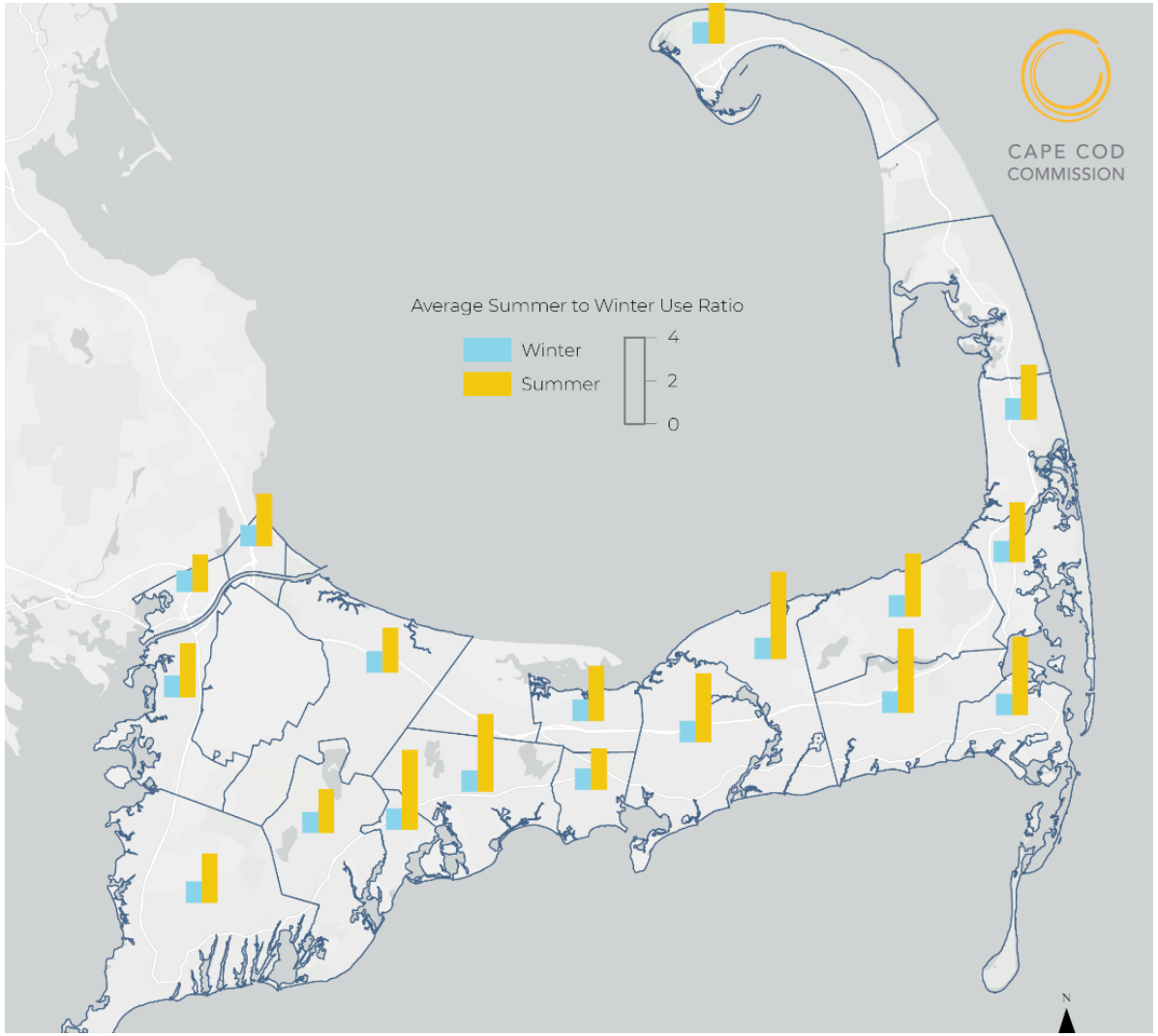
WATER RATES AND USE ANALYSIS ON CAPE COD

EEA Drought Resiliency and Water Conservation Grant

PROJECT OBJECTIVES

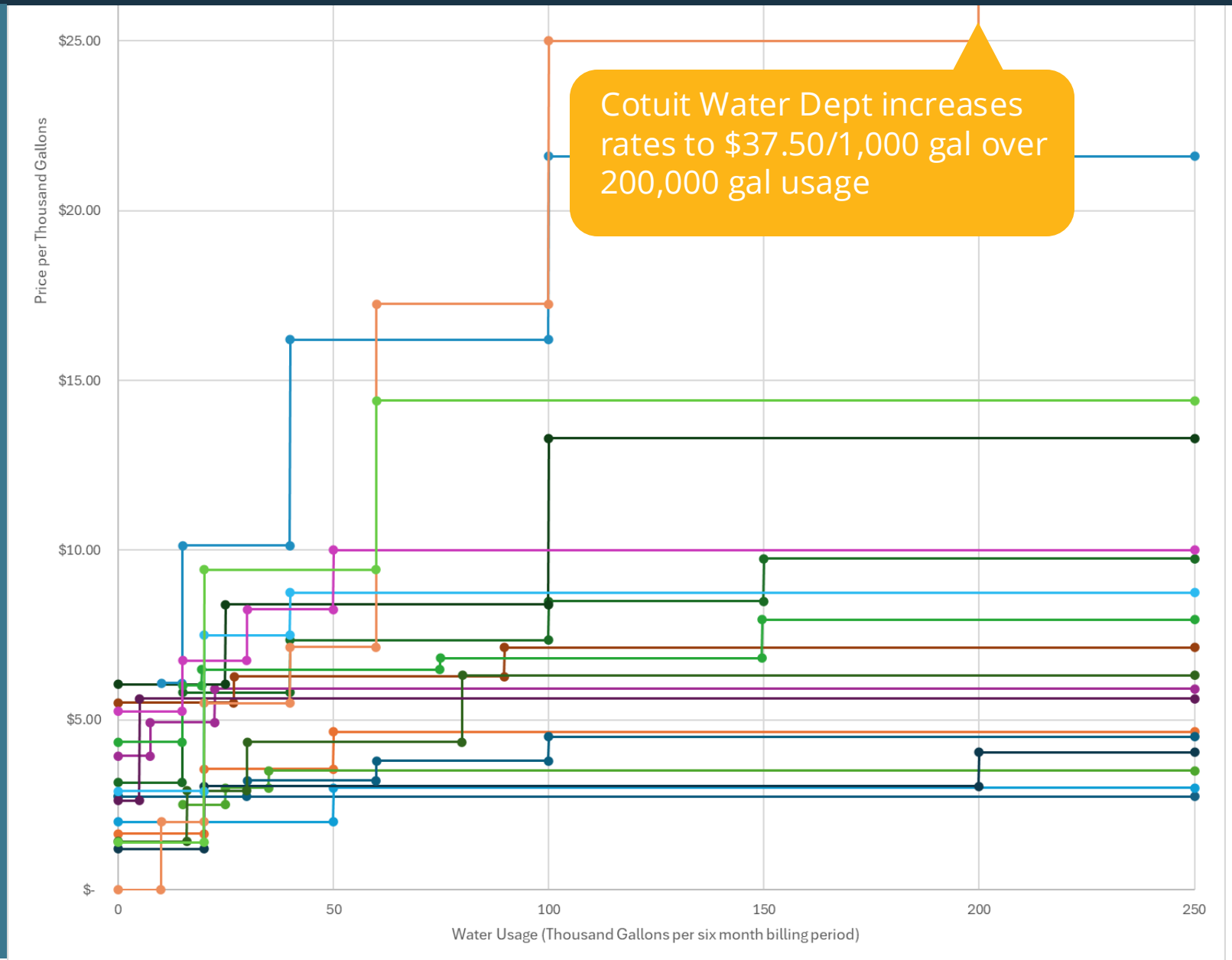
- Identify range of water use rate structures and pricing tiers used on Cape Cod
- Examine variation in water use throughout the region
- Assess the effectiveness of changing water rates or rate structures to promote water conservation



Water use on Cape Cod is complicated

- 15 towns
- 19 water suppliers
- 6 aquifer lenses
- 160 groundwater wells
- 1 surface water supply
- Seasonal population

- Different:
  - rates
  - billing units
  - rate structures
  - billing frequency
  - water use restrictions
  - service area size
  - community characteristics



Approach – Data and Information

Water Use

Public Water Suppliers' Annual Statistical Reports

Meetings with Water Suppliers

Southeastern Mass Drinking Water Fair

Water Rates

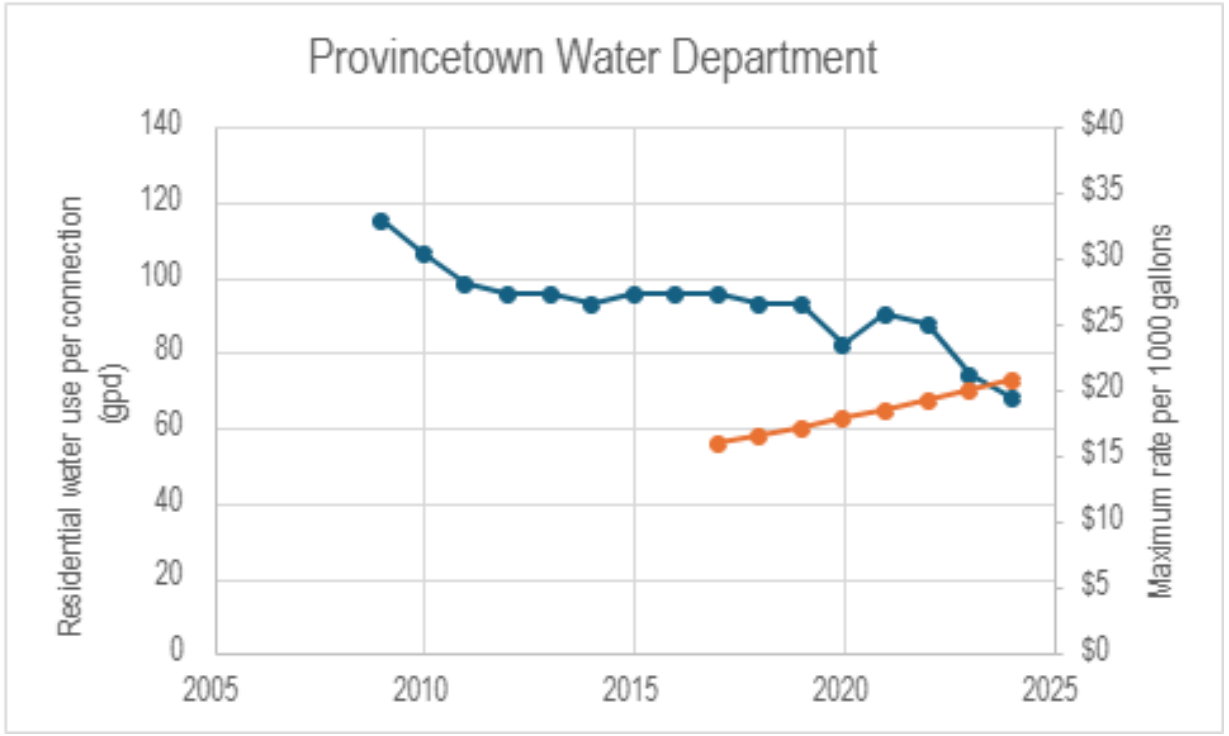
Water Supplier Websites

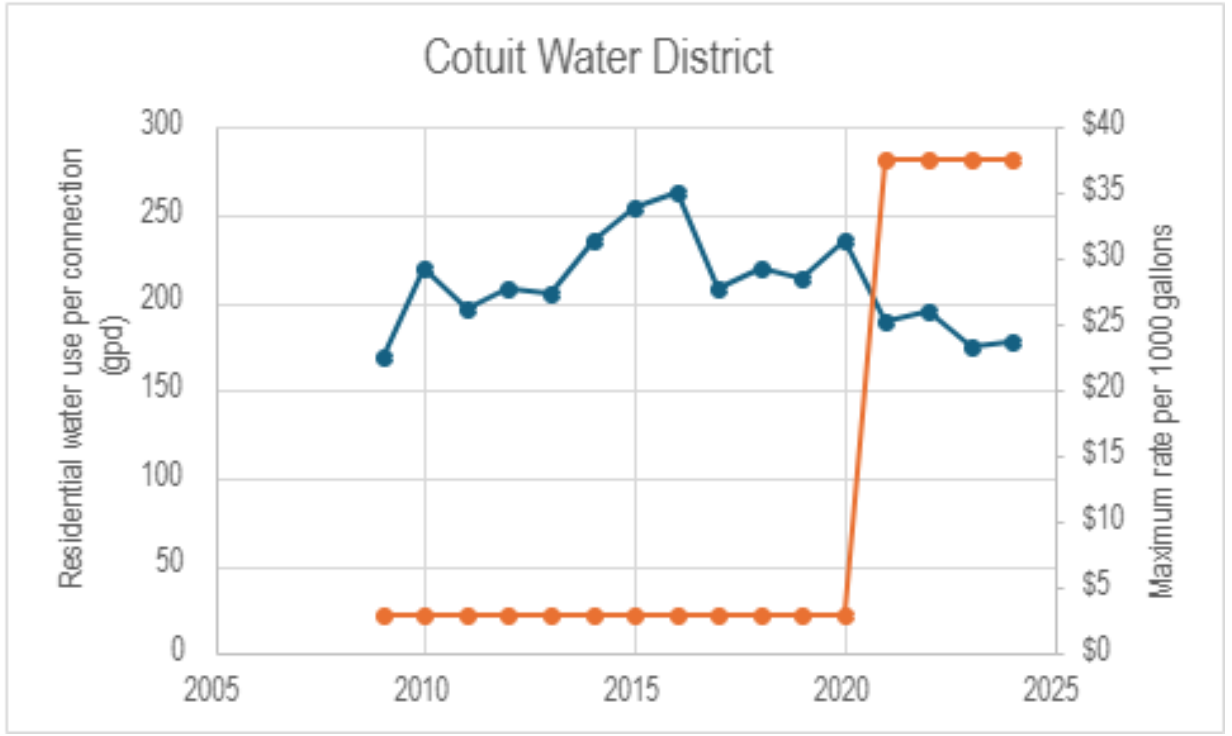
Tighe and Bond Massachusetts Water Rate Surveys

Mass DCR/DER Rate Setting Survey

Meetings with Water Suppliers

Residential Water Usage Response to Rate Change





Residential water use / connection

Max rate / 1000 gal

Findings

- Overall consumer price paid across all pricing tiers shows a slight downward trend; some responsiveness to the overall cost of water, even within the lowest tier where consumption may be non-discretionary.
- In districts where there was a deliberate rate increase between water use tiers with goal of reducing water consumption, the evidence of change in consumption is low.
- Definitive conclusions cannot be drawn due to the breadth of rate structures and variability among the types of communities and levels of irrigation.
- Irrigation plays a large role in water consumption; districts would like to better understand irrigation as a percentage of their overall demand.
- Suppliers take different approaches to irrigation and conservation:
  - Restriction, prohibition, separate irrigation rate, separate irrigation meters.
- Water use restrictions may have as great or greater influence on reducing water consumption among residential consumers.