Appendix A

Comment Letters Received on the DEIS

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Page 39, Line 83.9	11-19	11 - Community Facilities and Services	11-12

LETTER # 1

Jon

From: Dawn Onufrik [donufrik@northsalemny.org]
Sent: Wednesday, June 11, 2008 12:08 PM
To: Bill Balter; jdahlgren@timmillerassociates.com
Subject: FW: Public Hearing on Salem Hunt site

Bill & Jon:

Please see attached e-mail, I will have extra copies tonight.

Thanks,
Dawn

Sincerely,
Dawn Onufrik, Secretary
North Salem Planning Board
Phone: 914-669-5661
Fax: 914-669-8460
donufrik@northsalemny.org

To: Cynthia Curtis, Chair, North Salem Planning Board

From: Francis Tuoti, Chair, North Salem Historic Preservation Commission

Susan Thompson, Town of North Salem Historian

The Historic Preservation Commission is meeting at the same time as your hearing, so we cannot attend. We would like to express our concerns for the record. After reviewing the Phase 1 Cultural Resources Report on the Salem Hunt site, we recommend that CityScape do more research. On the old maps, the project area marked by CitiScape is in the wrong place. It is incorrectly placed on Starr Ridge Road. June Road from Bloomer to the County Line did not exist until 1930. Therefore, the project site did not have road frontage until 1930.

Comment 8-20

Also, Starr Ridge Road and Starlea Road are part of an historic district designated by the Town of Southeast and are well within the area of potential effect. Also, the intersection of June and Bloomer Roads is known as Pine Tree Corner, a very significant area in North Salem history.

Comment 8-21

When the new research is completed, we will appreciate the opportunity to review it.

LETTER # 2

Jon

From: Dawn Onufrik [donufrik@northsalemny.org]
Sent: Wednesday, June 11, 2008 12:10 PM
To: Bill Balter; jdahlgren@timmillerassociates.com
Subject: FW: Salem Hunt

Bill & Jon:

This is the e-mail Cynthia talked about with Bill today. It is from a concerned resident, not the concerned citizens.

Thanks,
Dawn

Sincerely,
Dawn Onufrik, Secretary
North Salem Planning Board
Phone: 914-669-5661
Fax: 914-669-8460
donufrik@northsalemny.org

To the Town of North Salem Planning Board,

As involved citizens, we would like to register our concern over the proposed Salem Hunt project.

North Salem has done a much better job than many towns at preserving the high-quality, low-density country way of life that most of us moved here to find. A project of this size in a town of this size can have very serious, detrimental effects. Potential stresses on our schools, infrastructure and wetlands are among a few of the obvious risks. Not to mention the sheer number of ordinances to which this project would be in opposition. Comment 2-36

There are a number of towns in our area where condominium/condensed community living is well suited and available (Brewster, Mt. Kisco, Somers, Danbury, Yorktown among others). Furthermore, given the current state of available supply and dropping home prices, we hardly need to bring significantly more supply to market. Even if the price points are different than many single family homes currently for sale in our community, the laws of supply and demand dictate this project would have a deleterious effect. Comment 2-37

We recently considered moving to another town close-by. Among those we considered were Bedford, Pound Ridge, Ridgefield and Chappaqua. Ultimately we could not bring ourselves to consider leaving a town we enjoy so much for all of its uniqueness. We feel we would like to stay here for good. There is not another town like North Salem. We shouldn't try and change what we are and sacrifice what makes this place so special. Comment 2-33

Thank you for your consideration.

Sincerely,

Christopher and Julia Tolman

Christopher Tolman
Vice President
Credit Suisse Securities (USA) LLC

LETTER # 3

The City of New York
Department of Environmental Protection

Emily Lloyd
Commissioner

Bureau of Water Supply
465 Columbus Avenue
Valhalla, New York 10595-1336

Paul V. Rush, P.E.
Deputy Commissioner

Tel (914) 742-2099
Fax (914) 741-0431

Marilyn Shanahan
SEQRA Coordination Section

Tel (914) 742-2071
Fax (914) 773-0342

July 9, 2008

Ms. Cynthia Curtis, Chairperson
Town of North Salem Planning Board
266 Titicus Road
North Salem, NY 10560

Re: Request for DEIS Comments
Salem Hunt Condominium Project
Town of North Salem, Westchester County, NY
Tax Map #: 5-1735-19
DEP Project Log #: 2006-MU-0132-SQ.1

Dear Ms. Curtis and Members of the Planning Board:

The New York City Department of Environmental Protection (NYCDEP) has reviewed the Draft Environmental Impact Statement (DEIS) and site plans prepared by Insite Engineering, surveying & Landscape Architecture, P.C., last revision dated 5/7/08, for the above referenced project. Based upon the review of the materials received, NYCDEP respectfully submits the following comments for your consideration:

1. In Section 6.1 Existing Conditions, an intermittent watercourse associated with Wetland C, which was flagged by NYCDEP staff on September 4, 2007 and confirmed on January 3, 2008, is not shown in the DEIS. The watercourse in question discharges off-site through a residential area, where it becomes perennial, ultimately flowing to Holly Stream and the New York City water supply system. This watercourse must be included in the DEIS, as it will receive discharge from a stormwater management practice (SMP) located in the project area. The DEIS must evaluate the potential impacts associated with discharging stormwater runoff from the project into Wetland C and this watercourse. It appears that this watercourse was partially analyzed in Appendix I of the stormwater pollution prevention plan (Appendix F of the DEIS). However, analysis and summary of the pre vs proposed mitigation should be provided in the body of the DEIS. Comment 6-4

2. The design-line approach to analyzing drainage adjacent to Wetlands A and C (Design Line 1), and near the access road entrance (part of Design Line 2), may not be appropriate because a point discharge is quantifiable at each point, and a receiving watercourse exists to directly convey the flow. The use of long design lines may mask the impact at specific areas where increased post-development runoff will be discharged from the site. For example, the nine (9) acre drainage area consisting primarily of the Comment 6-5

septic system absorption area has very limited stormwater management provided (a single swath of grass filter strip is proposed) in the post-development condition, yet no pre-development values for runoff flow rates and pollutant loads are presented for comparison at that specific location because the design line covers the entire frontage along the wetland. With the inevitable change in overland flow that will occur with a change of nine acres from forest to grass/meadow, one expects a significant increase in runoff and in pollutant loads along that stretch of land.

Comment 6-5 con't

3. As this Department stated in the comments regarding the scope outline, the DEIS appears to rely on regulatory statutes for mitigation of potential impacts related to stormwater management. This approach does not constitute the "hard look" at stormwater management issues on this site as required under SEQRA. For example, as discussed above, an approximately nine acres of forested, sloping land will be converted to a subsurface treatment system (SSTS) absorption area with grass cover. The DEIS states that the converted area will be captured and treated using a turf filter strip that will comply with regulatory requirements. It is questionable whether or not the proposed filter strip would actually comply with applicable NYCDEP and NYSDEC stormwater regulations. For the purposes of SEQRA, there is no indication of how this turf filter strip of limited length will mitigate the potential impacts to the receiving waters generated by the change in surface cover from forest to grass.

Comment 6-6

4. Part of detention pond 2.2 is located on a utility easement. The DEIS should indicate if there are any restrictions associated with this easement.

Comment 6-7A

5. Page 6-22 states: "based upon the numerous and redundant stormwater management practices proposed as part of the SWPPP, it is expected that pollutant removal efficiencies would be on the higher end of the scale for each constituent, and that the actual post construction loads would be less than those estimated". As discussed previously, not all areas of the project will convey runoff to redundant SMPS. As such, the assumption that high removal rates are anticipated over the entire project area, based on stormwater being conveyed through multiple SMPs, is not accurate. The DEIS should identify and evaluate stormwater impacts over all sections of the project area, and provide mitigation or avoid those impacts.

Comment 6-8

6. The DEIS frequently refers to the development as "cluster" and "clustered". According to the Town of North Salem Comprehensive Plan Update, "cluster design will concentrate the developed area on a property, thus leaving a significant proportion of the land area as open space" (page 28). Cluster development generally refers to open-space design, allowing for common areas to be utilized by residents. However, the Salem Hunt proposal appears to maximize development with the residences massed on nearly all developable portions of the property. The only common area on this project is a swimming pool and a small community building. The majority of undeveloped areas are the wetlands and their associated buffers and an approximately 25'-wide swath of trees on the south edge of the property. These areas are typically not considered developable. The term "cluster" is misleading and should be removed from the DEIS.

Comment 2-20 a 6-9

7. Relative to the phosphorus Total Maximum Daily Load (TMDL), page 1-19 of the Executive Summary states that annual phosphorus loads to Muscoot Reservoir from the

Comment 6-10

proposed action would be very small compared to the current phosphorus loading rates for the entire watershed, and therefore "does not represent the potential for a significant impact on any on- or off-site water resources, including the Muscoot Reservoir". The DEIS primarily relies on assumed regulatory compliance as a means of mitigation. This Department is concerned that such incremental increases in phosphorus loading, however small they may seem, have the potential to accelerate the degradation of water quality in the Muscoot Reservoir. Furthermore, these incremental increases could impact the Town's ability to meet its State-mandated phosphorus reductions. A means other than regulatory compliance to mitigate or avoid impacts associated with increases in phosphorus and the TMDL in the watershed should be considered.

Comment 6-10 Con't

8. Page 14-1 refers to the initial scope, stating "the current Site Plan has been substantially modified since the adoption of the Scope, based upon feedback from the Planning Board, advancement of the engineering and site plan drawings and a better understanding of the site's septic system capacity following testing and studies. These changes to the Site Plan resulted in a reassessment of the alternatives set in the adopted scope. The applicant met with the Planning Board on March 5, 2008, and at that meeting, the above alternatives were each discussed." In addition, the Board agreed that the currently proposed Site Plan, with additional measures to reduce impervious surfaces, meets the objectives of Alternative 4 Reduced Impervious Surface Alternative - Decreased Unit Count. Alternative 5 - Reduced Impervious Surface Alternative - Same Unit Count no longer applies since the applicant is no longer proposing 75 units as contemplated by the Scope. It appears from the above statements that "Alternative 4" presented in the scope is now the proposed action and that "Alternative 4" and "Alternative 5" are no longer in the list of alternative proposals under SEQRA. It may be advisable to completely remove these alternatives from the DEIS.

Comment 14-2

9. Comment 8 notwithstanding, DEP recommends that additional alternatives consisting of reduced imperviousness than the currently proposed action be considered. The Lead Agency may wish to consider an alternative replacing the loop road with a cul-de-sac, which may result in reduced disturbance and more available area for stormwater management facilities.

Comment 14-1

10. The Hydrogeology Investigation Report (Appendix J) in the DEIS indicates that the proposed action will result in a build-up of groundwater (i.e., a "mound") under the SSTS absorption area that will result in septic tank effluent and groundwater being elevated to or above the existing ground surface. This is an indication that the proposed action is exceeding the capacity of the site to absorb and disperse the design sewage flow rate without significant engineering. The hydrogeologic model, which is based on actual site data, shows that a sewage design flow rate greater than 16,000 gallons per day will result in surface breakout of sewage effluent onto the surface of the ground. The DEIS proposes to maintain the required vertical regulatory separation distance from groundwater water to the bottom of the SSTS absorption trenches by utilizing fill material. <u>The results of the hydrogeologic investigation are alarming and should warrant consideration of additional alternatives</u>. One such alternative could include a reduced sewage design flow rate that will minimize the risk of surface breakout of sewage effluent, which could be achieved through a reduction in the number of proposed

Comment 10-6A

units. A wastewater treatment plant should be considered as an additional alternative to the conventional SSTS. Comment 10-6A Con't

11 The Hydrogeology Investigation Report indicates that four to five feet of fill will be required to both prevent sewage effluent from day-lighting on the ground surface, and to maintain a regulatory-compliant and functioning absorption area. Considering design features such as appropriate tapering of the fill section and an impervious berm, it is unclear from the information provided whether or not an absorption area with 4 to 5 feet of fill will fit in the area shown on the plans and still meet all required regulatory setbacks, Note that the site plan included with the DEIS, dated 11/28/06 and last revised 4/18/06, shows fill with a depth of 2-4 feet and the actual layout of trenches is not provided. Comment 10-7

12 The presence of steep slopes in the proposed SSTS area is a concern. The slope disturbance map, Figure 7-5, shows the proposed dwelling units, but not the layout of the SSTS area. The SSTS layout should be superimposed on a topographic drawing. Comment 10-8

13 As a recirculating filter treatment system is proposed as mitigation for some SSTS impacts, the specifications for this system should be provided during DEIS review. Although the reader is referred to Section 6.3 for additional information on this system, no information was found under this heading. Comment 10-9

In this letter NYCDEP has identified what it considers the environmental concerns related to this project, as well as suggestions and comments. It is recommended that additional information for the issues itemized above be provided and reviewed by involved agencies prior to the Lead Agency making a decision regarding the acceptance of the DEIS. NYCDEP submits this letter to you, as lead agency, as part of a coordinated SEQRA review. Thank you for the opportunity to provide comments. NYCDEP is available for further discussion on the matters raised in this letter. Please contact me at (914) 742-2071 if you have any questions.

Sincerely,

for Marilyn Shanahan
SEQRA Coordination Section

xc: Insite Engineering
Tim Miller Associates
Wilder Balter Partners

LETTER # 4

Jon

From: Dawn Onufrik [donufrik@northsalemny.org]
Sent: Friday, July 11, 2008 10:40 AM
To: jdahlgren@timmillerassociates.com; Bill Balter
Subject: FW: FW: Hello

Jon & Bill:

Please see the e-mail below received this morning.

Thanks,
Dawn

Sincerely,
Dawn Onufrik, Secretary
North Salem Planning Board
Phone: 914-669-5661
Fax: 914-669-8460
donufrik@northsalemny.org

-----Original Message-----
From: kkurrasch@aol.com [mailto:kkurrasch@aol.com]
Sent: Thursday, July 10, 2008 5:50 PM
To: Dawn Onufrik
Subject: Re: Hello

Thank you
I would like the Salem Hunt people to address the situation with the aquifers under their proposed development and to make sure there will be sufficient water to support the neighborhood in case 65 families move in....
Karen
Sent via BlackBerry from Cingular Wireless

Comment 5-33

LETTER # 5

Theresa A. Havell
422 Hardscrabble Road
North Salem NY 10560
212 218 4212
thavell@havellcapital.com

RECEIVED

JUL 23 2008

TOWN OF NORTH SALEM
PLANNING BOARD

July 21, 2008

Ms. Cynthia Curtis
Chairwoman
North Salem Planning Board
270 Titicus Road
North Salem, NY 10560

Post-it® Fax Note 7671	Date 7/23	# of pages ▶ 2
To Bill Balet Jon Ashlgren	From Dawn Onkin	
Co./Dept.	Co.	
Phone #	Phone #	
Fax # 288-867-4616 845-265-4418	Fax #	

Dear Cynthia,

I write to note my objections to the Salem Hunt project.

First, as the only home owner directly affected by the presently proposed site plan, with Salem Hunt buildings to be constructed within 200 feet of my home, I already have suffered unique loss of value to my property. From the commencement of the proposal stage this project has destroyed the liquidity and value of my property. I have attempted to sell but have been unable to sell because of the uncertainty of the outcome of the Salem Hunt development. The result is that that I have been suffering the financial effects of this proposal for several years already, and, should Salem Hunt be approved, the damage will be irreparable.

In stating that I am the only homeowner directly and catastrophically affected by this proposal, I recognize that all of our residents and our community at large will suffer the environmental, safety and financial effects of such an ill conceived solution for providing just 13 low income residences in satisfaction of a judgment that stipulates that the town provide approximately 100 such dwellings, Has anyone with financial acumen done a cost /benefit analysis of this project and compared that to the simple solution of building just 13 residences with a unit market value of $228,000? Has anyone considered the impact of bringing into North Salem somewhere between 195 -240* residents compared with 18-24*? Has anyone calculated the cost of adding 20-26** students compared to 1.8 -2.4** students to the North Salem School whose operating budget per student exceeds that of Horace Mann School? Has anyone calculated the difference in environmental impact, traffic, water and quality of life between 65 condominiums and 13 residences? One figure that is known is that the tax revenue from this project is anticipated to be a

Comment 11-8

comment 11-9

comment 11-13

mere $500M under the initial proposal and approximately $1MM under the fee simple ownership solution proposed by Roland Baroni. I doubt that any properly managed community would entertain such a one sided proposal.

Comment 11-13 Con't

I have been attending the Planning Board meetings from the moment I was informed belatedly of the proposal. Frankly, I was disturbed by last week's meeting where you announced that discussion of the substantive issues would be deferred until July 30 but that you, Roland Baroni, Bill Balter and his attorney had met privately before the meeting. One would hope for more transparency in the process.

Speaking not just for myself but for all the residents of this beautiful community, I do believe that alternative solution analyses such as the one to which I referred, but not limited to that, must be done before any further consideration be given to the present proposal. We have a new administration and new ideas, and they should give this their highest priority attention before proceeding any further. It is not acceptable that we just adopt the ill conceived position of the previous administration. I believe the town has or easily could have at its disposal qualified financial specialists to conduct a variety of scenario analyses. If not, I will be pleased to make several recommendations. We need to step back and take a financially informed look at our options.

Again, it concerns me personally that this process not be delayed any further. The state of limbo in which my property lies has imposed an unjust tax, financial and illiquidity burden on me

Sincerely,

Theresa A. Havell

Theresa A. Havell

Cc: Paul Greenwood

* based on three to four person occupancy
** based on a 10 % child/ adult ratio

Previous Letter #6 Purposely Omitted

LETTER # 7

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Orange County Office: (845) 567-1133
North Country Office: (518) 812-0513

July 24, 2008

Mrs. Cynthia Curtis, Chair
Town of North Salem Planning Board
270 Titicus Road
North Salem, NY 10560

Re: Salem Hunt DEIS Water Resource Significance Review
TCC Job # 40432.01

Dear Ms. Curtis,

The Chazen Companies (TCC) have reviewed Section 5 and Appendices G, H, J and K of the May 20, 2008 Salem Hunt Development Plan DEIS as they relate specifically to water supply issues at the site. Completeness issues raised in our May 7, 2008 correspondence all appear to have been addressed.

Below are comments evaluating the likely significance of the proposed project:

- The pumping tests conducted at the site indicate that the desired water budget was met by the site wells. Off-site drawdown impacts were evaluated and appear acceptable.

  As a note, during the public comment period, concerns were raised about potential drawdown impacts to the well at the nearby school. The school well was not monitored during the pumping test. It has been mentioned that a new well is being planned at the school to resolve water quality issued not related to Salem Hunt. During testing of any new wells at the school, we recommend that Salem Hunt allow the school to monitor one or more Salem Hunt wells to collect information that might define the extent of any potential aquifer interactions between the two properties. Comment 5-5

- The Applicant is proposing use of a recirculating textile filter treatment system to release a cleaner effluent to the subsurface wastewater disposal fields than would be released by use of a septic tank alone. Under a scenario assuming that Comment 10-10

all discharged wastewater returns to the local aquifer system, the Applicant should calculate whether this additional treatment is sufficient to ensure that average ground water quality under the site will not exceed groundwater standards for nitrate once diluted into the average site-wide aquifer recharge described in DEIS Appendix H Table 1. Comment 10-10 con't

The Chazen Companies have not reviewed the engineering design and mounding analysis for this proposed wastewater system. Review of the mounding analysis should be completed before closing SEQRA but it may be wise to wait until we learn if the Applicant will revise their mounding analysis to respond to comments from NYCDEP. Comment 10-11

In addition to the matters summarized above, the following general design principles may provide additional benefits at the site:

1. Since most aquifer recharge entering the site will be drawn to the site wells, the following protection measures should be explained.

   a. If road salt will be used to manage project roads, the Applicant should explain or develop measures to ensure how salt residues and salty snow piles will be managed to limit salt entry to the aquifer. Comment 5-6

   b. The Applicant should explain or develop measures to manage any chemical or petroleum storage proposed on the site, whether for pool management, heating, lawn management or other uses.

   c. The Applicant should explain or develop landscaping practices to minimize the potential for groundwater quality defects caused by uses of fertilizers and herbicides.

2. To ensure long-term availability of recharge to the site wells, the Applicant should seek all opportunities to include infiltration practices on the site. The Applicant should explain their selected practices and demonstrate how they will mitigate the effects of impervious surfaces associated with proposed construction. Practices enhancing recharge could include rainfall gardens, gentle depressions to retain flow from small rainfalls, roof leader infiltration, grassed swales, other infiltration devices, and direction of runoff from pervious areas onto vegetated soils. Comment 5-7

Please do not hesitate to contact me at 845-486-1551 with questions or concerns.

Sincerely,

Russell Urban-Mead, CPG
Senior Hydrogeologist

cc: file

LETTER # 8

HAHN ENGINEERING

Putnam Business Park
1689 Route 22
Brewster, NY 10509

E-Mail: jhahn@hahn-eng.com
Tel: (845) 279-2220
Fax: (845) 279-8909

MEMORANDUM

To : North Salem Planning Board

From : Frank D. Annunziata, P.E.
Project Manager

Dated : July 25, 2008

Subject : Salem Hunt Development
Draft Environmental Impact Statement
June Road
Town of North Salem
Owner- June Road Properties, LLC
Applicant- Wilder Balter Partners, Inc.

Drawings Reviewed :
"Overall Site Development Plan", Revised 5/07/08, Sheet 1 of 16.
"Existing Conditions Plan", Revised 4/18/08, Sheet 2of 16.
"Layout & Landscape Plan-East", Revised 4/18/08, Sheet 3 of 16.
"Layout & Landscape Plan-West", Revised 4/18/08, Sheet 4 of 16.
"Grading & Utilities Plan-East", Revised 5/07/08, Sheet 5 of 16.
"Grading & Utilities Plan-Wes", Revised 5/07/08, Sheet 6 of 16.
"Overall Phasing Plan, Revised 5/07/08, Sheet 7 of 16.
"Erosion & Sediment Control Plan East", Revised 4/18/08, Sheet 8 of 16.
"Erosion & Sediment Control Plan West", Revised 4/18/08, Sheet 9 of 16.
"Road Profiles", Revised 4/18/08, Sheet 10 of 16.
"Site Details", Revised 4/18/08, Sheet 11 of 16.
"Site Details", Revised 4/18/08, Sheet 12 of 16.
"Site Details", Revised 5/07/08, Sheet 13 of 16.
"Tree Survey Plan", Revised 5/07/08, Sheet 14 of 16.
"Lighting Plan", Revised 5/07/08, Sheet 15 of 16.
"Entrance & Sight Lines Plans & Profiles, Revised 4/18/08, Sheet 16 of 16.
"Turning Radius Plan", Revised 5/07/08, Sheet 1 of 1.

Documents Reviewed :
Draft Environmental Impact Statement, Volume I, Dated May 20, 2008.
Draft Environmental Impact Statement, Volume II, Dated May 20, 2008.

North Salem Planning Board
Salem Hunt Development
July 25, 2008

The above referenced documents that have previously been determined by the Planning Board to be complete for circulation purposes, have been reviewed for the engineering issues within our purview. The following are our substantive comments based on that review.

1. The applicant is advised that pursuant to the NYSDEC SPDES General Permit (GP-0-08-02), as of September 30, 2008 this project will have to demonstrate compliance with the "Enhanced Phosphorous Removal Standards." This may involve changes to the site plan that could include an increase in the area of disturbance for construction of the stormwater basins. Comment 6-11

2. There are numerous places in the document that state that there is no wetland encroachments for this project. This appears to be incorrect based on the information provided. Figure 6-5 "Existing Conditions Map" shows the location of the NYSDEC wetland on the northeast side of June road. The project plans show the location of the drainage discharge line from CB#42 proposed to be constructed in this area and within the NYSDEC wetland. In addition, the plans show an unrealistically narrow width of disturbance for this construction (five (5) feet). A more realistic width, that considers access, placement of spoils, construction materials and erosion control of a minimum of ten (10) feet should be provided. Also the document should be revised to reflect this encroachment and the need to obtain local, NYSDEC and Army Corps of Engineers (ACOE) approvals. Comment 6-12

3. The applicant should explain how the sole use of "traction sand" would be ensured as well as procedures for recovering the used material. The explanation on Page 6-22 regarding which products will be avoided does not explain how the sole use of traction sand will be ensured as well as how the use of other chemicals, dyes, fertilizers, herbicides or similar materials will be avoided. Comment 6-13

4. The proposed design of the stormwater ponds 1.1 and 2.1 do not comply the New York State Stormwater Management Design Manual in that the proposed aquatic benches are approximately 3.5 feet deep where a maximum of 1.5 feet is allowed and safety benches of over 23% where 6% maximum is allowed. Comment 6-14

5. As previously mentioned, the design consultant should address the proposed entrance encroachment within the adjoining County right-of-way. This should be reviewed by the Putnam County Highway Department and Southeast Planning Board. Comment 9-9

6. Typical basement floor plans that include garage, garage door dimensions and driveway dimensions should be provided since the proposed garage/driveway widths appear to be narrow and could be problematic for the builder and future homeowners. Comment 2-13

7. In accordance with Section 200-23(J), a waiver is needed from the Planning Board to approve permanent-dead end streets that exceed 1,000 feet in length, Comment 9-10

8. In accordance with Section 200-23(L)(1), a Planning Board waiver is needed to approve new street intersections less than 150 feet apart. Comment 9-11

9. The estimated water supply demand contained in the "Preliminary Engineer's Report for Supply for the Proposed Salem Hunt Project, Town of North Salem, New York, August 4, 2006, Revised November 13, 2006", prepared by Insite Engineering is appropriate, however, all future plans and approvals should specify that lawn irrigation will be prohibited. Likewise, Section 10.6-"Mitigation Measures Water Supply" should specify that lawn irrigation systems will be prohibited. Comment 10-12

The following substantive comments must be addressed prior to site plan approval:

10. The grading and utility plan should include the proposed drainage structures, rim, invert and pipe sizes. In letter dated October 29, 2007, the design consultant stated that it is his position that it is too early to design the drainage system and once the layout has been finalized, drainage pipe sizes will be provided. For design of the site plan utilities prior to site plan approval, this information must be provided on the plans and a report will need to be submitted that demonstrates that the onsite stormwater conveyance system is designed to convey at least the 10 year storm along the collection route and the 100 year storm at all critical points where flooding may impact adjacent properties. Comment 6-15

11. The velocity dissipater detail now provided should include dimensions for the length and width or a sizing table if these vary across the site. Comment 6-16

12. The Outlet Structure Detail for Pond 1.2P indicates that the invert elevation of the 24 inch outflow pipe is 553.0 while the report indicates that it should be 552.5. This should be corrected. Comment 6-17

13. Construction details showing basin dimensions and sizing calculations for the proposed temporary sediment basin(s) should be provided. Inflow and outflow locations should be shown on the plans. Also an emergency overflow should be provided for basin 1.1P. Sediment markers should be provided in each basin that will indicate the elevation at which sediment removal is required. Comment 6-18

14. The design engineer should consider the use of stone check dams in the swale on the southern end of the property. Diversion swales around the soil stockpiles and construction staging should also be shown. Comment 6-112

15. Trees within the limit of disturbance to remain should be protected. These should be shown on the plan. Comment 4-25

16. The location of proposed utilities to be brought into the site (i.e. gas, electric, telephone, cable TV) should be shown on the plans. Site utilities are to be installed underground. This should be noted on the plan. Comment 6-19 & 10-13

17. The layout plan should include all proposed at grade structures, i.e. catch basins, sewer manholes, outlet control structures, headwalls, rip-rap aprons etc. Comment 6-20

Please advise if you would like any clarification or further elaboration of these items.

Frank Arnuzzo

FA:ay

p:\town of north salem\planning board\salem hunt\080711 salem hunt draft.doc

LETTER # 9

Edward Gordon, M.D.

388 Hardscrabble Road

North Salem, N.Y. 10560

Ph: 914 669-5526 Fax: 914 669-6051

7/26/2008

Town of North Salem Planning Board
266 Titicus Road
North Salem, N.Y. 10560
Att: Dawn Onufrik, Secretary

Re: Salem Hunt Proposed Development

I would like to submit the following comments regarding this proposed development. Although it will likely not have any direct visual impact on my home, it is problematic in a number of ways.

First, the sheer size of it raises many questions. 65 Units and 24 buildings will likely be occupied by several hundred people and their pets. Although parking is included, my arithmetic indicates a severe shortage of parking in this crowded development: only 65 parking spaces are provided for residents and their guests (The proposal states 117 in garages– I can't find them). Street parking is inconvenient and inadequate in number. Even the recreation building is short of parking: only 12 spaces are provided. Comment 2-23B

The lot includes and is bordered by wetlands. Sewage disposal therefore raises a significant question. What is planned is "SSTS" (**Subsurface Sewage Treatment System**). As in all such developments, the amount of sewage runoff is of great concern. The local runoff feeds directly into the local stream, and thence into the NYC reservoirs. Comment 10-33

Perhaps the project could tie in to the nearby planned Peach Lake sewage District by expansion, or to a sewage district in bordering Southeast. At any rate, the number of planned units crammed in to the buildable part of the lot therefore seems excessive. The buildable section is not 40 acres; it appears closer to 25. Comment 10-20

I would urge the Planning Board recommend that the Zoning Board not grant the 17 space variances requested to permit this site density. Comment 3 II

I am concerned also regarding the likely water usage. My well and others in the area are subject to shortages at times; witness chronic problems in the nearby Croton Falls Water District. Addition of an additional deep well will necessarily tap the same supply and deplete it. Can water be supplied by reservoir? The Croton aqueduct runs nearby. comment 5-8

Tapping it or obtaining permission to connect to a nearby public water supply might be possible, although difficult. Comment 5-8 con't

Regarding the statement that no endangered species are found in the lot: I can recall, from my time on the Town Board, and contact with the CAC that Bog Turtles were to be found in this vicinity. Has there been a determination that this endangered species is indeed not present? Comment 4-2

I appreciate the need for affordable housing in North Salem, but the developer should not be permitted to use this as a club on the town to overbuild.

Thank you for your careful review of this proposal and my comments.

Sincerely,

Edward Gordon, M.D.

Previous Letter #10 Purposely Omitted

LETTER # 11

Westchester gov.com

Andrew J. Spano
County Executive

County Planning Board

July 28, 2008

Dawn Onufrik, Secretary
North Salem Planning Board
Lobdell House
270 Titicus Road
North Salem, NY 10560

Subject: **Referral File No. NSM 08-002 — Salem Hunt; Site Plan**
Draft Environmental Impact Statement

Dear Ms. Onufrik:

The Westchester County Planning Board has received a copy of a draft environmental impact statement (EIS) prepared pursuant to the NYS Environmental Quality Review Act (SEQR) (dated accepted May 7, 2008), site plans (dated revised May 7, 2008) and related materials for the above referenced project.

The project involves the construction of a 65-unit multi-family condominium residential development on a 40-acre property located on the west side of June Road (County Road 310). The site's northern boundary is the Town and County's northern boundary shared with the Town of Southeast in Putnam County. A Town Highway Department facility, a Town park and the North Salem Middle/High School are located to the south of the site. The proposed development would be configured into 24 residential buildings, seven containing two units each and 17 containing three units each. In addition, a separate community building and pool will be constructed. Water will be provided by a new on-site water supply system and sewage will be treated in a new treatment building before subsurface discharge on the site.

According to the submitted materials, all units will have two bedrooms. Parking is to be provided in 117 garage spaces - 13 units are shown with one-car garages and 52 units would have two-car garages. In addition, each driveway appears of sufficient length for a parked car, two side by side cars in the double garage driveways. Forty other parking spaces are to be provided with 12 at the community building and 28 in small parking courts throughout the development. Including driveway space, parking will be available for a minimum of 274 vehicles or 4.2 parking spaces per residential unit.

The project would be developed according to the R-MF/4 zoning designation of the site. This zoning designation was placed on the site in 2000 as part of a package of rezonings prepared and enacted in response to a New York State Supreme Court decision requiring the Town of North Salem to provide

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White Plains, New York 10601 Telephone: (914)995-4400 Fax: (914)995-3780 website: westchestergov.com

opportunities for affordable housing. Because the R-MF/4 district requires a 20% affordable set-aside, the development will include 13 "moderate income housing units" priced according to a formula set forth in the zoning code.

The project will require site plan approval from the North Salem Planning Board as well as a wetlands permit. The project, as designed, would also require a 19 area variances from the Zoning Board of Appeals for minimum separation distances between the residential buildings (17 variances) and for the minimum setback requirements related to the community building (two variances).

We have reviewed the draft EIS and related materials under the provisions of Section 239 L, M and N of the General Municipal Law and Section 277.61 of the County Administrative Code. We offer the following comments and recommendations for the Town's consideration:

SUMMARY RECOMMENDATION

The approval and development of Salem Hunt offers a concrete opportunity to realize a longtime goal of the Town's planning policies to diversify housing opportunities by providing a type of housing not now available in the Town as well as to establish new units that will be restricted in price to so as to available to persons and families who may not otherwise be able to afford a residence in North Salem. The County Planning Board supports development of this site under the provisions of the R-MF/4 District regulations. However, we recommend that the Town affordable housing definitions be amended so as to be consistent with definitions as applied by the County in its affordable housing programs so that the new affordable units may be credited to North Salem's allocation of affordable housing need.

In our review of the draft EIS and submitted site plans, we have found that additional revisions should be considered in the site plan so that the development of the site will result in a new neighborhood that incorporates to the greatest extent possible the desirable characteristics of a walkable community, connected to nearby uses and respectful of the existing physical and manmade site elements that contribute to defining the unique character of North Salem. We recommend that the Town Planning Board and applicant consider our specific suggestions as outlined below.

SPECIFIC COMMENTS

1. **Revise affordable housing provisions**. Thirteen of the 65 residential units would be subject to price limitations based on provisions set forth in Article XXII "Moderate-Income Housing Regulations" of the Town Zoning Ordinance. However, the provisions of the Code base pricing on formulas that utilize the mean (average) annual salary paid to Town of North Salem full-time employees and not to the Westchester County standard which calls for the purchase price to be affordable to households earning at or below 80% of Westchester County Area Median Income. As the Town formula would set higher sales prices, the new affordable units would not count towards meeting the Town's affordable housing allocation of 148 new affordable housing units to be created by 2015. We urge the Town to amend its zoning regulations so as to incorporate the Westchester County definitions of affordable housing pricing.

Comment 3-3A

We suggest that the Town investigate provisions that could assign the affordable units, once created, to the new Westchester Housing Land Trust. The Trust could administer the affordable provisions on behalf of the Town. Further, the Trust would ensure that the units remain affordable permanently.

2. **Diversify dwelling unit mix**. The draft EIS states that all dwelling units proposed for this project will be two-bedroom units. This approach may fail to accommodate the varying types of households who need or desire housing in a multi-family setting in this area of the county. Two-bedroom units can be too small for families and too large for single people and "empty nesters." Commen 3-4A

With regard to affordable units, the Town zoning code states, "Such MIH units shall be physically integrated into the design of the development. The units shall consist of one-, two- and/or three-bedroom units in a proportion approved by the Planning Board as being better related to the housing needs, current or projected, of the Town of North Salem and the surrounding region. The Planning Board shall receive and consider the recommendation of the Housing Board in determining the proportion of one-, two- and three-bedroom units." We did not see a report of the Housing Board in the submission. Unless other documentation justifies the currently proposed mix, we recommend that, at a minimum, additional diversity be considered for the proposed affordable units so that the unit mix is varied from one to three bedrooms.

3. **Consider alternative layouts**. The proposed site plan would clear-cut and re-grade all areas of the site where development is proposed thereby removing all trace of such character defining elements as the extensive tree and flora cover and significant sections of intact stonewalls. We suggest that it may be possible to further revise the development layout so as to incorporate existing features of the site and avoid the appearance of sprawling conformity which we believe would result from the current layout. Commen 2-24

For example, given the relatively high concentration of residential units proposed on the site, a better site plan may result from more concentration of the units, coupled with a reduction in parking, instead of the currently proposed equal unit spacing and loop road pattern. Under this approach, an objective should be to retain and to incorporate areas of tree and flora cover and long sections of stonewalls. Such an approach would not only provide a more "new urbanist" and walkable community but would provide better long-term environmental protection by reducing impacts of re-grading and clear cutting, protecting wider and connected protected natural areas, reducing impervious surfaces, and providing opportunities for groundwater recharge with less need to collect, treat and confine stormwater.

4. **Revise auto-dominated building design**. The draft EIS states that the project, as revised after the completion of the final scope, meets the conditions of one of the required design alternatives by providing "a development more consistent with the community character found in North Salem by designing the buildings in this development to resemble farm structures." We question if the proposed building design meets that objective. Commen 2-17

The renderings of the proposed buildings, when viewed in combination with the site plan drawings, indicate that none of the residential units would have a front door in a prominent position facing the

street. Instead, the dominant front feature throughout will be garage doors, often made more striking with a "snout-nose" configuration off the front of the structure. The "front door" entranceway will be marginalized to the side of the building. Further, the front yards throughout the development will consist of wide, paved driveways with curb cuts every few feet.

Comment 2-17 cont

In our opinion, this design format is inconsistent with traditional residential farm structures in Westchester, which usually feature vehicular garages in the rear or to the side of the residence, often in the form of a detached garage. If the intent is to have a design that more closely resembles traditional housing styles, we recommend that the proposed dwellings be reconfigured to minimize the visual impact of each garage by placing the garage to the side of the building or in the rear. We have attached sample images that highlight alternative approaches to garage placement. In addition, in order to facilitate improved building design, the Town Planning Board should give consideration to reducing garage spaces or limiting garage spaces to one garage space per residential unit.

5. **Reduce proposed parking spaces**. Our review found that the development would establish a minimum of 274 vehicles or 4.2 parking spaces per 2-bedroom residence. That number appears to be unjustifiably high. A reduction in the number of parking spaces to be provided would greatly assist in developing alternative site layouts, providing room for sidewalks and reducing site disturbance, impervious surfaces and stormwater runoff.

Comment 2-23C

We recommend that the Town Planning Board not permit more parking spaces to be established than the zoning code requires (125 spaces for the residential use). If the zoning code does not permit driveway spaces (of adequate length) to be counted as parking spaces, we recommend that the regulations be revised to do so.

6. **Consider impact of proposed grading on wetlands**. Two areas of proposed grading raise concerns about potential long-term impacts on the on-site wetlands.

Comment 6-21

In order to create building platforms for proposed buildings #7 and #8, the plans show construction of a retaining wall over 260 feet in length, on or within the 100 foot regulated area boundary from a New York State designated wetland. Construction within a buffer area should be avoided whenever possible. Further, we note that the buffer area would be on the high/top side of the wall with the units constructed on the low side, approximately 7 to 8 feet lower than the buffer area. This would result in the building elevation being the same elevation as the wetland itself. The Town should consider if this type of re-grading could alter subsurface water flows, create undesirable conditions for the new units and establish the potential for long-term maintenance problems.

Just to the north of this area, the plans show the construction of portions of two stormwater basins extending within the 100 foot regulated area around two different Town-designated wetlands. As noted above, construction within wetland buffer areas should be avoided whenever possible.

Consideration of an alternative layout as suggested under #3 above should have as one objective the removal or mitigation of these potential impacts.

7. **Provide walkable community**. Although the objectives and features of a "walkable community" site plan design are discussed in the draft EIS, the proposed site plan does not incorporate any of the features presented on the "Walkable Community Alternative." In fact, the proposed site plan does not include any sidewalks or pathways with the exception of short access walks linking a road and parking court to the proposed community house. Comment 2-25

We recommend that the Town require the inclusion of a complete network of sidewalks to link all residences on the site plus require the implementation of additional pathways, preferably suitable for biking and walking, to provide connections to nearby adjacent uses, most notably the North Salem Middle School/High School complex, an existing deli and Volunteer Park, all of which are in close proximity to the site. These sidewalks and pathways should be more extensive and complete than the pathways shown on the "Walkable Community Alternative."

8. **Reduce impervious surfaces**. One of the alternatives in the draft EIS features the use of permeable paving surfaces and narrower pavement width to further reduce stormwater runoff associated with the project site. The site plans submitted with the draft EIS do not include these features, instead showing internal roadway widths of 24 feet and no permeable paving surfaces. Comment 6-22

Given the site's location within the Croton Watershed, it is critical to take whatever steps possible to reduce stormwater runoff and improve stormwater quality as documented in the Croton Plan. A relatively simple way to do this would be to implement permeable paving surfaces in the lower-traffic areas of the development, such as parking spaces, driveways and the lowest traffic roads. Where roads must be paved, roadway width should be reduced. The current configuration of 24-foot wide roadways assumes two 12-foot wide travel lanes – a configuration that is more appropriate for higher-speed public roadways. In the case of lower-speed access roads to a condominium development, consideration should be given to lane widths of nine feet, for a total road width of 18 feet. This narrower roadway width will also have the added benefit of reducing vehicle speeds within the development.

9. **Incorporate green building technology**. The Town should encourage the applicant to incorporate as many "green" or sustainable building methods and technologies as possible into the proposed development. Such efforts are increasingly common – and expected. Many communities have begun to amending local codes to make "green" design and building practices mandatory. Developments that have a type of environmental certification are recognized as environmentally responsible, profitable and healthy places to live and work. These developments are often seen as premium properties. Comment 2-18A

Nationally recognized rating systems (such as LEEDS - Leadership in Energy and Environmental Design) and organizations can assist the Town in recommending sustainable elements of building and site design and in the ongoing assessment of the projects. Site elements include reduced site disturbance, alternative transportation opportunities and stormwater treatment. Building elements include energy and water efficiencies, environmentally sensitive building materials and green rooftops.

10. **Preserve horse riding trails**. The draft EIS notes that there are several marked horse riding trails existing on the property but does not explain/identify the locations of those trails, what types of Comment 2-29

development protections (if any) those trails enjoy or what will become of the trails after the proposed development is constructed. Since the draft EIS does note that the applicant is working with a local land trust to permanently preserve portions of the site that are not proposed for development, we encourage the applicant to take steps to preserve these trails (or portions of these trails) for public use. The trails should be identified on the site plan. It may also be possible to use these trails to obtain access between the development and the nearby park and school complex. Comment 2-29 c

11. **County permits required**. June Road is a County road (CR 310). The draft EIS and site plans indicate that a new driveway curb cut is proposed on June Road. Approval for this work from the Westchester County Department of Public Works under Section 239 F of the General Municipal Law is required. Pertinent drainage, utility, erosion control and curb cut details need to be provided at the time of Section 239 F submittal. The driveway must also be designed in accordance with current County, State and AASHTO standards. Comment 9-12

12. **Additional comments**. The Land Use/SEQR Committee of the Westchester County Environmental Management Council has reviewed the draft EIS and provided comments to us. We have enclosed their comments for your consideration.

Thank you for calling this matter to our attention.

Respectfully,
WESTCHESTER COUNTY PLANNING BOARD

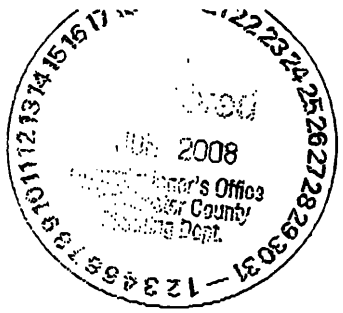
By:
Edward Buroughs, AICP
Deputy Commissioner

EEB/LH
cc: Michael Dispenza, Contract Administrator, County Department of Public Works

ALTERNATIVE BUILDING TYPES

The images below represent possible designs that could be incorporated into the project to reduce the scale of the garages.

LETTER # 12



Andrew J. Spano
County Executive

Department of Planning
Gerard E. Mulligan, AICP
Commissioner

Environmental Management Council
EMC

Co-Chairs: Susan McDonnell
Nancy Welo

June 23, 2008

Gerard E. Mulligan, AICP, Commissioner
Westchester County Department of Planning
148 Martine Avenue
White Plains, NY 10601

RE: DEIS for Salem Hunt, Town of North Salem

Dear Commissioner Mulligan:

The Land Use/SEQR Committee of the Environmental Management Council has reviewed the above referenced proposed residential condominium project located in the northern reaches of the semi-rural Town of North Salem.

The Committee, some of whose members visited and walked portions of the 40 acre site, makes the following comments.

Thirteen units, representing 20% of the total 65 units (reduced from 75), are designated as Affordable Housing. The Committee is concerned that the Town's definition of moderate income housing may deviate from the County's definition and therefore may fail to qualify as formal Affordable Housing in an area regarded as deficient by County standards. Comment 3-3B

Since the area is known for its many horse farms and riding trails, it is recommended that all existing horse trails be maintained, or, if necessary, partially relocated. Creation of walking trails on the property should be encouraged, perhaps linking up with the nearby high school and its outdoor track. Comment 2-29C

Close monitoring during and after construction is necessary to protect dense woods, a small watercourse, and a staggering variety of flora and fauna in the area to be protected by a conservation easement. The numerous stone walls crisscrossing the property should be left intact wherever feasible, and where infeasible, the stones should be conserved for use elsewhere. Comment 4-3 Comment 8-23

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Clear-cutting of trees on the mostly wooded 40 acres should be avoided not only for the indisputable benefits of retaining open space and preservation of the rural character of the surroundings but also to avoid the consequential negative impacts that may occur with additional impervious surface coupled with the loss of trees on the site. Great attention must be paid to proper stormwater management and runoff controls in order to protect the surrounding water resources that lie within the New York City Watershed. Comment 6-23

It is noted that the issue of wildlife corridors was not considered during scoping and the DEIS states that "modified" wildlife is expected to remain on site. However, a forty acre parcel is likely to be part of a wildlife corridor, and there is no information as to how wildlife, abundant in Northern Westchester, will be affected by this project. Also, no detail is provided to support the DEIS conclusions pertaining to certain amphibians, reptiles and birds that use the property for breeding, feeding and/or forage and are identified as endangered. If vital wildlife and bird habitat is to be removed, the replacement should be the specific plants and foliage currently on site rather than grass and unspecified "native plants". Comment 4-4

Although the DEIS notes that the project will be LEED for Homes certified, there are four categories of LEED certification, "certified", "silver", "gold" and "platinum", which are based on the level of sustainability. There is no mention of the level that is to be achieved, and the Committee recommends at least "silver". We also recommend that the LEED points be weighted toward energy conservation such as solar panels and/or solar shingles. Comment 2-18B

Finally, the Committee is curious as to why the project is limited to two bedroom only units and wonders why a mix of one and three bedrooms was not included, which would make it more suitable for either families or senior "empty nesters". Comment 3-4B

Thank you for your attention to this matter.

Very truly yours,

Jessica Bacal per klé

Jessica Bacal
Chair, Land-Use SEQR Committee

LETTER # 13

Theresa A. Havell
422 Hardscrabble Road
North Salem NY 10560
212 218 4212
thavell@havellcapital.com

July 28, 2008

Ms. Cynthia Curtis
Chairwoman
North Salem Planning Board
270 Titicus Road
North Salem, NY 10560

Dear Cynthia,

Re:Salem Hunt

I wish to supplement my prior letter to comment on problems posed by the Salem Hunt DEIS regarding groundwater and septic system concerns. Comment 5-9

My home, located immediately south of the Salem Hunt property, receives its domestic water supply from a well located about 3 feet from the property line between my property and Salem Hunt. The well would be about 100 feet from the nearest proposed Salem Hunt buildings and also quite close to the proposed septic field. Comment 5-10

The DEIS notes the proximity of my well at page 5-16 and comments on the pumping tests, saying that the Havell well, which is the closet well to the proposed Salem Hunt project was the most influenced. "Routine use of the Havell well caused approximately 50' of water level fluctuation. The Red Horse Farm, the Town Highway facility and the Seely wells were all impacted to a lesser degree, by approximately 2 feet, 5 feet and 5 feet respectively." My well is impacted somewhere between 10 and 25 time more than the next nearest wells. The DEIS proposes "mitigation measures." But in fact, the only "mitigation" proposed, at pages 5-20 and 10-11, is a "monitoring program" for "at least two years following the completion and full occupancy of the Salem Hunt development." Comment 5-11A

There is no detailed discussion in the DEIS of the effect of the proximity of the septic field to my well on my water quality. This is an obvious shortfall in the DEIS and requires supplementation. Comment 5-12

Obviously, a "monitoring program" after the development is built is no "mitigation" at all. This disclosed effect on my well already has diminished my property value, as well as raising health concerns for my family, and it will continue to do so throughout the period of consideration of and possible construction of the project. Analyses of these and other known issues will reveal the unfeasibility of this project in its current proposed location from a myriad of perspectives. Comment 5-13

Sincerely,

Theresa A. Havell

Theresa A. Havell

Cc: Paul Greenwood

LETTER # 14

CWCWC

CROTON WATERSHED
CLEAN WATER COALITION, INC.

9 Old Corner Road, Bedford, NY 10506

***Mission**: The Coalition strives to protect and improve the waters of NYC's Croton Watershed, a critical component of the water supply for half the population of New York State. We are an alliance of individuals and groups who believe that safe, clean, affordable drinking water is a basic human right.*

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Manhattan Borough
David Ferguson
212-989-0519
fergdavwater@aol.com

July 28, 2008

Ms. Dawn Onufrik
Planning Board Secretary
Town of North Salem 266 Titicus Road
North Salem, NY 10560

Re: Salem Hunt Development Plan DEIS
Sheet 5, Block 1735, Lot 19

Dear Ms. Onufrik,

These comments are being submitted on behalf of the Croton Watershed Clean Water Coalition, Inc (CWCWC). We are a not-for-profit organization with membership throughout Westchester, Putnam and New York City. Our main goal is to protect the quality of water in the Croton Watershed that is an important component of the water supply for over 9 million New Yorkers.

Background of the Proposal

This is a proposal for 65 condominium units in 24 residential buildings, together with a separate community building and pool, and a total of 170 parking lots, on a 40-acre parcel. The proposal includes thirteen residential units of moderate income housing or 20% of the total. "...the proposed Salem Hunt development is projected to add 135 persons including 9 school age children to the Town."

The 40 acres are mostly covered by Northern Hardwood Forest. The whole eastern portion of the parcel is a Class II NYSDEC wetland, L-32, traversed by an unnamed Class II stream, a tributary of Holly stream that flows into the East Croton River in the Muscoot Watershed. There are three additional Town of North Salem wetlands situated in the southwest and northwest areas of the parcel.

The proposed development is located at the intersection of June Road and Starlea Road.

The applicant claims that 50% of the land will remain untouched. Although true, this 50% is nearly entirely wetland and should, therefore, not be developed under either NYSDEC

Commer 7-1

regulations or the North Salem Town Code. In other words, 100% of the developable land is being used. ↑ Comment 7-1 con't.

List of Concerns

This proposal calls for intensive development of a highly sensitive piece of land. Among CWCWC's concerns are:

- Single access to the property;
- Incursions into buffer areas;
- Maintenance;
- Possible well-water pollution and area water drawdown;
- The massive destruction of the forested areas;
- The viability of the SSTS;
- The stormwater pollution prevention plan;
- School cost and taxes
- Need

Single Access to the Property

There is only one access road to the property. According to the plan submitted by the applicant, it will be embellished and lined with trees. Trees uprooted during storms are not uncommon. What would happen if an emergency arose at such a time? With, at least, 135 residents on the property, such an occurrence cannot be dismissed. By removing some of the buildings near the entrance and moving the two detention ponds, it could be possible to have a road branching off from the main road and providing an alternative. Comment 9-13

Incursions into Buffer Areas

The entrance road will traverse part of the NYSDEC wetland buffer. In addition, Stormwater Detention Basin 1.1 will impact the buffer of Town Wetland B, and Stormwater Detention Basin 1.2 will impact the buffer of Town Wetland C. Comment 6-24

Unfortunately, the incursion into the NYSDEC buffer appears to be unavoidable. There is no other way to access the property without doing even more damage. However, the incursions into the Wetlands B and C buffers are unacceptable. Wetland buffers are critical to the protection of the wetland. Stormwater ponds and basins are particularly harmful since they alter, through detention, the hydro period of the water that nourishes the wetland. The applicant should alter the configuration of the proposed condo units so as to keep the detention basins out of those buffer areas.

Finally, the applicant has not made explicit the ultimate use of the buffer areas between some of the condo units and the adjoining wetlands. Specifically, will units 7, 8, 9, 11, 12, 13, 14 and 15 ↓ Comment 6-25

that abut the buffers to the town wetlands use the buffer areas for lawns? If so, they should not be maintained as lawns that are conducive to polluted runoff into the wetlands. They should be thickly vegetated so as to protect the wetlands. Comment 6-25 con't

Maintenance

We question whether a Homeowners' Association is the best entity for maintaining the complex systems that are needed in this development to maintain the community water supply system, the 16,000 gpd sewage disposal system, the stormwater facilities and internal roads. Comment 2-38

The stormwater facilities alone comprise two stormwater basins in series (1.1P and 1.2P) and a treatment train consisting of a swale and two stormwater ponds (2.1P and 2.2P). This would require dedicated attention, expertise and a reasonable degree of continuity among the members of the Homeowners Association. Clearly, there is no guarantee that this will occur. The applicant should be asked to contribute a significant amount to an escrow account to enable the Town to provide the needed oversight.

Possible Well Water Pollution and Area Water Drawdown

The applicant conducted well tests from October through December. A better test period would have been July through September that is likely to be dryer. Comment 5-14

Coliform bacteria were found in the Salem Hunt test wells. On page 5-16, Vol. I, the applicant states: "Coliform bacteria is common *(sic)* found in newly installed wells during the drilling and pump testing process, by the introduction of material and equipment into the wells from the surface. Disinfectant treatment of wells typically removes the coliform." Rather than merely guessing, the applicant should determine precisely what is causing the presence of these bacteria in the wells and eliminate the cause. Relying on disinfectants - the applicant does not say how much might be needed – should be avoided by protecting the source water. Comment 5-15

During the pumping tests, eight off-site wells were monitored and four showed an influence from the pumping tests. The most seriously affected was the Havell well. The applicant suggests that a "hydrogeologic consultant" be retained by the Town who "will determine if the well impact is the result of project pumping or other factors, not related to the project." The applicant would provide appropriate mitigation such as deepening the well, if needed. Rather than the Town's responsibility, the study and remediation of any problems with this well should be the developer's responsibility, working closely with the Town engineer. No construction work of any kind should be permitted prior to the applicant establishing to the satisfaction of the lead agency that the projected drawdown of groundwater on the property will in no way affect any neighboring well, including the Havell well. Comment 5-16

Two nearby big water users creating drawdown on the area's water source are North Salem Middle/High School on June Road and Durkin Water Company on Fields Lane, Southeast. The Salem Hunt water pump test should include the school. Durkin Water is drawing down unknown quantities of water to supply estates, swimming pools, businesses and municipalities outside the Comment 5-17

area. While New York State requires water suppliers to test water monthly for certain pollutants, no reporting is required on the quantity of water a big user is extracting. Durkin purchased a fleet of 6,000-gallon tankers, each of which can be filled in 20 minutes by high pressure pumps. Durkin also plans to build a 500,000 gallon holding tank that has been approved by Southeast planning board.

Comment 5-17 con't

Also not taken into account in groundwater review is nearby Peach Lake residences that will soon be sewered. All of the water now used by Peach Lake residents that goes back into area recharge will instead be exported to East Branch Reservoir. NYC DEP expressed concern in their written comments on the Peach Lake sewer project that "...there will be significant removal of a recharge source from the local groundwater regime once residences are connected to the WWTP and the existing septic systems are taken off-line. The SEQRA review should evaluate the significance of potential impacts of the reduced groundwater recharge in terms of quantity." An Environmental Impact Statement for the Peach Lake sewer project was deemed unnecessary and hence, this priority topic was not fully examined. Hydrogeologist Russell Urban Meade recently commented at a North Salem public meeting that the problem of sufficiency can arise with concentrated over pumping of "too many straws in a small area." It would be prudent to wait for Peach Lake to be sewered first to then evaluate area water sufficiency by retesting Salem Hunt water pumping with the school. We are fortunate to be experiencing a wet period but a drought could have a devastating impact if the area is allowed to be over pumped.

Comment 5-18A

Another potential problem for neighboring wells, although not mentioned by the applicant, is the possibility of infiltration of nitrates from the Sub Surface Sewage Treatment System) SSTS. From Vol. I, page 10-5, the applicant describes the modeling used for describing the transport of nitrates from the proposed SSTS. "In the Mean Flow Condition (low rainfall periods), the model predicts a nitrate concentration of slightly above 10 mg/l at a portion of the northern property line near the project entrance at June Road (se Figure 10-1 Nitrate Concentration). The 10 mg/l nitrate concentration is predicted to extend approximately 65 to 75 feet beyond the northern property border within the June Road right-of-way..." State and federal law allows 10 mg/l as the maximum allowable level of nitrate in drinking water. It has been well documented that nitrates in water can cause the dreaded "blue baby" syndrome. It is a matter of concern that, over time, nitrates in the groundwater could be drawn into the water supply of the nearby wells. The applicant would have to prove to the satisfaction of the lead agency that this will not be a problem either in the short or the long-term.

Comment 5-9

The Massive Destruction of Forested Areas

East-West Forestry Assoc. conducted a tree survey of Salem Hunt for Insite Engineering in July, 2006. A total of 1827 trees were surveyed, all of which will be destroyed (Volume II, Appendix D). Many of these trees are located in the wetlands buffers (Map TP-1, No. 14/16).

Of these trees, at least 78% were in good health, 18% were in poor health, 5% were dead. Of those rated in good health, only 13% were below 10" dbh (diameter at breast height or 4.5 feet). Of these, most were 8" dbh.

Comment 6-26

All of the following had many specimens 10" dbh and over:
black birch
northern red oak
American beech
bitternut hickory
white ash
Norway maple
white oak
black oak
American elm
sugar maple
black cherry
yellow poplar
sassafras
shagbark hickory
American basswood
pin oak, ailanthus
swamp white oak
black cherry
apple.

This wide diversity of trees also attested to the health of the forest.

According to the applicant, 20.2 acres, i.e. 50.5 percent of the project area would be deforested. In actual fact, the remainder is wetland and cannot be developed. A total of 5.9 acres would become impervious surface, and 14.3 acres would ultimately be revegetated, according to the applicant (Vol. I, page 1-10). However, no revegetation can duplicate the benefits of the destroyed hardwood forest. The "native ornamental plants, lawns, and landscaped plots within the developed areas..." that the applicant proposes to install are a far cry from the original forest and cannot even begin to duplicate its attributes and advantages.

A 1/8/2003 article in the NY Times by Mike Dombeck, chief of the US Forest Service from 1997 to 2001, entitled The Forgotten Forest Product: Water, clearly states the argument for forest protection. "...water is perhaps the most important forest product. Forests generate most of the water in the country, providing two thirds of all the precipitation runoff – the water that comes from the sky – in the 48 contiguous states....How do forests produce water? The complex array of trees, shrubs, groundcover and roots slows runoff from rain and snow, and water is purified as it percolates through the soil and into aquifers. By slowing runoff, forests also reduce floods and erosion, minimizing the sediment entering streams and rivers. *Mature forests do their work best (emphasis added)*. They have the best soil and their mixed canopy – a mosaic of open and closed spots among the treetops - allows for snowfall accumulation and eventual runoff. Old trees use less water for growth than young trees do. And as *intact forests (emphasis added)* better regulate water chemistry and temperatures, they enhance habitat for aquatic species (In many streams this means better recreational opportunities such as trout fishing)....New York City has some of the best water in the world because it maintains healthy forests in its Catskill, Delaware and Croton watershed system..."

Comment 6-26 con't

In the more urbanized areas of a watershed, trees are vital in treating stormwater and reducing runoff volume. "Depending on the species and the soil conditions (both the type of soil and its saturation level), trees can absorb a considerable amount of water. Also, water-polluting nitrates, phosphorus, and potassium, which in many areas are spurring the development of total maximum daily loads (TMDLs) for receiving waters, are readily absorbed by trees, which consider these substances food. Just how much can trees do to help? According to the American Forests organization (www.americanforests.org), a healthy tree canopy can tremendously reduce stormwater runoff...*In general, the thicker the vegetation on a site, the more the water is inhibited (emphasis added).*"[1]

Comment 6-26 con't

A well-developed forest has another very important attribute - as protector of wetlands and their buffers. Map #14/16 shows that many trees within the Town wetlands buffers are to be destroyed. Yet to cite only one research project among many, "...a typical medium-sized tree can intercept as much as 2,380 gallons of rainfall per year."[2] Thus, a forest has a mitigating action that can convert intense rainfall that pours through wetland buffers via gullies, into sheet flow whose intensity is dissipated over a large area and flows gently through the buffer and into the wetland. In the first instance, the buffer is denied any mitigating capability. With the disappearance of the forest, the buffers will be unable to prevent flows from intense storms from carrying pollutants into the wetlands. In addition, the water that would normally be absorbed by the tree roots will now go directly into the wetlands. How will this considerable additional water affect the health of the wetlands? What effect will it have on their long-term sustainability?

During the construction phase, there is considerable danger of soil erosion from land denuded of its previous forest. "Sediment runoff rates from construction sites are typically 10 to 20 times greater than those from agricultural lands, and 1,000 to 2,000 times greater than those from forest lands. During a short period of time, construction activity can contribute more sediment to streams than those deposited over several decades, causing physical and biological harm to our Nation's waters."[3] It is hoped that the Town will make sure that the applicant will use extraordinary precautionary measures during this extra-sensitive phase.

As global warming increases, the need also increases for standing forests to mitigate the effects of rising temperatures and more intense storm runoff.

The effects of this massive deforestation will have to be carefully evaluated in order to determine whether the impact on wetlands' functions, groundwater and stormwater runoff are indeed viable. Will it be possible to properly mitigate such impacts?

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[1] TREES – The Oldest New Thing in Stormwater Treatment? By Janis Keating, **Stormwater**, March/April 2002, Vol. 3, No. 2, pp. 56-61.

[2] Center for Urban Forest Research, Pacific Southwest Research Station, USDA Forest Service, Davis, CA, July 2002 – Fact Sheet #4: Control Stormwater Runoff with Trees. http://cufr.ucdavis.edu

[3] EPA Storm Water Phase II Final Rule – *Small Construction Program Overview* – (January 2000, Fact Sheet 3.0)

Viability of the Subsurface Sewage Treatment System (SSTS)

The daily wastewater flow is anticipated to be 16,000 gpd provided that water-saving devices are installed. Comment 5-20

The primary SSTS will be approximately 3.25 acres and the secondary SSTS also 3.25 acres, for a total of 6.5 acres. Details of the design are in Vol. II Appendix K.

In Vol. I, page 10-5, the applicant states that: "Based on the simulation results, a limited area of the septic area will require filling to achieve sufficient cover to prevent breakout and maintain the trenches above the shallow groundwater levels. However, in Vol. II, page 2, the applicant states: "A geotechnical engineer is currently in the process of conducting a groundwater mounding analysis for the project. The mounding analysis will determine whether the project's design flows can be supported by the SSTS area's underlying soil." Whereas the statement in Vol. I would lead the reader to believe that only a small amount of fill will be required, Vol. II is far less definite regarding the amount of fill. This is an important difference since fill usually requires more frequent replacement than the natural soil. Large amounts of fill that need frequent replacing could present a problem.

The Stormwater Pollution Prevention Plan

Vol. I, page 6-22, the applicant states: "As provided in Table 6-9, the calculated ranges of estimated post-development pollutant loads are generally in the range of the pre-development pollutants as required by the NYCDEP regulations, and do not present the potential for adverse impacts on the receiving waters... This annual increase in loading does not represent the potential to significantly impact any wetlands, watercourses, or the 4.9 billion capacity Muscoot Reservoir... Under the most conservative estimates, the total annual increase from both design lines would be only 1.12lbs of TP." Then, on page 6-25, the applicant states again, but with slightly different numbers: "The most conservative estimate indicates that the annual phosphorus loads from the proposed Salem Hunt Project as shown in Table 6-9 would be increased by only 1.05 lbs/year (2.31kg). The 2.31kg/yr represent only 0.019% of the total phosphorous load of 11,560 kg/yr from the watershed to the reservoir..." Apparently, the "conversion" of lbs to kgs (1.05lbs equals 2.31kgs according to the applicant) was not a mere typo where lbs and kgs should have switched places. It appears to be imbedded in the remaining calculations and puts every result on pollutant loading in doubt. Comment 6-27

In Table 6-9, the results of the exports of the various pollutants are given within wide ranges. For example, for phosphorus - the pollutant of most concern - although the pre-development phosphorus loads are precise numbers, the post-development loads are within upper and lower limits that vary from 50% to 100%. The applicant is then able to claim that the "calculated ranges of estimated post-development pollutant loads are generally in the range of the pre-development pollutants as required by NYCDEP regulations..." (page 6-22, Vol. I). These wide ranges makes the results meaningless and unacceptable particularly in regard to phosphorus, the pollutant of most concern to the regulatory authorities. Even a small amount of phosphorus can generate large amounts of nuisance algae that interfere with the disinfection processes of the Comment 6-28

reservoir water prior to its distribution to the water-users. For example "It is estimated that one pound of phosphorus can generate up to 1,100 lbs of wet algae biomass (slimes, filamentous mats, and/or surface scums).[4]

Comment 6-28 cont

The applicant's statement that 2.31 kg/yr of phosphorus that the project would create is only a small percentage of the 11,560 kg/yr of phosphorus entering the Muscoot, while true, is misleading. More to the point is that the phosphorus load to the Muscoot has to be reduced by 3,103 kg/yr under the Total Maximum Daily Load (TMDL) program that was approved for Croton reservoirs by NYSDEC and USEPA in 2001. North Salem ranks 4th among the 8 municipalities that pollute the Muscoot. North Salem's reduction load is 166 kg/yr.[5] Municipalities that do not comply with their reduction loads are subject to heavy fines by NYSDEC. Yet the applicant denies any responsibility for increasing pollution and states that "the burden for reducing phosphorous loading to achieve the TMDL presently lies within the Town of North Salem and its regional partners." In other words, the town residents would have to pay for reducing the extra pollution created by this development and, if unsuccessful, would have to pay the fine for the Town not complying with its TMDL allocation.

Comment 6-29

CWCWC also has issues with the applicant's calculations of the phosphorus load to the reservoir. The applicant uses the Pollutant Loading Coefficient Method together with export coefficients supplied by the now defunct Terrene Institute.[6] For forests, the export coefficient for phosphorus, in kilograms per hectare per year (kgs/ha/yr) from forested areas is given as 0.1 kg/ha/yr. This applies to forests in the Pacific Northwest but not necessarily to forests in the Croton area. Indeed, the results of a series of measurements in this area and nearby gives a figure of 0.05 kg/ha/yr (this translates into 0.0446 lbs/acre/yr),[7] or half the export coefficient characteristic of the Pacific Northwest.

Comment 6-30

Since the Salem Hunt property is heavily forested, it is critical to use the correct export coefficient. Using the correct value which is ½ of that used by the applicant means that the phosphorus pollution exported from the site will need a larger reduction in order to regain its original value.

CWCWC realizes that this is a controversial topic. Yet the TMDLs for the Croton reservoirs were calculated on the basis of the 0.05 kg/ha/yr resulting from measurements on sites in the general area, and these TMDLs, as already mentioned, were approved by the federal and state authorities.

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[4] Letter from Princeton Hydro (4/30/08) re Palmer Lake, to Scott E. Sheeley, NYSDEC.
[5] Nonpoint Implementation of the Phase II TMDLs, April 2001. Prepared by: NYC DEP and NYSDEC, p.15
[6] Fundamentals of Urban Runoff Management: Technical and Institutional Issues
[7] Ott *et al*, 1990, NY; Haith & Shoemaker, 1987, NY; Farrow *et al*, 1986, NY; Haith *et al*, 1983, NY; Aylor & Frink, 1980, CT; Schaffner & Oglesby, 1987, NY; Norvell *et al*, 1979, CT; USSCS, 1997, NY.

School cost and tax ratio

The developer proposes to build this density housing complex with a percentage of affordable units adjacent to first-rate North Salem Middle/High School yet he projects a scant 9 children from an estimated 135 adults to inhabit 65 units. If the higher figure of the percentage of households in North Salem that have school-age children is used and multiplied by 65 units, the amount is 27 children. Even at 27, there could be considerably more entering the school system. Based on 2008-2009 North Salem school budget of $28,000 a year per student, 27 children would cost $756,000. Will the cost of their education exceed the amount of taxes to be generated by Salem Hunt? If so, the developer should be asked to put in escrow the balance of school costs, please see attached June 30, 2008 CWCWC letter to Croton Watershed town and planning boards on impact fees.

Comment 11-22

Need

In a crisis real estate market with sub-prime foreclosures glutting the market with inexpensive housing, reduced value of all real estate, tighter credit, and a projection of its continuation for the foreseeable future, is Salem Hunt needed and will it sell?

Comment 11-15

In conclusion, for all the foregoing reasons, CWCWC recommends that this project be substantially reduced in order to be sustainable.

Thank you for this opportunity to comment.

Sincerely,

Fay C. Muir, President

http//www.newyorkwater.org

LETTER # 15

Hands Across the Border
19 Sunset Place
North Salem, New York 10560
(914) 845-1052 Tel/Fax
suzannahglidden@optonline.net

July 28, 2008

RECEIVED

JUL 29 2008

TOWN OF NORTH SALEM
PLANNING BOARD

Ms. Dawn Onufrik
Planning Board Secretary
Town of North Salem 266 Titicus Road
North Salem, NY 10560

Re: Salem Hunt Development Plan DEIS
Sheet 5; Block 1735, Lot 19

Dear Ms. Onufrik,

On behalf of Hands Across the Border, we would like to see an alternate site plan with zero variances rather than the presently sought seventeen for aspects of the development which do not comply with the Town's supplemental requirements for medium-density residential development.

comment 3-1H 9 14-3

We concur with the comments submitted by Croton Watershed Clean Water Coalition, Inc.

Thanks for the opportunity to comment.

Sincerely,

Suzannah C. Glidden, Chair

Hands Across the Border (HAB) is an environment protection and advocacy organization dedicated to protecting the Croton Watershed across county lines by remedying pollution problems at their source. HAB is one of fifty member groups of Croton Watershed Clean Water Coalition, Inc.

www.newyorkwater.org

LETTER # 16

JOHN COLLINS ENGINEERS, P.C.

TRAFFIC • TRANSPORTATION ENGINEERS

11 BRADHURST AVENUE • HAWTHORNE, N.Y. • 10532 • (914) 347-7500 • FAX (914) 347-7266

MEMORANDUM

TO: Town of North Salem Planning Board

FROM: A. Peter Russillo, P.E., PTOE

DATE: July 28, 2008

SUBJECT: Salem Hunt DEIS
Town of North Salem, New York

PROJECT: No. 279

COPY TO: Cynthia M. Curtis

****

John Collins Engineers, P.C. has reviewed Section 9.0 Traffic and Transportations as well as Appendix N of the May 20, 2008 Draft Environmental Impact Statement (DEIS) for the above referenced project. The following represents the comments that we have on this new document.

1. The actual proposal before the Board is a 65 dwelling unit development. However, the transportation section of the DEIS was completed utilizing a 90 unit development therefore, the results of the analyses contained in the DEIS are likely to be conservative. Comment 9-14

2. On Page 9-2, it is indicated that June Road has a posted speed limit of 40mph. However on Page 9-13, in the last paragraph, it is indicated that the posted speed limit on June Road is 45mph. This discrepancy should be corrected. Comment 9-15

3. On Page 9-2, under Starley Road it is indicated that the posted speed limit is 30mph. However, on Table 9-1 on Page 9-3 the speed limit for Starley Road is indicated as "not posted." This discrepancy should be corrected. Comment 9-16

4. On Page 9-4, under the traffic accident data it indicated that the three-year period from January 1, 2000 to December 1, 2002 was collected and used in this evaluation. It is further indicated in the DEIS that the New York State Department of Transportation (NYSDOT) has been implementing a new program for recording and transferring accident data. Also, it is stated that the data provided will be supplemented with the most recently available incomplete data from the New York State system and that the additional data has been requested from the NYSDOT but has not yet been received. We recommend that the latest three-year period for which complete data is available be incorporated into the Final Environmental Impact Statement. We also suggest that Table No. 9-3, which is a summary of the June Road collisions that occurred during the above mentioned three-year period include a likely contributing factor, i.e., human behavior such as alcohol influence, driver inattention, failure to yield, excessive speed, etc. As such, it might give a better indication as to the probable cause of these accidents. Comment 9-17

5. Trip Generation and Distribution Estimates are found to be acceptable. However, of the 40% of the traffic that is anticipated to turn left out of the site, 30% turn left onto Fields Lane towards I-684. Some or all of this traffic may in fact turn right out of the site towards Hardscrabble Road then right again to access the I-684 interchange. The same may be true, but in the opposite direction, for the arrival traffic. Comment 9-18

   We suggest a sensitivity analysis be completed by reassigning the 30% from Fields Lane to Hardscrabble Road (both for arrivals and departures). The capacity analysis should be rerun with this alternate arrival/departure distribution for the AM and PM Build Peak Hour conditions.

6. On site circulation data has been provided and is found to be acceptable. Comment 9-19

7. A review of the intersection capacity analyses indicated that the truck factors at certain intersection locations and approaches are quite high, ranging between 13% Comment 9-20

and 41%. It is likely that this high value may reflect the high number of school buses in this area. However, we request a clarification be made as to the appropriateness of these high truck percent values. The analyses have been completed using recognized Traffic Engineering Standards and are acceptable.

Comment 9-20 Con't

8. A sight line evaluation has been completed and is acceptable.

Comment 9-21

9. It is indicated on Page 9-16, 3rd paragraph, "The primary construction route as well as the secondary routes *appear* to have adequate pavement to support the anticipated project construction traffic." Furthermore, it also states "Project construction traffic is not *expected* to result in damage or negative impacts on the local roads" (emphasis added). We suggest a more definitive evaluation be conducted. This might include, for example, a core sample of local roadways indicating the pavement structure that is available to support heavy construction vehicles.

Comment 9-22

LETTER # 17

MDRA

MATTHEW D. RUDIKOFF ASSOCIATES, INC.
Beacon Building
427 Main Street • Suite 201 • Beacon, New York 12508
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MEMORANDUM

TO: Town of North Salem Planning Board

FROM: Hilary Smith, AICP, Senior Planner
Joseph T. Bridges, PhD, Senior Biologist

DATE: July 30, 2008

RE: SALEM HUNT
DEIS SUBSTANTIVE REVIEW
June Road
Sheet 5, Block 1735, Lot 19
Our File NS07002

MATERIALS RECEIVED

- Draft Environmental Impact Statement (DEIS), Volumes I and II, May 20, 2008; and
- Draft Site Plans, Sheets 1 through 16, Insite Engineering, Surveying and Landscape Architecture, P.C., last dated May 7, 2008.

REVIEW COMMENTS

- **The following comments pertaining to the Salem Hunt DEIS. These comments are organized in a chapter by chapter format, with overall general project comments provided at the end.**

- **The FEIS should also address all comments received, including those provided at the SEQR Public Hearing and other public comments, comments of the Board's Consultants, as well as those of interested and involved agencies.**

- **An interim submittal should be provided which includes all of the comments classified by the pertinent chapter.**

DEIS SUBSTANTIVE REVIEW

Chapter 2 Description of Proposed Action

2-1. Tables 2.1 (and also 1.1) should be revised to include the required Stormwater Permit Plan Approval from the Town of North Salem Planning Board. Comment 2-40

2-2. The proposed action description should be revised to clarify that the ownership and maintenance responsibilities of the "community building" and "pool" will be private. Comment 2-1

2-3. Development of the easterly portion of the site is proposed to accommodate the planned subsurface septic system. References to "no development" being proposed for this area should be corrected. Comment 2-3

2-4. On Page 2-5 (and elsewhere), the text describes stonewalls and wetlands as to be "preserved." The text should be revised to provide a distinction between 'preserved' (which generally equates with permanent protections) and 'proposed to remain undisturbed.' Comment 2-28

2-5. The FEIS should describe the process / mechanism for handling any aspects of the construction process which will extend beyond the initial build-out (e.g., wetland mitigation monitoring, landscaping replacement / maintenance, etc). Comment 2-41

2-6. Reference to the "recently adopted Comprehensive Plan Update" on Page 2-7 should be deleted. Comment 2-5

2-7. With regard to "Construction Phasing," it should be clarified that all erosion and sedimentation controls will be in place prior to any site disturbance, including clearing or grubbing of vegetation. Comment 2-42

Chapter 3 Land Use and Zoning

3-1. Our understanding of the supplemental requirements for the RMF/4 District is that in order to have multiple residences located on a commonly-owned parcel controlled by an HOA, then all buildings must include at least three residential units each. Absent this, an amendment to the zoning code would be necessary. Comment 3-5

3-2. Development of manicured lawns and stormwater controls within Controlled Areas (buffers) is inconsistent with the intent and purposes of the Town's Master Plan and Wetlands and Watercourse Law, as well as the County's Master Plan: Patterns for Westchester. Each of these identify the need for naturally vegetated buffers to maintain wetland integrity. The site includes sufficient land area to avoid all Controlled Areas (wetlands and associated regulated 100-foot buffer areas), either by reducing unit sizes, reducing unit count or re-designing the current plan. ***Refer to related comments below, for more detail on the importance of maintaining adequate wetland buffer areas.*** Comment 6-109

3-3. The proposed "boulevard-style" entrance road's consistency with the neighborhood's prevailing rural character should be evaluated. Proposed changes to the site's June Road frontage with particular focus on the proposed site's access intersection should be further detailed and visually simulated/rendered. The materials presented should consistently address necessary clearing to achieve sight lines, the "boulevard-style" access and overall landscape treatment as viewed from the site's entrance. Commen 3-15

3-4. The current plan relies upon the need for multiple zoning area variances pertaining to lack of compliant building separation. The required minimum building separation standards were adopted by the Town Board only recently (2001) after a detailed and comprehensive land use and environmental impact analysis. The supplemental zoning bulk standard was specifically developed and adopted for the exact type of development proposed and was established to address issues of visual impact, appropriate scale and massing, unit owner privacy, natural lighting and safety. The DEIS should include a zoning compliant plan which does not require any such area variances for purposes of impact baseline and comparison. Such a plan should also not encroach into the protected Controlled Area as this also is not consistent with the Town's regulations and Comprehensive Plan. Comment 3-15

3-5. In the absence of a new Comprehensive Plan, the FEIS should discuss the proposed action's conformance with the prevailing Town Comprehensive Plan. Comment 3-6

3-6. The plans should be updated to show the locations for bridal trails as the applicant has proposed, and the evaluation updated to address related impacts accordingly (e.g., vegetation removal, proximity to residences, etc). An easement map and draft legal declaration should also be provided. Comment 3-7

3-7. Draft legal instruments should be provided pertaining to the following: Comment 3-8

- Condominium Association By Laws / Offering Plan;
- Conservation Easement; and
- Bridal trail easements (as noted above).

3-8. Accessibility for physically-challenged persons should be discussed, particularly for proposed MIH units and the common residential facilities. It would be appropriate for a certain percentage of the MIH units to include ADA access / measures. The FEIS should discuss the development's ability to accommodate handicap-accessible improvements should such features be needed by future occupants, including the potential feasibility for installation of screening of such accommodations (e.g., ramps). Commen 2-27

3-9. The footnote reference for the last sentence of the last paragraph on Page 3-1 should be deleted. Similarly, the footnote on Page 3-4 should also be deleted. Comment 3-9

3-10. Visual and noise impacts associated with the exterior air conditioning units should be identified and evaluated. Typical screening/landscaping measures should be proposed. Comment 8-26

3-11. Floor Plans should be provided. These should demonstrate that units can't be used / converted to 3-BR units. The floor plans should be evaluated in the context of the Town's definition of "bedroom" as set forth in §250-5 of the Zoning Law. Commen 3-10

3-12. The site development leaves little individual open lawn area for traditional outside residential activities (e.g., picnics/barbeques, graduation and other parties, community events, etc.) Commen 3-11

3-13. Consideration should be given to designing the cul-de-sac to serve as a stormwater management feature (e.g., no curbing, depressed and landscaped). Commen 6-106

3-14. The pedestrian features of the "walkable community" alternative should be incorporated into the proposed action and additional pedestrian amenities / improvements should be considered. For example: Commen 2-26 & 14-4

- A sidewalk connecting the three parking spaces near pool to the entrance.
- Separating the sidewalk along the main road from the roadway by pavers or landscaping.
- Connecting the units on the Road A cul-de-sac and along Road B to the common facilities.
- A single path through the wetland buffer / wetland area connecting to the adjacent Town lands. The location of the path should minimize disturbance and be as direct as feasible.

3-15. Formal documentation should be provided from NYSEG pertaining to the use and limitations/restrictions of its easement area, particularly with regard to the construction and maintenance of stormwater basins within said easement area. Comment 6-78

3-16. The FEIS should identify the permanent depth of water associated with the stormwater basins and for safety measures proposed as may be appropriate. Comment 6-107

Chapter 4 Vegetation and Wildlife

4-1. Biological Resource Identification (page 4.2)

a. The methodology employed for documenting biological resources of the project site is only vaguely described and appears to be limited to "multiple day biological surveys" conducted in April and May, 2006. The description should be expanded and the actual dates (and for bird surveys the daily/evening starting time and hours) on which all surveys were conducted (April, May and all subsequent surveys, which are inadequately documented) should be documented.

b. Since many flowering plants such as goldenrods, asters, sedges and members of the parsley family cannot be reliably or confidently identified until late summer or early fall, a number of plant species may not have been identifiable at the times site surveys were conducted. For example, while conducting an inspection of the proposed stormwater discharge line on the east side of June Road, several plant species were observed on the project site that are not included in the site flora list. Thus, the statement that a comprehensive list of all [site] flora has been provided is not supported. It is also likely

Comment 4-5

that some rare sedges (upland and/or wetland species) may have been missed. Additional field investigation at more appropriate times of the year appear warranted. ↑ Comment 4-5

4-2. The rationale ('because cover varied so much an estimate wasn't provided') for not providing an estimate of sub-canopy coverage of the shrub layer and the groundcover layer beneath the project site's wooded communities is unsubstantiated (page 4-5); notably, such cover estimates were provided in the Plot Analyses for trees outside proposed disturbed areas conducted in March, 2008. For vegetation analysis purposes, the DEIS should be revised to provide at least an estimate of cover for these layers during summer (July - August). Comment 4-6

4-3. The DEIS assessment (page 4-11) that Wetland A has "relatively low wetland functional value..." lacks substantive documented support. This wetland is a largely forested headwater tributary to NYSDEC Wetland L-32. As such, it is part of a wetland/watercourse landscape-scale biotic corridor for wetland/watercourse dependent wildlife that is connected and discharges to an extensive, largely undisturbed forested wetland system south of the project site. A portion of this intricate wetland system and associated undisturbed bordering forest also crosses the easterly end of the project site and continues into the Town of Southeast. The association of Wetland A with Wetlands B and C also enable wetland dependent fauna to travel across the westerly one-third of the project site in an unimpeded manner. The DEIS reports that green frog, pickerel frog, spring peeper and other amphibian species utilize Wetland A. It is also likely that turtles and numerous species of birds and some small mammals utilize this wildlife corridor such as wood turtle, box turtle, Louisiana water thrush, red-shouldered hawk, American woodcock, veery, wood thrush, American redstart, smoky shrew, masked shrew and star-nosed mole. Comment 4-7

While the DEIS acknowledges that Wetland A is part of "a narrow wet corridor" and that it "may provide a habitat connection" to off-site wetlands, the importance of Wetland A in providing this function is substantially under-assessed. Similar comments about the low functional value of Wetlands B and C also under-assess their importance in terms of landscape connectivity and wildlife use. The related DEIS evaluations pertaining to Wetlands A, B and C should be revised and expanded accordingly.

4-4. The DEIS (page 4-22) refers to "edge habitats" present between different "vegetative communities" that increase the complexity of habitat structure and the diversity of niches that wildlife species may exploit. More correctly, areas between distinct ecological communities should be referred to as *ecotones or transitional habitats between two ecological communities*. Comment 4-8

The DEIS also does not substantively recognize (or evaluate related impacts) resulting from forest fragmentation, which will occur as a result of the proposed action. The proposed action as planned will create appreciable "edge habitat" consisting of lawn and the large septic treatment area bordering remaining forest patches on the project site. These areas will favor undesirable wildlife "edge specialists" such as raccoons, skunks, opossum, which species are predatory on turtle and other reptile nests and, along with another edge specialist, brown-headed cowbird (a brood parasite), can locally decimate song bird nests.

The creation of such edge habitat and with the reduction of core areas within the project site's upland forest, patch habitats will be established which will facilitate forest invasion by undesirable wildlife that can seriously impact nesting birds and reptiles. The DEIS should be revised accordingly to address these unidentified and unmitigated impacts. Consideration should be given to reducing the amount of edge habitat (e.g., through project revisions, potential relocation of treatment facilities under parking areas, increased buffers, re-vegetation with native plant species other than lawn grasses, etc). Commen 4-8 Con't

4-5. The DEIS (page 4-24) states that the orchid (long-bract green orchis) found on the project site is "relatively non-selective in its habitat requirements..." However, the New York Flora Association and several other literature resources state that the habitat of this orchid is "*Rich mesic to wet-mesic forests and sometimes in seepages.*" While recorded for Westchester County, this species is vouchered in only about half of the State's 62 counties. If a specimen of this orchid was collected by the applicant, it should be made available to the Town for identification. However, based on the habitat description and location where this species was found on the project site, it is more likely that this orchid is the nonnative Eastern helleborine (*Epipactis helleborine*). Its habitat is described as: "*Mesic forests, roadsides, and disturbed soils sometimes in urban settings. Mostly grows in native sites and appears native.*" This latter orchid has been observed in ditches near the project site. Comment 4-9

4-6. According to the DEIS (page 4-26), tree-of-heaven, black locust and Norway maple are all noted as present within the project site. These invasive species favor areas of disturbed soils and edge areas, aspects which will be prevalent with construction of the proposed action as currently designed. As noted above, edge habitat and overall site disturbance should be minimized. Consideration should be given to implementing an invasive species monitoring and manual control program for the duration of construction and development of the project. It would be appropriate for such a program to be designed to carryover into the needed maintenance plans that will need to be developed and implemented by the proposed Homeowners' Association. Comment 4-10

4-7. The DEIS (page 4-28) states that the project site offers only moderate wildlife habitat value because it is not connected to significant offset [sic] sources. However, even only a casual inspection of Figure 3-2, Site on 2004 Aerial Photo, shows that the undisturbed forested condition of the property is part of an extensive area of forested land connecting the Eastern Westchester Biotic Corridor to the south-southeast of the project site to one of the Town's most extensive undeveloped forested areas to the west of the subject property. Comment 4-11

In addition, the presence of a reported pair of red-tailed hawks near a nest in the central area of the project site, observed American woodcock, sharp-shined hawk, an owl, two box turtles and numerous amphibians as reported in the DEIS, with potential habitat for a number of State-listed Special Concern species of birds that require extensive forest habitat to be present on the site, are reliable indications that the subject property possesses high habitat value.

Also understated in the DEIS is the potential impact on the project site's protected and most vulnerable species, including for example, eastern box turtle (State-listed Special Concern; Westchester County-listed Threatened) and American woodcock (Westchester County-listed Threatened with only one breeding record of this species reported for the County by the 2000 - 2005 Breeding Bird Survey). The potentially substantial project related impacts to these species

should be more thoroughly evaluated and mitigated (the related DEIS environmental setting, impact evaluation and mitigation aspects should be revised accordingly). Comment 4-11

4-8. According to the DEIS (page 4-29) eastern cottontail is said to have been observed directly or indirectly (tracks, droppings, etc.) on the project site. Since the New England cottontail, which looks nearly identical to the eastern cottontail and likely can't be confidently identified visually even by some experts, is being considered for Federal and possibly State listing as a threatened species, the applicant should explain how its identification of eastern cottontail and not the New England cottontail on the project site was determined. Comment 4-12

4-9. Habitat loss, road-kill/maiming and direct loss (burying or maiming) of adult turtles, nest sites and hatchlings likely pose the greatest impacts to the long-term welfare of the eastern box turtle in Westchester County, than does illegal collecting and pesticides as is stated in the DEIS (page 4-30). However, it is acknowledged that illegal collecting and pesticides along with ill-timed mowing [at least from the turtle's perspective], predation by raccoons and free-roaming dogs, fire and severe weather also adversely affect box turtles. All of these impacting elements are additive and pick away at the long-term stability of box turtle populations. The DEIS impact evaluation should be expanded accordingly. Comment 4-13

4-10. The DEIS's assessment (page 4-30) that stonewalls on the project site in the vicinity of Wetlands C and D could limit the movement of turtles is unfounded. Multiple literature references and past experience through multiple site studies indicate that when turtles encounter a barrier that blocks their direction of travel, they will invariably move along the length of the barrier until it can be turned where they will then continue in the direction they were initially heading. This movement pattern is particularly true for female turtles traveling to nesting sites. While the DEIS states that a box turtle home range can be as small as one (1) acre, it should be noted that it's home range may also be as large as 14 acres or more, depending on the surrounding landscape features and the distances turtles may be required to travel between wintering, feeding, aestivating, water sources and nesting areas. In short, box turtles could be moving across the entire project site. Further, there is no evidence provided in the DEIS that the sex and gravidity of the turtles were determined or that they were photographed to record each turtle's unique shell pattern. Doing so would have provided useful information about what areas of the project site they might be using, and if found again on the project site, how far and to where they had moved, or if turtles found later were new individuals. Comment 4-14

4-11. The statement included in the DEIS (page 4-48) that "Wetland D and the associated marsh headwater stream habitat will be permanently preserved in its existing condition, thereby not impacting potential hunting habitat for the Cooper's hawk..." ignores the general sensitivity of this species to human presence, the potential for window crashes of this species (particularly during the winter) and the fact that Wetland D and its associated buffer are not large enough to buffer the visual and noise impacts of the development that would assure that Cooper's hawks or other raptors and similarly sensitive wildlife would utilize the remaining vestiges of the project site's natural areas. An evaluation of the ability of the site to accommodate a reduced development footprint which maintains/preserves a substantially larger distances away from regulated wetland/watercourse buffer areas of the project site should be provided. Mitigation measures to increase the potential for sensitive wildlife to utilize remaining undisturbed areas of the project site should be considered. Comment 4-15

4-12. The statement included in the DEIS (page 4-51) that "Significant impacts to the eastern box turtle are not anticipated" has no merit and is unfounded because the extent of the use of the project site by box turtles has not been substantively determined (as it remains unknown). Given the extent of land clearing and grading proposed, development of the project site as currently planned, in the absence of knowledge about the size of the local turtle population and how turtles use the project site, poses a potential substantial impact to the local box turtle population which could further exacerbate what some turtle experts have referred to as a noncyclic population decline of the box turtle and the wood turtle populations in Westchester County. Box turtles take about 7-10 years to reach sexual maturity, and usually lay only about 4-7 eggs a year, so the loss of only a few female turtles can have serious, long-term repercussions on the sustainability of a local population. Moreover, raccoons, opossums and skunks, which are "development subsidized species," have been documented to exert a significant negative impact on the welfare of box turtles, their nest sites and their hatchlings. The proposed development may create and establish site conditions conducive to and for the increased establishment of such predatory species. Thus, the development as proposed has the potential to become a wildlife sink for species crossing it to connect to off-site areas to the west and south-southeast. In the absence of a qualified turtle specific study documenting movement and habitat use, consideration should be given to protecting larger areas of suitable habitat from proposed development, along with increased separation buffers between prime habitat and proposed development.

Comment 4-16

4-13. The DEIS assessment (page 4-52) that the project site's importance as a wildlife corridor to off-site habitats is "...limited due to the surrounding developed properties and roadways," lacks qualified substantive supporting analysis and documentation. Further, the statement that preservation of the wetlands and most of the wetlands buffers will allow wildlife to continue moving across the project site to off-site areas does not take into account that:

Comment 4-17

- The width of the wetland and related buffer areas may be too narrow for use by sensitive wildlife that avoid extensively developed areas.
- The Wetland D travel corridor will bottleneck at intersecting roads as a result of the proposed development.
- Roads and drives with curbs are potential death traps to turtles that wander onto them (as they cannot get off readily and may become overheated, struck by vehicles or move down the main driveway onto June Road.)
- Smaller wildlife may become trapped in storm drains, stormwater basins, open pits, tree and window wells, or be attacked by domestic animals.

The DEIS impact assessment should be revised accordingly and to provide consideration of potential mitigation measures intended to offset these impacts such as use of low-profile road curbs, avoidance for need of tree and window wells, cordoning off stormwater basins and open pits with appropriate fencing, use of narrow-hole storm grates that prevent small amphibian and reptile entrapment, etc.

4-14. The proposed action impacts to site regulated wetland/watercourse buffer areas, which will directly affect and remove an area in close to one (1) acre, have not been substantively mitigated as purported in the DEIS (page 4-53). The proposed action does not include any provisions of in-kind replacement elsewhere on the project site or any proposed buffer or wetland area enhancements to possibly improve or off-set the direct and secondary impacts which the proposed action will cause on the remaining areas of these resources areas. Furthermore, the proposed stormwater management measures, soil erosion and sediment controls, tree protection, anti-tracking aprons and dust suppression are required best management practices and are not considered as mitigation, certainly not wetland/buffer mitigation. The DEIS and proposed action development plan should be revised to provide specific mitigation for the extensive buffer area impacts; noting however, that a reduced and zoning compliant development footprint could be proposed which substantially avoids nearly all wetland buffer area impacts (except for needed site access). Comment 4-18

4-15. Given that the entire project site is potentially suitable habitat for box turtles for one or more purposes and since the movement patterns and use of the project site by box turtles remains unknown and undetermined, mitigation options to protect this species from adverse project impacts and effective monitoring and site development review is the domain of a professional conservation-oriented herpetologist, not a construction monitor and work crew as proposed in the DEIS (page 4-55). In addition to its listing by the NYSDEC as a special concern species, the NYSDEC has also listed the box turtle as a game species with no open season. As such, it is a State protected species which may not be hunted, taken, pursued, collected, harassed, etc., without a special permit or license. Only a properly licensed biologist or properly trained person working under the supervision and license of that biologist is allowed to handle State protected wildlife. The DEIS should be revised to include a pre-construction, construction and post-construction reptile protection plan for the proposed action (with emphasis on the box turtle), prepared and implemented by a professional herpetologist. Comment 4-19

4-16. The proposed mitigation described in the DEIS (page 4-56) to offset impacts to ground-nesting and other species of nesting birds should be expanded. For example, the septic treatment area could be planted as a native low-growing shrub thicket of gray dogwood (*Cornus foemina*) which would provide cover and forage for a number of shrub thicket birds, and further buffer proposed development near Wetland D. Maintaining the septic area as a mown grassland poses potential harm to ground nesting birds and reptiles and will function adversely as a wildlife sink. Comment 4-20

4-17. Planting berry trees and cover trees primarily for landscaping and secondarily for wildlife use, is a mixed concern (page 4-57). Making cover and food resources available to birds (including bird feeders) and small mammals close to residences with domestic pets may support wildlife but they also function as a wildlife sink in terms of increased predation by pets, and window and vehicle collisions. Considerations should be given to developing a smaller project and planting native berry and cover trees and shrubs closer to the outer boundary of proposed development well away from residences, roadways and parking areas. Comment 4-21

Chapter 5 Groundwater

5-1. The proposed community septic system is land-intensive and results in several adverse impacts, including:

Comment 5-21

- Loss of approximately 9 acres of wooded habitat immediately adjacent to a NYS-regulated wetland and associated 100-foot Adjacent Area, which areas may currently be utilized by box turtles and other notable species.
- Conversion of forested lands into maintained grassed areas which will provide habitat for problematic wildlife, including Canada geese.
- The system does not provide the maximum level of available pre-treatment options.

It is our understanding that treatment of the effluent to a tertiary level would allow for treated effluent to be discharged below pavement areas. The change in disturbance, vegetation removal, habitat conversion and water quality that could be achieved with such a plan (or achieved by other measures) should be evaluated.

5-2. Limitations of the pumping test analysis regarding potential impacts on the nearby school well has not been included in the analysis and should be. Also, alternative methods to evaluate any potential impacts to the school's well should be proposed and implemented.

Comment 5-22

5-3. If the demand on the Town's wells is not currently coincident with the permitted maximum withdrawal, what impacts, if any, could be anticipated when both the Town's wells and Salem Hunt's wells are operating at full demand (maximum withdrawal)?

Comment 5-23

5-4. The DEIS should detail a plan / mechanism which is formally proposed to address the potential for project-related impacts on adjacent water supplies. The plan should include:

Comment 5-24

- How impacts will be identified;
- How will impacts be remedied;
- Timeframes for obligations;
- Who will bear the cost for remedies (noting that the plan should be set up so that any costs are not borne by the future homeowners); and
- Provisions for reporting to / coordinating with the Planning Board.

5-5. Low Impact Development (LID) stormwater techniques recommend eliminating curbs and allowing for stormwater to be pitched into grass swales which direct stormwater to landscaped depressions ("rain gardens") instead of piping to a central collection point (the basins). Such measures can reduce the volume of runoff needing to be handled by the stormwater basins which can reduce the extent of land needed for such features, and have a consequent reduction in related impacts (e.g., loss of forest, wildlife habitat, ineffective natural site buffering, etc). The use of LID stormwater techniques should be evaluated and appropriate measures should be incorporated into the project plans.

Comment 5-25

5-6. A reporting mechanism to the Town should be detailed to ensure the long-term monitoring, maintenance and operation of the stormwater management controls, in accordance with Code Chapter 193. Comment 5-26

5-7. It is unclear if the proposed "storm filter" near June Road addresses the County DOT's comments to provide drywells. Comment 5-27

Chapter 6 Wetlands/Watercourses and Buffers

6-1. The reference in the DEIS (pages 6-6, 6-7) to a "surface water quality sampling and analysis protocol to be developed for the proposed action in order to establish a baseline of project site water quality" states that same will be implemented in coordination with the Town of North Salem Consulting Engineer and the Town's Wetland Inspector. However, our office is not aware of any such protocol being submitted. Furthermore, the water quality data presented in DEIS Table 6-2, Salem Hunt Existing Surface Water Quality, represent but only a single date of surface water sampling conducted on August 29, 2007. There is no mention of that fact in the text, nor is there any indication of the conditions under which samples were collected (i.e., was it raining or dry; when did it rain last; what was the stream depth; and was it higher or lower than its mean high water elevation?). There is also no indication of the number of samples/per parameter that need to be collected in order to provide a mean and standard deviation as an acceptable measure of central tendency of extant water quality conditions. This level of data is important if it is to be compared with the results of any necessary post-construction sampling to detect any statistically significant departure from baseline results that may or may not be attributable to project site related activities. Comment 6-31

Although the surface water quality data are limited, there is no evident attempt in the DEIS to set the results in perspective (are the values high, low or typical of streams in this part of the Town or region?); nor any discussion of the limitations of the data or what amount data would be needed to adequately assess baseline water quality conditions. The DEIS related analysis should be revised and expanded accordingly to more completely and appropriately evaluate water quality conditions and impacts.

6-2. The DEIS (page 6-12) incorrectly states that "The proposed action does not include the disturbance of any wetlands, watercourse or other surface water resources on or off the project site." Plan Sheet SP-3.1, Grading and Utility Plan East, clearly shows a proposed stormwater drain pipe extending for approximately 250 linear feet along the easterly side of June Road, with an outlet discharging to a stream in NYSDEC Wetland L-32. A review of this area indicates that a portion of the Town and DEC regulated wetland will be disturbed by the pipe line and that the entire length of the pipe is within the regulated wetland buffer zone. Also, given the proximity of site wetlands to the proposed project site entrance road, it is likely that some direct impacts to Wetland D will occur, irrespective of what is shown on the project plans, as additional placement of fill for a stable sub-road grade at the entrance road may be required. Comment 6-32

All contrary statements in the DEIS regarding the above should be revised; and appropriate impact evaluation and mitigation should be added accordingly.

6-3. DEIS Table 6-6 (page 6-15) needs to be revised to address the unaccounted wetland disturbances as discussed herein. Comment 6-33

6-4. Potential impacts to wetlands from concentrated pollutants (accumulated in stormwater basins) should be identified and mitigated. Comment 6-34

6-5. Locations for snow storage should be identified and any potential impacts related thereto evaluated and appropriate mitigation proposed. Comment 6-35

Chapter 7 Geology, Soils and Topography

7-1. Delete the statement on Page 7-10 that the "proposed project does not include the use of retaining walls" as this is inconsistent with the current site plan. The retaining walls are necessary because of the concentrated development and proximity of units. The impact analysis should be expanded to justify the need for retaining walls. Comment 7-2

Chapter 8 Cultural Resources

8-1. Placement of stormwater management provisions within required yard areas leaves portions of the site with limited to no natural buffering from adjacent residentially-developed properties, and leaves minimal room for planting. The evaluation of impacts to adjacent land uses to the north of the project site, particularly with regard to remaining natural buffers, proposed landscape buffers and lighting should be expanded to include quantitative and qualitative information and should be supported by additional plans/sections/exhibits as appropriate. The impact analysis and mitigation measures should take into consideration "leaf-off" conditions. Comment 8-9

8-2. The last paragraph on Page 8-8 discusses the vegetative buffers "to the east and west." Because of the site's limited suitable development area to accommodate the number of units and the layout proposed, disturbance occurs right up to the property line in several locations. As such, the analysis should be expanded to address related impacts (and proposed mitigation) to the adjacent properties to the north and south. Comment 8-11

8-3. Proposed landscape buffer areas should involve a dense mix of staggered evergreens. White pine is not a long-term effective screening species and should be replaced. Screening (landscaping or fencing) should be proposed between the site's northerly stormwater basins and the property line. Comment 8-27

8-4. The proposed light fixture is a standard colonial-like design which is attractive but the selected fixture is not fully shielded and therefore contributes to horizontal and overhead sky glow and light pollution. These (both street and building-mounted) should be replaced with a similar style consistent with the rural residential character but which achieves full shielding, is downward directed and does not include lenses, glass globes or bulbs which protrude below the lighting fixture's housing, or which emit light horizontally. Comment 8-6

8-5. In general, less lighting should be provided. Specific recommendations include: Comment 8-2

- The proposed 14 foot high standard is too tall; a lower height should be utilized throughout the site (10 feet should be adequate).
- The linear placement of street lighting along the entrance roadway should be eliminated. Roadway lighting should be limited to intersections and to areas where visitors utilizing the visitor parking spaces may cross the roadways.
- Lighting for common areas should be specific to the use and frequency.
- Limitations should be proposed (e.g, restricted hours, timers, motion detectors, etc).

8-6. It is unclear if the proposed grading has been incorporated into the Visual Impact Analysis. The proposed finished grade elevation should be discussed along with the proposed elevation of the finished buildings in comparison with the elevation of the areas evaluated. Comment 8-18

8-7. Additional information should be provided to document the project's potential nighttime impacts. Comment 8-10

8-8. The Phase I Report should be revised based on comments of the Town Landmark and Historic Preservation Commission / Town Historian, and updated impact evaluations provided as may be appropriate. Specifically, the location of the project site on the historical maps should be reviewed for accuracy and revised accordingly, and the potential impacts to historic resources in the adjacent Town of Southeast identified and evaluated. Comment 8-22

8-9. It is unclear if the Phase IA and IB investigations / conclusions have been provided to OPRHP and if there are any further comments from that agency (noting that any further testing recommendations should be coordinated with the Planning Board). Comment 8-25

Chapter 9 Traffic and Transportation

9-1. On-site turning radii graphics for vehicles exiting garages / secondary parking spaces uses a "passenger vehicle." However, in this area many people drive much larger vehicles, including full-size pick up trucks and SUVs. Appropriate turning radii for these vehicles should be demonstrated. Comment 9-23

9-2. It is expected that the site's entrance will serve as the designated school bus stop for residents of Salem Hunt. Even though the location will be easily walkable for residents, it should be expected that care givers will be waiting for the bus in vehicles - either because of younger children or inclement weather. Consideration should be given to incorporating related site planning measures (e.g., provide for queuing of vehicles, a bus stop shelter, etc). Comment 9-24

Chapter 10 Utilities

10-1. Refer to related comments under the heading ***Chapter 5, Groundwater*** above.

Chapter 11 Community Facilities and Services

11-1. An evaluation of the feasibility of providing on-site recreational lands in accordance with the requirements set forth in §200-32 of the Land Subdivision Regulations should be detailed. Comment 11-2

11-2. The municipal services which are included in the per capita municipal cost of approximately $797 should be explained. Comment 11-16

11-3. No mitigation measures are proposed for the negative fiscal implications of the proposed new development on the Town's general tax budget. According to the DEIS, the proposed Salem Hunt development will cost the Town approximately $45,378 yearly (at the 2005 budget and costs) to provide municipal services to the new residents. Comment 11-14

11-4. The anticipated demographics of the proposed new community's residents should be detailed to assist the Planning Board in evaluating the recreational (and other needs/demands) generated by the proposed development. Comment 11-6

11-5. Address details of the Fire Departments requests / concerns, specifically:

- Show the locations for the proposed underground water tanks and provide a related construction detail. Comment 11-17
- Clarify if there will be any hydrants for draining the domestic water and if so, show their locations and provide a detail / notes indicating that these will be turned inward and clearly identified as not for firefighting use.
- Provide information on maintenance, including inspections, responsible party and reporting provisions.
- Provide a draft legal instrument permitting the fire department to access and utilize the on-site tanks for off-site fire-fighting.

11-6. The location of the proposed underground propane tanks seems to limit potential access locations for firefighting equipment to reach the rear of the buildings. The lack of access is compounded by the non-complying building separation distances in several locations. Comment 11-18

11-7. Documentation should be provided to support the number, size and location of planned refuse collection facilities. Refuse collection areas should be integrated into the site plan with cohesive architectural style / materials and should be designed so that receptacles are fully enclosed to avoid garbage escaping from underneath or above the containment structure. Appropriate access to these facilities for pick-up should be demonstrated. Comment 11-20

11-8. If central mail facilities are anticipated, their location and design detail should be provided. Comment 11-21

GENERAL SITE PLANNING COMMENTS

1. The scale of the proposed action development (compounded by the proposed requests for multiple waivers, areas variances and encroachments into protected sensitive resource areas and resulting impacts on protected wildlife species) does not match the site's suitability or feasibility for such development in consideration of the extent of natural resources that will be directly removed or modified, and become subject to secondary development impacts (few of which have been properly evaluated as noted above), with little or no meaningful mitigation offered to offset the proposed impacts. Comment 4-22

   Virtually all of the site's upland habitats will be removed/usurped, altered or subject to potential secondary impacts by the proposed action. The type and breadth/intensity of development proposed on the project site will irreversibly alter the microclimate of the property and extensively fragment an important, relatively intact hardwood forest corridor which borders the easterly and southerly boundaries of the Eastern Westchester Biotic Corridor (Miller and Klemens 2002). As shown on Figure 3-2, Site on 2004 Aerial Photo, the undisturbed forested condition of the property forms a critical link for forest dependent wildlife between the Eastern Westchester Biotic Corridor to the south-southeast and one of the Town's most extensive undeveloped forested areas of the Town to the west.

   The perspective of the DEIS appears to be that stormwater basins, the septic system and the wetlands and their buffers take up most of the unconstrained developable areas for roads and buildings, and therefore encroachment into buffers is unavoidable. The DEIS perspective of mitigation appears to be that the project will disturb only limited areas of regulated wetland/watercourse buffer and that best management practices for development (which are mandatory), such as soil and erosion controls, SWPPP, IPM plan, tree protection and landscaping (largely serving residence aesthetics and buyer appeal) are appropriate mitigation offerings for the extent of forest removal, direct wetland buffer impacts and likely substantial indirect wetland and wetland buffer impacts resulting from construction and land use maintenance of the proposed action. Interestingly, the proposed removal of 0.48 acre of wetland buffer in one part of the project site is expressed as a "minor encroachment." The alternative of a smaller project that would avoid nearly all wetland buffer impacts, site development further away from the edge of wetland buffers and thereby greatly reduce the potential for secondary wetland and wetland buffer impacts, is not evaluated or considered. Comment 6-36

   Project design changes / mitigation measures should be considered (e.g., minimize development plan disturbance intensity, impervious surface footprint, increase separation/actual avoidance from site wetland/watercourse buffer areas to reduce direct and indirect secondary impacts; in-kind resource replacement and/or enhancements; larger intact forest and buffer areas; no-net-loss of wetland buffer functions; etc).

2. As development throughout the Town proceeds, it becomes increasingly important to maintain large intact natural areas of sustainable biodiversity in order to protect the long-term integrity of the Town's natural resources. Such areas (referred to as biodiversity hubs) encompass hundreds of acres of largely unfragmented natural ecological communities, possess a high interior area to perimeter ratio (limited "edge") and a deep central core area remote from human perturbation. Comment 4-23

Equally important is the preservation of broad undeveloped wildlife corridors in the form of intact forests, grasslands, shrublands and stream/wetland/floodplain complexes, which connect biodiversity hubs to one another across the landscape. Wildlife corridors enable plants and animals to disperse throughout the regional landscape in search of new food resources, find mates and allow for the dispersal of new offspring. The subject property, particularly its areas of forest and regulated wetlands and buffers are representative resources of biodiversity importance within the Town.

Commen 4-23

As such, it is important to avoid these areas to the maximum extent practicable and to enhance where possible these minimum regulatory buffers through project mitigation measures, such as by:

- Minimization of forest loss and fragmentation.
- Avoidance of regulatory buffers.
- Provision for increased buffers, particularly relating to the site's steep slopes with highly erodible soils poised above wetlands such as the extensive Charlton soils (ChD soils; some areas of the site with this soil have slopes greater than 25%) located within the regulated buffer of Wetland D.
- Densification of vegetation and edge areas where proposed development encroaches upon or approaches these buffers.

3. The protection through avoidance and impact minimization of the site's regulated wetland/watercourse buffers is an important design focus missing from the proposed action development plan. The essential purpose of establishing wetland/watercourse buffer zones is to protect core areas of wetland/watercourse habitat and the multiple functions and benefits they provide, and to maintain an undisturbed transitional habitat (the buffer zone) between wetland and upland communities. In fact, in a number of situations wetland/watercourse buffer areas may be as important if not more important than the wetland/watercourses they bound. Wetland/watercourse buffer areas can function as wildlife corridors, provide wetland ingress-egress areas and transitional habitats for semi-aquatic wildlife, serve as a visual and noise barrier, ameliorate harsh climatic conditions (wind, excessive heat and dryness), absorb and renovate runoff water quality, remove and break down toxicants, and intercept sediment, bacteria and viruses that might otherwise enter and degrade wetlands and downstream water quality. In fact, there is abundant scientific study and documentation supporting that in many instances 100 feet is just inadequate to accomplish buffer objectives (Hagerdorn 1984, Hagerdorn et al 1978, Keswick and Gerba 1980, and numerous reports by others). More effective buffer zone widths need to be determined on a site specific basis taking into consideration such factors as vegetative cover, slope, soil type, and physical and chemical attributes of soils.

Comment 6-37

Given the acreage of the subject property, there does not appear to be any documented justification for the proposed development activities (including grading and stormwater management activities) within the Town's minimum regulated wetland/watercourse buffer areas, except for site access which has few if any options absent an easement over adjacent property or the addition of more land to the subject property. The proposed site development plan should be revised to avoid all local regulatory wetlands and buffers except for the minimal disturbance necessary to provide a safe and compliant site access driveway.

Comment 6-38

4. Too often, the impacts of development on natural areas are perceived solely as a "loss of vegetation and associated wildlife habitat" which is limited to the affected area, with no consideration of secondary effects of development on wildlife (as noted below) that extend well beyond the "limits of disturbance" line shown on the proposed development plan. Comment 4-24

   These secondary effects of development in turn also result in adverse environmental impacts upon biodiversity hubs and wildlife corridors in several ways, as follows:

   - Alteration and conversion, and removal and loss of habitat and biodiversity connections.
   - Alteration of microclimate through increased heat sink by development footprint also resulting in adverse drier and warmer forest conditions.
   - Establishment of less desirable and less diverse habitat edge conditions, promoting and encouraging the establishment and proliferation of non-native and weed species and wildlife that adversely affects the welfare of more sensitive, prized wildlife. For example, roads cut through a forest enable brown-headed cowbirds to invade the forest interior and to lay its eggs in the nests of valued species of warblers thereby reducing their nesting success.
   - Wildlife mortality increases with development, particularly due to roadways and due to increased predation by wild and domestic animals.
   - Disorientation of some wildlife occurs due to introduction of increased artificial illumination of streets, driveways, houses and parking areas.
   - Increased loss of wildlife through window crashes, pool drowning, window and tree well entrapment, entanglement with plastic materials and pesticide poisoning.
   - Restriction and/or loss in the natural movement patterns and trails of wildlife resulting in wildlife sinks or "death traps" for sensitive wildlife attempting to travel their familiar, long-used routes across the landscape.
   - Fragmentation of extensive forested wildlife corridor.

   An evaluation of secondary effects (impacts), such as noted above, have been substantively evaluated in the DEIS, nor has any related mitigation been discussed or proposed.

5. The extent of development proposed within and to the very edge of the site's wetland buffers may be unprecedented in the Town. The total proposed aerial impact to regulated buffers exceeds one (1) acre (with the proposed encroachments into the regulated buffer varying from 20 to 70 feet over a total linear distance of 430 feet). In addition, proposed development is planned to extend right-up to the very edge of approximately ninety (90%) percent of the entire boundary of the wetland/watercourse resources of the subject property. Comment 6-39

   This close proximity will result in increased potential for primary and secondary adverse environmental impacts, including:

   - Damage and loss to buffer trees and other vegetation during tree felling at or near the buffer boundary.
   - Uncontrolled long-term soil erosion and sediment dispersal into the buffer.
   - Increased potential for the spread of weedy species into the buffer.
   - Alteration of microclimatic conditions due to vegetation removal within and at the boundary of buffers. Buffer areas will become warmer, drier and subject to stronger

wind and potential tree throw.

- The density of development proposed will make not only the developed areas, but also the limited remaining upland wetland/watercourse buffers and associated wetlands/watercourses less likely to be used by wildlife sensitive to human presence and activities.
- Substantial impacts to hydrologically connected off-site wetlands/watercourse and associated buffers are also possible, including stream warming, streambank and streambed erosion and sedimentation due to sediment-laden stormwater discharges and eutrophication due to increased nutrient discharges.

Comment 6-39 con't

The DEIS should substantively evaluate these impacts and propose mitigation measures intended to minimize or otherwise address these impacts.

cc: Dawn Onufrik, Planning Board Secretary
Roland Baroni, Town Attorney
Frank Annunziata, Planning Board Consulting Engineer
Peter Rusillo, Town Traffic Consultant
Russell Urban-Mead, Town Hydrogeology Consultant

LETTER # 18

New York State Department of Environmental Conservation
Region 3, Division of Environmental Permits
21 South Putt Corners Road, New Paltz, NY 12561-1696
(845) 256-3000 FAX (845) 255-4659
Website: www.dec.ny.gov

Alexander B. Grannis
Commissioner

July 30, 2008

Dawn Onufrick, Secretary
Town of North Salem Planning Board
Lobdell House
270 Titicus Road
North Salem, New York 10560

RE: DEIS Public Comment Period - Salem Hunt Residential Development
DEC Pre-Application No. 3-5540-00094/00001
Town of North Salem, Westchester County

Dear Ms. Onufrick:

We have reviewed the Draft Environmental Impact Statement (DEIS) for the above project prepared by Tim Miller Associates, Inc., for the lead agency, Town of North Salem Planning Board, and received May 27, 2008. We understand that the public comment period was extended to July 30, 2008. As indicated in circulated materials, the Salem Hunt Development involves the construction of 65 residential units (condominiums) within 24 buildings on a 40 acre site, including the following project components:

- community center with swimming pool;
- development of potable water supply and distribution system;
- construction of community subsurface wastewater disposal system;
- paved internal roadways and infrastructure; and
- stormwater management facilities.

Based upon our review of the circulated DEIS, we offer the following comments:

- **Freshwater Wetlands (Article 24)** -
The project site contains a portion of NYS protected Freshwater Wetland LC-32 (Class II) as shown in circulated documents. Any work or disturbance proposed within this wetland or its 100 foot adjacent area requires a permit from DEC. Please note that plans circulated with the DEIS did not contain the required Wetland Boundary Validation Block (attached), which must be signed by DEC Bureau of Habitat staff. Comment 6-40

- **Water Supply (Article 15, Title 15)** -
The applicant will be required to obtain a water supply permit for the formation of a new water district and the construction of a public water supply and distribution system. Comment 5-28

- **State Pollutant Discharge Elimination System (Article 17)** -
A. The proposed wastewater discharge to groundwater requires a SPDES (sanitary discharge) permit (although not discussed in the DEIS), as water usage for this project is noted to be Comment 5-29

"20,500 gpd". Also, if construction of the project results in more than one separately owned property (i.e., the 65 proposed individually owned condominiums), the sponsor will be required to form a sewage disposal corporation pursuant to Article 10 of the NYS Transportation Corporation Law. This sewage works corporation, or other suitable entity, must be in place before a SPDES permit can be issued. The FEIS must address this additional DEC jurisdiction.

B. Stormwater discharges resulting from construction activities that disturb one or more acres must comply with the SPDES Stormwater General Permit (Stormwater Discharges from Construction Activities, GP-0-08-001). As the proposal will disturb approximately 21.1 acres, a Stormwater Pollution Prevention Plan (SWPPP) must be submitted along with other permit applications for concurrent review by DEC. Authorization for coverage under the SPDES general permit is not granted until approval of the SWPPP and issuance of other necessary DEC permits.

Comment 5-29 cont

By copy of this letter, DEC is advising project representatives of the need for the above permits, especially the need for a SPDES permit for the subsurface discharge of wastewater. It is possible that the DEC permit requirements noted above may change based upon additional information received or as project modifications occur. Questions pertaining to the Department's jurisdiction or related matters should be directed to the undersigned at (845) 256-3055.

Comment 6-113

Sincerely,

Scott Ballard
Environmental Analyst

Attachment: Wetland Boundary Validation Block

cc w/o attachments: W. Balter - Wilder Balter Partners, Inc.
J. Dahlgren - Tim Miller Assoc., Inc.

New York State Department of Environmental Conservation
21 South Putt Corners Rd., New Paltz, NY 12561-1620
Telephone: (845) 256-3054 • FAX: (845) 255-4659
Website: www.dec.ny.gov

DELINEATING AND SURVEYING FRESHWATER WETLAND BOUNDARIES

1. The purpose of the delineation of freshwater wetland boundaries is to provide a precise identification of the regulated wetland boundary and its 100 foot adjacent area in order to aid in the planning and design of projects which may affect the wetland resource.

2. New York State regulated freshwater wetlands may be delineated by qualified consultants. However, for a delineation to be official (e.g., for use in permit applications), it must be validated by Department of Environmental Conservation (DEC) staff. For more information, contact the appropriate staff, as follows:

(845) 256-2227	Jim Pinheiro	Dutchess & Westchester
(845) 256-3057	Doug Gaugler	Orange & Sullivan
(845) 256-3091	Brian Drumm	Putnam, Rockland & Ulster

3. In general, DEC requires that sponsors of development projects retain licensed engineers or surveyors to accurately plot the delineated wetland boundary on project plans. However, such surveys may not be needed for very small projects, inquiries of a general nature, or certain land sales.

4. Surveys and development plans for DEC permit applications must include the following validation block:

NYSDEC FRESHWATER WETLAND BOUNDARY VALIDATION

The freshwater wetland boundary as represented on those plans accurately depicts the limits of Freshwater Wetland _____ as delineated by _____ on _____.

DEC Staff:_____ Surveyor/Engineer:_____

Date:_____ SEAL

Wetland boundary delineations as validated by the New York State Department of Environmental Conservation remain valid for 10 years unless existing exempt activities, area hydrology, or land use practices change (e.g., agricultural to residential). **After 10 years the boundary must be revalidated by DEC staff.** Revalidation may include a new delineation and survey of the wetland boundary.

Any proposed construction, grading, filling, excavating, clearing or other regulated activity in the freshwater wetland or within 100 feet of the wetland boundary as depicted on this plan requires a permit from the NYS Department of Environmental Conservation under Article 24 of the Environmental Conservation Law (Freshwater Wetlands Act) prior to commencement of work.

5. In addition to the accurate identification of the freshwater wetland boundary, the limit of the 100 foot adjacent area must also be plotted on development plans and survey.

6. Copies of plans or surveys containing the boundary delineation and validation block must be submitted to the appropriate DEC staff person as listed above in item #2 for validation and original signature before applying for a DEC permit. One copy will be retained by DEC as a file copy. **The signature and seal of the surveyor/engineer must be present prior to requesting DEC validation.**

LETTER # 19

Comments of the Office of the
Watershed Inspector General
July 30, 2008

Draft Environmental Impact Statement
Salem Hunt Site Development Plan
Town of North Salem
Westchester County, New York

The Office of the Watershed Inspector General ("WIG" or "WIG Office")[1] respectfully submits these comments on the draft environmental impact statement ("DEIS" or "Draft EIS") concerning the proposed Salem Hunt Site Development Plan ("Salem Hunt" or "the Project"). The proposed residential development would discharge into the drainage basin of New York City's Muscoot Reservoir, part of the City's Croton system which typically provides drinking water to almost one million New Yorkers each day.

I. Summary

The WIG submits these comments because it is concerned about the water pollution impacts the Salem Hunt project, in its current form, would have on the Muscoot Reservoir and its drainage basin. The WIG Office does not oppose Salem Hunt. Rather, by these comments WIG seeks reasonable and feasible modifications to the Project to eliminate its proposed increased discharges of phosphorus pollution in stormwater, and ensure compliance with the federal Clean Water Act, New York's water pollution control law, and the State Environmental Quality Review Act ("SEQRA").

Comment 6-41

As discussed below and in the attached Technical Appendix A, the Project's current plans for addressing water pollution from the development are inadequate. The Muscoot Reservoir is already heavily polluted by phosphorus and the Project, in its current form, would likely contribute to and exacerbate the problem. See Points V.A, V.B below; Technical Appendis A, pp. 1-10. Phosphorus pollution into a public drinking water supply, such as the Muscoot Reservoir, exposes people who drink the water to increased health risks while also impairing the taste, color, and odor of the water.

In addition to better addressing stormwater pollution, the Project sponsor should: (1)

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[1] The position of WIG was established by Executive Order No. 86 on August 19, 1998, and continued in accordance with Executive Order No. 5 on January 1, 2007. See 9 NYCRR §§ 5.86, 6.5. Pursuant to these Executive Orders, the WIG's purpose is "to enhance current efforts to protect the New York City drinking water supply from activities that have the potential to adversely affect the New York City Watershed reservoirs and tributaries." See id., § 5.86. The WIG is a joint appointee of the Governor and Attorney General within the employ of the Attorney General. The comments herein express the views of the WIG and not those of any State agency that may now or later be represented by the Attorney General in this matter or in any related matter.

prepare a supplemental DEIS to address wastewater treatment at the site and ensure that the public is afforded an opportunity to comment on that environmental review, (2) modify the project design to eliminate construction in wetland buffer areas, and (3) improve integrated pest management practices at the site.

Comment 6-41 con't

II. Salem Hunt

The 40-acre project site is located in the northeastern portion of the Town of North Salem. The northern property boundary separates the Towns of North Salem in Westchester County and Southeast in Putnam County. Currently, the site is mostly wooded land with no structures, stone walls, four regulated wetlands, and an unnamed New York State Department of Environmental Conservation ("DEC") Class "C" Watercourse. The proposed project will include 24 residential buildings with two or three condominium units in each building for a total of 65 two-bedroom residential units. In addition, a separate community center building with a swimming pool is proposed. Approximately one half of the project site would be left as open space, in part occupied by regulated wetlands and their associated 100 foot buffer areas, stormwater basins, and a subsurface sanitary treatment system.

Most of the project site currently is wooded, undeveloped land which generates minimal pollution in stormwater runoff. According to the DEIS, development of the project site will result in the disturbance of approximately 20.2 acres of land during construction and creation of 6 acres of new impervious surfaces.

III. The Muscoot Reservoir

The proposed Project is located entirely within the drainage basin of the Muscoot Reservoir; accordingly, stormwater runoff from the Project site will drain to that Reservoir. The Muscoot Reservoir is part of the Croton system of the New York City Watershed, which ordinarily supplies ten to thirty percent of the water consumed by 9 million residents of New York City and other communities each day. Friends of Van Cortlandt Park v. City of N.Y., 95 N.Y. 623, 626 (2001). Water from the Muscoot flows directly into the City's New Croton Reservoir, is disinfected with chlorine, and then is distributed to consumers through a system of pipes.[2]

Pursuant to ECL § 17-0301, DEC has promulgated water quality standards for the Muscoot Reservoir, designating it a Class A water body. 6 N.Y.C.R.R. § 864.6. Class A waters are intended to be used as "a source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing." 6 N.Y.C.R.R. § 701.6(a). DEC water-quality standards prohibit discharges of pollutants into the Muscoot Reservoir "in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages." 6 N.Y.C.R.R. § 703.2. These standards also prohibit discharges into the reservoir

[2] New York State Attorney General's Office, "Reducing Harmful Phosphorus Pollution in the New York City Reservoirs Through the Clean Water Act's 'Total Maximum Daily Load' Program," July 5, 2000, at 6.

of "[t]aste-, color-, and odor-producing, toxic and other deleterious substances . . . in amounts that will adversely affect the taste, color or odor thereof, or impair the waters for their best usages." Id.

A. Phosphorus Pollution

The Muscoot, like other reservoirs within the New York City Watershed, is "eutrophic," having excessive algae growth because of discharges of the pollutant phosphorus into the reservoir.[3] Excessive algae growth impairs the taste and odor of reservoir water and depletes levels of dissolved oxygen in the reservoir's bottom waters, impairing aquatic life and releasing metals into the water.[4] Eutrophic conditions also result in increased levels of organic carbon in the water.[5] When the water is then treated with chlorine before its distribution to consumers, "disinfection byproducts" are formed.[6] The disinfection byproducts expose people drinking the water to an increased risk of cancer and early-term miscarriages.[7] In addition, the increased material suspended in the water resulting from phosphorus-induced algae blooms, can interfere with the effectiveness of chlorination and help to transport waterborne pathogens to water consumers.

As a result of the phosphorus pollution in the Muscoot, the reservoir fails to comply with water quality guidelines and standards established by DEC pursuant to State law and the federal Clean Water Act, 33 U.S.C. § 1251 et seq. The Muscoot's drainage basin is a "phosphorus restricted basin" because phosphorus concentrations exceed DEC guidelines. See 10 NYCRR §§ 128-1.6(a)(80), 4.1(c)).

The sources of the phosphorus pollution include upstream wastewater treatment plants and other point sources (including stormwater runoff discharged from municipal storm sewer pipes) and non-channelized stormwater runoff.[8] The development project at issue in this case lies within the Muscoot Reservoir's drainage basin; stormwater runoff from that development would discharge into the Muscoot Reservoir via an unnamed tributary which flows through the site and eventually into Holly Stream.

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[3] New York City Department of Environmental Protection, "Proposed Phase II Phosphorus TMDL Calculations for Muscoot Reservoir," March 1999 (DEP Muscoot Report), at 2-3, 14.

[4] DEP Muscoot Report, at 2; see Nat'l Research Council, Watershed Management for Potable Water Supply: Assessing the New York City Strategy, at 106-07 (2000) (hereinafter NRC Study).

[5] See NRC Study, supra, at 2.

[6] DEP Muscoot Report, at 2. See NRC Study, supra, at 5

[7] See NRC Study, supra, at 2, 5-6, 102-05, 109.

[8] See DEP Muscoot Report, at 22.

The key regulatory program for restoring water quality to the Muscoot Reservoir — the Total Maximum Daily Load ("TMDL") process — began in 1994 when DEC submitted (and EPA accepted) a list of water-quality-limited water segments within the New York City Watershed, including the Muscoot Reservoir. In 1997, DEC developed Phase I TMDLs for the Muscoot Reservoir based on samples of water taken in the Muscoot between 1990 and 1994.[9] Those TMDLs quantified the required reduction in phosphorus pollution to the Muscoot Reservoir and other City reservoirs needed to achieve compliance with water quality standards and restore water quality in those water bodies. In 2000, DEC submitted, and EPA accepted, Phase II TMDLs for the Muscoot Reservoir and other City reservoirs.[10] Based on more recent water samples taken from the Muscoot between 1992 and 1996, DEC found increased phosphorus pollution of that water body and required further reductions in phosphorus loadings to the Muscoot in the Phase II TMDLs.[11]

B. Stormwater Pollution Associated with Construction and Development of Land

The construction and development of land is a major source of phosphorus and other pollutants which discharge into the Muscoot Reservoir in stormwater runoff.

"Stormwater pollution is one of the most significant sources of water pollution in the nation." Environmental Def. Ctr., Inc. v. EPA, 344 F.3d 832, 840 (9th Cir. 2003). According to EPA, "[u]ncontrolled storm water discharges from areas of urban development and construction activity negatively impact receiving waters by changing the physical, biological, and chemical composition of the water, resulting in an unhealthy environment for aquatic organisms, wildlife and humans," and can "severely compromise" water quality.[12]

Discharges of stormwater from construction sites include sediment, a pollutant which also serves as a carrier of other pollutants, such as nutrients (including phosphorus), metals, organic compounds, and pathogens. "It is generally acknowledged that erosion rates from construction

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[9] See NRC Study, supra, at 2, 5-6, 102-05, 109. The Phase I TMDLs can be found at: http://www.epa.gov/waters/tmdldocs/NY-1997-Phosphorus-Phase%201%20NYC%20Watershed.pdf

[10] See "Phase II Phosphorus Total Maximum Daily Loads for Reservoirs in the New York City Water Supply Watershed," dated June 2000 (hereinafter, Phase II TMDLs). The Phase II TMDLs can be found at: http://www.dec.ny.gov/docs/water_pdf/nycjune2000.pdf

[11] Id., at 20.

[12] "National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Stormwater Discharges; Final Rule," 64 Fed. Reg. 68722, 68724, 68728. (Dec. 8, 1999).

sites are much greater than from almost any other land use."[13] Sediment loads in stormwater discharges from construction sites are typically 1,000 to 2,000 times the sediment loads in discharges from undeveloped forested land.[14]

Post-construction stormwater discharges from developed areas are also a major source of pollution to the waters of the United States. "Urbanization alters the natural infiltration capability of the land and generates a host of pollutants . . . thus causing an increase in storm water runoff volumes and pollutant loadings."[15] Land development "can result in both short- and long-term adverse impacts to water quality in lakes, rivers and streams within the affected watershed by increasing the load of various pollutants in receiving water bodies, including sediments, metals, organic compounds, pathogens, and nutrients."[16] EPA has determined that urban runoff and storm sewer discharges were the second leading source of water quality impairment in estuaries and the third leading source of such impairment in lakes, ponds and reservoirs.[17]

Stormwater pollution from construction and development is of great concern for the Muscoot Reservoir. Because of the focal role of stormwater pollution in impairing that drinking water source, DEC determined in its Phase II TMDLs that phosphorus discharges in stormwater runoff to the Muscoot are much greater than phosphorus discharges from sewage treatment plants, and must be reduced by 2,058 kilograms per year, by far the largest phosphorus reduction required from the 19 reservoirs within the Watershed.[18]

Stormwater pollution to the Muscoot is also of great concern because it carries pathogens. The drainage basin for the Muscoot Reservoir lies within the "60 day travel time" of the water which is supplied to consumers. Discharges within this geographic area raise heightened concerns because 60 days is generally viewed as the life span for many disease-causing microbes in fresh water. The pathogens of central concern in the Watershed are *Cryptosporidium* oocysts and *Giardia* cysts. These microbes can cause severe intestinal distress and can be deadly for persons with compromised immune systems. These pathogens are highly resistant to destruction by

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[13] Id.

[14] EPA, "Storm Water Phase II Final Rule: Small Construction Program Overview (Fact Sheet 3.0)," EPA 833-F-00-013 (Jan. 2000), available at http://www.epa.gov/npdes/pubs/fact3-0.pdf.

[15] 1999 Preamble & Rule, 64 Fed. Reg. at 68725.

[16] EPA, Draft Proposed Rule for Effluent Limitations Guidelines and New Source Performance Standards for the Construction and Development Category, Docket No. 01644, at 49-50. February 12, 2002.

[17] EPA, "National Water Quality Inventory: 2000 Report at 22 & 30," EPA-841-R-02-001 (Aug. 2002), available at http://www.epa.gov/305b/2000report/chp3.pdf & http://www.epa.gov/305b/2000report/chp4.pdf.

[18] Phase II TMDLs at 20. In the Phase II TMDLs, DEC referred to such discharges as "nonpoint" pollution, but most of that pollution is discharged from point sources such as municipal storm sewers and conveyances at construction sites.

chlorination.

IV. Applicable Law

WIG's review of the DEIS implicates the State Environmental Quality Review Act ("SEQRA"), the Clean Water Act, and New York's water pollution control law, codified as Article 17 of the New York Environmental Conservation Law ("ECL").

A. SEQRA

Under SEQRA, the lead agency "having principal responsibility for carrying out or approving" an action regulated by SEQRA must determine if the action "may have a significant effect on the environment." ECL § 8-0111(6). If the lead agency determines that the action may have such effect, the agency issues a "positive declaration" and must prepare a draft environmental impact statement, which is subject to public comment and review before being finalized as a final environmental impact statement ("FEIS" or). ECL § 8-0109(5); 6 N.Y.C.R.R. § 617.7(a)(1).

Environmental review under SEQRA must be comprehensive; it must cover all "relevant areas of environmental concern." Har Enterprises v. Town of Brookhaven, 74 N.Y.2d 524, 529 (1989). In the context of a development project, such as Salem Hunt, in a sensitive watershed (such as the Muscoot drainage basin), SEQRA review must encompass analysis of the potential environmental impacts associated with wastewater treatment. Inland Vale Farm Co. v. Stergianopoulis, 65 N.Y.2d 718, 720 (1985) (EIS required because project "might adversely affect nearby water supplies"); Omni Partners, L.P. v. County of Nassau, 237 A.D.2d 440, 442 (2d Dep't 1997) (EIS needed to address potential sewage impacts).

"When an agency decides to carry out or approve an action which has been subject to an environmental impact statement," it must issue SEQRA findings showing that SEQRA's requirements have been met and that any environmental effects revealed in the review process will be "minimized or avoided to the maximum extent possible." ECL § 8-0109(8); 6 N.Y.C.R.R. § 617.11.[19] An agency's approval of an action under SEQRA requires "incorporating as conditions to the decision those mitigative measures that were identified as practicable." 6 N.Y.C.R.R. § 617.11(d). Because SEQRA requires mitigation of environmental impacts, it "is not merely a disclosure statute; it imposes far more action-forcing or substantive requirements on state and local decision makers than [the National Environmental Policy Act] imposes on their federal counterparts." Matter of Jackson v. N.Y. State Urban Dev. Corp., 67 N.Y.2d. 400, 415 (1986) (internal quotations omitted).

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[19] Alternatively, the agency can disapprove the action based on adverse environmental effects disclosed during SEQRA review or on other grounds. See, e.g., Matter of Fawn Builders, Inc. v. Planning Bd., 223 A.D.2d 996 (3d Dep't 1996); Town of Henrietta v. DEC, 76 A.D.2d 215, 226 (4th Dep't 1980) ("SEQRA is not intended to take away the jurisdiction or authority already granted" to government agencies).

B. The Clean Water Act and ECL Article 17

Under the Clean Water Act, the "primary means" for achieving water-quality standards is the National Pollutant Discharge Eliminations System ("NPDES") permitting program for discharges of pollutants by "point sources" — discrete conveyances, such as pipes carrying effluent from wastewater treatment plants and storm sewer pipes carrying polluted stormwater runoff. See Arkansas v. Oklahoma, 503 U.S. 91, 101 (1992); 33 U.S.C. §§ 1311(a), 1342. These permits contain "effluent limitations" that "restrict the quantities, rates, and concentrations of specified substances which are discharged from point sources." Arkansas v. Oklahoma, 503 U.S. at 101; see 33 U.S.C. § 1311.

When the effluent limitations on point sources alone are not sufficient to restore the quality of a waterway, the Clean Water Act requires further action. The States must identify water bodies for which the technology-based effluent limitations are insufficient to achieve standards and develop TMDLs to remedy the problem. 33 U.S.C. §§ 1313(d)(1)(A), 1313(d)(1)(C), (2); 40 C.F.R. § 130.2(e)-(i).

However, until water quality standards have been achieved, a "new discharger," such as a new development project proposing to discharge pollutants from a point source "which will cause or contribute to the violation of water quality standards," may not receive a NPDES permit authorizing such discharges.[20] 40 C.F.R. §§ 122.2, 122.4(i); Friends of Pinto Creek v. EPA, 504 F.3d 1007, 1011-12 (9th Cir. 2007); see 40 C.F.R. §§ 122.4(a), (d). Similarly, DEC, which administers the NPDES program in New York (called the State Pollutant Discharge Elimination System or "SPDES") and its own water pollution laws under Article 17 of the Environmental Conservation Law, prohibits discharges of pollutants that would "cause or contribute to" the violation of water quality standards. ECL § 17-0811(5). DEC requires all SPDES permits it issues to include provisions "necessary to insure compliance with water quality standards," and cannot issue permits without such provisions. 6 NYCRR §§ 750-1.3(e), (f).

V. WIG's Concerns Regarding the DEIS for Salem Hunt

A. Increases in Phosphorus Pollution in Stormwater Runoff

The DEIS acknowledges that the development will increase discharges of phosphorus pollution in stormwater runoff from the site, but contains internally inconsistent calculations of its projected increases in phosphorus pollution. In addition, these projected increases significantly underestimate the likely increase in phosphorus pollution – by more than an order of magnitude. See Technical Appendix A, pp. 1-6. As discussed in Part IV above, because such increases in pollution "will cause or contribute" to existing violations of water quality standards in the

Comment 6-42

[20] An exception occurs where all existing dischargers are subject to compliance schedules to achieve water quality standards and the new discharger's pollution would not impede achievement of compliance under those schedules. 40 C.F.R. § 122.4(i). The exception does not apply to Salem Hunt because existing dischargers in the Muscoot drainage basin are not bound to compliance schedules.

Muscoot Reservoir, a permit that would authorize the pollution should not as a matter of law be issued to Salem Hunt under the Clean Water Act or Article 17 of the New York Environmental Conservation Law.

Comment 6-42 con't

Accordingly, Salem Hunt should modify its stormwater pollution prevention plans to prevent increases in pollution to ensure its compliance with federal and state law. In addition, in accordance with those laws and pursuant to its duty to mitigate environmental impacts under SEQRA, it should seek a net reduction of phosphorus loadings from the site of 19 percent, the overall percentage reduction needed throughout the Muscoot drainage basin to achieve the required TMDL reductions.

B. Specific Inadequacies in the Project's Stormwater Management and Erosion and Sediment Control Plans

Technical Appendix A (pp. 6-10) discusses various specific problems with the Project's stormwater and erosion and sediment control plans: failure to comply with enhanced phosphorus removal standards; inadequate aquatic benches; inadequate maintenance access to stormwater basins; inadequate forebay; inappropriate plantings near embankments; inadequate outlet configuration for basins; inadequate calculations of impervious areas; need for further investigation of Test Pit SW3; clarification needed concerning adequacy of Test Pit SW5 as a wet pond; adequacy of Test Pit SW6 as a dry pond; lack of test pit logs for stormwater basins; various problems with HydroCad calculations; and need to use a proprietary silt sock instead of a silt fence for erosion control.

Comment 6-43

These problems impair the effectiveness of the Project's stormwater management and erosion and sediment control plans and will likely contribute to increased discharges of phosphorus and other pollutants in stormwater. Accordingly, these plans should be revised to address our concerns.

C. The DEIS Does Not Address Wastewater Treatment

As discussed in the Technical Appendix A (p. 11), the Salem Hunt DEIS does not provide information or analysis concerning the proposed wastewater treatment system that would treat sanitary wastes generated by residents at the development. Additional environmental review should be performed to address this issue especially given the importance of ensuring that sewage is properly treated and that discharges of pathogens, phosphorus, and other pollutants into the Muscoot Reservoir drainage basin do not occur.

Comment 10-14

The additional environmental review should take the form of a Supplemental DEIS so that members of the public and interested public agencies can comment on wastewater treatment issues and such comments can be addressed in the FEIS. See Save Eastern Environment v. Marsh, 234 A.D.2d 616 (3d Dep't 1996); Friends of Smith Farm v. Town Board for the Town of Clarkstown, 45 A.D.3d 765 (2d Dep't 2007).

D. The Project Should Be Modified to Eliminate Construction in Wetland Buffer Areas

Comment 6-44

As discussed in the Technical Appendix A (p. 11), various federal, state, and local wetlands are found on the site. While the Project would not entail construction within these wetlands, it does propose construction in a few locations within the regulated buffer areas adjacent to them. Buffers provide a vital function in protecting downstream wetland resources and providing natural attenuation of pollutants and it is feasible for the Project to eliminate such activities in buffer areas. Accordingly, the Project design should be revised to eliminate construction within buffer areas.

E. The Integrated Pest Management Plan is Inadequate

Comment 6-45

Applications of pesticides and fertilizers at the Project site can result in discharges of pollutants in stormwater to the Muscoot Reservoir. The Integrated Pest Management ("IPM") Plan in Appendix O of the DEIS does not take advantage of many pest exclusion and infestation prevention features that should be designed and engineered into this proposed condominium development project to prevent such discharges. Technical Appendix B recommends specific pest control features to be implemented during project planning, design, and construction that were not included in the DEIS's IPM Plan. Technical Appendix B, pp. 1-2.

Comment 6-46

In addition, while the IPM Plan addresses operation and maintenance for pest management after construction of the Project, it fails to include specific and effective measures to implement non-chemical pest management methods which are essential to any real "IPM" program. These shortcomings in the IPM Plan, see Technical Appendix B, pp. 2-3, should be corrected in a revised IPM Plan to prevent pollutant discharges.

Comment 6-47

Finally, unless soil samples disclose deficiencies in phosphorus in soils on which lawns and other landscaped areas are to developed, these areas should only receive "zero" phosphorus fertilizer (i.e., fertilizer that does not contain phosphorus). As discussed above, reducing phosphorus in the Muscoot Reservoir drainage basin is of paramount importance to restoring water quality in that reservoir.

VI. Conclusion

The WIG Office appreciates this opportunity to submit these comments on the Salem Hunt DEIS.

WIG requests that the Project sponsor modify the development by making reasonable and feasible improvements to the Project to protect the Muscoot Reservoir from increased discharges of phosphorus and other pollutants and to ensure compliance with applicable state and federal laws.

Respectfully submitted,

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Technical Appendix A

LETTER # 19b

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MEMORANDUM

TO: Mr. Philip Bein, NYC Watershed Inspector General
State of New York, Office of the Attorney General

FROM: Richard Claytor, Horsley Witten Group, Inc. (HW)

DATE: July 29, 2008

RE: Salem Hunt Development Review

Horsley Witten Group, Inc. (HW) has reviewed the Salem Hunt Site Development package as prepared by Insite Engineering (Insite). The following information was included in the submission:

Title	Dated
Salem Hunt Drawings (sheets 1-16)	April 18, 2008
Draft Environmental Impact (EIR) Statement Vol. 1 & 2, Salem Hunt	May 20, 2008

We offer the following findings and comments for your review.

Phosphorus Loading

Several areas of concern were identified during our review of the Salem Hunt Development Plan DEIS with respect to the calculated total Phosphorous loading. The project is located within the Muscoot Reservoir watershed, which is part of New York City's Croton Drinking Water Supply Watershed and the New York City Watershed East of the Hudson River. Prior development within the Muscoot Reservoir watershed has led to significantly elevated levels of total phosphorous (TP) loading to the Muscoot Reservoir which is a Section 303(d) Impaired waterbody that also serves as the City's drinking water supply. Given the sensitivity of the watershed and the high levels of TP, the EPA has designated a Total Maximum Daily Load (TMDL) for the Muscoot watershed. The additional phosphorous loading expected to be generated by the project to the Muscoot Reservoir will further exacerbate the adverse impacts to the drinking water reservoir. In review of the Salem Hunt Site DEIS several specific areas were identified that need further explanation, revision or consideration:

- Phosphorous loading calculation discrepancies;
- Stormwater management pollutant removal calculations;
- Enhanced phosphorous removal sizing;

- Inclusion of Better Site Design (BSD) approach; and
- Total net reduction in phosphorous loading.

Phosphorous Loading Calculation Discrepancies

Comment 6-48

A couple of discrepancies were identified during our review of the Salem Hunt DEIS Section 6.2, Wetlands/Watercourses and Buffers with regard to phosphorous loading. These include:

- Pre-existing TP loading in Table 6-5 does not match pre-existing TP loading in Table 6-9. Which values are correct?
- Potential increases in TP in text on pg. 6-25 (1.05 lbs/yr; 2.31 kg/yr) does not match those calculated using values in table 6-9 (1.12 lbs/yr; 0.51 kg/yr). Which values are correct?

Stormwater Management Pollutant Removal Calculations

Comment 6-49

The applicant provides an analysis of runoff quality where pre-development pollutant loading rates are compared to post-development rates. The methodology uses unit loading rates based on land use type to estimate pollutant loads and cites the "Reducing the Impacts of Stormwater Runoff from New Development" (NYSDEC, 1993). While this publication has been widely applied in New York as a reference, the land-use loading coefficients are from a 1979 publication entitled "Guidebook for Screening Urban Non-point Pollution Management Strategies" (NVPDC, 1979), and should not be used without appropriate caveats and adjustments to account for differing loading rates, rainfall and other climatic considerations of Northern Virginia in the mid-1970's where the loading estimates were first derived. Other methodologies such as the Watershed Treatment Model (Caraco, 2001) or the Source Loading and Management Model – SLAMM (Pitt & Voorhees) are readily available, easy to apply and adaptable to the land uses, climate and precipitation characteristics of Westchester County, New York.

Comment 6-50

The applicant's pollutant loading analysis uses pollutant loading reductions based on NYSDECs 1993 "Reducing the Impacts" document for the various stormwater management practices (SMPs) proposed for the project. The estimated pollutant removal rates for phosphorous, in particular, of between 40 and 60% for the extended detention ponds cited in this publication should not be used because:
1) The quoted rates are from Figure 15 in "Reducing the Impacts" and these are derived from Schueler's 1987 publication "Controlling Urban Runoff" and are based on data now more than 20 years old, and from a limited number of studies (Schueler, 1987); and
2) The range of phosphorous removal of between 40 and 60% for extended detention dry ponds is not supported by more recent monitoring studies and reports. The Center for Watershed Protection (CWP) Publication "National Pollutant Removal Performance Database" (Winer, 2000, v. 3, updated Sept. 2007), quotes a median removal rate for total phosphorus of 20% for Dry Ponds (includes 7 ED dry pond studies, and 3 studies of other dry ponds).

The removal rates for grassed swales of 20 to 40% for total phosphorous (TP) for a channel length of 150 at a slope of approximately 6% has zero justification. Table 15 in "Reducing the Impacts" states that the design variant for this practice should be "low gradient swales with check dams." CWP's National Pollutant Removal database reports median TP removal of 24% for all swales. Removal efficiencies for swales are a function of contributing drainage area, resident time, and infiltrative capability. Draining 7.5 acres of land through a 150 foot channel at 6% grade and claiming between a 20 and 40% removal is completely unrealistic, and not supported by any science or calculations.

Comment 6-51

The applicant is claiming up to a 20% TP removal credit for the site area of the proposed wastewater effluent disposal field as drainage across a filter strip. This area has been identified by the applicant as a grass area and has been graded to drain downslope to the wetland resource area adjacent to June Road. Based on the proposed grading plan, the slope of this area, the runoff travel distance and the cumulative drainage area, maintenance of sheet flow across the forested area up-gradient from the wetland will not occur. Without sheet flow, the pollutant removal potential of a filter strip is negligible. We recommend that the pollutant reduction credit from this area be removed from the applicants loading assessment.

Comment 6-52

The applicant uses the same removal rates for SMPs regardless of where they are in the treatment system. For example, for Design Line #1, the first cell of the stormwater detention system, the so-called pocket pond, is given a rating of between 40 and 60% TP removal, and the dry extended detention pond is also given a rating of between 40 and 60% TP removal. This approach fails to understand the basic pollutant removal mechanisms of these types of stormwater management facilities, where the largest percentage of phosphorus removal occurs via particle settling and the first SMP in a treatment system removes a disproportionate amount of particulate matter, leaving less for subsequent SMPs. Prior research on this topic by HW staff has estimated that TP removal in the second SMP in a treatment system is no more than 50% the rated value of the first SMP. The pollutant loading reductions associated with SMPs installed in series should be adjusted accordingly.

Comment 6-53

The total expected phosphorous loading from the proposed Salem Hunt site to the Muscoot Reservoir Watershed was calculated using the Simple Method (Schueler, 1987), which was one of the approaches recommended by the NYSDEC in the State's initial issuance of the Stormwater Management Design Manual (formerly included as Appendix A). The calculations also account for the more realistic TP removal efficiencies for the proposed SMPs, as well as compensate for the expected removal efficiencies for the SMPs in series. The resulting phosphorous loading values are more realistic and significantly higher than those included within the applicant's SWPPP. These values are compared in Table 1 below. The phosphorous loading calculations are also included as Attachment A. The applicant should provide documentation as to why the loads offered by the Simple Method are not realistic or utilize one of the other methods offered above.

Comment 6-54

Table 1. Salem Hunt Development Site Expected Phosphorous Loading Using the Simple Method as Compared to the Loadings Offered by the Applicant

	Phosphorous loading (lbs/year)					
	Simple Method			SWPPP		
	Existing Conditions	Pre-treatment	Post-treatment	Existing conditions	Pre-treatment	Post-treatment
DL-1	0.70	25.76	17.14	0.59	2.29	0.45 - 0.91
DL-2	2.63	50.43	26.91	1.78	5.65	1.53 - 2.58
Total	3.33	76.19	44.05	2.37	7.94	1.98 - 3.49

Comment 6-54

Enhanced Phosphorous Removal Sizing

Comment 6-55

We recommend that the Stormwater Pollution Prevention Plan (SWPPP) and accompanying design plans be revised to ensure that all proposed stormwater management controls are sized and constructed according to Chapter 10 of the NYS Stormwater Manual. Beginning on September 30, 2008, the New York SPDES Permit will require all construction projects within the entire New York City Watershed located east of the Hudson River which encompasses the Salem Hunt Site, to prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards.

This project should be redesigned in accordance with the requirements of Chapter 10. Noteworthy elements include the following:

- Design for a water quality volume of the 1-year frequency storm (approximately 3.2" according to Page 10-12 of the NYS Manual versus 1.2" used in the current DEIS);
- Application of a different SMP for Design Line 1, as the Pocket Pond (P5) is not an acceptable practice for phosphorus control (see Page 10-23 of the NYS SM Manual);
- Reduction in runoff volume using Better Site Design techniques (see comments below);
- Treatment of stormwater runoff to achieve an effluent concentration for particulate phosphorus of 0.1 mg/l; and
- Treatment of stormwater runoff to achieve an effluent concentration for dissolved phosphorus of 0.06 mg/l.

Inclusion of Better Site Design (BSD) Approach

Comment 6-56

As stated above, one of the treatment goals included within Chapter 10, Enhanced Phosphorous Removal Standards, of the NYS Stormwater Manual is to "reduce runoff volumes by requiring each project to assess the feasibility of hydrologic source controls, and where feasible, implement those source controls. For each proposed plan provide the reasons for acceptance and rejection of the various controls." Chapters 10.3.2 and 10.3.3 of the NYS Stormwater Manual recommend that BSD or Low Impact Development

(LID) practices be implemented to achieve this goal and reduce the runoff volume by reducing the total impervious area and increasing infiltration. Since the Site is within a sensitive phosphorous loading area, development should be consistent with this goal and provide the least impacts to the environment. There are many different BSD approaches that can be integrated into the proposed site; these should all be carefully evaluated and the most applicable and effective BSD components should be chosen for the site. An example of a BSD approach that may be appropriate for this site would be the inclusion of rain gardens and vegetated filters on at least half of the residential sites; although other options may also be appropriate. The list of BSD and LID approaches and techniques on pages 10-19 through 10-20 of the New York State Stormwater Management Design Manual should be considered as well as those included within the following references:

- New York State Better Site Design Handbook, 2008. New York State Department of Environmental Conservation.
- New York State Stormwater Management Design Manual, 2008. Chapter 9.

Comment 6-56

Total Net Reduction in Phosphorous Loading

The Phase II Phosphorous TMDL Calculations Report for the Muscoot Reservoir suggests that the drinking water resource is currently water quality limited. A phosphorous TMDL has been designated as 9,397 kg/yr for the reservoir, and today 11,560 kg/yr of phosphorous are being supplied to the reservoir, causing the TMDL to be exceeded by approximately 2,163 kg/yr (NYCDEP, 2000). Consequently, an 18.7% reduction in total phosphorus must be realized to meet TMDL requirements. In order to assuage the effects of elevated nutrient levels in the reservoir, not only should there be no additional inputs of phosphorous from this project, but phosphorous levels should be decreased by approximately 19%. Assuming the proposed phosphorous loading calculations in the Salem Hunt DEIS are correct, the project has the potential to contribute and additional 1.12 lbs/yr (0.51 kg/yr) phosphorous. Note that based on the comments above, the actual increase in phosphorus loading is likely to be much more than this value. The following excerpt from the NYSDEC April 2008 SPDES permit fact sheet exemplifies the urgency for reducing phosphorous within the New York City Watershed East of the Hudson River which encompasses the Muscoot Reservoir watershed and the Salem Hunt Site:

> *The CWP report, [Recommendations for Developing an NPDES Phase II Stormwater General Permit for Municipal Separate Storm Sewer Systems in the East of Hudson Watershed], recognizes that the New York City Watershed East of the Hudson is among the most sensitive watersheds in New York State that supplies drinking water to millions of people, but at the same time experiences substantial development pressure. The conditions that apply in the New York City Watershed East of the Hudson are targeted at practices that prevent and reduce phosphorus contributions to the entire watershed. Because the needed reductions will be so difficult to attain and because protection of drinking water is at the top of the environmental protection hierarchy, the conditions that apply to the New York City Watershed East of the Hudson are the most rigorous to be included in GP-0-08-001.*

Comment 6-57

In order for the applicant to develop the Salem Hunt Site in a way that is consistent with the goals of the State of New York and the State Stormwater Management Design Manual as well as to mitigate the impacts to the Muscoot Reservoir watershed and NYC's drinking water supply, the applicant must take a pro-active approach to stormwater management and phosphorous loading mitigation. In addition to carefully choosing and implementing stormwater management source control strategies recommended in Chapter 10 of the Manual, the applicant should consider working with other parties in the watershed to reduce and treat the total current stormwater runoff and associated phosphorous loading generated within the watershed. We recommend that the applicant either significantly reduce the scope of the project or consider an offsite offset program to reduce and treat polluted runoff generated from a nearby property within the Muscoot Reservoir watershed in order to achieve a net decrease in phosphorous loading to the Reservoir of approximately 19% to meet targeted phosphorus reductions identified in the TMDL.

Comment 6-57

Stormwater Management

1. The project will discharge to a phosphorus restricted reservoir and therefore we recommend the Applicant revise all water quality (WQ) stormwater calculations to reflect the latest Chapter 10: Enhance Phosphorus Removal Standards, which require WQ calculations based on the 1-year storm event. The Applicant's statement in the DEIS, "that the burden for reducing current phosphorous loading to achieve the TMDL in the Muscoot Reservoir rests with the Town of North Salem and other Municipal Separate Storm Sewer Systems (MS4s) in the Muscoot Watershed" seems to be a logical statement. However, adding additional phosphorous loading to the watershed is neither a solution nor a proactive approach, and it is hard to see how the project can be considered "consistent" with the TMDL Implementation Plan.

Comment 6-58

2. Although referenced in the report and Sections shown on Sheet 13 of the Plan, the plan view layout of both Basin 1.1 and 2.1 do not include aquatic benches. 4:1 side slopes do not provide an adequate aquatic bench and a flat bottom basin with standing water to a depth of four feet can not be considered an aquatic bench. The designs are not conducive to plant growth and both will not function to the treatment levels identified by the applicant. To achieve adequate water quality treatment in conformance with the NYS Stormwater Manual, the wet pond designs must include the meandering of stormwater by means of aquatic bench areas extending into the permanent pool. This will facilitate a long flow path through the system that enhances pollutant removal.

Comment 6-59

3. We question whether adequate maintenance access is provided to all four basins. These basins are fairly deep (deepest being Basin 2.2 at 16 feet) and have side slopes of 4:1 and therefore removing sediment from the bottom will be difficult from the basin's edge. We recommend the basins are equipped with adequate access road to the bottom. We note, the Applicant is proposing that the operation and maintenance of the drainage conveyance system and stormwater management system be the

Comment 6-60

responsibility of a limited liability corporation homeowner's association, June Road Properties, LLC and/or the owner of the property.

Comment 6-60 con't

4. The plan view and profile in the Plans of do not show a defined forebay for Basin 1.1. Appendix G of the report calculates the forebay volume to be 12,100 cubic-feet, which we cannot verify from the information provided. From the plan and profile the forebay appears to only be a 1-foot high earth berm below the permanent pool with a volume of approximately 600 cubic-feet (40' long x 15' wide x 1' deep). This is not adequate WQ storage and does not provide the required 4-6 deep forebay depth per the NYS Stormwater Manual. Also, see HydroCad comment on Forebays.

Comment 6-61

5. The Manual requires that no woody vegetation be planted within 15 feet of the toe of the embankment. Plantings need to be installed on flat aquatic benches or benches just above the permanent pool, depending on plant species. We question why plantings are included around and within Basin 1.1 & 1.2 and not Basin 2.1 and 2.2.

Comment 6-62

6. The Basin details on Sheet 13 of the Plans propose a horizontal perforated pipe system as the discharge mechanism for the detention basins. According to the NYS Stormwater Manual, horizontal discharge systems in detention ponds are more prone to clogging. We recommend that the applicant revise the outlet configuration using a design that is less likely to clog per the guidance in the NYS Stormwater Manual.

Comment 6-63

7. It is difficult to distinguish the internal drainage divides in Figure 3: Post Development Drainage Map (i.e. difference between Subcatchment 1.1 and 1.2). This makes it hard to evaluate the impervious surface area assumptions in the drainage calculations. The HydroCad calculations assume all residential areas within the site have a Curve Number (CN) based on 1/8 acre lots (65% impervious). This is not necessary or an adequate assumption and is possibly underestimating the actual impervious area proposed for the site. Although this assumption may not have a significant affect on the peak-flow attenuation requirements due to the soil types, underestimating the impervious area will result in reducing the Water Quality (WQ) requirements. We recommend the Applicant calculate the actual impervious surface area based on the proposed site plan and revise the HydroCad and WQ calculations accordingly.

Comment 6-64

8. HW analyzed the stormwater Pond/Basin designs with the test pit data supplied on Figure 4 of Appendix F: Preliminary Stormwater Pollution Prevention Plan. These test pits were conducted on 07-18-2007. The following summarizes our analysis:

Comment 6-65

Test Pit SW1:
Location: Forebay of Basin 2.1 (Micropool Extended Detention Pond)
Existing Ground (EG) of test pit: 521 feet
Total Depth: 120" (10 feet)
Bottom of Pit: 511 feet
Groundwater El: None
Basin bottom elevation: 512 feet

Findings: Pond is proposed as a wet pond. Groundwater not intercepted. Applicant proposes to line the pond with clay, which is acceptable per the NYS Stormwater Manual.

Comment 6-65 Con't

Test Pit SW2:
Location: Main Cell of Basin 2.1 (Micropool Extended Detention Pond)
Existing Ground (EG) of test pit: 515 feet
Total Depth: 120" (10 feet)
Bottom of Pit: 505 feet
Groundwater El: 507 feet (8 feet below)
Basin bottom elevation: 510 feet
Findings: Pond is proposed as a wet pond. Groundwater not intercepted. Applicant proposes to line the pond with clay, which is acceptable per the NYS Stormwater Manual.

Comment 6-66

Test Pit SW3:
Location: Main Cell of Basin 2.2 (Dry Extended Detention Basin)
Existing Ground (EG) of test pit: 511 feet
Total Depth: 120" (10 feet)
Bottom of Pit: 501 feet
Groundwater El: None
Basin bottom elevation: 504 feet
Findings: Pond is proposed as a dry pond. Not finding groundwater down to the bottom of the test pit (elevation 501 feet) is surprising given the results of test pit SW2, which is 120 feet away to the west of SW3 and groundwater was found at elevation 507 feet. From the elevation of the adjacent wetland and the results of test pit SW2 it is possible that this basin will intercept groundwater. A loam and seeded basin that intercepts groundwater poses a significant mosquito breeding habitat. We recommend more investigation into the groundwater elevation at this basin location.

Comment 6-67

Test Pit SW4:
Location: Basin 1.1 (P-5 Pocket Wet Pond)
Existing Ground (EG) of test pit: 563 feet
Total Depth: 120" (10 feet)
Bottom of Pit: 553 feet
Groundwater El: 556.5 feet (6.5 feet below)
Basin bottom elevation: 553 feet
Findings: Pond is proposed as a wet pond with a permanent pool at elevation 557 feet. This pond is adequately designed in terms of groundwater elevation.

Comment 6-68

Test Pit SW5:
Location: Basin 1.1 (P-5 Pocket Wet Pond)
Existing Ground (EG) of test pit: Varies see below
Total Depth: 84" (7 feet)
Bottom of Pit: Varies see below
Groundwater El: None

Comment 6-69

Basin bottom elevation: Varies see below
Findings: The location of the test pit is not constant between Figure 4 of the appendix and the design plans. If the location shown in the figure is correct we would expect to see groundwater at the bottom of the pit due to the ground surface elevation being 563 feet, which is the same elevation (+/-) of SW4 and the fact that this basin is actually closer to the wetland than SW4. If the location in the plan is correct than the EG is 566 feet and the bottom of the pit would be 559 feet. Clarification is needed by the Applicant on this test pit. Pond is proposed as a wet pond with a permanent pool at elevation 557 feet.

Comment 6-69 con't

Test Pit SW6:
Location: Main Cell of Basin 1.2 (Dry Extended Detention Basin)
Existing Ground (EG) of test pit: 557 feet
Total Depth: 120" (10 feet)
Bottom of Pit: 547 feet
Groundwater El: None
Basin bottom elevation: 554 feet
Findings: Pond is proposed as a dry pond. Adjacent wetland extends up to elevation 551 feet approximately 100 feet north of the test pit. Not finding water down to elevation 547 feet is surprising, since this elevation is approximately 4 feet below the wetland elevation and up-gradient of the wetland. As mentioned above, it is important that basins designed to be dry do not intercept groundwater. We recommend a monitoring well be installed at this basin location to adequately determine the groundwater level.

Comment 6-70

9. Test pits logs are missing in Appendix I: Soil Testing Results in and around the stormwater basins. Other than D10, this appendix only includes the logs for the wastewater disposal field. The stormwater logs should be provided if available.

Comment 6-71

10. HydroCad Calculations:

- The Applicant is proposing drainage lines in place of design points. Design line 2 does not adequately model the pre-development conditions. Half of drainage area 2 is tributary to the north property line while the other half is tributary to the wetland on the east. The consequence of this is that the pre-development peak flow and volume are overestimated to the wetland to the east in the calculations. This wetland is where the post-development basins discharge, which allow the post-development system to meet the equal to or less than peak flow and volume requirements. The Applicant's argument might be that this is a better solution then discharging a portion of the treated water/overflow from the pond to the residential area to the north, which could cause more impacts to properties than increasing the flow to the wetland. Either way the Applicant should address this.
- It appears there is offsite area tributary to the site from the parcel to the south, which will contribute to both treatment trains. It does not appear to be a large

Comment 6-72

Comment 6-73

area but the Applicant has stopped the divide at the property line. All offsite area to the site must be included in the sizing of the stormwater facilities. Comment 6-73 cont

- It appears there is offsite area tributary to Pond 1.1 (P-5 pocket wetland) to the south-west of the property that is not included in the drainage area. Since the topography does not show a break at the wall along the property line, we recommend that the Applicant clarify why this area was not included. Comment 6-74
- The calculations do not model any forebays and it is unclear how the volumes of these forebays are being determined. Forebays should be modeled as separate ponds with control structures to evaluate WQ containment volumes. Presently, the calculations model the multi-cell basins as single detention basins with parabolic volumes (no berms, benches, etc.). WQ calculations should be determined by the stormwater volume behind the forebay berm and not the volume of the entire basin above the designated forebay. If stormwater is not contained and released behind the forebay it is then part of the main cell. We recommend that the design and calculations be revised. Comment 6-75
- All ponds should be modeled as impervious due to standing water during storm events. Comment 6-76
- Impervious areas should be calculated based on the site plan. Applicant is using 1/8 Acre Lots for residential areas within the site in post-development. Comment 6-77
- The proposed Water Control Building and area surrounding the building are not included in the drainage calculations. Comment 6-78
- The applicant is using unusual Time of Concentration path (Tc) for Subcatchment 2.1 in terms of the sheet flow changing from short to dense grass. Comment 6-79
- In the calculations, the bottom elevation of dry Pond 1.2 should be elevation 554 feet not 553 feet. Comment 6-80
- In the calculations, the invert out of the 24 inch pipe should be elevation 553.0' to match the details in the Plans. Comment 6-81
- In the calculations, the bottom elevation of dry Pond 2.2 should be elevation 504 feet not 503 feet. Again, due to the area at elevation 503 feet in the calculations this is not a significant difference in storage but it still should be modified. Comment 6-82
- Peak flow to DL1 for the 10 year event should be 3.16 not 3.61 as listed in the Report. Comment 6-83

Erosion & Sediment Control, Construction Phasing, Waste Hauling & Handling

We have reviewed the overall erosion and sediment control plan in conjunction with the construction phasing plan and find the overall approach and methods used appropriate for the project. However, the applicant is proposing silt fence for erosion control barriers. We would recommend using a proprietary silt sock instead of a silt fence. It is our experience that silt fence is rarely installed properly (embedded into existing grade) and is susceptible to wind damage without proper stabilization. Comment 6-84

A note should be added to the Overall Phasing Plan (Sheet SP – 4.1) requiring all trucks leaving the site with export material will be covered. Any hazardous waste found during construction shall be disposed of in a pre-approved location. Comment 3-12

Wastewater Management

1. Information on the wastewater system has not been included. We recommend the wastewater system is provided for review. We note the soil logs provided in Appendix I show adequate material for effluent disposal.

Comment 6-84 & 10-15

Wetland and Buffer Impacts

Based on our review of the plans, there appears to be no direct impact to wetland resource areas. There are four separate areas of the project that encroach within the 100 foot NYSDEC, Corps of Engineers or Town regulated wetland buffers. One is at the entrance which is within the buffer area to Wetland D, a NYSDEC, Corps of Engineers, and Town wetland buffer, but arguably is unavoidable to provide access to the project. The other three areas encroach on NYSDEC, Corps of Engineers, and Town wetland buffers as well on the western portion of the site. These three areas include encroachment for the construction of Stormwater Basins 1.1 (impacting the Town regulated buffer to Wetland B) and 1.2 (impacting the Town and Corps of Engineers regulated buffer to Wetland C) as well as for housing construction for buildings 7 and 8 (impacting the NYSDEC and Town regulated buffer to wetland A), and 11 through 15 (impacting the Town and Corps of Engineers regulated buffer to Wetland C). It is our assessment that these impacts to buffer areas are avoidable with a redesign of the project. Buffers have been demonstrated to be a vital component of protecting downstream wetland resources as well as providing natural attenuation of pollutants. Given the sensitive nature of the contributing watershed and the phosphorus limited nature of the Muscoot Reservoir, it is our opinion that buffer impacts should be reduced or eliminated to the maximum extent practicable.

Comment 6-85

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Technical Appendix B

Integrated Pest Management (IPM) Plan

Prepared by Michael Surgan, Ph.D.
Chief Scientist
Environmental Protection Bureau
Office of the New York Attorney General

The Integrated Pest Management Plan prepared for the Salem Hunt Residential Development is presented in Appendix O of the DEIS. Appendix O is comprised of several parts: the narrative on pp.1 - 11 appears to be the plan itself (hereinafter "the Plan") and Appendices A through E (hereinafter "the Appendices") to Appendix O which include a background discussion of IPM, sample information sheets and notices and useful references. There is no reference or citation to the Appendices in the Plan itself. It appears that Appendices A - E are for background informational purposes only, and do not necessarily reflect the intent of the developers. My comments focus on the Plan as presented in the narrative on pp. 1 - 11 of Appendix O.

IPM Considerations During Project Planning, Design and Construction:

The essence of Integrated Pest Management is the implementation of strategies designed to *prevent* pest infestations and, in the event that prevention fails, the implementation of control measures that minimize the potential for adverse impacts on health and the environment while reducing infestation levels below the threshold of unacceptability. In most instances, IPM discussions involve the development of a pest management strategy for an existing facility. These efforts often involve a transition from traditional chemical-based pest control to a more diversified and pro-active approach. Comment 6-86

In this case, the Plan has been prepared for a new condominium development that is yet to be constructed. There are many opportunities to design and engineer pest exclusion and infestation prevention features into the development which would minimize the need for the implementation of pest control measures after the construction and occupation of the development. The Plan, as drafted, fails to address any such design opportunities, which might include amongst other such measures:

1. Preservation and incorporation of native plants into the site design and selection of well-adapted and pest-tolerant plant varieties for outdoor plantings can help to avoid or minimize the need for pest controls of any sort. (For further examples see "Fundamentals of a Low Maintenance, Integrated Pest Management Approach to Landscape Design at *http://www.efn.org/~ipmpa/des-cnsd.html.*)

2. Consideration of pest preventive measures in design of water drainage plans for both buildings and the site. For example, good drainage will minimize breeding grounds for mosquitoes and help prevent the establishment of structural pests. Comment 6-87

3. Simple design features like screens for windows, door sweeps, door closures, chimney Comment 6-88

caps and others will prevent pest entry into homes and other structures. Comment 6-88 (cont)

4. Design and placement of trash management facilities and the placement of exterior area lighting away from building entrances will minimize the entry of rodents and insects into structures. Comment 6-89

5. Prohibition of the burial of construction wastes, including waste lumber and wood from land clearing activities will help to prevent future termite problems. Comment 6-90

6. Simple construction practices, such as adequate seals around water pipes, ventilation ducts and other utilities as they enter buildings and course through structures and treatment of interior wall voids with pesticidal agents like borates will similarly help to prevent pest infestations. Comment 6-91

With proper planning, design and construction, the developers can help to prevent future pest problems and avoid the need to resort to potentially harmful pest control measures. Notwithstanding a general statement on page 3 of the Plan that the IPM Coordinator will be responsible for "Coordination with grounds and maintenance staff and independent contractors to carry out procedures for consideration of pest control implications of new construction and building or site modifications" the Plan fails to consider and incorporate these and other similar measures to prevent pest infestations. Comment 6-92

Post-Construction Operation and Maintenance for Integrated Pest Management:

The Draft Environmental Impact Statement describes the proposed development as consisting of 65 two-bedroom residential units and a separate community center building with a swimming pool. It appears that the proposed Integrated Pest Management Plan is intended to cover both indoor and outdoor pest management activities, but there is no indication of who will be responsible for pest management in the residential units. If that will be the responsibility of the residents, will there be any requirement for them to adhere to IPM principles and/or hire only IPM contractors? Will residents maintain private yards or gardens? Will IPM be mandated for those? There is no clear indication of the extent to which the Condominium governance will ultimately control residential unit pest management practices during the "operational" phase on the site. Comment 6-93

The Plan discusses the elements of a typical IPM plan including the need to designate an IPM Coordinator, to properly train staff and residents, to establish Action/Tolerance Thresholds and to conduct a Monitoring Program with adequate records to support periodic Program Evaluation. Notwithstanding that general discussion, it is not clear that the actual implementation will fulfill the promise. Comment 6-94

The basic structure of the Plan is revealing. Sections 1 and 2 state objectives and goals, a general policy and discuss integrated pest management in the abstract. Section 3 addresses various aspects of the use of chemical controls for pest management, while record keeping and program evaluation are covered in sections 4 and 5. Finally, IPM education and training is Comment 6-95

addressed in Section 6. While the discussion of IPM in Section 2.1 emphasizes the use of a "combination of cultural, physical, biological and chemical pest population control methods to reduce pests to acceptable levels," the Plan considers only chemical control methods with any specificity. What other specific methods, cultural, physical or biological will be used to control pest populations? How will these methods be monitored?

Comment 6-95 Con't

The Pesticide Use Recommendations (p. 6) state that "Pesticides should be used only when other pest prevention and non-chemical control measures are unavailable, impractical, ineffective, or are likely to fail to reduce pests below tolerance thresholds." The decision as to the practicality and effect of non-chemical controls should be based, in large part, on careful records of their performance on site. Yet, the discussion of records pertaining to control methods (Section 4 at p.8) states only that the IPM Coordinator should maintain complete, up to date and detailed records of pesticide applications, including the date, identity of active ingredient, amount and form of chemical controls applied and location(s) treated. Why is there no provision for keeping records of non-chemical controls? The absence of those records will make it impossible to evaluate the efficacy of any non-chemical controls, and to identify those which are most successful.

Comment 6-96

As currently drafted, the Plan fails to reflect a substantial commitment to the implementation of non-chemical pest management methods on site.

LETTER # 20

E & Y OPERATING CORP.
PLEASANT VIEW FARM, LLC
4West Wind Lane
Brewster, NY 10509

Tel 845-207-9355 **Fax 845-207-9354**

RECEIVED

JUL 3 1 2008

TOWN OF NORTH SALEM
PLANNING BOARD

July 30, 2008

Town of North Salem Planning Board
266 Titicus Road
North Salem, NY 10560

RE: Salem Hunt Site Development Plan
June & Starlea Roads

Members of the Board:

We submit this letter as Comment on the above Plan, in accordance with the Board's request at its June 2008 meeting that comments from the public be submitted by July 31, 2008.

By way of introducing ourselves, we are the owner/operator of the property known as Pleasant View Farm, consisting of approximately 90 acres, located on June Road about 750' west of the intersection of June and Starlea Roads where the Salem Hunt property begins.

Our farm is located in the Town of Southeast, but we are also entirely within the North Salem School District.

Our property includes seven residences in addition to the commercial horse farm operation with a 16 stall barn and recently constructed indoor arena. We are part of the Putnam County Agricultural District and have been a commercial horse farm for more than 50 years.

Being so close to Salem Hunt, our property will be directly impacted by the proposed 65 unit development in many ways – line of sight, noise, traffic, water, sewage, etc, and so we are of course very concerned about it.

We attended the Board meeting in June, and later carefully reviewed a copy of the Plans made available at the North Salem Library. Following are our comments.

1. Horse Trails.

Our riders, and those from other neighboring farms, depend on access through this property to reach the North Salem trail system. Without it, they would have to travel much further along the side of June Road (which is both difficult and dangerous) to reach a point of access to the NS trail system. For this reason it is extremely important to us that there be a permanent right for horse riders to travel over designated paths on the Salem Hunt property that lead into the NS trail system.

Comment 2-19F

At the meeting it was indicated this would be done. We earnestly request the Board to make sure that specific, permanent, legally binding covenants and obligations to this effect are entered into by the developer and condominium association as a condition for any final approval of the Plan.

2. Overall Impact of the Proposed 65 Unit Development on the Surrounding Area.

The area surrounding the proposed 65 unit development still exudes a feel of being 'ex-urban' or 'semi-rural'. There are only single family residences, many having 4 or more acres of land. When one drives along the local roads (June, Hardscrabble, Starlea, Starr Ridge, Bloomer, etc), at no point do you get the feeling of being in a built-up suburb. A primary reason for this atmosphere is the total absence of any townhouse, condo, or cluster development. That is, so to speak, one of the attractions of living in the area.

Comment 8-13

Our point here is not to try to stop the development from proceeding. Rather, we want to emphasize to the Board (and to the developer) how important it is that the developer take **meaningful** steps to shield neighbors and passersby from having the beauty of the area compromised by the bulk,

light and noise that result from having such a concentration of housing, people, cars, etc in a small area.

Comment 8-13 cont

Specifically:

Line of Site Views of the Development from Neighboring Properties.

The plan speaks repeatedly of how line of sight impact will be kept minimal by leaving untouched large numbers of native trees and vegetation around the perimeter of the site and even planting some additional ones (pg 8-6). But the fact is that almost all of those native trees and shrubs are deciduous, i.e. they are bare for 6 months or more each year, so that during half the year the development will be fully exposed. Moreover, the Plan admits that trees will be removed and views of the buildings, especially on the western side of the site where storm water basins are to be built.

Equally important - these are two story buildings being built at grade levels mostly **30 – 60 feet above** the surrounding residences and roads. As such, it is hard to imagine that they will not stick up above any tree canopy at road level.

Lighting/Glare from the Concentration of Street Lights and Homes.

Comment 8-4

The plan refers to lighting impact on surrounding residences from the 14' tall street lamps (pg 8-8), but never refers to the mass of light emanating from so many homes clustered on a few acres.

Moreover, the 14' high lamps are mostly located at grade levels 20 – 60 feet above the neighboring properties, and – at least during the 6 off-leaf months of the year – will be totally exposed to view from neighboring residences, so they almost certainly will be highly visible; Ditto for the lights emanating after sundown from the 65 homes.

Comment 8-8

The Plan somewhat glibly discounts the impact of the street lamps by saying they only shed .3 footcandles. But footcandles refers to the amount of light hitting the ground (in this case 14' below); there is no reference to the amount of light and glare at the bulb itself (which is what you would see at a distance). Those bulbs are 150W metal halide – which is a very bright bulb.

Comment 8-7

We ask the Board to require the developer to do much more to mitigate these problems. Under the present plan, the only mitigation offered by the developer is to use a down lighting shield on the street lamps. This could be of significant value, but the developer should be required to do an actual test to prove its effectiveness.

Comment 8-7 Con't

The best means of real mitigation would be some visually attractive sight barriers. One obvious suggestion would be to use screens of dense evergreen bushes and trees. We urge the Board to require some such visual barriers, particularly along the western side, which by admission is exposed.

Comment 8-12

3. Wastewater Disposal.

The Plan seems to call for a very standard septic system consisting of septic tanks and leeching fields. We are not knowledgeable enough to make specific suggestions for improving the septic system, but ask the board to consider whether the wastewater generated by a concentration of 65 two bedroom units shouldn't have some additional mechanical, chemical, or biological treatments within the system. The fact is that all this waste is going into the ground in one small area –an area very close to an important tributary stream of the Croton reservoir system. We urge the board to require full independent analysis of this issue.

Comment 10-6B

The only mention of anything extra is a filter for nitrates. We're not professionals at this, but according to their analysis there are nitrate levels on the property with no septic or fertilizers currently being used. In addition to this we know that Putnam County Soil and Water is concerned with the high nitrate levels entering the reservoirs downstream. The Salem Hunt data suggests that the effluent is rated at 40 mg/L, four times that of what the EPA considers safe(10mg/L). In order to lower its concentrations, they wish to use a mechanical filter, which they give a brochure for in the Appendix K. The brochure itself states that the filter eliminates 66-70% of the nitrates in the sewage going through it. That leaves effluent with ~12mg/L nitrate (not safe). The effluent will then infiltrate the soil via the leaching fields and enter the ground water supply, while hopefully losing some nitrate levels along the way. **This doesn't work out**. There is already a problem with nitrate levels and allowing more to seep into the ground is not a satisfactory way of improving the environment. A chemical filtration system that completely filters out nitrates/nitrites/ammonia is going to have to be

Comment 10-16

required for this site. The numbers they are using, 16,000gpd of sewage, are not even met with the system they propose now and 16,000gpd is only an estimate. If there's even more sewage, there will be an even higher flow rate or concentration. The inadequate computer modeling that they are using should not replace common sense. You are putting 135+ people on less than 40 acres in the middle of a watershed. There is going to be contamination without extreme interventions. There should be virtually no more nitrates leaving their property after the installation of a septic then there were before one was installed.

Comment 10-18 con't

4. Traffic.

We ask the Board to carefully consider and study the issue of safety – the chance for accidents – at the intersection of June and Starlea Roads where cars and trucks will enter and exit from the development's **sole** access road. As stated in the Plan, drivers tend to drive close to 50 mph along June Road at this point (Note: the speed limit on June Road after the Putnam County line seems to be 55 mph).

Comment 9-25

If every driver were careful and patient, there would be no problem, but that is not the reality. In particular, because of proximity to the High School, there is an unusually large number of young, relatively inexperienced high school drivers on this road. With all the new traffic from the development, this may well become a very dangerous situation. We strongly urge the Board to require that a traffic signal light be installed at the intersection to ensure safety.

We also suggest that the Board contact the Putnam County Highway authorities to let them have input into this matter.

Comment 9-26

5. Ground Water and Wells.

We urge the Board to carefully study, independently, the whole issue of the availability of subsurface water in this area. For all of the detailed studies and analysis contained in the Plan, our 'anecdotal' information is that on average it is taking deeper and deeper drilling to come up with acceptable gpm wells in the whole area. Is the developer truly realistic in terms of servicing 65 units with only two or three wells? Are the developer's

Comment 5-30

estimated water usage figures really realistic for the number of units and persons involved?

Comment 5-30 con't

As an agricultural enterprise we rely heavily on water usage – for irrigation, horticulture, horse and livestock care. Moreover, we have seven residences on our property. We note that even though we are located in the downgradient area shown on the developer's Figure 5.1, and that one of our two wells is located only about 1100 feet from the Salem Hunt site, the developer arbitrarily decided that it would test only wells within 1000 feet of the site, and so ours were not included in its testing (even though we are probably one of the heaviest users of all the wells in the area).

Comment 5-31

The Plan specifically states that the total estimated water use in the areas upgradient and downgradient from the site is approximately 31,350 gal per day, of which the school uses 23,660 gal per day. With all due respect, based on our knowledge of just the amount our farm uses daily, the total of 31,350 is much, much too low, and shows a lack of proper research in ascertaining it.

Comment 5-32

6. Plants, Irrigation, and Storm Water.

A. Condominium Association

We commend the developer's decision to prohibit all irrigation of lawns, etc, and request that the Board ensure that the various rules pertaining to this – for plants, irrigation and all use of water outdoors - will be made permanently binding on the condominium association.

Comment 5-33

We also suggest the permanent inclusion in the condominium by-laws of provisions that prohibit introduction of plants not already existing on the property. This is a practice used by other developments to protect nearby wetlands from being infiltrated by invasive species.

Comment 6-97

We also suggest that the developer's suggestion for IPM (Integrated Pest Management), including the provisions for having a qualified individual or company as IPM Coordinator/Contractor, be made a permanent part of the by-laws of the Condominium Association.

Comment 6-114

B. It is important to remember that residents will use other chemicals outdoors beside fertilizers and water. Paint, cleanser, detergent, for washing

Comment 6-98

cars, and others are commonly used. The storm water system needs to be designed to take in these contaminants and filter them out. They should not just be allowed to collect in a storm water basin and slowly be sucked into the earth.

Comment 6-98 con't

7. School Age Children.

The claim made in the plan that these 65 units will generate only 9 school age children just flies in the face of common sense. In all likelihood, the number one motivation for buyers of these units will be their location within the highly desirable North Salem School District. For better or for worse, the actual number of school age children living in these units is much more likely to be 30 – 50.

Comment 11-5A

Sincerely,

Edward Raboy

Ervin Raboy

LETTER # 21

RIVERKEEPER®

VIA FACSIMILE 914-669-8460 and US MAIL

July 30, 2008

Ms. Cynthia Curtis, Chair, &
Hon. Planning Board Members
Town of North Salem
266 Titicus Road
North Salem, NY 10560

RE: Salem Hunt Draft Environmental Impact Statement

Dear Hon. Ms. Curtis and Hon. Members of the Planning Board:

Riverkeeper is a non-profit organization dedicated to protecting the ecological integrity of the Hudson River, its tributaries and the New York City watershed, which supplies unfiltered drinking water to nine million City and upstate consumers. As a signatory to the 1997 New York City Watershed Memorandum of Agreement, we have a demonstrated interest in reviewing development proposals that may impact water quality in the City's 2,000-square-mile drinking water supply watershed (NYC Watershed).

The applicant for the Salem Hunt subdivision project has proposed construction of 65 residential units on 40 undeveloped acres in the Town of North Salem,[1] within the NYC Watershed.[2] Accordingly, we offer the following comments on the Salem Hunt Draft Environmental Impact Statement (DEIS).

Phosphorus Issues

Phosphorus Loading Calculations Are Inconsistent

The applicant's phosphorus figures are, at best, inconsistent. For example, at various points throughout the DEIS the applicant proposes to increase annual phosphorus loading to the Muscoot Reservoir by 1.12 lbs,[3] 1.05 lbs,[4] 2.31 kg,[5] and 3.96 kg.[6] In addition, the applicant incorrectly equates 1.05 lbs to 2.31 kg.[7] The wide disparity and flawed conversion of these values renders an informed review of annual phosphorus loading impossible. Therefore, the Town Planning Board, as lead agency, should require

Comment 6-99

[1] *See* Salem Hunt Draft Environmental Impact Statement (DEIS) at 2-1.
[2] *See id.*, at 3-8.
[3] *See id.*, at 6-22.
[4] *See id.*, at 6-25.
[5] *See id.*
[6] *See id.*
[7] *See id.*, 1.05 lbs = 0.476 kg.

the applicant to provide accurate and consistent calculations of phosphorus loading for public review.

Comment 6-99

Additional Phosphorus Loading to the Muscoot Reservoir is a Health Issue

The applicant correctly notes that the proposed Salem Hunt project is located in the phosphorus-restricted Muscoot Reservoir Basin[8] and that "the Muscoot Reservoir phosphorus TMDL is being exceeded as a consequence of existing point and non-point phosphorus inputs...."[9]

Comment 6-100

Phosphorus is the primary nutrient for algae, which means that algal production is dependent on the amount of phosphorus available in the water column. Excess phosphorus in the Muscoot Reservoir causes algal blooms, which impair water quality by depleting dissolved oxygen through the process of decomposition, tainting the taste, odor, and color of finished water, and increasing the concentration of dissolved organic carbon.[10] The dissolved carbon then reacts with chlorine during disinfection to create carcinogenic byproducts in finished drinking water.[11]

The Proposed Project Contravenes the Goals of the TMDL Program

Even though the Muscoot is already suffering from excess phosphorus, the applicant proposes to increase phosphorus loading of receiving waters in the Muscoot Reservoir Basin. The applicant supports this proposal with the proposition that the "annual increase in loading does not represent the potential to significantly impact any wetlands, watercourses, or the 4.9 billion gallon capacity Muscoot Reservoir."[12] This claim erroneously assumes that the cumulative impacts to water quality associated with increasing sprawl in Putman County and the New York City watershed are insignificant, when precisely the converse is true.

Comment 6-101

The applicant further claims that the "burden for reducing current phosphorous loading to achieve the [phosphorus] TMDL in the Muscoot Reservoir rests with the Town of North Salem and other Municipal Separate Storm Sewer System (MS4s) in the Muscoot Watershed."[13] However, the SPDES General Permit for Stormwater Discharges from MS4s (GP-0-08-002) has been in effect since May 1, 2008 and includes additional minimum control measures for watersheds with improvement strategies, requiring all East-of-Hudson watershed MS4s to:

Comment 6-102

[8] *See id.*, at 6-25.
[9] *See id.*, at 6-24.
[10] See NYCDEP TMDL Report at 7-9; Nat'l Research Council, Watershed Management for Potable Water Supply: Assessing the New York City Strategy, at 106-07 (2000) (hereinafter NRC Study).
[11] See NRC Study at 2, 5-6, 102-05, 109.
[12] *See* DEIS., at 6-22.
[13] *See id.*, at 6-25.

> Develop, implement and enforce a program to reduce pollutants in stormwater runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to five thousand (5000) square feet.[14]

Comment 6-102 cont

It is therefore an advisable action for the Town of North Salem, as a regulated MS4, to develop, implement and enforce a program to reduce phosphorus loading in the Muscoot Basin by denying approvals for construction projects that propose to increase phosphorus loading of the Muscoot Reservoir, including the proposed Salem Hunt project.

The Applicant Has Not Demonstrated Compliance With the Requirements of the SPDES General Permit for Stormwater Discharges from Construction Activities (GP-0-08-001)

Comment 6-103

The applicant relies on discussions with the New York State Department of Environmental Conservation in January 2007 that indicated that the proposed heightened MS4 requirements for East-of-Hudson municipalities had not been implemented at that time. However, effective May 1, 2008, both the SPDES General Permit for Stormwater Discharges from Construction Activities (GP-0-08-001) and the SPDES General Permit for Stormwater Discharges from MS4s (GP-0-08-002) have been in force.

GP-0-08-001 Part 1.B requires that:

> It shall be a violation of this general permit and the *Environmental Conservation Law ("ECL")* for any discharge authorized by this general permit to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York...

It is indisputable that increasing phosphorus loading to a phosphorus-restricted reservoir constitutes the contribution to a violation of water quality standards, in violation of the general permit. Although the applicant claims that the proposed increase in phosphorus loading does not represent a significant potential to impact the Muscoot Reservoir, it certainly contributes to, rather than mitigates, a violation of water quality standards. The project therefore violates the SPDES General Permit for Stormwater Discharges from Construction Activities.

In addition, Part 3.B.3 requires, in part, that:

> Beginning on September 30, 2008, all construction projects identified in Table 2[15] of Appendix B[16] that are located in the watersheds identified in Appendix C[17] shall

Comment 6-104

[14] *See* GP-0-08-002, Part IX.A.4.

[15] *See* GP-0-08-001, APPENDIX B, TABLE 2, CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP, includes single family residential subdivisions located in one of the watersheds listed in Appendix C that disturb one or more acres of land.

[16] *See* DEIS, APPENDIX B, REQUIRED SWWP COMPONENTS BY PROJECT TYPE.

prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the most current version of the technical standard, New York State Stormwater Management Design Manual.

Comment 6-104

The applicant has not demonstrated that the SWPPP conforms with the Enhanced Phosphorus Removal Supplement to the NYS Stormwater Management Design Manual. Unless construction on the Salem Hunt project commences by September 30, 2008, the applicant will be required to comply with the provisions of Part 3.B.3 above.

Stormwater Management Practices Should Be Sited Outside of Wetland Buffers

Comment 6-105

The applicant proposes "encroachments into the buffer of Town regulated Wetlands A, B, and C, and the buffer of NYSDEC regulated Wetland D, with incidental grading, SMPs, water supply facilities and access road."[18] Including off-site Wetland D, the applicant proposes disturbance of a total of 1.01 acres in five separate wetlands.

Wetland buffers provide transitional areas that intercept stormwater from upland habitat before it reaches wetlands or other aquatic habitat. Buffers are described generally as "linear bands of permanent vegetation adjacent to an aquatic ecosystem intended to maintain or improve water quality by trapping and removing various nonpoint source pollutants."[19] Other water quality benefits of buffer zones include reducing thermal impacts (shade), nutrient uptake, providing infiltration, reducing erosion, and restoring and maintaining the chemical, physical and biological integrity of water resources.[20]

Siting stormwater management practices within buffers can impair buffer function by clearing trees, sacrificing stream channels located above the practice, altering existing wetland hydrology, and increasing thermal impacts.[21] For these reasons, the disturbance of buffers to site stormwater management practices should be avoided, and the applicant should be required to reconfigure the siting of stormwater basins so that no buffers are disturbed in any of the five subject wetlands. In short, the lead agency should require that the applicant to site all stormwater management practices outside of wetland buffers.

Discussion of the Wastewater Treatment System is Deficient

Comment 10-17

[17] *See id.*, APPENDIX C, WATERSHEDS WHERE ENHANCED PHOSPHORUS REMOVAL STANDARDS ARE REQUIRED, includes entire East-of-Hudson NYC Watershed.
[18] *See id.*, at 6-28.
[19] FISCHER, R. AND J. FISCHENICH, DESIGN RECOMMENDATIONS FOR RIPAIRAN CORRIDORS AND VEGETATED BUFFER STRIPS, US Army Engineer Research and Development Center (2000), 2.
[20] USEPA, MODEL ORDINANCES TO PROTECT LOCAL RESOURCES, *available at* http://www.epa.gov/owow/nps/ordinance/
[21] *See supra* note 22, at 6.

The applicant proposes to site the 6.5-acre primary and secondary disposal field of a subsurface sewage treatment system (SSTS) in Charlton loam (ChB) soils east of the residential development.[22] The DEIS correctly characterizes ChB soils on slopes from 2-8% as deep and well drained.[23] However, DEIS Figures 9-6, Proposed Site Plan, and 7-3, Soils Map, indicate that the 6.5-acre SSTS disposal area is proposed to be sited on Charlton loam (ChD) soils with slopes ranging from 15-25% and Sutton loam (SuB) soils in addition to ChB soils. Development limitations on ChD soils are severe due to slope, and on SuB soils are severe due to wetness.[24]

Comment 10-17 Con't

Appendix 75-A.4 of the New York State Septic System Design Regulations prohibits siting of SSTS on slopes greater than 15%. Because the DEIS soil map proposes siting a portion of the SSTS on ChD soils, which are characterized by a *minimum* of 15% slopes, the applicant should be required either to demonstrate that all the ChD soils in the proposed absorption area are limited to 15%, or to reconfigure the site plan to comply with State law.

In addition, the applicant's project engineer completed 31 deep test holes and percolation tests in August 2007,[25] the driest month of the year. Percolation and depth to groundwater of SuB soils, having severe development limitations due to wetness, cannot be assessed accurately unless seasonal variations in rainfall are included in the analysis. To ensure that the proposed SSTS will not fail due to groundwater mounding and surface soil saturation, the applicant must be required to conduct soil percolation tests during the wettest time of year.

Comment 10-18

These issues are particularly salient when considering the fact that the applicant has proposed siting a 6.5-acre sewage disposal field on soils some of which have severe development limitations due to steep slopes and wetness. The Town Planning Board should require the applicant to identify and discuss an alternative that reduces the number of proposed residential units to a quantity that can be serviced by an SSTS that is properly designed and sited on appropriate soil types existing on the project site.

Comment 10-19

Thank you for the opportunity to comment on these important water quality issues.

Sincerely,

James L. Simpson
Staff Attorney

William Wegner
Staff Scientist

[22] *See* DEIS at 10-3.
[23] *See id.*, at 7-2.
[24] *See id.*, Table 7-2, SOIL CHARACTERISTICS AND LIMITATIONS, at 7-6.
[25] *See id.*, at 10-3.

LETTER # 22

11 August 2008

ARCHITECTURAL REVIEW BOARD MEETING
Summary of Comments
Salem Hunt Development Plan Submission

Members Present:	Michael Palma, Chairman Edward Isler Donald Raskopf David Wilklow
Date of Meeting:	Wednesday, July 30, 2008
Also Present:	Janice Will, Secretary

The Architectural Review Board met on Wednesday, July 30, 2008 to review the documents for the Proposed Salem Hunt Development.

The Salem Hunt Development Plans consists of two CD's. One CD contained plans, documents, & statements describing the proposed development in detail. The second CD (Appendices) contained supporting data.

Below find a brief list of concerns noted by the Architectural Review Board.

Site Layout/Site Access/ Site Improvements

- It seems that with numerous multicar garages, the development could add as many as 130 cars to local traffic. This will have an adverse impact on North Salem. Can a better understanding of the total number of vehicles be provided? Comment 9-30
- Due to the large number of new residents the development will bring to North Salem, it seems wise to encourage traffic leaving the development to turn left (north) onto June Road away from the more populated and residential portion of the community. Use of Fields Lane should be encouraged. Comment 9-27
- Star Ridge Road is a nearby road that seems likely to bear the brunt of increased traffic heading to Connecticut or northern NYS/Putnam County. Star Ridge Road is residential in nature and will be adversely affected with a substantial increase in traffic. How can Salem Hunt minimize its impact on this road? Comment 9-28
- Similarly, Starr Lea Road is directly opposite the proposed Salem Hunt entrance. Starr Lea leads to Star Ridge and will most likely be employed by any new resident intending to travel to Connecticut or to northern/western New York State. Starr Lea Road is narrow, steep and residential nature. It seems any increase in traffic will severely impact this road. How can an increase in traffic on this road be avoided? What measures can be taken to mitigate any damage to the road/adjacent residences. Comment 9-29

- Will a traffic signal at the June Road entrance be required? I understand that there is a large amount of traffic on June Road during certain times of the day that would hinder incoming traffic.] Comment 9-83

Visual Impact on Surrounding Community

- With new proposed structures & site lighting sitting atop an already site-high elevation of 680' this project will have a substantial visual impact on the surrounding community. To assess that impact the ARB recommends that temporary balloons/lighted elements be raised so that the planning board and other community groups can garner information about the impact on the surrounding neighborhood.] Comment 8-16
- It is recommended that site cross-section(s) be illustrated focusing on the scale of buildings relative to the road/ adjacent properties. Can a 3-D model or perspective of the site be provided?] Comment 8-17

Site Comments/ Impact on Surrounding Properties

- The submitted documents note that visually attractive stone walls will be eliminated. These stone walls are part of the history and character of North Salem. Can new stone walls (using the demolished material) be built elsewhere or can the materials from the stone walls be provided to the local townspeople.] Comment 8-24
- We should obtain an as-built site plan attesting to the fact that the built structures, road, paving, and planting match what is being proposed.] Comment 2-30
- Are roads (& radii) large enough to accommodate delivery vehicles. Turning radii within the site seem tight for delivery & emergency vehicles.] Comment 2-34
- Note; The adjacent (Northwest) property driveway will be relocated. Has the owner of that property been consulted?] Comment 2-31
- There appears to be no pool area site lighting. Will any be installed? ⇉ Comment 2-32
- Will there be any signage or lighting on June Road to direct drivers into the site? Entry road lighting will impact neighbors. Confirm foot-candle-power and site lines of any entry area lighting.] Comment 8-3
- It is assumed that the property owner be responsible for snow removal and road maintenance.] Comment 2-2
- Note - At least 1000 trees will be lost. Will North Salem be compensated for this significant loss of trees?] Comment 2-35
- There seems to be a limited number of guest parking spots. Adequacy should be confirmed.] Comment 2-23A
- Comparison with similar developments: Salem Hunt seems to be 30% larger than the Cotswold's. Review how the Cotswold's has affected North Salem and compare and contrast that to this planned development.] Comment 3-13
- Property Values of surrounding will be negatively impacted. Is this a concern to the ARB?] Comment 11-12

Review of Building Aesthetic elements

- Some of the attached townhouses have large roof planes. Can we get a better understanding of the shingle product to be used?] comment 2-14
- The illustration of the 'one side' garage (34 ft. townhouse) has unusual miss-colored squares in some windows. Explain?] comment 2-15
- Does the change in roof color in the 20' townhouse (3 forward garages) signify a change to copper standing seam or some other type of roofing?] comment 2-16
- Very few building elevations were provided. Please provide all views as well as site cross-sections showing all proposed structures and how they relate to each other.] comment 8-15

Other Issues to analyze that would help answer some of the current questions.

- Areas to analyze:
  - How do these properties compare in size, scale & mix of units.
  - Visual Impact on the surrounding community.
  - Impact on Emergency Services (number of police, fire & EMS calls per year).
  - Impact on Schools.
  - Impact of Tax base versus what was originally claimed (tax benefit v cost).

] comment 2-4

LETTER # 23

AKRF

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August 13, 2008

Cynthia Curtis, Chair
Town of North Salem Planning Board
270 Titicus Rd
North Salem, NY 10560

Re: Salem Hunt Draft Environmental Impact Statement

Dear Ms. Curtis:

On behalf of the Town of Southeast Planning Board, AKRF, Inc. has reviewed the Draft Environmental Impact Statement (DEIS) for the proposed Salem Hunt project. AKRF has limited its review to the two issues of most relevance to the Town of Southeast: stormwater and traffic. This letter was reviewed and approved for distribution by the Town of Southeast Planning Board at their August 11, 2008 regular meeting.

Stormwater

1. The Design Line used in the stormwater analysis may not be appropriate for this site. It appears that a portion of the predevelopment subcatchment area PRE-2 discharges via overland flow towards the property N/F Cleary. The other portion discharges via overland flow towards Wetland L-32 (Wetland D). Therefore, to analyze the true impacts to the wetland/stream, as well as to off-site areas, these drainage areas should be divided and analyzed accurately. If the existing drainage area to Wetland L-32 (Wetland D) is smaller than the proposed post-development contributing drainage area, the volume of water as well as the peak flow would be larger than the numbers presented in the tables. As such, there may be a greater increase in volume and flow than what is demonstrated in the DEIS. This may impact the sizing of the stormwater management practices and may affect downstream (off-site) drainage facilities in the Town of Southeast (e.g., culverts under Starlea Road and Fields Lane). The concern is that the effects of the proposed project have not been modeled to show the actual impacts of the project on the downstream wetland/watercourse. Similarly, this would impact the pollutant loading calculations. The pollutant loading summary, Table 6-9, shows that there is an increase of TSS and TN at DL-2. The stormwater analysis should divide the subcatchment areas and re-evaluate the design analysis points to reflect the corrected pre- and post-development drainage analysis points. Comment 6-110

2. The proposed SSTS area and landscaped areas surrounding a portion of the building will be converted from forested areas to grass. The Stormwater section does not address the treatment of run-off from these areas. Typically the disturbed areas are required to be captured and treated. Comment 6-111

Traffic and Transportation

1. Page 9-14 of the DEIS indicates that the intersection of June and Starlea Roads has sufficient sight distance. However, the text references Drawing EP-1 which was not provided within the DEIS. This drawing should be included as a figure in the FEIS. Comment 9-32

2. We note that the proposed route for construction vehicles to access I-684 from the project site is Fields Lane and that approximately 1,100 trucks would use that route over a four month period. While this amount of traffic should not present any issues with Fields Lane, we question why this amount of fill needs to be exported. The applicant should seek to balance the cut and fill on the site.

Comment 9-31

Sincerely,

Ashley Ley, AICP
Planner, AKRF Inc.

cc: Town of Southeast Planning Board
Tim Miller Associates

LETTER # 24

Horsley Witten Group
Sustainable Environmental Solutions
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MEMORANDUM

TO: Mr. Philip Bein, NYC Watershed Inspector General
State of New York, Office of the Attorney General

FROM: Richard Claytor, Principal, Horsley Witten Group, Inc. (HW)
Neal Price, Sr. Hydrogeologist, HW
Tom Lee, Sr. Wastewater Engineer, HW

DATE: September 2, 2008

RE: Salem Hunt Development Review – Wastewater Management

Horsley Witten Group, Inc. (HW) has conducted an initial review of the wastewater and groundwater mounding elements related to the Salem Hunt Site Development Draft Environmental Impact Statement (DEIS). The following information was included in the submission:

Title	Dated
Salem Hunt Drawings (sheets 1-16)	April 18, 2008
DESI Vol. 1 & 2, Salem Hunt	May 20, 2008

We offer the following initial findings and comments for your review.

Wastewater Management

1. The written description of the treatment system does not match what is being shown in the plans. For example, Section 4.0 of the Preliminary Wastewater System Report references two locations for septic tanks, however only one location is shown on the plans. Section 5 of the Report references alternate dosing of the trenches, while based on the plans it appears gravity distribution is proposed. Comment 10-21
2. Additional information regarding the subsurface sewage treatment system (SSTS) is required to adequately review the proposed design. The plan should show the location of each leaching trench, along with calculations for sizing the field, including the proposed loading rates. Comment 10-22
3. The proposed AdvanTex AX100 wastewater treatment system is generally considered a reliably system to provide adequate pollutant removal for biochemical oxygen demand (BOD), total nitrogen, and total suspended solids to Comment 10-23

meet the discharge limits but has limited capability to remove phosphorus. The expected total phosphorus concentration in the treated effluent is likely to be approximately 5 milligram per liter (mg/L), which is equivalent to about 0.67 pounds per day with a design flow of 16,000 gallons per day. This will increase the phosphorus loading into an existing phosphorus stressed watershed. Other phosphorus removal technologies, such as biological and chemical processes should be considered in order to reduce the total phosphorus concentration to less than 1 mg/L in the treated effluent.

Comment 10-23 con't

Groundwater Mounding

1. Necessary information to adequately review the calculations is missing, including:
   - A better graphic showing actual locations of the proposed effluent leaching facility relative to borings, test pits, the stream, property boundaries, and existing topography;
   - Color copies of diagrams and mapping to make the groundwater model documentation legible;
   - Better documentation of rationale for model boundary conditions and aquifer properties.

Comment 10-24

2. Model input factors do not appear to be based on a conservative methodology which tends to underestimate mounding results, including:
   - Existing natural groundwater recharge rounded down from 16.7 inches per year calculated to 16 inches per year used;
   - Constant head boundaries in model nearly surround the proposed leaching area and are too close to the area of interest. The influence of those constant head boundaries tends to reduce estimated mound heights at the leaching area as the model attempts to maintain those constant head elevations in close proximity to leaching area;
   - The model includes the top 10 feet of bedrock as aquifer which is inappropriate. The model should only use overburden material and the bedrock surface should be modeled as an impermeable boundary. Artificial thickening of the aquifer decreases predicted mound heights;
   - The computed hydraulic conductivity values in model are artificially increased by 10% to account for predicted increases in aquifer transmissivity as water levels rise under the influence of mounding. This is inappropriate as the model accounts for changing transmissivity as water level change and artificial alterations of conductivity are not required. If the applicant's choice of confined aquifer conditions for the model drove this decision, the aquifer type should be changed to unconfined or variable.

Comment 10-25

3. Mounding results are reported independently for each of the three leaching bed rotations simulated. In reality, the mounding resulting from bed use configuration 2 will be superimposed on the remaining mound from bed use configuration 1, and so on. The total mound height is therefore under predicted. The total

Comment 10-26

mounding should be estimated by either using a transient model capable of accounting for the bed use changes, or by a mathematical superposition of the three independent mounding evaluations.

Comment 10-26 Con't

4. The model output is generated for target boring locations and it is unclear how these relate to the actual leaching areas. Is there potentially higher mounding away from these target boring locations?

Comment 10-27

5. Even with the non-conservative issues raised above, the model predicts mound heights that will require infilling to maintain groundwater separation. There is little room for error in this situation and any errors in the applicant's calculations may result in violation of the groundwater separation requirements. This is particularly relevant as the model output is reported to be accurate to only within approximately 1 to 2 feet.

Comment 10-28

6. As a quick check on the applicant's mounding calculations, we ran an analytical mounding estimate using Hantush's 1967 method. We used a 100,000 square foot infiltration area representing two of the proposed infiltration basins, a loading rate of 16,000 gallons per day under steady state conditions, the applicant's reported average hydraulic conductivity value of 0.6 feet per day, and an initial saturated aquifer thickness of 5 feet based upon the boring logs for B-5, B-13, and B-14 (assumed to be closest to the leaching area). The estimated maximum mound height below the center of the leaching area from this analysis was calculated to be approximately 28 feet; significantly higher than any of the values reported by the applicant. It is unclear how a 28-foot mound relates to existing topography in terms of groundwater separation requirements.

Comment 10-29

7. The applicant's mounding analysis was conducted using natural aquifer recharge conditions from a slightly wetter than average year. What would occur under extremely wet conditions, as may occur more frequently due to climate change considerations? This is particularly relevant since the applicant's calculations show sufficient mounding to require infilling, and that there are real concerns about whether the applicant's mounding calculations are an under estimation.

Comment 10-30

Nutrient Loading

1. There is not enough information to adequately review the applicant's nitrogen loading calculations. As a check on the veracity of the MT3D contaminant transport model used, it would seem reasonable to provide a delineation of the groundwater flow area from the leaching facility to the stream, and a mass balance analysis completed.

Comment 10-31

2. There is no discussion of phosphorous loading despite the fact that the project is located within a phosphorus restricted watershed. While phosphorous does tend to bind to subsurface soil particles, subsurface adsorption sites gradually become filled and soluble phosphorous migrates incrementally further with time. The

Comment 10-32

leaching facility is reported to be located approximately 170 feet from the adjacent stream. Given the shallow depth to groundwater under proposed conditions, the total horizontal and vertical wastewater travel distance will be much lower than the 300 feet commonly used as a general rule of thumb guideline for a desirable distance from a surface water body. In addition, the concerns about groundwater mounding discussed above raise an additional concern that surficial breakout of effluent might allow for the rapid transport of phosphorous to the stream via overland flow.

Comment 10-32 Con't