility. Any other materials would need to be authorized by Ohio EPA. If the permittee submits a request for other materials to be authorized, Ohio EPA will perform a thorough review of the material to ensure its addition to the biosolids for land application is protective of human health and the environment. Such materials may include other nutrient rich organics that do not contain pathogens or pollutants and that provide an agronomic benefit when applied at agronomic rates.

**Comment 247:** Where are all the 582 reporting stations located in the state that can dump here?

**Response 247:** Only anaerobic digester facilities have permits with 582 reporting stations; these facilities are listed in the NPDES permit. Other facilities that generate liquid Class B biosolids may request to have their permits modified to add the 582 station to allow them to transfer Class B biosolids to the Mt Perry Storage Facility if Quasar is amenable to accepting their biosolids at the pond.

**Comment 248: The permit does not include minimum effluent limitations.**

**Response 248:** Class B biosolids that are land applied need to demonstrate an agronomic benefit and must not exceed the limitations as per the applicable permit. Minimum effluent limitations typically are used for effluents that discharge to a stream and for pollutants that need to be maintained at a certain level in the stream. For example, if dissolved oxygen or pH levels are too low in a stream it can negatively impact aquatic life. Generally speaking, effluent limits are for a maximum or average level rather than a minimum required level. The permit does not authorize a discharge of pollutants to any stream or water and therefore does not contain effluent limitations.

**Comment 249: What exemption notification for violations are not given to the public?**

**Response 249:** This question in this comment is not clear. The public can request any document be made available upon request. Ohio EPA is subject to Ohio's public records laws. The public can make a request at: <https://epa.ohio.gov/about/media-center/access-public-records/access-public-records>. The Ohio EPA factsheet titled Public Records Requests and File Reviews can be found at this link: <https://epa.ohio.gov/static/Portals/47/facts/records.pdf>. Exemptions are discussed in that document.

**Comment 250: What information is exempt from public record from Quasar?**

**Response 250:** The following information is from the Public Records Requests and File Reviews factsheet. "Some documents do not fall within the definition of a public record, and thus, are not available to the public. Other documents may fall within the definition of a public record but are exempt from release. These include trial preparation records; confidential law enforcement investigatory records; records whose release is prohibited by state or federal law; and homeland security records. (footnote 1 - Trial preparation records include information compiled in anticipation of, or in defense of, a civil or criminal action or proceeding. Confidential law enforcement investigatory records are certain records that pertain to criminal, quasi-criminal, civil or administrative law enforcement matters.) As stated above, certain records are prohibited from release by state or federal law. The largest example of this is attorney-client communications. Another example is information protected by trade-secret protection. (footnote 2 - Trade-secret information is material that is confidential with a company, has commercial value and gives its owner an advantage over its competitors. Trade-secret protection is

requested by the company, although it is the Agency's responsibility to determine whether the information identified by the company is, in fact, a trade secret.)" The Ohio EPA factsheet titled Public Records Requests and File Reviews can be found at this link: <https://epa.ohio.gov/static/Portals/47/facts/records.pdf>.

**Comment 251: How do we make a formal complaint?**

**Response 251:** A complaint may be submitted by contacting Ohio EPA personnel or using the online form at the following link: <https://epa.ohio.gov/help-center/contact-us/submit-a-complaint> Further information is available about complaints at the above link.

**Comment 252: If this permit is allowed, who do we file an appeal with? How do we file an appeal?**

**Response 252:** The following is from the Environmental Appeals Commission [website](#):

"The Ohio Environmental Review Appeals Commission has exclusive original jurisdiction over any matter that may be brought before it from final actions of:

- The Director of the Ohio Environmental Protection Agency; or
- The Director of the Ohio Department of Agriculture; or
- The State Fire Marshal's Office; or
- The State Emergency Response Commission; or
- County and local boards of health.

Any person who was a party to a proceeding before any of the above-listed entities may participate in an appeal to the Commission by filing a Notice of Appeal within thirty (30) days of notice of the final action. In addition, if the Director of the Ohio Environmental Protection Agency issues, denies, modifies, revokes, or renews a permit, license, or variance without issuing a proposed action, any person who would be aggrieved or adversely affected by the action may file an appeal with the Commission within thirty (30) days of the issuance, denial, modification, revocation, or renewal.

Notice of the filing of the appeal shall be filed with the Appellee within three days (3) after the appeal is filed with the Commission. A person appealing to the Commission shall be known as Appellant. The party supporting the finding from which the appeal is taken shall be known as Appellee.

The original appeal shall be accompanied by a filing fee of \$70. The Commission may waive the fee if the Appellant demonstrates that payment of the full amount of the fee would cause extreme hardship. (SEE: ORC 3745.04 and ORC 3745.07; OAC 3746-5-01, OAC 3746-5-02, OAC 3746-5-03, and OAC 3746-5-04).”

**Comment 253: Does an appeal stop the pit from being filled with anything until a decision is made?**

**Response 253:** No, the filing of an appeal does not automatically suspend or stay the action being appealed. For information regarding the procedures relating to filing a motion for stay, see [OAC 3746-5-21](#) and [3746-5-22](#).

**Comment 254: In our appeal, can we say if you're going to approve it, well, these, these, and these things?**

**Response 254:** An appeal would necessarily involve an action that has been finalized. Decisions about what relief to seek would be a question for the individual appellant and their legal counsel to decide

**Comment 255: As a community/individual, what options do I have when only two or three people make the permit decision?**

**Response 255:** See Response 241 for the permit decision process. Any action of the director is subject to an appeal. Please see Response 252 on how to file an appeal.

**Specific comments received that are summarized and addressed in the above or the Biosolids section:**

- With the recent possibilities of landowners not being informed or unknowingly signing their land for application of Class B biosolids with these types of tactics seeming being used to the application of effluent, how can the EPA not amend the self-regulatory portion of the application?
- When is the next meeting regarding this facility?
- When will these questions be answered and posted? Do you have a timeline to get these comments and questions answered? Will all these answers be available for the whole community? Or will you be answering just the question that I ask you to me? Then they will answer their question to them, or will it be a public scenario? Where will they be found?

- I understand the lifetime lagoon has a certain number of years it is permitted for? Will it be taken back out? What will it be used for ?
- Why are they not testing for heavy metal in the Class B biosolid being brought into this lagoon? From any of the facilities in this permit. It's not in the NPDES permit.

### **Applicant**

**Comment 256: Is this run by a private industry or government entity?**

**Response 256:** The permit for the regional biosolids storage facility is issued to Mt. Perry Nutrient Storage, LLC which is privately owned.

**Comment 257: How many plants does Quasar have that hold these biosolids?**

**Response 257:** There are five permitted anaerobic digestion facilities that generate biosolids that are currently owned and operated by Quasar Energy Group. They also own and operate a permitted biosolids storage pond.

**Comment 258: What options do we have to hold them responsible?**

**Response 258:** If the facility is not being operated per their permit, you may file a complaint via the Ohio EPA Complaint Tracker Online Form at <https://epa.ohio.gov/help-center/contact-us/submit-a-complaint> If they have a spill, please use the Ohio EPA Spill Hotline (1-800-282-9378).

**Comment 259: There have been complaints filed with Ohio EPA of violations related to the person/entity that is to have control of daily operations of the storage facility and land application of the biosolids from the facility. Why allow a person/entity with such a track record and distain for the area and population to be given such control?**

**Response 259:** Ohio EPA regulations do not contain criteria that would allow past environmental compliance to be considered as a basis for denying a surface water permit for a new facility. Upon the permit's renewal, performance under the permit can be considered relative to whether the permit should be renewed.

**Comment 260: Has Quasar paid any fines? What amount were they for? Due to any violations?**

**Response 260:** Ohio EPA has not issued penalties to Quasar for any of its current permits.

## **U.S. EPA/Ohio EPA Regulation**

**Comment 261:** Why are lagoons self-regulated, when building them to self-reporting and self-testing water monitoring wells, self-odor control, self-spill control, self-biosolids testing? Is this what you call industrial standards? This self-regulated facility has a great potential of contaminating drinking water and Ohio waterways. Inspectors are at gas pipelines and road construction projects full time. This company has had several violations and none of them was self-reported.

**Response 261:** These sites are not self-regulated. The authority for the laws is from ORC 6111 and the rules to regulate these sites are in OAC 3745-40 and OAC 3745-42. Ohio EPA has specific requirements for siting, permitting, construction, sampling, and reporting for regional biosolid storage facilities. Permits issued by Ohio EPA must meet these standards prior to issuance. Self-monitoring and reporting in the form of sampling required by permits and meeting biosolids site restrictions set forth in rule is a common regulatory framework that relies on oversight by a regulatory agency through agency inspections and review. The facility is designed and will be permitted to prevent contamination of ground water and surface waters. While some violations at other facilities operated by the permittee have been discovered by Ohio EPA staff, it is not an accurate statement to say they have never self-reported violations.

**Comment 262:** What else can be done with sewage sludge if it is not land applied?

**Response 262:** In Ohio, about 40 percent of sewage sludge is further treated for land application as Class B or EQ biosolids. About 34 percent of the sludge generated is sent to landfills, but landfills only have a certain amount of capacity for sewage sludge, so more facilities are seeking beneficial use (land application) options. About 25 percent of the sludge in Ohio is incinerated. This percentage has dropped in recent years due to aging incineration equipment, new air regulations, and the desire to beneficially use biosolids. There are only two wastewater treatment facilities in Ohio that have the equipment to incinerate sludge. U.S. EPA allows the surface disposal of biosolids, but Ohio EPA prohibits this option. There are other emerging sludge treatment technologies such as pyrolysis, but they all create products for which outlets such as land application are required.

**Comment 263:** The last time U.S. EPA's biosolids regulations were updated was in 1993. When will they be updated?

**Response 263:** The Clean Water Act (CWA) required U.S. EPA to develop regulations for the beneficial use of biosolids. These regulations, 40CFR503, were issued in 1993. The CWA also requires that U.S. EPA review the regulations every two years to identify emerging pollutants that may be found in biosolids, determine whether pollutants found present risks, and to regulate those pollutants that pose unacceptable risks. If risk is determined, then U.S. EPA regulates the pollutant of concern per the CWA. More information about U.S. EPA's biosolids risk assessments can be found at [www.epa.gov/biosolids](http://www.epa.gov/biosolids). Ohio EPA is not certain when U.S. EPA will update the federal biosolids regulations; however, U.S. EPA's strategy and commitment to action to address PFAS is available at <https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024>.

**Comment 264:** **OAC 3745-40-07 says that a regional storage facility may not be located where there is potential for an unpermitted discharge to waters of the state. Painters Run Creek is right there.**

**Response 264:** The storage pond is designed and will be regulated to prevent unpermitted discharges. The location meets the required siting criteria, including an isolation distance of 100 feet from surface waters. The NPDES permit requires a storage evaluation to be submitted each year that verifies there is enough capacity to store biosolids generated during the winter months when land application is not possible. The permit also requires submittal of the level of the pond each month as well as the amount of biosolids received at the pond and the amount removed. These reports will allow Ohio EPA and Quasar to closely monitor the levels to prevent a breach.

**Comment 265:** **Do they have permission to have a wastewater facility in an area surrounded by working farms?**

**Response 265:** The storage pond meets the siting criteria established in OAC Chapter 3745-40 for a regional biosolids storage facility.

**Comment 266:** **OAC 3745-40-07 says that a regional storage facility cannot be located within a drinking water source protection area using ground water. There is a spring house across the road.**

**Response 266:** The citation referenced in this comment is for drinking water source protection areas of community public water systems using ground water. There are no community water systems in the vicinity of this storage facility. The required isolation distance between a private potable water

source such as a spring or well and a regional storage facility is 300 feet. The closest point of the storage pond to the spring house is over 800 feet (using Google Maps).

**Comment 267:** Based on **OAC 3745-40-07(G)(3)(B)**, all are separate LLCs and are their own companies and should not be allowed to dump at this lagoon.

**Response 267:** The cited regulation states: “Unless in accordance with an NPDES permit, no person shall mix Class B biosolids from two or more different treatment works not owned by the same permittee at a regional storage facility.” Since an NPDES permit is being issued, mixing of biosolids from multiple facilities is allowed. The NPDES permit specifies the facilities that the applicant requested to be authorized to store Class B biosolids in the storage pond.

**Comment 268:** Does the EPA regulate what clothing the workers should be wearing when handling or applying biosolids?

**Response 268:** Ohio EPA has no regulations concerning the clothing that workers handling Class B biosolids must wear.

**Comment 269:** Is the EPA going to say when odor violations are called in that its coming for the manure lagoon 500 yards away that Ohio EPA does not regulate?

**Response 269:** Ohio EPA will investigate all complaints filed with the Agency.

**Comment 270:** Why, if the U.S. EPA has the GMI (Global Methane Initiative) are you allowing the installation of another open-air lagoon that will produce methane, a known contributor to greenhouse gases?

**Response 270:** Greenhouse gas emissions are regulated by Ohio EPA’s Division of Air Pollution Control (DAPC). Emissions from the lagoon do not reach permitting thresholds. Additionally, the anaerobic digester facilities that generate biosolids that will be stored at the facility, produce methane gas that is collected and used to heat the facilities. The biosolids have been processed to the point that methane emissions from the storage pond are considered de minimis.

**Comment 271:** How is this lagoon regulated for the Clean Air Act?

**Response 271:** Ohio EPA DAPC regulates air emission sources. Emissions from the lagoon do not reach permitting thresholds.

**Comment 272: Is an air pollution permit not required on a lagoon this size? When is one required?**

**Response 272:** An air permit is not required for this facility. An air permit is required when emissions from a source reach or exceed a regulated threshold. A Multi-Media Letter was distributed to each Ohio EPA division on Dec. 9, 2020, notifying the divisions of the project and asking them to respond by Dec. 22, 2020, if their participation was needed. No response was received indicating an air permit was necessary from Ohio EPA DAPC.

**Comment 273: Is the RCRA/Land Disposal Restrictions Program being considered in the current plans?**

**Response 273:** The Resource Conservation and Recovery Act (RCRA) regulates non-hazardous solid waste and hazardous waste; it does not regulate biosolids. U.S. EPA developed separate regulations for the beneficial use of biosolids in 40CFR503 and Ohio's biosolids regulations (OAC 3745-40) mirror the federal requirements.

**Comment 274: How does the NPDES permit program and Clean Water Act (CWA) Section 404 program being applied into EPA's plans?**

**Response 274:** OAC 3745-40-03 requires a NPDES permit for the beneficial use of Class B biosolids. Section 404 of the CWA is administered by the U.S. Army Corps of Engineers (COE). A Section 404 permit is for placing fill in a wetland or stream which is not applicable in this situation.

**Comment 275: Coal miners are required to put up bonds for sites to eventually reclaim. Why does this project not have to?**

**Response 275:** Ohio EPA Division of Surface Water regulations do not require bonds to be put up for permit-to-install projects.

**Comment 276: What is the penalty if violations occur? We get the fact they must come back into compliance, but no fines are assessed so they will do it again and again. These companies have been doing this for a long time and they should be having no issues with reporting paperwork, records not filled out or missing records. There needs to be fines now for any violations.**

**Response 276:** Ohio EPA's permit compliance methodology is to work with the permittee to achieve compliance and that may or may not involve civil penalties. Ohio EPA utilizes a penalty calculation matrix that will account for a

number of factors such as penalty allowance in code, recalcitrance, cost savings for non-compliance, and environmental harm when deciding the amount of a penalty.

**Comment 277: Why do we need to get a lawyer if the EPA is supposed to protect us (human/wildlife)? That's why I pay my taxes.**

**Response 277:** The decision to enlist the services of a lawyer is within the discretion of an individual if they choose to appeal a permit. The Environmental Review Appeals Commission (ERAC) will require counsel to be retained if the appeal is on behalf of an organization or company. Ohio EPA is following all applicable regulations it is allowed to under the law. Human health and the environment are being protected under the established regulations within this permit.

**Comment 278: I have attached U.S. EPA's public information and highlighted pages 11-13. My understanding is that standards were issued to prohibit any waste treatment, storage, and disposal facilities, and ocean dumping. The information states a decrease of waste being dumped into landfills. Of course, it would when you are dumping and storing waste on farmers' fields. (39-page report was attached)**

**Response 278:** The information referenced in the comment is for the Resource Conservation and Recovery Act (RCRA). RCRA regulates non-hazardous solid waste and hazardous waste. RCRA sets standards for waste treatment, storage, and disposal facilities that handle non-hazardous solids waste and hazardous wastes and prohibits ocean dumping of these wastes. RCRA does not regulate biosolids. U.S. EPA developed separate regulations for the beneficial use of biosolids in 40CFR503 and Ohio's biosolids regulations (OAC 3745-40) mirror the federal requirements. Ocean dumping of sewage sludge was banned by the Ocean Dumping Ban Act of 1988.

**Comment 279: U.S. EPA enacted the "Ocean Dumping Ban Act of 1988" to stop the killing of marine life. Why, now, is it okay to dump it in our front yard and kill humans?**

**Response 279:** The Ocean Dumping Act, regulates the open dumping of sewage sludge and industrial waste in the ocean. In 1993, U.S. EPA issued 40CFR503 to regulate biosolids which is sewage sludge that has been treated for beneficial use. Ohio EPA regulates the beneficial use of biosolids through OAC 3745-40 which mirrors the federal regulations. The goals of the biosolids program are to protect public health and the environment, encourage the beneficial reuse of biosolids, and minimize

the creation of nuisance odors. Class B biosolids are only applied at authorized locations. Over decades of use, biosolids have not been linked to any fatalities. When biosolids are applied in accordance with the regulations, there is negligible risk of negative impacts to human health or the environment.

**Comment 280: Does the actual site get inspected after weather events?**

**Response 280:** The permit requires the permittee to inspect the pond at least once a month.

**Comment 281: Will results from inspections be public information? Will there be an inspection log somewhere to be reviewed by public and where may this be located?**

**Response 281:** The inspection letters for any inspection conducted by Ohio EPA will be available on Ohio EPA's eDocument system at:  
<http://edocpub.epa.ohio.gov/publicportal/edochome.aspx>.

**Comment 282: Can the Army Corps of Engineers be involved?**

**Response 282:** The Army Corps of Engineers regulates the placement or discharge of dredge or fill in a wetland or stream. The Army Corps of Engineers does not have the regulatory authority to get involved at this time since no dredge material or fill is being placed in a stream or wetland.

**Comment 283: Did the Perry County Health Department approve this permitting?**

**Response 283:** Ohio EPA is charged with administering the beneficial use of Class B biosolids through the Division of Surface Water; therefore, the local health department is not required to be involved in the permitting of biosolids storage facility. Ohio EPA recommends contacting the local health department for any of their jurisdictional permitting requirements.

**Comment 284: Can the two different manures that are being spread be mixed?**

**Response 284:** It is not entirely clear what this question is in referencing. Application of manure is regulated by the Ohio Department of Agriculture. Information on manure application is discussed on their website at [https://agri.ohio.gov/divisions/soil-and-water-conservation/resources/manure\\_application](https://agri.ohio.gov/divisions/soil-and-water-conservation/resources/manure_application).

**Opposition to the Project**

**Comment 285:** One commenter stated that calling the project a nutrient storage facility is a misrepresentation of the facility which is a Class B biosolids lagoon.

**Response 285:** Ohio EPA does not regulate how a facility is named. The project name on the applications submitted for the construction and operation of the pond is "Mount Perry Nutrient Storage".

**Comment 286:** Several commenters expressed opposition to the nutrient storage facility stating that it is not protective of human health, the environment, and wildlife, that it lacks adequate studies and third-party monitoring, and that the material stored in the pond is hazardous.

**Response 286:** Ohio EPA's mission is to protect the environment and public health by ensuring compliance with Ohio's environmental laws. The storage facility has been designed by engineers and geologists to be protective of the environment. The biosolids stored in the pond will be required to be treated to the standards required for beneficial use. The facility will also be required to self-monitor and report in the form of sampling, which is a common regulatory framework that relies on oversight by a regulatory agency through agency inspections and review.

Approval or denial of PTI and NPDES applications can only be based on specific criteria established in Ohio's regulations. These applications cannot be legally denied if all the required criteria are met.

**Comment 287:** Several commenters indicated concerns about the potential for negative economic and social impacts to the community.

**Response 287:** By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Under Ohio law, Ohio EPA does not have the authority to consider economic issues such as property valuation in the context of the permits associated with this project.

**Comment 288:** Several commenters expressed concerns that this project is unethical and should be denied by Ohio EPA.

**Response 288:** These permits are issued pursuant to ORC 6111 and regulations adopted thereunder - OAC 3745-40 and OAC 3745-42. These regulations include specific requirements for siting, permitting, construction, sampling, and reporting for regional biosolid storage facilities. Permits issued by Ohio EPA must meet minimum standards

prior to issuance. Approval or denial of these permits can only be based on specific criteria established in Ohio's regulations. These applications cannot be legally denied if all the required criteria are met.

Ohio EPA is neither aware of, nor authorized to investigate ethics violations. Anyone who believes Ohio's ethics laws have been violated are encouraged to contact the Ohio Ethics Commission at (614) 466-7090 ([www.ethics.ohio.gov](http://www.ethics.ohio.gov)).

**Comment 289: One commenter expressed concern about the potential for mosquitos to breed at the pond and their potential to carry diseases from the pond.**

**Response 289:** The storage facility will store biosolids that have been specifically treated to reduce pathogens and to reduce the attractiveness of the biosolids to vectors such as mosquitos. The PTI and the permit include conditions to maintain the facility to further discourage nuisance vectors. This includes controlling vegetation around the perimeter to prevent mosquitoes. Approved corrective actions are required should nuisance vectors associated with the pond occur. Ohio EPA is not aware of any studies that indicate such facilities provide disease to the vector itself.

**Comment 290: One commenter expressed concern about the location of the facility in relation to nearby homes and farms.**

**Response 290:** The location of the facility was determined by the applicant. Ohio EPA was not involved in choosing the location for the facility. The location meets the siting criteria in OAC 3745-40-07 required for these types of facilities.

**Comment 291: Do projects such as these get stopped due to citizen concern about the impact to our environment and community? What can increase our chance to persuade the EPA director to deny the permit?**

**Response 291:** Approval or denial of PTI and NPDES applications can only be based on specific criteria established in Ohio's regulations. These applications cannot be legally denied if all the required criteria are met. General public opposition to a project is not specific criteria that Ohio EPA has the legal authority to evaluate when reviewing these applications.

Ohio EPA holds public comment periods to allow the public a chance to comment on draft permits. Ohio EPA staff reviews and considers all comments made during the public comment period as a part of the

permit process before making a final recommendation to the director about whether to issue or not issue the permit.

**Comment 292: One commenter suggested this project was only about money.**

**Response 292:** The only money Ohio EPA receives from applicants is the application fee required by statute.

**Specific comments received that are summarized and addressed in the above section:**

- This agency was put in place to protect the environment, and nothing about what is going on with these biosolids is accomplishing that. I would argue that based on ethics alone, this permit should be denied. Based on science, it should also be denied. And based on a basic sense of decency to those of us that live here, denial is also the only reasonable outcome.
- I have attended all of the EPA sponsored meetings regarding this site, as well as read data provided by the EPA itself, and would like to be on record stating that I went to the meetings with a rather vague thought that the site would be generally “safe” because it was being overseen by the EPA; however, after attending the meetings, watching the presentations, listening to the presenters from the EPA, and reading the material directly from the EPA, my household and I are strongly AGAINST the installation of this site. I was very surprised by the very low standards the EPA is requiring for something that the agency itself admits contains pathogens, parasites, and PFLs — and in fact has not even conducted adequate studies on the effect on the environment from these “nutrient storage” ponds. That is outrageous. A “clay liner” of less than a foot to contain millions of gallons of disease-containing material is absurd, and a self-regulation system of well monitoring doesn’t even make sense. No third-party monitoring? This is our water quality we’re talking about.
- This is all about money! What about our humanity? What about common human decency? If this goes through the health of this community will suffer and I’m sure everyone who reads this already knows that. I hope it sinks into your conscience and eats at you at night. This is not okay to do to anyone. If you guys allow this to happen it’s a safe bet to say you’ve been paid off too. Remember what you put out is what you get back, and I wouldn’t want the entirety of a community’s health weighing on my soul.
- Do we have to wait till an entire ecosystem is destroyed? Do we have to wait until an entire community is riddled with health complications...respiratory issues, intestinal problems, cancer? No one wants any of this.

- I moved my family to Mount Perry to live a country life with fresh air, clean water, and the joy of wildlife. Now, all of our dreams are going up in smoke if this permit goes through. Instead of providing a healthy life for my family my main concern will be the health effects from this shit storage facility. And as the EPA has stated in previous documents they don't know the long-term effects on humans and wildlife...why was my community elected to become a science experiment???? Because we are in poor old perry county? A small community no one will know about. People live here because they want to, this is the life we all love. There's nowhere else in my 32 years that I have been able to take my drive home from a long day at work and have the blessing to see eagles flying along the tree lines, fox crossing the road, and deer playing in the field.
- I have very deep and grave concerns regarding the approval of a Class B biosolids treatment facility in my backyard. This will have a negative economic, environmental and social impact on the community.
- My name is Jennifer Brison. I live at 13480 State Route 668 Mount Perry, OH. I am writing to state that I am deeply opposed to the Mt. Perry Nutrient Storage Pond. I am opposed to this because of the hazard material contained in the biosolids and the location of the potential pond.
- Please do not approve this permit. This project has the potential to cause harm to our families, farm animals and water. The citizens of Perry County deserve to have clean water without the risk of hazardous waste.
- Will it be the abundant number of citizens that object to the project has an impact on stopping the project? Will studies by Environmental Scientist on the area and the safety of other sewer ponds have an impact? Or will it just take a large team of lawyers?
- Quasar needs to stop poisoning and find another process to get rid of toxic waste. The farmers who grow grain and livestock for themselves, for our state and our country cannot sell poison. No one should have to eat poisoned food. Consider the food you buy at the store. You guys organic? Do you research where and how it's grown? The public has been kept in the dark long enough. The permit for Mt Perry must be denied.
- Would you want to live near this cesspool?
- Would you like to live in a community one mile from such a horrendous open septic lagoon? Would you want to live there if it was built where you live?

- With the ethical, all these questions that's been brought up, How can the EPA at all think this is ethical to let happen in our community to take all this away?
- Just from the name of things – Nutrient Storage Facility? It is wordplay.
- If you decide to sign off on this, you are deciding all these people's fate for potential water quality issues.
- How can you sit here and tell me you're all environmental protectionists when you're the one that are allowing him (Kroft) to dump this crap without our permission to do it?
- Environmental Protection Agency – so why don't you protect the natural environment?
- EPA and many other government agencies deceive people by evil and destructive procedures/programs/acts, example is Mount Perry Nutrient Storage Facility.
- The EPA was created to protect our environment, water, soil, air. As a taxpayer, I would have expected the EPA to step up for us to protect us and the endangered and protected wildlife. A 6 million dollar grant to study the bio effects on humans and animals. I don't like being a lab rat. How about cleaning up Dillon Dam talk about an environmental disaster.... Newark Ohio's other septic tank.

### **Miscellaneous**

**Comment 293: How many gallons of water equal one inch of rainfall on this size of lagoon?**

**Response 293:** One cubic foot = 7.48 gallons, 1 acre = 43,560 square feet, and 12 inches = 1 foot. The maximum operating level is at elevation 846.25 feet and has a surface area of 4.88 acres as shown on Sheet C2.0 of the detailed plans. At this elevation, 1 inch of rainfall would equal approximately 132,500 gallons.

**Comment 294: 1 inch per acre = 27,154.3 gallons of water and there are 4.8 acres when the lagoon is 75 percent full. Now add 130,340.64 gallons of water. How will this hold just for one inch of rain?**

**Response 294:** The storage volume report on sheet C 2.0 of the Detailed Plans in PTI 1401950 shows the maximum operating level at elevation 846.25 ft. This elevation has an area of 4.880 acres and up to that elevation is designed to hold 20,595,992 gallons. The top of the dam is at elevation 848.00 ft. with an area of 4.890 acres and is designed to hold 23,145,546.2 gallons. As the storage pond is currently designed, it will hold  $23,145,546.2 - 20,595,992 = 2,549,554.2$  gallons between the elevation of the maximum operating level and the top of the dam.

**Comment 295: How can Krofft alter his manure lagoon without a permit?**

**Response 295:** Ohio EPA does not regulate the agricultural lagoon. Please contact Ohio Department of Agriculture with questions regarding that site.

**Comment 296: What has the money been used for if these companies are getting rid of the biosolids at no cost. Why was this money not used for processing it to class A biosolids?**

**Response 296:** Ohio EPA does not regulate the costs associated with biosolids treatment or processing.

**Comment 297: Prions is this the protein that affects the neurological aspects and since this is airborne has this been considered and searched for?**

**Response 297:** The survival of prion diseases in wastewater and biosolids has been the subject of many research studies including one from the University of Arizona that found "...results suggest that infectious prions are reduced significantly by either anaerobic digestion and/or lime treatment, and subsequent land application of biosolids is not a viable route of human exposure to prions." A Water Environment Federation (WEF) Prion Factsheet states, "Because of their strong affinity with solid particulates and, therefore, very low concentrations in the aqueous phase, prions are not expected to threaten human-consumed or animal feed crops through root uptake in biosolids land application. For the same reason, transport of prions to groundwater or surface waters from biosolids land application is not anticipated. Prions have no volatility so ambient air transport can be ruled out. The only potential significant environmental transport mechanism available for prions with subsequent exposure and potential infectivity to animals and humans is biosolids/soil ingestion by grazing ruminants and, theoretically, biosolids/soil ingestion by toddlers in a home garden scenario. However, for these potential pathways of exposure, it is highly unlikely that prion concentration in the biosolids could ever approach an infectious dose for either animals or humans

based on the extremely high dilution that occurs in wastewater treatment plants if prion-contaminated tissue were discharged to these plants and the prions subsequently partitioned to the biosolids.”

(Miles, S., Sun, W., Field, J., & Pepper, Ian. (2013). Survival of Infectious Prions During Anaerobic Digestion of Municipal Sewage Sludge and Lime Stabilization of Class B Biosolids. *Journal of Residuals Science and Technology*. 10. 69-75.)

Water Environ Research. 2006 Apr;78(4):339

**Comment 298: Does chronic wasting disease in the deer in Wyandot County, Hardin County, Marion County have any link to Class B biosolids that have been applied to crop fields in that area. Have any studies been done on the effects of wildlife with class B biosolids?**

**Response 298:** Chronic Wasting Disease (CWD) is identified by the CDC as an animal prion disease. See Response 297 that provides studies of prion diseases and biosolids.

**Comment 299: Is the recent brain study being done on deer linked with the large amount of biosolids that have recently been spread on the fields?**

**Response 299:** No study document or citation was provided. If the commenter is referring to [Chronic Wasting Disease in Wyandot, Hardin, and Marion counties](#), Ohio EPA is not aware of any link of biosolids and the incidences of CWD in these counties.

**Comment 300: When EPA people came to our meeting, they wore their masks because they are scared of COVID but are okay with bringing Class B biosolids to our backyard?**

**Response 300:** The Ohio EPA COVID-19 policy at the time of the public hearing was for staff to wear face masks at any public meeting.

**Comment 301: Was any federal or state money used to build this lagoon?**

**Response 301:** NPDES applications are evaluated for compliance with specific criteria established in Ohio’s rules and regulations and can only be approved if those criteria are met. Funding source is not a criterion that Ohio EPA has the legal authority to evaluate when reviewing an NPDES application. However, it is Ohio EPA’s understanding that the funding for the project was entirely privately funded.

**Comment 302: How much do farmers make by spreading these biosolids on their lands?**

**Response 302:** Ohio EPA does not control the cost or set rates for biosolids management. Ohio EPA has no information regarding farmers income. Many municipalities do not charge for farmers to take their biosolids which may help offset the cost of synthetic fertilizers. Other biosolids generators may charge farmers for their biosolids because it is such a rich source of nutrients and considered a valuable product.

**Comment 303: Is the cost to dispose of biosolids in the landfill more than land application?**

**Response 303:** Ohio EPA is not involved with the monetary costs related to biosolids land application or disposal in a landfill. However, it is our understanding that landfilling biosolids has a higher monetary cost than beneficially using it as fertilizer.

**Comment 304: Painters Run Creek should now be in the water quality standards study for all the silt being placed in it based on the Clean Water Act.**

**Response 304:** Ohio EPA systematically evaluates streams to determine the appropriate use designations and the attainment of those uses. Siltation is one criterion that can impact the overall health of a stream. When Ohio EPA next reviews Painters Run Creek, all impacts will be evaluated. Ohio EPA typically does not conduct a stream survey based on the installation of a new facility.

**Comment 305: What does a full tanker truck of sludge weigh?**

**Response 305:** Tanker trucks have various sizes, and the weight of a tanker truck depends on the volume of the tank. Ohio EPA's understanding is that typically 6,000-gallon tanker trucks will be used to haul biosolids to and from the storage facility. The weight of each load may differ based on the total percent solids of the biosolids which generally range from five percent to seven percent. Ohio EPA does not regulate the weight of the trucks.

**Comment 306: Was the water tested on the property owners farm buildings or houses? If so, what are the water results?**

**Response 306:** Testing of private water systems on nearby residences is not under the authority of Ohio EPA. The local health department is the regulatory authority for private wells.

**Comment 307: The stacking of forever metals, how is this being allowed without metals being removed before metals are added?**

**Response 307:** Biosolids that are taken to the pond must first meet the required metals limits found in OAC 3745-40-04. Biosolids will be removed and added to the pond. Metals will not concentrate in the pond.

**Comment 308: Why don't you buy an incinerator instead of building a lagoon?**

**Response 308:** Ohio EPA was not involved in selecting the business model of the applicant and has no information regarding why a pond was selected instead of an incinerator.

**Comment 309: Reducing methane gas is a goal of the EPA. Now the EPA seems to support this natural methane producer. How much greenhouse emissions will this lagoon produce?**

**Response 309:** Permit applications are evaluated for compliance with specific criteria established in Ohio's rules and regulations and can only be approved if those criteria are met. Greenhouse gas emissions are regulated by the Division of Air Pollution Control (DAPC). No rule requires air pollution controls or site-specific evaluations for biosolids storage ponds because of the expected low emissions of air-regulated pollutants. The anaerobic digester facilities that generate biosolids by treating sewage sludge, food wastes, manure, and other organic materials capture the methane gas. The methane gas can be used to heat the treatment facilities or used for other forms of energy. This process reduces the amount of organics that are taken to the landfill which decreases methane emissions from landfills. The biosolids that will be stored at the facility have been processed to a point that methane emissions from the storage pond are expected to be low.

**Comment 310: How will the methane effect the ozone layer in the area?**

**Response 310:** In general, methane released into the atmosphere from any source has a destructive effect on the ozone layer. Methane is a greenhouse gas that is regulated by Ohio EPA's DAPC. Emissions of methane from the lagoon are expected to be low.

**Comment 311: Since this lagoon will be installed in a low lying, populated valley, will the methane concentrations become a danger to the area?**

**Response 311:** Methane emissions from the lagoon are expected to be low and should not pose a danger to the area.

**Comment 312: It takes 100 years for Earth to make 1" of ground. How can you replace this process and not cost us our livelihood?**

**Response 312:** Ohio EPA assumes this comment addresses the value of soil and the potential impact biosolids may have on soil. Land application of biosolids returns carbon, nitrogen, and organic matter back to the soil which improves soil health which in turn reduces the need for synthetic fertilizers.

**Comment 313: Is there a precedent set by this company?**

**Response 313:** The construction of this biosolids pond is not precedent setting. Ponds have been utilized for the storage and management of biosolids, wastewater, and manure as an industry standard.

**Comment 314: Has the Muskingum County Water department been notified of this lagoon being put in?**

**Response 314:** Ohio EPA has followed the public notification process as outlined in the Ohio Administrative Code.

**Comment 315: Was the "Moxahala Drainage Study" even looked at or considered before issuance of the PTI? At the time of the Moxahala Drainage Report, there were aquatic specimens found in Jonathan Creek in the area of the bridge that crosses Jonathan Creek at Coopermill Road. This aquatic life (fish and crustaceans) were labeled Threatened and/or Pollution Sensitive in nature. OSU has done a study and I believe the EPA did a study dated 2008. Painters Run Creek, which runs within mere feet of the lagoon, drains this entire valley and drains into Jonathan Creek. There already have been complaints filed with the EPA about silt laden run off from the lagoon area and it's not even complete.**

**Response 315:** The 2008 Biological and Water Quality Study of the Moxahala Creek Watershed would not have been referenced for the issuance of the PTI or NPDES permit since the project is not designed to discharge to a water of the state. Ohio EPA staff are well versed with the document and utilize it as necessary. Violations of the project's construction stormwater general permit conditions did occur, and upon notification, contractors corrected the violations.

**Comment 316: Who is responsible if people start to become sick?**

**Response 316:** The beneficial use of the biosolids has been found to be protective of human health and the environment when biosolids are treated and managed in accordance with regulations. Ohio EPA recommends

anyone who has health concerns should discuss them with a medical physician or contact a legal professional for any type of legal advice.

**Comment 317: California has a nutrition plant like this one and some generations are still suffering from infertility, cancer, neurological issues, and many other health issues. Are we going to suffer the same or worse?**

**Response 317:** It is unclear what California nutrition plant the commentor is referencing. Class B biosolids are strictly regulated in accordance with Ohio's sewage sludge rules. The facility is required to monitor pollutants at least monthly. The facility also is required to operate within pollutant limits and to adhere to operational standards. Beneficial use site restrictions include isolation distances from homes and wells that must be maintained when biosolids are applied to fields authorized by Ohio EPA. More information about what the facility must adhere to can be found at the following locations: OAC 3740-40 and A Guide to the Biosolids Risk Assessment for the EPA Part 503 Rule (U.S. EPA): <https://www.epa.gov/sites/default/files/2018-11/documents/guide-biosolids-risk-assessments-part503.pdf>. Ohio's sewage sludge rules are more stringent than the federal standards for the use or disposal of sewage sludge. These rules were developed using a comprehensive risk assessment process to ensure human health and the environment are protected when biosolids are beneficially used. Research on contaminants not included in the federal biosolids regulations does not suggest risk levels of concern in land-applied biosolids such as: <https://www.wef.org/globalassets/assets-wef/3---resources/topics/a-n/biosolids/technical-resources/wef-fact-sheet-microconstituents-v25-aug-2017.pdf>.

Ohio EPA recommends anyone who feels ill or sick to contact a physician.

**Comment 318: A recent spill resulted in sludge being dumped into a neighbor's pond near the cemetery on County Road 34. Has that water been tested and what has been the remediation? If it has not been tested, we request that the analysis be done by a third party not associated with Quasar or the facility operator.**

**Response 318:** Ohio EPA does not have record of a biosolids spill being reported at the location described and requests that more information be provided. Ohio EPA does not regulate private water systems. Private wells fall under the jurisdiction of the local health department. Ohio EPA does work

collaboratively with local health departments to investigate pollution sources if a local health department were to determine that private wells in an area were experiencing unexpected contaminants in their drinking water wells. Please refer to the response to comment 52 in the Biosolids section for additional information related to this comment.

**Comment 319: Is natural gas or oil in the area?**

**Response 319:** According to Ohio Department of Natural Resources, Perry County does have active natural gas and oil wells.

**Comment 320: So far all we've gotten are non-answers from the EPA. When are they going to give us real answers? When are they going to tell us what they are responsible for instead of what they're not?**

**Response 320:** Ohio EPA is responsible to act on all complete applications submitted to the Agency. Ohio EPA is responsible for ensuring compliance with any issued permits or authorizations. Ohio EPA is responsible for complying with the Clean Water Act and state regulations.

**Comment 321: There's insufficient facts and insufficient research. So how on earth is this being allowed to continue?**

**Response 321:** Ohio EPA assumes this comment is asking why biosolids can be land applied based on the research on biosolids to date. The scientific community has been researching trace contaminants in biosolids for decades and their behaviors in biosolids and soil are very well understood. The [USDA National Institute of Food and Agriculture \(NIFA\) Research Committee W4170](#) which includes researchers from the Ohio State University issued a report in June 2020 stating, "sufficient data and research are available to conclude that current biosolids regulations are protective of human health and the environment. Of course, as with any regulation intended to protect public health and the environment, they must always be dynamic and evolve with updated science. That fact does not imply that they are not protective while research is ongoing".

**Comment 322: How will the chemicals in the lagoon affect our fire department, their equipment and is special equipment needed and how do they know what chemicals are in there if a fire does happen at the lagoon? Does this affect fire contracts with these departments?**

**Response 322:** This is outside Ohio EPA's authority and scope. Ohio EPA recommends contacting the Perry County Local Emergency Planning Committee (LEPC) for further information.

**Comment 323: Have current facilities or projects with violations been enforced by appropriate authorities? Where can documents that proof so be found for public review?**

**Response 323:** Mt. Perry Nutrient Storage Pond has been issued violations for impacting local water ways with excessive silt during construction. All notice of violation and resolution of violation letters can be found on Ohio EPA eDocument system: <https://epa.ohio.gov/wps/portal/gov/epa/help-center/edocument-search>. See also Response 39 that details notices of violations issued to other Quasar Energy Group facilities.

**Comment 324: What are the chemicals used to treat sewage? Can you send where this information could be reviewed? And is there a video or information explaining treatment process and timelines?**

**Response 324:** A good overview of the municipal wastewater treatment process can be found on U.S. EPA's website: <https://www.epa.gov/npdes/municipal-wastewater>. There are also various videos on the topic of wastewater treatment found on the world wide web that will explain the different chemicals that may be used in wastewater treatment. Anaerobic digestion facilities like those operated by Quasar Energy Group generally do not add chemicals for treatment. The natural bacteria in the digester break down the organic feedstocks. Digester facilities that dewater the biosolids add a polymer after treatment to aid in the dewatering process. Another recognized treatment to reduce pathogens in sewage sludge is alkali addition, i.e., the addition of lime to raise the pH high enough to kill pathogens.

**Comment 325: From a neighbor, Is it going to be all right for me to put up a camera that maybe I already got to see what's going on down there with you people? Am I going to be sued for it?**

**Response 325:** Ohio EPA is not authorized to provide you with legal advice. Ohio EPA recommends seeking legal advice from an attorney.

**Comment 326: Is there data that shows the bioaccumulation of toxins in livestock? If so, how is that affecting the rest of the United States and not just Madison Township.**

**Response 326:** Ohio EPA assumes this comment is asking about livestock that may have been raised on biosolids-amended fields. Biosolids are domestic wastewater sludge that meet standards for beneficial use as fertilizer or soil conditioner. U.S. EPA and Ohio EPA developed standards to regulate safe use or disposal of biosolids. The standards were

specifically developed to protect human health and the environment, including the health of animals, crops, soils, wildlife, and aquatic life. To date, research and risk assessments have shown that the low concentrations of contaminants that may be present in biosolids have not caused adverse effects to human health or the environment. U.S. EPA continues to assess emerging contaminants, including those that may be present in biosolids, and is updating regulations and guidance as needed. Overall, the beneficial use of biosolids is protective of human health and the environment when biosolids are treated and managed in accordance with regulations.

**Comment 327: I want to know how it is possible for someone to say that they can't contaminate the water?**

**Response 327:** Ohio EPA has never said that contamination cannot happen. The Agency must follow the regulations as they are currently written and process the applications submitted to ensure all requirements are met. When storage facilities are designed in accordance with the regulations that are considered to be protective of the environment.

**Comment 328: Can you do a human health hazard analysis? A failure modes and effects analysis?**

**Response 328:** Ohio EPA assumes this comment is meant specifically for this facility rather than for biosolids in general. These process optimization tools are not the type of tools that the Division of Surface Water uses in the evaluation of either PTI or NPDES application reviews.

**Comment 329: What about the spill in Fultonham? Anybody remember that? It wasn't on the news. Nobody got fined. What creek got polluted from that one?**

**Response 329:** On Nov. 16, 2017, a valve at Quasar's Zanesville Energy facility in East Fultonham broke causing a biosolids spill on the property. The biosolids did not leave the property and did not enter waters of the state. The incident was reported to Ohio EPA by Quasar. Ohio EPA Emergency Response staff and district staff investigated the spill and monitored the cleanup of the incident. A notice of violation was issued for the incident.

**Comment 330: Everybody knows about the dinosaur thing at Legend Valley. All those people laying in those fields, all these people parked in those fields, walking in it. That might have been where they dumped it earlier or later. I don't know. So, how could they lay in this stuff and do this stuff?**

**Response 330:** Ohio EPA has not approved any fields at the Legend Valley property for the beneficial use of Class B biosolids. Ohio EPA is not aware of land application of biosolids having occurred at Legend Valley.

**Comment 331: Logic would say if municipalities can no longer put waste in the ocean, why are they going to put it in my backyard?**

**Response 331:** Municipalities continue to discharge treated effluent into the oceans regulated by an NPDES permit. The Ocean Dumping Act, regulates the open dumping of sewage sludge and industrial waste in the ocean. In 1993, U.S. EPA issued 40CFR503 to regulate biosolids which is sewage sludge that has been treated for beneficial use. Ohio EPA regulates the beneficial use of biosolids through OAC 3745-40 which mirrors the federal regulations. The goals of the biosolids program are to protect public health and the environment, encourage the beneficial reuse of biosolids, and minimize the creation of nuisance odors. Class B biosolids are only applied at authorized locations. Over decades of use, biosolids have not been attributed to any fatalities. When biosolids are applied in accordance with the regulations, there is negligible risk of negative impacts to human health or the environment.

**Comment 332: If they have to put biomaterial signs up, that should be a wake-up call that the people that work around this stuff have to wear special clothing and respirators. So why should we have to breathe it?**

**Response 332:** The comment may be referring to biohazard or hazardous material regulations that require workers to wear special protective gear. Biosolids are not hazardous materials and do not require special protective gear to work around it. Biosolids have been treated according to federal and state regulations to be protective of human health and the environment. There are no regulations concerning the clothing that workers handling Class B biosolids must wear. OAC 3745-40-11 requires that signs be placed at fields at least one week prior to the delivery of Class B biosolids to an authorized field and remain in place for at least 30 days after the completion of land application. Signs are in place to notify the public of the use of biosolids. Site restrictions, such as limiting public access to fields and not allowing animals to graze for 30 days after land application, are in place to prevent contact with the small volume of pathogens that may remain in Class B biosolids. Any pathogens remaining will be destroyed by heat, sunlight, drying, and other microorganisms present in the soil. 30 days ensures enough time to allow this further destruction of pathogens to occur. Fields where

biosolids have been beneficially used are not classified as hazardous areas.

**Comment 333: I have children, grandchildren, and great-grandchildren. Why would I want them around this poison stuff?**

**Response 333:** Regulation-compliant biosolids application as a soil amendment and fertilizer has been practiced for decades with no documented harm to human health or the environment. Biosolids are not considered to be poisonous or hazardous. [The USDA National Institute of Food and Agriculture \(NIFA\) Research Committee W4170](#) which includes researchers from the Ohio State University issued a report in June 2020 stating, “sufficient data and research are available to conclude that current biosolids regulations are protective of human health and the environment.” Continued research and risk assessments have shown that the low concentrations of contaminants that may be present in biosolids have not caused adverse effects to human health or the environment. U.S. EPA continues to assess the beneficial use of biosolids and is updating regulations and guidance as needed.

**Comment 334: How will this lagoon affect the visibility and haze in this low lying area? We have heavy fog all the time in this area.**

**Response 334:** NPDES applications are evaluated for compliance with specific criteria established in Ohio’s rules and regulations and can only be approved if those criteria are met. Visibility and haze are not a criterion that Ohio EPA has the legal authority to evaluate when reviewing an NPDES application. However, Ohio EPA would not expect visibility and haze to be affected.

**Comment 335: Will evaporated water from this lagoon produce acid rain?**

**Response 335:** Acid rain results when sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) are emitted into the atmosphere and transported by wind and air currents. The SO<sub>2</sub> and NO<sub>x</sub> react with water, oxygen, and other chemicals to form sulfuric and nitric acids. These then mix with water and other materials before falling to the ground. While a small portion of the SO<sub>2</sub> and NO<sub>x</sub> that cause acid rain can be emitted from the impoundment, most of it comes from the burning of fossil fuels.

**Comment 336: Who benefits from the lagoon at the expense of the community?**

**Response 336:** Anaerobic digestion provides societal benefits by ensuring adequate treatment of waste material while also producing a product that can be

beneficially used. The storage lagoon plays a role in the management of this process to ensure that material can be appropriately held so that the biosolids can be applied consistent with regulatory requirements.

**Comment 337: What is your culpability in the long run if you make a mistake and in five years all these people suddenly have health issues?**

**Response 337:** Ohio EPA's goal is to protect the environment and public health by ensuring compliance with environmental laws and demonstrating leadership in environmental stewardship. Questions of liability of the State of Ohio are within the jurisdiction of the Ohio Court of Claims.

**Comment 338: Where is the accountability in providing and protecting the people as your title and scope or work states?**

**Response 338:** Ohio EPA's mission statement is "protect human health and monitor the environment to ensure a high quality of life in Ohio by analyzing samples, producing quality data, and providing technical assistance". Ohio EPA is required to follow all state and federal regulations. Ohio has been delegated to administer the Clean Water Act. Ohio EPA is held accountable in several ways. Ohio EPA issues protective permits that follow all state and federal regulations. U.S. EPA monitors the delegated actions of Ohio. The public can also ensure Ohio EPA is adhering to the state and federal requirements.

**Comment 339: What does the EPA get? Why do they get days to respond?**

**Response 339:** Ohio EPA does not receive any compensation other than the application and review fees for the NPDES and PTI permits. Ohio EPA carefully reviews and responds to each component of an application and its associated processes to ensure all state and federal regulations are followed. Additional time is needed to address the comments presented at the hearing so that they all may be evaluated, and changes made to permit as needed.

**Comment 340: What is the Township getting out of this? What are the County Commissioners getting out of this?**

**Response 340:** Ohio EPA is unaware of any agreements the applicant has with local authorities for the installation and operation of the Mount Perry Nutrient Storage Pond.

**Comment 341: Are you getting paid overtime to sit up there?**

**Response 341:** Ohio EPA staff are governed by a labor contract and Ohio Department of Administrative policy which outlines the pay structure and overtime/comp time pay. Depending on the operational need of Agency and position of the employees, they would be eligible for overtime for any time worked over the normal 40-hour work week.

**Comment 342: Your information is twisted and false. Why must you lie to the people?**

**Response 342:** Ohio EPA disagrees with the commenter statement.

**Comment 343: Could you pass out your cards to us so we can email you? Do you have a couple of cards to hand to everyone?**

**Response 343:** Ohio EPA did pass out cards to anyone who wanted any. Several stacks were passed out at the hearing. Staff contact information can be made available as needed.

**Specific comments received that are summarized and addressed in the above section or other sections:**

- How many gallons of water will one inch of rain put in a 4.8-acre lagoon?
- Did the EPA award a grant to pay for any of this?
- I have COPD and asthma, if I die from this who is to be sued for this? Jeff Kroft, Quasar, EPA, or the state of Ohio?
- How is that going to affect my asthma on a hot day when it's 90, 100 degrees? Who is going to pay for my inhaler? Is Kroft going to buy my inhaler?
- Saw a news banner roll across my TV yesterday that a U.N. study has said that Global Warming is accelerating faster than previously thought. Wonder what their reaction would be the installation of this large open-air lagoon that will release more Methane Gas into the atmosphere?
- Why do you guys get the time to respond?
- Why are we doing this? Why are we putting this pond in that's going to affect our health? It's just going to make us sick.

- Were you aware of the findings of the Moxahala Drainage Study?
- Why the delayed response here? I assume, that based on the emotions and the personal involvement in these things, is to prevent this from becoming an entirely nonproductive thing.
- The Bible teaches that we are supposed to be servants and to preserve God's creation.
- I would like to know when and how often this is happening? How much of this stuff throughout the year, throughout 5 years and what's going to be made sure that it's safe for everyone here.
- From what I read, it is just reasonably and regularly. There's no timeline. Why is it that we all have a timeline? Why is it that they don't have to report this very important information?

End of Response to Comments