



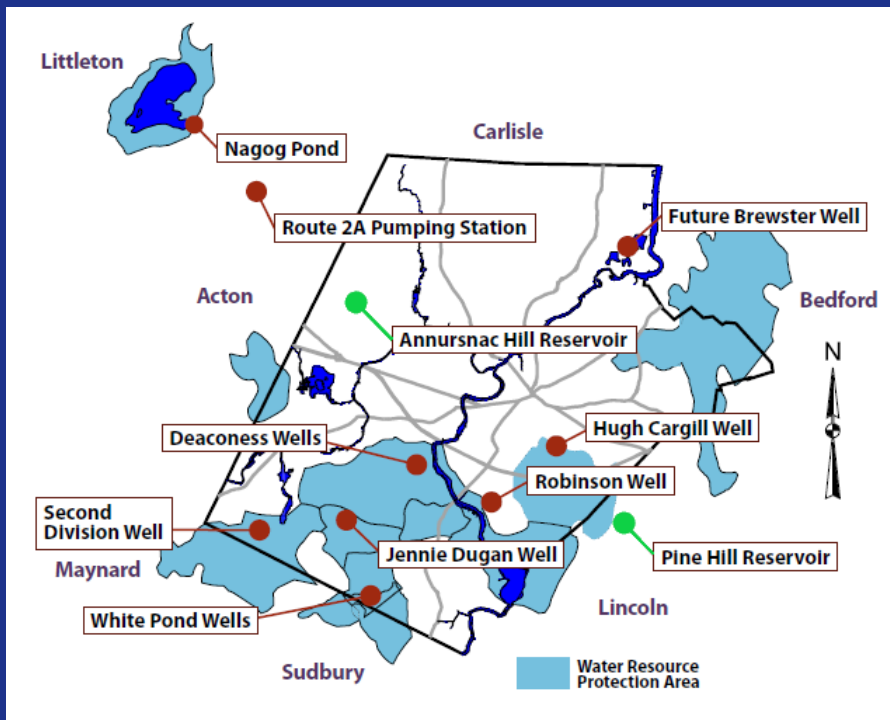
Article 43:

Water System Expenditures

To determine whether the Town will vote that the income from user fees, special service fees, and jobbing services by the Water and Sewer Division of Concord Public Works during the ensuing fiscal year, together with the balance of operating cash in the Water Fund, be expended without further appropriation under the direction and control of the Town Manager in accordance with the Motion passed under Article 38 of the 1974 Annual Town Meeting, or take any other action relative thereto.



Article 43: Water System Expenditures



Water System

Infrastructure Assets = \$25.9 Million

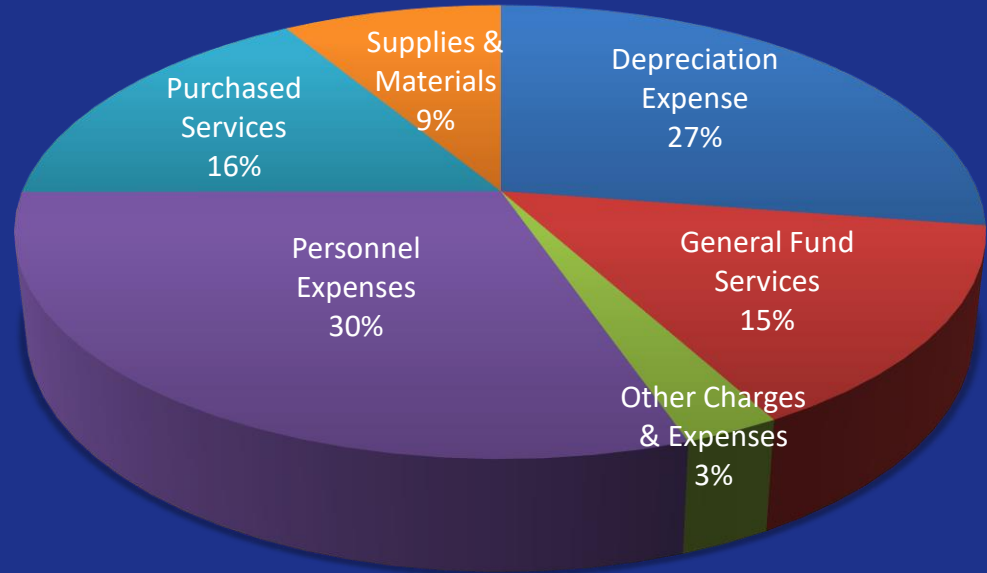
- 1 - Surface Water
- 6 - Ground Water Supplies
- 7 - Pumping Stations
- 2 - Advanced Treatment Facilities
- 2 - Reservoirs (7.5 MG Storage)
- 134 - Miles of Distribution Mains
- 1,328 - Hydrants



Article 43: Water System Expenditures

FY23 Operating Expenditures - \$5,046,222

Personnel Services	\$1,524,168
Depreciation	\$1,383,967
Purchased Services	\$827,845
General Fund Services	\$735,872
Supplies & Materials	\$436,954
Other Charges & Expenses	\$137,416
Total Operating Expenses	\$5,046,222





Article 43: Water System Expenditures

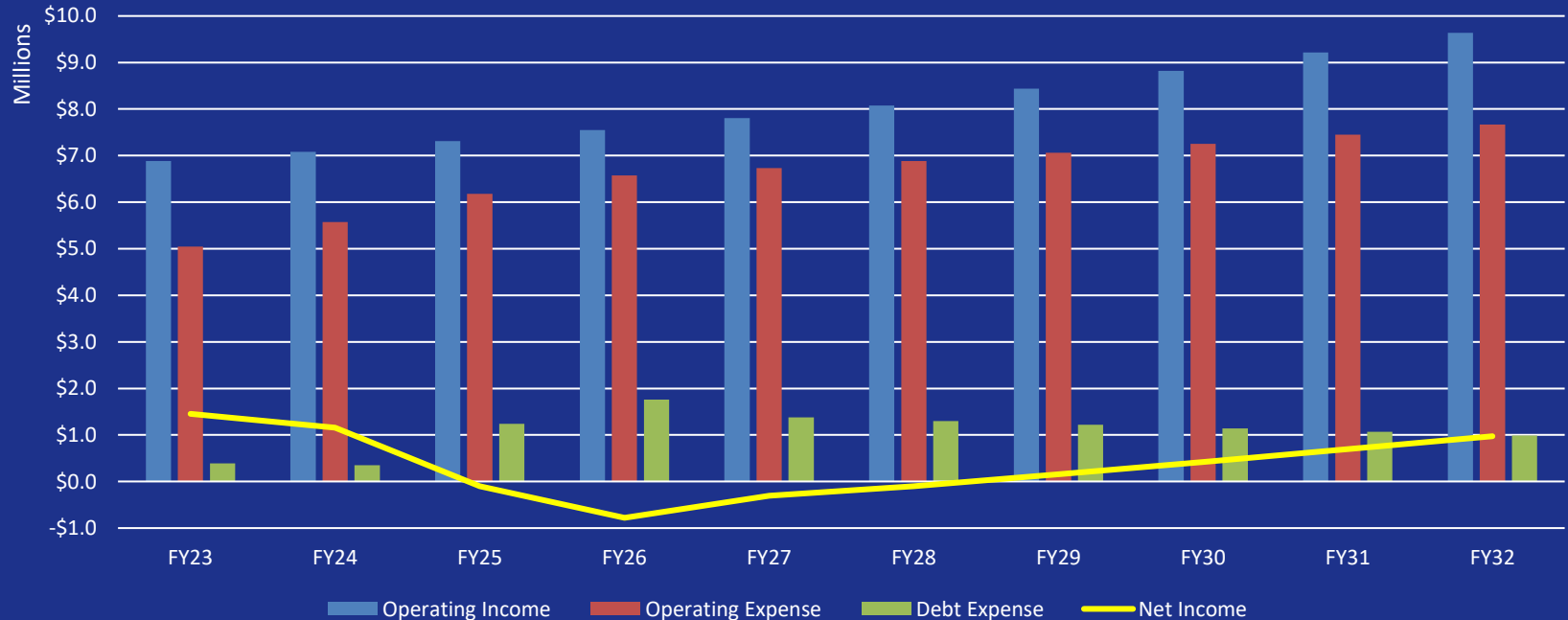
FY23 Capital Improvement Plan

Nagog Improvements	\$1,450,000
Water Main Replacement	\$700,000
Meter Reading/Billing Upgrade (Phase I)	\$250,000
Source Protection Integrated Water Resources Plan	\$170,000
Other Miscellaneous Equipment & Improvements	\$162,500
Station Structures & Equipment	\$150,000
Reservoir Improvements	\$150,000
Hydrant Replacement	\$30,000
Total Capital Improvement Plan	\$3,062,500



Article 43: Water System Expenditures

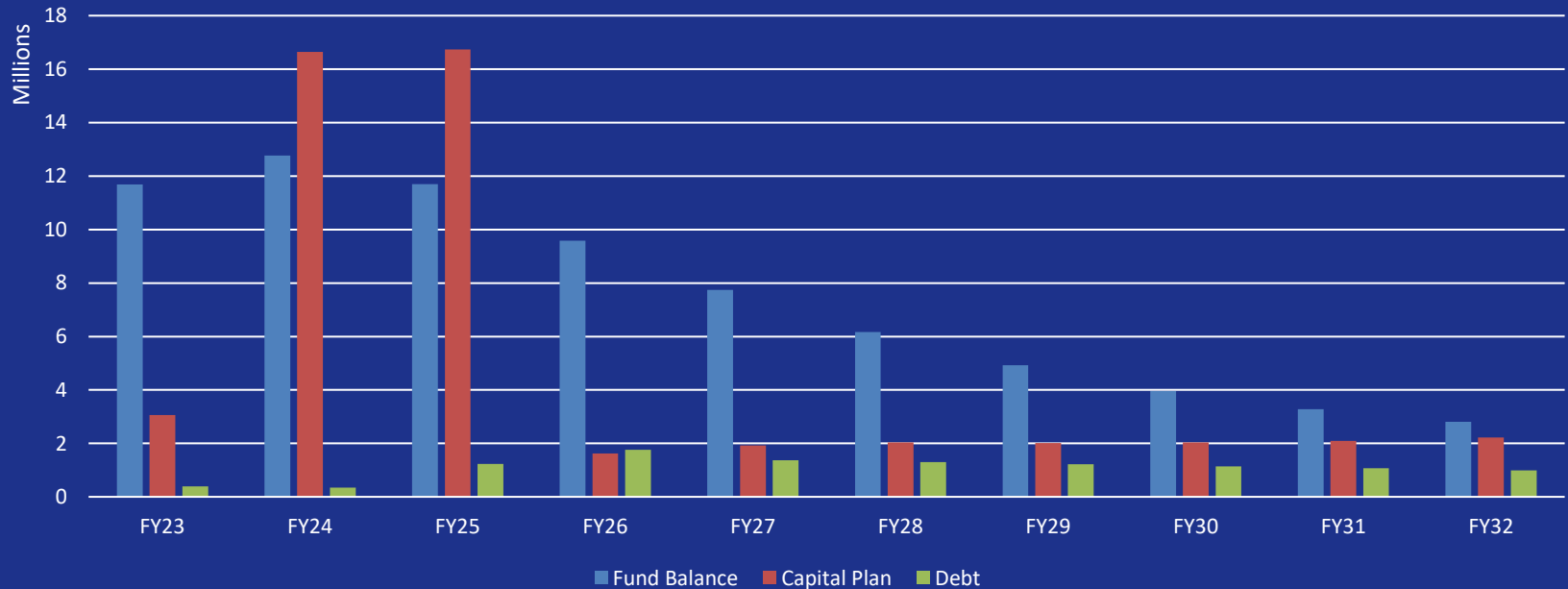
10 Year Operating Projections





Article 43: Water System Expenditures

10 Year Capital Plan





Article 43:

Water System Expenditures

To determine whether the Town will vote that the income from user fees, special service fees, and jobbing services by the Water and Sewer Division of Concord Public Works during the ensuing fiscal year, together with the balance of operating cash in the Water Fund, be expended without further appropriation under the direction and control of the Town Manager in accordance with the Motion passed under Article 38 of the 1974 Annual Town Meeting, or take any other action relative thereto.

Water Fund: Plan and Projection	Actual												10 years
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 23-32
Operating Revenue													
User Fees	5,758,839	6,363,987	6,592,987	6,827,987	7,072,987	7,325,987	7,586,987	7,863,987	8,224,987	8,602,987	8,997,987	9,416,987	78,513,870
Other	191,932	148,035	149,035	150,035	151,035	152,035	153,035	154,035	155,035	156,035	157,035	158,035	1,535,350
Subtotal	5,950,771	6,512,022	6,742,022	6,978,022	7,224,022	7,478,022	7,740,022	8,018,022	8,380,022	8,759,022	9,155,022	9,575,022	80,049,220
Operating Expense													
O & M	3,127,719	3,482,674	3,662,255	3,910,494	4,029,714	4,152,644	4,279,404	4,410,120	4,544,921	4,683,940	4,827,318	4,975,196	43,476,005
Depreciation	1,065,469	1,352,891	1,383,967	1,665,142	2,145,751	2,417,945	2,452,068	2,472,442	2,517,403	2,566,766	2,621,484	2,694,206	22,937,173
Subtotal	4,193,188	4,835,565	5,046,222	5,575,636	6,175,464	6,570,588	6,731,472	6,882,562	7,062,324	7,250,707	7,448,801	7,669,402	66,413,178
Operating Income	1,757,583	1,676,457	1,695,800	1,402,386	1,048,558	907,434	1,008,550	1,135,460	1,317,698	1,508,315	1,706,221	1,905,620	13,636,042
ADD: Interest Income	22,992	187,660	144,583	104,450	85,999	73,200	64,357	60,438	58,582	58,367	58,367	58,367	766,711
Other Non-Operating Income	0	0	0	0	0	0	0	0	0	0	0	0	0
LESS: Interest Expense													
Existing Debt	86,052	49,435	33,365	23,315	14,995	8,300	1,550	0	0	0	0	0	81,525
Future Debt	0	96,465	267,316	291,704	896,662	1,450,126	1,373,591	1,297,055	1,220,519	1,143,984	1,067,448	990,912	9,999,318
Bond Anticipation Notes (BANs)	0	0	43,920	9,500	155,118	150,000	0	0	0	0	0	0	358,538
Issuance expense (Premium)	0	4,392	44,870	25,012	170,118	150,000	0	0	0	0	0	0	389,999
Net Income	1,694,523	1,713,826	1,450,912	1,157,305	-102,336	-777,793	-302,233	-101,157	155,761	422,699	697,140	973,075	3,573,373
Available Resources from:													
Net income	1,694,523	1,713,826	1,450,912	1,157,305	-102,336	-777,793	-302,233	-101,157	155,761	422,699	697,140	973,075	3,573,373
Depreciation expense	1,065,469	1,352,891	1,383,967	1,665,142	2,145,751	2,417,945	2,452,068	2,472,442	2,517,403	2,566,766	2,621,484	2,694,206	22,937,173
subtotal	2,759,992	3,066,717	2,834,879	2,822,447	2,043,415	1,640,152	2,149,835	2,371,285	2,673,164	2,989,465	3,318,624	3,667,281	26,510,546
Bond proceeds	3,270,000	0	4,392,000	950,000	15,511,754	15,000,000	0	0	0	0	0	0	35,853,754
Loan proceeds	0	4,392,000	950,000	15,511,754	15,000,000	0	0	0	0	0	0	0	31,461,754
LESS: Principal repayments													
Existing Debt	785,000	373,000	225,000	220,000	217,000	215,000	155,000	0	0	0	0	0	1,032,000
New Debt	0	120,705	340,305	387,805	1,163,393	1,913,393	1,913,393	1,913,393	1,913,393	1,913,393	1,913,393	1,913,393	15,285,255
BAN Repayment	3,000,000	0	4,392,000	950,000	15,511,754	15,000,000	0	0	0	0	0	0	35,853,754
Amort of bond premium	15,242												
Net Available for Capital Purposes	2,229,750	6,965,011	3,219,573	17,726,396	15,663,022	-488,241	81,442	457,892	759,771	1,076,072	1,405,231	1,753,888	41,655,045
Capital Plan	3,416,312	7,000,000	3,062,500	16,648,000	16,734,300	1,624,350	1,918,150	2,033,750	2,011,800	2,033,300	2,093,300	2,218,500	50,377,950
Cash Position													
Beginning balance	12,129,476	11,568,187	11,533,199	11,690,272	12,768,668	11,697,389	9,584,798	7,748,090	6,172,232	4,920,203	3,962,975	3,274,906	
ADD: Net available	2,229,750	6,965,011	3,219,573	17,726,396	15,663,022	-488,241	81,442	457,892	759,771	1,076,072	1,405,231	1,753,888	
LESS: Planned Capital	3,416,312	7,000,000	3,062,500	16,648,000	16,734,300	1,624,350	1,918,150	2,033,750	2,011,800	2,033,300	2,093,300	2,218,500	
Changes in assets & liabilities	625,274												
Ending balance	11,568,187	11,533,199	11,690,272	12,768,668	11,697,389	9,584,798	7,748,090	6,172,232	4,920,203	3,962,975	3,274,906	2,810,294	
ending cash balance	11,568,187	11,533,199	11,690,272	12,768,668	11,697,389	9,584,798	7,748,090	6,172,232	4,920,203	3,962,975	3,274,906	2,810,294	



Article 43: Water System Expenditures

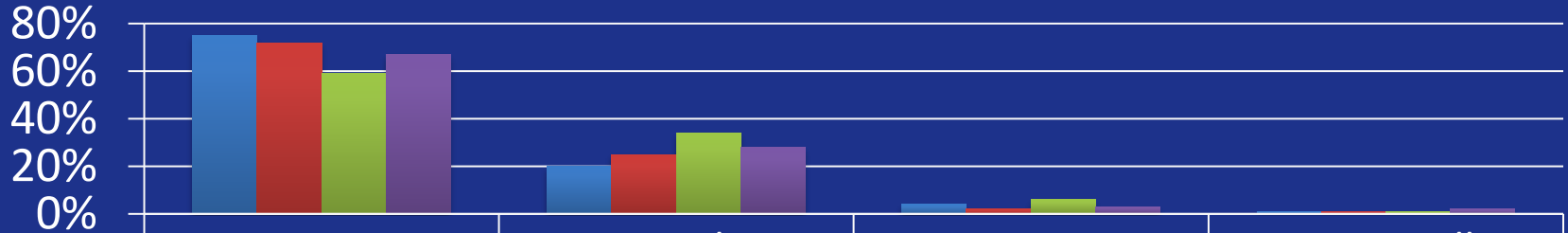
BIL SRF Funding Details

SRF Funding Program	Total Funding	State Match	Additional Subsidy	Eligible for Additional Subsidy
Clean Water SRF Supplemental	\$11,713,000,000	10% in 2022 & 2023	49%	Assistance recipients that meet the state's affordability criteria or project types as described in section 603(i) of the CWA.
		20% in 2024 - 2026		
Drinking Water SRF Supplemental	\$11,713,000,000	10% in 2022 & 2023	49%	Disadvantaged Communities
		20% in 2024 - 2026		
Clean Water Emerging Contaminants	\$1,000,000,000	0%	100%	No restriction
Drinking Water Emerging Contaminants	\$4,000,000,000	0%	100%	25% for Disadvantaged Communities or Public Water Systems Serving Fewer Than 25,000 Persons
Drinking Water Lead	\$15,000,000,000	0%	49%	Disadvantaged Communities



Article 43: Water System Expenditures

Customer Satisfaction



	Very Satisfied	Somewhat Satisfied	Not Very Satisfied	Not At All Satisfied
2012	75%	20%	4%	1%
2014	72%	25%	2%	1%
2016	59%	34%	6%	1%
2018	67%	28%	3%	2%



Article 43: Water System Expenditures

FY23 – Residential Rates

Proposed Adjustment (FY 22 to FY 23):

- 1st Step** - \$0.0677/cubic foot (+4.0 %)
- 2nd Step* - \$0.1422/cubic foot (+4.0 %)
- 3rd Step* - \$0.1794/cubic foot (+4.0 %)

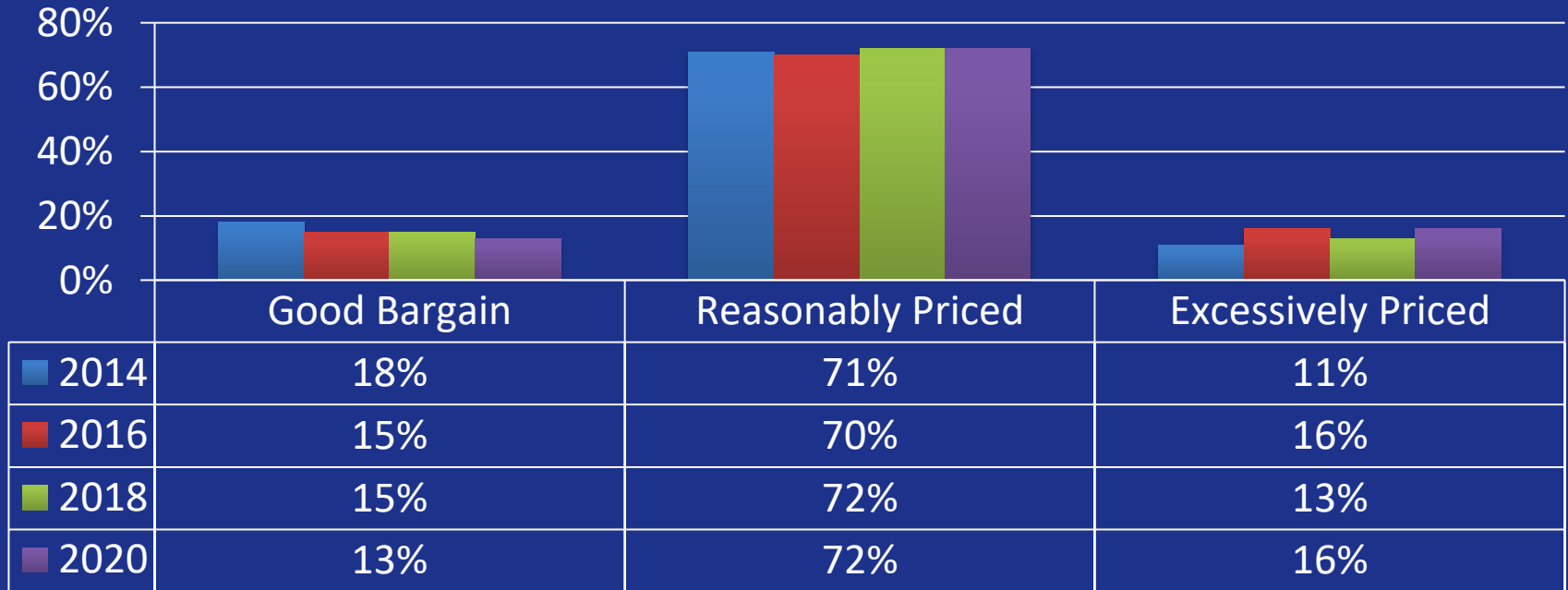
Average Projected Residential Water Bill (FY23) – \$609/year
Impact on Avg. Residential Customer about \$ 23.40/year

* Discount Rate \$.0339: Savings up to \$244/Year



Article 43: Water System Expenditures

Opinion of Water Service Price

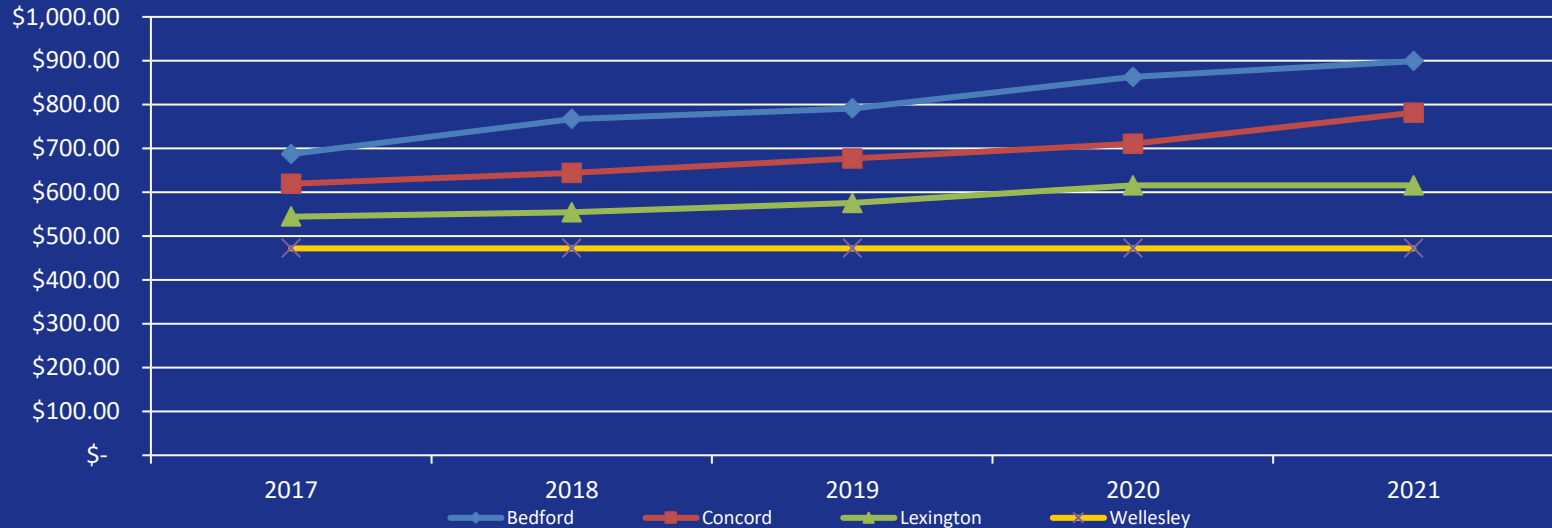




Article 43: Water System Expenditures

\$ Residential Use/246 gpd

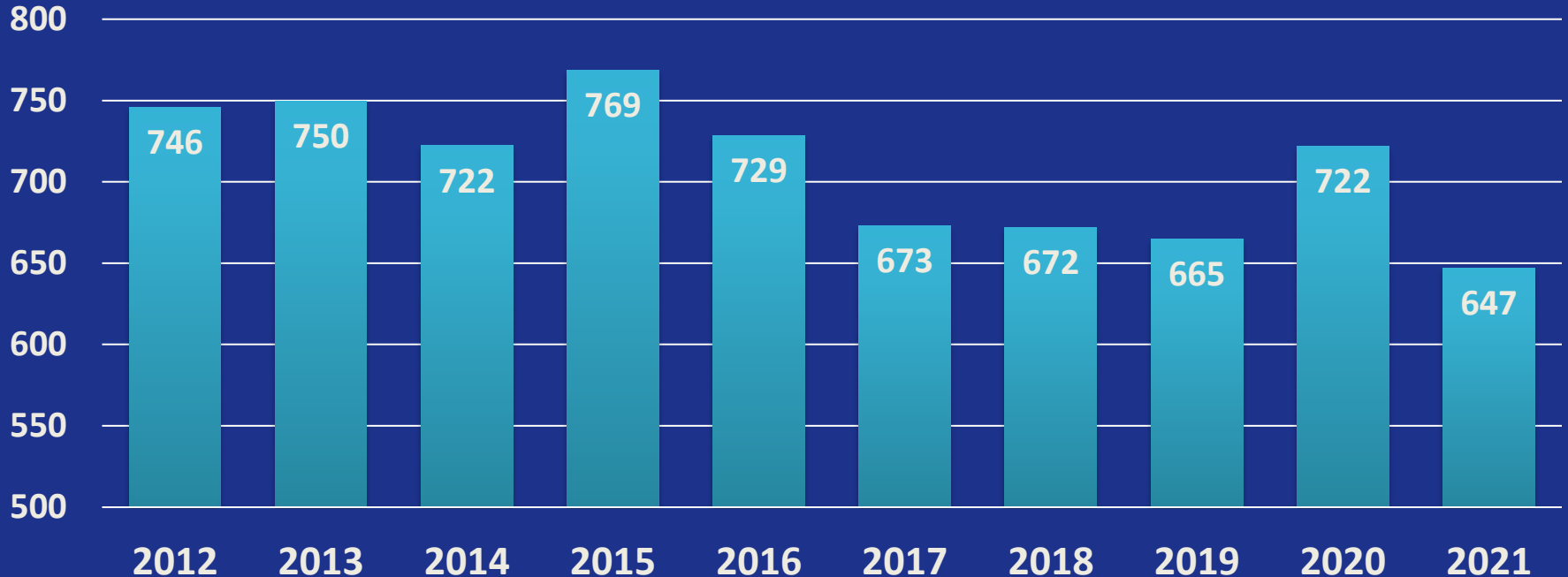
Water Cost Comparison Based on America Water Works Association Standard of 120 HCF Annually (90,000 gallons)





Article 43: Water System Expenditures

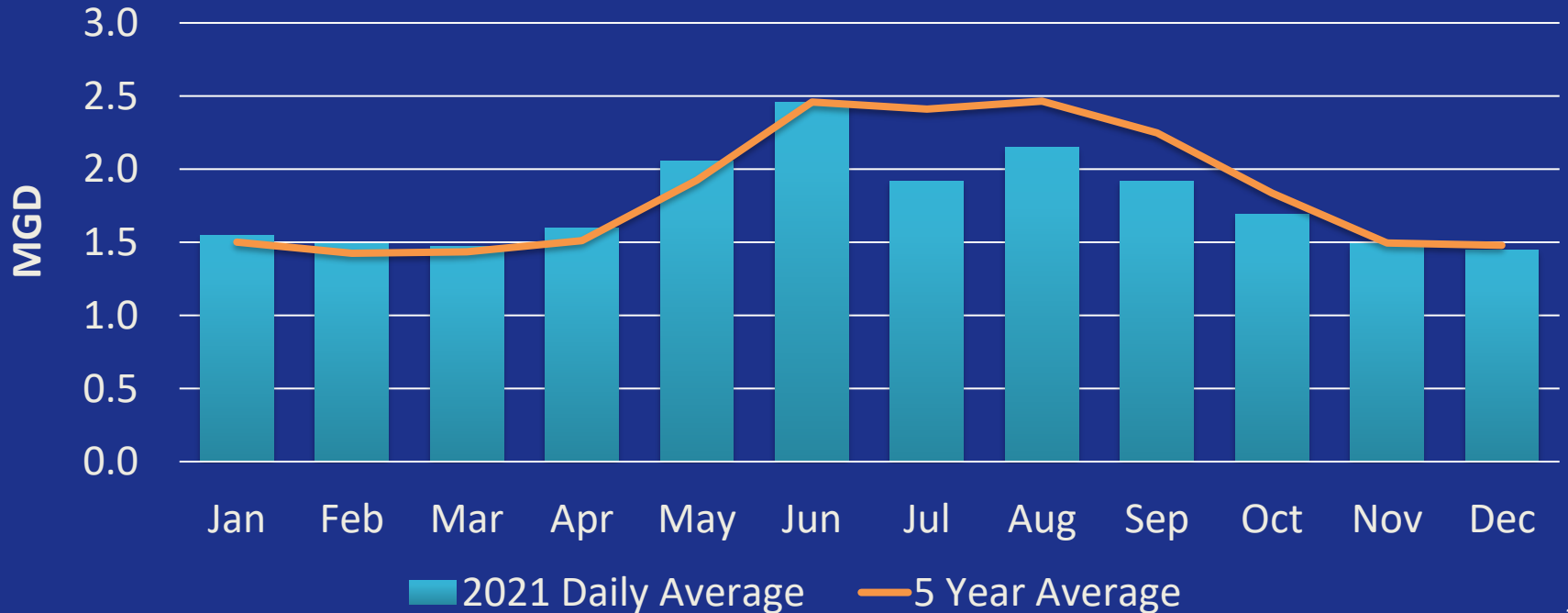
Annual Water Demand (MG)





Article 43: Water System Expenditures

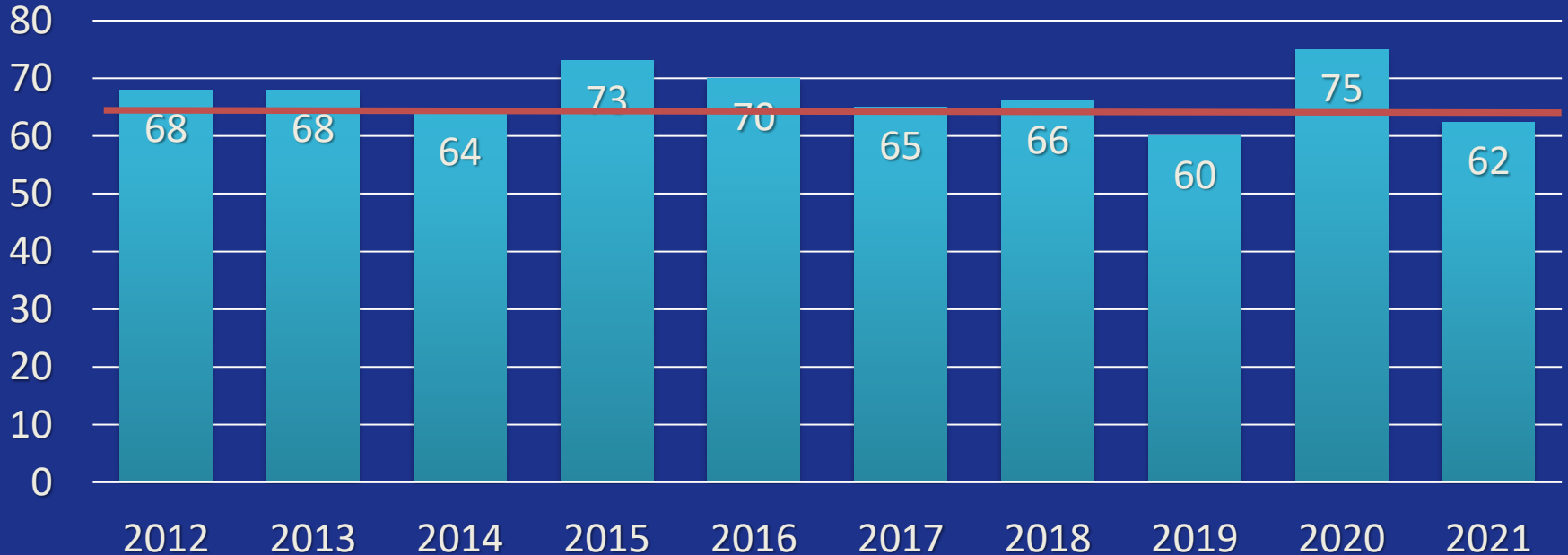
Seasonal Water Demand Profile



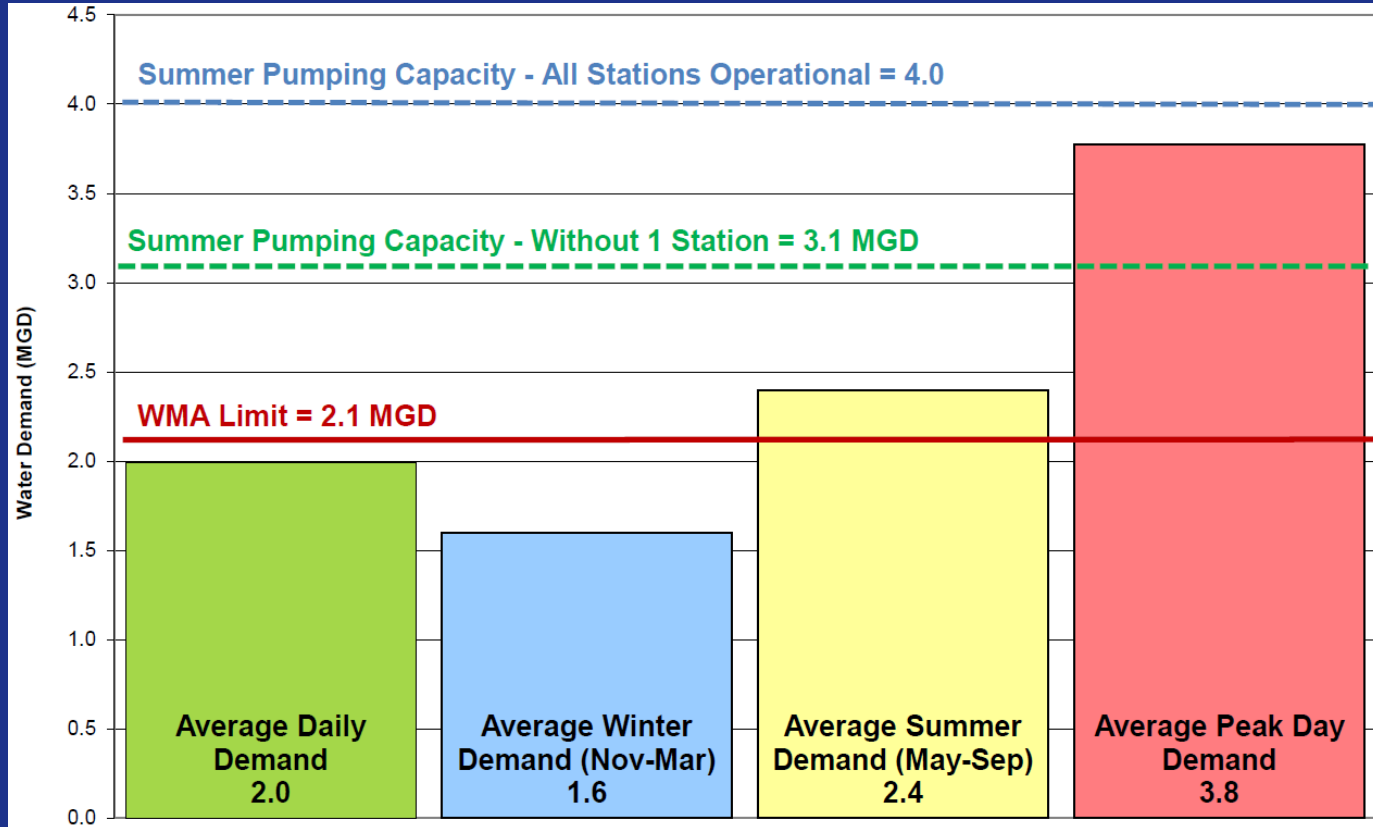


Article 43: Water System Expenditures

Residential Gallons Per Capita Day (RGPCD)



Demand Management





Article 43: Water System Expenditures

Program Objectives

- Achieve a High Level of Customer Satisfaction
- Comply with Regulatory and Statutory Requirements
- Maintain, Repair & Replace Assets in Accordance with Industry Best Practices
- Reasonable and Competitive Rates
- Address Current AND Future Water System Needs
- Hire, Train and Retain a Professional Workforce



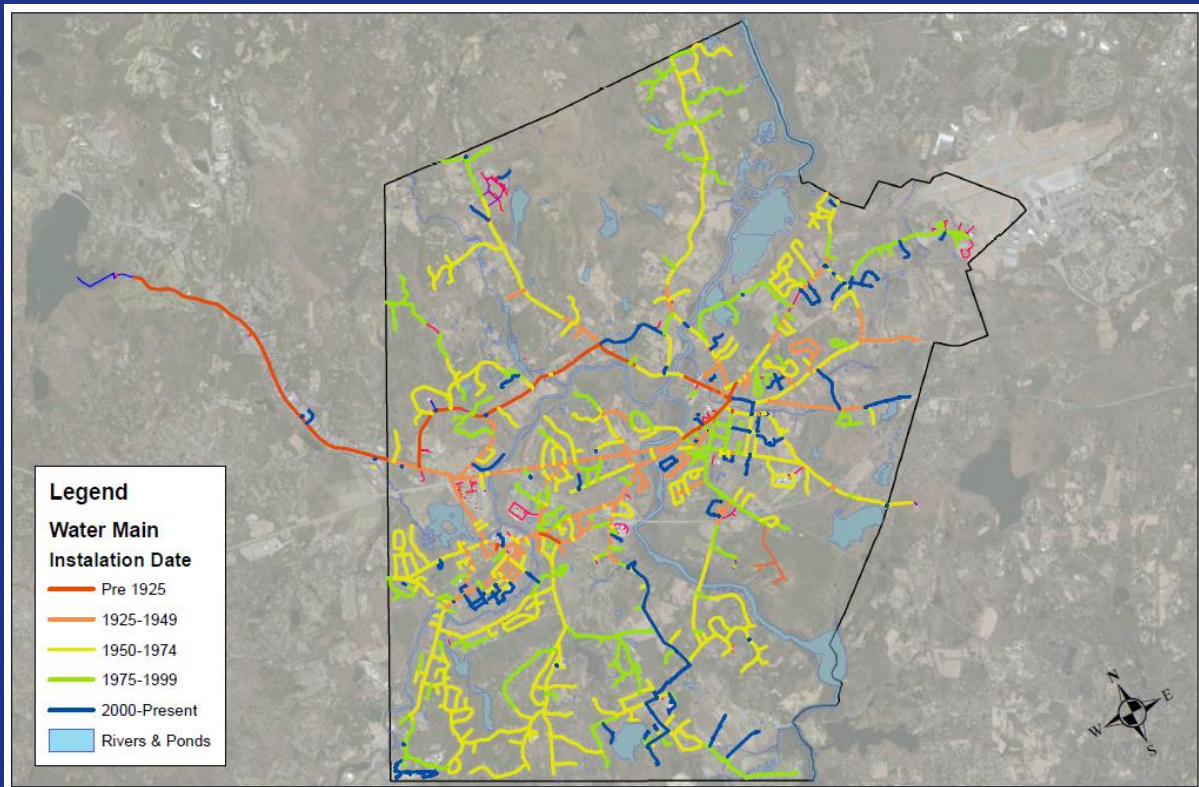
Article 43: Water System Expenditures Treatment & Water Quality





Article 43: Water System Expenditures

Water Distribution Network





Article 43: Water System Expenditures

Water Main – Reliability of Service





Article 43: Water System Expenditures Infrastructure Replacement



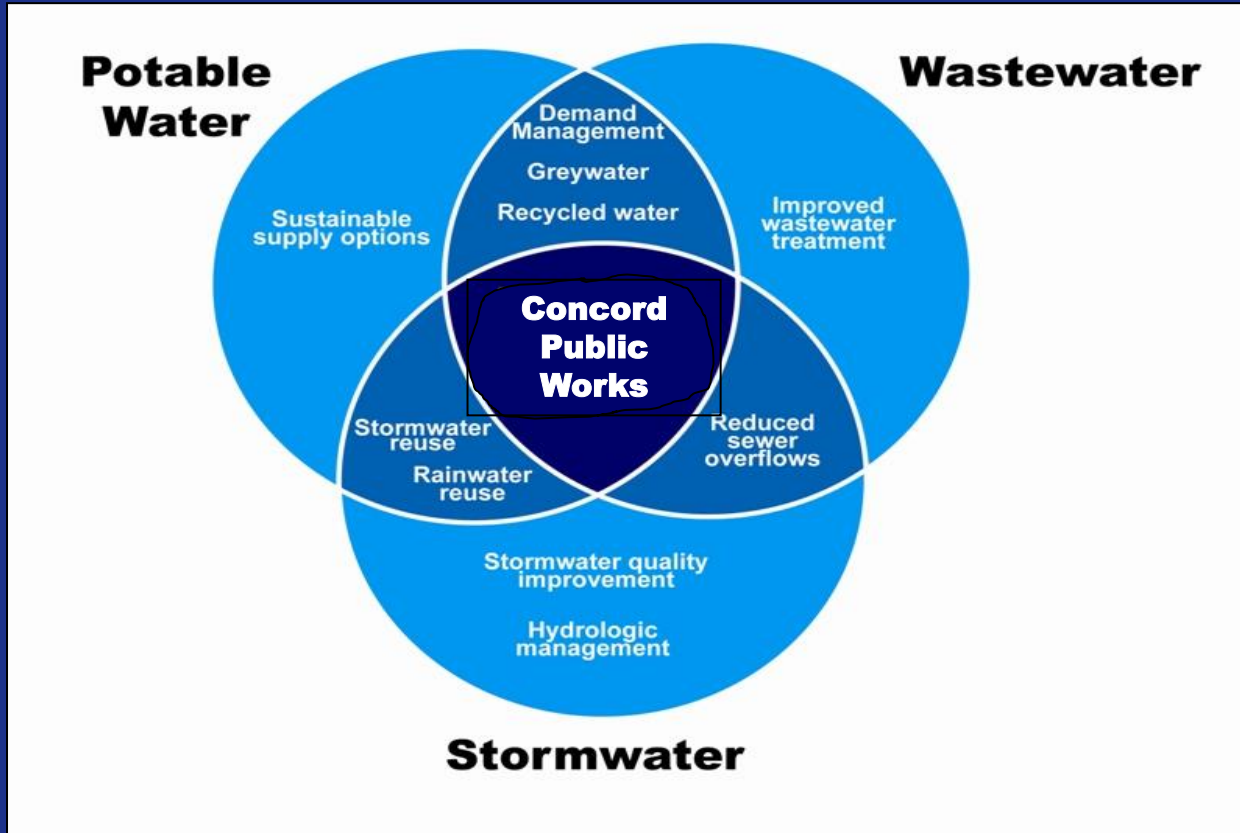
Annursnac Hill Reservoir - Rehabilitation



Article 43: Water System Expenditures Infrastructure Replacement



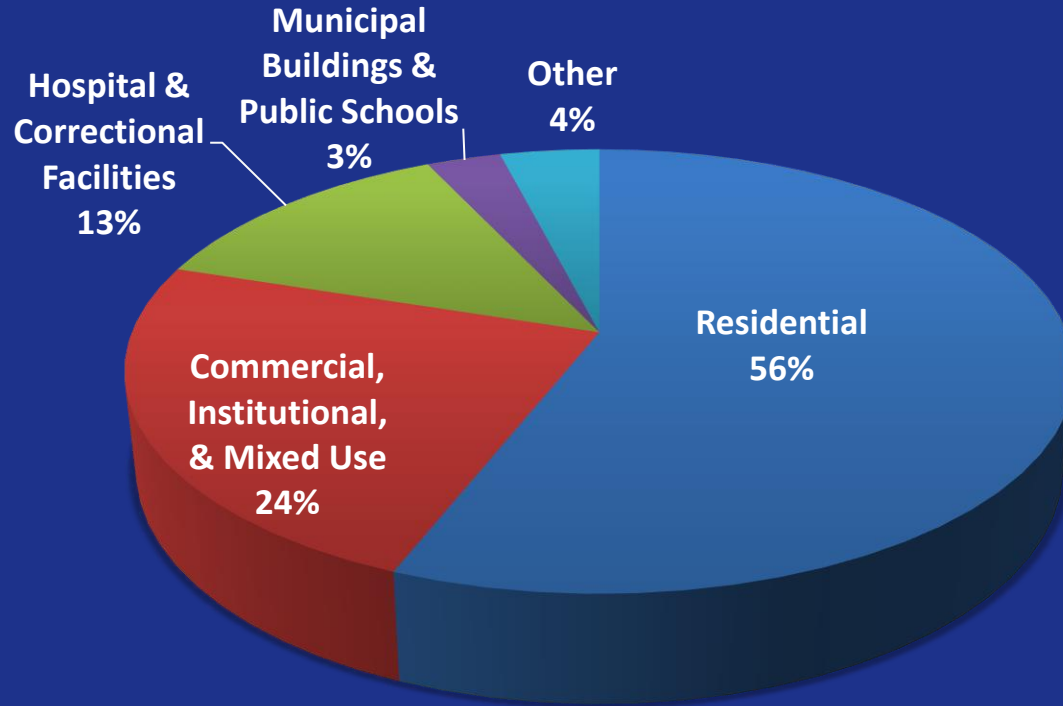
Article 43: Water System Expenditures - Integrated Water Resource Planning





Article 43: Water System Expenditures

Customer Class Profile





Seasonal Water Demand Management Plan

Seasonal Water Conservation Advisory

Lawn Watering Restriction

Lawn Watering Ban

Best Management Practices

State of Water Supply Conservation
Declaration by Public Works Commission

Water Use Restriction Bylaw §4

Recommended *
1 day or 1-inch per week
www.concordma.gov/wateringday

Restricted **
1 Day per Week
Water Before 9AM or After 5PM
www.concordma.gov/wateringday

Prohibited **

OK

Restricted **
Water Before 9AM or After 5PM
*Handheld Watering only
with an automatic shut off device*

Prohibited **

OK

OK

Prohibited **

OK
Filling or Topping Off

Restricted **
Topping Off Only

Prohibited **
No Filling or Topping Off

OK
Washing Vehicles at home with an automatic
shutoff hose or bucket

Restricted **
Washing Vehicles at home with an automatic shutoff hose or bucket

Prohibited **
Bring to Commercial Car Wash

OK

Restricted **
Recirculating Water Only

Prohibited **

OK

Restricted **
*Pressure Washing - Spray nozzles should not use more than 3.5 gallons per minute
Hose - The washing or cleaning of streets, driveways, sidewalks or other impervious areas is prohibited
(Exception for health, sanitation and medical purposes)*

Prohibited **

Outdoor Water Use Activities

Lawn & Turf Watering
In-ground Irrigation
Systems & Sprinklers

Lawn & Turf Watering
Hand-Held Watering &
Drip Irrigation Systems

Flower Beds, Shrubs, Trees
& Veg. Gardens

Private Residential
Swimming Pools

Washing
Vehicle/Boat at home

Ornamental Fountains

Pressure Washing

Emergency Response Plan

Water Supply Emergency

State of Water Supply Emergency declared by the Department of Environmental Protection under MGL, Chapter 21 G, §§ 15-17

Prohibited **

Prohibited **

Prohibited **

Prohibited **
No Filling or Topping Off

Prohibited **
Bring to Commercial Car Wash

Prohibited **

Prohibited **

* Unless otherwise advised by qualified lawn care specialist.

** Enforceable with fines (\$50 - 1st offense. \$100 - subsequent offenses)

