

Kingston Water Department

Kingston, Massachusetts

Commissioners:

Robert R. Kostka
Richard W. Loring, Jr.
Robert Erlandsen

Superintendent/Commissioner's Office:

781-585-0504
781-585-0516

Facsimile:

781-582-2741

Superintendent:

Christopher J. Veracka

Business Hours:

7:00 a.m. - 3:30 p.m.

January 9, 2024

Board of Selectmen
Town of Kingston, Town House
26 Evergreen Street
Kingston, MA 02364

RE: Review of Earth Removal Permit Application by G.A.F Engineering, Inc. on behalf of P.K. Realty Trust

Dear Members of the Board:

The Kingston Water Department has serious concerns with the earth removal permit application submitted by G.A.F Engineering, Inc. on behalf of P.K. Realty Trust. We believe that this project will negatively impact our Town's drinking water supply.

This project proposes to mine 1,100,500 cubic yards of sand, gravel and other mineral soil on 34.76 acres to allow construction of a 4.38 acre cranberry bog. This appears to be a sand and gravel mining operation seeking to gain approval in an area zoned Residential by using a loophole in claiming to be for agricultural purposes. If the proposed project is for construction of a 4.38 acre cranberry bog, why are 1,100,500 cubic yards of sand, gravel and other mineral soil over 34.76 acres being removed?

Regardless of the true reason for the proposed project, we are responsible for protecting the Town's public drinking water supply including both the water quality and the water quantity of our resources. The proposed mining operation, whatever its purpose, has the potential to negatively impact both our water quality and water quantity.

Our engineer, Resilient Civil Engineering, P.C. (ResilientCE), reviewed the permit application and provided the attached comments. The proposed project is within the Town's Water Resource Overlay District. The Town's Water Resource Overlay District by-law specifically prohibits earth removal within 10 feet of the United States Geological Survey historic high water table. The permit applicant has not sufficiently documented what the historic high water table is at the project site. Therefore, we do not know if the proposed earth removal will be within 10 feet of the historic high water table.

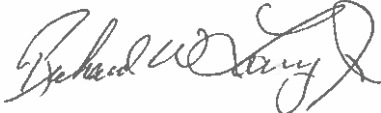
Office: Elm Street Pumping Station, 22 Elm Street
Mailing Address: 26 Evergreen St., Kingston, MA 02364

The proposed earth removal will occur adjacent to Indian Pond which is within the Water Resource Overlay District and provides a direct conduit to our groundwater aquifer. Removing wooded upland area adjacent to Indian Pond will negatively impact Indian Pond itself and our aquifer since they are directly connected.

As you are aware, we are actively pursuing the installation of a new public water supply well on a parcel of land just south of the proposed earth removal site. Our options for new public water supplies are very limited. Construction of this additional water supply is critical to maintain drinking water to our existing customers and to allow for connection of new customers. The proposed earth removal project threatens our ability to protect our water supply, construct the new well and connect new services.

We believe the proposed project is a sand and gravel mining operation, that this area is not zoned for this type of use, that the work threatens our public water supply and that the project must be rejected. The Board of Water Commissioners is unanimously against the proposed sand and gravel mining project and we request that the Board of Selectmen support our efforts to protect the Town's public water supply by rejecting the earth removal permit application.

Sincerely,
Town of Kingston, Water Department
Board of Water Commissioners

A handwritten signature in cursive script, appearing to read "Richard W. Loring, Jr.", written in dark ink.

Richard W. Loring, Jr., Chairman

encl. Letter by Resilient Civil Engineering, P.C. dated January 5, 2024

January 5, 2024

Board of Water Commissioners
Town of Kingston
22 Elm Street
Kingston, MA 02364

RE: Review of Earth Removal Permit Application by G.A.F Engineering, Inc. on behalf of P.K. Realty Trust

Dear Members of the Board:

Town of Kingston (Town) Board of Water Commissioners (BoWC) received a copy of an application for earth removal permit prepared by G.A.F Engineering, Inc. on behalf of P.K. Realty Trust. The BoWC has significant concerns regarding the proposed earth removal project and its potential negative impact on the Town's public water supply groundwater sources. At the request of BoWC, Resilient Civil Engineering, P.C. (ResilientCE) reviewed the application for earth removal permit and drawings entitled "Cranberry Bog Site Development Plan" dated November 27, 2023 prepared by G.A.F Engineering, Inc. on behalf of P.K. Realty Trust.

The proposed work involves the removal of 1,100,500 cubic yards of sand, gravel and other mineral soil on 34.76 acres on parcels within the Town adjacent to Indian Pond and Route 44 (site). The parcels are noted as being "landlocked" with no direct frontage and not provided with utilities such as water, sewer, gas and electricity. The application states that P.K. Realty Trust obtained direct access to the parcel from a land acquisition and deeded rights of access over an easement with Eversource. The existing site is undeveloped and consist of wooded rolling hills, pockets of isolated wetland areas and wetlands associated with Indian Pond. The total site is approximately 41.47 acres and approximately 35 acres are noted as upland. The site is located in the R-80 Zoning District (low density residential). Portions of the site (Northeast portion) are within the boundaries of the Town of Kingston Water Resource Overlay District.

The permit application states that agriculture is noted as "permitted use" by right in the R-80 Zoning District. The project proposes to be for agriculture since, after the 1,100,500 cubic yards of sand, gravel and other mineral soil are removed from a 34.76 acre area, a 4.38 acre cranberry bog will be constructed on a portion of the site.

The permit application states "No excavation within the Water Resource Overlay District will occur within 10- feet of the historic water table." The permit applicant identifies the USGS "altitude of the water table at the project site to be approximately elevation 120 to 123" feet. The permit applicant installed two monitoring wells on the site, measured depth to water table on November 16, 2023 and reported the water table to be elevations 121 and 121.4 feet.

The permit applicant states that stormwater “surface water” runoff will be collected and directed to the proposed Reservoir/Tailwater Pond for use for the cranberry bog operation and that the system would act as a closed system. The bottom of the constructed pond is proposed to be set above the estimated seasonal high water table. The pond is proposed to be supplied with surface water runoff. The proposed pond is not being located within an existing mapped Zone II or the Water Resource Overlay District.

The permit applicant states that the proposed cranberry bog will be constructed in a manner which exempts the project from the requirements of the Massachusetts Water Management Act.

After review of the permit application and supporting materials with respects to the Town of Kingston Water Department and Water Resource Overlay District requirements, ResilientCE offers the following comments:

1. The Town of Kingston Water Resource Overlay District by-law specifically identifies the uses and activities that are expressly prohibited within the Water Resource Overlay District. Prohibited uses and activities include:
“Earth removal within 10 feet of the United States Geological Survey historic high water table or equivalent data determined by the Water Quality Review Committee more specific to the site, except for excavations necessary for building foundations, roads and utilities.”
The permit applicant states “No excavation within the Water Resource Overlay District will occur within 10-feet of the historic water table.” However, the word “high” was omitted from this statement. The permit applicant must demonstrate that no excavation will occur within the Water Resource Overlay District within 10-feet of the historic high water table.
2. The permit applicant identifies the USGS estimated altitude of water table to be 120 to 123 feet. The permit applicant must identify the USGS documented historic high water table. If this data is not available, the permit applicant must provide site specific equivalent data, acceptable to the Water Quality Review Committee, to document the historic high water table. Reporting the water level on one date from two monitoring wells on site is not sufficient data to document the historic high water table.
3. Drawing 4 of 10 shows a low elevation within the Water Resource Overlay District of elevation 134.5 feet. It is not clear if this is within 10-feet of the USGS high water table since the historic high water table has not been documented.
4. The permit applicant did not identify the fertilizers and pesticides that will be used and how these will comply with the requirements of the Water Resource Overlay District.
5. While the area of the project site within the Water Resource Overlay District may be limited, Indian Pond is within the Water Resource Overlay District and provides a direct conduit to the groundwater aquifer. With the site currently being wooded uplands, much of the stormwater runoff would have the opportunity to percolate into the groundwater or discharge to Indian

Pond and surrounding wetlands. The permit applicant should estimate the volume of stormwater that will be diverted to the cranberry bog closed system and be removed from the natural ecosystem. The permit applicant should identify the impact removal of this recharge water may have on the Indian Pond water level and the groundwater aquifer.

6. The permit applicant indicates the proposed cranberry bog will have an area of 4.38 acres. With regards to the Water Management Act, 310 CMR 36.16 Withdrawals Requiring a Permit states: "Unless exempted by 310 CMR 36.05, the following withdrawals require a permit:

...Water withdrawals used for the following activities are presumed to withdraw less than the threshold volume and do not require a permit, unless the Department (MassDEP) determines otherwise.

- Cranberry Cultivation

1. Each person not certified by the Natural Resource Conservation Service as using best management practices and who irrigates less than or equal to 4.66 acres of bogs in excess of any registered acreage within one water source;
2. Each person certified by the Natural Resource Conservation Service as employing best management practices and who irrigates less than or equal to 9.3 acres of bogs in excess of any registered acreage within one water source..."

The proposed cranberry bog appears to be less than both of the above thresholds, meaning it would not be subject to a Water Management Act (WMA) Permit. As you are aware, the Town is a WMA Permit holder for its public water supply wells. WMA Permits require permit holders to comply with provisions to conserve water. Since the proposed cranberry bog will not have a WMA Permit, it would not be required to meet the conservation requirements related to stream flow volume that the Town is required to meet. Even though a WMA Permit is not required, the permit applicant should detail the efforts that will be taken to manage its water use especially during times of drought when water resources must be conserved.

7. The Town of Kingston Water Resource Overlay District specifically identifies performance standards for all uses other than single family dwellings and includes:

"Sand or gravel removal operations shall be limited in depth so that the water table will not be exposed at any time. Land area exposed at any time shall be minimized and land shall be returned to a natural vegetative state within 1 year of completion of operations."

- a. The applicant must appropriately document the high water table elevation to ensure that the water table will not be exposed at any time.
- b. The permit applicant must detail the plans for phasing the earth removal process. The permit indicates approximately 200,000 cubic yards of material to be removed in a one-year period. This implies that earth removal will occur over about 5.5 years however the drawings show 8 phases. The permit applicant must address this question: Will the area within the Water Resource Overlay District be returned to a natural vegetative state

within 1 year of completion of the removal work within the Water Resource Overlay District or within 1 year of completion of the removal work for the entire site?

8. The Town is actively pursuing a new public water supply groundwater well on a parcel of land just southwest of the existing Trackle Pond Well. Prior to the well activation, the Water Resource Overlay District boundaries will need to be updated and may extend further west encompassing more of the permit applicant's proposed work area. Specifically, the proposed cranberry bog may fall within a revised Water Resource Overlay District area.

The Earth Removal Permit Application submitted by G.A.F Engineering, Inc. on behalf of P.K. Realty Trust proposes work that has the potential to negatively impact the Town's public water supply. The BoWC should consider the above comments when preparing a response to the permit application.

This review was conducted specifically with regards to the impacts to public water supply. The Town must have other departments and their engineers/consultants review for environmental, regulatory and legal implications.

I am available to meet with the BoWC to review these comments. Please contact me with any questions on the comments above at 508-726-2458 or kberger@resilientce.com.

Sincerely,
Resilient Civil Engineering, P.C.



Kristen M. Berger, P.E.
President