To preserve, protect and steward our unique and finite land and water resources.

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July 25, 2022

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Kalina Vendetti
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Conservation Commission
Town of Kingston MA
Via Matt Penella, Conservation Agent, mpenella@kingstonma.gov
Mike Perrin, Assistant Agent mperrin@kingstonma.gov

Re: Earth Removal: Impacts on our water, wetlands and communities

Board of Selectmen Agenda Item July 26, 2022: Discussion with Conservation Commission on earth removal permits

Conservation Commission Agenda Item July 27, 2022: Wetlands Protection Act and Kingston Wetlands Bylaw: June 8, 2022 Request for Determination for P.K. Realty Trust filed by G.A.F. Engineering (GAF) signed by William F. Madden, P.E.

Dear Board of Selectmen and Conservation Commission,

The purpose of this letter is twofold:

1. To provide information on behalf of the public interest about the devastating impacts of sand and gravel/earth removal throughout our region and an overview of local land use laws that govern this activity, and

2. To provide specific comments to the Conservation Commission on the P.K. Realty request for determination of applicability under the state Wetlands Protection Act and the Town Wetlands Bylaw.

Throughout the region, industrial scale sand and gravel mining is stripping away the forests, vegetation and earth materials that protect and filter the Plymouth Carver Sole Source Aquifer. This Aquifer is the sole source of drinking water for seven towns, including Kingston. There are 150,000 people who rely on it. The shallow aquifer is vulnerable to contamination due to the porous sand. Forests, sand and gravel filter and protect the Aquifer, as reported in numerous scientific studies and the Plymouth Carver Sole Source Aquifer report. U.S. EPA's designation of the Sole Source Aquifer in 1990 also states the groundwater is vulnerable to contamination.

The sand and gravel in our region is an extremely valuable global commodity. In April 2022, the United Nations issued a report warning that sand mining, like what is happening right here in and around Kingston, is an environmental crisis. Sand is the second most extracted commodity after water.

These comments are submitted by Community Land and Water Coalition (CLWC) an alliance groups and individuals working to preserve and protect our land and waters in Southeastern Massachusetts, including the Plymouth Carver Sole Source Aquifer.

Earth removal projects require careful scrutiny and coordination among all town boards and committees to assess the full range of impacts on our water and communities before these projects are permitted and when problems arise. We thank the Board of Selectmen for conducting a joint meeting with the Conservation Commission.

<u>General Comments on Sand and Gravel Mining in Southeastern Mass</u>

Our research and education efforts are currently focused on the grave threat and extent of ongoing and proposed sand and gravel mining throughout the region. We estimate there are 85 existing, proposed and abandoned earth removal mines in the immediate Plymouth area. Most

if not all of these were permitted locally as "necessary" for construction of cranberry bogs. A specialized consulting industry has evolved in the region, assisting sand and gravel removal operators in the permitting process. Our research shows the steps typically involve:

- Identifying the height of land with deposits of Class A Carver Sand and other marketable types of materials

- Acquiring the land or rights to mine it

- Pursuing local earth removal permits under the ruse of a "subdivision" plan or an "agricultural project" to evade local zoning that prohibits earth removal unless it is "necessary" for a subdivision or agricultural project

- Obtaining a "Determination of Applicability" from the local Conservation Commission by which the Commission agrees on the locations of the wetlands on the proposed mining site

- Designing the mining operation around the wetlands after the Commission agrees to the wetland boundaries

- Conducting a multi-year mining operation without a wetlands permit (NOI), relying on a negative RDA --- even though the changes in topography and off site potential discharge of sand can impact wetlands off the mining site

- Often, doing a "bait and switch" whereby the actual cranberry bog is never built but instead the land is used for another purpose, such as, in the case of the Plymouth County Woodlot, a racetrack, or in other cases, large ground mounted solar projects.

The law

Under state law, General Laws Chapter 40, 21(17), municipalities have the legal authority to prohibit sand and gravel removal, and to regulate it. Kingston like many towns, has decided to regulate, not ban it outright. Kingston has a General Bylaw that limits the size of project and requires an earth removal permit from the Board of Selectmen for volumes over specified limits.[1]

[1] Kingston Bylaw, relevant earth removal provisions regarding agricultural project and subdivision exemption:
Article 1(H), "Agricultural Excavation - The process of removing earth or other materials that are **necessary and incidental to prepare a site for specific agricultural use.** Agricultural excavation may include the creation of wetland resource areas such as ponds, canals, cranberry bogs and land subject to flooding as defined under the M.G.L. c. 131 §40 and as defined in Massachusetts Wetlands Regulations 310 CMR 10.00." (emphasis supplied)

No one has the right to a sand and gravel permit: they are discretionary. The Board of Selectmen is required to conduct a thorough investigation under the Kingston Bylaw and if it finds the facts don't add up, the permit can be denied.

In the past several decades, sand and gravel operators have become adept at sidestepping the prohibitions against earth removal and claiming it is necessary for "agricultural excavation" or a a subdivision. The law requires agricultural excavation or subdivision earth removal to be "necessary and incidental". Our towns are not always diligent in requiring earth removal operators to prove that the earth removal is "necessary and incidental" for the project. The results are massive projects that often should never have been permitted.

For example, the SLT mining operation on Spring Street in Carver within a mile of the proposed P.K. Realty site in Kingston is prohibited in the zoning district, but the landowner claims this is just excavation for a "subdivision". In reality, this is a 7-year mining operation. The Town of Carver never required SLT to prove that the volume of earth – at least 1 million cubic yards worth about $9 million was "necessary and incidental."

Dozens of other examples are seen elsewhere.

The Massachusetts case law on earth removal is settled and clear on what is "incidental" earth removal. One factor the courts look at is how much money will be made by selling earth materials vs. the alleged "agricultural project." The revenues from earth removal will always far exceed those of building and operating a cranberry bog.

Since 1991 all of the law cases have determined that the challenged earth removal was not necessary and incidental, but essentially a ruse to cover up a mining operation. Summaries of the cases are attached.

Conservation Commission application of P.K. Realty Trust June 8, 2022 Request for Determination filed by G.A.F. Engineering (GAF)

Article 2 requires a permit for Earth Removal.

Article 3 says the Board of Selectman can issue an earth removal permit if it decides the earth removal is **"incidental" to (b) construction or operation of customary agricultural use** including but not limited to the construction of a pond for aquaculture use by a person with an Aquaculture Permit under the licensed provisions of Massachusetts General Laws Chapter 131; Provided, however, that no pond shall be constructed within DEP Approved Wellhead Protection Area Zone II" or under (c), pursuant to the specific requirements of an **approved, defined definitive subdivision plan**.

These are intended as specific comments for the record on the P.K. Realty Trust RDA filed June 8, 2022.

The P.K. Realty RDA request fits the pattern we have seen before.

Segmenting permitting: RDA, then earth removal permit?

The PK Realty application states,

"No work is proposed at this time. This determination is needed to assess various land use opportunities."

Is this claim credible? P.K. Realty has been conducting public outreach and meetings in the community for a proposal to site an "organic cranberry bog" on this site, to be developed with Cardinal Cushing School for disabled people. This proposal is common knowledge.

Will P.K. Realty use this "cranberry bog" to seek an exemption from the earth removal bylaw and to try to get a permit for an "agricultural project"?

In July 2022, P.K. Realty's representative confirmed that GAF is calculating the volume of sand and gravel available at the site. The GAF plans show they are done for "Plympton Sand & Gravel."

Who is P.K. Realty? The entity has a Kingston post office box and the state corporations records do not show any known officers or directors with connections to Kingston.

Wetlands Impacts

PK Realty's RDA will be moot if there is an earth removal project at the site eventually.

It is basic science and engineering that earth removal causes irreversible changes topography and surface contours of the land. This causes changes in stormwater runoff and drainage patterns which can alter wetlands even if they are outside the 100 foot limit.

Under wetlands law in Massachusetts, changes in topography that result in "alterations" of wetlands beyond the 100 buffer are subject to jurisdiction of the Conservation Commission.

The law states,

"Land use changes such as clearing… and changes in the watershed can increase or decrease water runoff, which could alter the amount of water received by a vernal pool, destroying the water budget that is necessary to sustain the habitat of that pool." *In the Matter of David A. Bosworth Co., Inc*., OADR Docket No. WET-2015-15 (2106).

Any work on the P.K. Realty site that changes the topography, such as taking down the 200 foot hill to build a “cranberry bog” or anything else, will change runoff which could alter the adjacent wetlands and Indian Pond itself.

The Conservation Commission could require P.K. Realty to submit an NOI for any work on the site that could alter wetlands by changing topography and removing sand and gravel. Once the mining operation begins, if there are wetlands alterations, they cannot be mitigated in our experience. It’s too late and the wetlands is lost.

Threats to private and public wells from earth removal

Earth removal can change groundwater flow direction. Attached is a report by well-known expert Scott Horsley on the SLT mining operation less than a mile from the P.K. Realty site. The report concludes that SLT’s mining, taking down a 200 foot hill and removing about 1 milion cubic yards, has likely changed the groundwater flow direction.

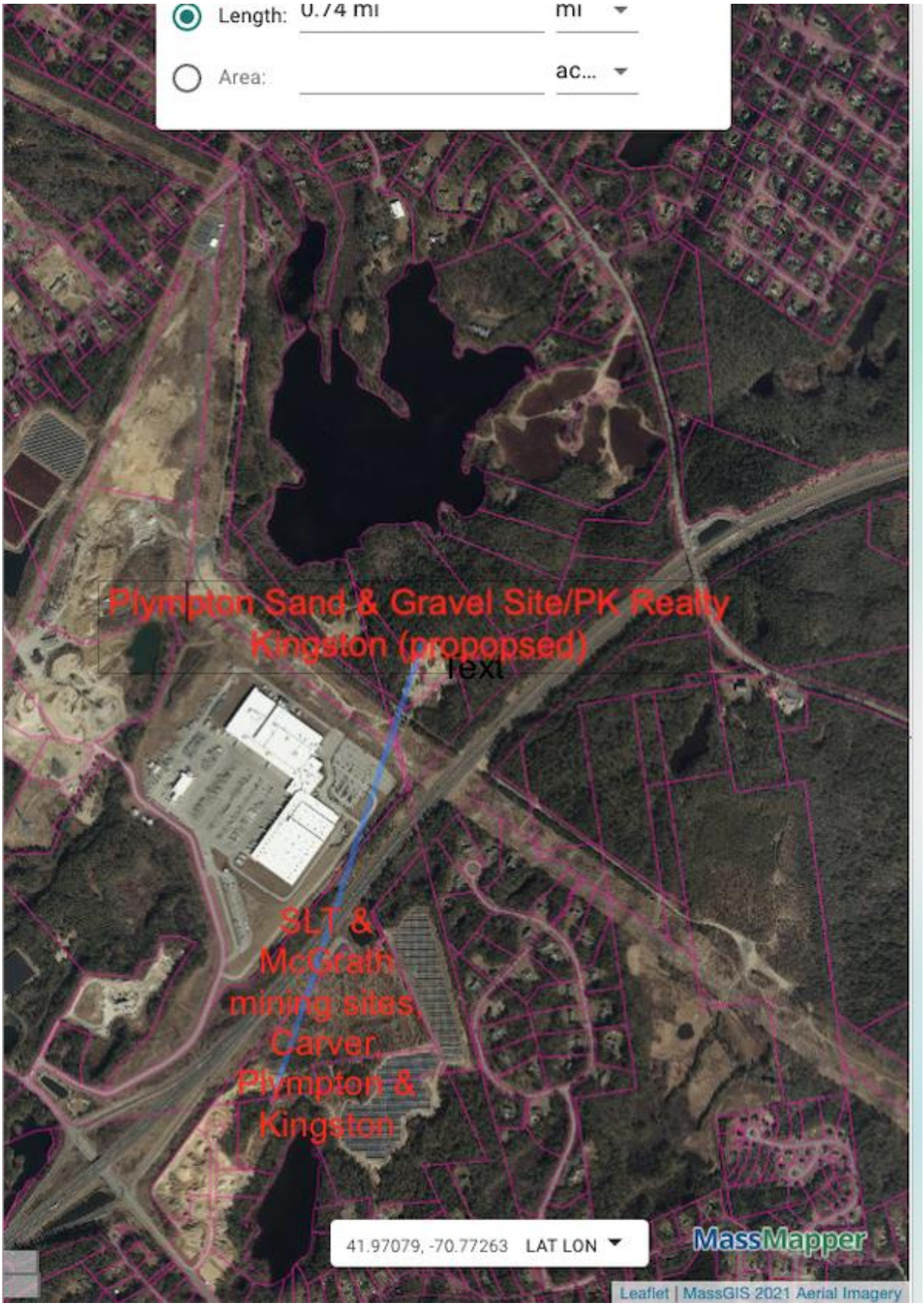
The report concludes that the operation threatens public and private water supplies. This includes private residents’ wells and the public water supply belonging to Sysco in Plympton.

We urge the Board of Selectmen and Conservation Commission to review this report.

Any sand and gravel project approved by the Board must ensure that none of the impacts associated with SLT’s operation occurs.

Cumulative impacts

Aerial views of the P.K. Realty area show vast areas of sand and gravel removal on adjacent lands in Kingston, Plympton and Carver. What is the impact of stripping the forests and removing sand and gravel that filters the Aquifer? Does anyone know how much sand and gravel has been removed cumulatively and what the impact is?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Inadequate wetlands study

The June 8, 2022 Environmental Consulting and Restoration LLC report submitted to the Commission for the RDA is vague and inadequate. Neither the RDA nor the plans appear to give an acreage for the proposed development site. The site contains hills as high as 200 feet, some of the highest in the region. (The SLT mining operation on Spring Street in Carver took down the Town's highest hill, about 200 feet.) The topographic information should be more precise.

Was Sysco required to give municipalities an option to purchase this land or conduct a MEPA review before selling?

P.K. Realty purchased this land from Sysco. At least one state document addresses the future use of the land that P.K. Realty bought. There are questions about whether Sysco was authorized to conduct a private sale of this land and whether the Massachusetts Environmental Policy Act (MEPA) requires an environmental impact report.

Past violations?

The P.K. Realty RDA shows two areas of existing earth removal – was this ever permitted? Is it active? Did the landowner give the Town notice under Article 5 of the earth removal on the site as required by the Bylaw? If not, the Board of Selectmen should investigate the need for potential enforcement under Chapter 15 and Chapter 12.

Other questions

Will the proposed organic cranberry bog located on the height of land?

Is there significance to the fact that the site abuts an Eversource transmission corridor? Is it a potential solar site?

Thank you for the opportunity to comment. We hope this information is helpful to your deliberations and research on this important topic.

If you have any questions contact me at 508-259-9154 or via email at environmentwatchsoutheasternma@gmail.

More information is available on our website, www.savethepinebarrens.org

Very truly yours,

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Cc: Sysco
Mass DEP SERO – 20 Riverside Drive, Lakeville, MA 02347
Pine DuBois, Jones River Watershed Association

Attachment:
Letter Report: Scott Horsley to Save the Pine Barrens, February 2022 on hydrologic impacts of SLT mining operation, Carver MA

Attachment

SUMMARY OF CASES ON EARTH REMOVAL

Old Colony Council–Boy Scouts of Am. v. Zoning Bd. of Appeals of Plymouth, 31 Mass. App. Ct. 46, (1991)

The Boy Scouts of America applied for a permit under a Plymouth zoning by-law to excavate 460,000 cubic yards of earth to create a cranberry bog near a summer camp it owns in a "Rural Residential" zoning district. The Boy Scout's goal of creating a cranberry bog next to an existing, nonproductive cranberry bog was to become more financially self-sufficient. The earth removal operation was expected to net approximately $200,000 in cash and cover the cost to construct the cranberry bog. The operation would involve 30 truck trips per day, five days a week, for two and one-half years.

The Town's Zoning Agent denied the required "zoning permit", saying a special permit was required. The Zoning Board of Appeals upheld the Zoning Agent's decision, which the Superior Court affirmed.

The plaintiff argued that the earth removal operation fit within an exemption to the requirement for a special permit for uses that are "incidental to and reasonably required in connection" with the construction of a permitted use; here, the construction and operation of a cranberry bog.

Relying on the principle that an "incidental use" is one that is not the primary use of the property but one that is subordinate and minor in significance, or of lesser importance, the Appeals Court found that the excavation was not minor or incidental, citing the Superior Court finding that the net effect of the earth removal is the creation of a sand and gravel operation in conjunction with the creation of a cranberry bog. The fact that the earth removal operation would involve a large volume of material, be conducted over a period of years, and provide substantial funds in excess of the cost of constructing the cranberry bogs was also determinative.

Henry v. Board of Appeals of Dunstable, 418 Mass. 841 (1994).

The Dunstable Board of Selectmen denied a special permit application for removal of 300,000 to 400,000 cubic yards of earth from a hilly five-acre portion of plaintiff's 39-acre plot, stating that such earth removal would be "injurious, noxious or offensive to the" residential neighborhood and claiming the earth removal was not incidental to agricultural or horticultural use of the land.

The Superior Court determined that the proposed use was exempt from the Dunstable Zoning Bylaw under G.L. c. 40A, § 3 as incidental to agricultural use. The Appeals Court affirmed. The SJC reversed the judgment of the Superior Court.

The SJC found that the plaintiff had used a portion of her property to cultivate 1,000 trees to begin a Christmas-tree farm, after learning that a "cut your own" Christmas-tree farm would be more profitable than a saw log operation. The plaintiff sought to level her land to make access easier for customers. She arranged for a contractor to remove 100,000 cubic yards a year, for 3 to 4 years, with the contractor selling the soil at market rate and sharing profits with the plaintiff for her to use to start the Christmas tree farm which would open to customers in about eight years after the last of the earth was removed.

While none of the parties disputed that the planting of trees for a saw log operation or Christmas tree farm falls within the G.L. c. 40A, § 3 exemption, the Board contended that the proposed earth removal was not

"incidental" to the agricultural use and, instead, a major independent commercial operation, so not exempt.

The SJC focused on whether the proposed excavation was incidental to the creation of the "cut your own" Christmas tree farm:

Uses which are "incidental" to a permissible activity on zoned property are permitted as long as the incidental use does not undercut the plain intent of the zoning by-law. . . . Determining whether an activity is an "incidental" use is a fact-dependent inquiry, which both compares the net effect of the incidental use to that of the primary use and evaluates the reasonableness of the relationship between the incidental and the permissible primary uses. In analyzing the plaintiff's proposed earth removal project, the focus is on the "activity itself and not ... such external considerations as the property owner's intent or other business activities."

418 Mass. at 844-45.

The Court noted that "incidental" encompasses two concepts: First, that the use must not be the primary use of the property, but one that is subordinate to and minor in significance. Second, that the use must have a reasonable relationship with the primary use – it must be "attendant or concomitant".

Applying these rules, the SJC ruled that the plaintiff's proposed earth removal met neither aspect of an incidental use, given that it was a "major undertaking" that would last several years prior to the establishment of the Christmas tree farm. "Nor can the quarrying activity be said to bear a reasonable relationship to agricultural use." 418 Mass. at 845 (citing Jackson v. Building Inspector of Brockton, 351 Mass. 472 (1966)). The SJC concluded that "net effect of the volume of earth to be removed, the duration of the project, and the scope of the removal project are inconsistent with the character of the existing and intended agricultural uses." 418 Mass. at 845.

The SJC felt this case fit squarely within Old Colony Council–Boy Scouts of Am. v. Zoning Bd. of Appeals of Plymouth, 31 Mass. App. Ct. 46, (1991) where the Appeals Court considered the "net effect" on the rural residential area of the proposed earth removal activity to create a cranberry bog was so great that it could not be said to be incidental to the cranberry bog.

Coggin v. City of Westfield Land Court Nos. 04 MISC 299903(AHS), 04 MISC 303152(AHS) (Sept. 24, 2009).

While the case involved many facts and different claims, in those pertaining to whether a 145,000 cubic yard, two-season earth removal project was "incidental" to the horse farm use of the property, the Court ruled that it was not. The Court's reasoned that it did not bear a reasonable relationship to the agricultural use and was not minor nor subordinate to the operation of the horse farm. The court noted that the earth removal was expected to generate $217,000 to $290,000 in income to the property owner, about 1.45 – 2.00 times the average annual income ($150,000) of the horse farm.

Indianhead Realty, Inc. v. Zoning Bd. of Appeals of Plymouth, 97 Mass. App. Ct. 1108 (Rule 1:28 decision) (2020 WL 1542104) *rev. denied*, 486 Mass. 1104 (2020).

Plaintiff sought a "zoning permit" from the Plymouth building commissioner for construction of an outdoor recreational facility on 35 acres next to the 45-acre commercial campground on his property. The building commissioner denied the zoning permit, saying a special permit was needed due to the removal of 475,000 cubic yards of material over a 2 to 3 year period prior to construction of the facility even began.

Plymouth's zoning bylaw prohibited removal of more than 10 cubic yards of soil, gravel, or quarried stone for sale or use for sale on a separate site except for that "incidental to and required in connection with the

construction" of an approved use. The zoning bylaw also allow by special permit "sand and gravel quarries and similar extractive industries."

On review, the Plymouth ZBA upheld the building commissioner, finding that the proposed excavation was not reasonably necessary or incidental to the proposed recreation area, and that it constituted a sand and gravel quarry or other extractive industry requiring a special permit.

After trial, the Land Court held that plaintiff's proposed gravel excavation was not an amount reasonably necessary to allow the use to be constructed. For example, the judge noted that the plan could be revised to eliminate a second entrance, which was not required, and would result in substantially less gravel needing to be removed.

Citing Old Colony and Henry, the Appeals Court rejected plaintiff's argument that the gravel removal was "reasonably necessary", upholding the ZBA's finding to the contrary as well as the Land Court judge's conclusion that removal of 475,000 cubic feet of earth over a two- to three-year period was not necessary where the elimination of the second entrance could substantially reduce the volume of material removed.

Richardson-North Corp. v. Zoning Bd. of Appeals of Uxbridge, 97 Mass. App. Ct. 1128 (unreported decision) (2020 WL 3708908), *rev. denied*, 486 Mass. 1104 (2020))

The Uxbridge Zoning Board of Appeals ordered the plaintiff to cease importing around 200,000 tons of soil a year to fill, over a ten-year period, a 45-acre gravel pit that was created when he sold gravel to finance the purchase of his 202-acre property in Uxbridge and an adjoining 18-acres in Rhode Island. The Uxbridge property is within its agricultural zoning district. Consisting of 6 parcels, portions have been designated for farming purposes such as pasturing cattle and horses, growing hay and corn, storing animal feed and farm equipment, and commercial forestry.

In appealing the zoning enforcement officer's cease and desist order to the ZBA, the plaintiff argued that while the operation was not agricultural in nature, it was incidental to agricultural use so exempt from zoning regulation. The ZBA disagreed, saying the operation was "a separate principle use of the property's primary use as a farm." The Land Court vacated the ZBA's decision.

The Appeals Court determined that the Land Court judge improperly substituted his judgement for that of the ZBA, rather than determining whether the ZBA's decision was unreasonable or untenable.

The Appeals Court disagreed with the Land Court's attempt to distinguish this case from the factually-similar Henry and Old Colony Council – Boy Scouts of America cases. The Appeals Court ruled that even if the filling operation resulted in land that was level and similar to its condition prior to the gravel extraction, the scope of the operation necessary to do so was significant and would equate to $3 million in income to the plaintiff. The scale of Plaintiff's filling operation, in terms of amount of soil moved, duration, and profits, far exceeded the operations in Henry and Old Colony.

The Appeals Court noted that the current farming operations on the remaining portion of Plaintiff's property was modest and produced little income, thus the ZBA had a basis to find that the filling operation was not "subordinate and minor in significance" to the property's primary use.

The Appeals Court also gave weight to the fact that agricultural use could have been resumed in the gravel pit area with far less fill, even if that area was not restored to the same grade as surrounding land. Thus, plaintiff's filling operation did not appear necessary to support the primary, agricultural use of the land.