

*Massachusetts Water Resources Commission Meeting
November 10, 2021*

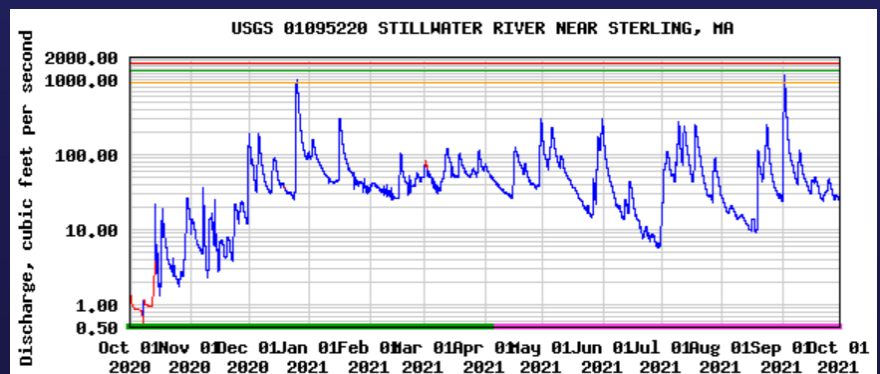
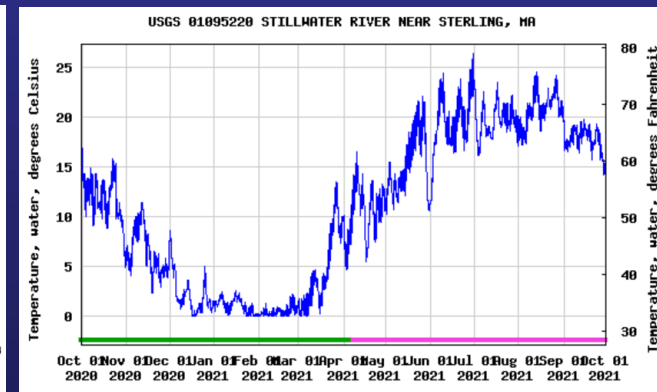
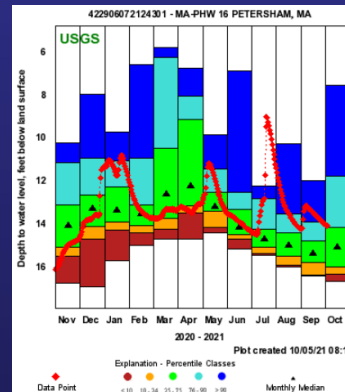
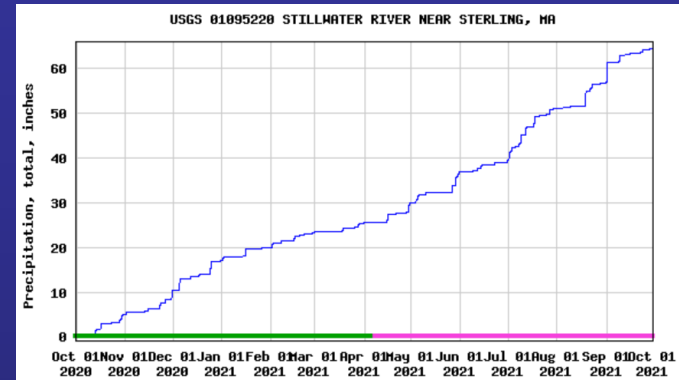
Update and Status of the USGS/MA Cooperative Hydrologic Monitoring Network

*Chris Bruet (USGS) and Viki Zoltay (DCR-OWR)
and Gardner Bent (USGS)*



SW, GW, QW, and Climate Data Uses

- Emergency management/flood forecasting
- Drought monitoring
- Bridge, culvert and other infrastructure design
- Water-supply
- Wastewater discharge
- QW monitoring and loads
- Septic system design
- Aquatic habitat
- Update PF and LF eqs, trends, etc.



Active USGS Streamgage Network

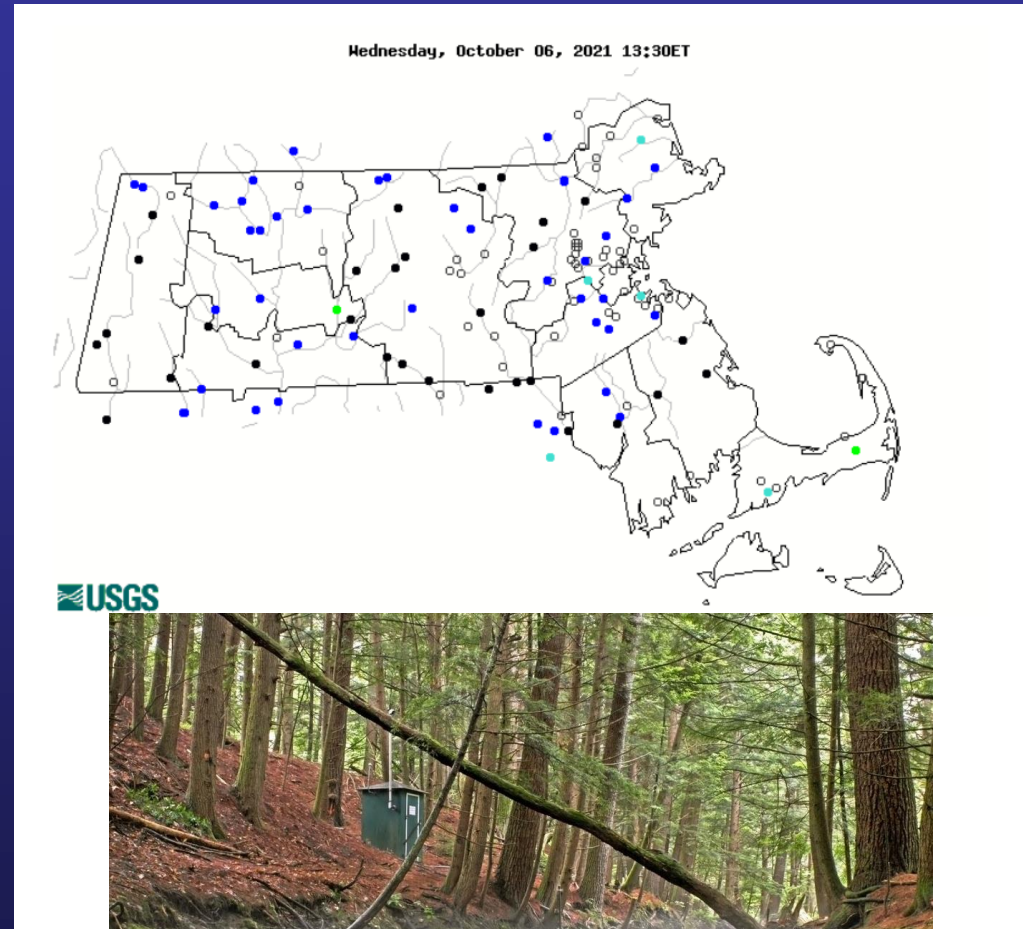
Network

- 59 real-time streamgages
- Changes in FY21
- No Planned Changes for FY22

Annual O&M \$890,000

- USGS \$224,000
- GWSIP \$68,900
- MA DCR \$601,000

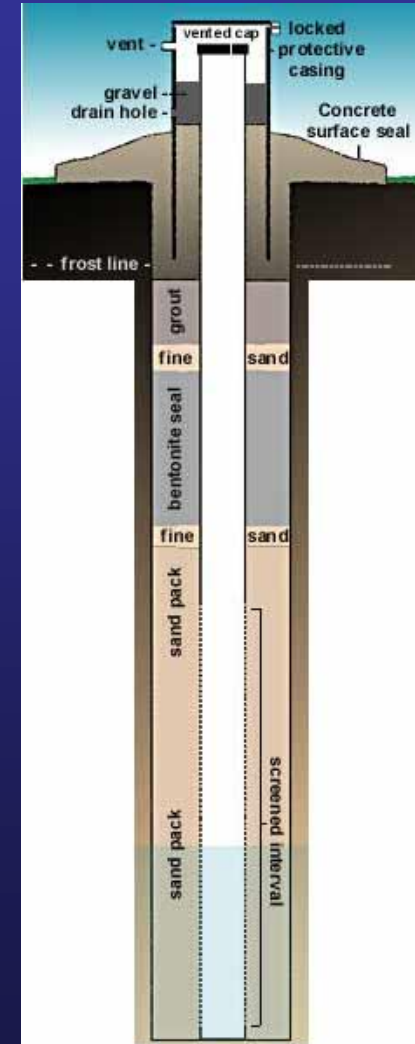
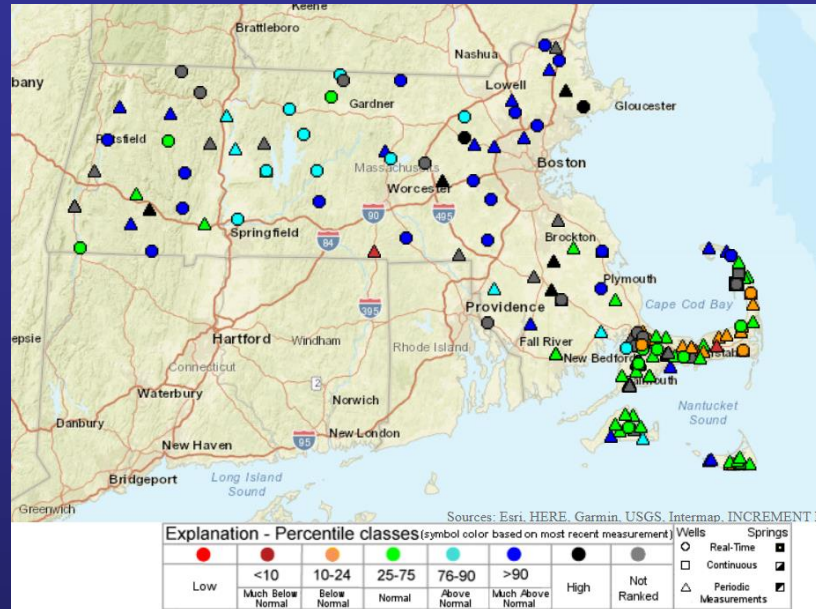
\$15,800 per streamgage



Active Groundwater Level Network

Network

- 108 wells
- 59 real-time wells
- 49 monthly tape-down (furnished data)
- Changes in FY21
- No Planned Changes for FY22



Annual \$330,000

- USGS \$66,000
- MA DCR \$264,000

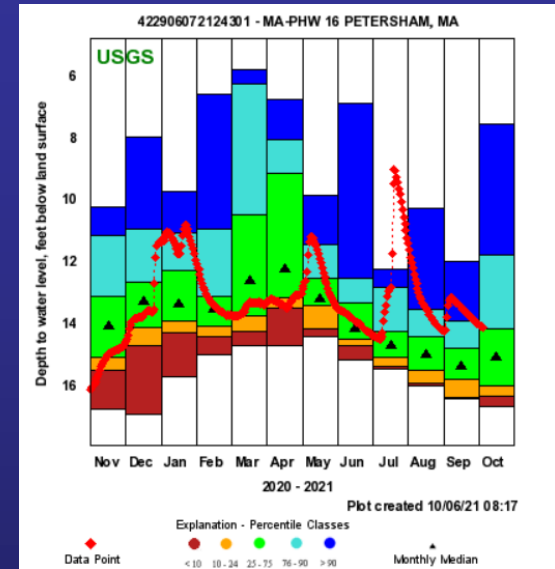
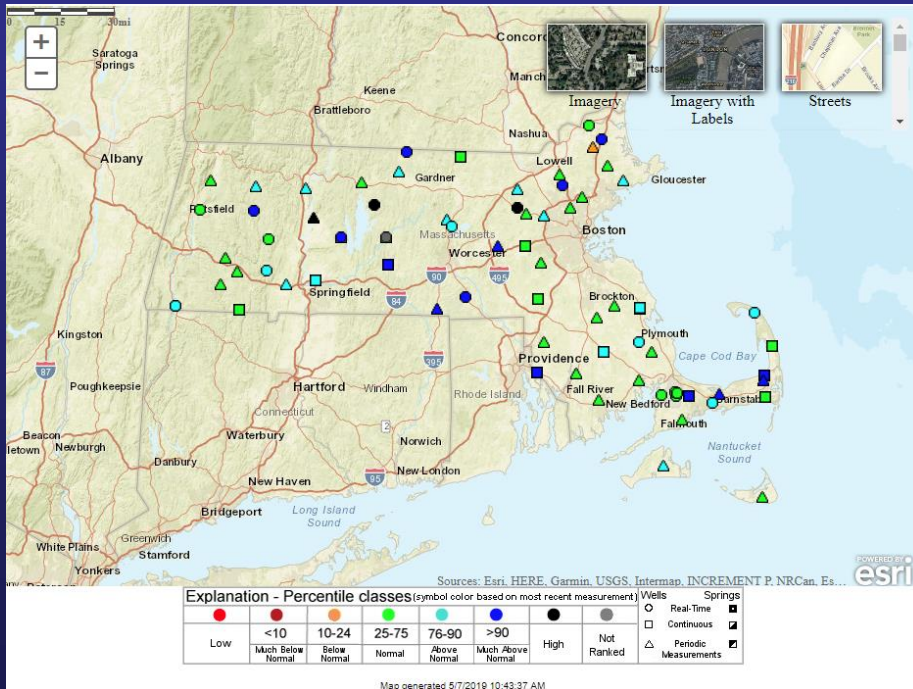
\$5,600 per real-time well

\$950 per furnished data well

GW Climate Response Network

73 wells

All wells real-time by end of FY23



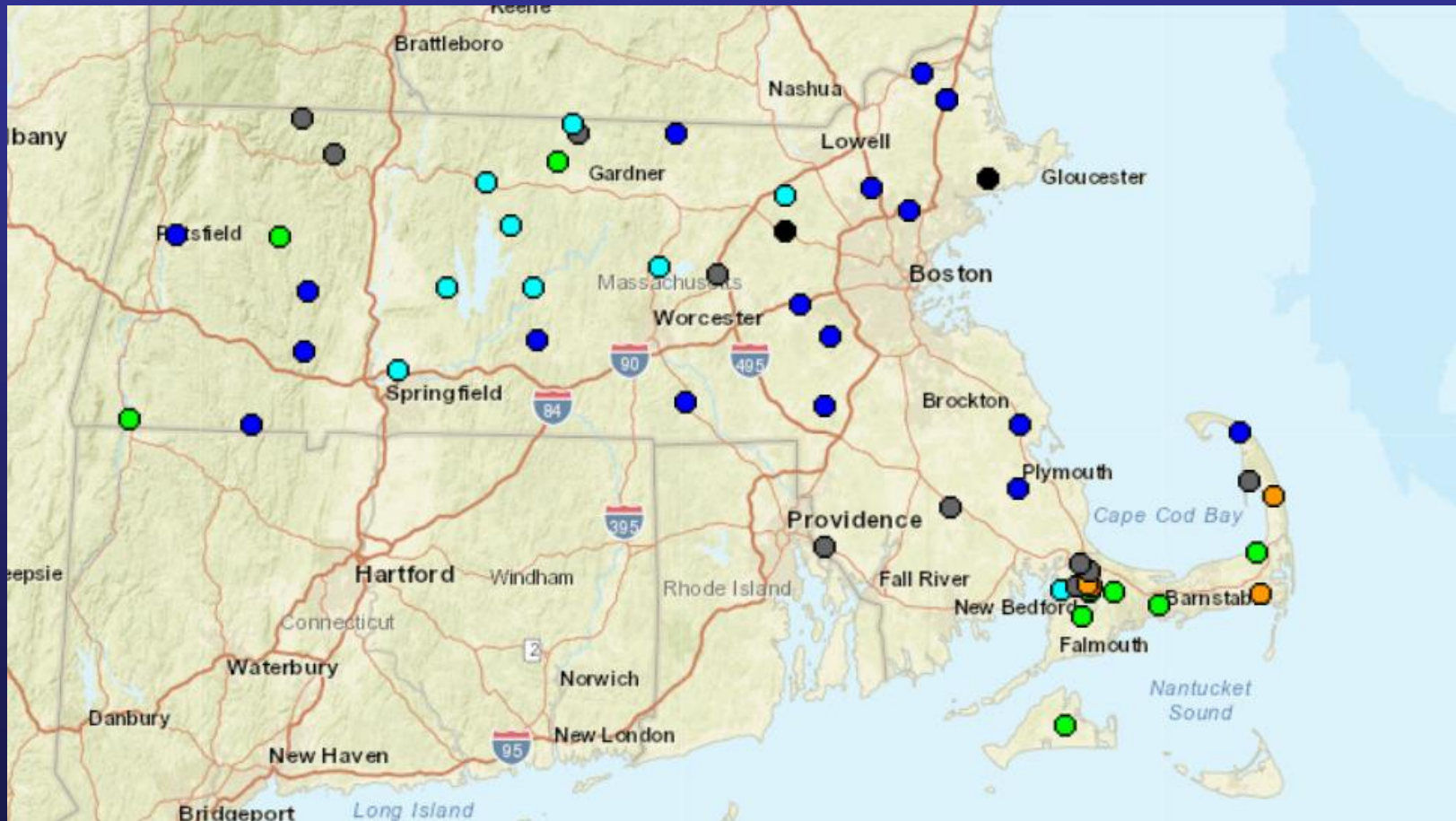
2018 Real-time GW Network

About 30 real-time wells



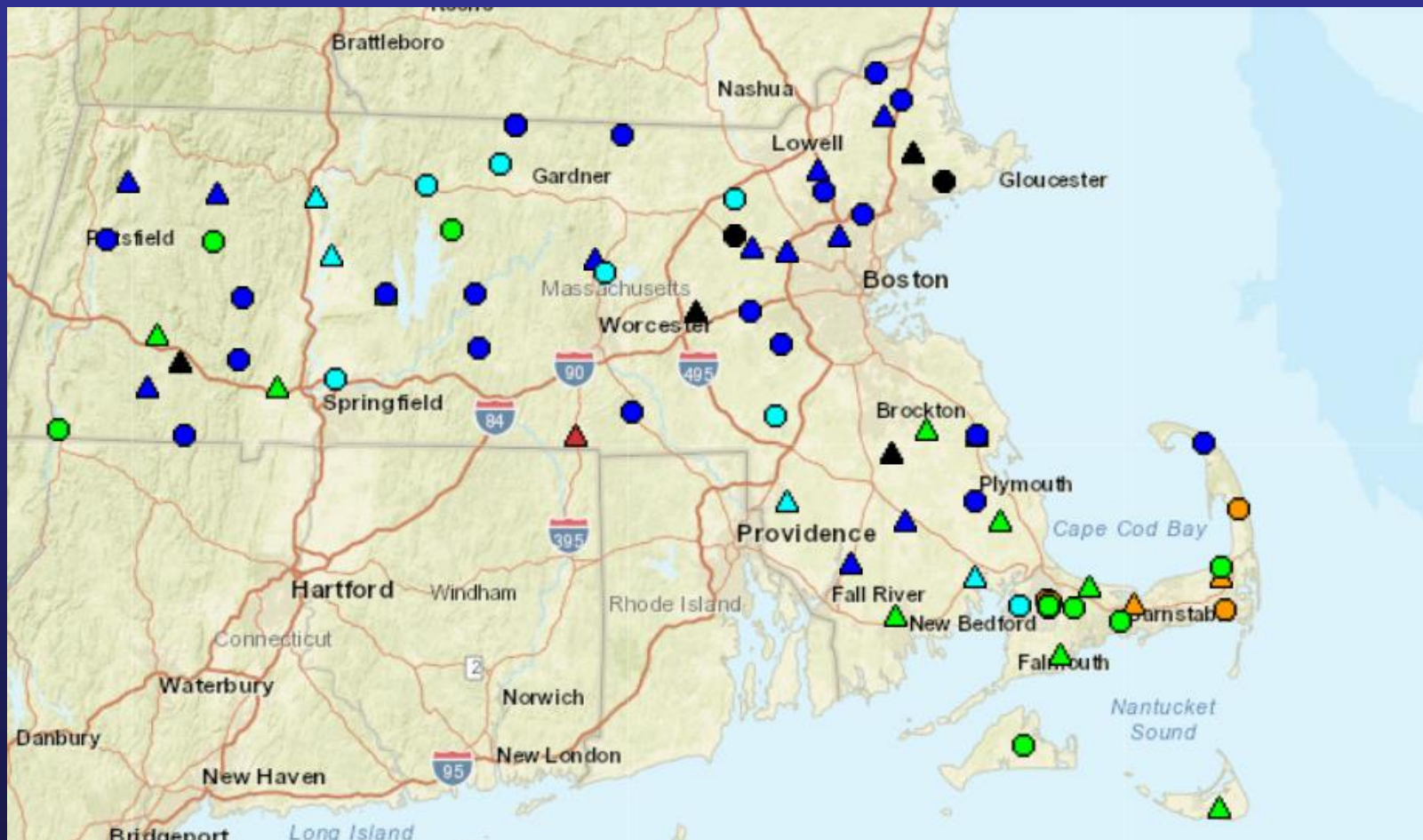
Current (2021) Real-time GW Network

59 real-time wells



Future (2023) Real-time GW Network

About 75 real-time wells (Climate Response Network)



Precipitation/Climatological Stations

- Peabody
- Fall River
- Groton
- Florida*
- Sheffield*
- Popponessett (Mashpee)*

Per gage

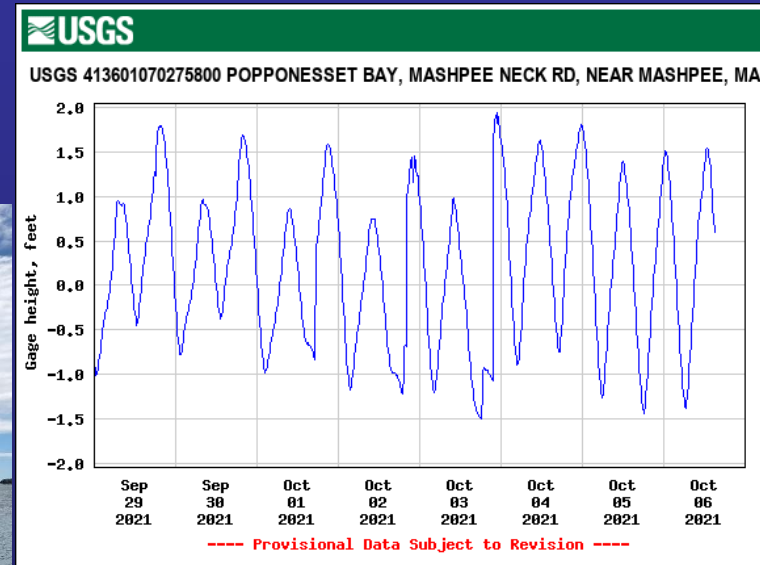
\$5,000 (precipitation)

*\$6,500 (climate)



Tide Gages

- Provincetown Harbor
- Sesuit Harbor (Dennis)
- Merrimack River (Newburyport)
- Popponeset Bay (Mashpee)
- Per gage
\$6,800



FY22 Hydrologic Monitoring Network Budget

State

\$923,000

USGS

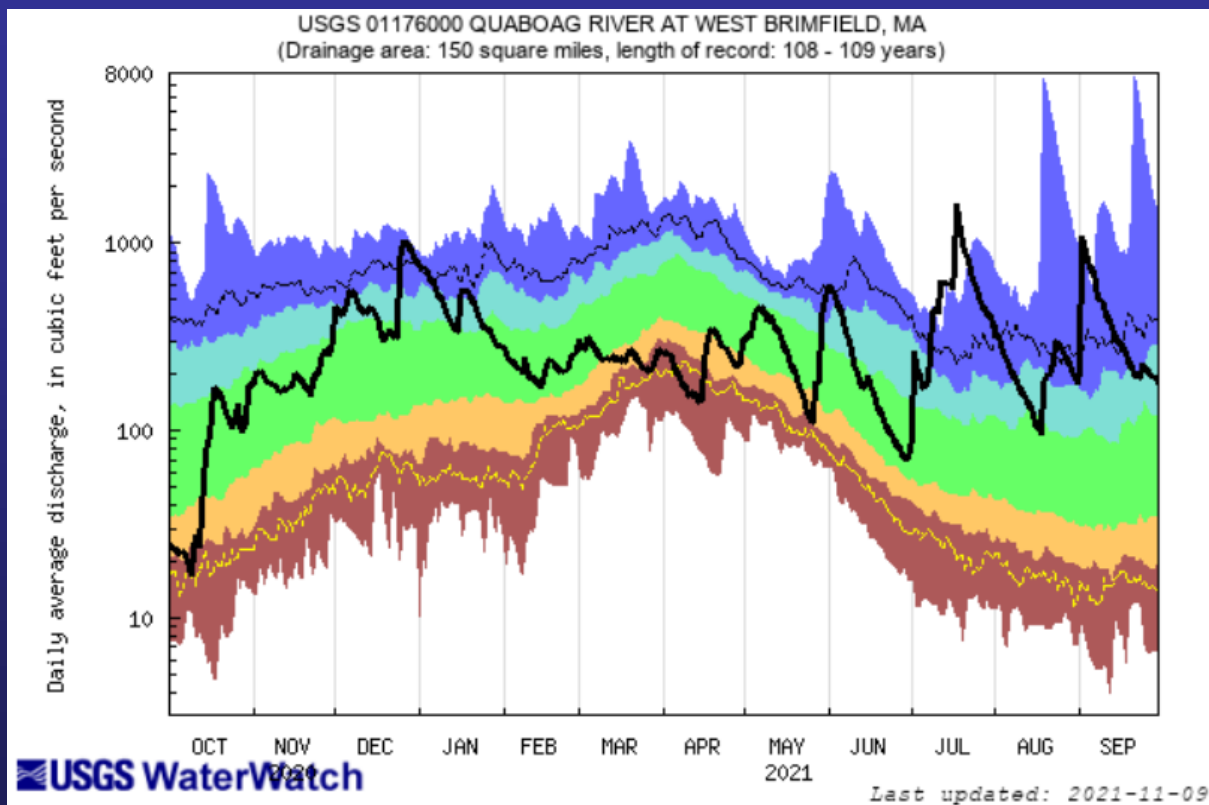
\$290,000

GWSIP

\$68,900

Total Budget

\$1,282,000



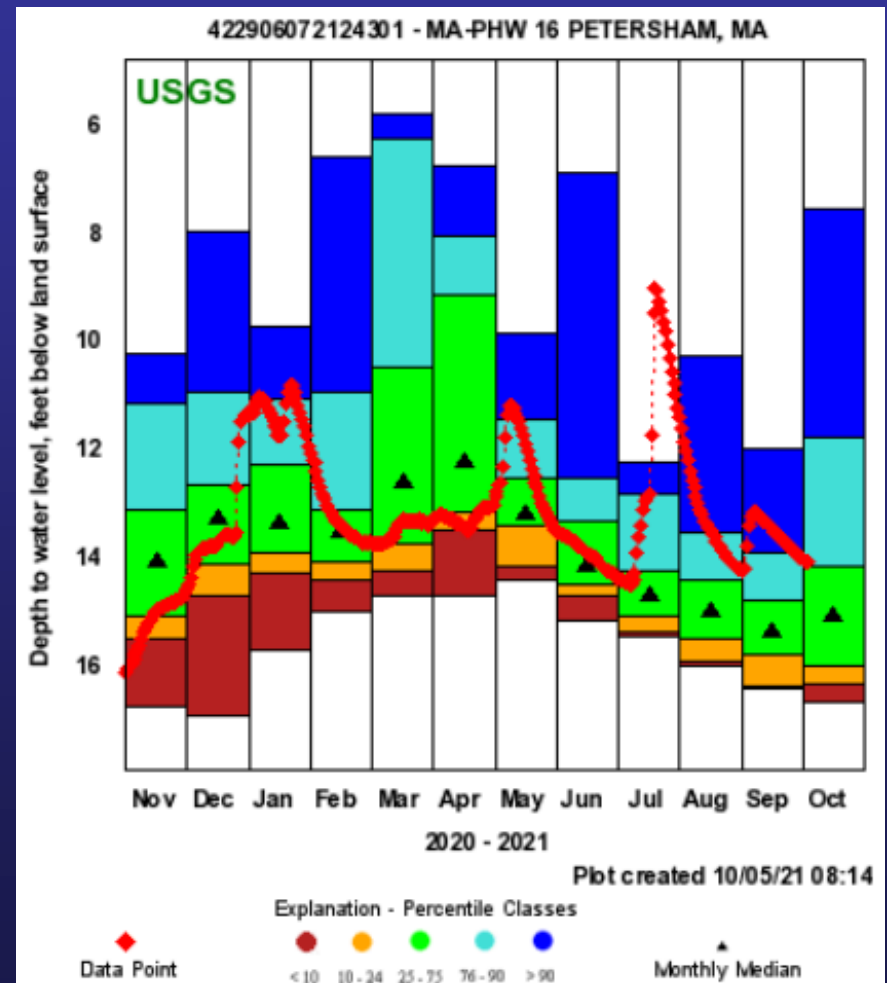
FY22 Program Budget by Network Type

Streamgages
\$893,700

Groundwater
\$330,200

Precipitation/Climatological
\$31,000

Tide Gages
\$27,200



Questions

