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### **3.3 Ecology & Wetlands**

**Comment 3.3-1 (Deputy Mayor Yagel, Public Hearing Transcript, June 4, 2009):** I find it kind of ironic that somebody who wants to develop a piece of property, doesn't know that they need a DEC permit to work in State and Federally regulated wetlands.

***Response 3.3-1:*** *The Applicant fully recognizes that a freshwater wetlands permit is required from the New York State Department of Environmental Conservation (NYSDEC) for any disturbance to State regulated wetlands and their associated 100 foot adjacent area. Nevertheless, development of the Patrick Farm subdivision will not require any encroachment of State regulated wetlands or adjacent areas, therefore a NYSDEC permit is not required for this action. The Applicant also recognizes that a freshwater wetlands permit is required from the United States Army Corps of Engineers for any filling of Federally regulated wetlands, but no filling of waters of the United States is proposed for development of the Patrick Farm subdivision.*

**Comment 3.3-2 (Deputy Mayor Yagel, Public Hearing Transcript, June 4, 2009):** Some of the lots have substantial wetlands, and others are unusable portions. ...how much unusable property is on these single family lots?

***Response 3.3-2:*** *The single-family lots to be developed are zoned R40 and must have at least 20,000 square feet of unencumbered land area. Each of the proposed single family lots meets this requirement.*

**Comment 3.3-3 (Mr. Levine, Public Hearing Transcript, June 4, 2009):** ..this environmental plan does not include any mapping of trees over six inches in diameter. You need to require a mapping of every tree over six inches.

***Response 3.3-3:*** *Tree mapping of the entire parcel was not identified as part of the DEIS Scoping document. Tree mapping has nevertheless been prepared for a sample area within the proposed MR-8 zone change area as a basis to assess the loss of trees and to evaluate the adequacy of proposed planting mitigation. Tree mapping of all trees with a diameter of 8 inches or greater located within the R40 portion of the property shall be submitted with a future subdivision application.*

**Comment 3.3-4 (Mr. Levine, Public Hearing Transcript, June 4, 2009):** ..you should not permit any -- any building to be within at least 100 feet of the -- of the 100 year flood plain of the stream that runs through this parcel that connects them.

***Response 3.3-4:*** *The vertical separation above the floodplain is the design criterion for situating homes in the vicinity of watercourses. Homes at Patrick Farm will be situated with the low floor elevation at least 2 feet above the 100 year floodplain. Regardless, there are no zoning laws restricting the development of homes within 100 feet of the 100-year flood plane identified on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps.*

**Comment 3.3-5 (Mr. Rhodes, 26 Sky Meadow Road, Public Hearing Transcript, June 4, 2009):** Why hasn't the builder been required to restore the wetlands as they were before.

**Response 3.3-5:** Measures taken to remediate previously impacted wetland areas were inspected by a representative of the Army Corps of Engineers (ACOE) in December of 2006. Following this inspection, further measures that were taken to complete remediation of the previously impacted areas were reported to the ACOE by Carpenter Environmental Associates (CEA), at which time the ACOE determined the completed remediation measures fully addressed the enforcement concerns of the ACOE with regard to the previously impacted areas.

**Comment 3.3-6 (Mr. Rhodes, 26 Sky Meadow Road, Public Hearing Transcript, June 4, 2009):** ..the dam was vandalized. How many more acres of wetlands would there have been if somebody had forced the builder to restore that dam which was destroyed?

**Response 3.3-6:** Neither the applicant nor his Consultants are aware of any damage that occurred at the existing dam.

**Comment 3.3-7 (Mr. Drennen, Public Hearing Transcript, June 8, 2009):** You're impacting the water shed. There are a lot of wetland areas, some of them on the property.

**Response 3.3-7:** None of the on-site wetlands will be disturbed. A site specific stormwater pollution prevention plan (SWPPP) has been prepared to comply with the NYSDEC State Pollution Discharge Elimination System General Permit for Stormwater Discharges from Construction Activity 0-08-001 and certified by the Applicant's licensed professional engineer to mitigate the potential adverse impacts on water resources associated with development of the site. Temporary and permanent erosion control facilities are proposed, as well, to aid in mitigating any impacts created by development of the project site.

**Comment 3.3-8 (Letter #8, Edward F. Devine, Rockland County Drainage Agency, June 4, 2009):** Furthermore, the eastern and southern side of the site appears to be located within mapped state and federal wetlands. The RCDA suggests that the U.S. Army Corps of Engineers and New York State Department of Environmental Conservation be contacted by the lead agency and requested to make a jurisdictional determination regarding the proposed activity.

**Response 3.3-8:** Both the United States Army Corps of Engineers (USACOE) and the New York State Department of Environmental Conservation (NYSDEC) are involved agencies and both received copies of the DEIS.

As stated in Chapter 3.3 of the DEIS, a detailed wetland delineation was conducted by Carpenter Environmental Associates (CEA) on the project site in accordance with both the US Army Corps of Engineers (ACOE) as well as the New York State Department of Environmental Conservation guidelines. The Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 1987) and supplemental guidelines were used to delineate federal wetlands pursuant to the ACOE. The NYSDEC Freshwater Wetland Delineation Manual (1995) was used to delineate state wetlands. The portions of NYSDEC wetlands TH-14 and TH-30 that are located within the project boundaries were validated by Brian Drumm of the NYSDEC on November 21, 2006. The boundaries of

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*these wetlands were recently revalidated by Brian Drumm on November 13, 2009. The updated Map and NYS DEC Boundary Validation are included as Appendix F.*

*The ACOE requires a jurisdictional determination of wetlands on a project site when a proposed activity requires the filling or disturbance of wetland areas designated as "above the headwaters" of navigable waters of the United States under Section 404 of the Clean Water Act. Since the Patrick Farm development currently does not propose any filling or disturbance to any wetlands, a formal request to the ACOE for a jurisdictional determination has not been made.*

*A February 1, 2007 letter by Chief Christopher Mallery, Ph.D., on behalf of the ACOE, states that the potential impacts from the proposed development of Patrick Farm, as detailed in the reviewed submittal, were sufficiently minor in scope as to be considered authorized under nationwide general permits, provided that the project is carried out in accordance with the general conditions of the nationwide general permit program. If, at any time during the course of construction, the project was to be modified to include additional impacts to regulated areas additional written authorization from the ACOE would be necessary. The proposed project has been modified since Chief Mallery's review to remove all disturbances to wetlands on the project site. Since the project will no longer require coverage under the nationwide general permit program, the Applicant feels further correspondence with the ACOE is unnecessary.*

*Communication with the Corps of Engineers on October 2, 2009 confirmed that the Corps. of Engineers, New York State District office has approved the delineation of the federally-regulated wetlands and other waters of the United States on the Patrick Farm development site and verified that the activities associated with the project are authorized under Nationwide Permit (NWP) 29. Refer to Correspondence Appendix B.*

**Comment 3.3-9 (Letter #10, Adam Peterson, Environmental Analyst, New York State Department of Environmental Conservation, Division of Environmental Permits, Region 3, June 16, 2009):**

Freshwater Wetlands (Article 24) — The subject parcel contains portions of two NYS Freshwater Wetlands, TH-14 (Class I) and TH-30 (Class II). Any disturbance within these two wetlands or their respective 100 foot adjacent areas requires a Freshwater Wetlands permit from this Department. The site also contains portions of wetlands that may be federally regulated. Federally regulated wetlands fall under the jurisdiction of the Army Corp of Engineers. Correspondence with that agency is required to determine any additional permit requirements that may apply. Please note that if the project involves the filling of any federally regulated wetland a 401 Water Quality Certification is required from this Department.

***Response 3.3-9:*** Comment noted. Please refer to Response 3.3-8 regarding correspondence with the Army Corp of Engineers.

**Comment 3.3-10 (Letter #11, Adam Peterson, Environmental Analyst, New York Department of Environmental Conservation, Division of Environmental Permits, Region 3, July 3, 2009):**

Section 3.3 page 13 of the DEIS indicates that the Eastern box turtle, a NYS Species of Special Concern, was observed by Tim Miller Associates during the course of 2008 field surveys and Carpenter Environmental Associates during a 2006 field survey. As the DEIS indicates, NYS State Law does not offer any specific protection for species of special concern. However, the final scoping document requires that the DEIS evaluate the potential impacts on unique, rare and/or endangered, threatened and special concern species. The DEIS does offer a description of preferred habitat for the Eastern box turtle but does not discuss potential

impacts to on site habitat or related impacts on the population. An analysis regarding potential impacts to the Eastern box turtle should be included.

**Response 3.3-10:** *The eastern box turtle is listed as a NYS Species of Special Concern and was observed on the project site. Habitat loss, road-kill/maiming and direct loss (burying or maiming) of adult turtles, nest sites and hatchlings likely pose the greatest impacts to the long-term welfare of the eastern box turtle on the project site. Other impacts to the species include illegal collection as pets, the application of pesticides to lawn areas, and predation by raccoons and other wildlife. All of these impacting elements are additive and are known to decrease the long-term stability of box turtle populations.*

*The conversion of upland woods and fields to residential development would reduce nesting and foraging habitat for box turtles, as well as introduce roadways that could result in direct loss of turtles. Roads could also act as a trap to turtles that attempt to cross the road, as they could become trapped by curbing and ultimately succumb to heat and desiccation or direct loss by vehicle interaction. Residential development could also increase encounters between humans and box turtles that could result in illegal collection of turtles as pets, as well as introduce increased populations of development subsidized species that often prey on box turtles and their nests (i.e. raccoon, skunk, opossum). Ecotones created by the residential development could favor such species, but are not expected to increase local populations of nest predatory wildlife as these nest predatory species (raccoon, skunk, opossum) would be managed, if necessary, by a licensed pest control specialist upon the addition of the proposed residential development.*

*The application of pesticides and fertilizers to lawns after completion of the development also has the potential to impact box turtles by poisoning and/or eliminating food sources for the species.*

*Construction related impacts to box turtles include those associated with habitat loss, as well as direct killing or maiming of turtles by construction efforts.*

*To mitigate the potential impacts to box turtles on the project site, areas of wetland and wetland buffer would remain as available habitat to box turtles after development of the project site. In addition to the undisturbed wetland areas individual residential lots, specifically the single family residences, are expected to retain portions of undisturbed habitat after development of homes that would continue to provide habitat to eastern box turtles, although this may increase impacts related to human-turtle interaction and illegal collection as pets. The addition of stormwater management areas would also provide suitable habitat for box turtles after development of the project. To mitigate impacts related to road-trapped turtles, the applicant may consider the use of cap-code style curbing along roads within the development.*

*During construction, filter fabric fencing along the limits of disturbance will be used to keep turtles out of the work area to the extent possible. The construction manager and construction staff will be instructed by the environmental site manager to be observant for turtles. The fence line will be checked each morning by the work crew prior to commencement of earth work; this has worked well on past projects, and also allows for an ongoing tally of turtles and snakes. Crews will report any findings to the site*

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*environmental monitor on a regular basis. Any turtles that make it through or around the fence over night will be placed back outside of the fence by construction workers.*

**Comment 3.3-11 (Letter #11, Adam Peterson, Environmental Analyst, New York Department of Environmental Conservation, Division of Environmental Permits, Region**

**3, July 3, 2009:** Vernal pools support breeding of the marbled salamander, Jefferson salamander, and blue-spotted salamander, all NYS Special Concern and Species of Greatest Conservation Need. These pools are also part of the habitat complex of spotted turtle, a NYS Special Concern species. Vernal pools provide breeding habitat for the group of woodland salamanders called the "mole salamanders," which include marbled, Jefferson, blue-spotted, and spotted salamanders, as well as wood frogs. Because the pools are typically isolated, low in oxygen, and dry during the summer they don't support fish populations and therefore provide high-quality "nursery" habitat for the developing eggs and larvae of salamanders and frogs. Section 3.13 page 15 indicates that no vernal pools are located within the subject site. However, the DEIS does not indicate the timing of the survey or survey methodology used to determine that no vernal pools are present. The EIS should provide additional detail regarding survey timing and methodology.

***Response 3.3-11:*** Surveys for wildlife and ecological communities were performed by CEA in March, April, May, June and July of 2006, at which time no vernal pools or vernal pool dependent species were identified on the project site. Follow-up surveys by TMA in June, July, and August of 2008 to verify ecological communities and continue characterizing wildlife habitat offered by the site confirmed the absence of vernal pools.

*Since vernal pools are classified as forested mineral soil wetlands, they are often found among other wetland communities. Systematic searches to identify vegetation and to characterize wildlife habitat of on-site wetland communities by CEA and TMA during the aforementioned survey periods did not result in the identification of vernal pools on the project site. Surveys by CEA were performed during months of the year when vernal pool-dependent species are most active and are most readily identifiable. Surveys by TMA were performed during months when most species are done breeding in vernal pools, but evidence in the form of egg casings and larvae could exist. No evidence of vernal pool-breeding amphibians was observed during ecological surveys of the project site.*

**Comment 3.3-12 (Letter #11, Adam Peterson, Environmental Analyst, New York Department of Environmental Conservation, Division of Environmental Permits, Region**

**3, July 3, 2009:** Section 3.3 page 21 of the DEIS indicates that the proposed project will not disturb any on site regulated freshwater wetlands or 100 foot adjacent areas. However, Section 2.5.1 page 17 indicates that a permit to disturb the 100 foot adjacent area is required for the discharge of a stormwater basin. This discrepancy should be clarified.

***Response 3.3-12:*** No disturbance is proposed within the 100 foot adjacent area associated with the NYSDEC's jurisdictional freshwater wetlands.

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**Comment 3.3-13 (Letter #11, Adam Peterson, Environmental Analyst, New York Department of Environmental Conservation, Division of Environmental Permits, Region 3, July 3, 2009):**

In addition, DEC will require the placement of survey markers along the boundary of the 100 foot adjacent area at appropriate locations (see enclosure) in conjunction with the placement of a permanent barrier (split rail fence, stone wall, or other equivalent structure). The survey markers and permanent structure appear to be appropriate for lots 43-49 and 53-55. These plan revisions should be included in the final site plan which will be reviewed by this Department upon submission of a formal application. Also, a condition of any permit issued by DEC will be the inclusion of a "deed notice" on these lots regarding the presence of NYS Freshwater Wetland and/or 100 foot adjacent area. The purpose of the deed notice is to ensure future owner awareness and compliance with Article 24. The deed notice language is as follows:

"This property contains State regulated freshwater wetlands and/or regulated 100 foot adjacent area. For as long as any portion of the property described in this deed is subject to regulation under Article 24 (the Freshwater Wetlands Act) of the Environmental Conservation Law (ECL) of the State of New York, there shall be no construction, grading, filling, excavating, clearing or other regulated activity as defined by Article 24 of the ECL on this property within the wetland area or its 100 foot adjacent areas at any time without having first secured the necessary permission and permit required pursuant to the above noted Article 24 from the NYS Department of Environmental Conservation (DEC). This restriction shall bind the Grantees, their successors and assigns and shall be expressly set forth in all subsequent deeds to this 'property."

***Response 3.3-13: Survey markers and a permanent barrier will be incorporated into the future subdivision application. The subject deeds will include the subject "deed notice".***

**Comment 3.3-14 (Letter #12, Joseph LaFirandra, Engineer II, County of Rockland Sewer District No. 1, July 7, 2009):**

**ESA BOUNDARY DELINEATION:** Please provide a precise delineation of the ESA boundary on the same scale as the aforementioned subdivision plan. Also, provide a brief written report that delineates the boundaries of both the wetland and the 100-year flood plain boundaries.

***Response 3.3-14: Carpenter Environmental Associates have been retained by the Applicant to prepare the requisite Environmentally Sensitive Area (ESA) Boundary Delineation and report. The delineation and report are ready to be submitted to Rockland County Sewer District #1 as part of an ESA partial waiver application as soon as this environmental review has been completed by the Town.***

*Carpenter Environmental Associates has identified 13.31 acres of environmentally sensitive areas (ESA) on the project site. They have overlaid these areas on the site plan to determine the location and potential impact of the project on these ESA areas. This project is anticipated to merit a waiver by the EPA because minimal impacts are anticipated. The 13.31 acres is largely consistent with areas of fresh water wetlands which will remain undisturbed. A 0.42 acre disturbance is proposed within the ESA area but outside of the wetlands. Field study has been conducted which indicate a very low level of sensitivity. Mitigation in the form of a hedge row with native shrubs planted five foot on center, native trees planted 1 per 100 square feet and a native seed mix for bare ground planted at 1/2 pound per 1,000 square feet.*

**Comment 3.3-15 (Letter #12, Joseph LaFiandra, Engineer II, County of Rockland Sewer**

**District No. 1, July 7, 2009):** ESA CHARACTERIZATION AND EVALUATION: Please describe the current wetland features of the ESA wetland areas on the site in terms of the following parameters: acreage, flora, fauna, wildlife habitat, soils, rock, flood control, and the surrounding setting. Please also evaluate the wetland values in accordance with the latest available U.S. Army Corps of Engineers Wetland Evaluation Manual. Also, please quantify the floodplain characteristics and evaluate the effects of your project on it.

***Response 3.3-15:*** Refer to response 3.3-14.

**Comment 3.3-16 (Letter #12, Joseph LaFiandra, Engineer II, County of Rockland Sewer**

**District No. 1, July 7, 2009):** ESA MITIGATION: Please provide a detailed narrative discussion of your proposed mitigation plan in order to comply with the standards for waiver approval listed below. As necessary, the plan should include the creation of new wetland acreage of, at a minimum, equal size and value to that which would be lost.

***Response 3.3-16:*** A wetland mitigation plan is not anticipated because no wetlands will be lost as a result of the Patrick Farm development.

**Comment 3.3-17 (Letter #12, Joseph LaFiandra, Engineer II, County of Rockland Sewer**

**District No. 1, July 7, 2009):** STANDARDS FOR WAIVER APPROVAL: The standards applied by the EPA and DEC for ESA Waiver Approval are similar to the DEC standards for a Freshwater Wetland Permit. There will be a sufficient demonstration of:

- (1) no net loss of wetland acreage or wetland values;
  - (2) no reasonable non-wetland alternate locations existing on the site for this development;
  - (3) minimization of loss of wetland and wetland values;
  - (4) mitigation of any loss of wetland acreage or wetland values;
  - (5) no appreciable increase in turbidity or sedimentation in the wetland or any watercourses above background levels; and
  - (6) no net increase in downstream flooding during storm events.
- c. The *Procedural Rules for Working on Rockland County Sewer District No. 1 Sewers* impose a fee of two hundred dollars (\$200.00) to process an application for an ESA waiver.
  - d. Once the above requirements have been met, our office will forward the required information to the EPA and DEC. It should be noted that six (6) of the seven (7) sets as requested above are required for EPA and DEC purposes.

***Response 3.3-17:*** Comment noted.

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**Comment 3.3-18 (Letter #16, Salvatore Corallo, Commissioner, County of Rockland**

**Department of Planning, July 24, 2009):** The proposed amendments must be reviewed by the New York State Department of Environmental Conservation so that they can evaluate the impact of the proposed residential density on the state wetlands.

***Response 3.3-18:*** Comment noted.

**Comment 3.3-19 (Letter #16, Salvatore Corallo, Commissioner, County of Rockland**

**Department of Planning, July 24, 2009):** The proposed amendments must be reviewed by the United States Army Corps of Engineers so that they can evaluate the Impact of the proposed residential density on the federal wetlands.

***Response 3.3-19:*** Comment noted.

**Comment 3.3-20 (Letter #17, Adam Peterson, Environmental Analyst, New York State Department of Environmental Conservation, Division of Environmental Permits, Region**

**3, July 28, 2009):** On June 16, 2009 the New York State Department of Environmental Conservation (DEC or Department) issued a resource and jurisdictional determination (enclosed) regarding resources located within the above referenced 208 acre parcel located within the Town of Ramapo. Within that determination, the Department indicated that a Protection of Waters permit is required for any disturbance within the bed or banks of the two Class B tributaries to the Mahwah River (Water Index No's NJ 11-12 and NJ 11-14) located within the subject parcel. The Department also indicated that a dam safety permit is required for any proposed modification to the on-site earthen darn, which is located at the outlet of an on site "farm pond." In addition, the Department offers the following:

The farm pond referenced above and within the June 16, 2009 jurisdictional determination is located within a tributary to the Mahwah River (NJ 11-12 noted above). As an in-stream pond, it is regulated as part of the Class B stream and therefore any disturbance within the bed or banks of the farm pond requires a Protection of Waters permit from this Department.

Be advised that regulations applicable to the subject location are occasionally revised and the applicant should verify the need for permits if the project is delayed or postponed. It is possible that the DEC permit requirements noted above and within the June 16, 2009 jurisdictional screening may change based upon additional information received or as project modifications occur. This determination regarding the need for permits will remain effective for a maximum of one year unless you are otherwise notified.

***Response 3.3-20:*** Comment noted. The Applicant acknowledges that NYSDEC permits will be required for crossing of regulated streams. All necessary permits from appropriate agencies will be secured before construction of the project commences.

**Comment 3.3-21 (Letter #18, Shajan Thottakara, P.E., Rockland County Drainage Agency,**

**July 30, 2009):** In accordance with Section 6.1.1 of the New York State Stormwater Management Design Manual (NYSSMDM), "Stormwater wetlands shall not be located within jurisdictional waters, including wetlands." Contrary to this, an ACOE wetland has been proposed as a detention pond to control the increase in stormwater quantity due to the proposed impervious surfaces. Please review and revise as necessary.

***Response 3.3-21:*** No new stormwater pond is proposed within any NYSDEC jurisdictional waters. No wetland has been proposed as a detention pond.

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**Comment 3.3-22 (Letter #18, Shajan Thottakara, P.E., Rockland County Drainage Agency,**

**July 30, 2009):** The drawings indicate that the site contains both state and federal wetlands. Permits and approvals for the proposed project may also be required from the New York State Department of Environmental Conservation and the U.S. Army Corps of Engineers for wetland disturbances. The RCDA recommends that the applicant check with consultants to determine the status of any permits and reviews that may also be required by the aforesaid agencies concerning the proposed project. Please submit to RCDA any future correspondence between the applicant and these agencies regarding jurisdictional determinations and/or permits issued by New York State Department of Environmental Conservation and/or U.S. Army Corps of Engineers.

***Response 3.3-22:*** *Comment noted. As requested, future correspondence will be provided to the Rockland County Drainage Agency (RCDA) along with more detailed plans that will enable the RCDA to perform a detailed review of the project.*