



Citizens Advisory Board Meeting

February 7, 2022

Board members present:

Chrissy Roberts, Hingham

Steven Weiss, Hingham

Sam Mullin, Hingham

Stephen Girardi, Cohasset

Donna Pursel, Hull

John Struzziery, Hull

4:07pm Call to order

Chair Chrissy Roberts read the following Statement:

“This meeting is being held remotely as an alternate means of public access pursuant to an Order issued by the Governor of Massachusetts dated March 12, 2020 Suspending Certain Provisions of the Open Meeting Law. You are hereby advised that the Town of Hingham in accordance with the Open Meeting Law may record this meeting and all communications during this meeting. If any participant wishes to record this meeting, please notify the chair at the start of the meeting in accordance with M.G.L. c. 30A, § 20(f) so that the chair may inform all other participants of said recording. “ Ms. Roberts asked if any participants were recording the meeting. No one indicated they were recording.

Vice Chair Steven Weiss made a motion to accept the minutes from the December 6, 2021 meeting. Sam Mullin seconded. Roll call: Steven Weiss, Sam Mullin, Donna Pursel, Chrissy Roberts yes. John Struzziery and Stephen Girardi not on call yet.

Update from Water Superintendent Russ Tierney

All updates in attached Superintendent’s report. Some highlights: Capital improvements on track, on Atlantic Ave & Gunrock Ave. Downing St starting soon; future hydrants being marked. Wompatuck Rd on hold due to winter work.

Treatment plant in excellent condition; Accord Pond very high. Rehabilitating wells.

Treatment plant filter work starting, boilers replaced. Centrifuge molds being built, newer models smaller and more effective. 20-30 year lifespan.

Hydrant replacement on hold until Spring. Leaks have been addressed; no main line leaks found. Looking at unaccounted for water (UAW) in a different manner - looking at larger meters. UAW excellent, in range except for Q2 - looking into. Suez has taken Dig Safe back in house which has been a huge improvement.

February 7, 2022

Customer service - hold time and speed to answer up from Dec to Jan but still reasonable and due to high Jan call volume which was people questioning July bills.

Wastewater sampled in Hull three times a week for Covid 19. Trend is down.

Cost of Service Study. No rate increase this year, probably not next year. May be better to raise rates more often but at lower rates vs raising 10% every three years. Not using Aquarion data for bills, was too hard to use. Will instead use year's worth of WRWS for our new bills. Goal for new bills: Jan 2023. Easier to read and use. Looking at changing fees and charges. Won't affect residential really, more commercial.

FY21 actuals on track and even better than anticipated. Improvements to hopefully include new water tank in Hull. FY22 projections came down due to projects undertaken, still good though. Decided on retained earnings of 17.5% after discussing best practices other towns.

Capital work escalation every three years. Material costs going up fast. Town's original projections were 10% increase in FY25. Projections show various scenarios of rates and debt ratio. Included capital projects for next five years. Numbers show water system in good shape financially but will need rate increase at some point to stay in good shape. No rate increase in FY23, probably not for FY24, perhaps helpful in FY25 but nothing set. Debt coverage ratio is revenue vs. what you pay out - want to stay above 1.0 which keeps AAA bond rating which gets you better borrowing rates. Working on meter change out program - replacing old meters to show actual vs estimated usage, maybe billed monthly not quarterly, keeps revenue flow monthly, finds leaks sooner (real time data). Long term undertaking (> five years).

Capital Study. Russ Tierney reviewed the Cost of Service update presented to the Board of Water Commissioners on 2/3/22 (attached). Hydraulic model from predecessors needed to be rebuilt which held things up. Four technical memos completed. Top priority second water storage tank in Hull, may be able to be funded through Enterprise Fund. Final report due by 4/1. Will institute water audit if we don't get UAW down; working on UAW. UAW at 23% now, goal 10% reduction each year. Reasons for high UAW: leaks, meters off, stolen water. May get water higher in storage tanks. Total recommendations for distribution system: \$33M. Model of \$2.7M/year was very close to actual needed. \$7.2M flagged for three priority projects out of \$7.8M bond proceeds available: new Hull storage tank, Hull booster station, Turkey Hill storage tank rehab. 15% contingency included, engineering and construction included. Warrant articles at Town Meeting for water tanks and regular budget. If new tank moving forward would be FY23/24.

Water Commissioner Liz Klein Glad to hear of all the work happening and many improvements as promised.

The next meeting was set for 4/11/22 at 6:00pm.

John Struzziery made a motion to adjourn. Steven Weiss seconded. Roll call: John Struzziery, Steven Weiss, Stephen Girardi, Donna Pursel, Sam Mullin, Chrissy Roberts yes.

Adjourned 5:30pm

Supplements (Superintendent's report, Cost of Service study):

Superintendent report:

**Board of Water
Commissioners**

Joe Fisher, Chair
William Ramsey
Liz Klein



Managing Director / Superintendent
Russell E. Tierney



MEMORANDUM

TO: Citizens Advisory Board (CAB)
FROM: Russell E. Tierney, Managing Director / Superintendent
SUBJECT: **Operations Report**
DATE: February 7, 2022

1. Capital Improvement Projects / P

- Atlantic Avenue / Gunrock Avenue - Hull
 - Water mains have been installed, tested, and put into service
 - Crews continue to transfer water services and side streets
 - Crews will start abandonment of old infrastructure the week of 2/7/22
 - Project wrap up and demobilization the week of 2/14/22
- Downing St – Hingham
 - Crews to mobilization the week of 2/14/22 and begin preliminary work
 - Main installation will be about 2 weeks (2/21/22-3/4/22)
 - Services and other work about 2 weeks (2/28/22-3/11/22)
- Wompatuck Rd – Hingham
 - Winter condition work not permitted on Wompatuck Rd as agreed to with Hingham DPW.
 - Wompatuck very narrow and we have decided to hold off on this work until mid-April 2022.
 - Working with Hull and Hingham DPWs on paving lists for FY23 for potential CIP work
 - Porrazo Rd, Hull - multiple breaks and issues since we took ownership, reviewing this road

2. Treatment Plant – Supply and Pumping

- All supplies are in excellent condition
- Accord Pond is at its highest level in a very long time
- We are in the process of flow testing all wells and rehabilitating those that need it ahead of the spring season – typically 4 wells need to be rehabilitated
- Fulling Mill Kettle Ponds are full and ready for the spring

3. Treatment Plant Maintenance Work

- Filters #1 and #2 rehabilitation work to begin February 14, 2022.
- Boiler was replaced with two new high efficiency gas boilers at a cost of 120K
- National grid worked closely with us and installed a new gas line from main street
- One of our two centrifuge units has been taken out of service and needs 95K in repairs, parts are no longer available and have to be specially made and molded
- New centrifuge is about 650K, budgeting to replace both units over the next three year

4. Distribution System Update

- Hydrant replacement program on hold due to supply chain issues – hydrants are 6 months out
- We have a stock of 10 hydrants and want to keep those in the event of an emergency
- Responded to 3 service leaks and 5 main breaks since our last meeting
- Leak detection found 9 hydrants leaks, all have been addressed
- UAW is being closely monitored, excellent Q1, Q3 and Q4 results, still reviewing Q2.
- SUEZ has taken dig safes back in house, huge improvement in this task

5. Customer Service

Month	# Calls	Ave / Day	Ave Talk Time (min)	Ave Speed to Answer (min)	Ave Hold Time (min)
December	635	31	00:03:25	00:00:07	00:00:36
January	1079	54	00:02:59	00:00:12	00:01:44

6. Other Topics

- **Cost of Service Study** – see attached update
- **Master Plan Study** – see attached update
- **Cohasset Booster Station** – working with Cohasset water to repair controls and monitoring equipment at the booster station and get all this information into our SCADA system.

7. COVID-19

- SUEZ in a Level 2 for WRWS– all protocols are in place



STUDY UPDATES

PRESENTED TO BOARD OF WATER COMMISIONERS

Thursday, February 3, 2021

Russell E. Tierney, Managing Director / Superintendent
781-804-2304 / tierneyr@hingham-ma.gov

COST OF SERVICE STUDY UPDATE

Study Objectives

- **Support and assist the Town of Hingham as it transitioned to ownership of the Weir River Water System**
 - Revenue Projections Before Ownership
 - Revenue Projections After Ownership
 - Review of Bills
- **Work with Town on Setting Rates**
- **Make Recommendations for Simplified Billing Structure**
- **Work with Town on Analyzing Fees and Charges**

FY 2021 Financial Results

- **Original Anticipated Results, per Town:**
 - > \$1 million surplus
 - 1.56 Debt Service Coverage Ratio
- **Actual Results:**
 - > \$1.6 million surplus
 - 1.88 Debt Service Coverage Ratio
 - **Retained Earnings Certified \$9.4 million**
 - \$7.8 million from bond proceeds
 - \$1.6 million from operating surplus

FY 2022 Projections

- **10% increase in rates and charges**
- **Original Anticipated Results, per Town:**
 - > \$1.9 million surplus
 - 1.33 Debt Service Coverage Ratio
- **Projected Results, per The Abrahams Group:**
 - > \$1.4 million surplus
 - 1.26 Debt Service Coverage Ratio
 - **Available Retained Earnings \$3.1 million**
 - Ignoring \$7.8 million from bond proceeds
 - \$3.1 million = 25% of total expenditures

Five-Year Outlook – FY 2023 to FY 2027

- **Assumptions:**

- **Town continues to invest in capital annually**
 - \$2.7 million in FY 2023, \$2.8 million in FY 2024 to FY 2026, \$3.0 million in FY 2027
- **Budgeted expenses increase by a set amount annually**

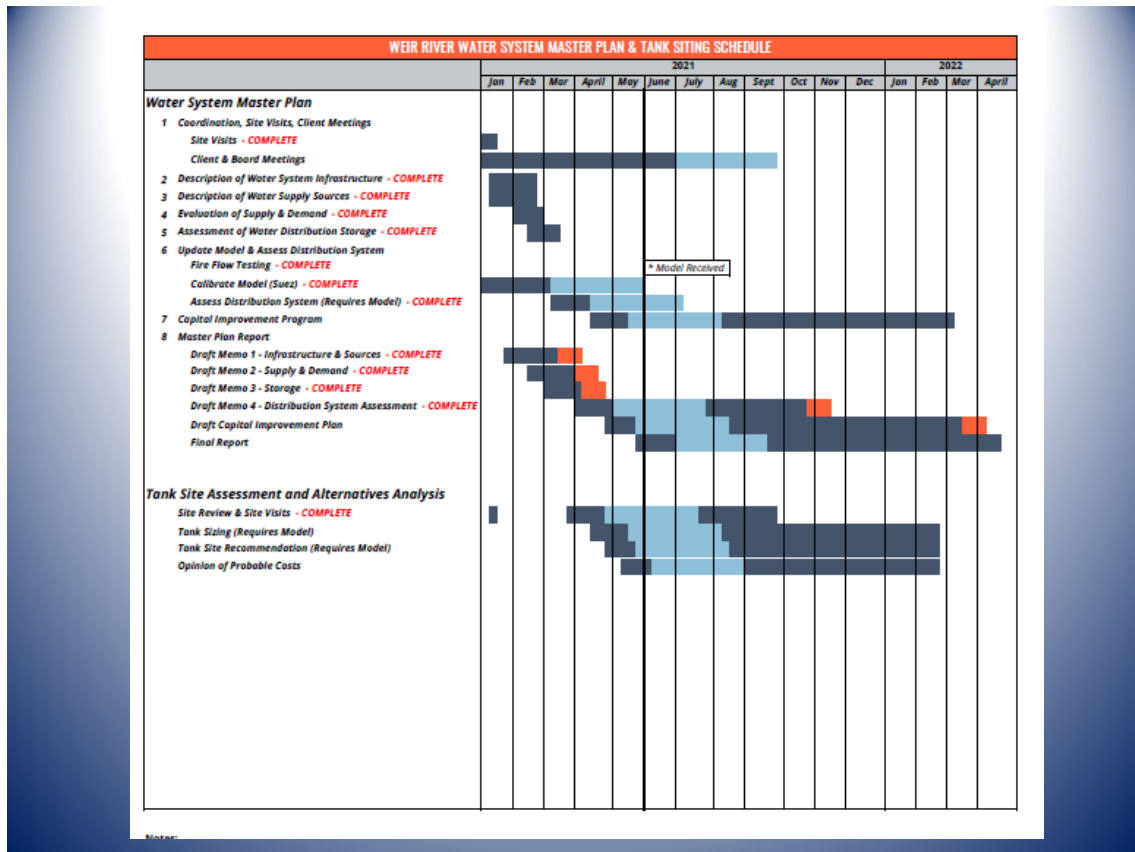
- **Projections show Debt Coverage Ratio dips below 1.10 in FY 2024:**

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Town's Original Projections (includes 10% rate increase in FY 2025)					
Surplus	\$1,579,288	\$1,166,132	\$2,314,602	\$1,821,507	\$1,535,272
Debt Coverage Ratio	1.26	1.19	1.36	1.28	1.23
The Abrahams Group's Projections (no rate changes)					
Surplus/(Deficit)	\$785,353	\$453,576	\$168,688	(\$340,244)	(\$644,601)
Debt Coverage Ratio	1.13	1.07	1.03	0.95	0.91
Retained Earnings \$	\$3,902,062	\$4,355,638	\$4,524,326	\$4,184,082	\$3,539,481
Retained Earnings %	29.8%	32.4%	32.9%	29.4%	24.3%

CAPITAL STUDY

- **All field work has been completed**
- **WRWS has been reviewing the technical memos and already implementing some of the prioritized recommendations**
- **WRWS has reviewed the distribution system assessment and has already developed a spreadsheet with associated budget numbers**
- **Four technical memo's have been completed, reviewed and are being finalized**
 - **Description of Infrastructure**
 - **Evaluation of Supply and Demand**
 - **Storage Assessment**
 - **Distribution Assessment**
- **The number one priority is to site, design and construct a second water storage tank in Hull**
 - **Expecting a proposal from EP for the initial siting, in depth site analysis, preliminary design, draft permitting and recommend types of tanks in the next two weeks**
 - **Review the proposal and determine if this preliminary work can be funded from the Enterprise Fund**

FINAL REPORT EXPECTED BY APRIL 1, 2022



Evaluation of Supply and Demand - Recommendations

- **WMA Registration Renewal**
 - completed and submitted by WRWS and EP
- **UAW Audit**
 - we have been conducting leak detection surveys and using other methods to determine UAW, we will be reviewing this recommendation of an audit with EP for potential implementation in FY24
- **Firm Capacity**
 - this states that WRWS does not have adequate supply during peak demand, if we lose our largest source – Accord Pond
 - Focus on UAW to increase firm capacity
 - Intention is to replace the deeper intake in FY24
 - We will review the potential of increasing the volume of Accord Pond in the future
- **Continue Well Maintenance and Redevelopment Work**
 - this is ongoing and will continue to be a focus item
- **Scotland Street Wells 1 and 1A Replacement**
 - this was investigated and discussed in September of 2020 and recently we have requested some very preliminary budget numbers. Well replacement can be a very long process and cost in excess of 750K, therefore we will need to budget for this as we increase the water systems stabilization fund

Evaluation of Supply and Demand - Recommendations

- **Returning Downing Street Well To Service**
 - There are several discrepancies on the reason for taking this well out of service. We will discuss this internally and only present this option if it is viable and cost effective
- **Maintain Reliable Interconnections with Neighboring Towns**
 - WRWS currently has a very reliable interconnection with the Town of Cohasset. A second interconnect with the Town of Weymouth on Summer St will bring some much needed redundancy in the event of a major main break in our high service area. This was proposed in the past and we have started to revisit this option already.
- **Water Conservation Practices**
 - this is a potential option, but as we have experienced may not be an effective means for the WRWS. It is open for discussion.


Storage Assessment - Recommendations

- **Storage Volume**
 - Review operational practices with the WTP and consider recommendations to increase volume in the tank during peak demands but increasing fill height
- **Redundancy**
 - Construct a second tank in the main service area – Hull
 - Construct the interconnection with Weymouth for the high service area
 - Consider pressure reducing vaults to eliminate the two zones – make them one

Distribution Assessment - Recommendations

- **A spreadsheet has been developed that summarizes the distribution system recommendations. Some additional work needs to be done with this spreadsheet and it will be updated from the final report. The goal is to further prioritize the recommendations, list the projects by town, and incorporate them in the capital budget and overall capital planning.**

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Priority	Project Name	Town	Existing Main		Proposed Main		LF	Cost / LF	Budget	Fiscal Year
			Size (in)	Type	Size (in)	Type				
2	East St - 1	Hingham	3	CI	6	DI	1,280	\$275.00	\$352,000.00	
2	East St - 2	Hingham	6	CI	6	DI	820	\$275.00	\$225,500.00	
2	East St - 3	Hingham	6	CI	8	DI	1,910	\$300.00	\$573,000.00	
2	Hull St - 1	Hingham	6	CI	8	DI	3,150	\$300.00	\$945,000.00	
2	Hull St - 2	Hingham	8	CI	8	DI	3,100	\$300.00	\$930,000.00	
2	Spruce St	Hingham	6	CI	6	DI	920	\$275.00	\$253,000.00	
2	Chestnut St	Hingham	2	CI	2	PP	350	\$200.00	\$70,000.00	
2	Lamberts Ln	Cohasset	4	CI	6	DI	300	\$275.00	\$82,500.00	
2	Canterbury St - 1	Hingham	4	CI	8	DI	380	\$300.00	\$114,000.00	
2	Canterbury St - 2	Hingham	8	CI	8	DI	920	\$300.00	\$276,000.00	
2	Canterbury St - 3	Hingham	N/A	N/A	8	DI	190	\$300.00	\$57,000.00	
								\$3,878,000.00		

				\$10,528,500.00	
POTENTIAL FOR BOND PROCEEDS					
1	Strawberry Hill Storage Tank			\$4,200,000.00	
12	Hull Booster Station			\$950,000.00	
1a	Turkey Hill - Storage Tank			\$2,100,000.00	
				\$7,250,000.00	
TOTAL BUDGET RECOMMENDATIONS 2-11				\$33,619,500.00	
AVERAGE COMMITMENT OVER 10 YEARS				\$3,361,950.00	
AVERAGE COMMITMENT OVER 15 YEARS				\$2,241,300.00	
AVERAGE COMMITMENT OVER 20 YEARS				\$1,680,975.00	
KEY					
<i>DI</i>	<i>Ductile Iron</i>				
<i>CI</i>	<i>Cast Iron</i>				
<i>AC</i>	<i>Asbestos Concrete</i>				
<i>PP</i>	<i>Poly Propolyne</i>				
<i>N/A</i>	<i>Not Applicable</i>				
				HINGHAM	
				HULL	
				N. COHASSET	