

Southwest Regional Pipeline

Diversion Permit Modification

Public Hearing

May 4, 2021

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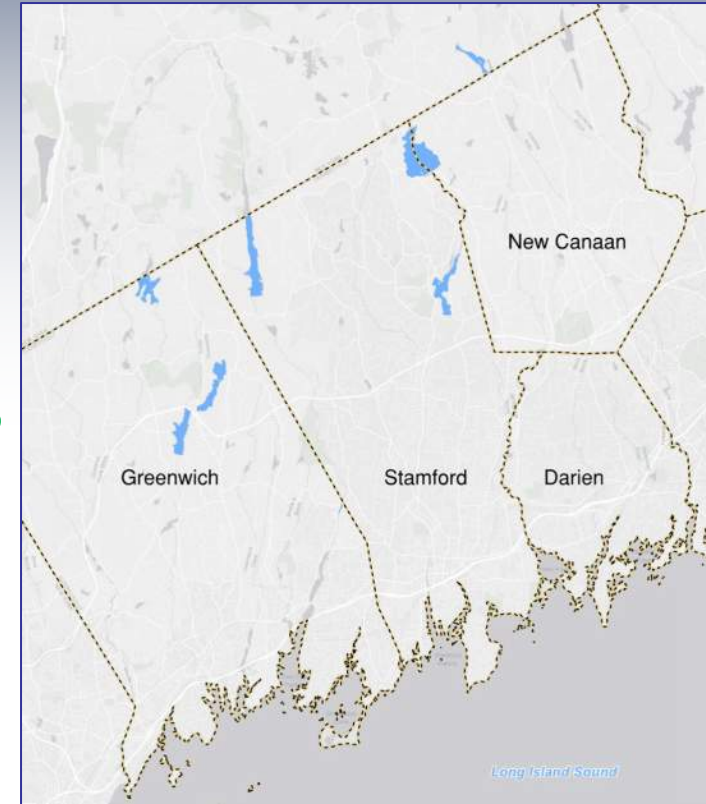
Vice President, Engineering, Planning & Real Estate
Manager, Water Resources & Infrastructure Planning

Vice President

Objective

To provide:

- Adequate public water supply
 - Improve drought resilience
 - Meet reservoir release requirements
- in Southwest Fairfield County.



Where We are Today

Task	2020												2021						
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May		
Stakeholder Notification/Meetings			█																
Filed Application			★																
DEEP Requests for Information						█			█										
Public Information Meeting								▲											
Respond to Public Questions								█											
Notice of Tentative Determination												★							
Public Comment Period												█							
Public Comment Meeting												▲							
Response to Public Comment															█				
Petition for Adjudicated Hearing													█						
Adjudicated Hearing													█						

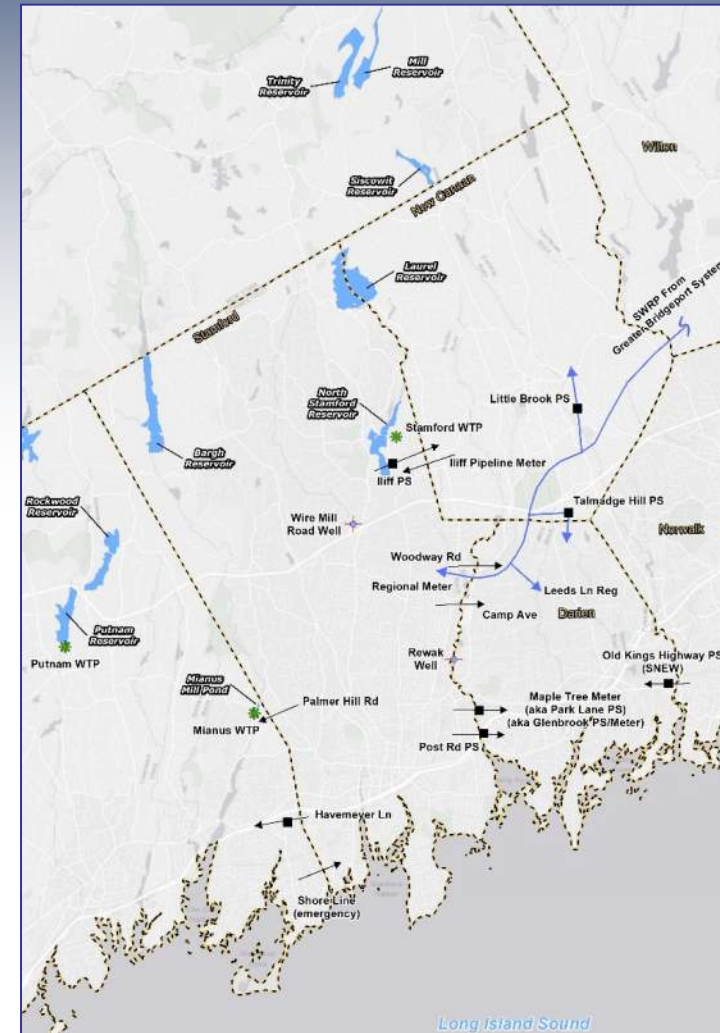


Agenda

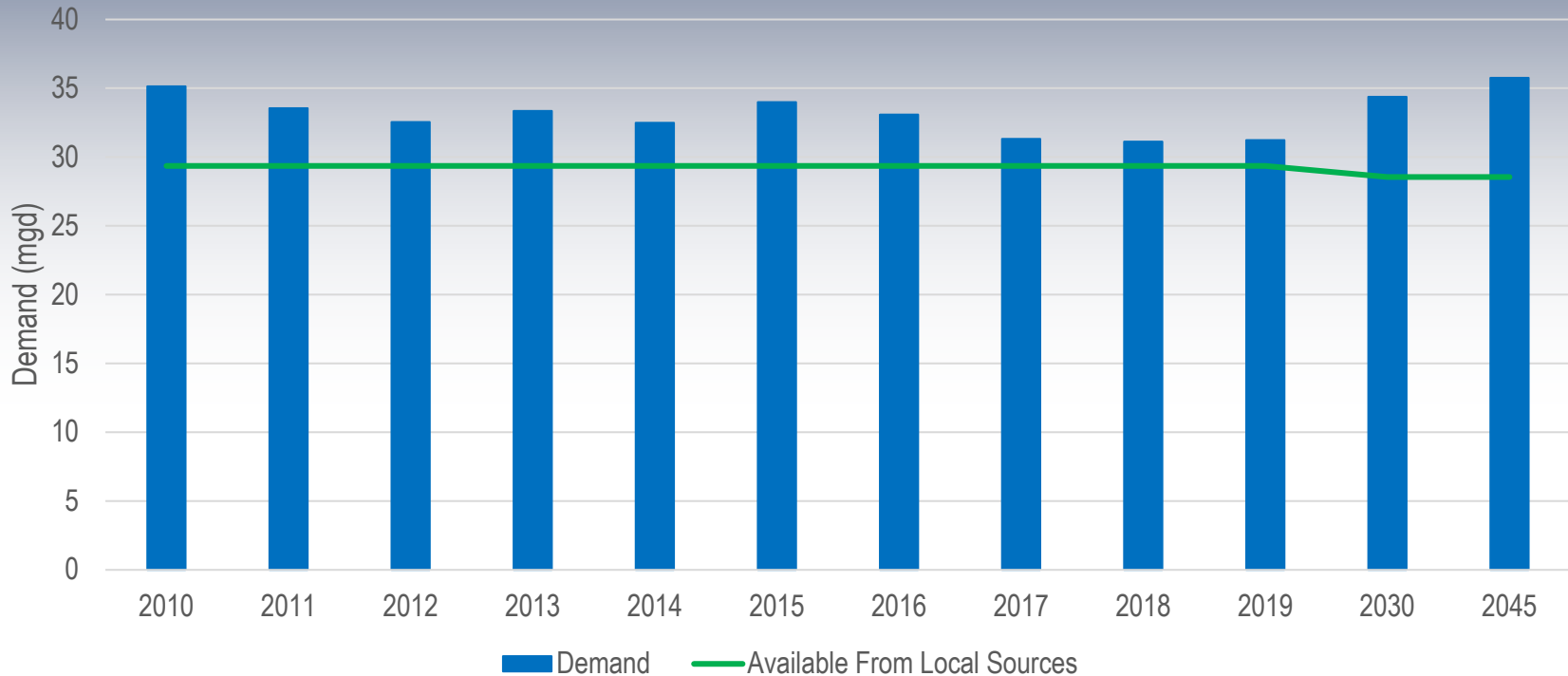
- What is the Southwest Regional Pipeline (SWRP)
- Water Supply Need
- Solution
 - Increase capacity to transfer water from the Greater Bridgeport System through the Southwest Regional Pipeline (SWRP)
- Impact on Greater Bridgeport System
- Response to Public Questions

Southwest Regional Pipeline (SWRP)

- From Greater Bridgeport System
- To Southwest Fairfield County Region (SWFCR)
 - New Canaan, Darien, Stamford and Greenwich
- In service since 1990
- Diversion Permit
 - DIV 97-13
 - 7.26 mgd
 - Expires June 2023

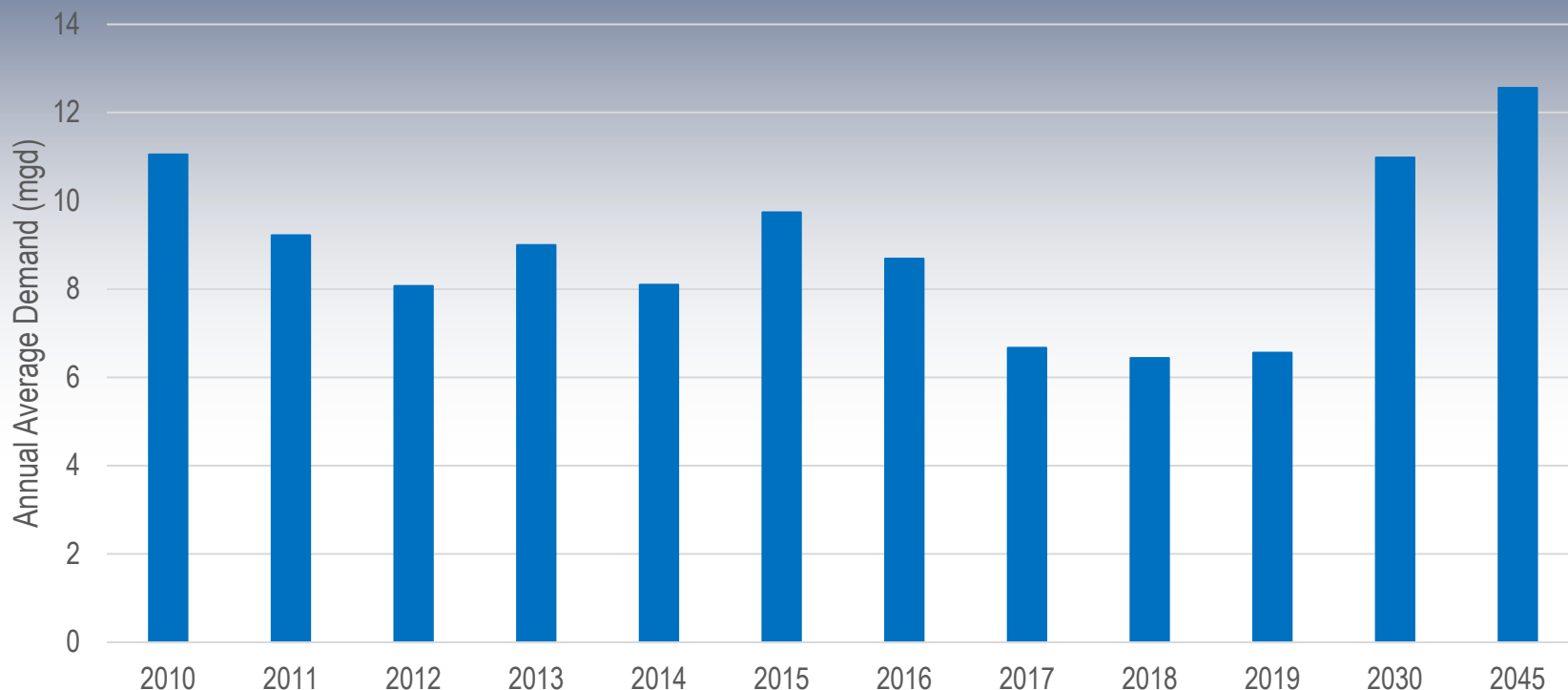


SWFCR Demands – Annual Average



SWFCR demands are projected to increase, but not significantly higher than in the past.
Demands cannot be met from local sources alone.

Capacity Needed In Addition to Local Sources

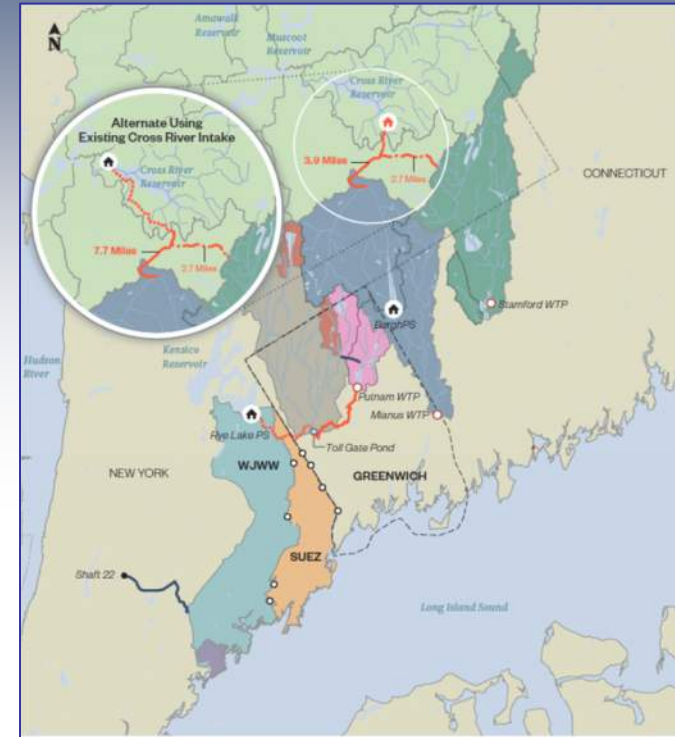


1. Based on Margin-of-Safety (Supply/Demand) = 1.15
2. Projections include increased demands and reduced available water.

Annual average supply of 12–13 mgd is required from the SWRP to meet DPH target for adequate supply.

Alternatives Considered

- Purchase water from New York City
 - Treated
 - Raw
- Increase reservoir storage
- Develop groundwater supply



Increase Southwest Regional Pipeline (SWRP) capacity

Conservation is Key To All Alternatives

- Amy Vickers & Assoc.
- Irrigation Restrictions
 - SWFCR: 2017
 - Westport, Newtown: 2018
 - Continued expansion
- Demand reductions observed
 - Additional 2030 savings: 0.2-1.5 mgd
- Success Will:
 - Reduce transfers
 - Delay Improvements

<http://aquarionwater.com/CT/waterconservation>

Conservation Tips to Reduce Outdoor Water Usage



Responsible Watering Starts Here

For Aquarion Customers in Darien, Greenwich, New Canaan, Newtown, Stamford and Westport



Efficient



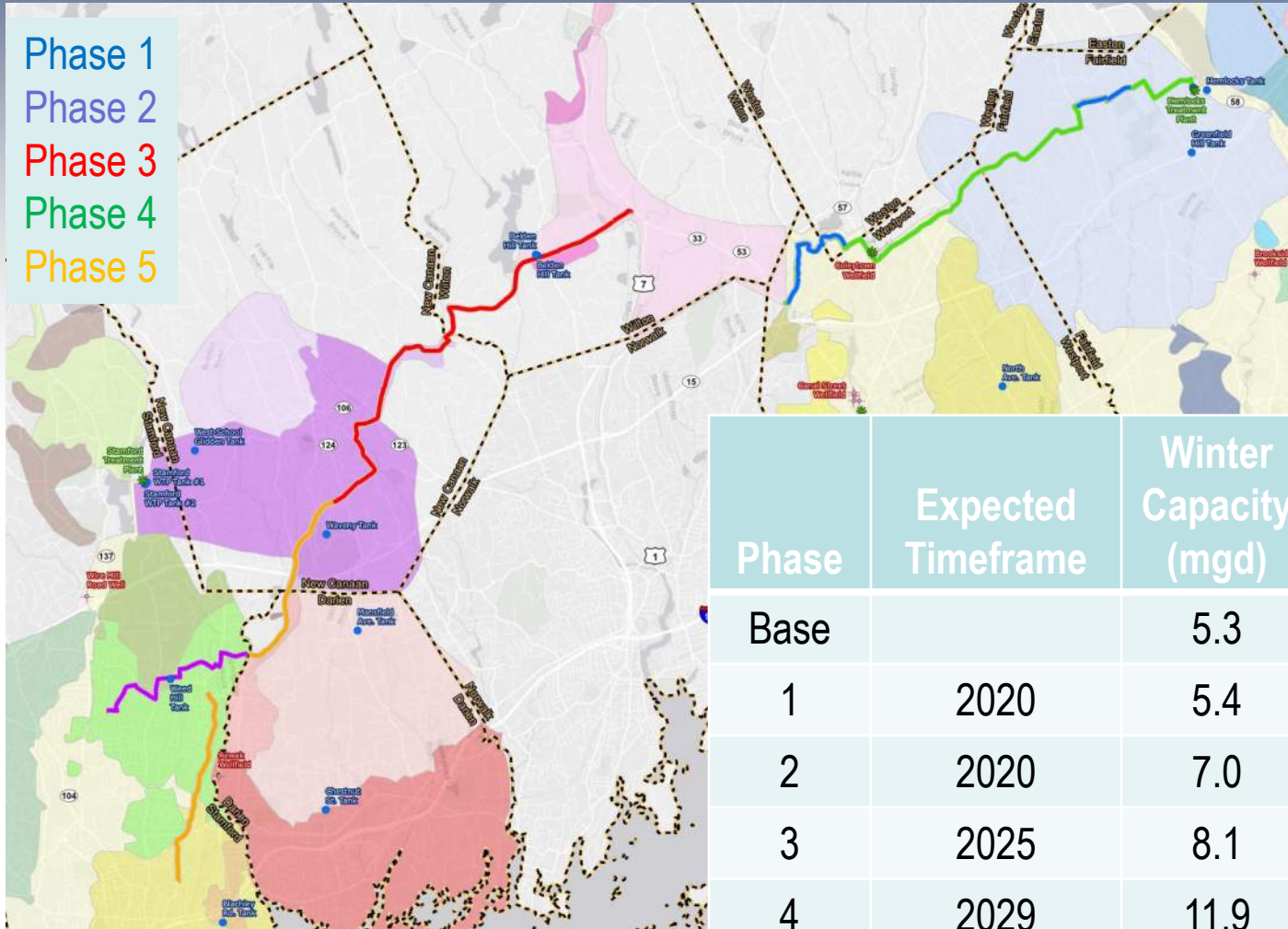
Inefficient

Mandatory, Maximum Twice-Weekly Sprinkler Irrigation Schedule

Last Digit of Your Address Number	Please Water Only On:
0, 2, 4, 6 or 8 (even numbers)	Sunday & Wednesday 12:01 am – 10:00 am, or 6:00 pm – Midnight
1, 3, 5, 7 or 9 (odd numbers)	Saturday & Tuesday 12:01 am – 10:00 am, or 6:00 pm – Midnight
No address number	Sunday & Wednesday 12:01 am – 10:00 am, or 6:00 pm – Midnight

SWFCR Improvement Plan

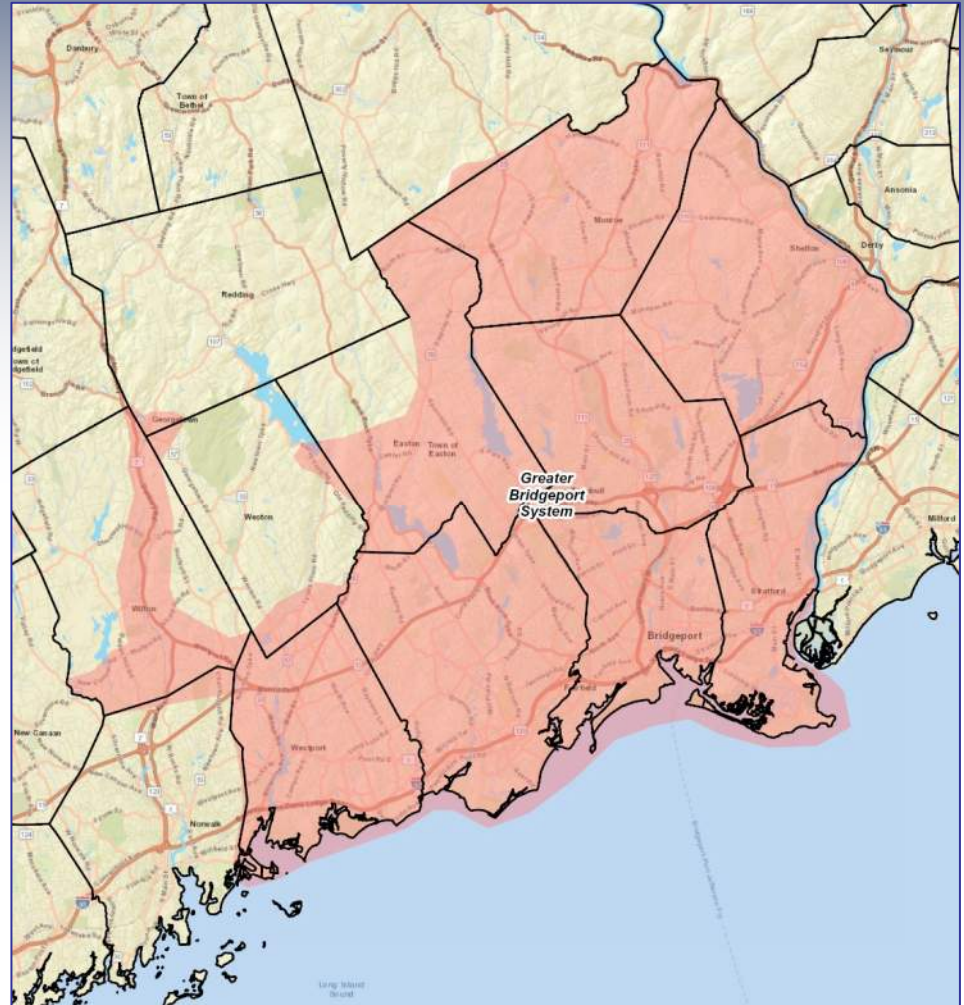
- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Phase 5



Phase	Expected Timeframe	Winter Capacity (mgd)	Summer Capacity (mgd)	Average Capacity (mgd)
Base		5.3	4.2	4.8
1	2020	5.4	7.5	6.5
2	2020	7.0	7.8	7.4
3	2025	8.1	9.2	8.7
4	2029	11.9	14.2	13.1
5	≈2045	16.5	17.0	16.8

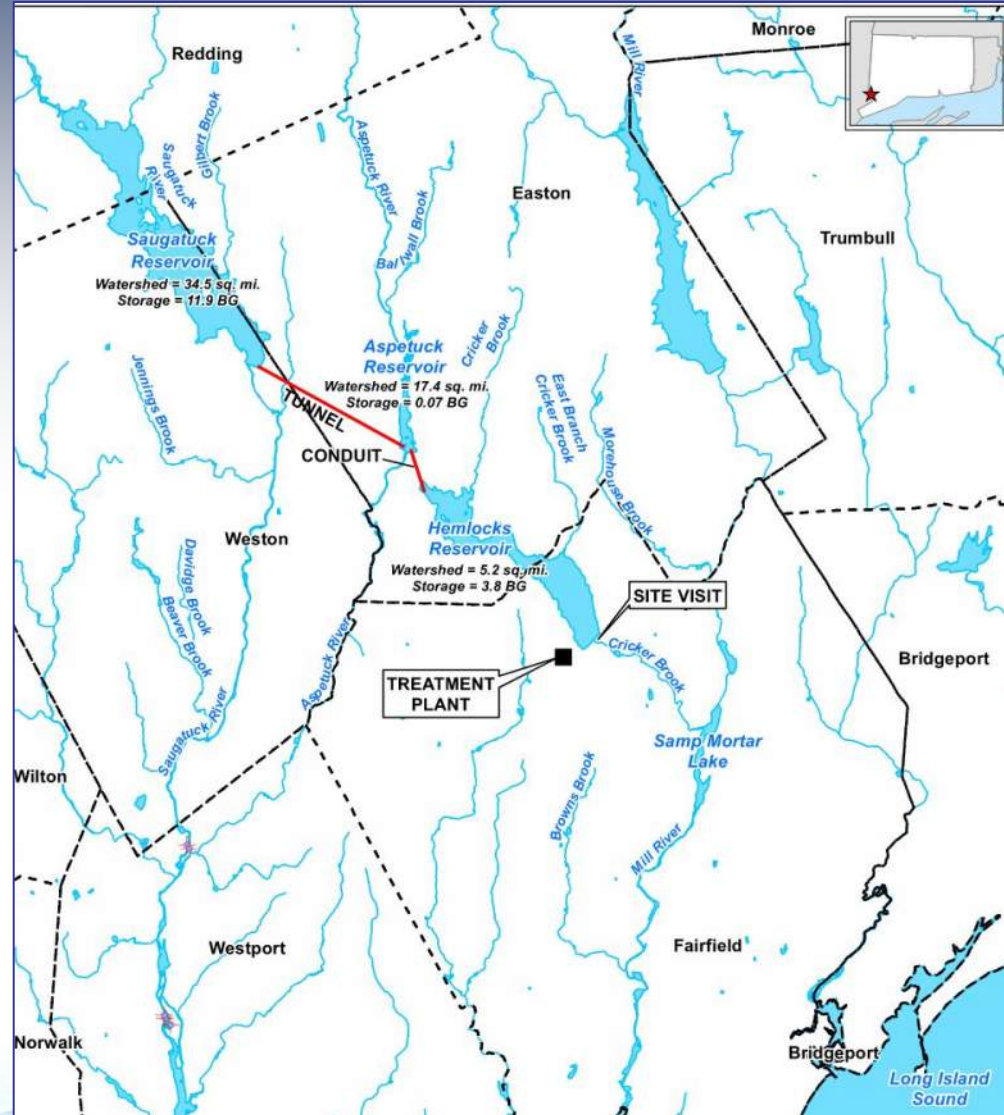
Greater Bridgeport System

- Regional System
 - 11 towns served
- Sources of Supply
 - Trap Falls Reservoir System
 - Easton Reservoir
 - Hemlocks Reservoir System
 - Saugatuck Reservoir
 - Aspetuck Reservoir
 - Hemlocks Reservoir
 - Canal Street Wellfield
 - Coleytown Wellfield



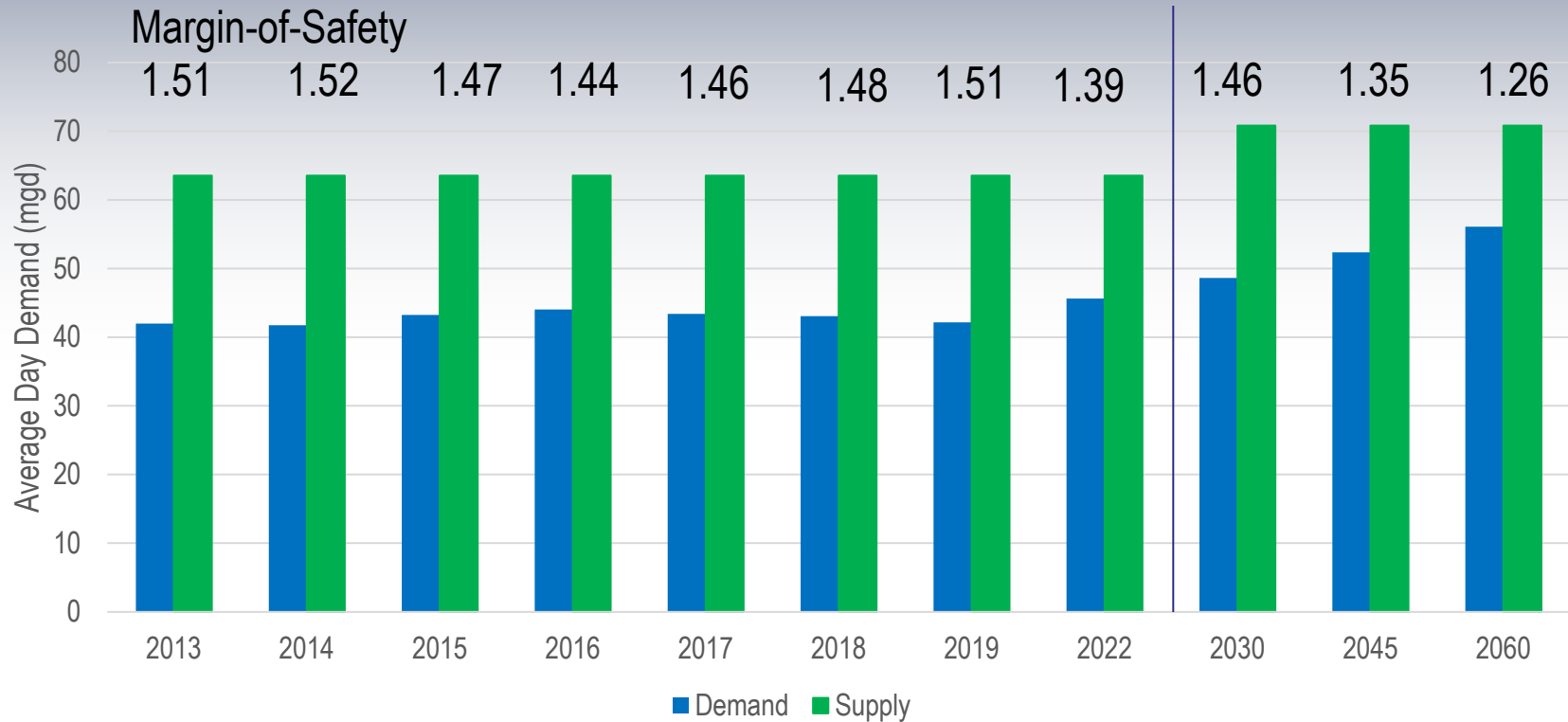
Hemlocks Reservoir System

- Saugatuck Reservoir
 - Saugatuck River
 - Watershed = 34.5 sq. mi.
 - Storage = 11.9 BG
- Aspetuck Reservoir
 - Aspetuck River
 - Watershed = 17.4 sq. mi.
 - Storage = 0.07 BG
- Hemlocks Reservoir
 - Cricker Brook
 - Watershed = 5.2 sq. mi.
 - Storage = 3.8 BG



Impact on Greater Bridgeport System

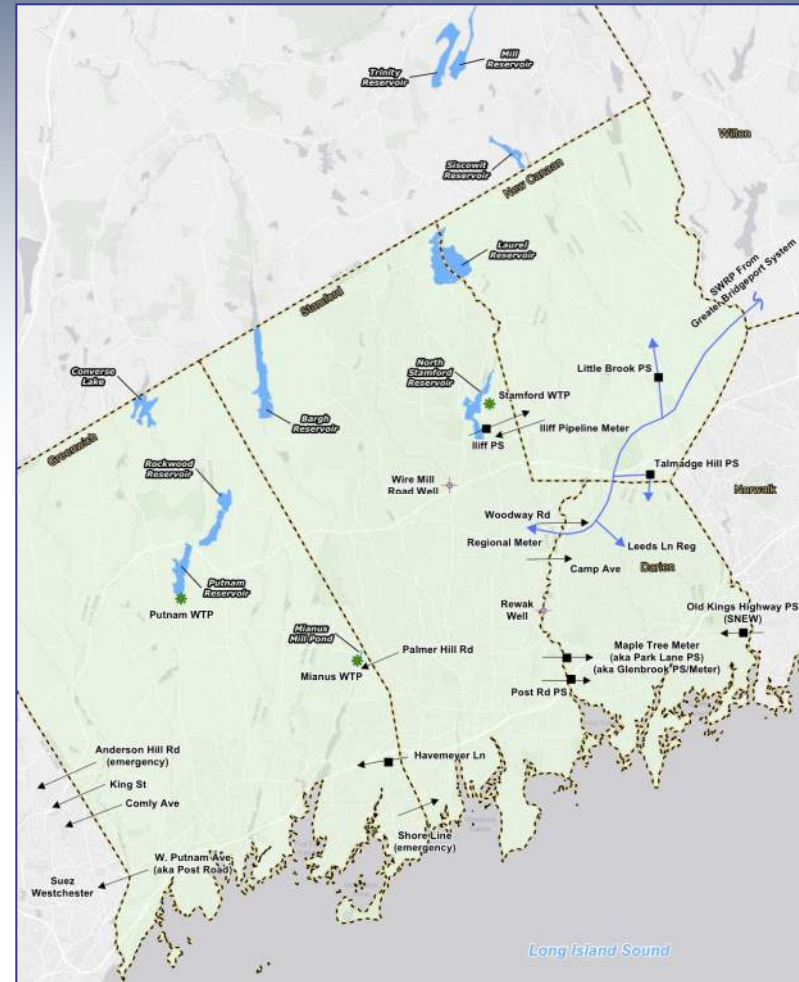
Start of streamflow releases and reactivation of Housatonic Wellfield @ 11.58 mgd



With reactivation of the Housatonic Wellfield the Greater Bridgeport System has adequate supply to meet increased demands and make all required reservoir releases.

SWRP Diversion Permit Application

- Greater Bridgeport System to SWFCR
- Maximum daily limit = 14.2 mgd
- Confirm four towns in SWFCR are one service area
- Term = 25 years
- Tentative Determination adds 12.56 mgd annual average limit



Public Question Themes

- **What was the basis for the projected increase in demands?**
 - Historical demands (including drought restriction years)
 - DOT population projections
 - Average 70 gpcd

- **What will the impact of the diversion be on Cricker Brook and the Mill River?**
 - Downstream flow from Hemlocks Reservoir controlled by DEEP required releases.
 - Release requirements will not change as a result of diversion.

Public Question Themes

- **Does the Greater Bridgeport System have adequate supply?**
 - Margin-of-Safety
 - Includes re-activation of Housatonic Wellfield
 - Approved Water Supply Plan
- **Housatonic Wellfield Water Quality**
 - Reactivation of wellfield independent of this application
 - Water quality regulated by CT DPH

Objective

By implementing improvements and obtaining this permit we will:

- Provide adequate public water supply
 - Improve drought resilience
 - Meet reservoir release requirements
- in Southwest Fairfield County.

