

**E. Water Resources and Wetlands**

**1. Additional Technical Studies**

No additional technical studies were necessary for the FEIS.<sup>1</sup>

**2. Potential Impact of Modified Plan**

The FEIS Modified Master Development Plan confines the majority of the proposed development to areas of the property that are already developed or previously disturbed. Therefore, the impacts to both wetlands and wetland buffers in the less-disturbed areas of the property are reduced or eliminated. Impacts to wetlands are minimal and many of these wetlands consist of channelized drainageways that are currently surrounded by paved or otherwise developed or altered land.

Overall, proposed wetland impacts have been reduced under the modified plan by 1.3 acres and the associated buffer impacts have been reduced by 2.0 acres. The wetland mitigation program includes 4.32 acres of new wetland and 2.44 acres of wetland enhancement. The total area of wetlands (DEC and ACOE) and the total area of wetland impacts is shown on the table below. As indicated, most of the on-site wetland and all of the vernal pools have been protected.

**Table II.E-1  
Wetland Impacts**

<b>Total Wetlands</b>	<b>DEC Wetlands</b>	<b>DEC Wetland Impact</b>	<b>DEC Wetland Buffer Area</b>	<b>Buffer Area Impacts</b>	<b>ACOE Wetlands</b>	<b>ACOE Wetland Impacts</b>
<b>184.5 ac.</b>	<b>165.5 ac.</b>	<b>0.33 ac.</b>	<b>105.9 ac.</b>	<b>7.03 ac.</b>	<b>177.0 ac.</b>	<b>2.68 ac.</b>

The Modified FEIS plan also provides additional buffers around the more sensitive wetlands on the property, beyond the 100-foot DEC-regulated wetland buffers that surround the DEC freshwater wetlands on the property.

The proposed development north of Wheeler Road has been redesigned and scaled back to provide greater protection of the fen wetland habitat that occurs in that area. Specifically, all development has been pulled at least 300’ from the fen wetland on the site, and the stormwater management plan has been revised to further protect the hydrology of these sensitive areas.

The most sensitive vernal pool in the eastern portion of the site will remain part of open space and will be surrounded by unbroken uplands extending well beyond the 750’ buffer that was recommended by Dr. Michael Klemens in his environmental assessment. No development is proposed within 750 feet of the remaining vernal pools on the east side of the property. The wetland in the far southwest corner of the site (ES-1) contains both a vernal pool and spotted turtle habitat. Dr. Klemens recommends a 750-foot buffer, with development impacts totaling less than 25 percent of the buffer. The Modified FEIS plan reduces impacts within the 750-foot buffer of this wetland so that development within that buffer is less than 13 percent (4.9 acres of the 38.7 acre 750-foot buffer).

<sup>1</sup> Note: A supplemental well testing program was conducted for the FEIS and is detailed in Section II.O – Infrastructure and Energy.

The modified layout for the development provides protection of the entire riparian flood zone adjacent to the Swamp River, with all proposed homes removed from the floodplain. In addition, all of the lowland forests along the Swamp River have been avoided and will remain undisturbed, providing important riparian habitat and water quality functions.

A stormwater management plan has been prepared in accordance with the New York State Stormwater Management Design Manual in order to improve the quality of stormwater runoff from the site, as well as meet or exceed the requirements set forth by the NYSDEC. Please see Section I. Stormwater Management for more details. In addition, strict erosion and sediment control measures, designed in accordance with the New York State Standards and Specification for Erosion and Sediment Control, will be implemented during and after construction in order to protect the on and off-site wetlands and watercourses.

Present development on the site does not provide for any water quality treatment or detention of surface water runoff prior to discharging into the Swamp River or the wetlands throughout the site. Currently, the Great Swamp can potentially receive untreated runoff from buildings, streets, parking lots, and a golf course, while other wetlands receive runoff from agricultural fields and the roads which border and bisect the site.

### 3. Comments and Responses

#### *Comment E.1*

We urge the Town to require the Applicant to establish a permanently protected riparian buffer with a minimum width 100 feet adjacent to all water courses and wetlands. Within such buffer areas, no disturbances should occur, such as clearing or grubbing. The site includes significant acreage of DEC designated wetlands. Under Part 664-2A of the Environmental Conservation Law along with state required adjacent area, a buffer is required on areas of land or water that are outside of the wetland but within one hundred feet horizontally of the boundary of the wetland. The statute also allows for an adjacent area broader than 100 feet which may be established where necessary to protect and preserve wetlands. The Town has the opportunity to ensure that the wetland protection measures set forth in state environmental laws become their guideline for reviewing this application. Please review Part 663 of the Environmental Conservation Law.

(Elaine LaBella, Director of Land Protection, Housatonic Valley Association, Public Hearing Transcript, 6/3/09, Pg. 90-93; Elaine E. LaBella, Director of Land Protection, Housatonic Valley Association, Letter, 6/3/09, Pg. 1)

#### *Response E.1*

***One-hundred foot adjacent areas around all NYS DEC wetlands are regulated by under Article 24 of the ECL. Where possible, impacts to these adjacent areas are avoided during the development process. If any impacts are proposed in these areas, an application must be filed with, and approved by, the DEC. Any DEC-regulated wetlands and adjacent areas are required to be protected in the long term through the use of signs, fences, or similar (please see comment E.2, below).***

*Based on the conservation recommendations of reports prepared under the direction of Dr. Michael W. Klemens, certain wetlands have been provided buffer areas that are considerably larger than the 100' required by the existing NYS DEC Freshwater Wetlands regulations. Wetland T, located between the golf course and Pleasant Ridge Road (Route 21), has been provided a 300-foot wetland buffer. Wetland BBB, a classic example of a vernal pool, located along the northeastern property boundary is afforded a buffer greater than 750 feet even though it is not a State (NYS DEC) or Federally (ACOE) regulated wetland. The wetland in the far southwest corner of the site (Wetland A) contains both a vernal pool and spotted turtle habitat. Dr. Klemens recommends a 750-foot buffer, with development impacts totaling less than 25 percent of the buffer for vernal pools. The Modified FEIS plan reduces impacts within the 750-foot buffer of this wetland so that development within that buffer is less than 13 percent (4.9 acres of the 38.7 acre 750-foot buffer). Please see additional information in Response D.38 in the Natural Resources section.*

*In addition, the Town of Dover zoning regulations restrict construction within the 100-year floodplain (shown on Exhibit II.PA-1, Site Orientation Plan), which has been recently expanded under FEMA. The zoning regulations also govern a Stream Corridor Overlay District which requires watercourse setbacks and additional review scrutiny within 150 feet of the Swamp River.*

*Some wetlands on the property are not DEC regulated and therefore DEC permits will not be needed for proposed impacts to the areas surrounding these wetlands, as there is no adjacent area associated with Federal wetlands. However, the majority of the non-regulated wetland buffers that are proposed to be impacted are located in currently developed areas (see Exhibit II.E-1). Many of these wetlands consist of channelized drainageways that are currently surrounded by paved or otherwise developed or altered land.*

*Overall, proposed wetland impacts have been reduced under the modified FEIS plan by 1.3 acres, and the associated buffer impacts have been reduced by 2.0 acres (see II.E-1).*

*Comment E.2*

Plans must be developed which show that the 100 foot adjacent area ("buffer area") of all NYS Freshwater Wetlands on site will be protected in the long term (i.e., fences, survey markers, signage, walls, etc.) especially in those area near residential development, recreational facilities, and the golf course. In addition, plans should show how much adjacent areas will be enhanced throughout the site, especially in those areas where the wetland buffer(s) have been previously disturbed. The DEIS should also note that, if an Article 24 permit is issued for the project, DEC will require a deed notification for all lots containing regulated portions of NYS Freshwater Wetlands.

(Scott Ballard, Environmental Analyst, NYSDEC, Letter, 6/30/09, Pg. 5)

*Response E.2*

*An Article 24 Freshwater Wetland permit application will be made for the proposed project once the SEQRA process is complete. At that time, detailed plans will be prepared showing proposed grading and disturbance within regulated wetlands and wetland adjacent areas.*

*Those plans will also detail proposed wetland mitigation areas and measures designed to protect the wetlands and wetland buffers by use of survey markers, fences, walls, or other methods of protection for all developed areas of the property, including but not limited to golf course, residences, and parking and common areas. As a condition of the Article 24 permit for this project, deed restriction notifications will be prepared for all lots containing regulated portions of New York State Freshwater Wetlands and adjacent areas.*

*Detailed mitigation plans will be developed once the project layout has been determined and SEQRA findings have been issued by the Lead Agency. Efforts to avoid and minimize impacts to wetlands and other sensitive site features are reflected in the revised site plans, and have resulted in elimination of 1.3 acres of previously proposed wetland impacts. Unavoidable impacts such as loss of wetlands due to road widening to meet traffic safety standards will be mitigated using a variety of approaches, including restoration and replanting of the wetlands and wetland buffer areas on the western portion of the site and along the Route 22 corridor have been degraded over time.*

*Potential wetland creation areas, wetland restoration areas and wetland buffer restoration areas that were identified are depicted on existing conditions aerial photos as Exhibit II.E-2 and Exhibit II.E-3. The potential wetland mitigation areas are also depicted on Exhibit II.E-4 and Exhibit II.E-5 along with the proposed development. The wetland creation areas that were identified are upland areas adjacent to wetlands that are currently being maintained as lawn or are abandoned agricultural fields. The wetland creation areas will be graded to elevations that are similar to the adjacent wetlands to provide wetland hydrology and will be planted with native species that are appropriate for the anticipated hydrological conditions. Potential wetland restoration areas are areas that are degraded wetlands that are currently mowed areas within the center of the athletic track on the east side of the site or adjacent to the golf course on the west side of the site. The wetland buffer restoration areas that were identified consist of upland areas adjacent to wetlands that are currently maintained as lawn or are abandoned athletic fields. The wetland and wetland buffer restoration areas will be planted with native species that are appropriate for the anticipated hydrological conditions. The wetland mitigation efforts will also involve the removal of invasive species if they are present. Detailed planting and grading plans for the mitigation areas will be prepared as part of the NYS DEC and ACOE wetlands permitting process. In addition to the detailed wetland mitigation plans a formal monitoring and maintenance plan will be prepared as part of the wetlands permit applications. Potential impacts from construction will be evaluated as part of the Site Plan approval process and actual wetland permitting for the project by the various regulatory agencies, and detailed mitigation programs will be developed for each environmentally sensitive area.*

*Comment E.3*

Maximize wetland buffers and avoid all wetland filling and destruction.

(Mark King, Director of Protection Programs, The Nature Conservancy, Letter, Pg. 2)

*Response E.3*

*The modified FEIS plan provides additional buffers around the more sensitive wetlands on the property, in addition to the 100-foot DEC-regulated wetland buffers that surround the DEC freshwater wetlands on the property.*

*The proposed development north of Wheeler Road has been redesigned and scaled back to provide greater protection of the fen wetland habitat that occurs in that area. Specifically, all development has been pulled at least 300' from the fen wetland on the site, and the stormwater management plan has been revised to further protect the hydrology of these sensitive areas.*

*The most sensitive vernal pool in the eastern portion of the site will remain part of open space and will be surrounded by unbroken uplands extending well beyond the 750' buffer that was recommended by Dr. Michael Klemens in his environmental assessment. No development is proposed within 750 feet of the remaining vernal pools on the east side of the property. Please see Response D.40 in the Natural Resources section for details on other wetland buffer increases that were recommended by Dr. Klemens.*

*The modified layout for the development provides protection of the entire riparian flood zone adjacent to the Swamp River. In addition, all of the lowland forests along the Swamp River have been avoided and will remain undisturbed, providing important riparian habitat and water quality functions.*

*The modified FEIS plan confines the majority of the proposed development to areas of the property that are already developed or previously disturbed. Therefore, the impacts to both wetlands and wetland buffers in the less-disturbed areas of the property are reduced or eliminated. Impacts to wetlands are minimal and many of these wetlands consist of channelized drainageways that are currently surrounded by paved or otherwise developed or altered land.*

*Comment E.4*

Will a 100 foot buffer zone along the Swamp River be maintained? What efforts will be made to install riparian buffers within said 100 foot buffer zones? If existing riparian buffers are disturbed during construction, will remediation be performed? Will riparian buffers be deeded against future development of properties?

(Stephen P. Dolce, President, Mid-Hudson Trout Unlimited, Letter, 6/24/09, Pg. 4)

*Response E.4*

*A 100-foot buffer zone (DEC Freshwater Wetland Adjacent area) will be maintained around the Swamp River to the extent practicable based on current and proposed land uses. Any proposed impacts to DEC-regulated 100-foot adjacent areas will require a DEC permit. Impacts to these areas, including temporary disturbances during construction, will be minimized and mitigated in accordance with the compensatory mitigation guidance from the respective regulatory agencies. As part of the mitigation strategy currently degraded portions of the wetlands and wetland adjacent areas will be restored, enhanced and protected as described in Response E.2. above.*

*Comment E.5*

Watershed protection must be a high priority for any development.

(Margery Josephson, President, Naromi Land Trust, Letter, 6/29/09, Pg. 1)

*Response E.5*

***Watershed protection has been a high priority during the planning and design of the proposed Knolls of Dover property. Several methods of watershed protection have been implemented throughout the development planning process. These methods include clustering developed areas, avoiding development within the floodplain, and minimizing wetland crossings by proposing crossings only where they were already present. Over 590 acres of the site will remain as open space (approximately 510 as dedicated open space), and development will be concentrated into previously disturbed portions of the site in order to minimize new watershed impacts.***

***Protecting wetlands is an important component of watershed protection. The Town of Dover Knolls zoning regulations restrict construction within the 100-year floodplain (shown on Drawing SP-1.0, FEIS Concept Plan). The zoning regulations also govern a Stream Corridor Overlay District which requires watercourse setbacks and additional review scrutiny within 150 feet of the Swamp River.***

***A stormwater management plan has been prepared in accordance with the New York State Stormwater Management Design Manual in order to improve the quality of stormwater runoff from the site, as well as meet or exceed the requirements set forth by the NYSDEC. Please see Section I. Stormwater Management for more details. In addition, strict erosion and sediment control measures, designed in accordance with the New York State Standards and Specification for Erosion and Sediment Control, will be implemented during and after construction in order to protect the on and off-site wetlands and watercourses. Please see Section III.C of the DEIS for details on the sediment and erosion control plan.***

***Present development on the site does not provide for any water quality treatment or detention of surface water runoff prior to discharging into the Swamp River or the wetlands throughout the site. Currently, the Great Swamp can potentially receive untreated runoff from buildings, streets, parking lots, and a golf course, while other wetlands receive runoff from agricultural fields and the roads which border and bisect the site.***

*Comment E.6*

The DEIS mentions degradation of wetlands due to former extensive use of the site, that the construction of 4 acres of new wetlands will mitigate. The Clean Water Act requires that all surface waters of the United States be classified for their use. In New York State the Department of Environmental Conservation and New York State Department of Health are responsible for carrying this out. The DEIS does not mention these use classes; two water bodies are class "A". Local waterbodies need protection.

The DEIS does not mention these impacts or how non point pollution sources can be minimized to reduce impairments and improve water quality standards. A watershed protection plan might begin to address these nonpoint sources. Parking areas and roadways are frequently cited as nonpoint sources along stream and wetland corridors. Appropriate vegetative buffers should be maintained along all stream and wetland corridors as a preventive measure in reducing nonpoint sources of pollution. A watershed plan may be useful in mitigation of the other listed threats to the water supply. Partnership and cooperation of all parties in the affected watershed should be a goal of the Watershed Protection Plan.

(Michael Purcell, Letter, 6/30/09, Pg. 3-4)

*Response E.6*

***The classifications of the streams and waterbodies that are located on and near the property are discussed in the DEIS Water Resources and Wetlands on pages III.E-2 and 3, and are shown on Exhibit III.E-1B, Stream Classifications.***

***Watershed protection has been a high priority during the planning and design of the proposed Knolls of Dover property. Several methods of watershed protection have been implemented throughout the development planning process. Please see Response E.5 for a detailed description of these watershed protection practices.***

*Comment E.7*

One hundred feet is very commonly used for a riparian buffer. There are some places that use a minimum of 300 feet and it is accepted.

(Peter Rostenberg, Public Hearing Transcript, 6/3/09, Pg. 113)

*Response E.7*

***A 100-foot buffer (adjacent area) is provided around all DEC-regulated freshwater wetlands on the property. Proposed impacts within these areas will be minimized to the maximum extent practicable, and if they are deemed unavoidable, they will require a permit from the DEC. In addition, the site development layout has been revised to provide further protection to the most sensitive habitats identified on the site. Specifically, all development has been pulled at least 300' from the fen wetland on the site, and the stormwater management plan has been revised to further protect the hydrology of these sensitive areas. The most sensitive vernal pools in the eastern portion of the site will be part of the open space and will be surrounded by unbroken uplands extending well beyond the recommended 750' buffer. In addition, all of the lowland forests along the Swamp River will remain undisturbed under the proposed plan. Please refer to the Natural Resources section for additional details, and refer to Exhibits II.D-5 and II.D-6.***

*Comment E.8*

When dealing with on-site wetlands, avoidance should always be the preferred alternative. Section VII-2 of the DEIS states that the project would disturb approximately four acres of wetlands. It also characterizes portions of the wetlands to be disturbed as significantly degraded.

However, construction of the roads, buildings and other structures on the site will involve heavy machinery in very close proximity from most of the wetlands within the project area.

We recommend that the Applicant show a minimum 100 foot buffer on all wetlands on the site plan maps.

(Elaine LaBella, Director of Land Protection, Housatonic Valley Association, Public Hearing Transcript, 6/3/09, Pg. 92-93; Elaine LaBella, Director of Land Protection, Housatonic Valley Association, Letter, 6/3/09, Pg. 4)

*Response E.8*

***Areas outside of the clearing and grading limit line (as shown in the Site Plan Drawings) will not be accessed by heavy machinery. The majority of the areas accessed by heavy machinery will be outside of the 100-foot DEC wetland adjacent areas that are shown on Exhibit II.E-1, and outside other areas that may contain sensitive habitats. Soil compaction from any proposed encroachment by machinery near wetlands will be minimized by utilizing alternate constructions measures such as those discussed in The Water Resources and Wetlands Section of the DEIS (Section III.E.4 Mitigation Measures).***

*Comment E.9*

While the DEIS provides some discussion on potential wetland impacts, there is no discussion regarding how the wetlands were avoided and why there could not be a greater avoidance of them. The first standard of review of wetland impacts is to avoid impacting them at all, not immediately moving towards mitigation.

(Jeffrey Baker, Young Sommer Ward Ritzenberg Baker & Moore LLC, Letter, 6/30/09, Pg. 6)

*Response E.9*

***Please see Response E.10.***

*Comment E.10*

Page III.E-83 of the DEIS discusses mitigation: as noted above, the sponsor must first avoid proposed disturbances to NYS wetlands, and then minimize proposed disturbances which cannot be avoided, before mitigation measures are proposed. This section of the EIS must be expanded to clearly describe how the project has avoided and then minimized proposed impacts to wetlands to the maximum practicable extent. Further, the proposed mitigation plan is unclear and lacking in detail. Plans must be developed which contain additional details (planting plans, grading, cross sections, etc.). The Department will require that specific wetland areas, if they are to be impacted, also be mitigated in kind and within the same wetland area, rather than proposing wetland mitigation elsewhere within the 937-acre site. We note that restoration of previously disturbed wetland areas has been discussed with project representatives, but that such plans have not been incorporated into the DEIS. We anticipate that the project sponsor will prepare wetland restoration plans as recommended and incorporate such plans in future iterations of the EIS.

(Scott Ballard, Environmental Analyst, NYSDEC, Letter, 6/30/09, Pg. 6)

*Response E.10*

*The modified project layout has concentrated development in the portions of the site that are already developed or that have been previously disturbed through agricultural use of the site (see Exhibits II.D-3 and II.D-4). Existing road alignments have been followed for the proposed development in order to avoid new crossings through wetlands, and development has been pulled away from the most environmentally sensitive wetlands.*

*As discussed in Section D, Natural Resources, detailed mitigation plans will be developed once the project layout has been determined and SEQRA findings have been issued by the Lead Agency. Efforts to avoid and minimize impacts to wetlands and other sensitive site features are reflected in the modified FEIS plan, and have resulted in elimination of 1.3 acres of previously proposed wetland impacts. As depicted on Exhibit II.E-1 impacts to DEC regulated wetlands have been limited to 0.33 acres. Unavoidable impacts such as loss of wetlands due to road widening to meet traffic safety standards will be mitigated by using a variety of approaches, including restoration and replanting of the wetlands and wetland buffer areas on the western portion of the site and along the Route 22 corridor which have been degraded over time. Potential wetland creation areas, wetland restoration areas and wetland buffer restoration areas that were identified are depicted on existing conditions aerial photos as Exhibit II.E-2 and Exhibit II.E-3. The potential wetland mitigation areas are also depicted on Exhibit II.E-4 and Exhibit II.E-5 along with the proposed development. The wetland creation areas that were identified are upland areas adjacent to wetlands that are currently being maintained as lawn or are abandoned agricultural fields. The wetland creation areas will be graded to elevations that are similar to the adjacent wetlands to provide wetland hydrology and will be planted with native species that are appropriate for the anticipated hydrological conditions. Potential wetland restoration areas are areas that are degraded wetlands that are currently mowed areas within the center of the athletic track on the east side of the site or adjacent to the golf course on the west side of the site. The wetland buffer restoration areas that were identified consist of upland areas adjacent to wetlands that are currently maintained as lawn or are abandoned athletic fields. The wetland and wetland buffer restoration areas will be planted with native species that are appropriate for the anticipated hydrological conditions. The wetland mitigation efforts will also involve the removal of invasive species if they are present. Detailed planting and grading plans for the mitigation areas will be prepared as part of the NYS DEC and ACOE wetlands permitting process. In addition to the detailed wetland mitigation plans a formal monitoring and maintenance plan will be prepared as part of the wetlands permit applications. Potential impacts from construction will be evaluated as part of the Site Plan approval process and actual wetland permitting for the project by the various regulatory agencies, and detailed mitigation programs will be developed for each environmentally sensitive area.*

*Comment E.11*

The proposal includes 1.67 acres of impact to NYS Freshwater Wetlands (DP-22 and DP-30) and 9.10 acres of impacts to the 100 foot adjacent area of these wetlands. Freshwater Wetland and SEQRA regulations require that the sponsor must minimize any proposed disturbances to regulated areas that cannot be avoided. The DEIS does not discuss how the sponsor has avoided and minimized proposed impacts to NYS wetlands and must be revised to include such a

discussion. Mitigation should only be proposed after all efforts at avoidance and minimization of impacts have been exhausted. In addition, as required by applicable regulations (Part 663), the first step when designing such a project is to avoid any impacts to the Freshwater Wetland and the associated adjacent area to the maximum practicable extent.

(Scott Ballard, Environmental Analyst, NYSDEC, Letter, 6/30/09, Pg. 4)

*Response E.11*

***Efforts to avoid and minimize impacts to wetlands and other sensitive site features are reflected in the modified FEIS plan, and have resulted in elimination of 1.3 acres of previously proposed wetland impacts. Impacts to the wetland buffers have also been reduced by 2 acres.***

*Comment E.12*

The applicant should use bridges, rather than culverts to cross wetlands and streams. The site plans show numerous wetland crossing but provide no information about what structures will be used. Many small streams support fish populations, but often these populations become fragmented and blocked due to road crossings, often culverts. Consequently, fish are unable to reach critical feeding, spawning or refuge areas necessary for survival. The most common problems associated with impediments to fish passage are perched culverts. Over time erosion, flooding, and freeze/thaw cycles scour the stream bottom below the base of the culvert, creating a barrier for fish passage.

(Elaine LaBella, Director of Land Protection, Housatonic Valley Association, Letter, 6/3/09, Pg. 5)

*Response E.12*

***The modified FEIS plan has reduced the number of wetland crossings by eliminating the proposed section of road that passes between Wetland Q and Wetland R in the northeastern section of the eastern side of the property. In addition, the dirt road that bisects Wetland N and Wetland E, south of Wheeler Road, will no longer be improved, thereby removing any changes to this wetland crossing. Where possible at other proposed wetland crossings, bridges or open bottomed culverts will be used to minimize the impact footprint. No disruption of the pathways for water or animals will be proposed at wetland crossings.***

*Comment E.13*

The Great Swamp and the Swamp River are some of the state's most pristine natural resources and are federally recognized. It is really important that the proposed development is not done at the expense of the Swamp River.

Greater protection is needed for the wetlands.

(Tonia Shoumatoff, New York Watershed Coordinator, Housatonic Valley Association, Public Hearing Transcript, 6/3/09, Pg. 108-109; Evelyn Chiarito, Public Hearing Transcript, 6/3/09, Pg. 136)

*Response E.13*

***Measures will be taken to ensure that the health of the Great Swamp is maintained throughout the proposed construction and post-construction activities that will be occurring during the rehabilitation of the HVPC property. Please see Response E.5 for details regarding the protection of the Great Swamp and its watershed.***

*Comment E.14*

Audubon New York is most concerned about the potential impacts this development may have on the water quality and water levels of the creek and associated wetland habitats of the Great Swamp.

As you consider the DEIS and make decisions on future growth in this area, please continue to protect the Great Swamp and associated wetlands. This project has the potential to serve as a model across the state for balancing growth and the environment.

(Jillian Liner, Director of Bird Conservation, Audubon New York, Letter, 6/30/09, Pg. 1-2)

*Response E.14*

***Protection of the Great Swamp and its watershed are priorities of the development plan for the Knolls of Dover property. An important goal of the land-use planning for this property is to create economic benefits for the community while at the same time protect the wetlands and watercourses that are associated with the Great Swamp. Once implemented, the project will represent an ideal model for future developments to follow. Please see Response E.5 for details regarding the protection of the Great Swamp and its watershed.***

*Comment E.15*

The DEIS states: “the wetland crossings potentially could result in the alteration of the hydrology of the wetlands by impeding flow between the different sections of the wetlands.” See page III.E-35. The hydrology of the wetland cannot be altered due to new construction for the development. The EIS and project plans must be revised to indicate that no alteration in hydrology will result from construction of any component of the project, including construction and operation of the potable water supply.

(Scott Ballard, Environmental Analyst, NYSDEC, Letter, 6/30/09, Pg. 4)

*Response E.15*

***The DEIS identified potential impacts to wetlands and other environmentally sensitive resources, which is the first step in evaluating the adverse impacts associated with a project. These impacts are examined during the SEQRA review process and weighed against the alternatives to the impact. Once the SEQRA process is complete, the site development plans are refined and a comprehensive mitigation plan is designed to further minimize those impacts which are found to be unavoidable based on the habitat requirements of the species utilizing the wetland. It is too early to develop detailed mitigation plans at the EIS stage as the development footprint has not been determined by the Lead Agency. All proposed wetland crossings will be designed such that there will be no alteration of wetland hydrology. The***

***design of the crossings will be determined when the project design is finalized and a wetlands permit is applied for from the DEC and ACOE.***

*Comment E.16*

The Planning Board strongly recommends that all development be removed from the watershed of the reservoir. New York City watershed rules and regulations should be applied to protect the reservoir. The reservoir and surrounding area should be used strictly for passive recreation such as hiking and fishing. No motorized vehicles or other potential pollutants should be utilized in the vicinity of this reservoir. No development shall be permitted within the reservoir watershed, except as necessary to ensure the proper maintenance of the features and does not want these items to become a burden on the Town.

(Town of Dover Planning Board, Letter, 7/20/09, Pg. 4; Alan Surman, Public Hearing Transcript, 5/30/09, Pg. 76)

*Response E.16*

***The modified FEIS plan has reduced the number of houses in the vicinity of the reservoir from 49 to 19. The majority of these houses (twelve of nineteen) are not located within the reservoir watershed. Best management practices are proposed for stormwater treatment on the property. Please see the Stormwater Management section for more details.***

***The majority of the existing mature second growth forest habitat will be preserved and will remain intact by the proposed layout on the eastern side of the property, allowing a corridor to remain between on-site and off-site forests.***

***The development proposed within the reservoir watershed is minimal. Much of the development in the vicinity of the reservoir watershed has been designed to utilize portions of the site that were already disturbed when the Hospital was in operation. The road serving the residential house lots follows an existing roadbed which traverses the hillside and provides access to the reservoir area. The residential lots themselves are planned in and near former agricultural fields which have reverted to mainly old field habitat. Portions of this area are already vegetated by a number of invasive species, most notably mile-a-minute vine and autumn olive. The proposed road serving the residential lots has been shortened in the revised layout, and only an emergency access road will be left in the vicinity of the reservoir. The emergency access road will also follow the existing gravel roadbed, and no new disturbance is proposed in the area. See Responses D.1 and D.2 in the Natural Resources section.***

*Comment E.17*

Natural systems depend on their integrity. The development of this property should not degrade the wetland ecosystem. Preserving and protecting the biodiversity of this area is critical as we learn more about climate change and global warming and our collective impacts to these fragile resources.

The DEIS should thoroughly consider the impact of the proposal on the Great Swamp in the context of its global and holistic impacts on the swamp. Such an assessment should consider the current state of the great swamp and the potential impacts of this proposed development

throughout the entire Great Swamp. This study should be carried out independently by an organization with documented expertise in assessing large, complex wetland habitats.

(Rebecca E. C. Thornton, President, Dutchess Land Conservancy, Letter, 6/3/09, Pg. 3)

*Response E.17*

***Protection and preservation of the Great Swamp, its watershed, and surrounding habitats and waterbodies is of great concern. Habitats in and around the property have been extensively reviewed and documented by Dr. Michael Klemens and his report was provided in the DEIS. In addition, further studies were conducted by personnel of Evans Associates Environmental Consulting, Inc. Utilizing information from these and other experts, the current development plan was created and then further revised to minimize impacts to the natural systems that are located on and near the property.***

***Development is proposed mainly in areas that are currently developed or are previously disturbed, thereby reducing additional impacts to the surrounding systems. Stormwater management plans have been developed to protect the watershed. Please see the Stormwater Management Section. Other watershed protection practices have been implemented throughout the development planning process as well. Please see Response E.5 for a detailed description of these practices.***

*Comment E.18*

The Great Swamp is an Audubon Important Bird Area due to its high quality wetlands and also contains important plants and wildlife. We have found in the Town of Lewisboro that protecting 150 of buffer land around wetlands and watercourses does protect water quality and wildlife habitats without an undue burden on citizens. The use of cluster development not only raises property values, but provides valuable open space and protects scenic viewsheds and biodiversity.

(James F. Nordgren, Executive Director, Bedford Audubon Society, Letter, 6/30/09, Pg. 1)

*Response E.18*

***The portion of the Great Swamp that is located on the property is part of DEC Freshwater Wetland DP-22. DEC Freshwater Wetlands, along with their 100-foot adjacent areas (buffers), are regulated and protected by the DEC. The Town of Dover Knolls zoning regulations restrict construction within the 100-year floodplain. In addition, the zoning regulations govern a Stream Corridor Overlay District which requires watercourse setbacks and additional review scrutiny within 150 feet of the Swamp River. The modified FEIS plan pulls development away from the most sensitive habitats on the site and concentrate development in previously disturbed portions of the site. Over 590 acres of the site will remain as open space (approximately 510 acres as dedicated open space), including portions of the site which presently serve as important habitat and dispersal corridors for wildlife and migratory birds. By concentrating development into previously disturbed portions of the site, indirect impacts from domestic animals and invasive plants can be minimized and controlled.***

*Comment E.19*

Wetland D (NYSDEC DP-22) is noted as being in “very good condition.” However, it should be noted that a portion of this wetland or its adjacent area behind the storehouse has been filled and does not contribute to the overall quality of the wetland.

(Graham Trelstad, AKRF, Letter to Town Board, 7/30/09, Pg. 4)

*Response E.19*

***Wetland D does have some areas of fill, mainly, as stated above, behind the Storehouse. These areas of fill are considered areas of degradation within the wetland. However, Wetland D is relatively large and it continues on site to the south as Wetland E, and off site to the north. Wetland D is also part of the Great Swamp and it contains the Swamp River. Wetland D consists of a variety of wetland habitats including open water, scrub/shrub, and forested. For all of these characteristics, Wetland D was given an assessment of being in very good condition. The areas of established fill, which do reduce the overall quality of the wetland, are minor in comparison to the positive qualities of this wetland, and provide an excellent focus for wetland restoration and enhancement efforts on the west side of the site.***

*Comment E.20*

The wetland mitigation plan is very vague and lacks any detail on how the created wetlands will be monitored and maintained.

(Jeffrey Baker, Young Sommer Ward Ritzenberg Baker & Moore LLC, Letter, 6/30/09, Pg. 6)

*Response E.20*

***As stated in Response E.2 above, detailed mitigation plans will be developed once the project layout has been determined and SEQRA findings have been issued by the Lead Agency. Efforts to avoid and minimize impacts to wetlands and other sensitive site features are reflected in the revised site plans, and have resulted in elimination of 1.3 acres of previously proposed wetland impacts. Unavoidable impacts such as loss of wetlands due to road widening to meet traffic safety standards will be mitigated using a variety of approaches, including restoration and replanting of the wetlands and wetland buffer areas on the western portion of the site and along the Route 22 corridor have been degraded over time. Restoration and replanting of degraded wetlands and wetland adjacent areas will be proposed as the principal form of mitigation in order to restore habitat value in these important wetland systems. Potential impacts from construction will be evaluated as part of the Site Plan approval process and actual wetland permitting for the project by the various regulatory agencies, and detailed mitigation programs will be developed for each environmentally sensitive area.***

*Comment E.21*

What effect will greywater have on the golf course and irrigation, septic outflow for the project, stormwater runoff, erosion and soil load from steep slope construction, and burial of waste concrete and brick material in the Great Swamp CEA water table have on the Great Swamp CEA itself? What effects will continue into the Ten Mile River and the Housatonic River? How

much will the Swamp River flow be affected by the addition of project water outflow? What species will be affected by the water changes?

(Donna Hearn, Letter, 6/3/09, Pg. 4)

*Response E.21*

***Comments noted. These issues have been addressed in other responses found in this FEIS including, but not limited to, responses: C.5 (Geology), C.8 (Geology), C.11 (Geology), I.1 (Stormwater Management), N.3 (Construction), N.4 (Construction), N.13 (Construction), O.3 (1. Sanitary Sewage), O.6 (1. Sanitary Sewage), O.7 (1. Sanitary Sewage), O.10 (1. Sanitary Sewage), O.11 (1. Sanitary Sewage), and O.12 (1. Sanitary Sewage).***

*Comment E.22*

New York watershed laws date back to the 19<sup>th</sup> century. Watershed rules and regulations are unique in being the only controls specifically designed to protect public water supplies. These regulations are prepared jointly by the water purveyor and the NYSDOH local public health engineer. Enforcement responsibility rests with the water purveyor, the district and the NYSDOH officer.

(Michael Purcell, Letter, 6/30/09, Pg. 1-2)

*Response E.22*

***Comment noted.***