Response from the Ag Engineer to the stated questions

- The geologic report provided for the project concludes that the site is suitable for the intended use.
- Additional ground water testing points are not needed for two reasons. First; The inside of the storage, including the floor, is sloped to the leak detection system. The inside of the storage will also be compacted with fine grained soils to deter a leak from infiltrating and therefore ensuring that it will quickly enter the leak detection system, allowing the farm to take appropriate action to stop the leak in the rare instance it occurs. Second; The perimeter drain would likely capture any leak that somehow evades the leak detection system long before reaching a monitoring well and then would be found during regular monthly inspections.
- While the storage is designed to allow installation of a cover in the future, the current wastes that need to be stored will contain some sand. Sand laden manure requires vigorous agitation to remove during manure spreading operations. The installation of a cover severely limits the ability to agitate and would not be recommended on a covered storage as the inability to remove the sand would continually reduce the usable storage to a point where the cover would have to be removed.
- The survey was completed with a base & rover survey grade GPS equipment. Survey was corrected to NAD-83 State planes using OPUS. Lidar data was used in areas with tree cover.
- Tree density is not depicted on the site plan, only the edge of wooded/brush areas are shown. These are based on aerial photography.
- The planned storage is on a drumlin hill, the fill slopes do not encroach any existing waterway. Existing drainage patterns will be maintained on the south, west, and north sides of the storage, with reduced amounts of run-off due to the amount captured within the storage. On the east side the topography is higher than the top of berm elevation for a short distance. Therefore, a grass lined swale is proposed to intercept this small amount of surface runoff and convey it north to a safe outlet.

Ag & Markets

- Can we get any confirmation concerning the approval process and that the health of surrounding residents is taken into consideration, specifically concerning concentration of manure storage facilities in a small area of the town?

  The manure storage has been planned and designed according to the regulations and requirements present in New York State, principally, the NYS DEC CAFO Permit (www.dec.ny.gov/permits/55368.html). Compliance with the CAFO permit requires an AEM Certified Planner (certified by NYS AGM and NRCS) to develop and update the farm's CNMP, which details management and structural practices to properly collect and recycle manure nutrients for improved water quality. All practices are put in place and operated according to NRCS conservation practice standards (as an example, here is the NRCS-NY standard for manure storages: Conservation Practice Standard Waste Storage Facility (Code 313) (usda.gov)). Structural, engineering practices (such as manure storage and transfer systems) also require a PE (licensed by NYS) to design, oversee construction, develop operation and maintenance requirements, and certify the practice once built. These measures are in place as safeguards for health, safety, and performance of the practice, which in this case includes design criteria considering underlying geology, soils, structural integrity, liquid-tightness, complete separation from groundwater and surface runoff, reserve space for extreme storm events, freeboard and fill markers for berm integrity, windbreaks, visual screening, fencing and signage to protect against unintended access, manure transfer systems to reduce farm traffic on the roads, and storage capacity for improved nutrient recycling on the adjacent crop fields.

- What would be the limit of the concentration as it relates to public?

  Dairy and other livestock farms in New York maintain cropland to grow feed for their herds and recycle manure nutrients. The nutrients and organic matter in manure from dairy and other livestock farms in New York have long been used to improve soil health and as the primary fertilizer source for growing the crops to feed a farm's herd. The combination-crop-and-livestock farm is the primary model of production used across all sizes of dairy farms in the State, including those regulated by the CAFO permit.

  When dairy farms in New York expand their herds, they not only build new barns at their farmstead locations, but must also expand their manure storage capacity and increase their field acreage to apply manure and grow their crops for the larger herd in an environmentally sound manner. Manure storage and transfer systems are critical best management practices for water quality in that they allow improved manure application management and reduce losses to surface- and groundwaters that could otherwise elevate risks for natural resources, recreation, and drinking water supplies. While the addition of a new barn or storage may appear to the eye as a form of concentration, in reality farmers are investing to balance the needs of the herd, the land, and the environment so that we don't have more manure nutrients than can be used by the crops and increased losses to the environment. Satellite manure storages are key practices in support of this balance, by allowing for improved manure nutrient application across a larger area of productive agricultural lands, thereby reducing the concentration of manure nutrients per acre of cropland.

  The Comprehensive Nutrient Management Plans (CNMP) that CAFO permitted farmers must follow establish and maintain this balance between the supply of nutrients from manure and the demand

for nutrients by the farm's crops based on farm-specific characteristics, soil types, and NRCS standards. As a result of the farm-specific nature of these factors, there are no pre-determined, one-size-fits-all limits on the ratio of animal numbers to cropland acres.

- Just a general question … How do decommissioning plans work, are they time based?

Per the CAFO Permit, manure storage and transfer systems must be properly operated and maintained for as long as they are used as a conservation practice by the farm. If a needed repair is identified through operation and maintenance activities, the CAFO permitted farmer would contract with a PE licensed by NYS to design, oversee, and certify the completion of repairs. If a storage is no longer needed to support the farm's nutrient management activities, the CAFO permitted farmer would contract with a PE licensed by NYS to design, oversee, and certify the closure of the manure storage system according to NRCS standards (principally Conservation Practice Standard Waste Facility Closure (Code 360) (usda.gov)).

Supplemental Resources from NYS AGM:

- *Local Laws and Agricultural Districts: How Do They Relate?: https://agriculture.ny.gov/system/files/documents/2019/11/locallawsandagdistricts-howdotheyrelate.pdf*
- *Guideline for Review of Local Laws Affecting Nutrient Management Practices: https://agriculture.ny.gov/system/files/documents/2019/11/305_a_nutrient_management_guidelines.pdf*