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CIVIL & ARCHITECTURAL ENGINEERING

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## Woodward Lake Subdivision

Towns of Northampton & Mayfield  
Fulton County, New York

APA Project No. 2018-0123

Applicant:

Woodward Lake Properties, LLC  
115 Main Street, Suite D  
Oneonta, NY 13820

July 2, 2020

## Submission Contents

Responses to 03/05/2020 Notice of Incomplete Permit Application

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APA Biological Survey Drawing Set 06-16-20

Habitat Drawing Set Figures 4-6A 06-17-20

Wetland Delineation Drawing Set 06-16-20

Wetland Areas 17, 18, 19 Images

Composite Maps: Alternatives 1, 3, and 4

Area Use Map

Woodward Lake Subdivision Plans & Plat 06-17-20

Letter from Forester (Bower) 03-20-20

Letter from Northampton Highway Superintendent 05-10-20

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Email from D. Bagrow/NYS OPRHP 05-15-20 with Materials Submitted for Determination

Local Government Notice Form

Town Meeting Minutes: Zoning Board of Appeals 06-27-18  
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The responses which follow correspond numerically with the numbered paragraphs found in the APA Notice of Incomplete Permit Application dated March 5, 2020:

1. Regarding the Biological Survey, North Country Ecological Services, Inc.'s responses follow:

- a. A definition of "areas significant" with regard to waterfowl, breeding amphibians and aquatic furbearers was not provided in any documents that were supplied to the Applicant or NCES by the APA. In further discussions with APA staff, "significant" waterfowl areas were suggested as habitats conducive to feeding and nesting activities only (see email exchange of January 6, 2020, copy enclosed). No further guidance was provided with regard to areas significant for breeding amphibians or aquatic furbearers. Consequently, NCES has inferred "areas significant" to mean habitat that is conducive to general activities (feeding, resting, nesting/breeding). Consequently, NCES' assessment of habitats conducive to waterfowl, breeding amphibians and aquatic mammals included both literature reviews and direct observation of wildlife usage of the existing habitats present on the property during the numerous site reviews. Where wildlife usage of specific locations/habitats on the property was documented and/or could be assumed based on literature reviewed, NCES identified those areas on Figures 4, 5 and 6 within the "APA Qualitative Biological Survey, Woodward lake Properties Proposed Residential Subdivision" (the "Biological Report").

While on-site, NCES assessed the property for viable habitats referenced in literature sources as being known as potential feeding and nesting habitat for waterfowl, potential breeding habitat for amphibians, and suitable cover, travel and foraging habitat for aquatic mammals. In addition, as requested by the APA comments, in the Spring of 2020, NCES also conducted site assessments to document waterfowl nesting locations and to locate woodland pools that are utilized by indigenous amphibians for breeding purposes. During all assessments, NCES traversed the property and documented locations of suitable/viable habitat (either by direct visual observation of species presence, auditory responses, or based on the information provided in the literature review). Based on the site assessments, the habitats shown on Figures 4, 5 and 6 in the Biological Report were identified as being used by the taxonomic groups given the habitats ability to provide feeding, resting/cover, and nesting/breeding sites. The individual surveys were conducted on numerous occasions and during appropriate times of the year in order to fully document species presence and utilization of these habitats.

- The Waterfowl Habitat Map provided as Figure 6 in the Biological Report is specific to the feeding and nesting habitat identified by NCES, as referenced above. During the 2020 assessments, NCES specifically conducted an evaluation of the suitable habitats and only documented a single pair of Canada Geese (*Branta Canadensis*) nesting on Woodward Lake. The nesting location was found on top of a Beaver lodge that is located at the southern end of Woodward Lake. During the 2020 assessments, NCES walked through the adjacent fringe wetland areas of Woodward Lake, and Wetland Area 29, and did not observe any waterfowl nests or flush nesting birds. It would appear that the vegetative cover along the edges of the lake is too open to provide protection and safety for nesting birds. However, habitat that could support nesting waterfowl was identified in these locations. Figure 6A shows the habitat that could be readily utilized by waterfowl for nesting purposes. In addition, Figure 6 remains the same and illustrates the adjacent fringe wetlands can be considered feeding habitat. The open water portions of Woodward Lake are roosting habitat only. Based on the field evaluation, no specific portion of Woodward Lake, or the adjacent wetlands that physically abut it, are more beneficial or more heavily utilized than others.
- Page 26 of the Biological Report does possess a statement relative to Wood Ducks, whereas the species is known to "...use cavities in dead/damaged trees for nesting

purposes and the trees can be far away from open water.” This statement reflects the fact that potential nest sites for Wood Ducks (as well as Common Mergansers, also referenced on Page 26 as being a cavity nester) are not confined to any specific habitat/cover type within the property. That is why forested wetland communities were not specifically referenced.

According to literature sources reviewed, Wood Ducks typically choose a tree with a diameter at breast height that is between 1 and 2 feet in diameter, with a cavity that is anywhere from 2–60 feet high, with higher cavities seemingly preferred. Wood Ducks cannot make their own cavities, so they must find a location that already possesses a hole. The nest tree is normally situated near to or over water, though Wood Ducks will use cavities up to 1.2 miles from water, in upland forested areas.

Trees possessing cavities or holes were documented throughout the property, including adjacent uplands and uplands far removed from the lake proper. However, the prevalence of dead/damaged trees possessing cavities suitable to nesting were noted in close proximity to the lake itself. Figure 6 shows that the preferred and most suitable nesting habitat was located along the periphery of Woodward Lake. Nesting habitat for ground nesting waterfowl was identified based on vegetative cover, the presence of hummocks, beaver dams, or another upland micro-habitat within the wetland that could provide a stable platform for a nest. It should be noted that during the numerous reviews of the wetlands and uplands since 2017, no Wood Duck breeding has been confirmed. Adult birds migrate through in the spring and fall of the year and use the lake as respite on migration.

- Figure 6 did not require modification to include the open water components of Wetland Area 29 as feeding habitat. The open water components are more preferred for roosting purposes than feeding, especially for dabbling ducks. In correspondence with APA staff, it was agreed that the open water component of the lake and Wetland Area 29 is considered roosting/resting habitat rather than feeding or breeding habitat.
- Figure 5 “Amphibian Habitat” was provided to document the cover types identified on the site where habitat exists that is conducive to amphibian breeding. The comment by the APA indicates that the text of the Biological Report states “Some of the forested wetland communities found on the property also contained areas of ponded water that were used by frogs and salamanders for breeding” and then states that “It appears that all of the forested wetlands are mapped on Figure 5, rather than the specific areas important to breeding amphibians”. Upon review of Figure 5, the total amount of forested wetland identified on the site is 25.27± acres. The amount of forested wetland habitat identified as containing pockets of open water for durations during the breeding season is 17.44± acres. Therefore, not all of the forested wetland habitat found on the site has been documented as suitable amphibian breeding habitat, as suggested.

Similar with the waterfowl habitat map referenced above, Figure 5 was generated to show the wetland areas that possessed shallow, pooled, open water puddles, most were created from logging activities that had previously occurred on the property. These wetlands contain habitat that could be utilized by amphibians for breeding purposes. As requested by the APA, a specific amphibian breeding survey was conducted in the Spring of 2020 to document specific locations within these wetlands that are utilized by amphibians for breeding and egg laying.

The amphibian breeding surveys were conducted between April 10 and May 15, 2020. A total of eight (8) individual surveys were conducted during this period. The individual survey dates and conditions are depicted in the table below:

### 2020 Spring Amphibian Survey Dates & Conditions

Date	Time	Temperature	Weather Conditions	NCES Staff
4/10/20	1:00pm - 5:30pm	39°F to 35°F	cloudy, light wind, snow	TW
4/14/20	9:15am - 5:30pm	48°F to 51°F	cloudy, no wind	TW
4/15/20	8:30am - 5:30pm	38°F to 44°F	sunny, no wind	TW
4/23/20	9:00am - 3:00pm	46°F to 53°F	sunny, no wind	TW
4/25/20	8:15am - 3:30pm	54°F to 60°F	sunny, no wind	SG
4/26/20	9:30am - 3:30pm	48°F to 57°F	sunny, light wind	SG
4/28/20	8:45am - 3:00pm	48°F to 52°F	partly cloudy, light wind	TW
5/06/20	9:30am - 2:45pm	53°F to 60°F	sunny, no wind	TW

As a result of the 2020 field surveys, amphibian breeding was confirmed in nine (9) separate wetlands and within the fringe wetlands located along Woodward Lake. The data collected from these surveys is outlined below:

### 2020 Woodward Lake – Amphibian Breeding Areas

Area	Associated Wetland	Nearest Wetland Boundary Flag	Approximate # of Egg Masses Found	Spermatophores Identified (Y/N)	Species Identified	Habitat Type
1	1	1 and 2	25 - 30	Yes	WF/SS	Pond
2	29	28-20	3	No	SS	Stream Overflow
3	Woodward Lake		1	No	SP	Emergent Wetland
4	Woodward Lake		0	No	SP in Amplexus	Emergent Wetland
5	Woodward Lake		0	No	RSN mating	Emergent Wetland
6	Near 32	32-19	3	No	WF	Tire Ruts near wetland
6A	32	32-20	1	No	WF	Tire Ruts in Wetland
7	32	32-42	5	No	WF	Tire Ruts in wetland
8	32	32-45	10	No	WF	Tire Ruts in Wetland
9	33	33-66	0	No	WF in Amplexus	Tire Ruts in Wetland
10	23a	23a-14.118	3	No	WF	Wetland Pool
11	23a	23a-14.115	2	No	WF	Wetland Pool
12	23a	23a-14.26	2	No	WF	Wetland Pool
13	23a	23a-14.106	3	No	WF	Wetland Pool
14	23a	23a-14.103	9	Yes	WF/SS	Wetland Pool
14A	23a	23a-14.103	1	No	SS	Wetland Pool
15	23a	23a-14.97	1	No	SS	Wetland Pool
16	23a	23a-14.96	35+	Yes	WF/SS	Log Rd Crossing

17	23a	23a - 14.38	15	Yes	WF/SS	Log Rd Crossing
18	23a	23a - 14.94	35+	Yes	WF/SS	Log Rd Crossing
18A	23a	23a - 14.94	3	No	WF	Wetland Pool
19	23a	23a - 14.42	8	No	WF	Wetland Pool
20	38	38 - 1	35+	Yes	WF/SS	Forested Wetland
21	Near 37	South of R. Sweet Road	3	Yes	SS	Tire Ruts in Forested Upland
22	16c	16c - 85t	7	Yes	WF/SS	Emergent Wetland
23	16c	16c - 85u	5	Yes	WF/SS	Emergent Wetland
24	16	16 - 86	0	Yes	SS	Wetland Pool
25	16	16 - 108	0	Yes	SS	Emergent Wetland
26	32	32 - 43	3	No	WF	Tire Ruts in Wetland
27	32	32 - 44	4	No	WF/SS	Tire Ruts near Wetland
28	32	32 - 46	3	No	WF	Tire Ruts in Wetland
29	32	32 - 43	2	Yes	SS	Tire Ruts in Wetland

(WF - Wood Frog, SP - Spring Peeper, RSN - Red Spotted Newt, SS - Spotted Salamander)

\*\* Both Spring Peepers and Wood Frogs were documented calling in fringe wetlands along Woodward Lake and surrounding the pond in Wetland Area 29 during most surveys\*\*

During the 2020 surveys, all locations of confirmed breeding activity were GPS located by NCES. The individual locations of all documented frog and salamander egg masses have been added to the wetland delineation maps. None of these locations are in or near a proposed building envelope; the closest Amphibian breeding area to a building envelope is 100+ feet (Lot 5; no other lots are within 300 feet). A set of the revised wetland maps are included with this submission. In addition, the fringe wetlands that border Woodward Lake and Wetland Area 29 are shown on Figure 5 as potential breeding habitat for Spring Peepers (*Pseudacris crucifer*), Red-Spotted Newts (*Notophthalmus virendescens*), and Painted Turtles (*Chrysemys picta*).

- All perennial streams possessed species of salamanders: Two-lined Salamanders (*Eurycea bislineata*), Dusky Salamander (*Desmognathus ochrophaeus*), and Northern Spring Salamander (*Gyrinophilus porphyriticus*). Figure 5 has been revised to reflect that all perennial streams contain salamanders.
- Page 25 of the Biological Report provides statements as to the presence and use of certain habitats by aquatic mammals. These statements were based on the direct observations by NCES during various site visits and are suggestive of Beaver (*Castor canadensis*), Mink (*Mustela vison*), Muskrat (*Ondontra zibethica*) and river otter (*Lutra canadensis*). Beaver, Mink and Muskrat were actually documented on the property; river otters were assumed based on the habitats present on the property.

Where tracks, scat and/or physical remains of aquatic mammals were identified, the habitat that they were found in was documented. In addition, the direct observation of Beaver chewing's, individual dams and several active lodges around the lake were also documented. Based on the documented occurrences, the aquatic mammal habitat

map was generated. These areas also included some portions of forested wetlands found immediately adjacent to Woodward Lake. A total of 3.21± acres of forested wetland were identified as potential aquatic mammal habitat.

- As noted in the responses above, Figure 4 was generated based on direct observations by NCES during site reviews. Mink are the only “documented” aquatic mammal species that would utilize the forested wetland habitats and or perennial streams adjacent to the lake for foraging activities. While Mink could certainly utilize these areas, NCES did not directly observe or physically document their presence in these habitats, but only at the culvert crossing at the north end of Woodward Lake.
- b. As requested, Figures 4, 5, 6, and 6A have been modified so that the cover type designations are easier to read when reviewing the mapping.
  - c. Painted Turtles were documented on the property. All of the turtles observed were identified along the fringes of Woodward Lake. Most were seen basking in early Spring on tussocks, hummocks, and exposed logs. Nesting habitat was also documented within sandy-loam uplands that are found in close proximity to the open water and the gravelly side slopes of Collins-Gifford Valley Road, and along the periphery of the open water.
  - d. The wetland flag locations were field located by NCES using GPS technology. NCES utilized a Trimble Geo-7x GPS unit that has sub-decimeter accuracy. In addition, Lawson Surveying also conventionally located numerous wetland flags to “spot-check” delineation accuracy and correlate boundary, topography and wetland data collected. Lawson also surveyed wetland areas while locating other features such as test pit locations, property corners, existing utilities, and while establishing control for the topographic survey.
  - e. As documented in the Biological Report, a single Northern Goshawk (*Accipter gentilis*) was observed within the woodlands located to the west of Collins-Gifford Valley Road. The raptor was observed flying within the forested uplands located between Wetland Area 23 A and Collins-Gifford Valley Road. The bird flew through the forest, landed on a branch, sat for a few minutes, and then flew away. No other observations of this species were documented.

As detailed in the Biological Report, several Great Blue Herons (*Ardea herodias*) were observed along the shoreline of Woodward Lake. Individuals were observed foraging along the western and southern shorelines of Woodward lake and along the fringes of the open water component of Wetland Area 29. It is assumed that Great Blue Herons would also utilize the eastern edge of Woodward lake for foraging purposes. No heron rookeries were observed on, or near the property.

- f. Based on review of the proposed development layout, the patch of Japanese Knotweed (*Polygonum cuspidatum*) located along Collins-Gifford Valley Road is in an area of a proposed driveway for Lot 18.

NCES reviewed the Adirondack Park Invasive Plant Program’s Invasive Species Best Management Practices (BMP’s) Guidance document (dated February 2019) found at [www.adkinvasives.com](http://www.adkinvasives.com). The following are the recommendations to combat knotweed and one of the procedures will be selected when necessary.

## **CLONAL PLANTS**

The following species are characterized by extensive rhizome systems and the ability to spread clonally via root and/or stem fragmentation, which presents unique management challenges. The following species can be managed using the general BMPs included in this section: Common reed grass (*Phragmites australis*) Knotweed species (*Reynoutria japonica*, *R. sachalinensis*, and *R. x bohemica*) and Yellow iris (*Iris pseudacorus*).

## **PLANT DESCRIPTIONS**

Knotweed plants are herbaceous perennial shrubs native to Eastern Asia that can exceed ten feet (3m) in height. They spread rapidly to form large, dense thickets that exclude native vegetation near water sources, in low-lying areas, waste areas, and utility rights-of-way. Dense infestations along riparian corridors can increase erosion and impede recreational opportunities. Knotweeds can tolerate a variety of adverse conditions including full shade, high temperatures, high salinity, and drought. There are multiple species of invasive knotweed, including Japanese, giant and bohemian. All are closely related in biology and appearance and can be managed using comparable techniques. Knotweed species have broad, heart-shaped leaves that are pointed at the tip and alternately arranged on the stem. Their stems are green and hollow with prominent raised ridges/nodes, giving the plant a bamboo like appearance. Large clusters of small white flowers appear on the branches in August and September. Knotweed spreads via seed and by vegetative expansion through stout, aggressive rhizomes.

## **MANAGEMENT OPTIONS**

**1) Digging/Pulling:** Non-mechanized digging or pulling can be effective in containing, suppressing, or locally eradicating early detection infestations of clonal species. Methods: Dig or pull up the entire plant including all roots and runners using a digging tool. Extreme care must be taken to remove the entire root system, as new plants can sprout from residual fragments. Small plants may be hand-pulled depending on soil conditions and root development. Disturbed soil should be tamped down firmly after removing plants.

Disposal: Bag and remove all plant parts from site. Solarize by placing bagged plant material in the sun for at least two-weeks and then dispose of in an approved landfill. Do not compost invasive plant material.

**2) Herbicides:** Herbicide treatments can be effective in containing, or locally eradicating early detection to medium sized infestations and suppressing large infestations of clonal species. Apply glyphosate, triclopyr, imazapyr, and/or imazamox based herbicides using the selective application techniques described below. Glyphosate will not affect subsequent plant emergence; however, the use of imazapyr or imazamox may inhibit regrowth for several months or years.

Methods: Apply glyphosate, triclopyr, imazapyr, and/or imazamox formulations using the selective application techniques identified below. Herbicide applications should be performed near peak growth, typically in August or September. Consult the herbicide product label for recommended dilution rates and to ensure the target species, desired application technique, and habitat type (upland vs. wetland) are listed and approved.

For herbicide treatments use any of the following application techniques:

a) Foliar spray application - commercial-grade spray bottle with adjustable nozzle, backpack sprayer with adjustable nozzle, boom/broadcast sprayer and/or spot sprayer. This technique can be used with most herbicide active ingredients.



b) Clip and drip or stem injection application: • For common reed grass - cut the stem near the base and fill its hollow cavity with 2-5ml of glyphosate-based herbicide. Most herbicide product labels recommend a 50% v/v solution.

• For knotweed spp. – using a specialized stem injection system, deliver 2-5ml of undiluted glyphosate-based herbicide directly into the plants hollow stem. Injections are typically made between the 2nd and 3rd node from the soil surface.

• For yellow iris – cut a flowering stalk and inject the plants fleshy pith with 0.5-1ml of undiluted glyphosate-based herbicide.

Disposal: Plants should remain undisturbed for at least two weeks following herbicide application. No disposal is required.

**3) Excavation (mechanized):** Excavation can be effective in suppressing, containing, or locally eradicating early detection to small sized infestations of clonal species. Associated costs and disturbance can be limiting factors for this control method.

Methods: Excavate plants to a depth below existing rhizomes and including a buffer area of at least five feet (1.5m) around visible plants to account for underground roots and rhizomes. Note: Excavation within 100 feet (30m) of a waterbody can cause erosion and/or bank destabilization and may be subject to regulation.

Disposal: Contaminated soil and plant material should be buried at least five feet (1.5m) deep in a disposal pit. The disposal site should be monitored annually for at least five years to ensure no new plants emerge. Excavated material may also be spread on a contained, impervious surface to dry out for at least two years. Spread the material in an even, thin layer – approximately 1 foot (30cm) thick – to facilitate even heating. If necessary, treat emerging plants with herbicide.

- g. As is evident during site reviews with Staff from the APA, the Tatarian honeysuckle is spread throughout the site. Given the magnitude of the property, it would be infeasible to locate and document by survey, all locations where the honeysuckle is present. During the 2020 site assessments, NCES documented the locations within the proposed development area, where Tatarian honeysuckle is considered as a dominant shrub component or co-dominant species within the ecological communities identified. The general locations of the honeysuckle have been added to the mapping to illustrate its coverage within the landscape. It also occupies other portions of the woodlands, but more sporadic and not as a dominant species.
2. Regarding the Aquatic Resources Report, North Country Ecological Services, Inc.'s responses follow:
- a. As outlined in the information provided on the project, it is understood that the entirety of Woodward Lake, with the exception of those areas deeper than 2 meters, is viewed by the APA as an aquatic bed wetland. The Existing Ecological Communities Map provided in the Biological Report, further defines the entirety of Woodward Lake as being a Mesotrophic dimictic lake community. By definition, this community type “possesses submerged aquatic vegetation” (SAV). The SAV species identified were specifically referenced in the “Delineation of APA Regulated Aquatic Resources” (the “Wetland Report”).
  - b. Based on overlaid images (image copies attached), The boundaries of Wetland Areas 17, 18 and 19 have remained the same from the original wetland delineation (provided in the draft wetland report) to the final mapping contained in the “Delineation of APA Regulated Aquatic Resources”. Therefore, we are unsure of how/why the APA would state that they are different?
  - c. Refer to Comment 2a provided above, the Wetland Delineation Map and the Existing Ecological Communities Map have both been revised to clearly show the areas of SAV (constituting APA

- regulated wetland) and the areas of open water, deeper than 2 meters (non-APA regulated wetland). This includes the appropriate portions of Wetland Area 29.
- d. As requested, the Wetland Report and Wetland Delineation Maps have been revised to show the portion of Wetland Area 31, located immediately up-gradient of the old timber dam, as being APA regulated wetland.
  - e. As requested, the Wetland Report and the Wetland Delineation Maps have been revised to define that Wetland Areas 30 and 32 are non-APA regulated wetlands.
  - f. The version of Gregory Edinger's *"Ecological Communities of New York State"* utilized for the Wetland Report is in fact the edited, 2014 version. The Literature Cited Page has been revised accordingly.
  - g. Section 4.2 of the Wetland Report outlines the dominant species of vegetation that were identified within each of the ecological communities documented on the property. The scientific names of each and every species listed have been provided. If the same species was documented in different ecological communities, the scientific name of that species was only listed once. In scientific reports, providing the scientific name of a species each and every time it is referenced is redundant and unnecessary.
  - h. The location of all sample points and the location/direction of all photograph locations have been added to the Wetland Delineation mapping for the site. The revised mapping is provided for reference.
  - i. According to the Applicant, the native vegetation within Woodward Lake will not be actively managed. Woodward Lake will remain in its current vegetative state.
  - j. Based on discussions with the Applicant and Engineers, it has been determined that all historical information relative to the Woodward Lake property was provided to the APA. Neither the Applicant nor the Engineers possess any copies of the report referenced in the comment letter.
3. Composite maps as requested have been prepared for Alternatives 1, 3, and 4 as described in the application materials provided earlier. None was prepared for Alternative 2 – Traditional "Conservation-Cluster" style subdivision because, as described in the earlier application materials, it is not economically or physically feasible for this property, in this particular location.
  4. An alternative subdivision plan with a shorter road proposed on the east side of the lake, ending before the perennial stream was never considered. This plan would result in the loss of six lots (three of which are waterfront) representing 15% of the already minimal number of thirty seven lots proposed. The loss of this much revenue would be detrimental to the economic feasibility of the overall project.
  5. As requested, a map showing existing development, cleared areas, and uses within 0.5 miles is herewith provided. The project site is located 1.5 miles from the village of Northville, and 2,500 feet off NYS Route 30 where there is a NYS DEC boat launch for the Great Sacandaga Lake. Against the north edge of the property are smaller residential lots with both full time and seasonal residences, along with a large stone quarry providing a variety of crushed stone products. On the west side of the property are NYS forest lands, and the south and east sides are a mixture of privately owned vacant land and large lot residential properties. Noise travels throughout the property from blasting and crushing at the stone quarry, to power boats and jet skis on the Great Sacandaga Lake and River.
  6. CAD data files as requested were provided to the Agency in early April.

7. There is an extensive network of logging roads on the property resulting from heavy logging in the 1990s. Some roads simply branch off and then reconnect back into the same road, apparently as an alternate skid route. Some have been used more than others over the last 20 years. Many of the roads have been added to the project Plans, with a focus on the larger lots of 3, 7, 8, & 11.
8. With each of the large parcels being independently owned, the forest resources on these lots will also be independently managed. Managed or “working forests” are more important than ever, to the landscape, the local economy, the state economy, etc. As working forests provide better wildlife habitat, more hunting opportunities will be realized. Greater diversity leads to a healthier forest ecosystem. This, we feel, is especially important within the Adirondack Park where so much of the forest is covered under the “forever wild” clause. (lands protected by the “forever wild” clause constitute about 50%+ of the park). These “forever wild” forests lack the diversity which results from the lack of management and therefore provides wildlife with far less habitat. As an example of providing greater forest diversity, Owner A wants to manage for deer so he/she employs some seed tree/shelterwood cuts to enhance regeneration (browse for wildlife) and maybe does a few food plots. Owner B may want to manage for a sap/syrup production so he/she favors the hard maples, Owner C wants to manage for grouse so does some patch clearcuts to set succession back and provide habitat for grouse and other small game. And so forth.

If the land were commonly owned by a number of different stakeholders, there’s also the potential for disagreement on management and that could likely result in a lack of management—can’t agree, you do nothing.

In addition, keeping all the back land forest as one parcel would be a detriment to sale—people like their own parcel to do what they want. A large lot has greater value than a smaller parcel that adjoins a large commonly owned parcel.

9. The mean high water elevation of 798.9 was for the “pond” on the west side of Collins-Gifford Valley Road. The pond connects to the lake via culvert, which was clogged at the time this surveyed elevation was obtained. To avoid confusion, this elevation has been removed from the drawings. Also, the culvert has since been cleared.
  - a. During a site visit with Agency staff, the mean high water mark was determined to be approximately 5” above the dam spillway. The spillway elevation was determined by the surveyor to be 796.7. Thus the mean high water mark is 797.1.
  - b. The mean high water mark elevation has been added to all expanded site plan drawings which include shoreline.
10. The updated Preliminary Subdivision Plat prepared by Lawson Surveying include the shoreline width as it winds and turns for each lot having shoreline. The common lot line between Lots 4 and 19 has been adjusted to achieve the minimum width of 150 feet.
11. NCES has reviewed APA regulations relative to prospective development and is unable to locate any guidelines pertaining to “critical terrestrial habitat for amphibians” having been established. However, based on the literature review conducted, it is understood that vernal pool breeding amphibians rely on the temporary pools for breeding purposes but reside in adjacent upland habitats throughout the remainder of their life cycles. Therefore, adjacent uplands are important to the viability of the woodland vernal pools and are integral to the survival of the species. The Applicant, Engineers, and NCES are respectfully requesting information from the APA as to the regulatory definition of “critical terrestrial habitat” in order to determine how to address the comment accordingly.

Based on the literature reviewed, the lot layout proposed provides sufficient upland habitat surrounding the wetlands and streams to afford protection of the water quality and vegetative characteristics of

wetlands for breeding amphibians. The closest Amphibian Breeding area to the building envelope for Lot 3 is over 400 feet away.

12. As discussed with APA staff prior to the submission of the Biological Report, the wildlife travel corridors identified by NCES are extremely generic based on the existing topography and terrain features present on the property. As directed by APA staff, NCES did not survey actual “deer paths” but rather attempted to define the general movement of wildlife species throughout the property and around Woodward Lake. As such, NCES identified locations where animal movement was more readily observed and frequent than others. However, the travel corridor information provided in the Biological Survey does not limit wildlife to utilizing these specific routes only, as shown on the graphic, nor does the information provided specifically indicate that the animals do not utilize other portions of the property to freely move about. Conversely, animal movement was noted throughout the entire property, with the exception of the very steep upland slopes located in the western periphery of the site. The 900’ contour referenced in the Biological Report was an elevation where slopes were gradual and a “bench” was present that animals could easily traverse the site on. By no means was it to be inferred that the 900’ contour was the only route used by wildlife to travel the property. Consequently, the statement regarding the analysis of APA Staff determining that the proposed building envelopes for proposed lots 3, 10, 11, 32, 33, and 34 may overlap the travel routes and that the lots should be reconfigured to avoid these travel routes is unwarranted. In addition, the request by the APA to maintain a 50 meter “buffer” on either side of the travel routes is infeasible and not scientifically warranted.

The proposed development including roads, building envelopes, common areas and driveways consists of less than a total of 28 acres of disturbance, or less than 3% of the entire property, leaving more than 97% or 1,142+ acres undisturbed. The proposed building envelopes do not extend through the entirety of proposed lots, therefore undeveloped land will exist between the building envelopes and lot boundaries. With the ability for wildlife to travel through the property, no travel corridors will be eliminated or avoided by wildlife based on the location of proposed building envelopes. The species of larger fauna identified on the property are “development associated” species meaning that they tolerate various forms of development and readily adapt to human presence. As documented in the Biological Report, during the winter months, animal movement was actually focused around the residentially developed properties that are adjacent to the Site. These areas had forested upland disturbance (logging & utility line maintenance cutting) that attracted whitetail deer and other species. It is highly likely that the proposed development of the lots will generate “edge habitat” that will be utilized by the species present and that animal movement might actually tend to revolve more around and among these developed areas. The terrain throughout the site, and habitat features found adjacent to the roadways, certainly do not prohibit animal movement along them.

13. The building envelope for Lot 31 is at least 50 feet from adjacent wetlands, providing vegetative buffer in accordance with guidance given in the Agency’s comments of November 15, 2019. The proposed onsite wastewater absorption areas (primary and reserve) are at least 100 feet from the wetlands. The driveway has been graded with a maximum grade of 10.6% which is within Agency guidelines. While the driveway passes within 50 feet of wetlands, proper grading with ditches/swales on the uphill side will prevent any runoff from entering directly into them.
14. We cannot find any reference to a 50-meter buffer requirement from perennial streams in APA regulations. It has been our understanding, that a 100-foot buffer is the standard. All adjacent building envelopes are at least 100 feet from the associated perennial stream wetland.
15. As requested, Lots 19, 28, and 29 have been redesigned to provide a 100-foot buffer between the building envelopes and wetlands. However, Lot 23 cannot meet this and remains with the 50-foot buffer as per the guidance in the Agency’s November 15, 2019 comment letter.

16. Upland paths for Lots 2, 4, and 8 are all shown. After much internal discussion, it is felt that it would be virtually impossible to prevent property owners from accessing their own shorelines. In order to prevent owners from tramping through wetlands, Lots 30 and 31 have proposed upland paths leading to short boardwalks over fringe wetlands to the shoreline. Details are provided on Sheet C-507 of the plans.
17. The alternate footpath on Lot 25 has been eliminated as requested. The dock detail has been revised and moved to Sheet C-507.
18. The building envelope for Lot 12 has been revised to meet proper setbacks and a vegetative buffer from the road.
19. The proposed maximum height for any structure is 40 feet, as noted in Covenant #16, and per APA guidelines.
20. The reference to outbuilding envelopes has been removed.
21. We request a maximum dock length of 12 feet from the shoreline. Anything shorter will not accommodate most canoes or other watercraft allowed on the lake. The longer dock length will help reduce damage to shoreline vegetation by keeping row boats and canoes out in the water rather than pulled up on shore. Also, the dock detail has been moved to Sheet C-507.
22. We have obtained as-built drawings from the Town of Northampton for the existing residence on Lot 21 and have added the onsite wastewater treatment system components, as well as a 100% replacement field. The drilled well is also shown.
23. All driveways, including those for Lots 9, 29, 36, and 37 have been graded and comply with both Agency and Town guidelines.
24. Easements for all shared driveways that cross an adjoining lot(s) have been depicted on both the Plans and the Plat.
25. Lot 5 has been reconfigured as requested.
26. Since the preliminary submission, many logging roads have been located and are now shown on the Plans. Please refer to Sheet G-101. The back areas of Lots 7, 8, and 11 are all accessible using existing logging roads. Some lot lines were reconfigured to ensure this.
27. The shared portion of the existing road leading to Lots 2 and 3 will not be widened, but will remain as is. The Plans have been revised accordingly.
28. The sizes of the existing culverts have been added where they were not shown before. During recent site visits, it was found that the 36" CMP culvert near the existing road wye has washed out and will need to be replaced.
29. Please refer to the response to comment 12 above.
30. An updated composite map for this proposal has been prepared and is included as Alternative 4 (see response to comment 3 above).
31. Regarding the Forest Management Plan:
  - a. This will be done as requested at the appropriate time.
  - b. The mulch hay reference will be removed.

- c. Brian Bower, CF states in a letter to Alan Lord dated March 20, 2020: "With respect to the Woodward Lake sample Forest Management Plan for Lot 3, bush honeysuckle was noted in all the stands, on lots greater than 50 acres. For the most part it occurs in localized areas. Where Japanese barberry was found, it was noted. The barberry is not pervasive and was found/noted as individual plants, or very small clusters of plants." Mr. Bower's letter is included with the submission documents.
32. The legend appearing on the Design Plans now includes shared driveways to be constructed by the project sponsor. Otherwise, all new access roads will also be constructed by the project sponsor. Only individual driveways will be constructed by lot owners.
33. The limits of clearing for all roads and driveways have been depicted and labeled on the Design Plans.
34. Included with these submission documents is a letter from the Town of Northampton Highway Superintendent describing his review of proposed driveway locations along Collins-Gifford Valley Road and the new proposed road location off High Rock Road. With the exception of Lots 13, 14, 16, and 20, he found all of the foregoing to have adequate sight distance. The driveways for the cited lots have all been revised per his recommendations (sketches included with the letter). The new road and all driveways have been designed in accordance with Town standards. Additionally, the new road is designed to meet the international fire code.
35. The new road and all driveways have been designed in accordance with Town standards. Additionally, the new road is designed to comply with the International Fire Code.
36. The speed limit on Collins-Gifford Valley Road and High Rock Road is 35 mph. Minimum intersection sight distance for a left turn is 390 feet, and for a right turn is 340 feet. The sight distances for the new proposed road intersecting High Rock Road was verified by survey instrument and exceeds the minima (396 feet for left turn, 713 feet for right turn; as shown on the Plans). Sight distances for driveways along the new road have been measured graphically and all meet or exceed the minima, given a speed limit of 35 mph. Adequate sight distances for the proposed driveways along Collins –Gifford Valley Road were verified by the Town Highway Superintendent as noted above.
37. There are no existing traffic counts for Collins-Gifford Valley Road. This is a Town road having NYS DOT Functional Class 09 (Local Rural Road). It is not listed in the National Highway System. We have estimated existing and projected average weekday daily traffic (ADT) for both Collins-Gifford Valley Road and Woodward Lake Drive utilizing Institute of Traffic Engineers Trip Generation Rates as follows:

Collins-Gifford Valley Road

Existing development consists of a total of 7 single family dwelling units (3 on north end, 4 on south). We did not distinguish between seasonal and year-round homes.

Existing ADT =  $7 \times 9.57$  trips/d.u. = 67

Projected development consists of an additional 20 single family dwelling units at build-out.

Projected additional ADT =  $20 \times 9.57$  trips/d.u. = 191

Total Existing and Projected ADT = 258

Woodward Lake Drive

Projected development consists of 16 single family dwelling units at build-out, plus Common Area access.

Projected ADT =  $(16 \times 9.57$  trips/d.u.) +  $(2$  equivalent marina berths  $\times 2.96$  trips/berth) = 159

For both roads, projected daily traffic at build-out is significantly less than 400 trips per day, which NYS DOT characterizes as very low volume. Collins-Gifford Valley Road travel width is 18+ feet, which meets NYS DOT and AASHTO design criteria for low volume roads having a speed limit of 35 mph.

38. The Town has determined that no improvements along Collins-Gifford Valley Road or High Rock Road are required by Woodward Lake Properties. Please see the Town Planning Board meeting minutes of November 14, 2018.
39. The existing access off High Rock Road will be abandoned by placing boulders next to the existing gate. This is shown on the Plans.
40. The station numbers for Woodward Lake Drive have been added to the Plan sheets. Also, the scale of the road plan drawings has been changed for ease of viewing.
41. Parking spaces for 7 cars have been depicted in the proposed parking lot for the common dock location.
42. There are 17 proposed off-lake lots. In the project sponsor's experience, common areas are not greatly used and it is believed that 7 spaces will be more than adequate. Furthermore, the site is in close proximity to the Great Sacandaga Lake and boat launch. Additional recreational waters are also close by, including Little Pond in Northville. This implies that many property owners are likely to access other waters for recreational use, rather than, or in addition to, Woodward Lake.
43. The proposed common area dock is to measure 20 feet from the mean high water line and be 6 feet wide. The typical dock detail on Sheet C-507 otherwise pertains to this dock. No other structures of any kind are proposed on the common lot.
44. Tree cutting or vegetation removal is proposed only to clear for the common area parking area and access drive. Additionally, mowing of the dam will continue for maintenance purposes. No recreational trails are planned.
45. It is understood that ownership and maintenance of the dam to the Property Owners' Association will need to be formalized using the NYSDEC "*Dam Safety – Form for Property Transfer Notices*".
46. To clarify, there is currently no trail in this location. The applicant proposes to reserve the right to grant a right-of-way to anyone (i.e. the Town of Northampton, who originally brought this idea to our attention) who wishes to someday develop a trail here. With regard to parking, there is an existing parking area off Collins-Gifford Valley Road located about 1,700 feet to the south of the property, which is a trailhead for the Northville-Placid Trail. This area will provide for adequate parking for those few hikers that use "Sweet Road Trail", if it ever gets developed.
47. Regarding the SWPPP:
  - a. The SWPPP has been updated along with the Plans. New impervious area calculations are included. Direct CAD measurements were the basis of calculations for all surfaces outside building envelopes.
  - b. The SWPPP has been revised to assume an average of 4,200 square feet of impervious surface for each building envelope, consisting of 3,000 sq. ft. of structures (primary and accessory) plus 1,200 sq. ft. of driveway/parking. While the Woodward Lake Protective Covenants allow for a principle structure having a maximum footprint of 3,000 sq. ft., plus an accessory structure having a maximum footprint of 1,000 sq. ft., these are unusually large for a residence and garage or outbuilding. A residence with decks and balconies would have what is considered a large footprint at 2,000 sq. ft. Those who want 3,000 sq. ft. or more of living space are more likely to have a second floor and a smaller footprint. This would be particularly true for this project as homeowners would likely want views which could only be had from a second floor.

- c. It is understood that only one NOI will be required. The SWPPP has been revised accordingly. Stormwater management and erosion and sediment control design for this project conform to NYSDEC design and technical standards. Thus no special application or review by NYSDEC is required. When construction dates are ascertained, an NOI will be prepared and submitted for coverage under the SPDES General Permit for Construction Activities.
48. A Utility Plan depicting existing and proposed utility infrastructure for the project has been prepared and is depicted on Sheets E-101 through E-103.
  - a. No offsite utility easements will be needed. All distribution infrastructure will be within road rights-of-way. Service lines extending to building envelopes from shared driveways will be within the shared driveway easements. No wetlands will be disturbed. Vegetative clearing limits are depicted where needed.
  - b. Utility poles are not expected to exceed 40 feet in height, which is a standard pole height.
  - c. Please realize that utilities will be installed by others (i.e. National Grid, Frontier). Past experience has shown that utilities are only installed upon the utility company receiving a specific demand from a property owner.
49. A sign will be posted at the common area boat launch parking area spelling out "Clean, Drain, Dry, and Disinfect" protocols. Language from the Adirondack Park Invasive Species Best Management Practices Guidance will also be added to the Homeowners Agreement.
50. Two spoil areas have been identified on the east side of Woodward Lake for onsite disposal of waste generated by road and shared driveway construction. The areas are shown on the Woodward Lake Drive Erosion & Sediment Control Plan. Trees, rocks, and boulders may be placed in both areas. No other waste materials which may be generated during construction may be left on site. The spoil areas are 11,400 sq. ft. and 23,700 sq. ft., respectively, in area, offering a total of 35,100 sq. ft. of disposal area. It is estimated that Woodward Lake Drive will generate approximately 21,600 cu. ft. of waste material and shared drive and common area access will generate about 7,200 cu. ft. of waste, for a total of 28,800 cu. ft. of waste.
51. A copy of an email from Dan Bagrow of the NYS OPRHP to Alan Lord, dated May 15, 2020, is included in the submission documents which contains the information submitted to that agency for their determination of the project having no impact on archeological and/or historic resources listed in or eligible for the New York State and National Registers of Historic Places. The documents provided included a sketch plan of the residential development with the cemetery shown.
52. A completed copy of the Local Government Notice Form signed by a Town of Northampton official is included in the submission documents.
53. July 27, 2018 meeting minutes of the Town Zoning Board of Appeals are included in the submission documents.
54. November 14, 2018 and December 11, 2018 meeting minutes of the Town Planning Board are included in the submission documents.
55. NCES has submitted a request for a jurisdictional determination from ACOE. No NYSDEC permits are required for this project (other than for coverage under the SPDES General Permit for Construction Activities discussed above).

We hope the additional information provided will answer your remaining questions and help you see our proposal is a good fit for the property and the area. As this property is located between smaller residential lots right outside the village of Northville, and larger public and private forest lands, our proposal is a good transition between them. The property consists of 1,169.6 acres of which we only propose to develop (or disturb) less than 28 acres, or less than 3% of it, leaving the remainder of 1,142+ acres or 97% undeveloped/undisturbed. The lot sizes range from 5



to 214 acres in size, with the larger acreage lots abutting up against State and private forest lands. We feel our current proposed plan has carefully planned, well-designed building envelopes where the majority of them are clustered along the existing town road to minimize new impacts. Although the majority of the building envelopes are clustered around the lake, Woodward Lake is a valuable manmade asset to the property with sandy, gravelly soils surrounding it, providing the best sites for building and onsite wastewater absorption systems. As one moves back from the lake out of the valley to the hillsides, the soils become shallower, rockier, and not as permeable. Where feasible, we have kept the building envelopes and onsite wastewater systems twice the minimum required setback from the lake edge. We are proposing only around half the number of allowable building sites allowed under APA land classification guidelines. Adding additional building sites up on the higher elevations would provide magnificent views of the Great Sacandaga Lake, Village of Northville and surrounding area. In trying to carefully minimize our impacts we have kept our proposed building envelopes down and out of sight off the mountain sides.