

BOARD OF SUPERVISORS

ACTION ITEM

13

SUBJECT: SPEX 2010-0005
Hamilton Well 14, Stone Eden Property

ELECTION DISTRICT: Blue Ridge

CRITICAL ACTION DATE: June 20, 2010

STAFF CONTACT: Rodion Iwanczuk, Department of Planning
Julie Pastor, Director of Planning

RECOMMENDATIONS:

Planning Commission: At its May 19, 2010 worksession, the Planning Commission voted 6-2-1 (Commissioners Bayless, Robinson opposed, Ronis absent) to recommend approval of the Special Exception, subject to the Conditions of Approval as amended at that meeting and based on Findings dated April 28, 2010. The recommendation was subject to the Town of Hamilton's preparing prior to the Board of Supervisors Public Hearing an Addendum to a Pumping, Monitoring and Mitigation Plan for Well 14 and ongoing refinement of monitoring and mitigation procedures for nearby private wells.

Staff: Staff recommends approval of the application, subject to Findings dated June 15, 2010, the revised Conditions of Approval (*italics indicate revision since Public Hearing*) dated June 15, 2010, and the revised Addendum (*italics indicate revision since Public Hearing*) dated June 15, 2010 to the Pumping, Monitoring and Mitigation Plan for Town of Hamilton Well 14 dated October 15, 2007.

Background

The Town of Hamilton, Virginia has applied for a Special Exception to permit for local governmental purposes a Town water supply well, control building, and emergency electric generator on a parcel that is located partially in the JLMA-3 (Joint Land Management Area-3) and partially in the A-3 (Agricultural Residential-3) zoning district and to modify the additional regulations of Section 5-1400 of the Revised 1993 Zoning Ordinance regarding requirement for a Type Two (2) buffer yard and screening adjacent to residential lots. Water from the well will be transported via pipeline to the Water Treatment Plant located approximately one mile north adjacent to Harmony Intermediate School and Kenneth W. Culbert Elementary School that was approved by the Board of Supervisors in 2007 (SPEX 2007-0022/CMPT 2007-0013). The well was considered at the time that the treatment plant was reviewed and there are Conditions of Approval related to the well in the original special exception. However, the well site was not included in the advertising and required notice, and this application is needed to bring the well into compliance. The subject property, approximately 1.3 acres in size, is located on Stone Eden Drive south of Karen Hope Court and north of Sands Road, at 38146 Stone Eden Drive, Hamilton, Virginia, southwest of the Town of Hamilton.

The area is governed by the policies of the Revised General Plan and the Comprehensive Plan for the Town of Hamilton and JLMA (Hamilton Plan), which designate the property as Rural Policy Area and within the Hamilton Joint Land Management Area (JLMA). Under Plan policies the Town of Hamilton is the designated provider of central utilities within the Hamilton JLMA and may provide such service to public facilities in the Rural Policy Area but adjacent to the Hamilton JLMA.

The Board of Supervisors held a Public Hearing on this application on June 7, 2010. Two speakers expressed concerns about the impact on their own wells that the operation of the Town's well and the amount of water that could be withdrawn daily would have, and one speaker representing the Town of Hamilton supported the

**SPEX 2010-0005
HAMILTON WELL 14, STONE EDEN PROPERTY
BOARD OF SUPERVISORS BUSINESS MEETING
JUNE 15, 2010**

application. The Board of Supervisors voted 8-0-1 (Buckley absent) to forward the application to the June 15, 2010 Business Meeting for action.

Issues

The Planning Commission recommended that the Town prepare an Addendum to the approved PMMP. The Addendum was to (1) refine monitoring and mitigation procedures and (2) provide a point of contact with the Town for adjacent property owners with individual wells. The Town-prepared Addendum included other conditions concerning payment by the County for well monitoring beyond an initial two-year period and defining "adverse impact" as that due solely to operation of Well 14, which staff outlined as issues in the Supplemental Information distributed prior to the June 7 public hearing. Staff has proposed revisions to the Addendum and the Conditions of Approval addressing concerns and forwarded the revisions to the Town, requesting the Town's concurrence to be provided no later than at the June 15 Board Business Meeting.

Staff recommends approval of the application subject to the Findings and Conditions of Approval, both dated June 15, 2010, and the Revised Addendum to the Pumping, Monitoring and Mitigation Plan dated June 15, 2010. The revised conditions and addendum have been forwarded to the Town of Hamilton for their review and concurrence or comments prior to the Business Meeting.

Fiscal Impact

According to Town of Hamilton officials, future monitoring costs are expected to be up to approximately \$85,000 annually. The County's cost would be incurred after the Town completes its initial required two-year monitoring period in 2011. The probability of a moderate drought occurring in any one year is 1-in-5, actual occurrence may be sooner or later than five years. Alternatively, the County could purchase monitoring equipment at an approximate capital cost of \$20,000. Using existing staff, up to 30 hours would be necessary for both equipment installation and equipment removal, and 10 hours/ month for data processing and analysis.

During discussion of fiscal impact, a proposal to monitor after the initial two-year period but only during a drought period and one year thereafter was suggested. This alternative, however, would not provide data sufficient to distinguish between the effects of Well 14 pumping and drought conditions on the monitored wells.

Alternatives

The Board may approve, deny or continue discussion of the special exception.

Draft Motions

1. I move that the Board of Supervisors approve SPEX 2010-0005, Hamilton Well 14, Stone Eden Property, with the Findings dated June 15, 2010 the Conditions of Approval dated June 15, 2010, and the Revised Addendum dated June 15, 2010 to the Pumping, Monitoring and Mitigation Plan for Town of Hamilton Well 14 dated October 15, 2007.

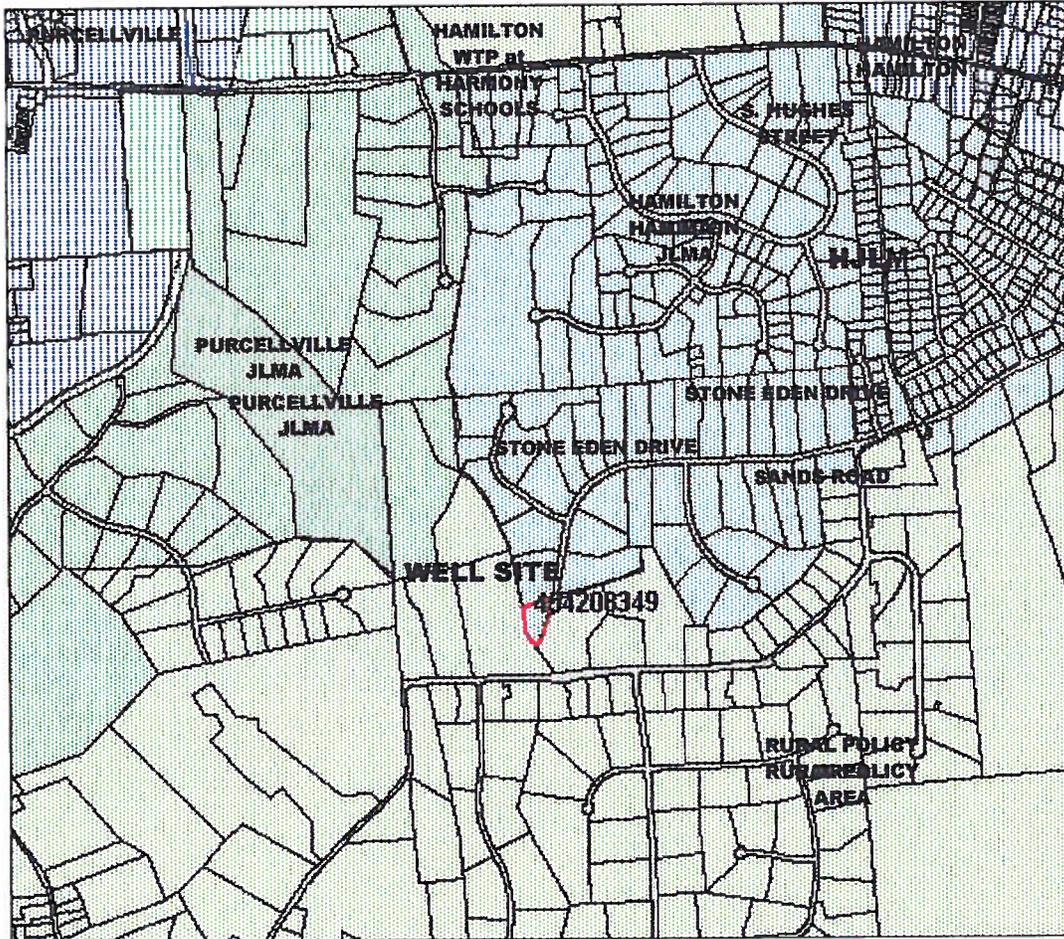
OR

2. I move an alternate motion.

Attachments

1. Vicinity Map
2. Findings for Approval dated June 15, 2010
3. Conditions of Approval dated June 15, 2010
4. Revised Addendum to Town of Hamilton Well 14 Pumping, Monitoring and Mitigation Plan dated June 15, 2010

**SPEX 2010-0005
HAMILTON WELL 14, STONE EDEN FARM
VICINITY MAP**



Directions: From Leesburg, west on Route 7, exiting at Hamilton Station Road (Route 704) to go south to Colonial Highway (Business Route 7), then west on Business Route 7 (1.6 miles) to Hughes Street. Turn left (south) on Hughes Street (Route 709) 0.6 miles, then turn right (west) on Sands Road (Route 709). Go 0.1 miles west on Sands Road, and then go straight onto Stone Eden Drive (Sands Road continues left). Go 0.6 miles west and then south to the cul de sac at the end of Stone Eden Drive, and the entrance to the Town of Hamilton's property is on the right at 38146 Stone Eden Drive.

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**Hamilton Well 14, Stone Eden Property, SPEX 2010-0005
Board of Supervisors Business Meeting, June 15, 2010**

SPECIAL EXCEPTION FINDINGS, June 15, 2010

1. Placing Town and County facilities in Joint Land Management Areas (JLMAs) and in the Rural Policy Area adjacent to Town JLMAs is consistent with the Revised General Plan and the Comprehensive Plan for the Town of Hamilton and JLMA.
2. The application conforms to the Pumping, Monitoring, and Mitigation Plan for the Town of Hamilton's Well 14, as approved by the Loudoun County Department of Building and Development, submitted in lieu of completing a Hydrogeological Survey as required by Section 6.240 of the Loudoun County Facilities Standards Manual.
3. Sufficient distance to neighboring residences and an existing treeline on the applicant's property will provide the necessary buffering to allow the requested modification of Revised 1993 Zoning Ordinance Section 5-1400 regulations requiring a Type Two (2) buffer yard and screening, eliminating the landscape screening.
4. The application conforms to the Revised 1993 Zoning Ordinance for use of a municipal well, control building, and emergency electric generator in JLMA-3 and A-3 zoning districts.

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**SPEX 2010-0005 WELL 14 STONE EDEN PROPERTY
DRAFT CONDITIONS OF APPROVAL
June 15, 2010**

[Note: *Italics indicate revisions since June 7, 2010 public hearing*]

1. **Special Exception Plat.** The Special Exception use, structure or use for local governmental purposes (public well), shall be developed in substantial conformance with the revised Outlet Lot "A", Well Lot, Town of Hamilton Special Exception Plat prepared by Stantec Consulting Services, Inc., dated March, 2010 and revised through March 26, 2010, and the Revised 1993 Loudoun County Zoning Ordinance. Approval of this application for Tax Map /45//37//WELL/ (PIN # 454-20-8349) (the "Property") shall not relieve the applicant or the owners of the Property from the obligation to comply with and conform to any other Zoning Ordinance, Codified Ordinance, or applicable regulatory requirement.
2. **Pumping, Monitoring, and Mitigation Plan.** Use of the well on the Property ("Well 14") shall be in accordance with the provisions of the accepted Pumping, Monitoring and Mitigation Plan (PMMP) for Town of Hamilton Well 14, dated October 15, 2007, including the Addendum dated as of June 15, 2010, and including but not limited to pumping, monitoring, and potential mitigation of impacts due to the use of Well 14. The Applicant shall continue monitoring of adjacent wells and providing quarterly reports to the Loudoun County Department of Building and Development as established in the PMMP. Such monitoring and reporting shall extend at least one year beyond the next one-year period October 1-September 30 that exhibits moderate drought conditions in Loudoun County as measured in the Palmer Drought Index, USGS Weekly Streamflow, and Standardized Precipitation Index following approval of SPEX 2010-0005. The Applicant shall also work with Loudoun County staff to develop and implement a reporting system to inform adjacent property owners of monitoring reports and investigate situations in which private wells may have been significantly impacted by Well 14.
3. **Noise Attenuation.** The Applicant shall install an earthen berm on the Property at least four (4) feet in height, between the generator and the northern property boundary. The berm will begin at approximately the eastern end of the existing control building and run approximately 70 feet in an easterly direction. The berm shall be completed within 60 days after issuance of the zoning permit for the generator. Until the berm has been completed, the generator shall not be operated for more than thirty (30) minutes per week, and any such operation shall be only between the hours of 10:00 a.m. and 4:00 p.m., Monday through Friday. After installation of the berm, the noise level of the generator will be tested to document that the noise level does not exceed 55 dBA, measured at the northern property line. Such measurement shall be continuous noise measured using a slow meter response of the sound level meter. Should additional noise mitigation be necessary, a board on board fence will be installed on the berm. The Applicant will work with the County Urban Forester to provide suitable landscaping of the berm. The plantings may include a mix of low maintenance shrubs and trees and will consist of a planting density similar to a Type 2 side/rear buffer. The Applicant shall provide documentation that noise created by operation of the generator is in compliance with the noise standards of Section 5-1507 of the Revised 1993 Zoning Ordinance.

4. **Generator Test.** Generator tests lasting for one half-hour shall only be scheduled each week between the hours of 10:00 a.m. and 4:00 p.m., Monday through Friday.
5. **Lighting.** All lighting on the Site shall comply with the requirements of Section 5-1504 of the Revised 1993 Zoning Ordinance regarding Light and Glare Standards. All lighting shall be full cutoff and fully shielded lighting fixtures such that the light will be directed downward and away from adjacent properties and the direct glare of the bulb shall not be visible beyond the property line of the parcel, and the lighting system shall be operated by motion sensor. The lighting will be designed in such a manner as to minimize the impacts on the nearby residential uses.
6. **Pumping Limitation.** *Pumping from Well 14 shall not exceed 80,000 gallons in any single day, nor average greater than 40,000 gallons per day over any 30 day period; provided, however, that, after written notice to the owners of the wells located within 1000 feet of Well #14, pumping may exceed the foregoing amounts up to a maximum of 120,000 gallons per day over a short period of time in the event of emergency conditions or extenuating circumstances as agreed by the Loudoun County Director of Building and Development.*

**Pumping Monitoring and Mitigation Plan Addendum –Well #14
Town of Hamilton dated June 15, 2010**

[Note: *Italics indicate revisions since June 7, 2010 public hearing*]

Analytical Services, Inc. and TRIAD Engineering, Inc. are pleased to present the following pumping, monitoring and mitigation plan (PMMP) Addendum for Well #14 that has been prepared on behalf of our client, the Town of Hamilton (the Town.) This amendment is intended to address concerns expressed by the Loudoun County (the County) Planning Commission with *respect to SPEX 2010-0005 Well 14 Stone Eden Property, and amends the PMMP dated October 15, 2007 (the "Original PMMP")*.

Purpose of the PMMP

The PMMP has been developed to both monitor water withdrawal from Well #14 and to monitor the impact that Well #14 may have on surrounding wells. Evaluating for impact will be done primarily by analyzing data collected from select wells that are in proximity to Well #14 (monitored wells). The goal of the plan is to identify groundwater monitoring trends that may suggest adverse impacts on surrounding wells and *enable remedial actions to be taken before the productivity of any such impacted surrounding well is compromised to an unacceptable extent*. In summary, the PMMP is designed to enable remedial action before there is an adverse impact on a surrounding well. Adverse impact is defined as an interruption in water service *which would not have occurred but for the Town's use of Well #14 ("Adverse Impact")*. *In order to further provide for the possibility that an Adverse Impact may occur* before remedial action is undertaken, the following proposed amendments to the *Original PMMP* are offered.

Point of contact

The Town will coordinate with the County to establish a point of contact, likely within the Department of Building and Development, or in other departments as appropriate. The identified office will be where homeowners, residing within the County, report adverse impacts in the first instance. The contact number for the Town of Hamilton is 540-338-2811. After Business hours and weekends, the Town of Hamilton contact number is 540-454-7155, Director of Utilities. All contact information will be posted on the Town's website. Homeowners who suspect a problem *will report such problem to the County's point of contact first and then to the Town*.

Timeframes

When suspected problem with a well is reported to the designated County office, the first step will be to determine whether or not the problem is an Adverse Impact from Well #14. This determination will be made by the County and representatives of the Town based upon an analysis of the PMMP monitoring data and the nature and scope of the reported problem. Every effort will be made to initiate the data analysis within 24 hours of when the report is received. If the problem is determined to be an Adverse Impact from Well

#14, appropriate remedial action will be undertaken. If the problem is ultimately determined to be primarily related to the use of the subject private well owned by the land owner who submitted the report, and the County and/or the Town has incurred remediation costs, such land owner may be required to reimburse the Town and/or the County. Such homeowner may be asked to acknowledge such potential responsibility for costs before any investigation on the subject property takes place or any remediation effort is undertaken.

Posting of Data

Information regarding the PMMP and Monitoring Reports will be posted on the Town's web site.

Monitoring data for projected Town needs

As a part of the monitoring plan, the Town will pump Well#14 at a rate that will provide for both the existing and anticipated future water requirements from Well #14. The Town has nine other wells that are also used to meet the Town's needs.

Section 4.5 of the Original PMMP is amended as follows: The text preceding the table in the seventh bullet under Section 4.5 (appearing on page 8) is amended in full to read as follows:

- *This monitoring program (the "Initial Monitoring Program") will continue for at least two (2) years from the time of pumping startup at Well #14. At the end of the two years, the Town of Hamilton will submit a groundwater monitoring report (the "2-Year Report") to the Loudoun County Building and Development Office. The 2-Year Report will include all data collected during the monitoring program from its inception, as well as a professional opinion, supported by detailed hydrogeological analysis, as to the nature and extent of apparent impacts, if any, to the neighboring residential supply wells. The 2-Year Report will include a recommendation of whether additional monitoring beyond the required 2-year period appears warranted. If such recommendation is that additional monitoring beyond the required 2-year period appears to be warranted, the Initial Monitoring Program shall be extended and the Town shall continue the program, at its cost, by performing such additional monitoring as is recommended. If the recommendation at the end of the 2-year period, or at the end of such additional monitoring period as has been previously recommended, is that, based upon an analysis of all data collected during the monitoring program from its inception, additional monitoring does not appear to be warranted, and if the Director of the Loudoun County Building and Development Office concurs in such recommendation, then the obligation of the Town to perform additional monitoring beyond that point in time will continue only subject to the following paragraph. The Director may withhold such concurrence if the quarterly reports required hereunder do not supply full and complete information and data.*

Monitoring data from drought conditions

The Town will perform additional monitoring, beyond the Initial Monitoring Program period, as may have been extended, through a period of drought conditions in accord with Condition #2 of SPEX 2010-0005 which provides that monitoring will extend at least one year beyond the next one-year period October 1-September 30 that exhibits moderate drought conditions in Loudoun County (Reference SPEX 2010-0005 conditions); provided, however, that the County reimburses the Town for all monitoring costs incurred for monitoring beyond the period of the Initial Monitoring Program, as may have been extended, as required by the preceding paragraph. The County reimbursement would be for only the costs of the monitoring at the frequency provided for in section 4.5 of the Original PMMP, and the Town would be responsible for all costs contemplated by the provisions of Section 6.1 of the Original PMMP, including without limitation costs associated with any increased monitoring intervals, mitigation actions, well rehabilitation efforts, new well installation, or other actions provided for in the event of statistically significant change in groundwater levels, impacts to monitored wells, or failure or lack of success of mitigation actions.

Respectfully Submitted,

Michael L. Maloy, CPG
Analytical Services, Inc.

cc: William J. Mikalik, CPG

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