



STATE OF CONNECTICUT
OFFICE OF POLICY AND MANAGEMENT
Division of Transportation, Conservation, and Development Policy and Planning

October 21, 2016

Eric McPhee
Department of Public Health, Drinking Water Section
410 Capitol Avenue, MS #51WAT, PO Box 340308
Hartford, CT 06134-0308

Re: Notice of Scoping:
Town of Guilford – Mulberry Point Water Main Extension

Dear Eric:

The Office of Policy and Management (OPM) has reviewed the Notice of Scoping for the Town of Guilford Mulberry Point Water Main Extension and submits the following comments:

- The scoping notice references a “feasibility study report of the project area”, which appears to be a 12/2011 feasibility report and 8/2012 supplement available from the town’s website:

<http://www.ci.guilford.ct.us/pdf/updates-Mulberry%20Point%20Watermain%20Feasibility%20Study-Executive%20Summary.pdf>

<http://www.ci.guilford.ct.us/pdf/updates-water-feasibility-study-supplemental-information.pdf>

We have not attempted to read the entire report, but the water main extension described there would serve nearly twice as many homes as the project described by DPH. The difference appears to be that much of the adjacent Indian Cove is now excluded from the project. Why was that area removed and has the 2011 feasibility report been updated to re-evaluate options for providing water to a smaller water service area? Is there a possibility that the proposed system will also serve the Indian Cove neighborhood in the foreseeable future?

- Appendix D of the 2011 feasibility report is a “Septic System Impact Investigation”:

<http://www.ci.guilford.ct.us/pdf/health-appendix-d-septic-system-impact-investigation.pdf>

That document predicts that the new water supply will lead to increased water consumption, placing a greater burden on existing septic systems. Appendix D also proposes a number of steps to limit the expected impacts on neighborhood septic systems and proposes that septic systems be corrected as a condition of properties being connected to the proposed water system. How will those recommendations be implemented?

- The 2011 feasibility study assumed that the 270 homes under consideration at that time would require 130,000 gallons of water per day, or 370 gallons per day per household. What was the basis for that daily usage rate – it seems higher than typical indoor water use, but potentially is too low if there is significant outdoor water use. How does that amount compare with summer and winter usage for homes in similar neighborhoods? If water conservation requirements are imposed as recommended in Appendix D, how much less water would be required per household and would that reduced demand, in conjunction with the smaller number of homes to be served, make other water supply options feasible?

- The scoping notice says:

The water main has been minimally sized to meet the demands for domestic water use and satisfy fire protection requirements specified by the Town Fire Marshall for the intended service area.

How much smaller could piping be if not for the fire protection requirements specified by the Fire Marshal? How does the fire department currently handle fire protection for this and other neighborhoods lacking public water? Has the current approach proven to be inadequate?

According to the cost estimate included in the 2011 feasibility report, the original system to serve 270 homes was to include 15,730 ft of 8" main and 5,030 ft of 12" main. Such a main would hold ~71,000 gallons of water, or 260 gallons per home. Given the lengthy line necessary to reach from CT Water's existing system, the amount will likely be even higher for the smaller system that is proposed now. During periods when the neighborhood's population and/or per household water use are reduced, are there any health implications of having so much water stored in large diameter mains?

- While it appears that many of the homes to be served are at a relatively high elevation, the proposed design has the water main crossing an especially low area along Daniels Ave to reach the neighborhoods. Similarly, the line delivering water to the Tuttle Point neighborhood must cross an especially low area along Tuttle Point Rd.

Guilford's Community Coastal Resilience Plan says this about Tuttle Point Rd:

Tuttle Point Road is increasingly vulnerable to storm surges as well as future daily inundation.

<https://www.conservationgateway.org/ConservationPractices/Marine/crr/library/Documents/Guilford's%20Community%20Coastal%20Resilience%20Plan.pdf>

The report discusses a desire to elevate a number of town roads, but it mentions the possibility of leaving Daniels Ave at its existing grade. Given the uncertainties regarding the future of those roads, what other options are available that can avoid installing water mains through low areas? Now that the system will not serve the Indian Cove neighborhood, it should be possible to avoid the low area along Daniels Ave. Doing so would avoid constraining the town's future options regarding that road.

Thank you for the opportunity to respond to this Notice of Scoping and please feel free to contact me if you have any questions.

Sincerely:



Bruce Wittchen
Office of Policy & Management
450 Capitol Ave, MS# 54ORG
Hartford, CT 06106
(860) 418-6323
bruce.wittchen@ct.gov