



January 17, 2024

Supervisor Kevin Rode  
Town of Lysander  
8220 Loop Road  
Baldwinsville, NY 13027

**RE:    *Work authorization for Professional Engineering Services for the Cold Springs Sewer Study  
Town of Lysander, NY  
CHA Proposal No.: X86716.000***

Dear Supervisor Rode:

CHA is pleased to submit this work authorization for professional engineering services for the proposed Cold Springs Sewer Study.

The following is our understanding of the project.

**Understanding:**

The Cold Springs Peninsula is a region generally bounded on the south and east sides by the Seneca River, to the north by Patchet Road and to the west by Barbara Lane in the Town of Lysander NY. The peninsula is comprised undeveloped active agricultural land and generally residential areas; some neighborhoods are newer construction, some date back to the post-war era, and some closer to the river are former camps converted into four-season homes.

As part of earlier planning efforts by the Town of Lysander, a draft sewer study was conducted in 2016 that evaluated plans for sewer service to the entire Cold Springs peninsula as a whole, which currently lacks public sewer service. Many of the individual septic systems for residences in the area are aging or failing and have led to water quality problems in the Seneca River. The results of the 2016 draft sewer study were not adopted, and no formal sewer infrastructure master plan currently exists.

Some of the vacant areas on the peninsula have been identified for potential development, such as the Melvin Farms parcel. The Melvin Farms parcel is located to the east of the Baldwinsville-Seneca Knolls Wastewater Treatment Plant on the north/east side of the Seneca River. The topography of the Cold Springs peninsula is such that wastewater could generally flow from adjacent areas to the interior of Melvin Farms parcel; therefore, any development of the Melvin Farms property would require a pump station.

The Town of Lysander has stipulated that a broader sewer study be conducted to examine how large such a pump station would need to be designed for, to include future build out of the peninsula. In addition, the sewer study would examine the other sub-regions in the peninsula such that a comprehensive sewer evaluation could be conducted.

The scope of the sewer study would include the following areas, anticipated to be formed into districts, generally referred to as:

- Melvin Farms
- Red Rock
- Melia Park
- Brickwalk
- Pompo Woods
- Orchard Estates
- Northern District
- Eastern District

The Northern District would comprise the White Tail Woods subdivision, plus the undeveloped parcel to the east and the three cul-de-sac neighborhoods to the southeast. The Eastern District would comprise the neighborhoods between Doyle Road and Cold Springs Road, plus Hayes Road out beyond the Marina.

The study would take into account current zoning adopted by the Town of Lysander for build out potential. It is noted that there are two parcels with conservation land trusts between (and south of) the Melia Park and Brickwalk neighborhoods which will not be developed (this is counter to what is shown in the current zoning).

Other notes about the current state of development includes the following:

- The Orchard Estates area includes the current Abbott Farms neighborhood, which has one street with dry sewers installed and another street without. All of the Orchard Estates area is likely able to reach Hayes Road and Route 370 via gravity sewer which can then continue by gravity to the proposed Melvin Farms pump station area.
- The Pompo Woods area will likely need its own pump station due to topography. The Pompo Woods area is not built out and likely that development would not occur until after the new Melvin Farms PS is constructed. The Pompo PS would pump up to Route 370 and then on to the Melvin Farms PS by gravity.
- The Melia Park and Brickwalk neighborhoods have dry sewers installed. The Brickwalk sewer could flow by gravity across a parcel designated for conservation land trust into a receiving manhole in the Melia Park neighborhood. The Melia Park sewer could flow by gravity cross-country across a farm parcel in an easement to the Melvin Farms PS.
- The Red Rock area is low elevation and would likely need to be low pressure sewers.
- The Melvin Farms PS would discharge out to the northwest cross-county to Barbara Lane and on to connection at the Meadowbrook Limestone WWTP.
- The Northern District would likely require one or multiple pump stations that discharge north to the Timber Banks sewer district (Timber Banks PS #2, then #1, then on to the treatment plant).
- The Eastern District is anticipated to be a low pressure sewer system. The nearest public sewer connection to this area would be to the southeast, across the Seneca River, along Cold Springs Road, to the Sawmill Pump Station.

For the purposes of this study, it is assumed that the receiving WWTPs will have capacity to accept wastewater from future development within the Cold Springs Peninsula; any necessary WWTP upgrades are excluded in this study.

### EXHIBIT A - SCOPE OF SERVICES

1. Schedule and participate in a kickoff meeting with the Town and WEP to review the project scope, schedule, and deliverables. This meeting will also be used to review the anticipated development densities for each type of parcel within the sewer districts.
2. Coordinate with the Town to obtain relevant reports and documents relevant to the 2016 draft sewer study, existing dry sewer as-built drawings, comprehensive plans, and zoning documents. Receive updated parcel GIS shapefiles from the Town (or request from Onondaga County)
3. Request and review data from WEP regarding capacities of the various existing pump stations that would receive wastewater flow as part of the study.
4. Determine the number of equivalent dwelling units (EDUs) in each sewer district/area and the associated wastewater generation rates, including average daily and maximum day flow estimates. Evaluate the buildout potential for the areas that comprise the Cold Springs peninsula.
5. Based on earlier studies, the Melvin Farms parcel would need a pump station which will receive flow from the Orchard Estates area (via gravity); the Pompo Woods area (via separate pump station, force main, then gravity); the Melia Park and Brickwalk areas (via gravity); and the Red Rock area (via low pressure sewer system). The study will confirm these determinations and will also explore a sub-alternative where the Red Rock area has gravity sewers with a single dedicated pump station. The study will also review the best options available for sewer service within the Eastern and Northern districts.
6. Perform hydraulic calculations to determine preliminary sizes for sewer piping and pump stations.
7. Identify conceptual force main alignments. Based on a review of ground topology (using contour data available from the NYS GIS Clearinghouse or NOAA), identify areas required for air release valves.
8. Develop conceptual level figures to support the descriptions in the study.
9. Identify regulatory review and permitting requirements associated with sewers in the Cold Springs peninsula.
10. Prepare an engineer's opinion of probable cost for each alternative, and use those values to develop debt service calculations, estimated O&M costs, and an estimate of annual cost to a typical property.
11. Prepare a draft of the feasibility study report and submit to the Town and WEP. Meet with the Town and WEP to review, and finalize the report based on one set of review comments.

#### **Assumptions:**

1. Report will be prepared according to the NYSEFC engineering report outline template for possible funding opportunities.
2. Survey will not be required.
3. District formation services, final design, bidding assistance, construction administration services, and construction inspection services are not included.

**EXHIBIT B - SCHEDULE**

CHA is prepared to begin working on this project upon written authorization to proceed and complete all work no later than March 29, 2024.

**EXHIBIT C – FEES**

For the scope of services contained herein, we proposed to be compensated on an hourly basis for a not-to-exceed fee of \$49,600, in accordance with our current Municipal Consulting Agreement. All reimbursable project expenses, including mileage, postage, and printing/reproduction, will be billed at cost.

We appreciate the opportunity to submit this work authorization to the Town. If acceptable, please sign below and return a copy to our office. If you have any questions regarding this work authorization, please do not hesitate to contact me at [ayager@chacompanies.com](mailto:ayager@chacompanies.com).

Sincerely,



Allen J. Yager, P.E.  
Project Manager III / Senior Engineer V

**AUTHORIZATION TO PROCEED:**

By: \_\_\_\_\_  
**Kevin Rode, Supervisor**  
**Town of Lysander**

\_\_\_\_\_ **Date**

