

Dry Bridge Road Water Treatment Plant Funding Approval Request

Authorization from City Council required for State
Revolving Fund Loan Program



March 18, 2021

Funding Opportunities

- PFAS treatment project funding a priority this year for the State Revolving Fund (SRF) loan program through MassDEP & Clean Water Trust
- Terms released in summer 2020 looked favorable: 0% with possible principal forgiveness
- Application submitted August 2020
- Draft Intended Use Plan issued February 2021, identifies Westfield and awards \$12.257 million
- Final IUP expected any day
- Round 1 PFAS design grant award of \$200,000
- Round 2 PFAS design grant award of \$180,495

What happened to prior bond money?

2017 \$5 Million Bond

- Well 2 Temporary WTP Designed and Built
- Owen District Rd WTP Designed
- East Mountain Tank Replacement Designed and Built (2021 Finish)
- Tank Rehabilitation Project (Ongoing)

2018 \$13 Million Bond

- Owen District Rd. WTP Construction and Administration
- Dry Bridge WTP Design (95% Complete)
- **>\$5 Million left in bond**
This money has not been borrowed

Changes since 2018 Bond Request

- \$2 Million of necessary pipeline work included
- Larger footprint needed to use for DPW-Water base on the northern side of Westfield due to new plants
- Massachusetts regulations have changed: more projects coming state wide so demand for materials and contractors increasing
- Inflation (3 years later), bidding environment, and tariffs have increased the projected costs of construction and materials
- SRF program is more favorable terms for Westfield

STATE REVOLVING FUND (SRF) LOAN TERMS

- 0% Interest (2021 PFAS projects)
- 20-year term
- Estimated 19.8% loan forgiveness
- **\$5M savings compared to standard City financing**

	Conventional Loan ¹	SRF Loan - Clean Water Trust ²
Interest on Principal	2.3%	0.0%
Principal Forgiveness	0.0%	19.8%
Initial Loan Amount	\$ 12,257,000	\$ 12,257,000
Remaining Principal Amount	\$ 12,257,000	\$ 9,830,000
Cumulative Interest (20-years)	\$ 3,100,000	\$ -
Origination Fee	\$ -	\$ 50,000
Administration Fees	\$ -	\$ 155,000
Loan Total - Principal, Interest & Fees	\$ 15,357,000	\$ 10,035,000
MBE/WBE Markup ³	\$ -	\$ 120,000
Engineering Consultant ⁴	\$ -	\$ 170,000
Incidental Costs for SRF Loan	\$ -	\$ 290,000
Grand Total	\$ 15,357,000	\$ 10,325,000
Incr. / (Decr.) from Conventional	\$ -	\$ (5,032,000)

Notes

1. As of February 22, 2021, City of Westfield could expect an interest rate of around 2.3% for a 20 year bond with cumulated interest of about \$3,100,000.
2. SRF Loan Forgiveness is anticipated to 19.8% for the upcoming period. SRF loans fees estimate from previous year's loan.
3. MBE/WBE increased costs may vary widely between various construction general contractors. For this comparison, a 1% of the construction value was approximated.
4. Additional costs incurred by the Engineering Consultant for SRF Construction Administration.

SRF LOAN DEADLINES

2021 SRF SCHEDULE

	Anticipated Dates	Deadline
Final SRF Project Lists (IUP Publication)	March 2021	
MassDEP SRF Permitting	April 2021 - June 2021	October 15, 2021
City Council Bond Vote	ASAP	June 30, 2021
Public Meeting	June 2021	Prior to Bidding
Bidding	June 2021 - August 2021	
Project Award	September 2021	June 30, 2022

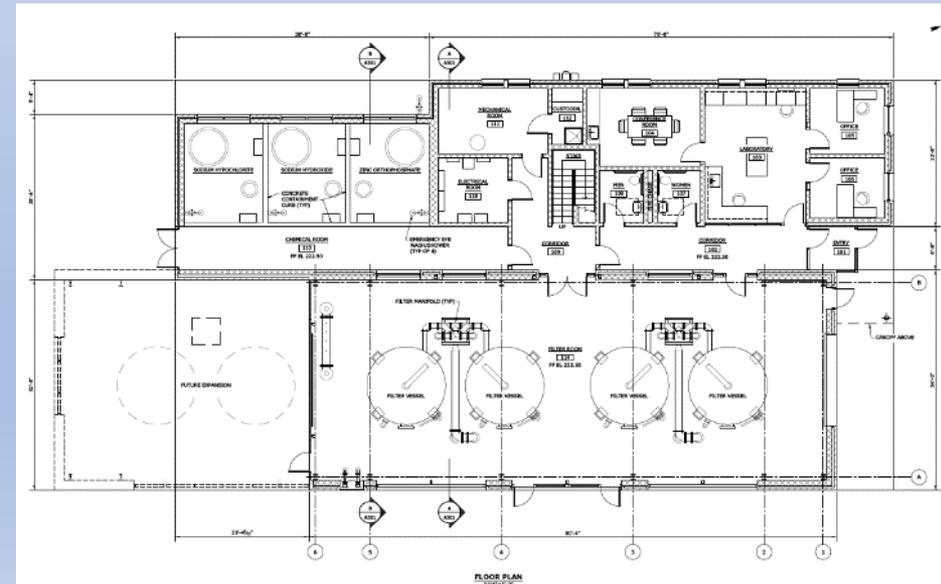
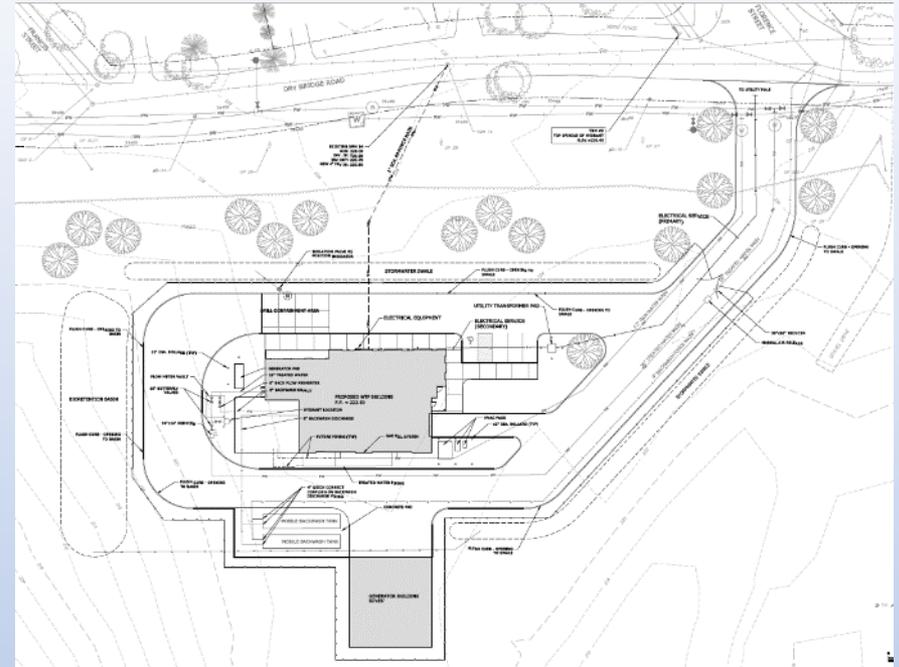
TEMPORARY TREATMENT ON WELL 2

- Installed temporary full-scale 40,000 lb contactor
- Relocation of chemical feed
- Over 320 MG produced and treated successfully with GAC
- Lack of robust security, operational redundancy, and weather protection
- Ongoing costs for scaffolding rental and heating
- DEP temporary approval, extension request must include timeline for decommissioning.



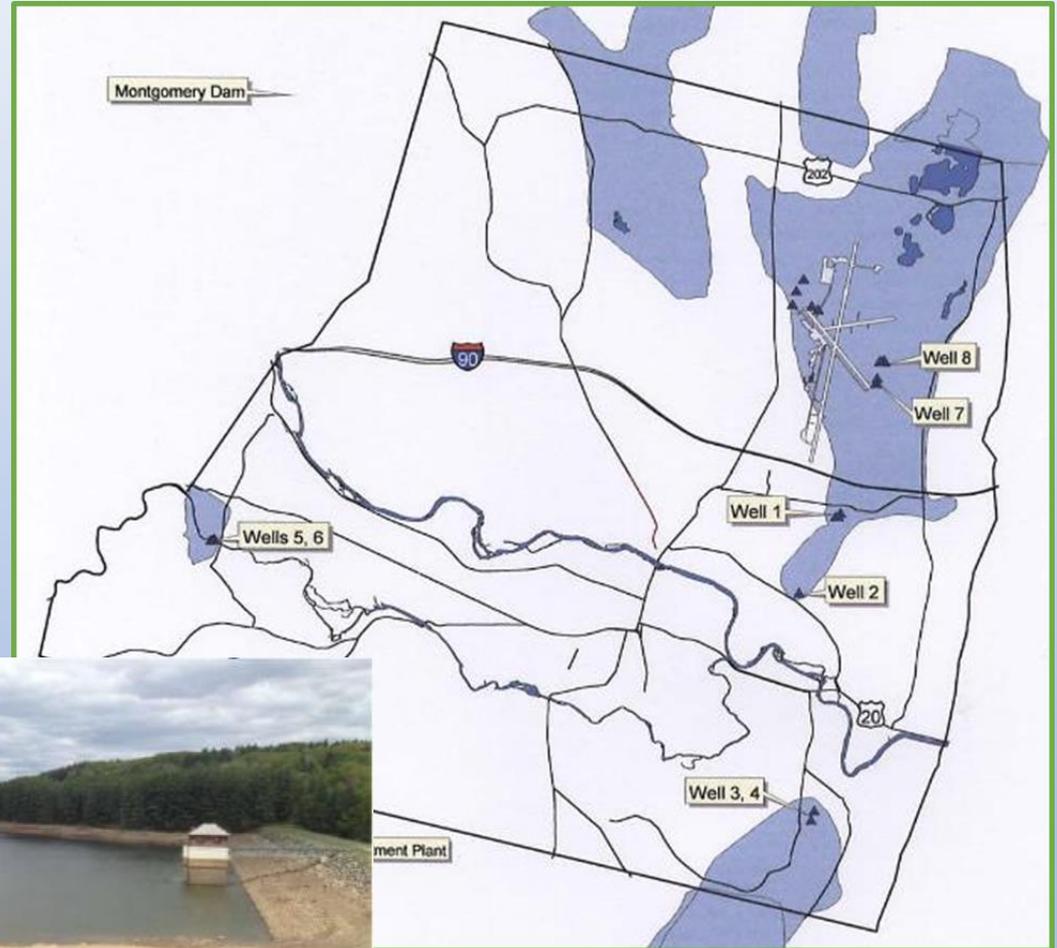
WELL 1 & 2 WTP

- 8,000+ of raw and treated water main
- 2,600 gpm capacity
- 4 – 40,000 lb GAC vessels
- 3 chemical feed systems
- Well upgrades (electrical and pump)
- Design expanded to include office space needed to serve as a DPW-Water northside operation center
- Possible future expansion



NORTH SIDE REDUNDANCY IS CRITICAL FOR OPERATIONAL SUCCESS

- Drought conditions
- Mechanical or water main break issues
- Fire flow
- Limited flow north from Granville WTP or southern wells



Granville Reservoir - Full

– Drought Conditions

Timing is key for cost savings

- 2021 SRF Program has remarkable terms for PFAS projects: 0% interest along with principal forgiveness
- Firm deadlines for funding approval: 2nd reading and final passage no later than June 3rd
- At the head of the surge in demand

- \$5 Million June 30th



Proven Technology

Well 2 Temporary Water Treatment Plant

- In operation since Fall 2018
- Recommendations changed multiple times
- No violations, no DEP defined reliable quantitative detections at Point of Entry
- DEP monitored

Owen District Road Water Treatment Plant

- In operation since August 2020
- Extensive testing and commissioning process
- No violations, no DEP defined reliable quantitative detections in finished water
- DEP monitored

PFAS Level Interpretation

- **Compliance** based on MassDEP standards: MCL is 20 ppt for 6 PFAS compounds (October 2020)
- **Goals** inform operational decisions locally, i.e. filter replacement. Westfield's goal is Non-Detect.
- Per MassDEP regulation: "PFAS Detection shall mean a concentration of any PFAS measured in accordance with 310 CMR 22.07G(12) which is greater than or equal to the analytical laboratory's applicable Minimum Reporting Level (or MRL)."
-  **0** PFAS Detections in treated water per DEP definition
- "J-flag" results inconsistent, estimated, indicates data issue, so **NOT** used for compliance or goals

PFAS HISTORY IN WESTFIELD

2012

- UCMR3 requires testing for PFAS
- HAL for PFAS: 600 ppt

2016

- EPA lowers HAL to 70 ppt for PFOA/PFOS
- Wells 7 and 8 removed from service
- Well 2 only used for emergencies
- Outdoor non-essential water use restriction

2018

- MassDEP establishes an ORSG to 70 ppt for 5 PFAS: PFOA, PFOS, PFNA, PFHxS and PFHpA
- Well 2 Temporary treatment installed

2020

- MassDEP establishes MCL of 20 ppt including PFOA, PFOS, PFNA, PFHxS, PFHpA, and PFDA
- Owen District Road WTP (Well 7 and 8) online

As guidance and regulations have changed, compliance standards and lab reporting methods have also changed. Westfield's goal of Non-Detect has not changed.

Information and Expertise

- Massachusetts Department of Environmental Protection
- CDM-Smith's Engineering, Design, and PFAS Team
- Tighe and Bond's Engineering, PFAS Design, and State Revolving Fund Team
- Water Commissioners Joseph Popielarczyk, Ron Cole, John Niedzielski
- Treasurer Matt Barnes
- Director of Purchasing Tammy Tefft
- DPW-Water Interim Director Fran Cain, Systems Engineer Heather Stayton

NEXT STEPS

- Proceed through Council bond approval process
- MassDEP conditional approval already received
- Finalize 95% drawings once Part A Application materials received
- Submit completed application materials for authorization to bid

