

# **WELL MONITORING AND MITIGATION PLAN**

**Salem Hunt Residential Development  
June Road  
Town of North Salem, New York**

Lead Agency: Town of North Salem Planning Board  
North Salem Town Hall  
266 Titicus Road  
North Salem, New York 10560

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**December 16, 2009**

**Well Monitoring and Mitigation Plan**

The project sponsor for the Salem Hunt development in North Salem, New York, Wilder Balter Partners, LLC. (the Applicant) proposes to provide water supply to 65 new residences on the subject 40-acre property by a community water supply system, subject to the approval of the New York State Department of Environmental Conservation (NYSDEC), Westchester County Department of Health (WCDOH) and the New York State Department of Health (NYSDOH). Wastewater would be returned to the ground by a subsurface sewage disposal system, following treatment by a wastewater treatment plant.

At the suggestion of the hydrogeologic consultant to the Town of North Salem Planning Board, The Chazen Companies, the Applicant has agreed to conduct an off-site private well water level monitoring in accordance with this Well Monitoring and Mitigation Plan. The purpose of the plan is to identify any adverse effects to offsite residential wells that may be caused by the use of wells on the Salem Hunt development parcel so that any such problems may be confirmed for cause and corrected if necessary.

The applicant has offered to provide a renewable bond or letter of credit in order to cover the cost of any corrective measures resulting from the long term effects of the three Salem Hunt production wells. The four (4) wells recommended for monitoring are known as the Havell well located south of the property, Red Horse Farm well, located west of the property, the Seeley well located northeast of the property, and the Town Highway Facility well located southeast of the property. Drawdowns were observed in each of these wells during the 2006 Salem Hunt pump test. In addition, based upon concerns raised by a neighbor and the Planning Board, the Cindrigh well located east of the property, will be monitored, if agreed upon by the property owner. The applicant has agreed to monitor these five four wells once the proposed water supply system has been approved by the applicable agencies.

All neighboring wells included in the 2006 study, including the Havell, Red Horse Farm, Seeley, and Town Highway Facility wells, are to be covered by a letter of credit. Should a claim of well impact be made by a neighbor not included in the 2006 study, that claim will be reported and investigated, as described below. A letter of credit in the amount of \$10,000 will be provided to the Town, for the purpose of covering the costs of water quality testing and the correction of any problems with neighboring wells, which may be due to the proposed Salem Hunt water supply system. The letter of credit shall cover a period of three (3) years from the date of issuance of the 40th certificate of occupancy.

**Well Monitoring Procedures**

Monitoring would consist of making periodic measurements of the depth to static water in the five four (54) selected private wells, described above. Monitoring would be limited to the collection of water level data. Measurements would be collected by electronic recording devices known as pressure transducer/data logger units. These instruments would be installed in each of the selected wells to a depth substantially below the static water level.

The data loggers would be programmed to run independently for a three month period, and to collect a measurement once a day at the same time (suggested at 3:00 am). The measurements, accurate to +0.04 foot (about 1/2 inch), would record water level changes caused by natural conditions and drawdown trends caused by onsite wells. The data from the

monitoring would be collected by a qualified hydrogeologist, on a quarterly basis. The monitoring program would begin at least one year before occupancy of Salem Hunt, before the community wells on the property are put to use, to measure existing ambient water levels in each of the off-site private wells. The program would continue until at least two full years after completion and full occupancy of the Salem Hunt Development.

#### Data Reporting

Water level data, in the form of graphical plotting of measurements and a brief letter report, would be reported quarterly. The reports would be provided to Wilder Balter Partners, to the Town's consulting hydrogeologist, to the Town Planning Board, to the WCDOH, and to each of the five four (54) individual participating well owners. In the event of a problem or claim, such information would be held in confidence except for necessary reporting to the agencies, to protect the well owner's privacy.

#### Water Supply Impairment Claims

Should any well owner experience loss of supply, inadequate supply or other problems believed to be related to operation of the wells at the Salem Hunt Development, the office of the Town Building Inspector should be notified. The Building Inspector will request that the Applicant's designated representative and the Town's hydrogeologic consultant jointly investigate the problem. If a well owner needs interim drinking water, bottled water will be provided by the Applicant during the investigation and any required remedial action.

Investigation of a well-supply problem would involve reviewing the current and historic water level data from the involved well and determining whether any drawdown was caused by operation of community wells at the Salem Hunt development. This determination is one of experienced professional judgment and can involve interpretation of data. The Town's consultant and the Applicant's representatives will make their best assessment of the situation, and will recommend appropriate remedial action if necessary. Remedial actions, if required, may include one or more of the following:

1. lowering a pump to a deeper level;
2. replacing a shallow-well pump with a submersible pump;
3. replacing a shallow-lift submersible pump with one of adequate supply capacity;
4. conducting airlift well development to clean a well that produces colored or sediment-laden water;
5. hydrofracturing a well;
6. deepening a well; or
7. drilling a replacement well.

The Applicant will not be responsible for correcting pre-existing conditions; conditions caused by an increase in water consumption by the homeowner; conditions resulting from equipment failure; or any condition not directly related to operation of the community water supply wells located at the Salem Hunt development. The Applicant would prefer that no remedial action be taken by a well owner until an investigation is completed, but no well owner is restricted from taking such action at his own risk.

The decision as to whether remedial action is required will be agreed upon by the Town's consultants and the Applicant's designated representatives. If it is determined that a well

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problem is unrelated to the use of the wells at the Salem Hunt development, the well owner would be advised to contact a competent well or pump contractor at their own cost. If any well owner feels aggrieved by the results, an appeal to the Town Planning Board is available, as is referral by the Planning Board to an independent third party for arbitration if the Town's representative and the Applicant's representative do not agree. Costs for third party review would be paid by the Applicant. There is nothing in this monitoring program that deprives anyone of property or legal rights.