

1 **DRAFT**

2 Public Utilities Commission

3 100 John Street

4 Wallingford, CT

5 Tuesday, June 4, 2019

6 6:30 p.m.

7 **MINUTES**

TOWN OF  
WALLINGFORD

JUN 10 2019

DEPARTMENT OF  
PUBLIC UTILITIES

8  
9 **PRESENT:** Chairman Robert Beaumont; Commissioners Patrick Birney (arrived at 6:35 p.m.)  
10 and Joel Rinebold; Director Richard Hendershot; Electric Division General Manager Tony  
11 Buccheri; Office Manager Tom Sullivan; Water and Sewer Divisions General Manager Neil  
12 Amwake; Office Manager William Phelan; Recording Secretary Cynthia Kleist; **PUBLIC:** Steve  
13 Gale; Atty. Michael Vernile; Kurt Treiber Jr., Risk Manager, Town of Wallingford.

14 Chair Beaumont called the Meeting to order at 6:30 p.m. and the Pledge of Allegiance was  
15 recited.

16 **1. Pledge of Allegiance**

17 **2. CONSENT AGENDA**

- 18 a. Consider and approve Minutes of May 13, 2019.  
19 b. Consider and approve Minutes of May 21, 2019  
20 c. Consider and approve an Electric Division Transfer – A/C 901 – Customer  
21 Records – Supervision  
22 d. Consider and approve an Electric Division Transfer – A/C 557 – Other Purchased  
23 Power Expenses

24 Motion to approve consent items.

25 Made by: Rinebold

26 Seconded by: Mr. Beaumont

27 Vote: 2 ayes

28 **3. Items Removed from Consent Agenda – None**

29 **Correspondence/Committee Reports – None**

30 Chair Beaumont took the agenda in the following order:

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Wallingford Public Utilities Commission  
Regular Meeting  
June 4, 2019

1 **WATER/SEWER**

2 Item 5 – Discussion and Action: Approval of Resolution – Clean Water Act was deleted and Item  
3 #5A — Discussion and Action: Recommend and Endorse Resolution Concerning Clean Water  
4 Fund (CWF) Grant and Loan Financing for the Wallingford WPCF was substituted.

5 **5A. Funding Resolution: Clean Water Fund (CWF) Grant and Loan Financing for the Wallingford**  
6 **WPCF**

7 Mr. Amwake noted that last Tuesday, the formal agreement was submitted to the DEEP for the  
8 Planning Grant and on Wednesday, a 58 page 11 x 17 formatted spreadsheet was submitted to  
9 DEEP regarding the recommended grant funding percentage. Mr. Amwake said on Wednesday a  
10 193-page document detailing the Qualifications Based Selection (QBS) process that the town  
11 undertook to select AECOM was transmitted to the DEEP, and on Friday the draft CWF loan and  
12 grant application for the design and construction portions of the project was submitted. Mr.  
13 Amwake said this is referred to as the Part 1 and Part 2 Clean Water Fund Application. He said  
14 there are prescribed documents within this. Mr. Amwake said they offer a funding resolution  
15 document; standard boilerplate from DEEP. He said if the PUC recommends the funding  
16 resolution to the Town Council then Mayor Dickinson could sign the application and the  
17 eventual CWF Agreement that comes forward.

18 Mr. Amwake said it was confirmed on Friday morning from the DEEP financial staff that the  
19 Town's funding ordinance that we had gone through is sufficient for the CWF application,  
20 though DEEP still needs an authorizing resolution similar to the Planning Grant, which  
21 authorizes the Mayor to sign the application and eventually sign the Clean Water Fund  
22 Agreement approximately 30 months from now. Mr. Amwake noted that the instructions in the  
23 Clean Water Fund application state that the authorizing resolution pertains to grant agreement  
24 only projects. He pointed out this is why he thought the Funding Resolution as requested by the  
25 DEEP is what they were looking for a Grant Loan Project. He said the header on the boilerplate  
26 resolution should state "Grant or Grant in Loan Project," which it does not.

27 Mr. Amwake pointed out there are only about six or eight Clean Water Fund projects a year per  
28 DEEP. He said the last time this was done was with nitrogen in 2002 and is probably a once or  
29 twice a career item. Mr. Amwake said what is in front of the PUC is an authorizing resolution for  
30 Clean Water Fund financing, specifically for Water Pollution Control Facility upgrades, (design  
31 and construction). He said he is requesting the PUC to recommend this to the Town Council so  
32 they can act on this and the Mayor can sign the CWF application. Mr. Amwake noted they have  
33 already submitted draft application to DEEP without the signature and DEEP knows this. He said  
34 this is all a matter of timing. Mr. Amwake said the bids were opened on May 7 and what was  
35 seen on the schedule was interaction between the PUC, the Sewer Division and the Town  
36 Council and not the mechanisms and the behind the scenes maneuvering as far as paperwork,

1 pointing out approximately 600 to 700 pages of information, etc. were transmitted to DEEP last  
2 week.

3 Mr. Amwake noted the PUC had previously approved similar language for the Planning Grant  
4 application, but the resolution language was made more specific this time for a design and  
5 construction project. He stated that approximately 30 months from now when the project  
6 closing is done the Mayor will sign the Agreement at that time.

7 **Mr. Rinebold: Motion to authorize the Resolution to obtain Clean Water Fund**  
8 **Financing for the Water Pollution Abatement Facility. Mr. Birney seconded the**  
9 **motion.**

10 **Vote: 3 ayes.**

11 **PUBLIC HEARING – WATER POLLUTION CONTROL FACILITY UPGRADE – 6:45 p.m.**

12 Chair Beaumont called the Public Hearing to order at 6:45 p.m.

13 Mr. Amwake presented a slideshow. Mr. Amwake noted the plant is an aging infrastructure and  
14 has been operating 24/7, 365, since July 1, 1989. He spoke about how the UV disinfection and  
15 post-aeration chamber both flood when the Quinnipiac River comes up. He said this is a 20-year  
16 project with a 20 year plan so we need to ensure both flows and loading are met for the next  
17 20 years. He said energy efficiency wasn't that big of a driver. Mr. Amwake said the flow  
18 statistics were looked into, noting that we are averaging approximately 5.1 MGD with the  
19 permit being 8 million gallons a day with the maximum day flow being 19.1 MGD. He said there  
20 were about three occasions in the last five years where this figure was over 20 MGD.

21 Mr. Amwake noted that typically from 12 a.m. to 6 a.m., there are low flows between 0.9 and  
22 1.2 MGD. He said one of the items discussed with AECOM is to accommodate the overnight  
23 flows noting we have seen flows as low as 1.2 million gallons all the way to 8 a.m. on some  
24 days, which is very late for a WPCF. Mr. Amwake noted future flows go up a bit, 5.5 million  
25 gallons, where the average annual flow is predicted to be in 2041. He said Wallingford will stay  
26 at permitted 8 million gallons per day and the maximum month and maximum day flow will inch  
27 up slightly.

28 Mr. Amwake spoke about loading, what is being put in. He said across the board, organisms in  
29 the water which take out oxygen, increased. He said suspended solids as well as nitrogen will  
30 also increase. He said the nitrogen and total phosphorus will increase. He said this is based  
31 upon slight population growth multiplied by standard loading statistics, combined with a little bit  
32 of water efficiency. Mr. Amwake noted the current limit between April 1 and Oct. 31 is 0.70  
33 milligrams per liter. He pointed out this needs to be averaged and not to be exceeded for two  
34 consecutive months. Mr. Amwake pointed out that whether Wallingford has a wet April or a dry

1 October, we have to hit that 0.70 mg/L. He noted that what is driving the phosphorus upgrades  
2 is 8.95 pounds per day (ppd) average seasonal load. He said this is flow based.

3 Mr. Amwake said whatever is put in has to be treated. He noted beginning in April 2022 the  
4 driving design factor is 8.95 ppd and at low flows, there is more to give. He said there has to be  
5 an average monthly limit of 0.31 mg/L and then a maximum daily limit of 0.62 mg/L. Mr.  
6 Amwake noted in April 2019, 34.45 ppd was the average when multiplied by the flow rate. He  
7 said the reduction is much bigger because the current data ppd is being used. He noted last  
8 year, we were at 44.71 ppd. He spoke about the phosphorus data in both the current permit  
9 compared to the future permit. Mr. Amwake showed a slide photo of the WWTP which he noted  
10 became operational in July 1, 1989 and pointed out the plant hasn't been changed since. Mr.  
11 Amwake said there is a proposed new generator building, and pointed out on the photo, the  
12 location of the anaerobic tank, the intermediate pump station, the secondary settling tanks, the  
13 secondary pump station, the new tertiary phosphorus building which will be outside the present  
14 fence line; UV, post-aeration and thickener mechanism.

15 Mr. Amwake said the numbers are sequentially, how wastewater flows through the Wallingford  
16 WPCF. He noted the sludge processing. He noted the new secondary pump station, which  
17 pumps up to the tertiary phosphorus treatment building, and flows down gradient to the new  
18 UV post-aeration basin. He said one of the changes that has taken place since the last  
19 workshop in January 2019, is during the non-phosphorus and non-disinfection season, Nov.1 to  
20 March 31, Wallingford is keeping the existing UV chamber and post-aeration basin because we  
21 won't have to expend the electricity to pump it up through the secondary pump station through  
22 the tertiary building and the UV and post-aeration. Mr. Amwake said we can go right now from  
23 the secondary settling tanks via gravity through our currently post-aeration basin, and not  
24 expend the electrical. Mr. Rinebold asked if the UV disinfection system was being kept. Mr.  
25 Amwake said this will be an empty divided chamber, noting the UV will be mothballed and the  
26 post-aeration basin will still be functioning. He noted post-aeration has to be utilized 12 months  
27 a year, but Nov. 1 to March 31, tertiary phosphorus treatment or UV doesn't need to be used.

28 Mr. Rinebold asked if there would be any problem with impact during flooding and asked if any  
29 of this was below the 100-year flood stage. Mr. Amwake said the Quinnipiac River can still back  
30 up into the existing post-aeration basin during flooding conditions, though we have the flexibility  
31 when we know the Quinnipiac River is coming up to use the secondary pump station, bypass  
32 the tertiary treatment building, bypass UV and go into the new post-aeration basin. He said this  
33 will be a manual operation. Mr. Amwake pointed out the existing primary settling tanks and the  
34 new anaerobic basins. Mr. Amwake spoke about insisting upon an anaerobic basin, explaining  
35 this is the coarse uptake of phosphorus. He said we want to reduce our dependence on alum.  
36 He said the intermediate pump station will also be moved. Mr. Amwake spoke about the two  
37 new secondary settling tanks, noting that currently, Wallingford doesn't meet wastewater  
38 design standards with only four tanks. He said the goal is to have suspended solids loading less  
39 than 5,000 milligrams per liter at the tank outlet.

1 Mr. Amwake spoke about the covered effluent launders to reduce algae growth. He spoke about  
2 what an effluent launder is and why it is important. He showed photos. Mr. Amwake said the  
3 goal is to deliver phosphorus to the tertiary treatment at between 0.5 and 0.7 milligrams per  
4 liter which can be done currently. He said we want to ensure that we absolutely have to hit this  
5 noting 0.7 mg/L is the maximum goal at the influent to the tertiary phosphorus treatment  
6 system. Mr. Amwake spoke about the secondary pump station pointing out the hydraulic grade  
7 line needs to be raised and the flow line of the water because we are pumping up. Mr. Amwake  
8 spoke about tertiary phosphorus and noted the selected vendor. He spoke about new UV,  
9 pointing out Wallingford was one of the first in the State to have UV disinfection, which has  
10 been operating since circa 1989. Mr. Amwake spoke about the post-aeration basin, noted  
11 oxygen has to be added to the wastewater in Wallingford because it is oxygen starved. He said  
12 this procedure has to be done before the water enters the Quinnipiac River. He said this is a  
13 dissolved oxygen standard. Mr. Amwake also spoke about the gravity thickener which is  
14 operating at the current flow and solids and didn't believe this would perform well in the future.  
15 Mr. Amwake spoke about the high and low pressure plant water system, noting that most  
16 people don't realize city water is not used at the WWTP, but pull off the effluent going out to  
17 the Quinnipiac River and then put it through a pump and booster station. He noted the  
18 electrical capacity will have to be increased and the tertiary phosphorus treatment system will  
19 be run by SCADA.

20 Mr. Amwake noted the anaerobic tank will be adjacent to the primary tanks which gives  
21 flexibility. He spoke about the invent mixer, noting DEEP gave Wallingford a sole source  
22 exemption. He said this is a unique mixer which achieves good mixing of the wastewastewater.  
23 Mr. Rinebold asked if this would be covered. Mr. Amwake said this won't be covered. He  
24 pointed out the location of the existing intermediate pump station which he noted will be  
25 relocated next to the anaerobic basin. He said this was one of the items which lengthened the  
26 construction duration.

27 Mr. Amwake noted the location of the secondary settling tanks. He said the foundation for these  
28 tanks is five-ft. thick so they cannot float when empty. Mr. Amwake noted solids loading, noting  
29 currently, they are high. He said with six tanks, we can use five tanks and take one down which  
30 gives operational flexibility. Mr. Amwake pointed out the covered launders. He pointed out the  
31 water from the secondary settling tank which goes over a V-notch weir. Mr. Amwake this is  
32 clear water but have algae growth. He said this will be covered to prevent the algae from  
33 growing noting that algae needs sunlight. Mr. Amwake said algae isn't wanted in this area  
34 because it would eventually clog up the weir and would have to be flushed.

35 Mr. Amwake said the covers will be pinned to the concrete and are non-walkable and tend to be  
36 aluminum like a Bilco door. Mr. Amwake spoke about the secondary pump station which is  
37 different from the intermediate pump station. He said the intermediate pump station pumps up  
38 to the anoxic basin and then via gravity the wastewater goes from the RBC's to the secondary  
39 settling tanks. Mr. Amwake said the Town ended up with two large pumps, and two medium

1 pumps and one small or "jockey" pump to accommodate the overnight flows. He noted  
2 approximately 25% of the time the influent flow is between 0.9 and 1.5 MGD. He said the flood  
3 events are planned for, but consistently the flows between 1.0 and 1.5 MGD were being seen.  
4 He noted with the new SCADA system, everything is controlled by the influent flowrate. He  
5 showed the layout of the ACTIFLO system noting each train can handle 10 million gallons and  
6 at the average flow of 5.1 to 5.5 one would be run and switched to another every month.

7 Mr. Rinebold said he liked the low-flow motor for low flow operations, evening times. He  
8 wondered why we didn't have variable speed motors or pumps. Mr. Amwake said he would  
9 confirm if the pumps were VFD or not. Chair Beaumont noted something like this was  
10 mentioned. He said a lot of flexibility was built in. Mr. Amwake spoke about ACTIFLO which he  
11 said was similar to the classic water treatment. He said in the first tank, alum and sand is added  
12 which flash mixes and in the middle tank it is a slow paddle. He said the large flocs settle out  
13 and clear water is obtained at the top. He said the sand can be reused and the sludge goes off  
14 to the waste processing. Chair Beaumont noted phosphate is used in the water mains and  
15 wondered if anything else could be used. He asked how much of the phosphorus seen in the  
16 wastewater influent the result of anti-corrosive being put in the water mains is. Mr. Amwake  
17 said there is some but a lot is the runoff and people fertilizing lawns. Mr. Amwake spoke about  
18 the UV system. He said in the new design, the UV is done first then the post-aeration tank. He  
19 said in the current design, the post-aeration is be done first and then UV.

20 Mr. Amwake said we are looking at a slant or a vertical UV disinfection system. He said the  
21 channel can accommodate both so a bid waiver was not needed from DEEP. Mr. Rinebold asked  
22 if chlorination is being used. Mr. Amwake said it is still being used in the industry but there are  
23 a lot of handling and safety issues. Mr. Amwake spoke about the gravity thickener mechanism  
24 and showed a picture of how it operates. He also showed a photo of the current system. He  
25 also spoke about the new generator and repurposing of the electrical services.

## 26 **Questions from the Public – None**

27 Mr. Amwake reiterated that going from 0.7 to 0.31 mg/L makes a difference, particularly when  
28 the flow rates are factored in. Mr. Rinebold suggested having walk-throughs as the project  
29 comes together. Chair Beaumont gave kudos to Dan Sullivan and Mr. Hendershot complimented  
30 Mr. Amwake for putting this together.

31 Mr. Amwake went over the schedule noting there is a scheduled July 2 presentation to the PUC  
32 regarding the results of the rate study which is underway. Mr. Phelan said this began in April  
33 and was put out to bid and came back to the PUC for additional funding and the contract was  
34 awarded to MFSG from Annapolis, Maryland and they began the study in April. He said staff has  
35 met with them twice and have received draft preliminary models of the rate study. Mr. Phelan  
36 said the model is designed for a 10-year period.

1 Mr. Phelan said he and Mr. Amwake will meet to discuss this study before presenting the  
2 information to the PUC on July 2..

3 **PUBLIC HEARING ON WATER POLLUTION CONTROL FACILITY UPGRADE CLOSED AT**  
4 **7:29 p.m.**

5 **PUBLIC QUESTION AND ANSWER PERIOD – 7:29 p.m. – NO QUESTIONS**

6 **4. Discussion and Action: Sewer Division – Recommend and Endorse the Proposed WPCF**  
7 **Upgrades Project.**

8 **Mr. Birney: Motion that the PUC endorse and recommend the design aspect of the**  
9 **project. Mr. Rinebold seconded the motion.**

10 **Vote: 3 ayes.**

11 **6.Executive Session pursuant to Section 1-225(f), 1-200 (6)(B), 1-210(b)(2)**  
12 **and 1-210(b)(4) of the CT General Statutes to discuss pending**  
13 **litigation/worker’s compensation claim – Gioiella.**

14 **Motion to go into Executive Session at 7:30 p.m. to discuss pending**  
15 **litigation/worker’s compensation claim without further motions until a motion to**  
16 **come out of Executive Session.**

17 **Made by: Birney**

18 **Seconded by: Rinebold**

19 **Vote: 3 ayes**

20 Attending Executive Session: Director Richard Hendershot; Electric Division General Manager  
21 Tony Buccheri; PUC Commissioners Beaumont, Rinebold & Birney; Atty. Michael Vernile; Kurt  
22 Treiber Jr. Wallingford Risk Manager.

23 **7. Discussion and Action: Motion to Waive Article 1, Section 1 to Add an Item to**  
24 **the Agenda.**

25 **Motion to Waive Article 1, Section 1 to Add an Item to the Agenda.**

26 **Made by Mr. Birney**

27 **Seconded by Mr. Rinebold**

28 **Votes: 3 ayes**

29

1 **7A. Discussion and Action: Motion to Approve Proposed Settlement As Discussed**  
2 **in Executive Session.**

3 **Motion to approve proposed settlement as discussed in Executive Session.**

4 **Made by Mr. Birney**

5 **Seconded by Mr. Rinebold**

6 **Votes: 3 ayes**

7 **ADJOURNMENT**

8 **Motion to Adjourn at approximately 7:51 p.m.**

9 **Made by Mr. Birney**

10 **Seconded by Mr. Rinebold**

11 **Votes: 3 ayes**

12

13 Respectfully submitted,

Respectfully submitted,

14

15 Cynthia A. Kleist

Joel Rinebold

16 Recording Secretary

Secretary

17