

SALEM MUNICIPAL SERVICES



ENGINEERING ♦ PUBLIC WORKS ♦ UTILITIES

SOUTHERN NEW HAMPSHIRE
REGIONAL WATER LINE UPDATE
DECEMBER 16, 2019

SOUTHERN NH REGIONAL WATER LINE

CONSTRUCTION UPDATE

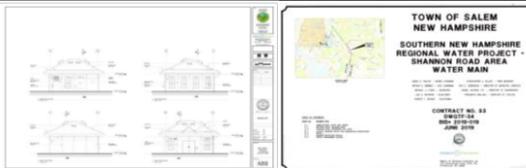
SOUTHERN INTERCONNECT AGREEMENT

POTENTIAL WATER REVENUE



SALEM MUNICIPAL SERVICES

CONSTRUCTION UPDATE



AGREEMENT
REGARDING:
THE SOUTHERN NEW HAMPSHIRE REGIONAL WATER
INTERCONNECTION PROJECT

This Agreement regarding the Southern New Hampshire Regional Water Interconnection Project ("Agreement") is entered into by and among the following parties: The Towns of Derry, New Hampshire ("Derry"), Manchester Water Works ("MWW"); the Town of Plainfield, New Hampshire ("Plainfield"); the Town of Windham, New Hampshire ("Windham"); the Town of Salem, New Hampshire ("Salem"); Hampstead Area Water Company, Inc. ("HAWC"); and Pennichuk East Utility, Inc. ("PEU"), individually a "Party", and collectively, "the Parties".



Shannon Road – American Excavating

\$752,543

RT 28 Windham North – Revoli Construction

\$4,689,189

RT 28 Windham South – Revoli Construction

\$3,593,418

Pressure Reducing Valve (PRV) Stations

- Northeast Earth Mechanics Inc

\$1,848,500



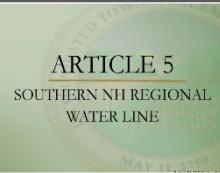
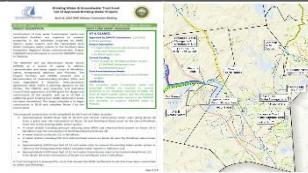
SALEM MUNICIPAL SERVICES

CONSTRUCTION UPDATE



**AGREEMENT
REGARDING:
THE SOUTHERN NEW HAMPSHIRE REGIONAL WATER
INTERCONNECTION PROJECT**

This Agreement regarding the Southern New Hampshire Regional Water Interconnection Project ("Agreement") is entered into by and among the following parties: The Towns of Derry, New Hampshire ("Derry"), Manchester Water Works ("MWW"); the Town of Plainfield, New Hampshire ("Plainfield"); the Town of Windham, New Hampshire ("Windham"); the Town of Salem, New Hampshire ("Salem"); Hampshire Area Water Company, Inc. ("HAWC"); and Penobscot East Utility, Inc. ("PEU"), individually a "Party", and collectively, "the Parties".



- Approximately 14,000 linear feet of 20-inch transmission water main along Rockingham Road (Route 28) from the intersection of Route 28 and Goodhue Road south of the Derry-Windham town line to the intersection of Rockingham Road (Route 28) and Route 111 in Windham;
- Approximately 2,200 linear feet of 16-inch water main in Rockingham Road (Route 28) from the intersection with Route 111 in Windham to the Windham-Salem town line;
- A meter station on Rockingham Road (Route 28) in Windham in the vicinity of Goodhue Road and Northland Drive;
- A pressure reducing valve ("PRV") station and chemical feed system on Northland Drive at Rockingham Road (Route 28) in Windham
- A meter station on Route 111 in Windham near the intersection of Rockingham Road (Route 28) and Route 111;
- A meter station including pressure reducing valve ("PRV") and chemical feed system on Rockingham Road (Route 28) near the Windham-Salem town line adjacent to Rail Trail Parking Lot;
- Approximately 650 linear feet of 16-inch water main in Rockingham Road (Route 28) from the Windham-Salem town line to the existing Salem water system.
- Approximately 1,100 linear feet of 12-inch water main in Shannon Road and Westside Drive from the terminus of the existing Salem water system in Salem to a new meter station to be constructed by HAWC near the Salem-Atkinson town line in Atkinson.

SOUTHERN INTERCONNECTION AGREEMENT

WHEREAS, water issues exist within Windham, Salem, Plaistow and within HAWC's service territory all of which require resolution, and whereas these include: properties in Windham that have private wells contaminated by MtBE, including but not limited to properties associated with Klemm's Mobil on the Run (NHDES Site #199008001); Windham's potential need for additional water capacity; the contamination and abandonment of Turner/Campbell production wells in Salem; HAWC's requirement for additional water capacity; private wells in Plaistow that are contaminated by MtBE and other contaminants; and Plaistow's lack of a water supply source.



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SOUTHERN INTERCONNECTION AGREEMENT

WHEREAS, pursuant to a Memorandum of Understanding between and among the Parties and the New Hampshire Department of Environmental Services (“NHDES”), the Parties and NHDES have expressed their intent to work collaboratively to facilitate the development, construction and operation of infrastructure that interconnects the water systems of MWW, Derry, Salem, HAWC (in Atkinson and Hampstead) and Plaistow to enable potable water to flow from the MWW source through the aforementioned entities’ water systems or service territories (“the Project”).



SALEM MUNICIPAL SERVICES

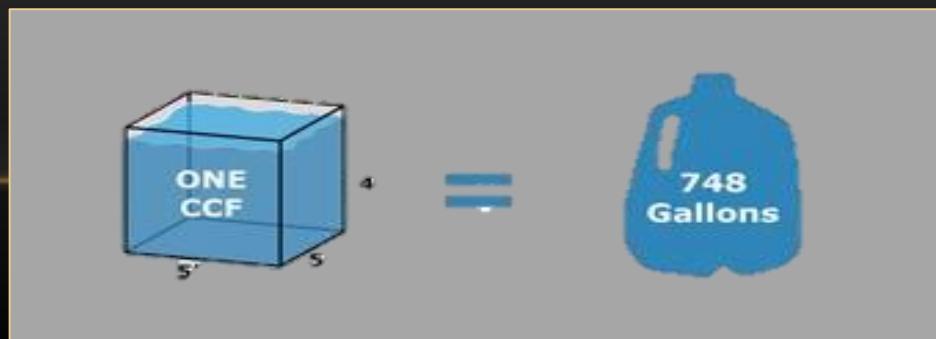
GENERAL INFORMATION

- MWW – Manchester Water Works
- PEU – Pennichuck East Utility
- HAWC – Hampstead Area Water Company
- MGD – Million Gallons per Day: Volumetric Flow
- ADF – Average Daily Flow
- MDF – Maximum Daily Flow
- CCF – One Hundred Cubic Feet (same as HCF) used for billing purposes

- Town of Salem – Average production of 2.4 MGD
- Average Household – 300 Gallons per day

- Data is based on projected flows and considerations

- 1 gallon equals 0.00133681 CCF
- 1 CCF equals 748 Gallons

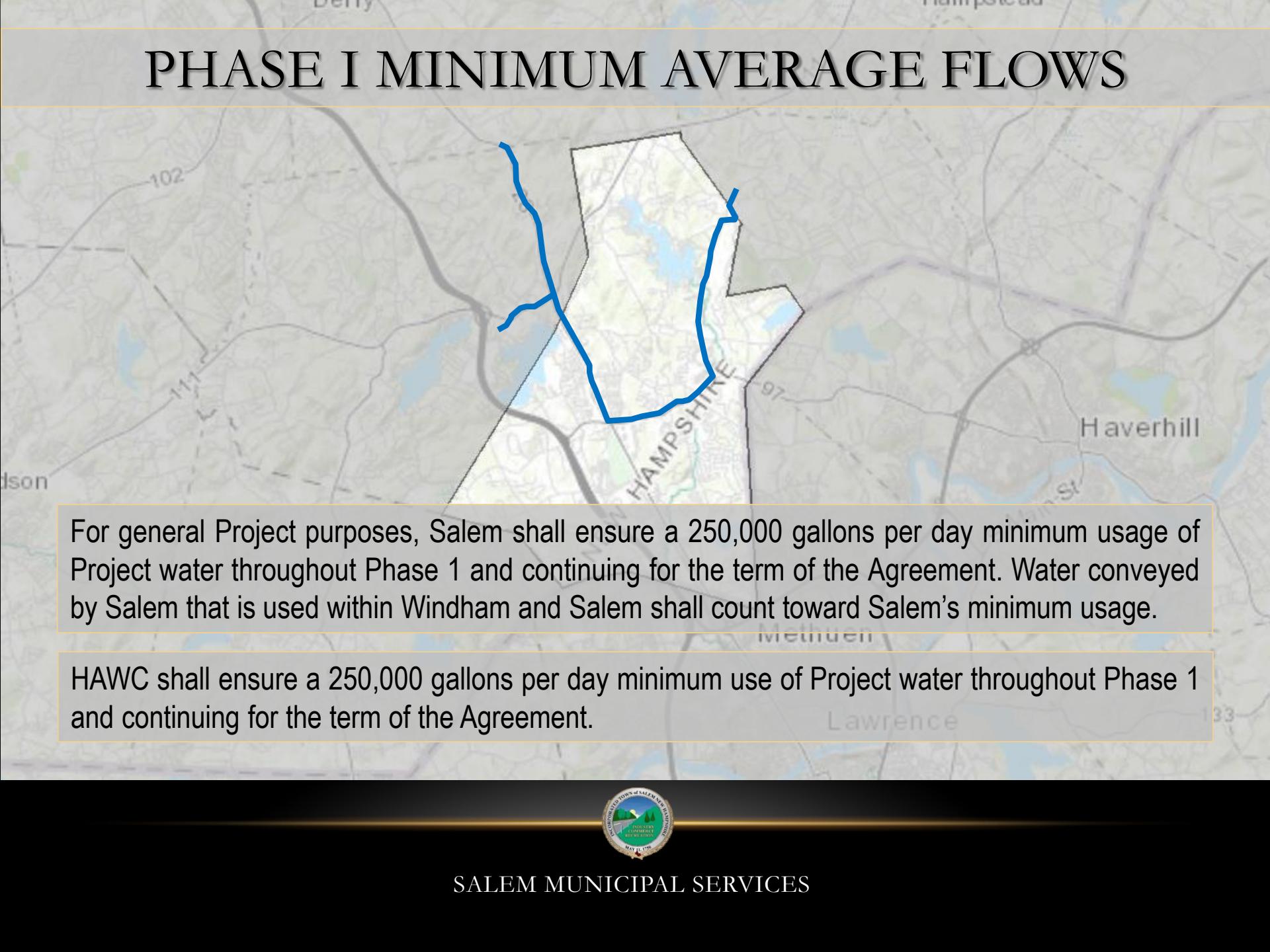


PHASE I DESIGN FLOWS

Water System	Phase 1 Max. Day Demand (MGD)	Phase 2 Max. Day Demand (MGD)	Total Max. Day Demand (MGD)
Windham	200,000	110,000	310,000
Salem	300,000	1,200,000	1,500,000
HAWC	250,000	500,000	750,000
Plaistow	250,000	320,000	570,000
TOTAL	1,000,000	2,130,000	3,130,000



PHASE I MINIMUM AVERAGE FLOWS



For general Project purposes, Salem shall ensure a 250,000 gallons per day minimum usage of Project water throughout Phase 1 and continuing for the term of the Agreement. Water conveyed by Salem that is used within Windham and Salem shall count toward Salem's minimum usage.

HAWC shall ensure a 250,000 gallons per day minimum use of Project water throughout Phase 1 and continuing for the term of the Agreement.



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RATES

Project Water Rate

- Cost of Service Study applicable to current MWW rates

Per Southern Interconnect Agreement

- Salem will purchase Project Water wholesale from Derry at \$2.546 per CCF
- Salem will sell Project Water wholesale to Windham at \$3.046 per CCF
- Salem will sell Project Water wholesale to HAWC at \$3.046 per CCF

Per Southern Interconnect Agreement

- Salem may sell Project Water to Windham at \$4.200 per CCF

Salem Town Water Rate

- 2019 - \$3.550 per CCF
- 2020 - \$3.650 per CCF



SALEM MUNICIPAL SERVICES

POTENTIAL WATER REVENUE

Water System	Phase 1 Max. Day Demand (MGD)	Phase 2 Max. Day Demand (MGD)	Total Max. Day Demand (MGD)
Windham	200,000	110,000	310,000
Salem	300,000	1,200,000	1,500,000
HAWC	250,000	500,000	750,000
Plaistow	250,000	320,000	570,000
Total	1,000,000	2,130,000	3,130,000

Salem will charge HAWC 50 cents more per Ccf than the combined rates charged to Salem by MW and Derry for water usage.

- 2020: \$3.046 CCF
- Assumes a rate increase from both MW and Salem of 2.5%.



POTENTIAL WATER REVENUE

Water System	Phase 1 Max. Day Demand (MGD)	Phase 2 Max. Day Demand (MGD)	Year	GPD
Windham	200,000	110,000	2021	250000
Salem	300,000	1,200,000	2022	250000
HAWC	250,000	500,000	2023	350000
Plaistow	250,000	320,000	2024	350000
Total	1,000,000	2,130,000	2025	400000
			2026	450000
			2027	500000
			2028	550000
			2029	600000
			2030	700000

500,000 gallons per day ADF and/or 500,000 gallons per day MDF as applicable through the end of Phase 1
 And up to 1.32 MGD ADF and/or 1.32 MGD MDF as applicable throughout Phase 2



POTENTIAL WATER REVENUE

Water System	Phase 1 Max. Day Demand (MGD)	Phase 2 Max. Day Demand (MGD)	Total Max. Day Demand (MGD)
Windham	200,000	110,000	310,000
Salem	300,000	1,200,000	1,500,000
HAWC	250,000	500,000	750,000
Plaistow	250,000	320,000	570,000
Total	1,000,000	2,130,000	3,130,000

Salem will charge wholesale customers in Windham, if any, 50 cents more per CCF than the combined rates charged to Salem by MWW and Derry for water usage: \$3.046 CCF

OR

Pursuant to RSA 362:4, III-a(a)(1), Salem will charge retail customers in Windham a rate agreed to by Salem and Windham which may be no higher than 15% above the rate charged by Salem to its in-town retail customers: \$4.200 CCF



CONSIDERATIONS

Pennichuck East Utility (PEU) a privately-owned water utility authorized by the New Hampshire Public Utilities Commission to provide water service within Windham.

To the extent that NHPUC approvals may be required for Salem to operate a wholesale water system in Windham and/or to serve retail water customers in Windham, and/or for Windham to establish a municipal water system to serve customers in Windham, PEU will not object to such approvals, including but not limited to surrender of its franchise rights in those areas of Windham that PEU, Salem and/or Windham as applicable have agreed upon, and shall cooperate with Salem and/or Windham in making required filings with the NHPUC.

Wholesale SIA Rate: \$3.046 per CCF

Retail Rate: \$4.200 per CCF

Connection Charge

Annual Rate Increase: 2.5%, MWW & Salem

Water Service Obligation – Potential Franchise Area

Staffing – 1 Full Time Utility Division Employee (8.3%), 0.5 Billing Clerk in Finance (0.98%)

Miscellaneous Operational Costs

Admin Fees



SALEM MUNICIPAL SERVICES

POTENTIAL WINDHAM WATER WHOLESALE REVENUE

Water System	Phase 1 Max. Day Demand (MGD)	Phase 2 Max. Day Demand (MGD)	Year	GPD
Windham	200,000	110,000	2021	104233
Salem	300,000	1,200,000	2022	144558
HAWC	250,000	500,000	2023	182208
Plaistow	250,000	320,000	2024	197848
Total	1,000,000	2,130,000	2025	200000
			2026	200000
			2027	200000
			2028	200000
			2029	200000
			2030	200000

Throughout Phase 1, Salem shall convey a total of up to 200,000 gallons per day ADF and 200,000 gallons per day MDF for use within Windham. Salem shall convey a total of up to 310,000 gallons per day ADF and 310,000 gallons per day MDF for use within the Town of Windham.



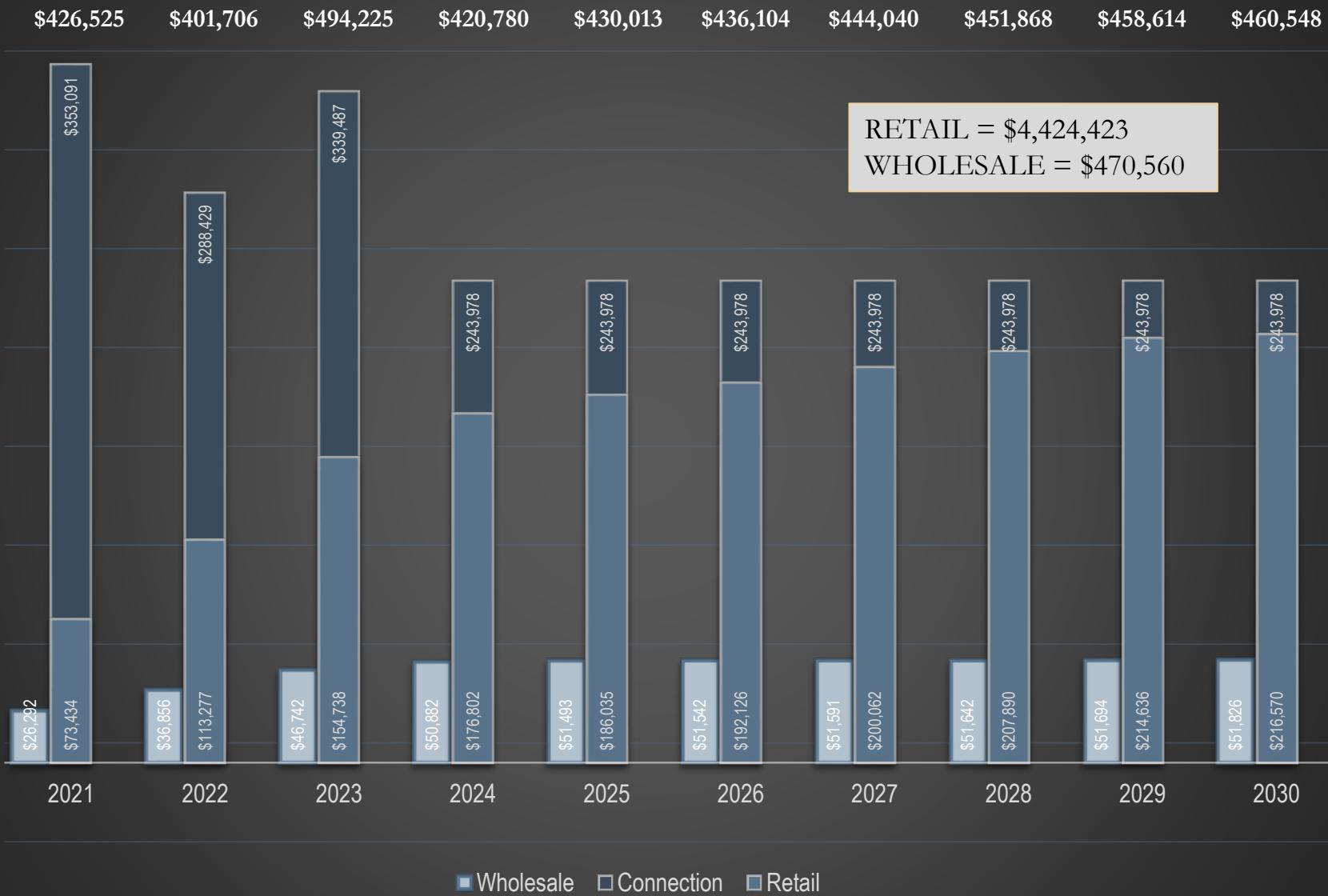
POTENTIAL WINDHAM WATER RETAIL REVENUE

Water System	Phase 1 Max. Day Demand (MGD)	Phase 2 Max. Day Demand (MGD)	Year	GPD
Windham	200,000	110,000	2021	104233
Salem	300,000	1,200,000	2022	144558
HAWC	250,000	500,000	2023	182208
Plaistow	250,000	320,000	2024	197848
Total	1,000,000	2,130,000	2025	200000
			2026	200000
			2027	200000
			2028	200000
			2029	200000
			2030	200000

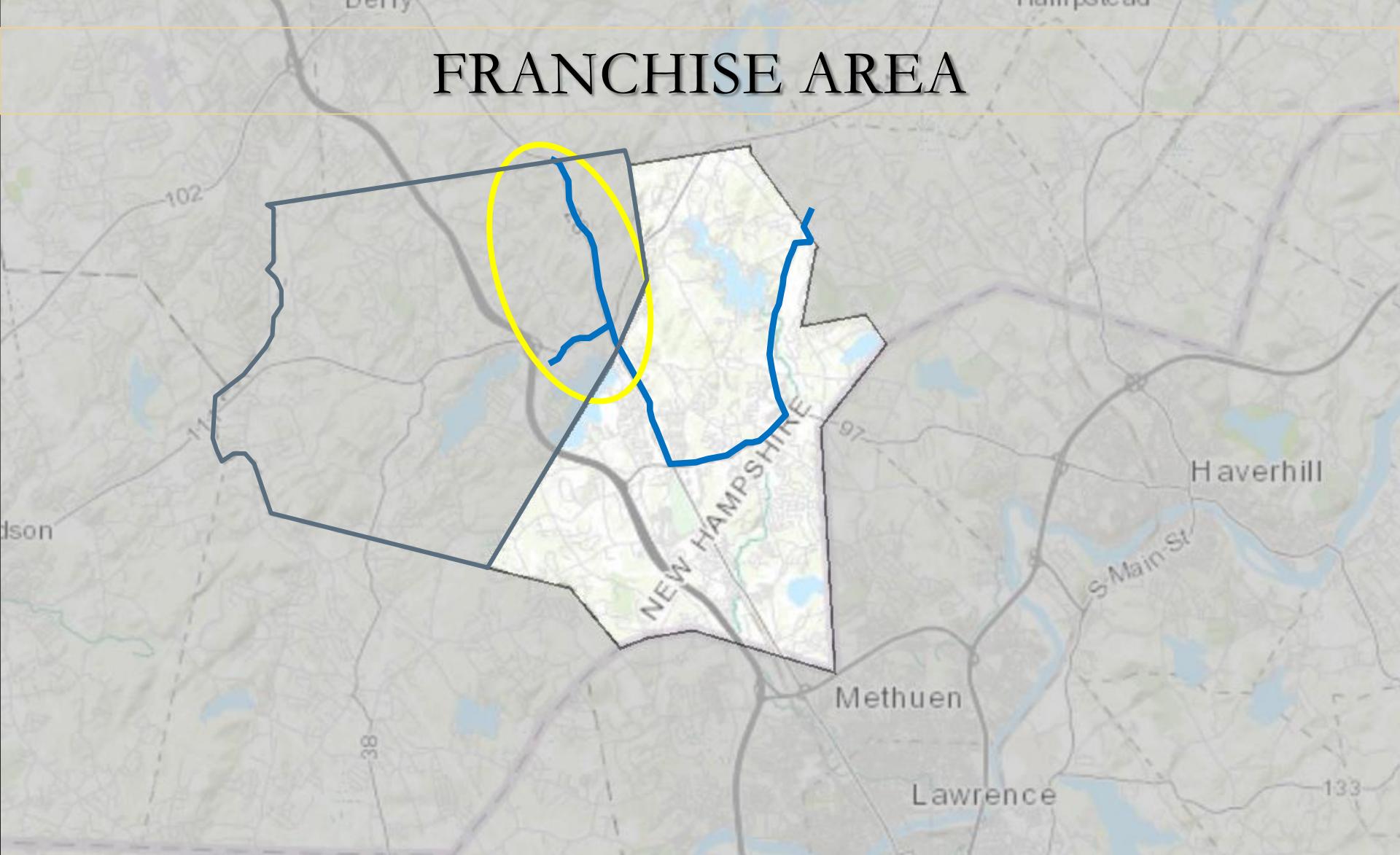
Throughout Phase 1, Salem shall convey a total of up to 200,000 gallons per day ADF and 200,000 gallons per day MDF for use within Windham. Salem shall convey a total of up to 310,000 gallons per day ADF and 310,000 gallons per day MDF for use within the Town of Windham.



REVENUE COMPARISON



FRANCHISE AREA



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