



TOWN OF EXETER, NEW HAMPSHIRE

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Town of Exeter
Public Works Department

Memo

Date: January, 2013

To: Board of Selectmen

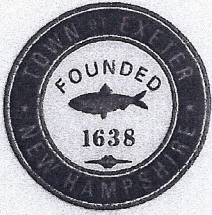
Cc: Russ Dean, Town Manager; Jennifer Perry, DPW Director; Paul Vlasich

From: Michael Jeffers, W&S Managing Engineer

RE: EPA Administrative Order; July 24th, 2012 Certified Letter; Attachment A; Page A 2. C,
Request for Status Update of Town's Evaluation for Eliminating Private Sources of I/I (e.g.,
sump pumps, leaky sewer laterals) due January 31st, 2013

On January 26th, 2012, the USEPA received the Town's annual (for 2011) Wastewater Collection System Capacity, Management, Operation and Maintenance (CMOM) Program Document. The July 24th document review letter, to the Town Manager, included a request for a status update of the Town's evaluation for eliminating private sources of Infiltration & Inflow, or "I&I" (e.g., sump pump removal and/or replacement of leaky sewer laterals). This status update is due January 31st, 2013. The comprehensive four year I&I study by Underwood Engineering finds that the majority of I&I is from private sources versus the Town owned collection system. Below are options for the Board of Selectmen to review, select and/or edit prior to the formal update as part of the overall reports due to EPA by January 31st, 2013.

Option#1: The Jady Hill Project will tentatively be completed June 1st, 2013. On June 1st, 2014, evaluate the overall effectiveness of reducing infiltration & inflow (I&I) as a result of the Projects' removal of sump pumps to the new relief drain and the replacement of leaky sanitary sewer services. Also, evaluate how well the financing plan offered was accepted. Sewer Users were offered a cost sharing alternative of paying first \$1,000 of costs to connect sump pump(s) to the new relief drain service at right-of-way (ROW) and new SDR35 pipe sanitary sewer service from same ROW, both to within 5 feet of the building. The \$1,000 could be financed by the Town and paid



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back at \$100 per year over 10 years. A copy of the pilot illustrated cost sharing alternative is included with this memo.

Option#2: Offer same sump pump removal and/or leaky sewer service replacement option (as used for Jady Hill Utilities Project) to sewer users at next proposed project location to start in 2014. Next likely candidate areas are Westside Drive or Downing Court among others of 22 known high I&I areas.

Option#3: Offer same sump pump removal and/or leaky sewer service replacement cost sharing alternative (as used for Jady Hill Utilities Project) to *any* sewer user in town at *any* location to start in 2014 or later year. If there is a lack of storm drainage in the street the sump pump would require construction of a dry well. Or, sump pump removal would wait until that area of Town had storm drainage extended *or* lower cost small diameter purpose specific relief drain system installed. Should there be a "green" area to receive the sump pump flow it should be utilized as sump pump discharge flowing to the street can cause a hazard due to ice during the winter.

Option#4: Initiate Town wide enforcement *now* of the current sewer ordinance which prohibits any non-sanitary sewer discharge (e.g., sump pumps, roof leaders, perimeter drains) to the Towns' sanitary sewers. Properties with a storm drain system already existing in the street could be given up to 2 years to comply. Again, should there be a lack of Town storm drainage a "green" area to receive the sump pump flow should be utilized as sump pump discharge flowing to the street can cause a hazard due to ice during the winter.

Option#5: Initiate Town wide enforcement now of the current sewer ordinance which prohibits any non-sanitary sewer discharge to the Towns' sanitary sewers with an absolute 5 year limit for compliance under any circumstances.

Remarks: Reduction of I&I has an immediate effect of lowering Town wide sewage pumping and treatment costs as rain and ground water do not require treatment which includes nitrogen treatment.



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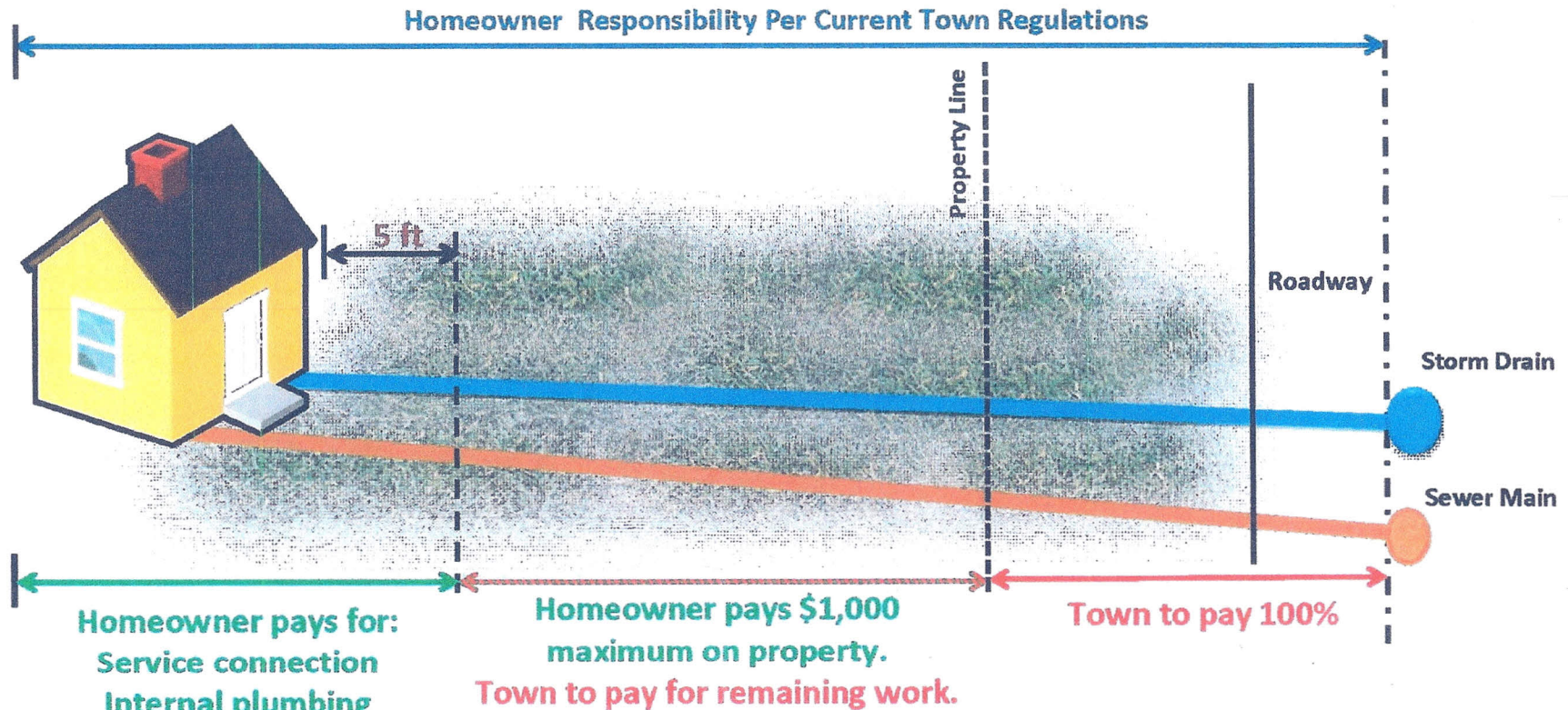
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The sanitary sewer service in a structures' basement has historically been an easy and inexpensive method to dispose of basement seepage, foundation drains and roof leaders for the property owner. The Town Building Inspection Department has not allowed connections to the sanitary sewer for sump pumps, roof leaders, etc. for the last 20 years. However, The Underwood Engineering reports finds that nearly 25% of homes have sump pumps.

The Town recently received the new wastewater NPDES discharge permit. It is effective March 1st, 2013, and requires a new treatment facility that will reduce nitrogen discharge to 8 parts per million within five years. A decrease in non-sanitary "sewage", or I&I, to be treated, the lower the costs of treatment. As to compliance with the EPA Administrative Order, Docket# 010-024, reduction of I&I reduces the probability of a sanitary sewer overflow (SSO) and/or combined sewer overflow (CSO) due to less flow in the collection system piping. This is an *accepted fact* and is not in doubt anywhere.

Proposed Jady Hill Area Service Work Cost Sharing Alternative



Maximum homeowner
contribution estimated at \$1500

In exchange for accepting the Town's proposal to limit out-of-pocket expenses, the Town will require:

- a) Use of **Town contractor** for Service Line work to ensure timing and construction quality control.
- b) A **temporary construction easement** granted by the Home-owner to the Town/its contractor.
- c) Home-owner agrees to hire a **licensed plumber** to complete and **certify** all work necessary from within 5 feet of foundation to connect to new Sewer and Relief Drain Service Lines as applicable. Work should include disconnection of **sump pumps**, if applicable.