COMMENT C-1 (Water Resources):

Storm water has long been this committee's number one concern, as it is the most prevalent means for contaminants to enter the waterways.

We feel that it is essential that the developer commit to and design to an effective level of control of storm water to be generated by the project.

While we are very pleased that the developer is committed to using vegetated or green roofs to use some -- to reuse some of the storm water and to reuse some of the storm water for irrigation and to provide filtration for some storm water prior to its discharge throughout falls, we are disappointed that the storm water system as a whole appears to be only designed to meet the minimum amount of rainfall.

The DEIS states that under New York's Phase II Storm Water Regulations, storm water systems in this area need only be designed to handle 1.2 inches of rain.

It then takes the position that Nassau County's eight-inch storm requirement does not apply because the project does not abut a County road or tie into a County system. This may be incorrect.

The County does have jurisdiction over subdivisions and County subdivision may be required for this project. This possibility is even reflected in the DEIS.

Despite this, the calculations that went into the design of the storm water system presented in the DEIS were based on the assumption that the system will not need to meet County requirements.

If the storm system is designed only for the bare minimum or even two inches, which was the lowest amount the County will permit upon a showing of good cause, any runoff from storms exceeding that level will be discharged into the Creek or the Harbor with little or no treatment.

Given our recent experience whereby we have been subject to larger and more frequent storms, it would seem prudent to design a system to accommodate the County requirement, regardless of whether or not it is ultimately deemed to apply to this project.

Just on the side, I would like to divert from my written comments for a minute to say that it occurred to me as I was eating dinner tonight that there's an irony here. And that is that we are dealing with a parcel of property that back in the '50s and '60s saw a lot of industries that had a need to dispose of their waste stream.

Now, it's not a perfect analogy, but they did dispose of all of their chemical waste in a legal manner that was the easiest way at the time.

It ultimately in hindsight should not have been done that way, and I think the City realizes that doing it the legal way and the easiest way is not the best way in the long-term for the City.

So I would ask that this Planning Board take a good, hard look at how the applicant is going to treat storm water with the potential for the contamination of the Harbor in the future.

The FEIS should clearly state the number of inches of storm water the system will be designed to accommodate and explain the reasons for that determination.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, Public Hearing Transcript, City of Glen Cove Planning Board Meeting, June 25, 2009, Section 48, lines 23-25; Section 49, lines 1-25; Section 50, lines 1-5; Section 51, Lines 9-25; Section 52, Lines 1-25; Section 53, Lines 1-25; and, Section 54, Lines 1-6, pp.43-48.

HHPC COMMENT # 6: The DEIS states on p. IILC-25 that under the state's Phase II regulations, the stormwater system in this area only needs to be designed to handle a 1.2" storm.

It mentions the county's 8" requirement and goes on to state that the county recognizes that this cannot always be obtained and that the county has an absolute minimum of2". It then states that because the project does not abut a county road or tie into a county system, the county has no jurisdiction and therefore the project will be designed in accordance with NYS standards (1.2"). The applicant may be incorrect regarding the applicability of the county's stormwater requirement. The county does have jurisdiction over subdivisions and therefore the county stormwater requirements may apply in this case. In fact, the DEIS, at page 1-6, points out that it is possible that subdivision approval will be required. The design of the stormwater system presented in the DEIS assumes that this is not the case.
RECOMMENDATIONS: Regardless of whether or not it is determined that the county's stormwater requirements apply, the stormwater system should be designed to meet Nassau County's 8" requirement or ifthis can be shown not to be feasible, then to the maximum degree feasible, not simply to the minimum that the law will require. The FEIS should clearly state the number of inches of storrnwater that the system will be designed to accommodate and explain the reasons for that determination. The FEIS should also clarify whether Nassau County subdivision approval is required.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, letter, dated July 13, 2009

Regarding the storm-water and other water quality impacts of the project and the associated mitigations, we fully concur with the comments provided by the Hempstead Harbor Protection Committee. Further, because of the density of the project, the hydrogeologic conditions, the flood plain conditions, and the projected impacts of climate change and sea-level rise, the project should meet the Nassau County standard for water storage for an 8" rainfall, not the absolute minimum stated in the DEIS for a 2" rainfall.

Karen Papasergious and Carol DiPaolo, President and Programs Director and Water-Monitoring Coordinator, Coalition to Save Hempstead Harbor, letter dated July 20, 2009.

7. Section III.C.2.d.2.B *(Environmental Impacts and Mitigation Measures: Water Resources: Potential Impacts: Stormwater Under the Proposed Action Condition: Regulations/Design Guidelines: Nassau County),* page III.C-26, 1st ¶- The DElS states "since the project does not abut a Nassau Country roadway, stream or other facility and the proposed stormwater management system will not tie into or connect to a County facility, the County does not have jurisdiction with regards to stormwater management design of the project." The DEIS states that Nassau County may have subdivision approval authority, however, which would require a review of the project by the Nassau County Department of Public Works, which may require storage volume for an eight-inch storm event. The FEIS should acknowledge this possibility, and discuss means of additional stormwater retention/reuse.

Steven Perotta, Cashin Spinelli & Ferretti, LLC, letter dated July 20, 2009.

RESPONSE C-1 (Water Resources):
As indicated in the DEIS, Federal, State, County and local regulations govern the discharge of stormwater runoff from proposed project sites. Due to the project's location within the large 8,000 + acre watershed (at the end or bottom of the watershed) and its proximity to a tidal water body, NYSDEC standards require that the stormwater management facilities be designed for water quality only since increases to water quantity flowing off of the site would not induce

flooding of the receiving tidal waters of Glen Cove Creek and Hempstead Harbor. In some cases, retaining stormwater onsite may aggravate downstream impacts, because the project's location within the watershed and the timing of release of stormwater from this project and the upstream watershed may increase rather than decrease peak flooding. Therefore, sites adjacent to tidal water bodies typically discharge runoff as quickly as possible.

Since the project does not abut a Nassau County roadway, stream or drainage facility, Nassau County stormwater management standards should not apply to this project. However, at a September 17, 2009 meeting with Nassau County Department of Public Works, staff indicated that since the project will require formal subdivision approval from the County, the County will require that its stormwater standards be met for this project, even though the project discharges directly to the adjacent tidal water bodies. Nassau County requires that 8" of runoff generated by the contributory watershed must be stored on site. The County recognizes that this requirement cannot always be attained by all projects and has provisions to allow a waiver for reduced storage capacity if certain criteria are met. The waiver allows for reduction of storage to 5" of runoff and a further reduction to 2" when an associated fee is paid. The County indicated that the Glen Isle project would be required to store 2" of runoff on site and that the payment/fee for the reduction from 5" to 2" would not be applicable because the project does not drain into a County drainage facility.

Based on the above, the project will be designed to store 2" of runoff generated by the project's contributory watershed. Storage in excess of 2" of runoff could negatively impact flooding conditions downstream due to the project's location within the overall watershed and proximity to the adjacent tidal water bodies. Storage of 2" of runoff from the project's watershed will be achieved by use of infiltration systems and seepage pits as shown on the revised PUD Master Plans. Final design of the stormwater management systems, design details and locations of the stormwater storage systems will be specified as part of the detailed Site Plans prepared for the project. It is noted that the proposed design of the site includes more than the minimum required. In addition to storage of 2" of runoff on site, the stormwater management system design will allow for infiltration of this runoff, and will also include the provision to capture 1" of runoff from the roofs for irrigation re-use. The storage / infiltration systems will serve as both water quantity reduction and water quality treatment facilities for the development.

COMMENT C-2 (Water Resources):

The DEIS states that the first inch of runoff from the buildings will flow to an irrigation system with larger storms being diverted to designed to handle and treat up to two inches with the rest discharging to the Creek or Harbor through a series of filtration devices.

However, the DEIS also states the possibility that if none of the soils are suitable or if the ground water table is too high throughout the site, there will be no infiltration systems used and the water will be discharged directly to the Creek or Harbor.

We are surprised that this information is not known or that a determination cannot be made given the extensive remediation work that has been undertaken on much of the area.

A more definitive analysis of the soils and their impact that the -- the storm water design should be provided in the DEIS. I mean, in the FEIS.

If soils are found to be insufficient or the ground water table too high to accommodate infiltration, consideration should be given to expanding the acreage of green roofs from the current six acres to the greater percentage, or if possible, all fourteen acres of roof surfaces or to providing alternative technology for treating storm water rather than discharging it untreated or minimally treated to adjacent waters.

This could include expansion of end of pipe filtration devices just prior to discharge.

The proposed storm water system's based largely on the capture and infiltration of storm water into the ground, yet the possibility exists that infiltration may not be possible.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, Public Hearing Transcript, City of Glen Cove Planning Board Meeting, June 25, 2009, Section 54, lines 7-25; Section 55, lines 1-25; Section 56, lines 1-25; Section 57, Lines 1-13, pp.48-51

HHPC COMMENT # 7: The DEIS states that the first 1.0" of runoff from the buildings will flow to an irrigation chamber system with larger storms being diverted to infiltration basins which will be designed to handle and treat up.to 2.0" with the rest discharging directly to the creek or harbor. However, at p.IILC-29, it states the possibility that if none of the soils are suitable or if the groundwater table is too high throughout the site, there will be no infiltration systems used and the water will be diverted through an overflow control pipe and discharged to the creek or harbor. It is not clear in the DEIS as to whether this discharge would flow through the Contech Stormfilters.
RECOMMENDATIONS: Better analysis is needed of the soils and water table so that a definitive analysis of stormwater mitigation can be provided in the PElS. If the soils are found to be insufficient or the groundwater table too high to acco=odate infiltration, consideration should be given to expanding the acreage of green roofs from the current 6.0 acres to a greater percentage or if possible, all 14 acres ofroof surfaces or to providing additional technology for treating stormwater prior to discharging it to the adjacent waters.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, letter, dated July 13, 2009

[Page III.C-29 3rd ¶] The narrative indicates that if geotechnical conditions indicate that soils are not permeable, the infiltration systems will be relocated. Substantial geotechnical data already exists for the site. The applicant should be able to establish an engineering estimate given known characteristics. If the system must be relocated, how would that affect the layout and configuration of other site plan elements? Would revisions be necessary?

Pat Cleary, AICP, Cleary Consulting, letter dated July 20, 2009

Depth to groundwater is now provided. However, the stormwater measures still indicate that groundwater levels may not allow installation of all recommended structures. At this point in the process, the ability to provide structures should be definitively known so that the potential impacts can be adequately evaluated. The applicant should provide a more detailed design and discussion of the stormwater management system to clearly indicate the structures to be used, and a quantitative discussion of the effectiveness of proposed stormwater treatments.

Alan J. King, Jr., P.E., LEED AP, partner, Cameron Engineering & Associates, LLP, letter dated July 20, 2009

RESPONSE C-2 (Water Resources):
The Conceptual Stormwater Management Plan includes the stormwater management design parameters (size of watershed, runoff coefficients, storage requirements) as well as locations for

the proposed infiltration systems and water quality treatment devices. The locations of the infiltration systems have been selected based upon the existing geotechnical data available to date relative to soil types and depths to groundwater. The final design and location of these systems will be determined during the Site Plan Approvals Phase of the project. Should specific additional in-situ geotechnical testing indicate that the locations of the proposed infiltration systems as shown on the conceptual stormwater management plan do not meet the infiltration design parameters as dictated by NYSDEC, these systems will be relocated to areas on site that will meet the requisite parameters; the infiltration systems will not be removed as originally indicated in the DEIS. Since the infiltration systems function below the ground surface, they can be located in hardscape areas or lawn areas. Therefore, the layout and configuration of the other site plan elements should not be affected if some of the infiltration systems need to be relocated during the Site Plan Approvals Phase of the project.

The roof decks labeled "roof deck open spaces" are private amenity spaces located in the intermediate roof levels above the garage and 1st floor levels. These roof areas are accessible for tenants and feature swimming pools, sun decks, BBQ and dining areas, shade structures, and, plantings, including an intensive green roof system with soil depths between 10" and 3'-0" to support lawn, groundcover, shrubs and trees. These planting areas will be irrigated by a rain water collection system and maintained by a landscape contractor. The areas labeled "Green Roofs" are the upper level non-accessible building roofs. These areas consist of an extensive green roof system. The remaining upper roof area would consist of mechanical equipment and a roof maintenance path. The extensive green roof system will include 4" of lightweight growing medium and a variety of native sedum plantings. The system will be installed with a temporary irrigation system fed by a rain water collection cistern to assure establishment of healthy vigorous plants during the first year. The system requires minimal maintenance consisting of weed removal the first year prior to the establishment of a full carpet of sedum. Future maintenance and or plant replacement will be provided by the owner. Sections of the Intensive roof systems may have tenant accessible viewing decks.

The design intent is to mitigate storm water runoff by capturing deck runoff in the green areas, which will cover approximately 35-55% of the decks, depending on the building. (The final percentage of green roofs on each individual building will be subject to further detailed building design.) The green roof open spaces and green roof areas will mitigate storm water runoff for the development and reduce the heat island effect by substituting green zones for traditional roof composites.

COMMENT C-3 (Water Resources):
Page III.C-29: The 3rd paragraph states that if the in filtration chambers would not function based on the actual soil conditions, they would not be installed and the stormwater would go from the irrigation chambers into the storm sewer and outfall. How will 2 inches of storage be accomplished under this scenario?

Alan J. King, Jr., P.E., LEED AP, partner, Cameron Engineering & Associates, LLP, letter dated July 20, 2009

RESPONSE C-3 (Water Resources):
See Response C-2.

COMMENT C-4 (Water Resources):
[Page II-43, 2nd ¶] Would any of the yet to be completed environmental remediation work have the potential to alter or result in changes to the stormwater management system currently proposed.

Pat Cleary, AICP, Cleary Consulting, letter dated July 20, 2009

At present, the Captain's Cove parcel is precluded by the DEC for residential use; however, according to the Environmental Condition Report, the DEC has informally stated that it will consider residential use provided that certain engineering controls are utilized, such as covering the existing soils with an impermeable barrier to prevent soil vapor intrusion.

If such barriers are installed, they would appear to preclude infiltration of the storm water and thus require direct discharge to Glen Cove Creek and Hempstead Harbor.

This would significantly increase need to be handled through the context storm filters, and -- it is unclear as to whether they can be redesigned to handle this volume.

The FEIS should address how storm water will be handled in the event that engineering controls preclude infiltration and whether the context storm filters are adequate to provide such treatment.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, Public Hearing Transcript, City of Glen Cove Planning Board Meeting, June 25, 2009, Section 54, lines 7-25; Section 55, lines 1-25; Section 56, lines 1-25; Section 57, Lines 1-13, pp.48-51

HHPC COMMENT # 8: The proposed stormwater system is based largely on infiltration and yet the possibility exists that the EPA and/or DEC will require the use of engineering controls that may preclude such infiltration in certain areas. At present, the Captain's Cove parcel is precluded under the NYS DEC's Record of Decision ("ROD") from residential use. However, according to the Environmental Condition Report Section 2.2.6, the DEC has informally stated that it will consider residential use provided that certain engineering controls are utilized such as covering the existing soils with an impermeable barrier to prevent soil vapor intrusion. If such barriers are installed, it would appear to preclude infiltration of the stormwater in those areas with the barriers and thus may require direct discharge to Glen Cove Creek and Hempstead Harbor if there is not sufficient remaining space to allow for infiltration. This could significantly increase the volume of stormwater that would need to be handled by the Contech Stormfilters.
RECOMMENDATIONS: The PEIS should address how stormwater will be handled in the event that engineering controls preclude infiltration and whether the Contech Stormfilters are adequate to provide treatment. To the extent that infiltration is not feasible, the applicant should commiit to filtration prior to discharge to the creek or harbor.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, letter, dated July 13, 2009

RESPONSE C-4 (Water Resources):
The majority of the property, approximately 49 of the 56 acres, consists of the Captains Cove and Li Tungsten sites. The remainder consists of the Gladsky, Angler's Club, Doxey and the Gateway properties. Captains Cove and Li Tungsten have already been remediated and only small, localized hotspots may be cleaned up during construction. This minor additional cleanup

will not have an appreciable effect on the groundwater dynamics and the design of the stormwater treatment system. The additional 2 feet of clean fill that will need to be added to cover the existing remediated soil will likely have a beneficial effect on the ability of the soil to handle stormwater infiltration as this soil will either raise ground level, which will increase the capacity of the soil to hold water, or will consist of more permeable soil than currently present, which will allow faster subsurface flow of the stormwater to its discharge points. This will also facilitate the infiltration of stormwater into the ground. These factors have been considered in the design of the system described in the DEIS.

Soil vapor intrusion is only a concern in regard to the potential for the vapor to intrude into buildings through the slabs and basements. Therefore, the vapor barriers are required only under buildings, not under the streets, sidewalks, and landscaped areas. As these impermeable barriers will not be installed under the open portions of site and not extend any appreciable distance from under buildings, they will not prevent stormwater from infiltrating into the ground.

COMMENT C-5 (Water Resources):
It appears that not all drainage areas will be treated equally: some areas would retain the first inch and then bypass the rest. The drainage details indicate a "Media Filter Option." Is this being provided? The DEIS should provide a discussion about how this filter works; what it filters; if it addresses Total Suspended Solids (TSS), vehicle fluids, etc.; how and when it would be maintained, etc.

Alan J. King, Jr., P.E., LEED AP, partner, Cameron Engineering & Associates, LLP, letter dated July 20, 2009

RESPONSE C-5 (Water Resources):
The proposed stormwater treatment does vary depending upon the drainage area, and the types and sizes of the contributory roof areas, roadways and parking areas and lawn areas. With the exception of the workforce units (Blocks F and G), all other buildings will be designed to retain the first inch of runoff for irrigation use. Runoff greater than one inch will bypass the irrigation chambers and discharge into storage chambers / infiltration basins which will be designed to store and infiltrate 2 inches of runoff. Runoff generated by Blocks F and G will be directed into the infiltration system (designed to store and infiltrate 2 inches of runoff) located in the park adjacent to Block I.

The “Media Filter Option” is the type of filter to be incorporated into the StormFilter units. Stormwater runoff entering the StormFilter system is diverted by a weir and flows to the portion of the vault beneath the cartridges, where larger solids settle and are captured. As the water level rises in the chamber, the variable flow controls (outlet box, slide gate and float system) restrict cartridge flow rate, causing the system to fill and submerge the cartridges. Polluted stormwater enters the cartridges and is filtered through the media bed before entering the perforated center tube, and out into the collector manifold. The filter media collects and retains the pollutants. The variable flow controls remain in a closed position until the water level reaches the top of the cartridges. Once the media is fully submerged, the net pressure distribution across the vertical media face is uniform to minimize the hydraulic loading rate. This ensures equal usage of the entire media bed. As the water level rises above the cartridge, the float valve opens the slide gate

to increase the treatment flow rate. For small storms, the slide gate only opens enough to match the influent flow rate, thereby reducing the average treatment flow rate. The slide only opens completely at the design storm flow rate, which is infrequent. At the end of the storm event, the remaining water is slowly filtered until the vault is drained to the invert of the outlet pipe.

The StormFilter with Media Filter System is approved by NYSDEC to provide 87% Total Suspended Solids (TSS) and 39% Total Phosphorus (TP) removal. Maintenance of the StormFilter units will be provided by the Homeowner's Association and / or the City, based upon location of the systems and agreements between the developer and the City. Typically, maintenance of these systems includes removal of silts and sediments as well as replacement of the filter cartridges. Generally, the systems are to be inspected after every large storm event and can be expected to be cleaned out annually. A maintenance manual for all stormwater management facilities will be prepared as part of the SWPPP.

COMMENT C-6 (Water Resources):
How will velocities in the infiltration trenches be reduced to prevent scouring? How does the trench function during freezing weather?

Alan J. King, Jr., P.E., LEED AP, partner, Cameron Engineering & Associates, LLP, letter dated July 20, 2009

RESPONSE C-6 (Water Resources):
The infiltration trenches, if proposed to be utilized by the City as part of the Garvies Point Road design, could be located along the northern side of Garvies Point Road, and could follow the somewhat flat grades of the adjacent proposed roadway. The flat slopes of the trenches will help to reduce the velocities in the infiltration trenches. Check dams can be installed along the trenches to further reduce velocities and allow the runoff more time to fully infiltrate through the trench. When the ground is frozen, the infiltration trench, as well as all other pervious areas of the site, will act as a conveyance system only and will convey runoff to the storm sewer collection system. Implementing infiltration trenches along Garvies Point Road will be part of the Garvies Point Road design, currently being designed by the City.

COMMENT C-7 (Water Resources):
Page III.A-15: The Contractor shall install new filter inserts in all drainage inlets at completion of the work to be maintained thereafter by the Owner.

Alan J. King, Jr., P.E., LEED AP, partner, Cameron Engineering & Associates, LLP, letter dated July 20, 2009

RESPONSE C-7 (Water Resources):
Requisite notes will be included on the Construction Documents requiring the contractor to install new filter inserts in all drainage inlets at the completion of construction. Maintenance of the filter inserts will be the responsibility of the Homeowner's Association and / or the City. Generally, maintenance of the on-site units will be the responsibility of the Homeowner's Association and maintenance of the units located within the public right-of-way will be the responsibility of the City. Where the units may be considered a "shared" use (i.e. – runoff generated on-site and runoff generated within the public right-of-way drain to the same inlets),

an approved maintenance agreement will need to be implemented between the developer / Homeowner's Association and the City.

COMMENT C-8 (Water Resources):
What safeguards and maintenance schedule will be utilized to ensure that the stormwater drainage system does not surcharge during high tides and/or a failure of the tide gates?

Alan J. King, Jr., P.E., LEED AP, partner, Cameron Engineering & Associates, LLP, letter dated July 20, 2009

RESPONSE C-8 (Water Resources):
Flap gates are proposed to be installed either at the bulkhead or at the manhole / chamber immediately upstream of the discharge point. These gates open during low tides and close during high tides so that tidal water does not drain back into the stormwater system. Maintenance of the flap gates / valves will be part of the typical maintenance of the system; inspection of the systems will be performed after every large storm event to ensure functionality of the systems and, if found to be defective, will be repaired and / or replaced.

COMMENT C-9 (Water Resources)
Indicate the flow directions of the storm sewer system.

Alan J. King, Jr., P.E., LEED AP, partner, Cameron Engineering & Associates, LLP, letter dated July 20, 2009

RESPONSE C-9 (Water Resources)
Flow arrows / directions of the storm sewer systems will be provided as part of the detailed individual Site Plans prepared for each phase.

COMMENT C-10 (Water Resources):
The purpose of a storm water system should not only be to quickly remove storm water from roadways and other surfaces, but to provide treatment to the runoff so that it does not contaminate ground water or surface waters.

The proposed context storm water infiltration system does not appear to incorporate any filtration system other than the filter fabric that would be placed at the bottom of the storm chambers used for storm water system.

The design manual for that system shows that their system does allow for the incorporation of pretreatment devices.

While the fabric filter will provide some benefit, we feel that it does not go far enough.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, Public Hearing Transcript, City of Glen Cove Planning Board Meeting, June 25, 2009, Section 57, lines 14-25 and Section 58, lines 1-10, pp.51-52

HHPC COMMENT # 9: The purpose of a stormwater system should not only be to quickly remove stormwater from roadways and other surfaces but to provide treatment of the runoff so that it does not contaminate groundwater or surface waters. The proposed StormTech stormwater system does not appear to incorporate any filtration system other than the filter fabric that would

be placed at the bottom of the StormTech chambers used for the stormwater system. The design manual for that system shows that their system does allow for the incorporation of pre-treatment devices. While the filter fabric will provide some benefit, we do not feel that it goes far enough. The addition of pretreatment devices would reduce the longterm maintenance requirements of the StormTech chambers and allow for more convenient maintenance of the system.
RECOMMENDATIONS: To the extent possible, the StormTech stormwater system should incorporate pre-treatment devices or filters for sediment removal and typical stormwater contaminants such as nutrients, hydrocarbons, dissolved metals and bacteria. The FElS should state that pre-treatment devices will be added to the StormTech chambers or explain why this cannot be done.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, letter, dated July 13, 2009

And in addition to that, also, I would like to see better filtration before that storm water is dumped into the Creek.

Theresa Hauck, 18 Edward Street, Roslyn Heights, NY, Public Hearing Transcript, City of Glen Cove Planning Board Meeting, June 25, 2009; Section 120, lines 22-25; p.107

RESPONSE C-10 (Water Resources):
The storage / infiltrator systems as a whole (the chambers, filter devices and stone / soil surrounding the systems) are the infiltration and treatment systems. The chambers store the 2 inches of runoff until the runoff can infiltrate into the ground.

COMMENT C-11 (Water Resources):
HHPC COMMENT # 5: In the event that stormwater comes into contact with residual contaminants in the subsurface soils, there is a possibility that contaminants may end up in nearby surface waters (Glen Cove Creek and Hempstead Harbor) either by direct flow to these water bodies or indirect flow through groundwater. The proposed Environmental Easement and the accompanying draft Site Management Plan appear to only address the potential for groundwater contamination and soil vapor intrusion with little or no consideration for addressing surface water contamination.
RECOMMENDATIONS: The developer should commit, through the FEIS and other means, to seeking provisions in the Environmental Easement and the Site Management Plan or other legal mechanism that would allow for the protection of surface waters.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, letter, dated July 13, 2009, p.2

RESPONSE C-11 (Water Resources):
The remediation done at Captains Cove and Li Tungsten has removed the sources of groundwater contamination at those properties and the Records of Decision for both sites recognize that the quality of the groundwater will improve over time now that the sources of dissolved contaminants have been removed. This process will be enhanced by any stormwater that is directed through the soil.

At current concentrations the chemicals in the plume are diluted to non-detectable when it discharges into the surface water. This result should not change when the stormwater moves through the residual soil. Refer to Response B-58 for additional information regarding soil contamination and stormwater recharge through the site.

During construction, the approved SWPPP will be implemented, which will incorporate procedures to prevent sediment transport into the surface waters. Refer to Section III.D of the DEIS for a description of the components of a typical SWPPP. The SWPPP will be prepared as part of the formal site plan phase of the project.

COMMENT C-12 (Water Resources):
As members of the Hempstead Harbor Protection Commission, we support the remarks just made by Eric Swenson on water quality and water runoff.

Carol Vogt, member, Village of Seacliff Board of Trustees, Public Hearing Transcript, City of Glen Cove Planning Board Meeting, June 25, 2009, Sections 63, lines 18-22, p.56

The long term effect of runoff into the Creek and Hempstead Harbor would be a heinous crime.

Mary Normandia, letter dated July 20, 2009.

RESPONSE C-12 (Water Resources):
See Responses C-1 to C-11. The project includes a comprehensive stormwater management system, including stormwater quality treatment measures that are beyond what is required by State regulation. Stormwater currently flows directly into the Creek and Harbor without treatment. The project will therefore likely improve runoff conditions and their impact on the Creek.

COMMENT C-13 (Water Resources):
Stormwater Conditions
Pages V-4 & V-5 discuss stormwater filtration as mitigation for other impacts the project may have. If the improved stormwater management is to be considered mitigation the requirements of the TWLUR will need to be satisfied.

Stormwater management systems for structures, driveways and paved areas that are designed and constructed in or adjacent to regulated tidal wetlands or that have outflows discharging into regulated tidal wetlands may be subject to the permitting requirements of the TWLUR. In addition to developmental restrictions for structures, driveways, roads parking areas etc., Part 661 regulates the installation of drywells, retention basins, filters, swales, ponds and any new discharge of any pollutant requiring a SPDES permit. Applicable restrictions under TWLUR for installation of stormwater control structures may include setback requirements, minimum vertical separation from groundwater and runoff containment requirements.

The proposed retention and treatment of stormwater will be designed to allow for collection and discharge of up to the first two inches of rainfall. Stormwater runoff in excess of 2' will be directed into the downstream sewer conveyance system. However, the DEIS also states that if

soils are not permeable or groundwater elevations are too high, the infiltration systems may be removed from the design and the stormwater will be conveyed from the irrigation chamber to the trunk sewer line and will ultimately discharge to the adjacent tidal water bodies (Page III C-29) if soil permeability or depth to groundwater precludes the use of the proposed Infiltrator or Rainstore units, alternative methods or treatment should be more fully explored.

Any substantial increase in surface water runoff to tidal waters classified SA, as defined in section 710.5 of this Title, or to any other surface waters which are within 1,000 feet of any SA waters and use adjacent or tributary to such SA waters, shall be prevented from directly running into any such waters by the utilization of sufficient runoff control measures, including but not limited to the installation of dry wells, retention basins, filters open swales or ponds. Any such dry well, retention basin filter, open swale or pond to be constructed in order to prevent direct surface water runoff to said SA and other surface waters shall be designed and constructed to handle the water runoff produced on the project site by a five-year storm.

The DEIS should consider whether or not this paragraph will apply.

The DEIS correctly notes that the project will need coverage under a NYSDEC SPDES General Permit for Stormwater Discharges. To obtain coverage the project sponsor will be required to file a Notice of Intent and prepare a Stormwater Pollution Prevention Plan ("SWPP) for construction activities and post-development activities. If the stormwater management system is located primarily on the Glen Isle property who will have responsibility for its long-term maintenance?

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

We also feel that long term maintenance of any stormwater system is essential to ensure that the systems continue to function as designed. The DEIS does state that the maintenance responsibilities will be handed by the property owners association and that a manual and maintenance schedule will be provided but there is no discussion regarding mechanisms to ensure the necessary funding for this or methods to ensure that such maintenance is carried out.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, letter, dated July 13, 2009

HHPC COMMENT # 12: The DEIS at p. III.C-46 states that the Glen Isle Property Owner's Association will be responsible for maintenance and that manuals and schedules will be provided to them. The DEIS does not make it clear as to whether the maintenance of the stormwater system will be performed by the overall property owners association, the individual building homeowners associations or the city or a combination of these entities. We believe that it would make most sense for the overall property owners association to bear this responsibility as it would more likely ensure that no portions of the system are overlooked and there would be an economy of scale in terms of cost of maintenance. Methods for ensuring sufficient funding for the maintenance or for ensuring that maintenance is carried out were not addressed.
RECOMMENDATIONS: Since stormwater systems require regular inspection and maintenance and will function poorly or not at all if not properly maintained a mechanism for ensuring such funding and that inspection and maintenance are carried out are essential components of any

maintenance plan. The FEIS should address this. Consideration should be given to the establishment of a stormwater maintenance trust fund with such funds being provided through a portion of the rents and sales of condominium units. Consideration should also be given to the incorporation of covenants and restrictions on the property to ensure that stormwater systems are inspected, maintained, repaired and upgraded as necessary. Finally, consideration should be given to having the overall property owners association bear the responsibility for maintenance of the stormwater system.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, letter, dated July 13, 2009

RESPONSE C-13 (Water Resources):
See Response C-2 for discussion of the conceptual stormwater management design.

Part 661.6(a)(8) does not apply to the runoff generated by the proposed action, as the project's impervious surfaces are located landward of the tidal wetland adjacent area regulated by the New York State Department of Environmental Conservation. Part 661.6(a) clearly states that the development restrictions listed in this part apply to "any new regulated activity on any tidal wetland or any adjacent area." The proposed impervious surfaces are located landward of: 1) a functional and substantial man-made structure constructed prior to August 20, 1977; or 2) the 10' elevation contour. Therefore, the proposed impervious surfaces are not located within the tidal wetland adjacent area pursuant to Part 661.4(b)(1)(ii).

The Property Owners Association will have maintenance responsibility for the stormwater management facilities located on the Glen Isle project site. As part of the SWPPP, a Maintenance Manual will be prepared for all stormwater management facilities, which will describe immediate and long-term maintenance requirements for the stormwater management facilities and be approved by the Planning Board as part of the detailed site plan applications.

In addition, when real property is sold in New York State subject to membership in a POA or HOA, the sponsor of the sale of the property must comply with State General Business Law Article 23-A (the "Martin Act"). General Business Law Section 352-e requires that the Applicant submit an Offering Statement or Prospectus for filing with the Attorney General, containing detailed information about each HOA, including management requirements and budget estimates for each HOA. This would include documentation regarding the operations, construction and maintenance of all drainage and stormwater facilities. Real property subject to membership in an HOA cannot be sold until the Attorney General accepts the Offering Statement or Prospectus for filing. The HOA will contract with qualified professionals to manage the stormwater system in accordance with the maintenance protocols that are detailed in a Stormwater Pollution Prevention Plan conforming to the NYSDEC's technical standards.

COMMENT C-14:
HHPC COMMENT # 10: Long term performance of the stormwater system and the removal of sediment are two important factors to consider in a stormwater system design. The StormTech website states that a sediment and maintenance plan is key to long term performance of their

system and that a "treatment train" approach to isolating sediment prior to inletting the chamber systems is recommended for easy inspection and maintenance.
RECOMMENDATIONS: These and all other recommendations by StormTech for its system should be incorporated in the design of the system.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, letter, dated July 13, 2009

RESPONSE C-14:
Maintenance of the stormwater management system components is key to the performance of the systems. A maintenance manual will be prepared as part of the SWPPP and as part of the detailed site plans prepared for the project. Incorporation of a "treatment train", such as drywells, swales, filters in combination with each other or with the irrigation chambers and infiltration chambers, for the stormater management systems will be considered as part of the detailed site plan design and will be incorporated where required to address water quality requirements, as well as ease of maintenance of these systems.

COMMENT C-15:
HHPC COMMENT # 11: Details regarding the design of the stormwater system such as green roofs, rain gardens, irrigation systems, catch basins, filtration devices, storm drains and outfalls are largely lacking in the DEIS. At p. III.C-26 it states that the "stormwater management plan will employ various practices to meet NYSDEC water quality design standards for total suspended solids (TSS), total Nitrogen (TN) and total phosphorous (TP) removal" and then lists several practices including green roofs and other techniques. The appendix disk contains a series of drainage area maps and documents showing calculations for units to store and recharge stormwater underground. Page III.C-31 states that there will be 8.0 acres ofnon-vegetated roof surfaces. Page III.C-32 makes reference to 6.0 acres of green roofs. Drawing STM-l in the stormwater appendix is a site drawing that shows the locations of the StormTech infiltration devices, the outfalls and the Contech StormFilters that would filter stormwater prior to discharge. The stormwater appendix does not contain a narrative description of the system.
RECOMMENDATIONS: The FEIS should include a stormwater management plan with narratives that depict the proposed locations and types of stormwater structures proposed with manufacturer and model number as well as the discharge points to the creek and/or harbor. The plans for specific buildings should be included. We suggest that green roofs be included on the first buildings to be constructed so that experience with this new technology can be gleaned and if necessary, provide the basis for refinements in design for future buildings.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, letter, dated July 13, 2009

RESPONSE C-15:
See Responses C-1 and C-2 for discussion of the conceptual stormwater management design. The level of detail provided in the DEIS is typical and appropriate for projects at the PUD/conceptual site plan stage. The final design details, locations, and model numbers of the various systems will be specified during the detailed Site Plans prepared for the project. A flow diagram of the proposed systems and the effectiveness of the water quality treatment as approved

by various regulatory agencies have been included in the DEIS as Exhibit III.C-9 and has been modified and is included as Exhibit II.C-1.

Green roofs or roof gardens are included on all of the large scale buildings, with the exception of the Work Force units/buildings, including those that are currently anticipated to be constructed in the beginning of the sequence. Refer to Exhibit I-1 for locations.

The roof decks labeled "roof deck open spaces" are private amenity spaces located in the intermediate roof levels above the garage and 1st floor levels. These roof areas are accessible for tenants and feature swimming pools, sun decks, BBQ and dining areas, shade structures, and, plantings, including an intensive green roof system with soil depths between 10" and 3'-0" to support lawn, groundcover, shrubs and trees. These planting areas will be irrigated by a rain water collection system and maintained by a landscape contractor.

The areas labeled "Green Roofs" are the upper level non-accessible building roofs. These areas consist of an extensive green roof system. The remaining upper roof area would consist of mechanical equipment and a roof maintenance path. The extensive green roof system will include 4" of lightweight growing medium and a variety of native sedum plantings. The system will be installed with a temporary irrigation system fed by a rain water collection cistern to assure establishment of healthy vigorous plants during the first year. The system requires minimal maintenance consisting of weed removal the first year prior to the establishment of a full carpet of sedum. Future maintenance and or plant replacement will be provided by the owner. Sections of the Intensive roof systems may have tenant accessible viewing decks.

The design intent is to mitigate storm water runoff by capturing deck runoff in the green areas, which will cover approximately 35-55% of the decks, depending on the building. (The final percentage of green roofs on each individual building will be subject to further detailed building design.) The green roof open spaces and green roof areas will mitigate storm water runoff for the development and reduce the heat island effect by substituting green zones for traditional roof composites.

The roof decks and green roof areas will be further defined in the individual Site Plans for each phase of the project. See Exhibits II.PD-9A through 9C for typical details for green roofs.

COMMENT C-16 (Water Resources):

I hope the developer is going to leave a rather large escrow account to pay for the dredging of the Harbor on a regular basis.

Already an undesirable outcome of this project, there will be constant runoff into the Harbor once you remove all of the trees and vegetation.

For example, there are three new homes on Harbor Hill Road, and the hillside where they were built was decimated, large trees and all shrubbery removed along with huge amounts of soil. Gigantic retaining walls, which will also probably be used in this development, took the place of all the plant life.

When it rains, sand is constantly deposited into the covert on Hammond Road, thereby causing flooding. Public Works is well aware of this occurrence. This situation also exists on Prospect/Albin as a result of these homes being built.

Ms. Barbara Hall, resident, Public Hearing Transcript, City of Glen Cove Planning Board Meeting, June 25, 2009, Section 83, lines 9-25; Section 84, lines 1-9, pp.74-75

RESPONSE C-16 (Water Resources):

As part of the project, appropriate erosion and sediment controls will be implemented to minimize erosion and sediments from discharging into Hempstead Harbor and Glen Cove Creek during construction. These controls will be incorporated into the SWPPP which will be reviewed and approved by NYSDEC and the City. Since most of the development area has already been cleared of trees and the development will be constructed in phases, heavy sedimentation from the construction sites is not anticipated. Control of erosion and sedimentation and maintenance of the measures will be part of the daily duties for the contractor and Construction Manager.

Dredging of Glen Cove Creek will be required to establish the proposed Large Vessel Marina, relocated Angler's Club, and Transient Marina. The Large Vessel Marina will be dredged to a depth of -7.0' at MLW, resulting in approximately 12,500 cubic yards of spoil. Dredging is required at the relocated Angler's Club to establish a depth of -6.0' at MLW, resulting in approximately 6,000 cubic yards of spoil. The Transient Marina will require dredging to establish a depth of -6.0' at MLW, resulting in approximately 28,000 cubic yards of spoil. Please refer to the Site Plan for the location and extent of dredging in each of these areas.

Creation of the proposed marinas does not create a need for additional dredging. However, maintenance dredging of the marina areas may be required to provide continued use of these facilities. The frequency of maintenance dredging, and the volume of spoil that will be dredged from each area, is dependent on sedimentation rates, tides, and storms, and will be permitted separately based upon the need for dredging. The marina operators and ultimately the Property Owners Association would be responsible for any dredging of the marinas as may be required.

COMMENT C-17 (Water Resources):

Exhibit II-6 of the Reference (a) document shows that a "Restored Natural Shoreline" is planned for the western waterfront of the project which faces onto Hempstead Harbor. Since the rebuilding of the City Launching Ramp in about 1980 the beach in this area has eroded away at least 200 ft. easterly into the beach. The sand lost has been deposited by water action into the mouth of Glen Cove Creek. This has caused shallow water, thereby restricting boat traffic in the creek and creating the need for dredging. If sand is added as part of the planned "Restored Natural Shoreline" it will also end up in the creek, again restricting boat traffic in the creek until an expensive and hard to obtain dredging project is authorized and completed.

This situation must be studied by a qualified engineering organization such as the Corps of Engineers. A good example of this phenomenon was the history of Westhampton Beach, NY. There, the addition of groins to a portion of the beach caused an entire community to be partially washed into the sea until a proper engineering solution saved what was left of the community and allowed it to again be rebuilt on firm ground. I have observed this water and sand flow

condition in Hempstead Harbor for many years. This action occurs when a heavy wind blows from the North West, especially during winter. It is exactly the same phenomena as has occurred at Westhampton Beach except on a smaller scale. If sand is added to this beach there must also be a properly engineered means of retaining the sand added.

Peter W. Rapelje, 48 Circe Drive, Glen Cove, NY, letter dated July16, 2009

[Page III.C-15 5th ¶] What measures are proposed to secure the new beach area from erosion and the gradual loss and degradation of the beach area due to storms and natural processes?

Pat Cleary, AICP, Cleary Consulting, letter dated July 20, 2009

Bulkhead Removal and Beach Expansion at Garvies Point
The feasibility of the proposed placement of sand landward of the delineated tidal wetland at Garvies Point Beach will depend on the volume of sand, slope, proposed grade changes and proximity to delineated tidal wetland areas. Placement of sand in areas immediately landward of vegetated wetlands can result in excessive sedimentation and adverse impacts to the existing wetlands. The DEIS should address the sediment control measures that would be in place during construction and post-construction. Removal of the bulkhead and regarding the material to a height less than 10' MSL will cause that area to return to the jurisdiction of the TWLUR to the point where the 10' contour resumes.

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

RESPONSE C-17 (Water Resources): The current site plan for the Garvies Point Beach area depicts the following activities: (1) 320'+/- of existing bulkhead in the vicinity of restaurant to be cut to meet proposed elevations that are lower than existing according to current site plans; (2) 230' +/- of existing bulkhead in the vicinity of the current parking area to be removed; (3) existing esplanade to be removed; (4) construction of proposed boardwalk and beach access stairs; (5) construction of proposed road, parking, walkway, and public restrooms; and (6) planting of natural shoreline areas with American beach grass (*Ammophila breviligulata*) and native beach vegetation to aid in erosion control. Activities proposed in the Garvies Point area were designed to remove hardened shoreline structures, where possible, and create a more natural shoreline that provides more environmental and aesthetic benefits.

The project does not currently provide for placement of additional sand, but does include removal of sediment landward of the existing bulkhead in the vicinity of the restaurant. Therefore, erosion of additional placed sand and deposition in the mouth of Glen Cove Creek is not an issue under the Proposed Action.

The area proposed for re-establishment of a natural shoreline through bulkhead removal and native plantings was selected because it is "protected" from direct northerly, northeasterly, and northwesterly wave attack by the existing bulkhead and boat ramp located on the adjacent property (Hempstead Harbor Club). This protection from wave and storm damage is supported by the presence of significant stands of intertidal marsh vegetation (*Spartina alterniflora*) located immediately adjacent to and seaward of the proposed natural shoreline restoration. The presence of the adjacent structures to the north and the maintenance of the vegetated tidal wetland areas

will combine with the restored natural beach transition zone to achieve a shoreline area that will require minimal maintenance. After major storm events, such maintenance may incorporate the planting of native shoreline species in areas disturbed by natural processes or where additional accretion has occurred. If a major storm event results in the need for additional coastal repairs, such as dune or beach replenishment, these actions would require environmental permits and would be subject to review by the proper regulatory agencies, including the USACOE, NYSDEC, and NYSDOS.

Existing vegetated tidal wetlands areas will be protected during construction by the installation of a row of staked haybales and silt fencing will be installed landward of the tidal wetland boundary. Haybales and silt fencing will be monitored and maintained throughout the construction period, and will only be removed upon completion of construction activities and planting of natural shoreline areas.

The applicant acknowledges that removal of the bulkhead and re-grading of the shoreline to an elevation less than 10' NGVD may cause area(s) to revert to the jurisdiction of NYSDEC under Article 25. The limit of NYSDEC jurisdiction under proposed conditions will be determined during the application process with NYSDEC and depicted on permitted site plans stamped approved by NYSDEC.

Site plans also depict a public boardwalk and beach access stairs. There is no wetland restoration proposed for Garvies Point Beach, nor is conversion of the existing public beach to protected (non-public access) area proposed. NYSDEC has reviewed the Garvies Point Beach plan, and considers the plan acceptable per their July 8, 2011 letter and prior comment letter and discussions.

COMMENT C-18 (Water Resources):

Comments Relating to Tidal Wetlands

A large portion of the project's upland area was previously determined to be outside the jurisdiction of 6NYCRR Part 661, Tidal Wetlands land Use Regulations (TWLUR), due to either the elevation (> 10' above MSL) or the existence of jurisdiction-limiting bulkheads and roads that were in place prior to the implementation of the noted regulations. Upland areas that may remain within the jurisdiction of the TWLUR include portions the properties known as the Angler's Club and Gladsky's. While these two properties are not proposed as sites for intensive coverage with structures and, it still is important for the DEIS to clearly illustrate those areas subject to the TWLUR, and those that are not.

The overall configuration of the proposed project will include residential and commercial components as well as land uses requiring water access and others that do not. The DEIS should acknowledge that the TWLUR specifically distinguishes between the compatibility of residential and commercial uses in regulated tidal wetlands and adjacent areas. Similarly the compatibility of commercial facilities requiring water access *(e.g., a marina)* if, specifically distinguished from those that do not (e.g., a restaurant). Proposed strategies should specifically consider the compatibility of any use proposed within areas regulated under Part 661.

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

RESPONSE C-18 (Water Resources):
NYSDEC Article 25 (Tidal Wetlands) Jurisdictional Limits [3 sheets] has been dated and is included in the Appendix. The limits of NYSDEC tidal wetlands jurisdiction under existing and proposed conditions will be indicated on the site plans submitted to the NYSDEC during the permit process. Please also refer to the response to comment C-21 for a discussion of compatibility of proposed uses for this project under Article 25 of the ECL.

COMMENT C-19 (Water Resources):
Comments Relating to Tidal Wetlands
The closest freshwater wetland is the Mill Pond, east of the new connector highway. Although not in the in the project area per se, it must be determined if any aspect of the proposed project is within the 100' adjacent area (AA) regulated pursuant to 6NYCRR Part 663, Freshwater Wetland Permit Requirement Regulations (FWWR).

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

RESPONSE C-19 (Water Resources):
The applicant acknowledges that if any aspect of the proposed project occurs within 100’ of NYSDEC regulated freshwater wetlands associated with Mill Pond, an Article 24 permit will be requested from NYSDEC during the application process.

COMMENT C-20 (Water Resources):
There's a lot of references to standing water, which makes it sound kind of negative; although, it appears to me that the area has recovered environmentally in many ways and that we have a pretty active wetlands down there, especially with the cattails that were mentioned in the report.

But the whole area is underlined with natural springs. The standing water is not from some negative thing, but they're all natural springs there. They're not going to go away.

There's a perched water table under that whole area over there, and I'm astounded that no one seems to even know.

And I know when I took a walk on the esplanade when it was first built, that I could see all the little areas where the springs were coming out. And what, do people just think that they're mud puddles?

Catherine Natalie, Public Hearing Transcript, City of Glen Cove Planning Board Meeting, June 25, 2009, Section 132, lines 24-25; Section 133, lines 1-25p.118-119

RESPONSE C-20 (Water Resources):
There are approximately 3.9 acres of standing water on the subject property in Blocks B and C. These shallow pools are the result of the extensive excavation and grading associated with the environmental remediation of the subject property. These areas of standing water are not natural wetlands and are not regulated as freshwater wetlands by the New York State Department of

Environmental Conservation. Over the past several years, native and invasive wetland plants have colonized these shallow pools and, as a result, there is now a vegetation community present at the subject property. It is stated in the DEIS that these pools provide habitat for migratory and resident wading birds and waterfowl. Accordingly, the plant species present along the margins of these shallow pools were inventoried and listed in Table III.D-1. In addition, the loss of the habitat provided by these areas of standing water is acknowledged as an adverse environmental impact of the proposed action.

Spring flow and perched water are well known in this area. The existence of perched water was mentioned in the EPA's remedial investigation report. Section 3.5.1 of the Draft Final Remedial Investigation (RI) Report, Volume I of IV, prepared by Malcolm Pirnie Inc, May 1998, discusses the regional hydrogeology. It summarizes the existing geological literature and states that "Bodies of perched groundwater are found in several parts of the Glen Cove region. Perched Groundwater occurs where the downward migration of water in the vadose [unsaturated] zone is impeded by a layer of relatively low permeability which results in a local zone of saturation above and unrelated to the main water table. In the Glen Cove region, perched water occurs close to the land surface in depressions that are underlain by clayey till and clay. Perched groundwater is prevalent in the area of ground moraine north of the Harbor Hill terminal moraine (which includes the Glen Cove region)."

The occurrence of springs and perched water are inter-related. The springs in the area occur when the surface of the perched water rises to an elevation that intersects the land surface. These can occur anywhere from south of Herbhill and Garvies Point Roads northwards up the ridge. The reason is that to the north of these roads ground surface rises steeply and the sediments forming the highlands consist of layers of sand underlain by silty clay (the ridge is the terminal moraine discussed in the EPA RI) that impedes downward flow of groundwater creating perched-water zones. The perched zones usually "fill up" during the rainy parts of the year and intersect land surface where springs issue from the ground. These usually disappear during the hotter months as the perched zones dry up from lack of rain and withdrawals by vegetation using the groundwater during the growing season.

COMMENT C-21 (Water Resources):
Comments Relating to Tidal Wetlands
Based on the project plans and information provided it's not possible to determine definitively which of the proposed project activities will occur within NYSDEC Tidal Wetland jurisdiction, However, the Use Guidelines contained in the TWLUR have 57 different use categories and the exclusion of many of the uses from table III.C-2 (Page III.C-36) does not accurately depict other applicable categories. From the information that has been provided in the DEIS it appears the table is missing a number of potentially relevant regulated use categories as provided in 6611.5(b). We note the following additional categories (at a minimum) that may apply:

Use	Use Category
(9) Establish Plantings.	This use is generally compatible (permit required in tidal wetlands. No permit is necessary in the adjacent area.

(15) Construction of open pile catwalks and docks more than four feet in width; or constructing more than one open pile catwalk and/or dock greater than four feet in width for any principal building.	This use is presumptively incompatible in vegetated marsh areas and generally compatible (permit required) in shoals, mud flats, littoral zone and adjacent areas.
(27) Dredging	This use is presumptively incompatible in all regulated tidal and adjacent areas.
(30) Filling	This use is presumptively incompatible in all regulated tidal wetland areas and generally compatible (permit required) in adjacent areas.
(31) Disposal of dredged material	This use is incompatible in vegetated marsh areas, presumptively incompatible in shoals, mud flats, littoral zone and generally compatible (permit required) in adjacent areas.
(41) Installation of underground electric, sewer, water, or other utilities where such installation will involve restoration of existing ground elevation [other than activities covered by item 40].	This use is generally compatible (permit required in all regulated tidal and adjacent areas.
(43) Installation of a dry well, retention basin, filter, open swale or pond	This use is presumptively incompatible in all regulated tidal wetland areas and generally compatible (permit required) in adjacent areas
(44) new discharge of any pollutant requiring a SPDES permit pursuant to the environmental conservation law and complying with the requirements of the issuance of such a permit.	This use requires a permit in all regulated tidal wetlands and adjacent areas.
(45) Installation of a sewage disposal septic tank, cesspool, leach field or seepage pit and discharge of any pollutant into such facilities not requiring a SPDES permit pursuant to article 17 of the environmental conservation law.	This use is presumptively incompatible in all regulated tidal wetland areas and generally compatible (permit required) in adjacent areas
(46) Construction of single family dwellings and multiple family dwellings.	This use is presumptively incompatible in all regulated tidal wetland areas and generally compatible (permit required) in adjacent areas
(48) Construction of commercial and industrial use facilities not requiring water access and public or semi-public buildings not requiring water access; and undertaking commercial and industrial use activities not requiring water access.	This use is presumptively incompatible in all regulated tidal wetland and adjacent areas
(49) Construction of accessory structures or facilities for any use listed in items 46 and 47, [other than accessory structures or facilities covered by item 50] or covered specifically in this list.	This use is presumptively incompatible in all regulated tidal wetland areas and generally compatible (permit required) in adjacent areas
(51) Construction of accessory structures or facilities for any use listed in item 48.	This use is presumptively incompatible in all regulated tidal wetland and adjacent areas
(57) Any type of regulated activity not specifically listed in this chart and any subdivision of land.	This use is presumptively incompatible in all regulated tidal wetland and adjacent areas

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

RESPONSE C-21 (Water Resources):
In response to this comment, a revised Table III.C-2 is below.

Table III.C-2
Potential Activities Requiring an Article 25 Permit

Use	Use Category
(9) Establishing plantings.	This use is generally compatible (permit required) in all tidal wetland designations; no permit is required in adjacent areas.
(15) Constructing open pile catwalks and docks more than four feet in width, or construction more than one open pile catwalk and/or dock not greater than four feet in width for any principal building.	This use in presumptively incompatible in intertidal and high marsh areas, and generally compatible (permit required) for shoals & mudflats, littoral zone, and adjacent areas.
(17) Installing a floating dock(s) totaling 200 sq. ft. or greater.	This use is presumptively incompatible in intertidal marsh areas, but generally compatible (permit required) in shoals & mudflats, littoral zone, and adjacent areas.
(24) Substantial restoration or reconstruction of existing functional structures, including bulkheads	This use is generally compatible (permit required) for all wetland types and adjacent areas.
(27) Dredging	This use is presumptively incompatible in all tidal wetland designations and adjacent areas.
(28) Maintenance Dredging	This use is generally compatible (permit required) for all wetland types and adjacent areas.
(29) Construction of bulkheads and shoreline stabilization structures	This use is presumptively incompatible in intertidal marsh areas, but generally compatible (permit required) in shoals & mudflats, littoral zone, and adjacent areas.
(30) Filling	This use is presumptively incompatible in all tidal wetland designations and generally compatible (permit required) in adjacent areas.
(31) Disposal of dredged material	This use is incompatible in intertidal and high marsh areas; presumptively incompatible in shoals, mudflats, and littoral zone; and generally compatible (permit required) in adjacent areas.
(41) Installation of underground electric, sewer, water, or other utilities where such installation will involve restoration of existing ground elevation, other than activities covered by item 40.	This use is generally compatible (permit required) in all tidal wetlands and adjacent areas.
(43) Installation of a dry well, retention basin, filter, open swale or pond	This use is presumptively incompatible in all tidal wetland designations and generally compatible (permit required) in adjacent areas.
(44) New discharge of any pollutant requiring a SPDES permit pursuant to the environmental conservation law and complying with the requirements of the issuance of such a permit.	This use requires a permit in all tidal wetland designations and adjacent areas.
(45) Installation of a sewage disposal septic tank, cesspool, leach field or seepage pit and discharge of any pollutant into such facilities not requiring a SPDES permit pursuant to Article 17 of the ECL.	This use is presumptively incompatible in all tidal wetland designations and generally compatible (permit required) in adjacent areas.
(46) Construction of single family dwellings and multiple family dwellings.	This use is presumptively incompatible in all tidal wetland designations and generally compatible (permit required) in adjacent areas.
(47) Construction of commercial and industrial use facilities requiring water access and public and semi-public buildings requiring water access; and undertaking commercial and industrial use activities	This use is presumptively incompatible in all tidal wetland designations, and generally compatible (permit required) in adjacent areas.

Use	Use Category
requiring water access	
(48) Construction of commercial and industrial use facilities not requiring water access and public or semi-public buildings not requiring water access; and undertaking commercial and industrial use activities not requiring water access.	This use is presumptively incompatible in all tidal wetland designations and adjacent areas.
(49) Construction of accessory structures or facilities for any use listed in items 46 and 47, other than accessory structures or facilities covered by item 50 or covered specifically in this list.	This use is presumptively incompatible in all tidal wetland designations and generally compatible (permit required) in adjacent areas.
(51) Construction of accessory structures or facilities for any use listed in item 48.	This use is presumptively incompatible in all tidal wetland designations and adjacent areas.
(57) Any type of regulated activity not specifically listed in this chart and any subdivision of land.	This use requires a permit in all tidal wetland designations and adjacent areas.

COMMENT C-22 (Water Resources):
Comments Relating to Tidal Wetlands
The project's open space and recreational use proposals includes several expansive lawn areas and public amenities including observation piers, boardwalks, parking areas, amphitheaters, and a café and restaurant. Where waterfront amenities occur in regulated tidal wetland or regulated adjacent areas, they will require Part 661 permits from the NYSDEC. Overwater structures may also require Part 608 permits as well as Water Quality Certification. Although sufficient detail is not provided for an assessment of the proposed amenities, the applicant will need to meet use and development requirements, maintain adequate buffer areas and minimize adverse impacts to natural resources.

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

RESPONSE C-22 (Water Resources):
The applicant acknowledges the requirement for NYSDEC permits under Part 661 (Tidal Wetlands) for portions of the property within the NYSDC tidal wetlands adjacent area, Part 608 (Use and Protection of Waters), and Water Quality Certification for the proposed project. Final site plans will be developed during the Site Plan Approval phase of the project and the applicant will coordinate with the NYSDEC during the application and permitting process to ensure that the project meets permitting standards to minimize adverse impacts to natural resources.

COMMENT C-23 (Water Resources):
Comments Relating to Tidal Wetlands
The DEIS describes numerous areas along the Glen Cove Creek and Hempstead Harbor where activities regulated under the TWLUR will occur. The document does not contain the specificity that the Department would require for review of a permit application for these activities so our responses will also be generalized.

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

RESPONSE C-23 (Water Resources):
The applicant acknowledges the site plans included within the DEIS do not contain the required specificity for NYSDEC permit application review. Final individual site plans will be developed for each phase of the project and the applicant will coordinate with the NYSDEC during the application and permitting process to ensure all information required is submitted to the NYSDEC and that the project meets permitting standards to minimize adverse impacts to natural resources.

COMMENT C-24 (Water Resources):
Captain's Cove Intertidal Marsh and Shoals and Mudflats, pages III.D-33
The Department does not have any conceptual objection to the restoration (conversion of shoals and mudflats to intertidal marsh) of 17,500 sq. ft. of intertidal marsh, nor the adjacent slope restoration and planting described in the DEIS. However, the information in the DEIS falls short of providing the Department with sufficient information to determine if the proposal meets the standards of permit issuance of the TWLUR. Additionally, the success and value of these transformed wetlands must be weighed if the project sponsor intends to apply this effort towards mitigation of other negative impacts on the site, such as the relocation of the intertidal marsh at the proposed large boat marina site. The information provided in the DEIS does not allow such a determination of value or chance of success.

The DEIS notes impacts, including disturbance and turbidity, from the construction of the proposed walkways and observation pier. However long-term impacts associated with authorization of the structure (e.g., shading, loss of habitat, impacts to water sediment transport) should also be discussed.

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

RESPONSE C-24 (Water Resources):
The applicant acknowledges the site plans included within the DEIS do not contain the required specificity for NYSDEC permit application review. Consultation with NYSDEC regarding design of the Observation/Ecology Pier is ongoing. Site Plans will be revised during the permitting and site plan approval phase of the project as required by NYSDEC to satisfy their permit requirements for Observation/Ecology Pier design.

There is a potential for long-term impacts associated with the observation pier proposed in Captain's Cove, including impacts from shading, loss of habitat, and impacts to water sediment transport. These impacts will be properly assessed once plans for the observation pier are developed in sufficient detail (i.e. construction materials, type of decking, height, etc.). Design modifications to minimize the potential for long-term impacts will include use of open grate decking and educational signage; and may include an alternate location for the pier and a reduction in pier size.

COMMENT C-25 (Water Resources):
Tidal Weir and Turning Basin, pages III.C-16-19

Over the course of our meetings and conversations with the project sponsor the Department staff has come to understand the importance of the turning basin/weir complex to the project sponsor. However, the DEIS raises questions that are not satisfactorily answered with regard to the potential for negative impacts to the upper reach of the Glen Cove Creek

Page IIIC18 discusses the potential for the basin to become a deposition basis for the Mill Pond outfall, without offering assurance for proper preventative maintenance after construction. Also mentioned are possible impacts to finfish and crustaceans; stratification of the water column decreased circulation, temperature and salinity changes, decreased oxygen and sediment redox.

The potentiality of these negative impacts is not clearly articulated. Additionally, the mitigation efforts to prevent the negative impacts are vague.

By definition, a turning basin is an open area at the end of a canal or narrow waterway to allow boats to turn around. However, it is clear that boats large enough to require a turning basin will not be able to access the proposed "turning basin" once the tidal weir is constructed. More than 90% of the time, the weir will be covered by an average of approximately six inches of water, or less. The project description indicates that fish passage will be possible 8% of the time but does not clarify boat access. It seems apparent that this proposed "turning basin" cannot function as proposed but the applicant should clarify the issue of boat access. In addition, any structure lying below the water surface part of the time has the potential to create a navigation hazard. How will this hazard be mitigated?

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

Marine improvements described in this section include the dredging of a turning basin and the installation of a tidal weir. The description states that dredging for the turning basin would create approximately 49,600 feet of wetlands, although it is not clear how this would occur if the purpose of the tidal weir is to retain water in the basin. If the height of the tidal weir is set as described to allow water from the creek to flow over the top approximately 8% of the time, the basin would remain flooded as intended and the habitat at the head of the creek would change.

Currently, at low tide the bottom of the creek is exposed, and there is a free flow of water during changing tidal cycles. Mill Pond at the head of the creek was intended to act as a settling pond and filter for the large volume of storm water that flows in from the Cedar Swamp watershed, however the pond has not been maintained and is filling in. The same would happen with the tidal basin without regular maintenance. Although the developer's expectation is that the tidal basin would improve water quality of Glen Cove Creek, we question that result, as well as the impact/change in marine habitat, whether such a change would be permissible by NYSDEC, and whether the turning basin would even be an appropriate and healthy environment for kayakers and canoers.

Karen Papasergious and Carol DiPaolo, President and Programs Director and Water-Monitoring Coordinator, Coalition to Save Hempstead Harbor, letter dated July 20, 2009.

Provide a detail as to how the floating boom/baffle is installed and how it operates.

Alan J. King, Jr., P.E., LEED AP, partner, Cameron Engineering & Associates, LLP, letter dated July 20, 2009

RESPONSE C-25 (Water Resources):
As described in the FEIS, the tidal weir located in the upper reach of Glen Cove Creek has been removed from the development plan under the Proposed Action and should be characterized as a considered, but rejected, alternative. Under the revised Proposed Action, the upper reach of Glen Cove Creek will be re-developed as shown in Exhibit I-7A by excavation of the existing upland area; construction of a new bulkhead with a maximum of elevation of 1.0'; creation of 30,751 sf of intertidal wetlands at elevation 1.0' to 4.4'; construction of an elevated boardwalk/pier with interpretive signage over the created wetlands; grading and construction of a natural slope to be planted with 1,726 sf of high marsh wetlands (elevation 4.4' to 6.8') and 15,692 sq. ft. of native shrubs/grasses (elevation 6.8' to 10.0'). All proposed wetland areas and structures shall be located landward of the existing bulkhead line. As these designs maintain the existing configuration and flow patterns within Glen Cove Creek, there would be no additional significant adverse environmental impacts resulting from these designs. These proposed improvements will require permits from USACOE, NYSDEC, NYSDOS, and other regulatory agencies for modifications to the bulkhead and the construction of the wetland areas and boardwalk.

Planting specifications have been provided as part of the revised FEIS and are summarized below. Section- and plan-views of the proposed restoration areas will be submitted to the NYSDEC, USACOE, and NYSDOS as part of the permit applications for the proposed re-development of the upper reach of Glen Cove Creek.

Plant Species and Size
Upland Shrubs (3-4' in height, 2 gallon containers on 12' centers):

Northern Bayberry	*Morella pensylvanica*
Groundsel Bush	Baccharis halimifolia
Beach Plum	*Prunus maritima*

Upland Herbaceous Plants (2" plugs on 18" centers):

Switch Grass	*Panicum virgatum*
Seaside Goldenrod	*Solidago sempervirens*
Butterfly Milkweed	*Asclepias tuberosa*
Smooth Aster	*Aster laevis*

High Marsh Plants (2" plugs on 18" centers):

Salt Hay	*Spartina patens*
Spike Grass	*Distichlis spicata*

Low Marsh Plants (2 " plugs on 18" centers):

Smooth Cordgrass	*Spartina alterniflora*

Whole Marsh Sods (4-9 sq. ft. sods distributed evenly throughout receiving areas):

Planting Windows
Low Marsh Sod Transplanting: March 1 to June 30
Low Marsh, High Marsh, and Upland Slope Plugs: Spring Season April 15 to June 15
Upland Slope Shrubs: April 1 to May 15

Elevation Requirements
Upland Slope Plants: > 6.0'

High Marsh Plants: 4.4-6.0'
Low Marsh Plants: <4.4'

Planting Methods and Specifications

Site Preparation

Planting substrates shall be free from debris, noxious weeds, toxic substances or other materials harmful to plant growth. Prior to commencement of planting operations, the Contractor shall complete a Soils Test in accordance with ASTM D 5268 and ASTM D 4972 to determinethe pH, organic matter, soluble salt, and nutrient contents, as well as soil texture, of the planting substrates. Separate sample collections shall occur for each planting area, and be random over the separate areas.

Prior to the commencement of the planting operations, the Contractor shall verify that finished grades are as indicated on the plans, and the finishing and compaction requirements have been completed in accordance with design specifications. After grading is complete, heavy equipment is prohibited from entering planting areas.

Herbivory Fence

Herbivory Fence shall be installed after final grades in the marsh areas and upland slope planting areas are completed. Herbivory Fence shall be installed prior to or concurrently with installation of the low and high marsh and upland slope plants. Under no circumstances are these plants to be planted outside the containment of a satisfactorily installed Herbivory Fence.

Fence Materials shall be as follows:
Herbivory Fence shall be made of the following materials:

Wood Stakes on 10' centers: Untreated hardwood lumber, pointed-tip stakes. Stakes must be free from large knots that weaken the strength of the stake.

Fence Fabric: 6-ft high panel deer exclusion fence, UV-stabilized, minimum 600 lbs/ sf breaking strength, or equivalent item

Fabric may be attached to wood stakes using heavy-duty zip-ties or 1.5 inch hot dipped galvanized u-nails.

Nylon twine: Braided nylon mason's line #18 gauge cord with tensile strength of 150 pounds.

Plastic flagging tape or Mylar tape

Herbivory Fence shall be installed after final grades in the marsh and upland slope planting areas are completed and approved by. Herbivory Fence shall be installed prior to or concurrently with installation of the marsh and upland plants. Under no circumstances are these plants to be planted outside the containment of a satisfactorily installed Herbivory Fence.

Stakes shall be pounded vertically into the substrate. Herbivory Fence shall be installed a minimum of 18 inches away from the first row of wetland planting. At least one stake shall be also be installed in the interior of each cell to provide support for nylon twine and flagging tape. Planting cells should be approximately 50' x 50' in size. The fence fabric shall be secured at the top, middle, and bottom to the wood stakes with plastic ties. All fence shall be placed so that the bottom of the fence lies entirely on the substrate. Upon completion of the outer perimeter of each cell and the installation of interior stakes, nylon twine shall be strung across the tops of the planting areas from the perimeter stakes to the interior stakes. The nylon twine shall be wrapped around the top of the stake several times. The twine shall be strung to the next stake and wrapped again before continuing on to the next stake. Mylar or plastic flagging, trailing at least 12 inches of tape from the tie, shall be tied to the top of each hardwood stake (both perimeter and interior). The flagging shall also be tied along the interior nylon twine. Stringing of the interior twine and tying of flagging may be done after planting in a cell is completed; however, no planted area is to be left exposed without interior lines and flagging at the end of any workday. No unused strands of nylon twine, fence fabric, packaging materials, wood stakes or any other construction debris shall be left on the Project

Site after fence installation and guarantee maintenance has been completed. Herbviory fencing may be removed after two growing seasons if 85% coverage/survivorship is attained.

Plant Material

Plants shall be well-shaped, well-grown, vigorous plants having healthy and well branched root systems. Plants shall be free from disease, harmful insects and insect eggs, sun-scald injury,
disfigurement, and abrasion. Plants shall be free of shock or damage to branches, trunks or root systems that may occur during digging and preparation for shipment, method of shipment or actual shipment. Marsh plants shall be acclimated to saline conditions (20 ppt) when delivered and this needs to be maintain until they are planted. Plants should be from a suitable geographic location to ensure proper adaptation to Long Island climate and edaphic conditions. Plants shall not be injured in handling. Plants shall not be handled by the trunk or stems. Materials shall not be dropped from vehicles.

Plant Installation

Plugs:

Plugs shall be planted at a depth of no more than 1 inch deeper than grown in the nursery. The top of the rootstock mass shall be a minimum of 1 inch below the soil surface. Plants shall be set plumb, with the root system oriented downward, and held in position until sufficient soil has been firmly placed by hand around the root mass. The plant shall be set even with or slightly higher than the surrounding grade. It shall be unacceptable to step on or around planting holes for the purposed of placing backfill. All planting shall be done "in the dry", i.e. while the tide is below the elevations of the area being planted.

Shrubs:

Plant pits shall be dug approximately 4 inches wider than the stock size. To encourage well-aerated soil to be available to the root system for favorable root growth, plant pits shall be constructed with sides sloping towards the base. Prior to placing a shrub, fertilizer shall be placed in the bottom of each plant pit. At no time shall fertilizer be placed in the water column or on top of the soil surface.

Fertilizers shall only be applied to upland shrubs. Shrub shall be a slow release tablet with a 20-10-5 nitrogen-phosphorus-potassium ratio. Fertilization rate shall not exceed manufacturer's specifications for appropriate-sized shrub.

Transplanting of Low Marsh Sods:

Marsh sods must be re-planted within 48 hours of being removed or uprooted. Marsh sods may not be transplanted when the ambient temperature are below 33 degrees Fahrenheit.
Any wrack and debris that has collected in the low marsh planting areas shall be thoroughly removed and disposed of in an offsite licensed facility prior to transplanting. These areas shall be raked clean and smooth. All transplanting shall be done "in the dry", i.e. while the tide is below the elevations of the area being planted. The Contractor shall schedule planting on a daily basis to account for the diurnal tidal cycles. Transplanting holes shall not be dug while planting substrates are inundated.

Sods shall be removed with caution by a long reach excavator position on top of the existing or reconstructed bulkhead. A Wetland Specialist shall be on-site to supervise transplanting of low marsh sods during all transplanting activities. Excavator bucket shall be guided to proper depth to ensure that roots and rhizomes remain intact. The long reach excavator may place a stockpile of sods and then have other machinery, such as a bobcat, move the hummocks to the final transplant area. Transplanted marsh sods shall be approximately 4-9 square feet in area. Holes for the sods shall be dug, so that the backfill goes no higher than the top of any mussels at the base of the plant material or no lower than the base of the mussel bed. If mussels are not present, the hummocks must be backfilled up to the maroon part of the stems of the Spartina alterniflora. The green part Spartina alterniflora stems should not be covered with backfill material. All backfill shall be smoothed, leveled and tamped so that there are no holes, divots or ponding around the sods. The grade immediately around the sods shall be re-checked no sooner than 48 hours after fill placement and any holes, divets or ponding must be fixed by adding fill or regrading.

Maintenance

Upland plants shall be irrigated to ensure 1 inch of water per week through natural precipitation or supplemented by irrigation.

Any plants not installed on the day of delivery at the project site shall be stored and protected in designated areas from direct exposure to wind and sun. Any areas used for temporary storage of low and high marsh plants must be enclosed with perimeter Herbivory Fence to prevent grazing by waterfowl. Plants must not be stored on-site for more than 7 days before planting. If planting is delayed for more than 6 hours after delivery, the plants shall be watered.

Installed plants shall be maintained in a healthy growing condition. Maintenance of planting areas during construction shall include preventing the intrusion of weeds, grass, and other undesired vegetation, watering, and adjusting grades for settling. Grass, weeds, and other undesired vegetation shall be removed before reaching a maximum height of 12 inches.

Any planted areas disturbed prior to completion of five growing seasons shall be repaired or reinstalled in accordance with the above specifications.

During the guarantee period and until final acceptance, mechanical weed removal, hand pulling and herbicide application may be utilized to keep materials free from invasive vegetation.

During the maintenance period, twice-yearly inspections (between May and August) to identify and remove any invasive vegetation (i.e. Phragmites australis (Common reed grass), Ailanthis altissima (Tree- of-Heaven), Eleagnus angustifolia (Russian olive), mugwort (Artemesia vulgaris) or other invasive species) All plant vegetation and naturally recruiting native vegetation shall remain undisturbed. Mechanical weed removal shall consist of the removal of stems and rhizomes. Should invasives cover 5% or more of the site herbicide may be applied.

Necessary environmental permits must be obtained for any herbicide treatments. Herbicides shall be used with extreme caution in regard to safety and health. All manufacturer's safety instructions to avoid adverse impacts to human health must be followed. Any spray materials shall be applied with great care to avoid collateral damage to surrounding, native or planted vegetation. Applications to herbaceous invasives shall consist of a glyphosate based herbicide with a non-ionic surfactant. Applications to woody invasives shall consist of spraying the cut stump. All herbicides shall be applied by hand painting, back-pack sprayer or other controlled means to prevent damage to desirable planted vegetation. All spraying shall be done at times when wind does not exceed a velocity of five (5) miles per hour.

Survivorship Guarantee
Applicant shall be responsible for ensuring 85 percent survival of the planted vegetation over five (5) growing seasons. 85 percent survival shall not be required over five growing seasons if greater than 85% coverage of native vegetation is observed. The plant guarantee period shall commence on the date of the completion of construction, and shall end on October 15 on the fifth growing season. Plant losses due to attributed to herbivores, disease, drought, wind, or storm events shall not lower the minimum survival or coverage requirements. If replacement plants are installed at the end of the five year period to attain 85% survival or coverage, replacement plants shall be guaranteed for an additional growing season from the date of replanting. For low marsh sods, replacement will consist of a 3 ft by 3 ft plot with Spartina alterniflora plugs placed 6 inches on center, or a total of 36 plugs.

COMMENT C-26 (Water Resources):

Tidal Weir and Turning Basin, pages III.C-16-19

Constructing a new tidal weir at the proposed location will significantly alter an existing area of tidal wetlands. The statement that the area upstream of the proposed weir "contains no natural wetland communities" (page III C-18) is inaccurate. The TWLUR recognizes and regulates several wetland zones, including the coastal shoals and mud flats found at this project site. The

suggestion that the area upstream of the proposed weir will also act as a secondary sedimentation basin for runoff entering the creek will further limit the proposed habitat value of the area for marine resources, such as finfish and invertebrates. Although the DEIS suggests turbidity in the upstream area may be reduced due to the reduced tidal flushing, turbidity and sedimentation associated with storm events may be exacerbated in the basin.

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

RESPONSE C-26 (Water Resources):
As described in the FEIS and in response to Comment C-25, the tidal weir located in the upper reach of Glen Cove Creek has been removed from the development plan under the Proposed Action and should be characterized as a considered, but rejected, alternative. Please refer to Response C-25 for a discussion of the current Proposed Action for the upper reach of Glen Cove Creek.

COMMENT C-27 (Water Resources):
Tidal Weir and Turning Basin, pages III.C-16-19
What standards will be employed to ascertain the success of the weir/turning basin aspect of the project? If over time unacceptable negative impacts develop due to the placement of the weir, what are the contingencies can the weir be removed? If so, who will be responsible for the removal?

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

RESPONSE C-27 (Water Resources):
As described in the FEIS and the response to Comment C-25, the tidal weir located in the upper reach of Glen Cove Creek has been removed from the development plan under the Proposed Action and should be characterized as a considered, but rejected, alternative.

COMMENT C-28 (Water Resources):
Tidal Weir and Turning Basin, pages III.C-16-19
Whose responsibility will it be to conduct the maintenance necessary to preclude the potential adverse impacts noted in the DEIS?

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

Although the turning basin and tidal weir have been mentioned previously, at page C-18, potential impacts are described along with eventual maintenance of these resting with the Property Owners' Association. The DEIS does not state the anticipated maintenance dredging schedule. Also, with regard to reduced circulation and salt water stratification that would result from the tidal weir, no consideration is given to the fresh water that would enter the tidal basin from the large discharge pipe that is located at the head of the creek and adjacent to Mill Pond.

Karen Papasergious and Carol DiPaolo, President and Programs Director and Water-Monitoring Coordinator, Coalition to Save Hempstead Harbor, letter dated July 20, 2009.

RESPONSE C-28 (Water Resources):
As described in the FEIS and in the response to Comment C-25, the tidal weir located in the upper reach of Glen Cove Creek has been removed from the development plan under the Proposed Action and should be characterized as a considered, but rejected, alternative. Therefore, a water quality monitoring plan for the upper reach of Glen Cove Creek is no longer necessary.

Only monitoring of the tidal wetland restoration areas will be necessary; accordingly, an overall monitoring plan is not necessary. The tidal wetland monitoring plan and protocols shall be developed and submitted with required permit applications to the USACOE and NYSDEC. The monitoring plan shall document the proper maintenance of these planting areas to ensure that survivorship and coverage requirements (85% survivorship and coverage over 5 growing seasons) are met. Environmental permits issued by these agencies will also require all monitoring data and evidence of fulfillment of survivorship requirements are regularly submitted to pertinent regulatory agencies. Monitoring associated with the construction of tidal wetland and native plant restoration areas shall be responsibility of the developer. After completion of construction, maintenance and monitoring responsibilities may be transferred to the Property Owners Association until all regulatory permit requirements are fulfilled and survivorship and coverage criteria are satisfied.

COMMENT C-29 (Water Resources):
Tidal Weir and Turning Basin, pages III.C-16-19
Given the speculative outcomes forecast for the placement of the weir and construction of the turning basin area, the Department suggests that an appropriate modeling software program be applied to the proposed changes. As it is described and supported in the document it would be difficult for the Department to make a positive determination with regard to the standards of permit issuance.

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

RESPONSE C-29 (Water Resources):
As described in the FEIS and the response to Comment C-25, the tidal weir located in the upper reach of Glen Cove Creek has been removed from the development plan under the Proposed Action and should be characterized as a considered, but rejected, alternative.

COMMENT C-30 (Water Resources):
Large Boat Marina Page III.C-18 & 35
The DEIS does not make a compelling argument for the placement of the large boat marina in one of the few remaining intertidal marsh areas on the creek. As proposed the large boat marina will necessitate the relocation of 8,520 sq ft. of intertidal wetland. The project sponsor needs to justify this site disturbance.

Relocation and creation of vegetated marsh areas are less successful and generally exhibit reduced values and functions than existing, naturally occurring marshes. The proposal to recreate a marsh in a location landward of a low-sill bulkhead will further reduce the values associated with restored marsh since it will be physically separated by the bulkhead from adjacent communities. Access to and from the site will be restricted for a variety of organisms. Efforts should be taken to avoid and minimize impacted marsh areas rather than proposing to relocate and restore new marsh areas. Relocating proposed marina areas should be more fully evaluated. The proposed "intertidal wetland salvage" would require a permit under Part 661. Applicable Use categories regulating this activity may include 9, 27, 30, and 57. Monitoring and maintenance of plant survivorship is generally required for a minimum period of five years.

The DEIS should explore alternatives to placement of the large boat marina in this exiting marsh.

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

RESPONSE C-30 (Water Resources):

The Large Vessel Marina is expected to be a key component for the marketing and success of the overall project. As outlined in the updated market studies prepared for this project (see Appendix), the inclusion of slips capable of accommodating boats between 80' and 150' in length would make the site one of the relatively few locations in the northeast capable of accommodating this many large boats. This capability, along with the marina's accessibility on the North Shore, is likely to be attractive to New York area boat owners. The presence of large slips would also make a valuable contribution to the overall uniqueness and prestige of the project and the City, which would enhance the marketing of the other uses on-site. The DEIS acknowledges in Section III.D.2.e that an environmental impact associated with the proposed large boat marina includes the loss of approximately 25,900 sq. ft. of intertidal wetlands. Approximately 8,500 sq. ft. of this intertidal wetland area is comprised of native *Spartina alterniflora* grasses, while the remainder is comprised of invasive *Phragmites australis* and shoals/mudflats. NYSDEC correctly indicates that dredging in intertidal marsh habitats is a presumptively incompatible use with the New York State Tidal Wetlands Land Use Regulations, according to Part 661.5.b.27.

At the time of initial pre-application consultations with NYSDEC, the applicant contemplated construction of the Large Vessel Marina within Captain's Cove. This location would have provided docking facilities for a greater number of large vessels than the current location and would have accommodated larger vessels. However, this location would have resulted in significant adverse environmental impacts associated with the loss of intertidal marsh and mudflat areas and the habitat afforded to shorebirds, benthic invertebrates, and finfish. At that time, NYSDEC had recommended that the applicant consider the placement of the Large Vessel Marina at the bulkheaded shoreline located just to the east of Captain's Cove and include the construction of a wingwall along the western edge of the Large Vessel Marina to stabilize the boundary between the dredged marina and the intertidal wetlands. In addition, NYSDEC indicated that the applicant would need to provide adequate mitigation for the intertidal wetlands lost due the construction of the large vessel marina.

Construction of the Large Vessel Marina along the bulkhead shoreline east of Captain's Cove allows for restoration of a naturally vegetated slope within the Cove and avoids encroachment of the piers into the Federal navigation channel associated with Glen Cove Creek. A number of alternate locations east of Captain's Cove were considered during pre-application discussions with NYSDEC's Bureau of Marine Habitat Protection.

The applicant recognizes that location of the Large Vessel Marina further east within Glen Cove Creek would reduce or avoid the adverse environmental impact due to the loss of intertidal wetlands. Accordingly, the applicant investigated the possibility of locating the Large Vessel Marina further upstream. Upstream locations of the Large Vessel Marina are not feasible due to navigational safety reasons. East of the proposed relocated Anglers Club, Glen Cove Creek narrows substantially to approximately 70 feet in width. Accordingly, this portion of the Creek is too narrow to accommodate large vessels. In addition, it is advantageous to position the proposed docking facilities for small, transient and seasonal vessels in the eastern portion of the Creek to facilitate transient and seasonal boaters docking within eastern portion of the project site and walking to Glen Cove to visit restaurants and retail shops.

Similarly, it is not feasible to locate the Large Vessel Marina in the portion of the project site between the proposed ferry terminal and the proposed relocated Anglers Club. Glen Cove Creek is somewhat wider in this reach (i.e. approximately 100 feet in width), but still not wide enough to allow a large vessel to safely navigate and turn around. In addition, location of the Large Vessel Marina in this location, or further upstream, may result in an impediment to the ferry traffic near the Glen Cove Ferry terminal. The applicant also considered the possibility of enlarging the width of the creek to accommodate the Large Vessel Marina in this reach. However, it is not possible to locate the Large Vessel Marina within this reach without encroaching into the federal navigation channel which would create a hazard for other vessels. Furthermore, the subject property in this reach is not wide enough to accommodate both the proposed public esplanade and the necessary dredging to construct the Large Vessel Marina.

Therefore, the only remaining location for the Large Vessel Marina within the bulkheaded portion of Glen Cove Creek is the reach between the Glen Cove Ferry terminal and Captain's Cove. Currently, Glen Cove Creek is substantially wider in this reach (i.e. approximately 170 feet in width). Therefore, this portion of the Creek provides maximum maneuvering area for large vessels, ferries, and small vessels to safely navigate. In addition, the Large Vessel Marina could be constructed at this location without encroaching into the Federal navigation channel. Lastly, after dredging associated with the proposed Large Vessel Marina, this portion of the Creek would provide adequate maneuvering area for vessels up to 150 feet in length.

Once the location of the Large Vessel Marina was finalized, the marina configuration was analyzed. The proposed number of slips and vessel size to be accommodated was determined based on developing a "critical mass" of larger boats to create an exciting destination for visitors while balancing the sensitivity to the amount of infringement into the existing wetlands of Captain's Cove.

NYSDEC requested that the applicant analyze the elimination of the western-most slip within the large vessel marina to reduce the amount of wetland disturbance associated with the proposed

marina. Elimination of the westernmost slip from the marina would have lessened impacts to Captain's Cove, but would also result in the removal of the largest slip from the marina; the largest slip is able to accommodate vessels up to 150' in length and is the main attraction of the marina. Therefore, this alternative configuration was dismissed.

NYSDEC also requested that the applicant analyze alternate configurations for the proposed wavebreak at the western boundary of the large vessel marina. Conceptually, there were three alternative designs considered for the wavebreak to stabilize the Captain's Cove/Large Vessel Marina boundary: (1) construction of a narrow bulkhead to prevent erosion of Captain's Cove and sedimentation within the Large Vessel Marina, (2) construction of a narrow bulkhead with public walkway and observation pier atop the bulkhead, and (3) construction of a solid fill public walkway and observation pier.

Public access is a major component of the overall Glen Isle waterfront development project, a goal established by the Glen Cove IDA and CDA at the onset of the project. Although a narrow bulkhead would minimize impacts to wetlands and benthic habitat, while stabilizing the boundary of Captain's Cove and the Large Vessel Marina, this alternative was dismissed as it did not provide for public access to the waterway.

Construction of a bulkhead with public access was therefore considered preferred, and two alternatives incorporating public access are currently being considered. The first involves construction of a narrow bulkhead to provide stabilization, with an open pile pier having open grate decking to minimize impacts to wetland and benthic habitats from shading and physical disturbance. The second, which is the alternative originally submitted to regulatory agencies, involves construction of a solid fill wavebreak and public walkway, which provides public access but does not minimize impacts to wetland and benthic habitats. The applicant is currently reviewing and revising the design of the wavebreak and public pier to minimize environmental impacts while providing public access as outlined in the first alternative above. Design details for the wavebreak and public pier for the first alternative outlined above shall be provided to regulatory agencies during the site plan review and permitting phase of the project, and shall be based on recommendations from said agencies.

The applicant recognizes that the navigational safety and public access justifications contribute little to overcoming the presumptive incompatibility of the proposed dredging of native intertidal marsh areas. Accordingly, the applicant proposes to mitigate for the 0.36 acres of lost vegetated tidal wetlands and 0.23 acres of lost mudflat associated with the construction of the Large Vessel Marina through the construction of 1.32 acres of tidal wetlands in the low-sill bulkhead area (0.47 acres) and the upper reach of Glen Cove Creek (0.71 acres). Constructed wetlands often do not fully replace all the benefits and values provided by natural wetlands. For example, a constructed wetland may achieve similar plant biomass and coverage to a natural wetland within two or three growing seasons; however, the benthic macroinvertebrate community and soil organic content may take many decades to equal levels found in natural wetlands. Due to this acknowledgement that constructed wetlands replace many, but not all, wetland benefits and values, the New York State Department of Environmental Conservation requires a 3:1 mitigation ratio for vegetated wetlands so that deficiencies in wetland benefits and values provided by constructed wetlands is compensated by increased wetland area. The NYSDEC only requires a

1:1 ration as mitigation for lost shoal, sandbar, and/or mudflat areas. The applicant has complied with this mitigation ratio by proposing 1.32 acres of tidal wetlands to compensate for the loss of 0.36 acres of vegetated tidal wetlands and 0.23 acres of mudflats associated with construction of the Large Vessel Marina.

The Applicant has committed to ensuring that there will be more native vegetation area under the Proposed Action than is currently present at the project site. The Proposed Action includes creation of 0.47 acres (20,500 sq. ft.) of intertidal marsh in Renaissance Park and 0.71 acres (30,751 sq. ft.) of intertidal marsh in the upper reach of Glen Cove Creek, whereas the intertidal zone within the area of the proposed large vessel marina contains only 0.20 acres (8,500 sq. ft.) of native intertidal vegetation. In addition, 0.10 acres (4,500 sq. ft.) of high marsh will be created in Captain's Cove, and an additional 0.04 acres (1,726 sq. ft.) of high marsh is proposed in the upper reach of Glen Cove Creek. In total, 1.18 acres (51,251 sq. ft.) of intertidal marsh and 0.14 acres (6,226 sq. ft.) of high marsh shall be created with the proposed action. This increase in native vegetation coverage compensates for the disturbance of the existing wetland community and the physical separation of the proposed wetland from other wetland areas in Captain's Cove. Furthermore, the proposed action includes establishment of approximately 17,500 sq. ft. of additional intertidal marsh vegetation within Captain's Cove, as described on page III.D-33 of the DEIS. Accordingly, the loss of native wetland vegetation associated with the proposed large vessel marina is offset by a more than 6-fold increase in native wetland vegetation relative to existing conditions. It is the applicant's opinion that the increase in native wetland vegetation under the proposed action overcomes the presumptive incompatibility of the dredging associated with the proposed large vessel marina.

As described in the response to Comment C-19, the various land uses associated with the proposed intertidal wetland salvage and relocation have been added to the Table III.C-2.

Monitoring and maintenance of plant survivorship in all wetland creation and restoration areas will be conducted for five years subsequent to planting. This monitoring and maintenance requirement shall be included in the site plans prepared for the Site Plan Approval phase of the project and the permit applications to the NYSDEC, USACOE, and NYSDOS.

It is noted that low-sill bulkheads are routinely constructed along navigation channels and creeks, areas that have steep grade changes or are located in higher energy areas, to minimize erosion of native or restored vegetated wetlands. Low-sill bulkheads are designed to retain sediment while allowing for flooding of the area during high tide and draining of the area during low tide, facilitating the growth of wetland vegetation such as *Spartina alterniflora*. Drainage of low-sill bulkhead areas is accomplished by providing adequate sand depth in the wetland area, or by providing weep holes in the bulkhead to facilitate drainage. NYSDEC has reviewed the proposed wetland restoration areas utilizing low-sill bulkhead, and has found the plans acceptable per their July 8, 2011 letter and prior comment letters and discussions. Specific design considerations for drainage shall be presented during the permitting and site plan review phase of the project.

COMMENT C-31 (Water Resources):
[Page II-22, 3rd ¶] Does the use of the tidal basin for recreational small craft boating conflict with the ecological integrity of the new tidal wetland habitat in the basin?

Pat Cleary, AICP, Cleary Consulting, letter dated July 20, 2009

RESPONSE C-31 (Water Resources):
As described in the FEIS and the response to Comment C-25, the tidal weir and open water turning basin located in the upper reach of Glen Cove Creek has been removed from the development plan under the Proposed Action and should be characterized as a considered, but rejected, alternative.

COMMENT C-32 (Water Resources):
[Page II-22, 4th ¶] What is the impact on the new tidal wetland habitat resulting from using the turning basin for water quality treatment?

Pat Cleary, AICP, Cleary Consulting, letter dated July 20, 2009

p. III.A-18: The 2 proposed uses for the turning basin do not appear to be compatible. The first paragraph indicates that it will provide secondary stormwater treatment while the third paragraph indicates that an open water habitat will be created. Demonstrate how these uses coexist.

Alan J. King, Jr., P.E., LEED AP, partner, Cameron Engineering & Associates, LLP, letter dated July 20, 2009

RESPONSE C-32 (Water Resources):
As described previously, the tidal weir has been removed from the development plan under the Proposed Action. Therefore, no changes in water salinity in the upper reach of Glen Cove Creek due to restriction of tidal exchange are expected and the salinity conditions shall be suitable for the growth of tidal wetlands vegetation. Please refer to Response PD-74 for a discussion on salinity tolerances for plants proposed in the upper reach of Glen Cove Creek.

Activities proposed in the upper reach of Glen Cove Creek are not intended for use in the treatment of stormwater from impervious surfaces generated by the proposed action. As stated in the response to Comment C-24, no new stormwater discharge pipes will be constructed in the upper reach of Glen Cove Creek. The DEIS indicates in Section III.C.2.b.2 that proposed wetland areas will provide additional water quality treatment of the waters flowing from Mill Pond into Glen Cove Creek. However, with the removal of the tidal weir from the Proposed Action, the upper reach of Glen Cove Creek will continue to function as it does today: as a tidal creek.

COMMENT C-33 (Water Resources):
We also feel that the proposed weir at the turning basin presents another possible opportunity for improving water quality.

The incorporation of an ultraviolet treatment device at the weir could assist in the control of algae and bacteria flowing from Glen Cove -- from Cedar Swamp Creek through the -- Mill Pond and into the Creek. Since the creation of the turning basin will reduce the natural

circulation and since this area will be used for kayaking and a gateway to the project, cleaning the water at this point could present multiple benefits.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, Public Hearing Transcript, City of Glen Cove Planning Board Meeting, June 25, 2009, Section 58, lines 16-25 and Section 59, lines 1-9, p.52

HHPC COMMENT # 18: The proposed weir at the Turning Basin presents a possible opportunity for stormwater mitigation. The incorporation of an ultraviolet ("UV") treatment device at the weir would assist in the control of stormwater-laden algae and bacteria flowing from the upstream Cedar Swamp Creek subwatershed through Mill Pond (Pratt Park) and into the Turning Basin, creek and ultimately harbor. Since the Turning Basin will result in less natural circulation and since this area will be used for kayaking and as the gateway to the project, cleaning the water at this point could present multiple benefits to the developer and to the residents.

RECOMMENDATIONS: The feasibility of the incorporation of an ultraviolet ("UV") stormwater treatment device at the weir and its impacts should be explored and discussed.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, letter, dated July 13, 2009

RESPONSE C-33 (Water Resources):

As described in the FEIS and in response to Comment C-25, the tidal weir located in the upper reach of Glen Cove Creek has been removed from the development plan under the Proposed Action and should be characterized as a considered, but rejected, alternative.

COMMENT C-34 (Water Resources):

The following amendments should be considered to improve the FEIS:

The DEIS does not identify how the draft of boats launched in the turning basin will able to clear the tidal weir. The FEIS should offer alternatives that enable canoes/kayaks to be carried around the tidal weir in low water conditions so that boats can access the western portion of the creek and Hempstead Harbor.

Jaime Ethier, Coastal Resources Specialist, New York State Department of State, Office of Coastal, Local Government and Community Sustainability, letter, dated July 20, 2009

RESPONSE C-34:

As described in the FEIS and in response to Comment C-25, the tidal weir located in the upper reach of Glen Cove Creek has been removed from the development plan under the Proposed Action and should be characterized as a considered, but rejected, alternative. A seasonal floating dock would be proposed in association with the marina in the upper reach of the Glen Cove Creek to allow hand launched craft (kayaks, paddle boats, etc.) to access the water.

COMMENT C-35 (Water Resources):

[Page III.C-15 1st ¶**]** Clarify how the development plan has been designed to conform to the applicable district regulations regarding hydrological resources. What specific constraints affected the design and layout of the project?

Pat Cleary, AICP, Cleary Consulting, letter dated July 20, 2009

RESPONSE C-35 (Water Resources):
The referenced text refers to the project's conformance with recommendations for Zone VIII: North Shore Shallow Flow System pursuant to the Long Island Comprehensive Waste Treatment Management Plan. The recommendations include various structural and non-structural directives, such as provide collection and treatment in those areas where on-lot sewage systems are subject to failure and cannot be upgraded due to soil conditions, high groundwater, small lot size and other considerations; and control stormwater runoff to minimize the transport of sediments, nutrients, metals, organic chemical and bacteria to surface and ground water. These recommendations relate primarily to engineering concepts and did not directly affect the design and layout of the project.

COMMENT C-36 (Water Resources):
[Page III.C-15 6th ¶] Clarify what is meant by "dredging" of upland areas. Wouldn't dredging be confined to the Creek area?

Pat Cleary, AICP, Cleary Consulting, letter dated July 20, 2009

RESPONSE C-36 (Water Resources):
The sentence referenced in this comment is inaccurately worded. The only excavation of upland areas, to create wetland habitat, will be within the upper reach of Glen Cove Creek. All other proposed dredging at the sites of the large vessel marina, the Angler's Club, and the permanent/transient marina will not include conversion of upland areas to open water habitats.

COMMENT C-37 (Water Resources):
[Page III.C-16 1st ¶] Clarify the basis for establishing 8' and 6' water depths.

Pat Cleary, AICP, Cleary Consulting, letter dated July 20, 2009

RESPONSE C-37: The Proposed Action no longer includes dredging to 6' water depth for creation of open water habitat; existing water depths in the upper reach of Glen Cove Creek will remain unchanged.

As described in the FEIS, the tidal weir and turning basin located in the upper reach of Glen Cove Creek has been removed from the development plan under the Proposed Action and should be characterized as a considered, but rejected, alternative. Under the revised Proposed Action, this upper reach of Glen Cove Creek will be re-developed as shown in Exhibit I-7A by excavation of the existing upland area; construction of a new bulkhead with a maximum of elevation of 1.0'; creation of 30,751 sf of intertidal wetlands at elevation 1.0' to 4.4'; construction of an elevated boardwalk/pier with interpretive signage over the created wetlands; grading and construction of a natural slope to be planted with 1,726 sf of high marsh wetlands (elevation 4.4' to 6.8') and 15,692 sq. ft. of native shrubs/grasses (elevation 6.8' to 10.0'). All proposed wetland areas and structures shall be located landward of the existing bulkhead line.

COMMENT C-38 (Water Resources):
Dredging existing open water areas and excavating upland areas to expand the Glen Cove Creek.

Before feasibility of any proposed dredging projects can be assessed, site-specific sediment contaminant analysis, including separate analyses of the material to be dredged and the material to remain as the exposed bottom after dredging, will need to be provided. In addition, proposed dredging to create new underwater lands or to create new depths in excess of those that have legally existed within the last twenty years, is deemed to be a presumptively incompatible activity under Part 661 regulations, regardless of whether the dredging is proposed in an existing wetland or a regulated adjacent area. The applicant shall have the burden of overcoming the presumption of incompatibility.

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

RESPONSE C-38 (Water Resources):
The applicant acknowledges that site-specific sediment contaminant analysis will need to be completed in the Site Plan Approval phase of the project; NYSDEC has confirmed during the consultation process that site-specific sediment containment analysis must be performed prior to permit issuance based on a methodology to be approved during the permitting phase of the project. Sampling methodology will also need to be approved by USACOE and other regulatory agencies prior to commencement of sampling. Results of the sediment contaminant analysis will need to be submitted for review prior to issuance of NYSDEC, USACOE, and NYSDOS permits.

The sediment sampling and contaminant analysis protocol will follow the NYSDEC In-water and Riparian Management of Sediment and Dredged Material (TOGS 5.1.9) guidance document. If any conflicts arise between TOGS 5.1.9 and other remediation standards or pertinent site remediation plans, including but not limited to the Site Management Plan or Environmental Restoration Plan, the highest applicable remediation standard shall apply, unless approved by the NYSDEC and other regulatory agencies.

Sediment analysis will be collected with core samples that penetrate through the proposed dredge or excavation profile and extend into the sediments that will be exposed after dredging is completed. This shall ensure that both removed material for disposal and material that shall be exposed to the marine environmental after dredging shall be analyzed and reported. Sediment analysis will be conducted in areas of Glen Cove Creek and adjacent uplands that are proposed to be dredged or excavated for the creation of the large-vessel marina, new Anglers Club, transient marina, low-sill bulkhead wetland area, upper reach of Glen Cove Creek restoration, bulkhead reconstruction, and any other areas that have not been dredged in recent decades or are likely to be contaminated. In the event newly-exposed sediment in the dredged portions of the creek, or newly-widened creek portions doesn't meet the ecological standards in TOGS 5.1.9, mitigation and/or remediation plans will be prepared as set forth in TOGS 5.1.9 for review, comment, and approval by the NYSDEC and other involved agencies prior to commencing construction activities.

The applicant acknowledges that new dredging in waters not subject to historical maintenance dredging is presumptively incompatible under Part 661.5.b.27 of the New York State Tidal Wetlands Land Use Regulations. The final site plans to be developed during the Site Plan Approval phase of the project and included in the permit applications submitted to the various regulatory agencies shall include cross-section and plan views of the proposed habitat restoration in the upper reach of Glen Cove Creek that shall identify new areas of high marsh, intertidal marsh, and littoral zone that will be created by the proposed project. The applicant acknowledges the burden of proving that the conversion of disturbed upland areas, shoals and mudflats, and shallow littoral zone to high marsh, intertidal marsh, and deeper littoral zone will provide enhanced ecological benefits under the proposed action.

COMMENT C-39 (Water Resources):
Tidal Weir and Turning Basin, pages III.C-16-19
As noted previously, before the feasibility of any proposed dredging project can be assessed, site-specific sediment contaminant analysis, including separate analyses of the material to be dredged and the material to remain as the exposed bottom after dredging, will need to be provided. This includes the areas of upland that will be excavated to become new Glen Cove Creek bottom. Dredging associated with the turning basin includes dredging of the Gateway property, which hasn't been adequately investigated.

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

RESPONSE C-39 (Water Resources):
See Response C-38.

COMMENT C-40 (Water Resources):
Small Boat Marina, Renaissance Park Cut-Back and Intertidal Wetland Relocation
Similar to other areas of proposed dredging, before feasibility of any proposed dredging or excavation project can be assessed, site-specific sediment contaminant analysis, including separate analyses of the material to be dredged and the material to remain as the exposed bottom after dredging, will need to be provided.

Detailed site plans including a planting plan and elevations, will be required for a complete evaluation of the project with regard to the TWLUR.

Roger Evans, Regional Permit Administrator, New York State Department of Environmental Conservation, Division of Environmental Permits, Region One, letter dated July 31, 2009

RESPONSE C-40 (Water Resources):
As described in the response to Comment C-38, a sediment sampling and contaminant analysis will be developed according to the NYSDEC In-water and Riparian Management of Sediment and Dredged Material (TOGS 5.1.9) guidance document. The sediment sampling and contaminant analysis protocol will be submitted to the NYSDEC and other involved agencies for review, comment, and approval prior to commencement of the sampling plan. The applicant acknowledges that detailed site plans including plan- and section-views, planting details and

specifications, proposed and existing grades are required for the permit applications to the NYSDEC and other involved agencies.

Site plan modifications or revisions to the Statement of Findings will not be required when procedures outlined in TOGS 5.1.9 are followed to characterize dredge spoils and exposed creek bottom. If the newly exposed creek bottom sediments exceed the standards in Table 2 of TOGS 5.1.9, three alternatives are available to mitigate the effect of exposed sediments:

- Dredge to a shallower depth than planned; or
- Dredge to a greater depth until cleaner sediments are exposed; or
- Dredge to a greater depth (min. 6") and then cap with available clean sediments

In addition to mitigation/remediation measures that will be implemented if contaminated spoils are present, the following best management practices shall be employed for all dredging and marina construction areas:

- Dredge spoil will be contained so as to not re-enter any waterbody, wetland, or protected area.
- To minimize resuspension of silt, oil, grease, and other fine particles or materials, careful equipment operation, floating booms, and silt curtains or screens shall be used.
- To minimize the amount of material disturbed or returned to the water body, a closed, watertight bucket (closed clamshell) shall be used, and barge overflow will be prohibited.
- Dredging, piling and dock installation, and other aspects of marina construction will be conducted during a dredging window approved by the US Army Corps of Engineers, NYS Department of State, and NYS Department of Environmental Conservation to avoid impacts to spawning shellfish and spawning finfish. This window will likely be November 1st through January 31st.
- Proposed bathymetric contours in the proposed boat basins will be sufficiently deep (i.e. six to eight feet deep at mean low water) to prevent scouring and propeller dredging from the operation of vessels.

COMMENT C-41 (Water Resources):
[Page III.C-18 3rd ¶] Clarify the statement "this impact could be further mitigated by the establishment of high marsh & inter-tidal marsh vegetation upstream of the weir". Is this proposed? If so, it should be fully described.

Pat Cleary, AICP, Cleary Consulting, letter dated July 20, 2009

RESPONSE C-41 (Water Resources):
As described in the FEIS, the tidal weir located in the upper reach of Glen Cove Creek has been removed from the development plan under the Proposed Action and should be characterized as a considered, but rejected, alternative.

Under the revised Proposed Action, the upper reach of Glen Cove Creek will be re-developed as shown in Exhibit I-7A by excavation of the existing upland area; construction of a new bulkhead with a maximum of elevation of 1.0'; creation of 30,751 sf of intertidal wetlands at elevation 1.0'

to 4.4'; construction of an elevated boardwalk/pier with interpretive signage over the created wetlands; grading and construction of a natural slope to be planted with 1,726 sf of high marsh wetlands (elevation 4.4' to 6.8') and 15,692 sq. ft. of native shrubs/grasses (elevation 6.8' to 10.0'). All proposed wetland areas and structures shall be located landward of the existing bulkhead line. As these designs maintain the existing configuration, flow patterns, and water chemistry within Glen Cove Creek, there would be no additional significant adverse environmental impacts resulting from these designs and, specifically, the water quality shall be suitable for the growth of tidal wetlands vegetation.

Intertidal and high marsh planting areas are shown on the project Site Plan and planting specifications are provided in the FEIS. These planting areas are completely integrated into the proposed re-development of the Glen Cove Creek shoreline. As such, these restoration areas represent a definite commitment by the project sponsor to mitigate potential adverse impacts and to improve the environmental benefits provided by the Glen Cove Creek shoreline. Restoration activities will result in the establishment of two intertidal marsh areas totaling approximately 51,251 square feet (20,500 sf Renaissance Park, 30,751 sf upper reach of Glen Cove Creek). Restoration activities will result in establishment of approximately 4,500 square feet of high marsh in the Captain's Cove area and 1,726 square feet in the upper reach of Glen Cove Creek. Please refer to Response PD-74 for a discussion on salinity tolerances for plants proposed in the upper reach of Glen Cove Creek.

COMMENT C-42 (Water Resources):
[Page III.C-19 2nd ¶] Who will be responsible for monitoring water stratification & hypoxic/anoxic conditions? Will the City be informed of the results? Details of this monitoring program are required.

Pat Cleary, AICP, Cleary Consulting, letter dated July 20, 2009

RESPONSE C-42 (Water Resources):
As described in the FEIS and the response to Comment C-25, the tidal weir located in the upper reach of Glen Cove Creek has been removed from the development plan under the Proposed Action and should be characterized as a considered, but rejected, alternative. Therefore, no water quality monitoring will be required for the Proposed Action. Monitoring associated with the construction of tidal wetland and native plant restoration areas shall be responsibility of the developer. After completion of construction, maintenance and monitoring responsibilities may be transferred to the Property Owners Association until all regulatory permit requirements are fulfilled and survivorship and coverage criteria are satisfied. Monitoring protocols will be included in the permit applications submitted to pertinent regulatory agencies including the USACOE and NYSDEC. Environmental permits issued by these agencies will also require all monitoring data and evidence of fulfillment of survivorship requirements are submitted to pertinent regulatory agencies; copies of this data and reports shall be submitted to the City of Glen Cove

COMMENT C-43 (Water Resources):
[Page III.C-23] Identify what structures and facilities will be located within the 100 year flood plain, below the base flood elevation (other than habitable buildings which will be located above this level). Would any of the structures or facilities become a hazard during flood conditions? What measures are proposed to prevent hazardous conditions from occurring?

Pat Cleary, AICP, Cleary Consulting, letter dated July 20, 2009

Because of the hydrogeologic conditions described at C-l regarding the low water-table elevation of property along Glen Cove Creek and the flood-plain conditions described at C-12, the density of the development project is inappropriate and will have a greater adverse impact than described in the DEIS.

Karen Papasergious and Carol DiPaolo, President and Programs Director and Water-Monitoring Coordinator, Coalition to Save Hempstead Harbor, letter dated July 20, 2009.

RESPONSE C-43 (Water Resources):
FEMA has issued new flood maps for this area of Nassau County, dated September 11, 2009, which incorporate new data and flood zone limits. According to the new FIRM, the western portion of the site is now located in Zone X, areas determined to be outside of the 100-year flood hazard area. Therefore, there is no base flood elevation associated with the new development along the western portion of the site (Restaurant, Blocks A, B-1, B-2 and C). The new base flood elevation (100-year elevation) along the eastern portion of the site (from approximately the eastern property line of the new Ferry Terminal property, along Garvies Point Road through a portion of new Block I and Block J) is 12.1 (NGVD 1929 datum). All residential buildings will be set a minimum of two (2) feet above the base flood elevation and all other buildings (office, restaurant, parking for hotel) will be located at or above the base flood elevation. For the western portion of the site, where there is no base flood elevation since this area is located outside of the regulated flood hazard area, the former FEMA base flood elevation of 14.0 (NGVD) has been utilized for comparative design purposes and to set finished floor elevations in this area of the site. Since the finished floor elevations of all habitable space will be set a minimum of two (2) feet above the base flood elevation (current and former), these buildings do not require any special construction methods, such as flood proofing. However, flood proofing methods will be implemented where required along the waterfront to provide an additional level of protection. Specifically, all interior partitions at the lowest floors will include rust-free and non-biodegradable materials such as CMU with synthetic wall coverings and aluminum windows. Benches and other removable site furnishings located along the Esplanade will be bolted to the walkway. As noted above, the 100-year flood elevation varies across the project site – refer to Exhibit II.C-2, FEMA Flood Map and the PUD plans for information.

COMMENT C-44 (Water Resources):
The following amendments should be considered to improve the FEIS:
Section III.C(2)(c) Floodplain Under the Proposed Action Condition indicates that "finished floors of all new buildings to be set a minimum of 1.0 feet above the 100-year flood elevation."
The developer should be made aware that Section R323.1.3.3 of the NYS Residential Code requires the lowest floor of any residential structure to be set 2.0 feet above the 100-year flood elevation (base flood elevation) and the FEIS should reflect this requirement.

Jaime Ethier, Coastal Resources Specialist, New York State Department of State, Office of Coastal, Local Government and Community Sustainability, letter, dated July 20, 2009

RESPONSE C-44 (Water Resources):
In accordance with Section R323.1.3.3 of the New York State Residential Code, the lowest floor of all residential structures will be set 2.0 feet above the base flood elevation as defined by FEMA.

COMMENT C-45 (Water Resources):
The following amendments should be considered to improve the FEIS:
We find the DEIS devoid of any consideration of the impacts associated with global climate change and sea level rise. As impacts associated with climate changes should be expected, the FEIS should evaluate alternatives, higher elevations and other mitigation measures to address these potential impacts so as to avoid having this revitalization effort potentially under water in the next thirty years.

Jaime Ethier, Coastal Resources Specialist, New York State Department of State, Office of Coastal, Local Government and Community Sustainability, letter, dated July 20, 2009

Further, the DEIS does not consider projected climate change impacts such as rising sea level.

Karen Papasergious and Carol DiPaolo, President and Programs Director and Water-Monitoring Coordinator, Coalition to Save Hempstead Harbor, letter dated July 20, 2009.

RESPONSE C-45 (Water Resources):
The project has been designed in accordance with FEMA and New York State Residential Code requirements. As a result, the lowest floor of all residential structures will be set at least two feet above the base flood elevation, which will provide protection from potential rising sea levels. FEMA defines the 100-year flood elevation (base flood elevation) as the 1% annual flood or the flood that has a 1% chance of being equaled or exceeded in any given year. There is always the potential that the flood elevation could be exceeded or that it could be significantly less. Placing the residential structures at least two feet above the base flood elevation addresses the potential rise in sea level even with the variation in tide cycles and storm events. There are no standards or best practices which dictate specific elevations to accommodate potential rise in sea level (rate of which is highly debated and subjective), therefore there is not a specific calculation to determine where to set finished floor elevations. The design of the PUD Master Plans followed the current Federal and NY State requirements when setting finished floor elevations. These are the same guidelines utilized for design of every property / project site located in or near a flood hazard area within the State.

It should be noted that according to the new FIRM, the western portion of the site is now located in Zone X, areas to be determined to be outside of the 100-year flood hazard area, therefore, there is not a specific requirement in setting of finished floor elevations. However, the former FEMA base flood elevation of 14.0 (NGVD) has been utilized for comparative design purposes and to set finished floor elevations in this area of the site.

COMMENT C-46 (Water Resources):
[Page III.C-30] Will the creation of new landscaped open spaces encourage the use of the site by geese? If so, how will additional nitrogen contamination of the Creek be mitigated.

Pat Cleary, AICP, Cleary Consulting, letter dated July 20, 2009

RESPONSE C-46 (Water Resources):
Canada geese (*Branta canadensis*) frequently forage on grasses in lawns and turf fields. Accordingly, it is possible that flocks of Canada geese will attempt to forage in the proposed lawn areas near Garvies Point and in Renaissance Park. Bulkheads and densely vegetated slopes in Captains Cove and the upper reach of Glen Cove Creek will prevent geese from entering the project site from the water.

A Landscape Master Plan has been prepared and is included in the plan set. The Landscape Master Plan shows that proposed turfgrass areas shall be surrounded by planted trees and shrubs. The large number of planted trees and shrubs located within and around the margins of the lawn areas are likely to discourage large numbers of Canada geese from flying into and out of these lawn areas. In addition, many dense stands of ornamental grasses and shrubs shall be planted along the margins of lawn areas and pedestrian walkways to prevent geese from walking freely between lawn areas. Accordingly, significant additional nutrient loading to Glen Cove Creek from Canada geese is not expected to result from the proposed lawns areas at Garvies Point and in Renaissance Park.

COMMENT C-47 (Water Resources):
[Page III.C-33 1st ¶] What is the basis for the 45% – 70% nitrogen removal estimate?

Pat Cleary, AICP, Cleary Consulting, letter dated July 20, 2009

RESPONSE C-47 (Water Resources):
As stated in Table III.C-4 of the DEIS, the 45-70% nitrogen removal estimate is based on estimated removal efficiencies provided in a United States Department of Transportation-Federal Highway Administration report entitled, Stormwater BMPs in an Ultra-Urban Setting: Selecting and Monitoring (May 2002).

COMMENT C-48 (Water Resources):
The document states up to 2,352 pounds of nitrogen will be generated by stormwater and fertilizer annually. A maximum and probable fertilizer rate is provided. The applicant should commit to using no more than the probable levels.

Alan J. King, Jr., P.E., LEED AP, partner, Cameron Engineering & Associates, LLP, letter dated July 20, 2009

RESPONSE C-48 (Water Resources):
The DEIS presents a realistic range of the potential nitrogen generation of the proposed action inclusive of both a probable and maximum fertilization rate. The landscaping plans and procedures for the establishment and maintenance of proposed lawn and landscaped areas will be finalized in the individual Site Plans prepared for each phase of the project. Accordingly, final

estimates of the nitrogen loading associated with the proposed action will be available for review at that time. Refer to the "Conceptual Landscape Planting Zone Plan" Exhibit depicting managed landscape areas (irrigated areas) and unmanaged natural landscape areas (non-irrigated areas).

COMMENT C-49 (Water Resources):
Describe the goal for nitrogen removal and how it will be achieved.

Alan J. King, Jr., P.E., LEED AP, partner, Cameron Engineering & Associates, LLP, letter dated July 20, 2009

RESPONSE C-49 (Water Resources):
The applicant's nitrogen removal goal for stormwater generated by the proposed action is based upon the USDOT published pollutant removal efficiencies for stormwater best management practices (USDOT, 2002). The applicant proposes to utilize the following stormwater best management practices to retain stormwater and remove nitrogen including green roofs, roof gardens, swales, landscaped open spaces, catch basins, dry wells / seepage pits, storage / infiltration basins and structural water quality treatment devices. As described in the DEIS in Table III.C-4, the published nitrogen efficiencies for infiltration trenches, drywells, and infiltration systems are 45-70%. A flow diagram showing the various components of the conceptual stormwater management plan and their pollutant removal effectiveness is included in the Appendix of the DEIS (Exhibit STM-1) and revised as Exhibit II.C-1. The conceptual stormwater management plan is discussed in FEIS Section II.C.

COMMENT C-50:
8. Section III.C.2.e *(Environmental Impacts and Mitigation Measures: Water Resources: Potential Impacts: Assessment of the Potential Loading of Contaminants (e.g., nitrogen compounds) to the groundwater aquifer and Glen Cove Creek and proposed mitigation),* page III.C-33, 2nd ¶- The DElS indicates that between 174 and 1,399 lbs of nitrogen annually may, in one way or another, enter the waters of Glen Cove Creek and Hempstead Harbor. Table III.C-l estimates that 584 grams of nitrogen per day (i.e., approximately 475 pounds per year) potentially would be generated by the proposed development. The impacts of the higher-end estimate of nitrogen entering the surrounding water bodies (i.e., 1,399 pounds) should be evaluated in the FEIS.

The estimates of project-generated nitrogen loading are based on the assumption that the proposed stormwater retention system is functioning properly and able to handle the stormwater of a two-inch rainfall event. However, the DEIS admits that stormwater would be directly discharged to the Glen Cove Creek from the redeveloped site in the event of overfill or a high water table which would limit storage capacity. The expected nitrogen loading under these contingencies, and the impacts of same, should be evaluated.

Steven Perotta, Cashin Spinelli & Ferretti, LLC, letter dated July 20, 2009.

[Page III.C-34] While the nitrogen loading may not adversely impact ground water supplies, how will it affect the surface water quality of Glen Cove Creek and Hempstead Harbor?

Pat Cleary, AICP, Cleary Consulting, letter dated July 20, 2009

RESPONSE C-50:
The DEIS currently indicates that the potential environmental impacts of the discharge of nitrogen compounds to adjacent surface waters include increased algal blooms and decreased oxygen concentrations within Glen Cove Creek (Page III.C-30). The DEIS provides estimates of both the potential nitrogen generation of the proposed action (between 470 and 2352 lbs of nitrogen annually) and the likely contribution of nitrogen to the ground- and surface waters adjacent to the property (Page III.C-33). The proposed stormwater best management practices are likely to remove between 45-70% of the nitrogen from the stormwater generated by the site; accordingly, it is estimated that between 174 and 1399 lbs of nitrogen will be added to the ground- and surface waters adjacent to the project site and may potentially contribute to algal blooms and reduced oxygen concentrations within Glen Cove Creek. If the proposed stormwater storage practices provide reduced nitrogen removal efficiencies due to high water table conditions or runoff in excess of 2", then the nitrogen contributed to the groundwater and surface waters surrounding the project site will be closer to, but shall not exceed, the provided estimate of nitrogen generation for the proposed action. It is not possible to determine the precise contribution of nitrogen to Glen Cove Creek as this quantity depends greatly on the timing and magnitude of precipitation events. Therefore, the DEIS provides a realistic range of the potential nitrogen generation of the proposed action, inclusive of both a probable and maximum fertilization rate, and the likely contribution of nitrogen to ground- and surface waters after the passage of stormwater through the proposed best management practices. In addition, a Landscape Master Plan has been prepared. The use of nitrogen fertilizer will be minimized by the use of native, naturalized, and non-invasive trees and shrubs for the landscaped areas of the Proposed Action. The Conceptual Landscaping Planting Zone Plan has been revised to increase the use of native tree and shrub plantings. Currently, approximately 66% of planted trees shall consist of species native to the northeastern United States and all remaining trees are naturalized and non-invasive. In addition, approximately 57% of the species (12 of 21 species) of shrubs and ornamental grasses utilized on the project site shall consist of species native to the northeastern United States. The landscaping plans and procedures for the establishment and maintenance of proposed lawn and landscaped areas will be finalized in the individual Site Plans Approval prepared for each phase of the project. Refer to Exhibits II.PD-6 and 6A depicting managed landscape areas (irrigated areas) and unmanaged natural landscape areas (non-irrigated areas), the representative landscape plantings / details, and the conceptual Stormwater Management Plan included as sheet C-30 on the PUD plans.

COMMENT C-51 (Water Resources):
There is mention only of preliminary meetings between the Applicant and representatives of agencies (the Hempstead Harbor Protection Committee, the Coalition to Save Hempstead Harbor, and/or the City) regarding the Project's stormwater management program. Provide a discussion of follow-up meetings where the "comprehensive stormwater management system" was discussed and whether the agencies concurred with the methodology.

Alan J. King, Jr., P.E., LEED AP, partner, Cameron Engineering & Associates, LLP, letter dated July 20, 2009

RESPONSE C-51 (Water Resources):
As described in the DEIS, preliminary discussions were held in 2005. Since that time, the design of the project's stormwater management system has evolved. Subsequent discussions with local environmental/civic groups were held in June 2009. At that time, details regarding the design of the proposed stormwater management system were discussed. The primary issue of discussion centered on subsurface retention capacity (i.e., representatives desire for the project to accommodate 8" of storage in accordance with standards for Nassau County facilities, rather than the 2" currently proposed.)

Since the project does not abut a Nassau County roadway, stream or drainage facility, Nassau County stormwater management standards should not apply to this project. However, at a September 17, 2009 meeting with Nassau County Department of Public Works, staff indicated that since the project will require formal subdivision approval from the County, the County will require that its stormwater standards be met for this project, even though the project discharges directly to the adjacent tidal water bodies. Nassau County requires that 8" of runoff generated by the contributory watershed must be stored on site. The County recognizes that this requirement cannot always be attained by all projects and has provisions to allow a waiver for reduced storage capacity if certain criteria are met. The waiver allows for reduction of storage to 5" of runoff and a further reduction to 2" when an associated fee is paid. The County indicated that the Glen Isle project would be required to store 2" of runoff on site and that the payment/fee for the reduction from 5" to 2" would not be applicable because the project does not drain into a County drainage facility.

Based on the above, the project will be designed to store 2" of runoff generated by the project's contributory watershed. Storage in excess of 2" of runoff could negatively impact flooding conditions downstream due to the project's location within the overall watershed and proximity to the adjacent tidal water bodies. Storage of 2" of runoff from the project's watershed will be achieved by use of infiltration systems and seepage pits as shown on the revised PUD Master Plans. Final design of the stormwater management systems, design details and locations of the stormwater storage systems will be specified as part of the detailed Site Plans prepared for the project. It is noted that the proposed design of the site includes more than the minimum required. In addition to storage of 2" of runoff on site, the stormwater management system design will allow for infiltration of this runoff, and will also include the provision to capture 1" of runoff from the roofs for irrigation re-use. The storage / infiltration systems will serve as both water quantity reduction and water quality treatment facilities for the development.

COMMENT C-52 (Water Resources):
§ III C, pg III.C-1
This section should consider/opine on the potential effect on near shore ground water table elevations with the installation of new bulkheads (see Exhibit II-8), particularly with respect to the elevation of any sub slab depressurization systems planned for structures in this near shore area.
James A. Perazzo, Principal, Environmental Resources Management, letter dated July 20, 2009

RESPONSE C-52 (Water Resources):
The depth to groundwater on Captains Cove and Li Tungsten was measured on April 18, 2005. At Captains Cove, the depth to water in the area near the bulkhead between the old ferry terminal and the horseshoe-shaped wetlands was about 12 feet. Further east, on the other side of the wetlands, the depth to water was almost 7 ft. In either case, as the wetlands will not have any new bulkhead constructed, the depth to water should be close to the April 2005 levels, which are deep enough so as not to affect the depressurization systems.

At Li Tungsten, the depth to water, measured approximately 50 feet behind the bulkhead, was 5.6 ft. The same comments apply at this location as well since the bulkhead was fully constructed at the time the measurements were made.

In both the Captains Cove and Li Tungsten cases the depth to water decreased to between 1.5-5 ft in wells closer to Garvies Point and Herbhill Roads due to changes in the hydraulic properties of the soil. The hydraulic properties of the soil are more like stream deposits closer to the creek and more like glacial terminal moraine closer to the roads.

The glacial deposits are low permeability lenses and layers that create perched water conditions. These will likely be alleviated during construction, which will help to lower the depth to water near the roads and create a more favorable environment for the installation and operation of the depressurization systems.

New bulkheads will be constructed along most of the waterfront, with the exception of the Captain's Cove wetlands area. Some groundwater buildup is expected, but the depth to water should be no less than what was observed at Li Tungsten. The new bulkheads will be designed to allow groundwater to flow to the Creek and not accumulate behind the bulkheads. Drainage of low-sill bulkhead areas is accomplished by providing adequate sand depth in the wetland area, or by providing weep holes in the bulkhead to facilitate drainage. Additionally, tidal influences and seasonal changes in groundwater elevations will be incorporated into the design of the new bulkheads so as to not adversely affect the functioning of the depressurization and stormwater treatment systems. Specific design considerations for the proposed bulkheads will be presented during the formal site plan phase of the project.

COMMENT C-53 (Water Resources):
Notwithstanding the above, please note that if any element of this proposal includes funding from or requires a permit or authorization from a federal agency, the proposed activity will be subject to the consistency provisions of the federal Coastal Zone Management Act and implementing regulations in 15 CFR Part 930. It is highly recommended that consultation with the NYSDOS's Consistency Review Unit occur to ensure that appropriate uses and developments of the shoreline are designed prior to any investment of public funds, to ensure consistency with New York State Coastal Policy. Additional information regarding these requirements is available from this Department or on the Department's web site located at http://nyswaterfronts.com.

Jaime Ethier, Coastal Resources Specialist, New York State Department of State, Office of Coastal, Local Government and Community Sustainability, letter, dated July 20, 2009

10. Section III.C.2.f *(Environmental Impacts and Mitigation Measures: Water Resources: Potential Impacts: Relevant Laws and Regulations),* page III.C-34, 5th ¶ - The DEIS acknowledges that NYSDOS must issue a general concurrence for the proposed action under the Coastal Zone Management Act, but provides no further information on this requirement. The FEIS should indicate whether the applicant has begun the process of procuring NYSDOS's concurrence and, if so, the status of same; if not, the FEIS should indicate when it is intended that the requisite submission to NYSDOS will be made. Details regarding the process for obtaining NYSDOS concurrence should also be described in the FEIS.

Steven Perotta, Cashin Spinelli & Ferretti, LLC, letter dated July 20, 2009.

RESPONSE C-53 (Water Resources):

As noted in the DEIS, the project will require permits from federal agencies, and is therefore subject to the consistency provisions of the Coastal Zone Management Act. The DEIS includes an identification of applicable coastal policies and the effects of the action on those policies. As detailed extensively in DEIS Section III.E, the project is consistent with the applicable Long Island Sound Coastal Management Program (LISCMP) policies and the LISCMP designation of Glen Cove as a Historic Maritime Center. The NYS Department of State has been included on the document distribution list as an Involved Agency in order to obtain the Department's input and facilitate its review and consultation for this project. According to the regulations, State agencies shall not make a final decision regarding an action unless and until the agency has made a written finding that the action is consistent with State coastal policies.

COMMENT C-54 (Water Resources):

And one of them being, that since I am, first of all, a resident of Glen Cove, a business owner in Glen Cove and -- with no political affiliations at all, so my -- my line of thought is strictly as a resident and as a recreational boater.

The Glen Cove Creek currently now hosts two main marinas and two facilities with moored boats. I see in the projection here that Glen Isle is thinking about building another marina onto their location.

My concern is this, we have approximately -- probably between 7 and 900 boats already in that Creek. Sometimes, especially during the weekend, it gets very harried in that Creek. It's very narrow.

We have to deal with barges coming through, at times, large Nassau boats coming through to the Harbor to patrol and so forth. And the addition of these extra mooring or slip marina, I don't see how it totally fits.

Dr. Jonathan Turman Glen Cove resident, business owner, Public Hearing Transcript, City of Glen Cove Planning Board Meeting, June 25, 2009, Section 67, lines 14-25; Section 67, lines 1-15, pp.59-60

RESPONSE C-54 (Water Resources):

Preliminary turning models have been conducted to determine whether the types of boats using these new boat slips, including those proposed for the large vessel marina which are between 80'-150' in length, would have sufficient room to maneuver and would not have a significant negative impact on creek navigability. The project has been designed to maintain the existing

dimensions of the federal navigation channel and the new slips would be located in areas of the Creek that are proposed to be widened. No moorings are proposed. In addition, the three existing marinas within the Creek offer approximately 735 boat slips. The proposed project would create approximately 85 new slips. This is approximately 12% of the existing capacity and would not be expected to significantly affect boat traffic congestion.

COMMENT C-55 (Water Resources):

The one thing that I am just particularly concerned about is that we have had a very wet month, as Ms. Hauck just said, and every day at low tide I look out from my porch and see mud in the Creek.

And I am just wondering, what is it going to cost to create this weir to bring this ferry up into the Harbor when the -- at the two tides, the two low tides at the Creek, it's basically mud?

I think that there's probably some people in the marina who can't get their boats out. How are we going to get a ferry in and out of that Creek?

Pamela Tamaddon, Coordinator of the Prospect/Albin Traffic Calming Initiative, Public Hearing Transcript, City of Glen Cove Planning Board Meeting, June 25, 2009; Section 125, lines 14-25; Section 126, lines 1-6,p.111-112

RESPONSE C-55 (Water Resources):

The ferry is a separate project sponsored by the City of Glen Cove. It is noted however, that the low tide mud condition referenced by the commenter is observed at the end of the Creek, not in the location of the ferry terminal.

COMMENT C-56 (Water Resources):

We all know that this June has been the wettest June in New York in history. This past week, we have had some extraordinary rain events.

The smell that has emanated from the Water Treatment Plant has been horrific down on Shore Road. It's not lifting off. It's a real smell of raw sewerage.

I don't know if there was a bypass into the Creek, but I can tell you, Sea Cliff Beach is still closed today because of the bacteria counts in the water.

So in consideration of recreational use of the surrounding waterfront, I would like, you know, to visit that and really take it seriously that we need to protect our beaches.

We need to protect our significant wildlife habitat because our fish do spawn there, our shellfish spawn there, and it would just keep it healthier all the way around.

Theresa Hauck, 18 Edward Street, Roslyn Heights, NY, Public Hearing Transcript, City of Glen Cove Planning Board Meeting, June 25, 2009; Section 121, lines 2-10; p.107

RESPONSE C-56 (Water Resources):

The existing water quality conditions within Glen Cove Creek and stormwater conditions in the project area are described in Sections III.C.1.c.1.b (Water Quality) and III.C.1.c.1.e (Stormwater Conditions) of the DEIS, respectively. The potential impacts to water quality within Glen Cove Creek resulting from stormwater discharge during precipitation events and the mitigation measures that will be implemented to minimize these impacts (i.e. the implementation of a

Stormwater Pollution Prevention Plan and installation of stormwater best management practices) are described in Section III.C.2.b.1.d of the DEIS and are summarized below:

Potential impacts to Glen Cove Creek from stormwater runoff due to construction and development of the proposed Glen Isle project were evaluated. Stormwater runoff generated by this development would either recharge into the ground or discharge into the creek or harbor. Urbanized development alters the hydrologic response of a watershed to rainfall events. The degree of change in response is dependent upon the location, level and type of development, characteristics of the watershed as well as the intensity and duration of the rainfall event.

Increased development changes the level of infiltration (recharge to groundwater) within a watershed. As it flows through a site, stormwater collects and transports soils, sediments and other pollutants. This polluted runoff, frequently referred to as one form of nonpoint source pollution (NPS), can impact surface water resources and associated wetlands. Proper management and control of stormwater can limit the level of contaminants which can enter the creek or harbor. Implementation and employment of "best management practices" or "BMP's" at the pollutant's source is typically the most effective way to control NPS pollution.

Federal, state, county and local regulations govern the discharge of stormwater runoff from proposed project sites. The Federal Clean Water Act established the National Pollutant Discharge Elimination System (NPDES) Stormwater Program and the Stormwater Phase II Rule which requires permits for stormwater discharges from municipal separate storm sewer systems (MS4's) in urbanized areas, for construction activities disturbing one or more acres of land and for industrial activities. Most states are authorized to implement the NPDES Stormwater Program and administer their own stormwater permits and programs. The New York State Department of Environmental Conservation (NYSDEC) regulates this program as part of the State Pollutant Discharge Elimination System (SPDES).

In order to address the potential impact of stormwater runoff, the project must be designed in accordance with the NPDES Phase II Stormwater requirements. Existing stormwater runoff conditions must be evaluated (see previous description) and plans must be developed for management of stormwater runoff during construction and after development. The proposed stormwater management plan for this project includes mitigation measures which are integral to and part of the project design.

The finfish and shellfish resources present in Glen Cove Creek and its wetlands are described in Sections III.D.1.b.3 and III.D.1.b.4 of the DEIS. The potential impacts to these resources from the proposed action and the mitigation measures that will be implemented to minimize the magnitude of these impacts are described in Sections III.D.2.e and III.D.2.f of the DEIS, and are summarized below:

The potential adverse effects on fish and shellfish spawning resulting from construction associated with the proposed shoreline and wetland restoration, bulkhead removal, and marina installation and dredging are species-specific and highly dependent on the time of year. Although several studies have been done to assess the abundance and diversity of finfish and shellfish species present in Hempstead Harbor, there have been no studies specific to Glen Cove

Creek. It is expected that finfish and shellfish may inhabit the mouth of the creek to Captain's Cove, but in lower numbers than found in Hempstead Harbor proper. It is expected that the abundance of finfish and shellfish in Glen Cove Creek decreases with increasing distance to the mouth of the creek, due to the intense use (current and historical) of the creek. Therefore, the potential for impacts of this project on finfish and shellfish spawning within Glen Cove Creek is low.

The majority of finfish which inhabit Hempstead Harbor are present during the months of April through October, as described in **Table III.D-7**. Winter flounder, *Pleuronectes americanus*, migrate inshore to spawn in bays and estuaries in the months of February through May. Shellfish are present in Hempstead Harbor throughout the year, and typically spawn during the spring and summer.

All proposed dredging and shoreline construction will be conducted within dredging windows approved by the USACE, NYSDOS, and NYSDEC to avoid adverse impacts to finfish and shellfish, including winter flounder. Analysis of potential impacts to finfish and shellfish indicates that the approved dredging window will likely be November 1st through January 31st.

COMMENT C-57:

11. Section III.C.2.f *(Environmental Impacts and Mitigation Measures: Water Resources: Potential Impacts: Relevant Laws and Regulations)*, page III.C-35, 4th ¶ - The DEIS notes that the proposed action may require a permit from the USACOE under Section 404 of the Clean Water Act for grading activities along Garvies Point Beach and Captain's Cove.

a. The FEIS should specify definitively whether the proposed action will require this permit.

b. In the event the Section 404 permit is required:

i. Details of compliance with the regulations of this permit should be presented, along with the proposed action's compliance with same.

ii. The date of application, or intended date of application for said permit should be provided, along with the status of same.

Steven Perotta, Cashin Spinelli & Ferretti, LLC, letter dated July 20, 2009.

RESPONSE C-57:

Any excavation or dredging associated with the construction of the large vessel marina and salvage of wetland soils and plants at the eastern edge of Captains Cove will require a USACE permit under Section 404 of the Clean Water Act. In addition, the proposed action will include the restoration of degraded wetland areas in Captains' Cove. The excavation of concrete and asphalt debris and removal of invasive *Phragmites australis* will also require a Section 404 permit. The re-planting of native plants associated with this restoration does not require a Section 404 permit. The removal of an existing bulkhead near Garvies Point Beach and subsequent grading will also require a Section 404 permit. The final site plans for the proposed shoreline improvements at Captains Cove and Garvies Point Beach will be developed with the detailed Site Plans prepared for each phase of the project and will include cross-section and plan views of the proposed slopes and planting plans for the wetlands and adjacent areas. These plans will be included in the permit applications to the USACE and other regulatory agencies. At this

time, the anticipated date of the application to the USACE is not known. Compliance with the permit conditions and regulations of the USACE permit, including any monitoring and maintenance of wetland plantings, for the proposed shoreline work will be the responsibility of the developer.

COMMENT C-58:
12. Section III.C.2.f *(Environmental Impacts and Mitigation Measures: Water Resources: Potential Impacts: Relevant Laws and Regulations)*, page III.C-35, 5th ¶- The DEIS notes that the proposed action will require a permit from the USACOE under Section 10 of the Rivers and Harbors Act of 1899:

a. Details of compliance with the regulations of this permit should be presented, along with the proposed action's compliance with same.
b. The date of application, or intended date of application for said permit should be provided, along with the status of same.

Steven Perotta, Cashin Spinelli & Ferretti, LLC, letter dated July 20, 2009.

RESPONSE C-58:
The proposed dredging within the navigable waters of Glen Cove Creek, installation of piers associated with the proposed marinas and observation deck, dredging of the Turning Basin, will require a USACE permit under Section 10 of the Rivers and Harbors Act of 1899. The final site plans for the proposed in-water aspects of the project will be developed in conjunction with the detailed Site Plans prepared for each phase of the project and will include: 1) cross-section and plan views of all proposed in-water structures (along with any other information required by the USACE, NYSDEC, NYSDOS, or other agency); 2) existing and proposed bathymetric grades for all proposed dredging; and 3) protocols for testing, handling, and disposal of dredge spoil. These plans will be included in the permit applications to the USACE and other regulatory agencies. At this time, the anticipated date of the application to the USACE is not known. Compliance with the permit conditions and regulations of the USACE permit for the proposed action will be the responsibility of the developer.

COMMENT C-59:
13. Section III.C.2.f *(Environmental Impacts and Mitigation Measures: Water Resources: Potential Impacts: Relevant Laws and Regulations)*, page III.C-38, 2nd §- The DEIS states "under Part 602 of NYCRR, a Long Island Well Permit is required from the NYSDEC for dewatering if the proposed dewatering exceeds 45 gallons per minute or 64,800 gallons per day."

a. The FEIS should specify definitively whether the proposed action will require this permit from NYSDEC.
b. The date of application, or intended date of application for said permit should be provided, along with the status of same.
c. Details of compliance with the regulations of this permit should be presented, along with the proposed action's compliance with same.

Steven Perotta, Cashin Spinelli & Ferretti, LLC, letter dated July 20, 2009.

RESPONSE C-59:
The project is still at the conceptual site plan review phase, therefore applications for the various permits from the involved federal and state agencies have not yet been made. Sufficient groundwater elevation data is not currently available to determine if dewatering in excess of 45 gallons per minute or 64,8000 gallons per day will be required for the installation of proposed upland buildings and structures. Additional groundwater elevation testing will be conducted in conjunction with the detailed Site Plans prepared for each phase of the project. Therefore, at this time, it is not known if a Long Island Well Permit will be required or the anticipated date of application to the NYSDEC. Compliance with the permit conditions and regulations of the NYSDEC Long Island Well Permit will be the responsibility of the developer, and, if applicable, shall be established as a condition of site plan approval.

COMMENT C-60:
Section III.C.2.f (Environmental Impacts and Mitigation Measures: Water Resources: Potential Impacts: Relevant Laws and Regulations), page III.C-34, 3rd ¶ - The DEIS states that the project will have to comply with the 1918 Migratory Bird Treaty Act, but provides no information as to how this requirement will be achieved. The FEIS should provide details regarding the applicant's plan for compliance with this Act.

Steven Perotta, Cashin Spinelli & Ferretti, LLC, letter dated July 20, 2009

RESPONSE C-60:
The Migratory Bird Treaty Act of 1918 (MBTA) makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations. Under the MBTA, "take" is defined as to pursue, hunt, shoot, wound, kill, trap, capture, collect, or possess migratory birds, their eggs or young, or to attempt to do any of these (50 CFR 10.12). Habitat destruction, inactive nest removal, and harassment that do not result in the injury or death of a migratory bird are not considered violations of the MBTA. In addition, the incidental take resulting from mortality caused by collisions with windows or buildings is not subject to MBTA regulations or enforcement from the US Fish and Wildlife Service. However, the proposed action will include mitigation measures to minimize collision-related mortality and incidental take of migratory birds. These mitigation measures are discussed in Section III.D.2.b of the DEIS and will be finalized during the Site Plan Approval phase of the project.

COMMENT C-61:
HHPC COMMENT # 13: There are several potential sources of contamination of Glen Cove Creek besides the project itself. In the event that contamination is detected in the creek, it is important to be able to determine its source. Having an up-to-date analysis of all outfalls along the creek and their inter-connections would greatly assist this effort. The DEIS (at p. III.C-14) provides details on the storm drain system along Garvies Point Road and the Garvies Point Preserve. No details were provided for the south side of the creek. While this is not within the Glen Isle Project Area, the Conceptual Site Plan for the East Parcel which was presented as part

of the PowerPoint presentation at the DEIS Public Hearing shows a possible bridge to the south side of the creek and the creation of new recreation fields.
RECOMMENDATIONS: An up-to-date baseline of existing outfalls along the creek should be provided (both above the water line and below it) along with their interconnections (where known) and a description of any new outfalls to be constructed and existing outfalls to be decommissioned.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, letter, dated July 13, 2009

RESPONSE C-61:
The comment refers to a conceptual plan that outlined the relationship of the project to potential future municipal and recreational uses on the south side of the Creek, as envisioned by the City's Master Plan. The properties on the south side of the creek are not part of the project site and potential future recreation fields are not part of the proposed project. Therefore, the outfalls on the south side of the creek do not relate to the proposed project and the responsibility for the study of these outfalls does not appropriately lie with this Applicant or project. The DEIS does inventory those outfalls on the north side of the Creek which have a relationship to the proposed project. The existing outfalls will be relocated and consolidated into four outfalls to serve the proposed redevelopment project plus two separate outfalls anticipated to address stormwater runoff along Garvies Point Road (designed by the City). These project specific outfalls will be integrated into the project's stormwater management system, which is described in DEIS Section III.C and FEIS Responses C-1 and C-2. The locations of the outfalls are illustrated on PUD Master Development Plan Sheets C-11 to C-13 and Conceptual Stormwater Management Plan sheet C-30.

COMMENT C-62:
The DEIS also does not adequately address the issue of pet wastes, which are known to contribute significant bacterial contamination to nearby waters if not properly disposed of.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, letter, dated July 13, 2009

HHPC COMMENT # 14: The DEIS (at p.III.C-30) states that pet waste will be minimized by enforcing the city's pooper scooper ordinance. At page III.J-6, it states that pet waste stations will be strategically located along the public areas and esplanade with no further details.
RECOMMENDATIONS: The FEIS should state the number and location of pet waste stations and state who will maintain them.

Eric Swenson, Executive Director, Hempstead Harbor Protection Committee, letter, dated July 13, 2009

RESPONSE C-62:
The project is at the PUD/conceptual site plan review level. The individual site plans to be prepared for each phase of the project will provide detailed locations and specifications for the pet waste stations. These stations would be maintained by the Property Owners Association in association with its other open space maintenance activities.