

MEMORANDUM

To: Larry Boudreau

From: David MacDougall

cc: Barbara Beall

Date: January 16, 2019
Revised January 28, 2019

Re: Wetlands Investigation

Job #: 81750

The Chai Builders Corp. property, at 248 Tioronda Avenue (Tax Parcel 5954-16-993482 and 6054-45-012574) is located east of Tioronda Avenue in the City of Beacon, Dutchess County, NY. The property is approximately 9.18± acres of which 6.57 acres is proposed to be developed ("Site") and includes successional field, deciduous forest, floodplain, and riparian habitats.

The Site was investigated on November 6, 2018 by Chazen scientist David MacDougall for the presence of aquatic resources and habitat to support endangered species. This memorandum summarizes the findings of that investigation and potential regulatory implications as it relates to the potential development of this Site.

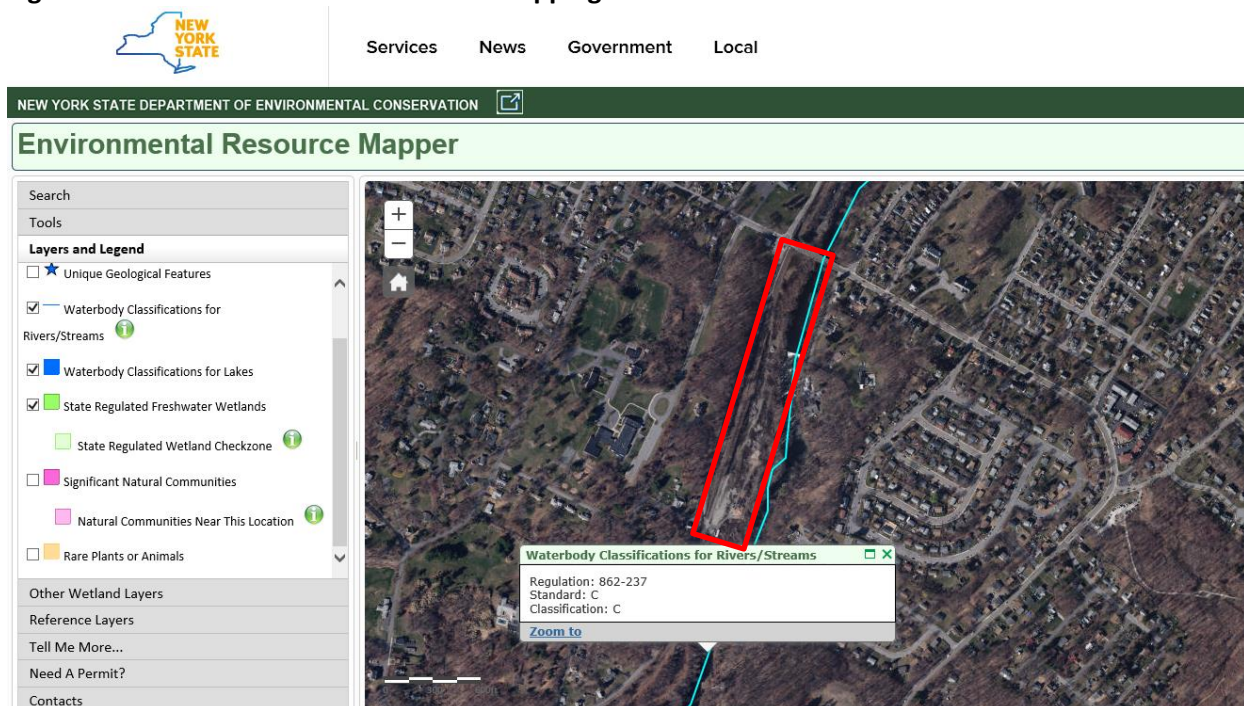
SUMMARY OF POTENTIAL RESTRICTIONS

- Wetlands were not observed on the project site.
- There is one stream mapped on the site by the NYSDEC (862-237) and USFWS NWI mapping (R3UBH).
- There are no NYSDEC wetlands mapped on the site.
- According to the NYSDEC ERM Mapper a state-threatened or endangered species occurrence record encompasses a portion of the property. By letter dated November 7, 2018 the New York Natural Heritage Program indicates that this is for an Anadromous Fish Concentration Area, Freshwater Tidal Marsh, and rare plants located in the vicinity (downstream) of the project site.
- The USFWS identified this site as being in the range of Indiana and northern long-eared bats, dwarf wedgemussel, and bog turtle. The site contains habitat for bats outside of the proposed limits of disturbance (LOD); should clearing be required outside of the previously cleared LOD, winter tree clearing (November 1 to March 31) should be adequate mitigation to address these two species. The site is less than 10 acres, approximately 6.57 acres. Since no wetlands were observed on site, no habitat for bog turtles is present.

AQUATIC RESOURCES – DESKTOP MAPPING

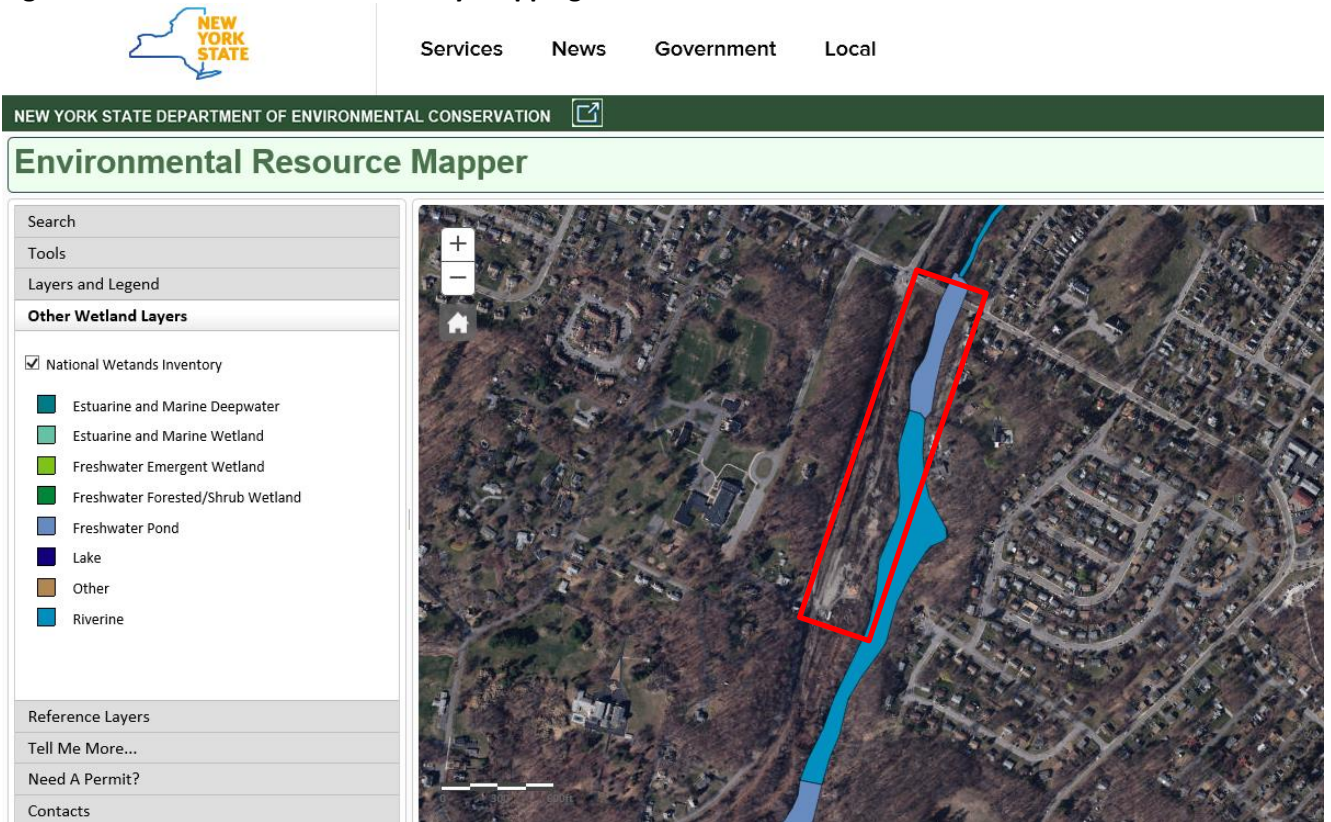
New York State Department of Environmental Conservation (NYSDEC): The New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper (ERM) shows one state-regulated stream on the Site. The Fishkill Creek (Stream Item Number 862-237, Class C, Standard C), a Class C stream is not regulated by the NYSDEC. No state regulated wetlands are mapped on site or in the immediate vicinity of the site.

Figure 1 – NYSDEC Wetland and Stream Mapping



US Army Corps of Engineers (Corps): The USFWS National Wetland Inventory Mapper (NWI) shows two aquatic resources on Site. See Figure 2. The NWI is a non-regulatory map indicating potential wetlands and streams on a Site. The Corps regulates, under Section 404 of the Clean Water Act, any waters or wetlands present on a site that have a significant nexus to traditionally navigable waters. Generally, streams or wetlands that flow off a site are likely to have such a nexus. At this Site, Stream 1 flows directly into the Hudson River, a traditionally navigable water, approximately 800 feet to the southwest, straight line distance. The Corps regulates wetlands and waters (with a significant nexus) under Section 404 of the Clean Water Act, and specifically regulates the discharge of dredged or fill material into such waters. The Corps does not regulate a buffer around these aquatic resources. Since this stream flows directly into the Hudson River, a Traditionally Navigable Water in close proximity to the site, Significant Nexus is presumed.

Figure 2 – National Wetland Inventory Mapping



City of Beacon: The City of Beacon reviews impacts to wetlands, watercourses, hilltops, ridgelines and steep slopes under Chapter Section 223-16 of their Zoning Code. Any impact or change in contours to wetlands and watercourses has to be approved by the planning board which will review those changes and their potential effect on water recharge areas, water table levels, water pollution, aquatic animal and plant life, temperature change, drainage, flooding, runoff and erosion.

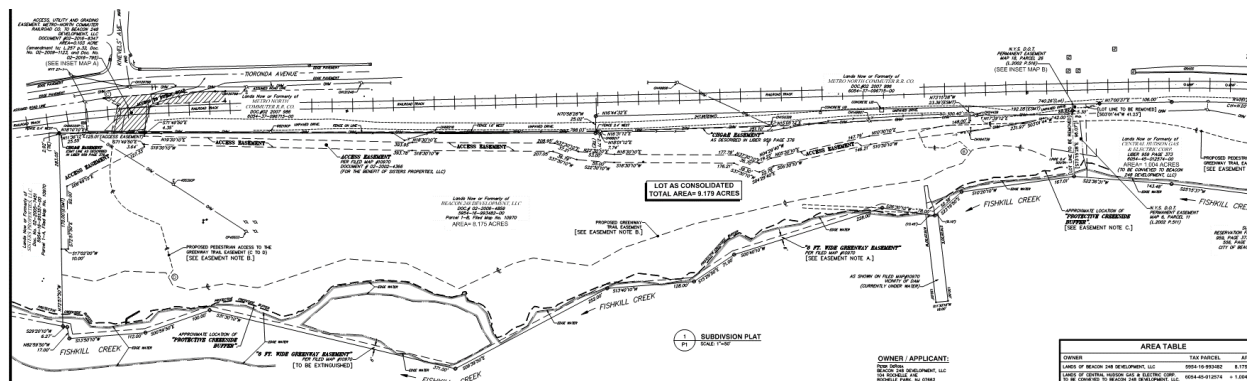
AQUATIC RESOURCES – SITE INSPECTION

The site is dominated by successional field, deciduous forest, and riparian floodplain along Fishkill Creek. The upland forest that comprises the northern portion of the site is dominated by maple. The trees on the site were 30 to 50-year age class, and some do exhibit habitat features for bats.

One Stream was identified along the eastern edge of the property. See Figure 3. This stream is Fishkill Creek and was flagged as Streams 1 and 2 above and below the dam but is the same stream system.

Photos of this aquatic resource and a photo location map are provided at the end of this memo. The ordinary high water mark of the stream was delineated and the flags marking the boundaries were collected with a handheld Trimble GeoXT GPS unit.

Figure 3 – Location of Delineated Stream



PROPOSED ACTIVITY AND AUTHORIZATIONS

The client is proposing to develop the Site with a 64-unit multifamily residential development and a 25,400 square foot (SF) office building, with associated parking. A Greenway Trail for public use is proposed along the Fishkill Creek.

Corps of Engineers: The Corps regulates the discharge of dredged or fill materials into Waters of the United States under Section 404 of the Clean Water Act. In order for an aquatic resource to be determined a “Water of the United States,” it should have a significant nexus to a traditionally navigable water of the United States. Wetlands within the 100-year FEMA Floodplain or within 100 feet of a tributary water, have regulation established “per se” or by the law. If a wetland is more than 100 feet from a Navigable Water (Hudson River), but less than 4,000 feet from that water, a Significant Nexus determination is needed for the Corps to determine that this wetland is not regulated. The Fishkill Creek would be a regulated water due to its connection to the Hudson River.

The Corps would regulate moving soil around in this aquatic resource or placing fill material in any form, into this aquatic resource. The Corp has a set of Nationwide Permits to authorize minor impacts associated with dredging or filling in Waters of the United States (streams, wetlands with a significant nexus to off-Site waters). For example, Nationwide Permit 39, for Commercial Development, could be used to authorize permanent or temporary fills associated with a development and attendant features including driveway, parking, and stormwater.

Use of Nationwide Permit 39 requires a pre-construction notification to the Corps and could allow up to ½ acre impact to waters of the United States and 300 linear feet of stream bed. Compensatory wetland mitigation (replacement of wetland functions and areas through wetland creation, enhancement or preservation) is required for impacts greater than 0.1 acre.

Other Associated Regulations: Use of federal wetland permits triggers other reviews by the Corps including compliance with the federal Endangered Species Act, Section 401 of the Clean Water Act – Water Quality Certification (WQC) from the NYSDEC, and the federal National Historic Preservation Act (cultural resources).

The NYSDEC has reviewed the Nationwide Permits to determine if their use will have an adverse impact on water quality; in some cases, a blanket (i.e., pre-authorized) Section 401 WQC has been issued, and in other cases an individual WQC is required. In general, use of a blanket water quality certificate requires impacts <0.25 acre and compliance with other conditions, such as culverts with aquatic resource connectivity. The involvement of the NYSDEC also requires SEQRA review, either through the NYSDEC, or in this case, more likely through the City.

NYSDEC Regulations: There is one NYSDEC stream mapped on the project site though it would not be regulated by the NYSDEC due to its C classification. No wetland or stream disturbance permits are required from the NYSDEC. As stated above, a NYSDEC Section 401 Water Quality Certificate would be required for impacts to federally regulated aquatic resources.

Ecological Resources

USFWS: Per the USFWS IPAC site, the site is in the range of the Indiana Bat (*Myotis sodalis*) (Federal/State Endangered); the northern long-eared bat (*Myotis septentrionalis*) (Federal/State Threatened); dwarf wedgemussel (Federal/State Endangered), and bog turtle (*Glyptemys muhlenbergii*) (Federal Threatened/State Endangered).

Bats: Trees on the site were large enough (>3" dbh) and contained features to provide suitable summer roosts for Indiana and northern long-eared bat outside of the proposed LOD. The closest hibernaculum is 7.5 miles to the south. The site has been previously developed and trees within the proposed LOD have been previously removed by B248, (previous owner) during the tree removal timeframe. Timing of tree removal during hibernation (November 1-March 31) should be adequate mitigation for these species if additional tree clearing is required outside of the previously cleared LOD.

Dwarf wedgemussel: Currently, the only known locations for dwarf wedgemussels in New York are in Delaware/Sullivan County, Orange County, and a small population in Dutchess County. The Neversink River is a westerly-flowing creek tributary to the Delaware River. This project site is in Dutchess County and at least 30 miles straight line distance from the Webatuck Creek. The NYNHP probable associated ecological community is deepwater river, which is the aquatic community of very large, very deep quiet, base level sections of streams with a very low gradient. In places the water is deep enough so that light

cannot reach the bottom. One stream was observed on-site and the stream represents potential habitat above the dam, although there is no state record of this species in this location. Given that the stream will not be impacted, the project would result in a determination of “No Take” under Section 10 or a determination of “No Effect” under Section 7 of the federal Endangered Species Act.

Bog Turtle: The closet known bog turtle site is approximately 8 miles from the project site. No wetlands were observed, and no suitable bog turtle habitat is present at this site.

The level of coordination with the USFWS is dependent upon whether any federal permits are sought. If federal permits are sought, consultation with the USFWS is required under Section 7 of the federal Endangered Species Act. This typically requires preparation of a species conclusion table and some written documentation that is included in any Joint Permit Application to the Corps. If no permits are needed, then the landowner makes the determination of effect for the species.

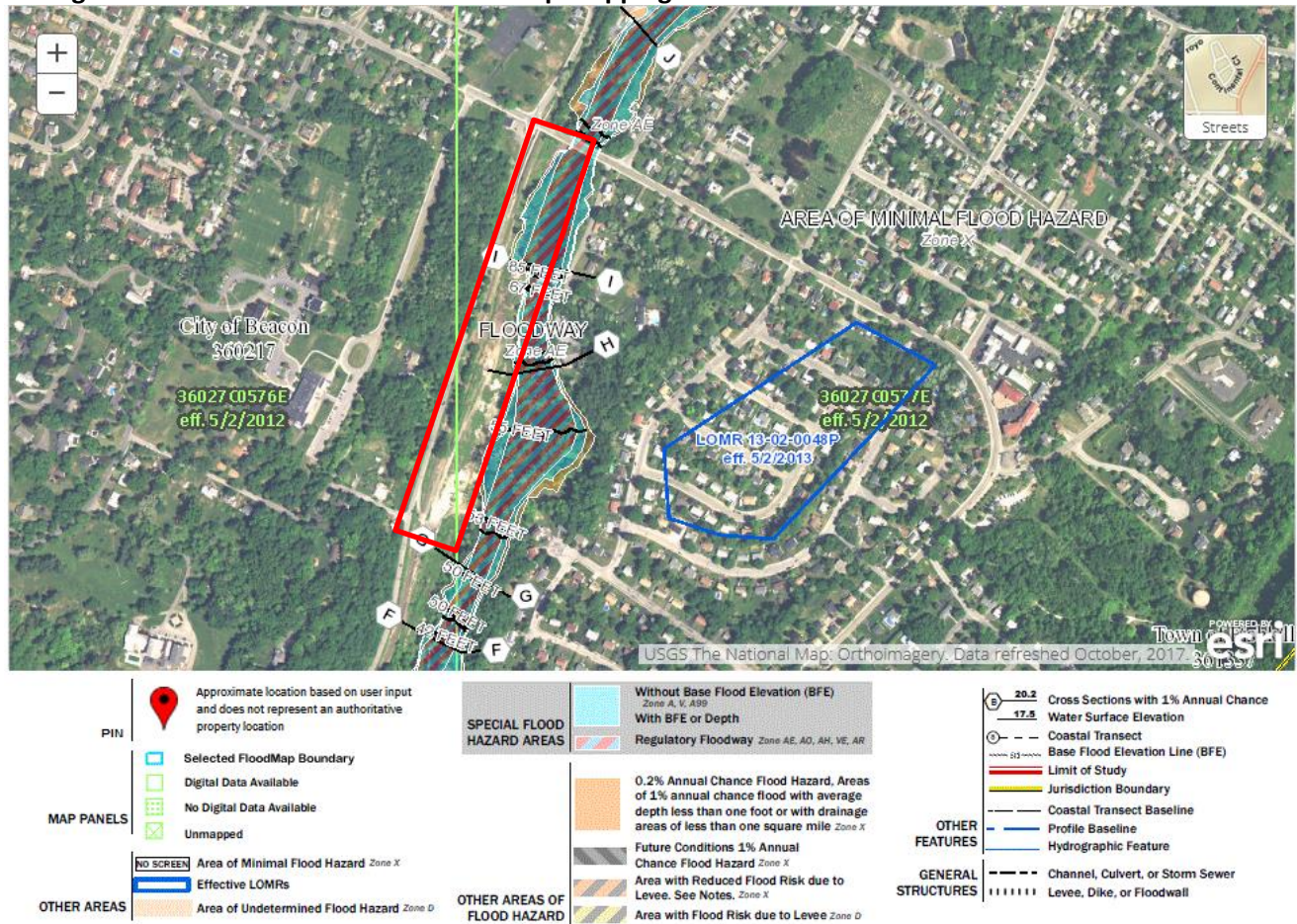
NYSDEC: The NYSDEC Environmental Resource Mapper indicates that a portion of the site is within an occurrence zone for state Endangered or Threatened Species. A response was received on November 7, 2018 from the NYNHP. The following animals have been documented in the sites vicinity and are of conservation concern to the State: Anadromous Fish Concentration Area, (Freshwater Tidal Marsh) is a significant natural community located near the project site, and rare plants. Natural Heritage requested that steps be taken to prevent sedimentation and other potential impacts to water quality downstream of the project site.

Next Steps for Aquatic and Ecological Resources

We recommend the following next steps to advance this project.

- While no fill is proposed for this project. In general, a Nationwide Permit can be used to authorize impacts less than 0.5 acre in size; if impacts are less than 0.1 acre, no compensatory mitigation is required. In general, impacts of 0.25 acre can be authorized with a blanket Section 401 Water Quality Certificate from the NYSDEC, impacts greater than 0.25 acre requires an individual blanket Section 401 Water Quality Certificate.
- Any federal permitting would include a discussion to address federal endangered species. This would need to include a species conclusion table and discussion related to recommended mitigation of a timing restriction on clearing of November 1 to March 31 to address bat species, if tree removal was proposed outside of the previously cleared LOD. Given the current site layout no federal permitting is required.
- The City Planning Board would need to be consulted if impacts are proposed to the stream.
- No impacts to the floodplain are currently proposed. FEMA floodplain issues would need to be addressed if fill materials or construction were proposed within the FEMA Floodplain.
- Complete SEQRA (by the local municipality) as part of site plan approval.
- State Historic Preservation Office (SHPO) review has been completed as SHPO issue a No Adverse Impact letter on December 23, 2013 for this property.

Figure 4: FEMA Flood Insurance Rate Map mapping



[illegible]



Photo #1

Description: View north near the southeast corner of the property.



Photo #2

Description: View southwest near the southeast corner of the property.



Photo #3

Description: View south near the northwest portion of the property.



Photo #4

Description: View north near the northeast central portion of the property.



Photo #5

Description: View south of a wet spot that did not contain hydric soils and appeared to be underlain by bedrock.



Photo #6

Description: View west of a wet spot that did not contain hydric soils.



Photo #7

Description: View east of Stream 1 which flows along the eastern edge of the property.

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Photo #8

Description: View north of Stream 1 which flows along the eastern edge of the property.



Photo #9

Description: View west of a rock lined ditch on the north end of the property, this watercourse appears to be man made.

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Photo #10

Description: View east of an erosional swale on the north end of the property.



Photo #11

Description: View north of the floodplain of Stream 1 which did not contain hydric soils and was not dominated by hydrophytic vegetation.

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Photo #12

Description: View south of the floodplain of Stream 1 which did not contain hydric soils and was not dominated by hydrophytic vegetation.