



June 16, 2023

Village of Montgomery Planning Board
133 Clinton Street
Montgomery, New York 12549
ATTN: Kevin Conero, Chairman

Subject: KSH Route 211 Development
Union Street, Village of Montgomery, Orange County, NY
STERLING File #2023-34

Dear Mr. Conero,

Sterling Environmental Engineering, P.C. (STERLING) has reviewed published geologic, hydrogeologic, and topographic conditions to determine the likelihood of potential impacts to the underlying unconsolidated aquifer by development of the 33.87-acre property (Tax Parcel ID 211-1-29.22), located northeast of Union Street in the Village of Montgomery, Orange County, NY (hereinafter the "Site"). Figure 1 displays the project location.

It is our understanding that Route 211 Owner LLC (Owner) proposes to develop the property located within I-1 and I-2 (Industrial Park and Village Industry) zone established by the local code. The proposed action consists of the construction of four (4) warehouse buildings designed for commercial use, as specified in the revised Site Plan drawings by Engineering & Surveying Properties, dated 05/12/2023. Use of the Site as a commercial warehouse is consistent with the accepted zoning use described in Village of Montgomery, NY Municipal Code, under a Special Exception Use Permit. All storage will be completely within the confines of the warehouse buildings and no outside storage will be permitted. The proposed action includes the construction of four (4) stormwater management areas that may infiltrate stormwater into the ground surface.

During the most recent Village of Montgomery (Village) Planning Board meeting, comments were made that the Site may impact the groundwater quality in the underlying unconsolidated aquifer and Village water supply wells (located approximately 800 feet to the north and 800 feet to the northeast of the subject property).

Village of Montgomery Water Supply

The entire Village inclusive of the proposed project Site, is served by the Village municipal water system. The Village water supply is subject to routine water quality monitoring as specified in the NYS state sanitary code and reported in the publicly accessible Annual Drinking Water Quality Report available at <https://www.villageofmontgomery.org/departments-of-public-works/annual-drinking-water-quality-report-2022.html>.

The Village is served by seven (7) water supply wells as indicated in the 2022 Annual Drinking Water Quality Report. These wells include three (3) wells within the Holt well cluster (Holt #3, 4, and 5), two wells within the Jacobson well cluster (Jacobson #3 and 4) and two wells within the Park well cluster (Park Well #1 and 2).

The gravel wells (Holt Well #3 and 4) and bedrock well (Holt Well #5) are located approximately 800 feet to the north of the Site along the Wallkill River. The Jacobson wells cluster consists of one gravel well

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(Jacobson #3) and one bedrock well (Jacobson #4) located approximately 800 feet northeast of the Site. Two (2) bedrock wells (Park Well #1 and 2) make up the Park well cluster and are located approximately 3,500 feet northeast of the Site.

Onsite Aquifer

A portion of the Site is situated within the identified limits of a principal aquifer (Aquifer) as mapped in the 1988 USGS published map titled "Potential yields of wells in unconsolidated aquifers in upstate New York — Hudson-Mohawk sheet". The aquifer is listed in the NYSDEC GIS database as an unconfined, mid-yield aquifer capable of producing 10-100 gallons per minute (gpm). The location of the Aquifer in reference to the Site and Village water supply wells (Holt wells and Jacobson wells) is displayed in Figure 2. Groundwater flow at the site is interpreted to be to the north toward the Wallkill River.

The NYSDEC Division of Water Technical & Operational Guidance Series (TOGS) 2.1.3 defines a principal aquifer as "aquifers known to be highly productive or whose geology suggests abundant potential water supply, but which are not intensively used as sources of water supply by major municipal systems at the present time." This definition appears to be consistent with the aquifer underlying the Site, as no municipal water supply wells have been sited directly within the mapped portion of the aquifer (see Figure 2).

The New York State Water Well database available at <http://www.dec.ny.gov/maps/waterwells.kmz> lists four (4) private use water wells sited within the mapped Aquifer, though others may exist. The depth of the wells range from 180 to 250 feet in depth with an average depth of 212.5 feet. The average well yields range from 5 to 40 gpm, averaging 18.5 gpm. The database specifies that none of the four (4) wells were screened, indicating they extract water directly from the bedrock rather than the unconsolidated aquifer. Given this information, and the average casing length of 53.25 feet, the Aquifer likely is approximately 50 feet in thick on average. Locally, the depth to groundwater ranges from 10 to 30 feet below ground surface.

Well Protection Regulations

Currently, the Village municipal code does not include any specific provision related to well head protection or aquifer protection. Regulations related to protection of public water supplies are available from the New York State Department of Health (NYSDOH) and New York State Department of Environmental Conservation (NYSDEC). A list of potential and existing contamination sources to the local groundwater supply is available in the Regional Groundwater Study Town of Montgomery Orange County, New York report by Eustance & Horowitz, P.C., dated June 1994. Most of these locations consist of sanitary landfills, petroleum bulk storage facilities, sewage treatment plants and salt storage facilities. Warehousing similar to proposed usage of the Site was not identified as a land use of concern.

The NYSDEC has special protection regulations restricting the siting of landfills, oil and gas wells, and tire stockpiles within the mapped portion of principal and primary aquifers. Minimum separation distances for public water supply wells from contamination sources have been compiled by the NYSDOH in Table 1 of Part 5, Subpart 5-1, Public Water Systems - Appendix 5D of the state sanitary code (Part 5-1). Table 1 of Part 5-1 Appendix 5D includes a 200' minimum setback distance for surface water recharge absorption systems for stormwater from parking lots, roadways or driveways. The distance from the northernmost stormwater management area to the Holt well cluster and Jacobson well clusters is approximately 1,200 feet and 1,100, respectively.

Water well location and protection distances are recommended in Appendix 5D. The section specifically includes required buffer distance for control of the land within 100 feet of a drinking water well by legal

title and control by ownership, lease, easement or other legally enforceable arrangement of the land use activities within 200' of the well. The distance from Holt well cluster and Jacobson well cluster boundary of the Site are both approximately 800 feet.

Evaluation

The entire Village is served with municipal water. The nearest Village public water supply well is 800 feet from Site parcel boundary.

The NYSDEC and NYSDOH have established regulations and standards for potable water supplies in order to protect them from potential and existing sources of contamination. Part 5-1 specifies minimum separation distances for well siting for the protection of drinking water wells supplying potable water for public use. Though the Part 5-1 regulations are specific to the siting of public water supply wells, the minimum separation distances can serve as a proxy for limiting future development within proximity to an existing public water supply well. The proposed action includes stormwater management at four designated areas consistent with NYSDEC's Stormwater Permit Program. Part 5-1 requires a 200-foot minimum separation distance for surface wastewater recharge absorption systems for stormwater from parking lots. The northernmost proposed stormwater pond is approximately 1,200 feet from Holt wells and 1,100 feet from the Jacobson wells. Additionally, the proposed action meets all other Part 5-1 required minimum setbacks and separation requirements for all Village water supply wells.

The proposed action includes the construction of four (4) warehouse buildings. The site plan drawings indicate that no open storage is allowed, and all items and materials shall be stored completely within the confines of the warehouse buildings. This greatly limits the exposure of possible contaminants from entering the stormwater at the Site. The proposed stormwater management practices must be designed in accordance with the New York State Stormwater Management Design Manual.

Conclusions

It is STERLING's opinion that implementation of the proposed stormwater management practices and adherence to the Part 5-1 minimum separation distances, will adequately protect groundwater quality and the Village of Montgomery public water supply wells. Similarly, the proposed action will not adversely affect the water quality of the private wells withdrawing water from the Aquifer.

Please contact me if you have any questions or comments.

Very truly yours,
STERLING ENVIRONMENTAL ENGINEERING, P.C.



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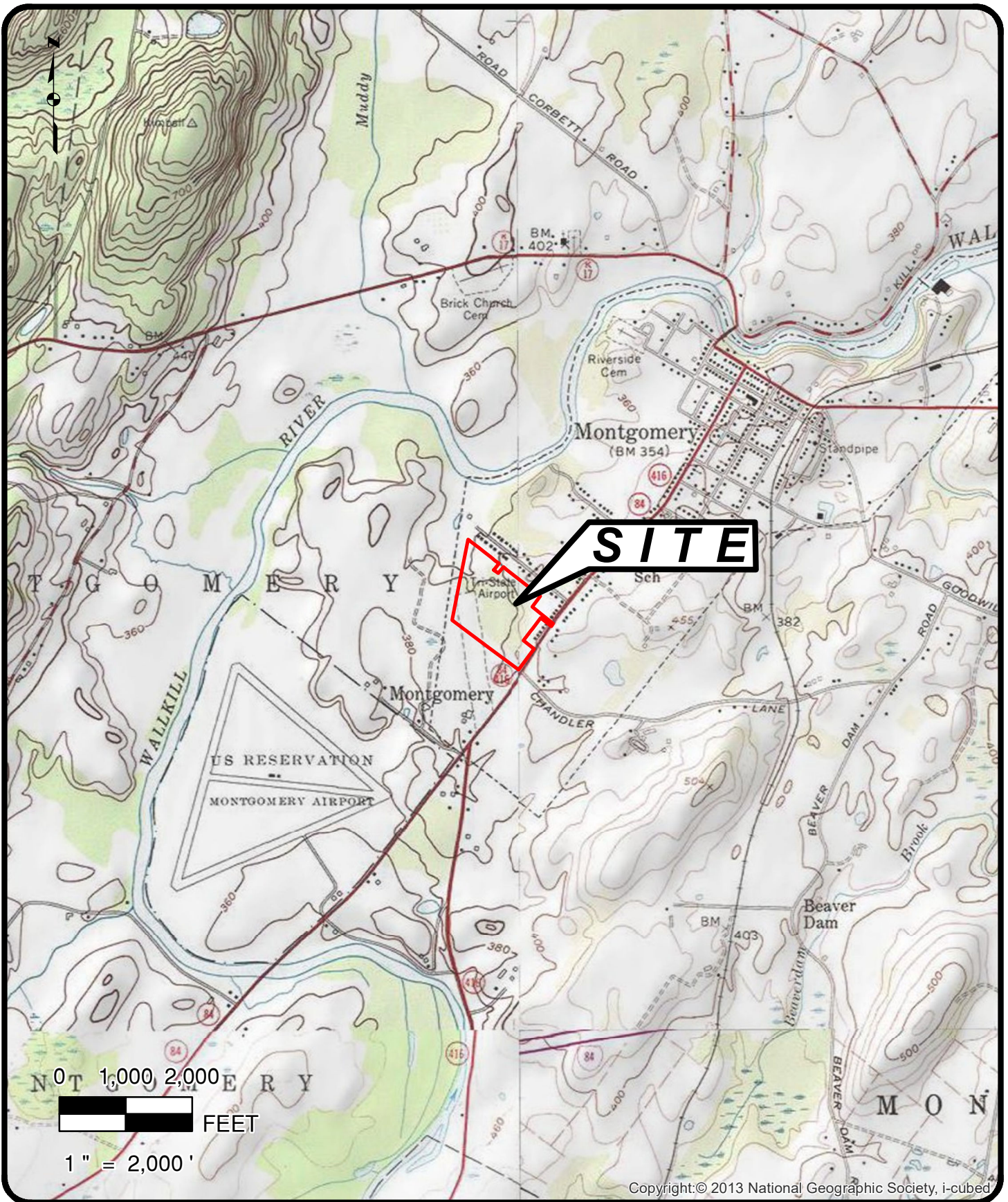
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Enclosures (Figures 1 & 2)

cc: Ross Winglovitz

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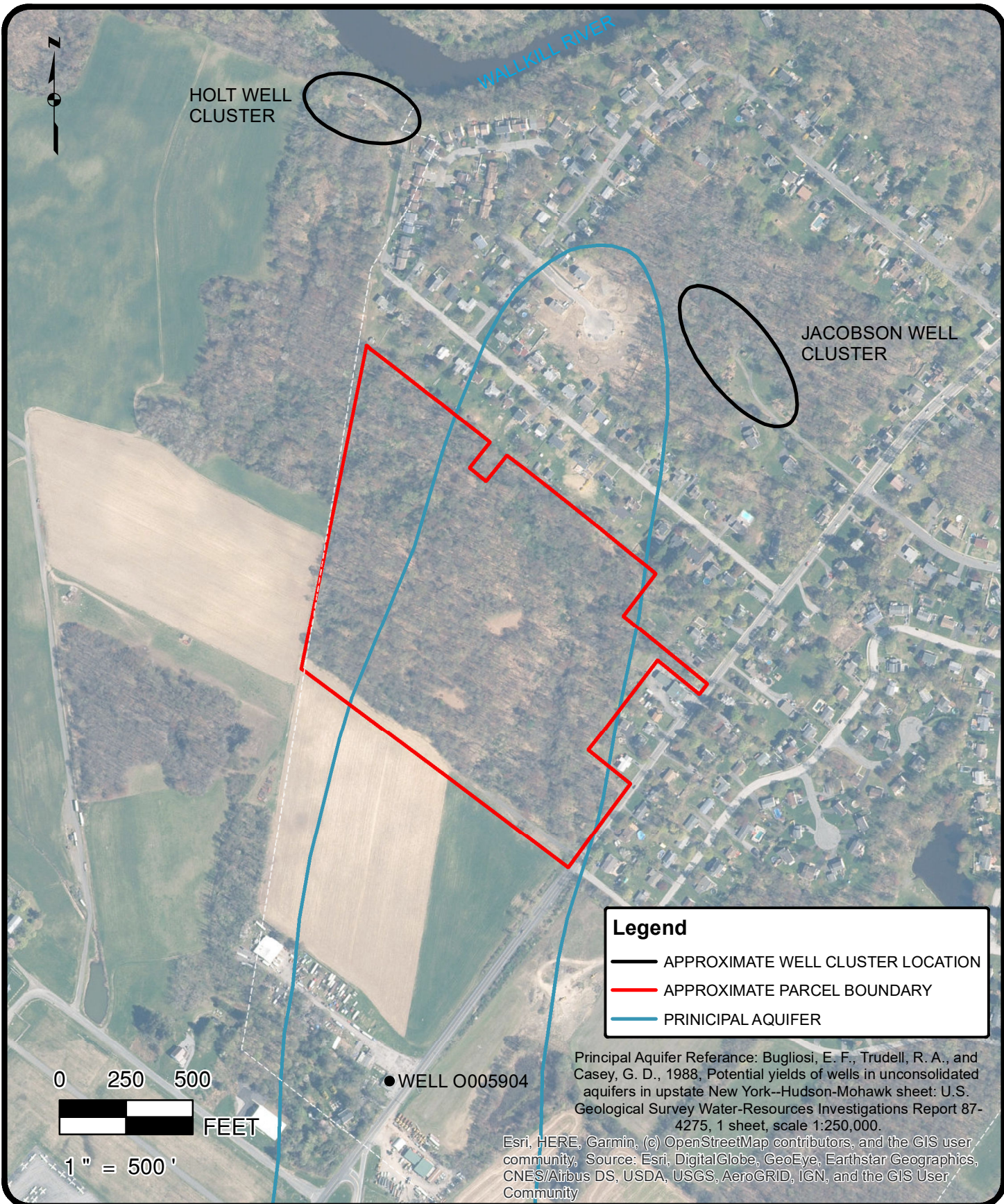
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SITE LOCATION MAP
KSH ROUTE 211 DEVELOPMENT
UNION STREET
VILLAGE OF MONTGOMERY **ORANGE CO., N.Y.**

PROJ.NO. 2023-34 | DATE: 06/13/2023 | SCALE: 1" = 2,000' | DWG.NO. 2023-34001G | FIGURE 1



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**SITE VICINITY MAP
KSH ROUTE 211 DEVELOPMENT
UNION STREET**

VILLAGE OF MONTGOMERY

ORANGE CO., N.Y.