





CHANGING THE EQUATION SOLVING THE FINANCING PROBLEM WITH WIFIA

Springfield Water and Sewer CommissionJoshua D. Schimmel, Executive Director







RE-THINKING YOUR UTILITY'S LIMITATIONS

- KNOW YOUR LIMITATIONS
- RE-IMAGINE YOUR UTILITY WITH NO ROAD BLOCKS
- HOW WIFIA CAN SUPPORT REAL ORGANIZATIONAL CHANGE



West Parish Filters Water Treatment Plant, Westfield MA



Springfield Regional Wastewater Facility, Agawam MA



PRESENTATION OVERVIEW

- Springfield Water and Sewer Commission
- Challenges
- Finding Solutions
- How WIFIA is different
- Portfolio of Projects
- Unintended Benefits and Consequences
- Summary



WHO WE ARE

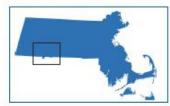
- Independent, public, regional utility established in 1996
- Governed by a three-member Board of Commissioners appointed by City of Springfield mayor and approved by City Council
- Operate and maintain the largest water and wastewater system in Western Massachusetts
- Provide retail, wholesale, and peak/emergency water and sewer service to 10 communities
- 33 MW Hydro Power Generation Facility

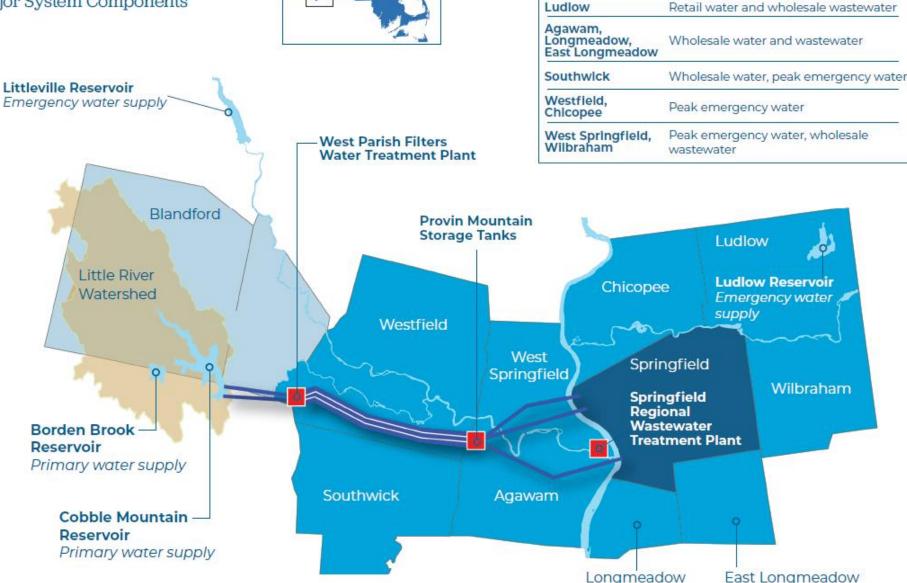




SWSC System Map

Service Area and Major System Components





Service Categories

Retail water and wastewater

Springfield

(main customer)

WHAT WE DO

From Raindrop to River

Reservoirs



- 18,000 acres water supply forest
- 3 reservoirs (1872, 1909, 1930)
- 10 dams (1872-1960)

Drinking Water Treatment



- 1 treatment plant (1909, 1974)
- 1 power plant (1930)

Transmission, Storage & Distribution System



- 3 transmission mains (1909, 1928, 1960)
- 3 storage tanks
- 579 miles water pipe
- 6,210 hydrants
- 19,742 valves
- 5 pump stations

WHAT WE DO

From Raindrop to River

Collection System Wastewater Treatment Plant **Connecticut River** • 473 miles sewer • 1 treatment plant • 23 CSOs (1939, 1972)pipe • 1 WWTP discharge

point

GOVERNANCE

- Governed by a three-member Board of Commissioners appointed by City of Springfield mayor and approved by City Council
- Independent Finances
- Independent Rules & Regulations, Guidelines, & Policies





FINANCIAL STATUS

- INDEPENDENT FINANCES
- FOCUS ON ESTABLISHING ABILITY TO INVEST MORE SINCE 2017
- FINANCIAL POLICIES ESTABLISHED IN 2018
- INDEPENDENT FINANCIAL CONSULTANT SINCE 2018
- ESTABLISHMENT OF NEW RESERVES AND FUNDS
- NO STATE OR FEDERAL AID, NO DIRECT ARPA ELIGIBILITY
- > 95% OF REVENUE FROM RATES
- INFRASTRUCTURE FUNDING SOURCES ARE REVENUE, BONDING, AND SRF
- AVERAGE RATE INCREASE IS 8% OVER THE PAST 20 YEARS



FINANCIAL PLANNING

Key to Rate Stability

Sound Financial Policies and Practices Provide:

- ✓ Budget discipline
- ✓ Controlled flexibility for the unexpected
- ✓ Strong financial rating
- ✓ Reduced borrowing costs & competitiveness for limited resources

Proactive project planning ensures:

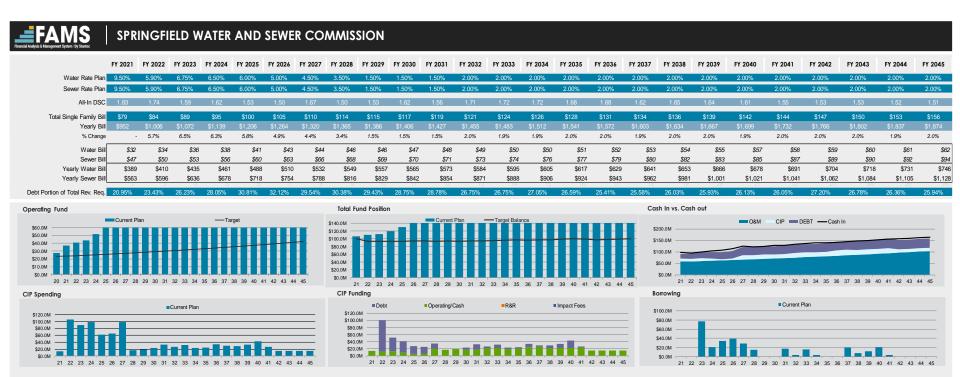
- ✓ Maximized ratepayer dollars
- ✓ Value

Unprecedented Investment Addresses:

- ✓ Aging and failing infrastructure
- ✓ Existing and future regulatory compliance
- ✓ System modernization, climate change & cybersecurity
- ✓ Risk reduction & increased reliability



FINANCIAL MODELING TOOL





TODAY'S CHALLENGES

- INFRASTRUCTURE
- REGULATORY
- INSTITUTIONAL
- FINANCIAL







UNPRECEDENTED NEED FOR INVESTMENT

Converging Factors

- Aging infrastructure
- Unfunded state/federal mandates
- Advancing regulations

- System reliability
- Climate change resiliency
- Cybersecurity



The Tell

Climate change means public utilities will need billions in upgrades over the next decade, report says

Last Updated: May 12, 2021 at 6:05 a.m. ET First Published: May 11, 2021 at 1:23 p.m. ET

By Andrea Riquier

Climate change models may not capture the full extent of the uncertainty: witness the Texas winter storms





"...utility systems are depreciating faster than they are receiving needed investment."

INSTITUTIONAL CHALLENGES

LIMITATIONS OF YOUR ORGANIZATION

- GOVERNANCE
- STAFFING & ORGANIZATIONAL
- RESOURCES

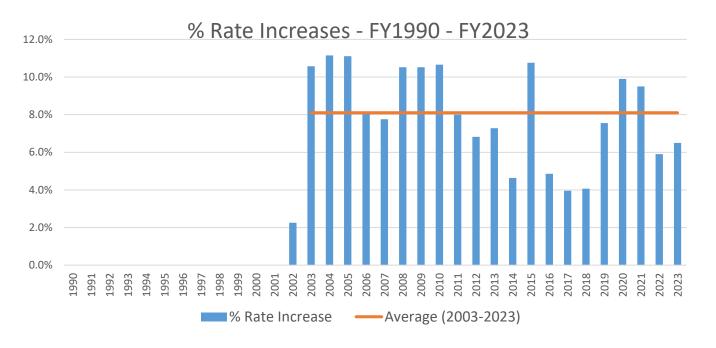






FINANCIAL CHALLENGES

- RATE SENSITIVITY / CUSTOMER AFFORDABILITY
- COMPLIANCE WITH FINANCIAL INDICATORS & METRICS
- LIMITATIONS CREATED BY INSTITUTIONAL BOND RESOLUTIONS
- LIMITATIONS CREATED BY LOAN TYPES
- CASH LIMITATIONS
- PLAYING CATCH-UP AFTER YEARS OF NO RATE ADJUSTMENTS





KNOW YOUR LIMITATIONS

- NEED LESS THAN 10% RATE INCREASES
- CURRENT STAFF CAPACITY TO DO \$25-50 MILLION PER YEAR
- SRF REQUIREMENTS & LIMITATIONS
- \$5-10 MILLION IN REVENUE CIP EACH YEAR
- CSO ADMINISTRATIVE ORDER PROJECT SCHEDULE



SEARCHING FOR A SOLUTION

- NEEDS OUT-STRIP CAPACITY
- SUCCESSFUL BOND RESOLUTION AMENDMENT SRF COLLABORATION
- VERY LIMITED SOLUTIONS AVAILABLE WITH NON-COMPLIANCE NEEDS & FINANCIAL LIMITATIONS

WHAT IF THERE WERE NO LIMITATIONS?



WIFIA PROGRAM PROJECTS

• 35 Projects in WIFIA Portfolio

Attachment A: WIFIA Component Project List



SPRINGFIELD WATER AND SEWER COMMISSION SCHEDULE FOR WATER AND WASTEWATER INFRASTRUCTURE REPLACEMENT PROGRAM MARCH 2, 2021

WHAA
Rev/Res
58F
Flood
103 106 109 112 135 138

11 11 12 16 17 34	004-0034 004-0035 005-0046 005-0076 005-0078	Source Ren/Res WIFIA	WIFIA		Description	Procure- ment Method	Project Status: Percent of Design Complete (2/9/2021)	Project Status: Percent of Construction Complete (2/9/2021)	Project Costs						YEAR				
11 12 16 17 34 18	004-8035 005-8046 005-8076			Escalate				250000000000000000000000000000000000000	Planning i	Design i	Construction i	TOTAL	2021	2022	2023	2024	i 2025 i	2026	2027
12 16 17 34 18	005-8846 005-8876	WIFIA	Y	N	Perstocks Repairs Inspections	PS	0	NA	\$159,135	\$159,135	50	5318.270	\$0	5318,270	\$0	50	50	50	50
16 17 34 18	005-0076		Y	Y	Penstocks Repairs Construc	DBB	NA.	a	50	so	\$2,875,000	\$2,875,000	śc	ŚO	\$a	Śū	\$a	\$2,875,000	50
17 34 18		WITH	Y	Y	Cobble Mtn Bygas & Diversion Tunnel Gate-Constr	DBB	NA.	5	50	50	54,612,160	\$4,612,160	52,272,000	\$2,340,160	\$0	50	50	\$0	50
34 18	005-8078	SRF	Y	N	WPF Trint Plant Backwash Clearwell & Pump replic	DB	20	0	\$1,087,500	\$4,350,000	\$16,312,500	\$21,750,000	\$0	\$6,933,930	\$11,781,430	\$3,034,640	\$0	50	50
18		WIFIA	Y	Y	42 in, Raw Water Conveyance ReDsgn & ReConst	DBB	5	0	\$489,281	\$1,957,125	57,339,219	\$9,785,625	\$0	\$5,214,375	\$4,571,250	\$0	şa	\$0	\$0
	005-0079	WIFIA	Y	Y	WPF Bulk Chem & Chir Room Impry Constr	DBB	NA.	0	\$0	50	\$1,495,457	\$1,495,457	\$0	\$1,495,457	\$0	\$0	şa	\$0	50
19	005-0087	WIFIA	Y	Y	WPF Lagoon Cleaning Constr	PS	NA.	.0	şa	so	\$4,589,700	\$4,589,700	\$0	\$0	\$0	51,711,900	\$2,878,400	50	50
	005-0098	Rev/Res	Y	Y	Conduit Hydropower on 42" RWC & Elec Upgd Deson (TY 21 Booked as Rev)	PS	10	NA.	\$579,313	\$579,313	50	\$1,158,625	\$862,500	\$296,125	\$ti	\$0	Şu	\$0	\$n
19	005-8899	WIFIA	Y	Y	Conduit Hydrocower on 42" RWC & Elec Upyd Constr	оев	NA	0	50	50	\$15,516,440	515,516,440	\$0	50	58,501,200	\$7,015,240	\$0	\$0	\$D
13	005-0100	WIFIA	Y	N	WPF Facility Improvements Dsg & Constr WIFIA	PS / DBB	2	a	\$6,132,000	\$24,528,000	\$91,979,999	\$122,639,999	\$0	55,725,535	\$3,725,333	536,322,000	\$27,468,800	\$27,468,800	\$23,929,755
15	005-0105	SRF	Y	N	WPF Facility Improvements Dsg & Constr SRF	PS / DBB	2	0	\$2,250,000	\$9,000,000	\$33,750,000	\$45,000,000	\$0	50	50	50	\$15,000,000	515,000,000	515,000,000
21	C80-0019	Rev/Res	Y	Y	Provin Tank Maintenance & Cleaning	DBB	0	a	522,170	\$88,680	\$832,550	5443,400	5160,000	50	\$0	5283,400	50	50	50
35	080-0022	Rev/Res	Y	Y	Provin Tank 1 Structural Monitoring	PS PS	0	0	\$10,965	\$43,860	\$164,475	\$219,300	\$tt	\$175,100	\$20,600	\$10,900	\$11,200	\$11,500	50
33	007-0007	WITH	Y	N:	Smart Meter Replacement Pgm	DHR	NA.	0	\$01	50	\$14,000,000	\$14,000,000	şa	\$0	\$3,500,000	\$3,500,000	\$3,500,000	\$3,500,000	50
25	128-2020	Rev/Res	Y	Y	Distribution Syst Main Replace 19-20 Constr Season	Des	a	NA	\$875,000	\$875,000	SD.	\$1,750,000	\$1,750,000	50	\$a	\$0	\$a	\$0	\$0
	126-2023	Rev/Res	Y	N	Distribution Syst Main Replace 23-24 Constr Season	Dets	NA.	e e	\$0	so	\$2,000,000	\$2,000,000	\$0	\$0	52,000,000	50	50	\$0	50
25	128-2024	WIFIA	Y	N	Distribution Syst Main Replace 24-25 Constr Season	оев	NA.	0	50	50	511,220,000	511,220,000	\$0	\$0	\$0	53,740,000	\$3,740,000	53,740,000	\$0
5	001-0011	WIFIA	Y	N	SRWTF Electrical Distribution Sys Upgrade Phase II (2026)	DB	0	0	\$200,000	\$800,000	\$3,000,000	\$4,000,000	\$0	\$2,000,000	\$2,000,000	\$0	\$0	50	\$0
5	003-0014	SRF	Y	N	Electrical System Improvements IO's	DS	0	0	5278,982	\$1,115,929	\$4,184,732	\$5,579,643	\$G	\$1,479,722	54,099,921	50	50	\$0	50
6	001-0016	WIFIA	Y	N	Grit Removal System Improvements	DBB	0	0	\$1,407,591	\$5,630,365	\$23,113,870	528,151,826	\$0	\$6,831,475	\$14,072,839	57,247,512	\$0	50	\$0
6	001-0018	SRF	Y	N	Primary Clarifier Upgrade	DBB	0	0	\$700,219	\$2,800,878	510,503,291	\$14,004,388	\$ci	\$0	\$tt	\$3,398,381	\$7,000,665	\$3,605,342	\$0
7	001-0019	SRF	Y	N	VENTILATION REHABILITATION GRIT & SCREEN INGS BLDG ICI'S	DS	0	0	\$111,057	\$444,228	\$1,665,855	\$2,221,140	\$0	\$589,047	51,692,093	\$0	50	\$0	50
1	001-0026	SRF	Y	14	AERATION SYSTEM UPGRADE ICI'S	DB	0	0	\$234,264	\$937,057	\$3,513,965	\$4,685,287	\$0	51,231,184	\$1,984,068	\$1,470.035	50	50	50
4	0001-0036	SRF	Y	N	BIOLOGICAL NUTRIENT REMOVAL PROCESS UPGRADE ICI'S	DS	a	(1	\$1,060,303	\$4,241,213	\$15,904,549	\$21,206,065	\$0	\$1,705,968	\$8,034,555	\$11,465,142	50	50	50
30	003-0029	SRF	Y	N	CT River Xing & York St Pump Station	CMAR	100	37	\$6,850,000	527,400,000	\$102,750,000	\$137,000,000	\$60,379,858	576,620,142	\$0	50	\$0	50	50
22	12A-0018	Rev/Res	Y	N	Collection System Design	PS	0	NA.	\$1,325,000	\$1,325,000	50	\$2,650,000	\$300,000	\$1,800,000	\$600,000	\$250,000	\$250,000	\$250,000	\$0
29	12A-0024	Rev/Res	Y	N	Collection System Cleaning & Assessment	PS PS	0	0	\$398,931	\$1,595,725	\$5,983,970	\$7,978,627	\$1,450,000	\$1,287,500	\$1,326,125	\$1,365,909	\$1,400,000	\$1,449,093	50
24	12A-0070	Rev/Res	Y	Y.	Locust Transfer-Dsgn & Eng	PS	10	NA.	\$1,115,000	\$1,115,000	50	\$2,230,000	51,200,000	\$1,030,000	\$0	50	\$0	\$0	50
24	12A-0071	SRF	Y	N	Locust Transfer-Construction	DBB	NA.	0	50	50	523,689,897	\$23,689,897	şa	\$0	\$11,669,900	\$12,019,997	\$0	\$0	\$0
	12A-2024	WIFIA	Y	N	Sewer Rehibilitation 24-26 Constr Season	DB	NA.	۵	\$0	50	\$16,350,000	\$16,350,000	\$0	\$0	\$0	\$5,450,000	\$5,450,000	\$5,450,000	50
32	130-000G	Rev/Res	Y	Y	Transmisison Line G37 Poles Replacement	DB	NA.	0	\$0	50	\$1,067,975	\$1,067,975	\$300,000	\$154,500	5613,475	\$0	\$0	\$0	50
26	130-0014	Rev/Res	Y	Y	Units 1 & 3 Inlet Ctrl Valve Rehab & PenStck Insp	DB	a	NA	\$511,960	\$511,960	50	\$1,023,920	\$ci	50	\$524,700	\$499,220	Şti	\$a	50
27	130-0016	Rev/Res	4	A	Power Station Drain Line Replace - Dsgn & Const	DS	0	0	514,733	\$58,930	\$270,988	\$294,650	\$135,000	\$159,650	\$0	50	50	\$0	50
37	090-0029	WIFIA	Y	N	W/FIA Cost of Issuance	PS	NA.	NA	\$750,000	50	50	\$750,000	\$0	\$750,000	\$0	50	\$0	\$9	50
38	050-8830	WIFIA	Y	N	WIFIA Project Management	PS	NA.	NA .	\$2,500,000	\$2,500,000	50	\$5,000,000	\$ti	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$0

DB: Design Build
DB: Design Build
DB: Design Build Build
PS: Professional Services
OMAR: Construction Manager at Risk
NA: Not Applicable

Total Projects \$240,986,207	\$23,929,733	\$44,033,800	\$44,037,200	\$65,986,052	\$37,370,622	\$23,356,800	\$2,272,000	WIFA
\$21,134,767	\$0	\$1,710,593	\$1,661,200	\$2,409,429	\$5,074,900	\$4,421,145	\$5,857,500	Rev/Res
\$275,136,420	\$15,000,000	\$18,605,342	\$22,000,665	\$31,388,195	\$39,201,967	\$88,560,393	\$60,379,858	SRF
\$0	\$0	50	\$0	\$0	50	\$0	\$0	Bond
\$537,257,394	\$38,929,733	\$64,349,735	\$67,699,065	\$99,783,676	\$81,647,489	\$116,338,338	\$68,509,358	TOTAL BY YEAR:

5249,986,207

44.85%

521,134,767

WHY WIFIA



- LOW RATES
- FUNCTIONS LIKE SRF WITH DRAWDOWNS
- NO PRINCIPAL PAYMENT UP TO 5 YEARS AFTER PROJECT COMPLETION
- CUSTOMIZATION OF DEBT PAYMENT SCHEDULE
- COVERS ALL ASPECTS OF PROJECTS
- MATCHING FUND ELIGIBILITY FLEXIBILITY
- LONGER TERM
- PROJECT FLEXIBILITY



INNOVATIVE FINANCING SOLUTIONS

Unprecedented State and Federal Loans

Water Infrastructure Finance and Innovation Act (WIFIA)

- o \$251 million secured in FY21 for 31 FY22 FY26 Projects
- SWSC match of \$296 million = \$547 million in system investment
- Administered by EPA; flexible repayment terms
- Extremely competitive program ONLY utility in MA to receive

Drinking Water and Clean Water State Revolving Fund

- \$47 million secured in FY21 for three FY22 Projects
- o Approx. \$200 million in SRF matching funding (FY20-FY22)
- Administered by MassDEP
- Competitive, low-interest, 20-year loan with some loan forgiveness



INNOVATIVE FINANCING

What This Means for Ratepayers

- **✓** Significant savings in borrowing costs
 - \$20M over 20 years (SRF) + some loan forgiveness
 - \$60M over 30 years (WIFIA)
 - Reduces pressure on future rate increases
- ✓ Accelerated project schedule (WIFIA)
 - Compresses 20-year capital plan into 5 years
 - Consistent regulatory compliance & risk reduction
 - Better reliability & resiliency, sooner & saves on overall costs
- √ Financial Flexibility and Rate Stability
 - WIFIA has innovative repayment terms
 - Provide flexibility to substitute other financing sources
 - Retain ability to respond to future legislative aid programs



WIFIA

Why This is a Good Deal

Condition	FY22	FY23	FY24	FY25	FY2L	FY27
Rate increase without WIFIA	9.50%	9.50%	9.50%	9.50%	9.00%	9.00%
Rate increase with WIFIA	5.90%	6.75%	6.50%	6.00%	5.00%	4.50%
Difference in rate increase	- 3.60%	- 2.75%	- 3.00%	-3.50%	-4.00%	-4.50%



UNINTENDED CONSEQUENCES & BENEFITS

- MASSIVE ORGANIZATIONAL COMMITMENT
- OPPORTUNITIES ABOUND
- PROGRAM MANAGEMENT
- STANDARDIZATION OF MANAGEMENT







