

# City Of Torrington



WATER POLLUTION CONTROL AUTHORITY  
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## MEMORANDUM

TO: Mayor Elinor Carbone and Water Pollution Control Authority

CC: Jerry Rollett, DPW  
Jaime LaMere, Corporation Counsel

FROM: Raymond Drew, WPCA Administrator

DATE: February 20, 2018

RE: WLSD Interconnection Public Hearing

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I like you have sat and listened to testimony about this application over two evenings and a third being held tonight. We have heard testimony from about 21 different people and organizations and received emails from several others. Some have voiced objections to the project completely, some are ok with the project but are opposed to the route and a couple are in favor of the project.

Torrington has a population of more than 36,000 residents, we have heard from 21.

### 1. What is the WPCA?

The Water Pollution Control Authority (WPCA) was created to prevent pollution. It is obviously governed by this board. The WPCA (Previously known by other names) has been in existence for nearly 80 years, in fact in 2019 we will celebrate our 80<sup>th</sup> birthday. In those 80 years the primary goal, as our name implies is the prevention of pollution. To which I believe we do an exceptional job. Our infrastructure consists of a 7.0 MGD advanced wastewater treatment plant, 14 wastewater pumping stations located throughout the city and some 160 miles of sanitary sewer ranging in size from 4" to 54" in diameter, of that 160 miles we have 8.5 miles of force mains ranging in size from 4" to 16".

We have heard a lot of questions about this project posed from various citizens, groups and the TWC. I wanted to take this opportunity to try and address some of those questions.

1. First: Staffing and Experience.

**REFERENCE: Organizational Chart**

The City of Torrington WPCA has a staff allocation of 15, we currently have 2 vacancies. Our current staff has an aggregate of 200 plus years of experience operating and maintaining wastewater collection and treatment systems. All of our operation and maintenance staff are licensed by the State of Connecticut and or New England Water Environment Association (NEWEA) which is an affiliate of the Water Environment Federation (WEF). Many of our staff hold multiple licenses.

I myself have over 32 years' experience operating, maintaining and managing wastewater treatment and collection systems (the past 18 plus years as the WPCA Administrator for City of Torrington WPCA). I also have seven (7) years' experience operating water supply systems. I am licensed by the State of Connecticut as Class IV wastewater operator (This is the highest license class). I am licensed by NEWEA as a Class IV collection system operator (This is the highest Class). I hold a degree in Ecological Controls and two (2) degrees in Engineering.

The majority of our staff are certified in FEMA NIMS (National Incident Management System), this is the same training that first responders like the Fire and Police are trained in. The training is focused on the response and management of emergencies including spills.

The WPCA has a comprehensive Spill Protection Control and Countermeasure Plan (SPCC) and Storm Water Pollution Prevention Plan (SWPPP). All of our staff are trained in spill response. The WPCA maintains sufficient equipment and supplies necessary to respond to, contain, mitigate and clean-up of spills ranging from sewage to chemical spills. All of our staff are trained and equipped with the appropriate Personal Protective Equipment (PPE) necessary to respond.

The WPCA maintains a Supervisory Control and Data Acquisition system (SCADA) that monitors all alarms 24/7/365. Three staff members and myself are on-call 24/7/365.

2. IMA

There have many questions posed in regards to an IMA if this project is approved. First of all as you are aware the IMA is not the subject of these proceedings.

If this project is approved we anticipate that the IMA will include those provisions outlined in DPH order dated August 29, 2017. Additionally, while I cannot speak for this board I believe that we would welcome suggestions from TWC.

Historically operation and maintenance responsibilities of sanitary sewers constructed (with the exception of Community Sewerage Systems) within the jurisdictional boundaries of the City of Torrington lie with the WPCA. This would continue to be my recommendation should this project be approved.

While it is difficult to pinpoint the cost to operate and maintain any particular section of line, on average it cost approximately \$2,800/mile annually.

### 3. Spills

While no one can guarantee that any particular line will or will not have a leak. Over the course of a 35,000 ft line what is the statistically probability that a catastrophic break would occur in the area of the brook.

We have heard testimony about breaks and force mains failures that have spilled millions of gallons of sewage. In TWC letter to DPH dated November 21, 2016 it was cited that in 2003 there was a release of up to 300,000 gallons into the Mill River that enters the Lake Whitney Reservoir. While I will let DEEP and DPH address CSO's and these breaks. I would pose this question. 1. In all the breaks cited has DEEP or DPH ever condemned a reservoir because of sewage contamination.

We have all heard of beaches being closed due to the bacteria levels, but you know what happens the bacteria levels drop and the beaches are re-opened. Who has not gone to the beach and swam in the water and not swallowed some water. Did you get sick? Mother Nature is Amazing!

We heard one comment that there is no standard to treat sewage contaminated water to drinking water standard, it may be true that there is no standard that does not mean it can't or isn't done. I can tell you this when I was in the service (actually I did the same thing when I was serving) when we deployed and needed water we found any available water supply whether it was a swamp or brackish pond. We cleaned and supplied the water that our troops used for cleaning, cooking and yes drinking. That was back in the 80's. How much has water treatment advanced since then, I know that wastewater treatment has significantly.

Water and Wastewater are so intertwined it is almost a symbiotic relationship. What I mean is that the TWC takes the water from the environment pumps it to their Water Treatment Plant cleans it, chlorinates it and sends it to its customers via its water distribution system ( yes, they actually treat it, you didn't think they sent it to you direct form the reservoir did you?). The water is sent to the customers who contaminate the water. They pour or flush it down the drain to our collection system. We collect it and transport it to our Wastewater Treatment Plant where we clean it, chlorinate it and send it back to the environment and thus complete the circle.

### 4. It's Ours

Yes, it is the responsibility of EPA, DPH, and DEEP to prevent pollution of our countries waterways and water supplies. But why is it only their responsibility in a global society it is

everyone's responsibility. To say that our responsibility to abate pollution ends at our borders is naïve, that's like saying that our responsibility to clean up the air we pollute by driving our cars ends at the town line. It is everyone's responsibility regardless of where we live. As I heard one person say "Everything is a Watershed".

The same goes for "our" infrastructure (i.e. roads, bridges, water, sewer). I heard a couple of people mention it's "ours" why should we share it, we may need it, and we should keep it for ourselves. All of you must know that the cities infrastructure such as roads and bridges and yes sewer is funded partially by federal and state monies. That means that every taxpayer in the country has contributed to the construction of "our" infrastructure. That's like saying we paid for the roads in Torrington why should we let anyone but Torrington Residents use them.

Back in the 70's and 80's much of the infrastructure (especially water and sewer) throughout the country was funded by 90% federal grants. As you know the treatment plant is scheduled to be upgraded, approximately 24% or \$17M of the cost is covered by federal and state grants. So every resident in the country who pays taxes is helping Torrington build and maintain its infrastructure.

## 5. Capacity

**REFERENCE:**   **Map:**   Location Map of Northwest Interceptor  
                      **Table:** Pipe Capacity Evaluation-Northwest Interceptor  
                      **Chart:** Torrington WPCF Design Flows

If there is one thing I am certain of it is that we have the capacity to accept and treat the flows from WLSD.

First I wanted to address Mr. Royals question about #450 Riverside Ave. If you would refer to the map titled "Location Map of Northwest Interceptor" and follow the orange line down to Dale Street you will see the collector sewer (Green) on Riverside heading north, this is the line segment he is referring to, that line segment is not part of the Northwest Interceptor (NWI). We reviewed our records in regards to Sewer Calls in this area.

- a. Two calls #45 and #466 Riverside – Hose Sewer Laterals Plugged
- b. One call #466 Riverside – Main Line plugged due to grease, jetted mainline
- c. One Call #450 Riverside – This house sits in a hole. Main Line Sewer operating fine, found groundwater leaking in around basement walls.
- d. One call # 451 Riverside – Main Line running slow, jetted mainline

The NWI – The NWI was reconstructed in 1991-1992. It extends from the Stillwater Pond area to the intersection of Franklin St. and Franklin Dr. where it ties into the Central Interceptor. The Pipe is 13,220 feet or approximately 2.5 miles. The pipes range in size from 14" to 30".

WLSD discharge would occur where the 20" section of pipe begins. Please refer to the table titled "Pipe Capacity Evaluation- Northwest Interceptor" While there is a lot of information contained in this table I wanted to bring your attention to pipe segment P-NW-43 (Highlighted in Pink), if you scan across to the column "Full Pipe" you will see that the capacity of this pipe when full is 4.55 MGD and if you scan across further to column "CASE 3" this is the peak hourly

full buildout projection of the flow in this line. You will see that it is 0.55 MGD or 550,000. Our last flow metering for this line indicated that the average daily flow (ADF) is 0.42 mgd. So even if you added WLSD 0.11 mgd you get 0.66 mgd well below the design capacity of the line of 4.55 MGD.

WPCF- As you are aware the WPCF is scheduled to be upgraded. As part of the planning phase a flows and loads analysis was performed. The new WPCF has the following design parameters.

- a. Annual ADF – 7.0 MGD
- b. Max Month – 11.0 MGD
- c. Max Day – 16.5 MGD
- d. Max Hour – 25.8 MGD

Please refer to chart titled “Torrington WPCF Design Flows. I went back and reviewed the past five years of flow data, and you can see that the ADF for Torrington only is 5.16 MGD or 71%. Harwinton’s allocation is 0.077 MGD or 1.1% (Harwinton average discharge is around 0.05 MGD). Litchfield’s allocation is 0.150 MGD or 2.14% (Litchfield average discharge is around 0.025 MGD). WLSD’s allocation would be 0.11 MGD or 1.57% (This would indicate their ADF at Full Buildout of their Sewer Service Area).

Now what you see in blue is the reserve capacity of 1.503 MGD or 21.4%. This is the reserve available for Torrington. As we continue to perform capital improvement projects to remove Infiltration/Inflow or I/I projects as we just completed in the East Drainage Basin we will that reserve increase or at the very least hold steady.

As indicated we do have the available capacity in both the NWI and WPCF.

## 6. Pipe

While I will let WLSD address more specifically the design and construction of this pipeline, this pipe as currently designed meets or exceeds all engineering standards for Force Main Sewers. In fact there are sections more particularly the dual pipe with carrier pipe over the 48” culvert. This section is way over designed to afford enhanced protection in this area. There are possibly other options that could be considered that would make this section unnecessary.

This pipe although classified as a Force Main acts less like a force main and more like a gravity sewer. In Torrington the route is basically all downhill so that when the pumps are off the water will drain out of this pipe and there will be no standing sewage as you would typically find in a Force Main.

This current design has been commented on by both our Deputy City Engineer and our consulting engineers Wright-Pierce. All of their comments will be implemented in the Final Design. The final design will need to get the approval of the WPCA and City Engineering Department prior to bidding.

## 7. Watershed

**REFERENCE: Map: Location Map Showing RWP Zone in Vicinity of Torrington St**  
**Letter: MDC Watershed Protection Annual Report 2016**

As one person said having "sewers in watersheds is not uncommon" whether its sewers or septic systems. In fact within this watershed area there are approximately 80 developed properties that currently utilized septic systems for sewage treatment.

DEEP has indicated that of the 214 public drinking water surface watersheds in 93 municipalities throughout the state 130 of them have sewer service in them. In fact the City of Torrington has sewers in the MDC Nepaug-Watershed which feeds the Nepaug Reservoir. Please refer to Nepaug Reservoir map. You can see that the red outlined area is the watershed area. The Yellow lines are Force Mains, the green lines and circles are gravity sewers and manholes. In this water shed we have the following sewer infrastructure.

- a. Force Mains ( 7,800 ft)
  - i. Cedar Lane – 4" PVC Low pressure force main sewer
  - ii. Torrington Farms – 6" DIP Force Main
  - iii. Torrington Farms – 4" PVC Force Main
  - iv. Torrington Middle school – 4 " PVC Force Main
- b. Pump Stations (2 Municipal, 44 Private)
  - i. Cedar Lane – Each house in this sub-division has a residential pump station.
  - ii. Torrington Farms pump Station – serving Torrington Farms and sections of Pleasant View Subdivisions.
  - iii. Middle School Pump Station – Serving Middle School student and staff population.
- c. Gravity Sewers (11,900 ft)
  - i. Scattered throughout area.

If you would turn to the MDC Watershed Protection Annual Report 2016. Turning to the last page (Page 7) you will see the total number and type of facilities in this watershed. If you scan across you can see what types of facilities are in each category. If you turn to the second to last page (page 6) the inspection report, you can see that of the 2698 inspections conducted in 2016, 276 of which were in Torrington you see that there were no violations cited. Now if you turn to page 4 you will see that MDC reported 8 spills, Accidents or Related Events, it is interesting to note that all the incidents were Motor Vehicle Accidents.

As stated by DEEP in letter dated 1-27-2017 " The mere presence of sewer systems within drinking water watersheds has not been demonstrated to present or cause pollution or threaten pollution of a public water supply source which is prejudicial to public health."

## 8. Route

**REFERENCE:** Table: Summary of Anticipated Pipe Infrastructure  
**Map:** Distance to Allen Dam Reservoir

When this most recent rounds of discussions began in 2014 WLSD presented several possible routes for the interconnection between WLSD and City of Torrington, each route was reviewed by city staff and it was determined that the Goshen Rd to Riverside route was the most acceptable. This route was selected for the following reasons.

- a. The line functions more like a gravity sewer than a typical force main, that is as stated previously when the pumps are not on this line will drain off and there would be no sewage left in the line until the next pump cycle. Which requires less operation and maintenance.
- b. It requires less air/vacuum release structures, and therefore less operational and maintenance requirements.
- c. This route is the shortest and most direct route to connect with one of our interceptors (NWI) (Refer to Table: Summary of Anticipated Pipe Infrastructure). This route is approximately 10,200 feet of new pipe, whereas the alternative routes increase pipe length anywhere from 2 to 2 ½ times the length (19,700 ft-24,800ft). As previously mentioned it costs approximately \$2,800/mile annually. The more pipe the greater the O&M costs not to mention that the alternatives would function as typical force mains thus increased O&M cost.
- d. Since the route is completely within the state Right-of way, the route minimizes the overall impact on the cities infrastructure.
- e. The proposed route has a lower potential for secondary or induced growth, which is consistent with the State of Connecticut Conservation and Development Plan.

In 2016 the TWC presented Weed Road as an alternative to avoid the lands owned by the TWC. This route was reviewed and dismissed for the very same reasons. Higher O&M cost, significantly more infrastructure. The Weed Road route would traverse Pumping Station Road (300 ft) – Weed Road (14,400 ft) and intersect with Goshen Road from that point on the route is exactly the same as the preferred route.

It is interesting to note that if you look at the last map (Distance to Allen Dam Reservoir) in your package this is a straight line distance map. You can see that the distance from the Brook to Allen Dam Reservoir is approximately 6500 ft and now if you look at the inset you will see that the distance from the sewer on Goshen Road at University Drive is only about 500 ft from Allen Dam Reservoir. I find it very interesting that the TWC is more concerned about a break or a leak that is 6500 ft away than they are about a break or leak that is 500 ft away from Allen Dam Reservoir.







