

Town of Richmond
Special Meeting of Water and Sewer Commission
Minutes of October 7, 2025

Members Present: Erin Farr, David Sander, Morgan Wolaver

Members Absent: Jay Furr, Bard Hill

Staff Present: Town Manager Josh Arneson; Steve Cote, Water Resources Superintendent; Duncan Wardwell, Deputy Town Manager

Others Present: The meeting was recorded for MMCTV Erin Wagg, Cathleen Gent, Fran Thomas, Gary Bressor, Karen Yaggy, Kevin & Mary Ann Kittenger, Lynnette Claudon, Sarah Heim

The following people from Hoyle Tanner will be in attendance at this meeting:
Kirstin DiPietro-Worden, Jon Olin, Eric Doe, Paul Hobbs, Sarah Foy, Aiden Short

MMCTV Video:

<https://www.youtube.com/live/KCpwjKqZbRk?si=PAHeTXXCpWQS5Gys>

Call to Order: 6:00 pm

Welcome: Wolaver

Public Comment: None

Additions or Deletions to the Agenda: None

Items for Presentation or Discussion with those present

Review of and consideration of accepting the Preliminary Engineering Report for the Wastewater Treatment Facility 20-year study

Timestamp: 0:01

https://www.richmondvt.gov/fileadmin/files/Water_Sewer_Commission/Meetings/2025/10/3a_Richmond_WWTF_20_Year_Evaluation_-100_Submission_-_10-03-2025_-_reduced.pdf

https://www.richmondvt.gov/fileadmin/files/Water_Sewer_Commission/Meetings/2025/10/3a1_2025-10-07_Special_Sewer_Commission_Meeting_Presentation.pdf

DiPietro-Worden stated that several people from Hoyle Tanner will provide a good explanation of the 20-year study, the user rate analysis, and the loan payback alternatives. DiPietro-Worden stated that they looked at what is most critical, what could be done to reduce costs, and what the staff could do themselves to save some money. The recommended project has been broken into two phases.

Influent Pumping:

DiPietro-Worden stated that they designed an triplex pumping system to convey the peak flows because it is a real bottleneck at the plant that could flood into the park. The first pump is already purchased and is in the process of being installed. DiPietro-Worden presented the Owner Scope vs the Contractor Scope and a Cost Estimate with Total Construction Cost at \$551,000.

Headworks:

DiPietro-Worden presented the Relace-In-Kind items instead of transforming the wet well into a new headworks building. The Estimated Total Construction Cost is \$1,300,000.

Biological Treatment:

DiPietro-Worden presented the Owner Scope of the Town to replace 3 submersible mixers on their own while the Contractor Scope is the process electrical and instrumentation equipment. The Anoxic Selectors Cost Estimate Total Construction Cost is \$15,000.

DiPietro-Worden & Cote presented the Aeration Tanks Owner Scope and Contractor Scope. The Aeration Tanks Cost Estimate Total Construction Cost is \$502,000.

Coagulant Chemical Feed & Storage:

DiPietro-Worden presented the Owner Scope and Contractor Scope which will reduce operating costs. The Cost Estimate Total Construction Cost is \$15,000. Cote stated that this would provide better control of the sodium aluminate.

Return Activated Sludge (RAS) & Waste Activated Sludge (WAS) Systems:

DiPietro-Worden & Cote presented the Owner Scope (WAS Valve Replacement) and Contractor Scope (RAS System and WAS Pump Replacement). The Cost Estimate Total Construction Cost is \$150,000.

Filtration:

DiPietro-Worden presented the Owner Scope and Contractor Scope. There still needs to be an assessment of the existing steel tanks. Cote stated that Shelburne is doing a new upgrade and offered some of the parts and pieces for this. The Cost Estimate Total Construction Cost is \$287,000.

Ultraviolet Disinfection:

DiPietro-Worden presented the Owner Scope as the lamps in the UV system have been replaced.

Effluent Flow Measurement:

DiPietro-Worden presented the Contractor Scope in order to measure higher flows with the v-notch weir plate. The Cost Estimate Total Construction Cost is \$20,000.

Effluent Pumping & Outfall:

DiPietro-Worden presented the Contractor Scope with a new effluent pump station with concrete wet well. DiPietro-Worden presented a Conceptual Layout which is like a high-water discharge much like Winooski has at their plant that often floods. The Cost Estimate Total Construction Cost is \$667,000.

98
 99 ***Septage Receiving Facilities:***
 100 DiPietro-Worden presented the Contractor Scope for a Septage Receiving Unit and
 101 Building Modifications. DiPietro-Worden presented a diagram of the Septage Receiving
 102 Facilities. The Cost Estimate Total Construction Cost is \$1,114,000.
 103
 104 ***Septage & Sludge Storage Facilities:***
 105 DiPietro-Worden presented Owner Scope and Contractor Scope which will replace in
 106 kind of what is there now and not a compressed gas mixing system. The Cost Estimate
 107 Total Construction Cost is \$410,000.
 108
 109 ***Dewatering Facilities:***
 110 DiPietro-Worden presented the Contractor Scope (Dewatering Equipment/Building,
 111 Polymer Feed System, Coagulant Feed System). DiPietro-Worden presented a diagrams
 112 of the Dewatering Facilities. The Cost Estimate Total Construction Cost is \$2,872,000.
 113
 114 ***Operations Building:***
 115 DiPietro-Worden presented the Owner Scope (New Lab Refrigerator) and Contractor
 116 Scope for a Cost Estimate Total Construction Cost is \$343,000. These are basic upgrades
 117 to the HVAC system.
 118
 119 ***Site:***
 120 DiPietro-Worden presented the Contractor Scope for Flood Mitigation, WWTF Electrical
 121 System & Generator, PLC/SCADA System, Plant Water System, Site Fence, and
 122 Pavement. The Cost Estimate Total Construction Cost is \$871,000.
 123
 124 ***WWTF Phased Project Approach:***
 125 DiPietro-Worden presented the elements in Contract 1 (what should happen first) and
 126 Contract 2. DiPietro-Worden presented Contract 1 Total Project Cost as \$11,385,726 for
 127 April of 2025 or \$12,575,500 for April of 2027. DiPietro-Worden presented the Contract
 128 2 Total Project Cost as \$6,940,300 for April of 2025 or \$7,600,000 for April of 2029
 129
 130 *Sander moved to accept the Preliminary Engineering Report for the Wastewater*
 131 *Treatment Facility 20-year study. Farr seconded.*
 132 *Roll Call Vote: Farr, Sander, Wolaver in favor. Motion approved.*
 133
 134 **Review funding options for upgrades in the Wastewater Treatment Facility 20-year**
 135 **study**
 136 Timestamp: 1:15
 137
 138 [https://www.richmondvt.gov/fileadmin/files/Water_Sewer_Commission/Meetings/2025/1](https://www.richmondvt.gov/fileadmin/files/Water_Sewer_Commission/Meetings/2025/10/3b1_User_Rate_Analysis_-_V4_-_Alt_A_Max_User_Rates.xlsx)
 139 [0/3b1_User_Rate_Analysis_-_V4_-_Alt_A_Max_User_Rates.xlsx](https://www.richmondvt.gov/fileadmin/files/Water_Sewer_Commission/Meetings/2025/10/3b1_User_Rate_Analysis_-_V4_-_Alt_A_Max_User_Rates.xlsx)
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 141 [https://www.richmondvt.gov/fileadmin/files/Water_Sewer_Commission/Meetings/2025/1](https://www.richmondvt.gov/fileadmin/files/Water_Sewer_Commission/Meetings/2025/10/3b2_User_Rate_Analysis_-_V4_-_Alt_B_Increased_Septage.xlsx)
 142 [0/3b2_User_Rate_Analysis_-_V4_-_Alt_B_Increased_Septage.xlsx](https://www.richmondvt.gov/fileadmin/files/Water_Sewer_Commission/Meetings/2025/10/3b2_User_Rate_Analysis_-_V4_-_Alt_B_Increased_Septage.xlsx)
 143
 144 [https://www.richmondvt.gov/fileadmin/files/Water_Sewer_Commission/Meetings/2025/1](https://www.richmondvt.gov/fileadmin/files/Water_Sewer_Commission/Meetings/2025/10/3b3_User_Rate_Analysis_-_V4_-_Alt_C_10_Taxpayer_Share.xlsx)
 145 [0/3b3_User_Rate_Analysis_-_V4_-_Alt_C_10_Taxpayer_Share.xlsx](https://www.richmondvt.gov/fileadmin/files/Water_Sewer_Commission/Meetings/2025/10/3b3_User_Rate_Analysis_-_V4_-_Alt_C_10_Taxpayer_Share.xlsx)

https://www.richmondvt.gov/fileadmin/files/Water_Sewer_Commission/Meetings/2025/10/3b4_User_Rate_Analysis_-_V4_-_Alt_D_20_Taxpayer_Share.xlsx

https://www.richmondvt.gov/fileadmin/files/Water_Sewer_Commission/Meetings/2025/10/3b5_User_Rate_Analysis_-_V4_-_Alt_E_Loan_Suppression.xlsx

Short presented the documents from the packet on Loan Payback Alternatives. The CSWRF loans anticipated proposed work is at \$12.6 million and \$7.6 million. Revenue generation will need to increase to cover loan repayment. The payback alternatives vary the sewer rates, septage rates/receiving volumes, taxpayer burden sharing, and loan suppression.

Alternative A:

Maintains septage receiving and increased rates

Septage rate increases:

i. 25% in FY26, 20% in FY27, 10% in FY28 and FY29, 5% in FY30 and FY31

ii. Matching inflation after FY31

Sewer rate increases:

i. 10% in FY26

ii. Matching inflation after FY26

Alternative B:

Increased septage receiving volume (up to 36,000 gallons per day) and rates

Septage rate increases:

i. 10% in FY26, 5% in FY27, FY28, and FY29

ii. Matching inflation after FY29

Sewer rate increases:

i. Match inflation

Cote estimated that they currently receive about 20,000-25,000 gallons per day throughout the year. Cote thinks that 36,000 gallons per day is doable at the plant and there is a market for it, especially if receiving 24 hours per day. Thomas expressed concerns for the neighborhood if receiving 24 hours per day.

Alternative C:

10% taxpayer burden sharing

Septage rate increases:

i. Match inflation

Sewer rate increases:

i. 25% in FY26, 20% in FY27, 15% in FY28, 10% in FY29 and FY30, 8% in FY31, 5% in FY32, FY33, and FY34

ii. Matching inflation after FY3

Alternative D:

20% taxpayer burden sharing

Septage rate increases:

i. Match inflation

Sewer rate increases:

- i. 25% in FY26, 20% in FY27, 15% in FY28, 10% in FY29, 5% in FY30, FY31, and FY32
- ii. Matching inflation after FY32

Alternative E:

Loan suppression of Contract 1 for 100% for 5 years, Contract 2 for 50% for 5 years.

Septage rate increases:

- i. Match inflation

Sewer rate increases:

- i. Maintain spread rate increases at 10% per year through FY36

- ii. Matching inflation after FY37

Short summarized that the Vermont Bond Bank will allow CWSRF loans to be suppressed for up to 100% for the first five years. There is an annual administration fee but you can suppress anywhere from 10 to 100% of how much you are paying from the principal in up to the first five years.

Wolaver reviewed that Alternatives A through E are 5 snapshots options but that they can take any of these and move them around.

Conclusions:

-An ideal scenario, depicted in Alternative B, rate increases would be minimal, but there is also greater risk due to uncertainty around septage receiving market

-All other scenarios, sewer rates, septage rates, or both will need to increase more sharply in initial years to cover the loan payments

-Taxpayer burden sharing and loan suppression would both reduce needed rate increases, however, outside factors would dictate their feasibility

-Provided modeling tool allows Town to further calibrate these preliminary repayment structures for a preferred solution

Short reviewed the Water Infrastructure Sponsorship Program (WISPr). The goal is to support Natural Resource Projects (NPRs) and can sponsor up to 10% of the CWSRF principal. For instance, Richmond could sponsor an NPR project in Waterbury and benefit in reduced Administrative Rate plus an added 0.1% to yield savings over the course of the loan. Short presented a scenario with a savings of \$243,000 by taking on a 10% Maximum WISPr principal of \$1,257,550.

Review of the 60% Preliminary Engineering Report for flood mitigation of the pump station and force main

Timestamp: 2:12

https://www.richmondvt.gov/fileadmin/files/Water_Sewer_Commission/Meetings/2025/10/3c1_2025-10-07_PS_and_FM_Slides.pdf

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Doe summarized that the project involves the pump station, the force main, and other parts of the infrastructure like the collection system that are subject to flooding.

Need for Project:

1. Pump Station:

- Sited within the floodplain, experiences frequent flooding
- Originally manufactured 75+ years old

2. Force Main:

- Exposed to Winooski River floodwaters
- Has sustained damage from previous floods

3. Sewer Manholes:

- Installed in the floodplain, are not watertight

Manhole Covers:

- Replace manhole covers located within 100-year flood plain with replacement watertight covers

- Utilize a neoprene gasket and can be bolted down

Force Main:

Primary Concern:

- Existing force main's current elevation is below the 100-year flood plain:
- FEMA 100-Year Floodplain = 310.30
- FEMA 500-Year Floodplain = 313.90
- Approximate Existing FM = 309.19 (top of pipe)

Proposed Solutions:

- Increase elevation away from 100-Year Floodplain elevation
- Restore/Replace jacket, insulation, hangers
- Replace pipe with new, appropriately hydraulically sized FM

They are still looking at possible locations to elevate force main but have to coordinate with VTRANS who constructed and maintain the bridge. Doe stated that a deflection plate would be a last resort alternative.

Bridge St Pump Station:

Upgrade location alternatives.

Current Location: 430 Bridge Street

Alternative 1: 457 Bridge Street

Alternative 2: 401 Bridge Street

291 Doe presented the Upgrade Design Parameters

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Design Parameter	Criteria
Current Average Daily Flow	9,267 gpd
Future Buildout Average Daily Flow	19,978 gpd
Pump Discharge Rate	58 gpm
Total Dynamic Head	33-57 feet
Force Main Pipe Sizing (varies by pump selection)	3" to 4" (SDR9 or SDR11)
Force Main Length (varies by location)	740-1,100 feet
Velocity of Pumped Flow (varies by location and pump selection)	2.97 – 3.58 feet per second
Wet Well Diameter/Depth (varies by location)	5 feet / 18-29 feet

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295 Doe presented the options with the **current location**:

296 - Replace pump station at existing location

297 - Upgrade will necessitate the use of a raised platform and generator

298 - Very challenging site

299 Environmentally Sensitive Areas of Concern:

300 - Within a Vermont River Corridor

301 - Within a VSWI Class 2 Wetland

302 - Within the FEMA Special Flood Hazard Area

303

304 Doe displayed a concept rendering with an Estimated Cost Project Total of \$2,716,000.

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307 Doe presented the options with the Alternative 1, **457 Bridge Street location**:

308 - Across Bridge Street from existing pump station

309 - Also will require a (bit shorter) raised platform with a permanent generator

310 - Improved construction conditions

311 Environmentally Sensitive Areas of Concern:

312 - Within a VSWI Class 2 Wetland Buffer

313 - Within Vermont River Corridor

314 - Within the FEMA Special Flood Hazard Area

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316 Arneson confirmed that this location was not Town owned property but part of the

317 Richmond Historical Society

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319 Doe displayed a concept rendering with an Estimated Cost Project Total of \$2,501,000.

320 Doe confirmed that they could build a structure around it with siding or something to

321 make it look better.

322

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324 Doe presented the options with the Alternative 2, **401 Bridge Street location**:

325 - Outside of Vermont Wetlands

326 - Outside of FEMA Special Flood Hazard Area

- No longer a need for raised platform, nor a standby generator required
- Pump station hatch will be close to grade: 6" visible above grade
- Vegetation / fencing can used for screening as needed
- Control panel: can be installed near utility pole, or run conduit and install behind church
- Will require deep excavation alongside the roadway – significant shoring or sheeting likely required

Cote stated that they talked about relocating the control panel to the back of the Round Church so it's not in the view out by the road. The control panel could also be located at the well house.

Doe displayed a concept rendering with an Estimated Cost Project Total of \$2,876,000 but that also depends on the depth of the bedrock. Bressor summarized that the Round Church is a National Historic Landmark and the Historical Society has worked hard to create the open view. Bressor observed that the Kart property has a nearby bank that is out of the floodplain where nobody is going to see the pump station. Farr also pointed out the corner of the cornfield further up the road. Cote said that he and Doe could verify if those sites would work based on elevation and how deep they would have to dig. DiPietro-Worden stated that landscaping improvements could be incorporated into the project.

Schedule:

DiPietro-Worden presented the upcoming timeline

- Presentation to Special Meeting of the Sewer Commission: October 7, 2025
- Step II Design Agreement Approved by Town and WID: November 2025
- Conceptual Design WWTF (30% Submission to Town and WID): April 2026
- Bond Vote: April – June 2026 (Date at preference of Town)
- Final Design Complete: February 2027
- Step III Loan Application Submitted for CWSRF Funding: January 2027
- Bid and Award Project: April 2027
- Construction (Contract 1): June 2027 to November 2027

Adjournment

Farr moved to adjourn. Sander seconded.

Roll Call Vote: Farr, Sander, Wolaver in favor. Motion approved.

Meeting adjourned at: 9:30 PM

Chat file from Zoom: None