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

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May 9, 2019
Data Uses

- Emergency management/flood forecasting
- Engineering—bridge design, flood zone mapping, septic system design
- Landslide forecasting
- Environmental monitoring
USGS Stream Gage Network

57 Real-time gages
No Changes Planned in FY20
Annual O&M ~$900,000
$15,800 per streamflow gage
Climate Response Network

- 92 wells total (including 7 bedrock wells)
- 39 real-time wells
- 53 wells measured monthly by State staff
Climate Response Network

92 Observation Wells
Annual O&M ~$230,000
$5,000/$750 per well
USGS Groundwater Network

- A number of steel wells older than 50 years (1965 and before) in acidic ground water have been replaced!

- Three left to do!
Active Water Level Network
Real-time GW Network (three years ago)
Proposed Changes to the RT Network
Actual changes real-time groundwater network!
Precipitation/Weather Stations

- Flash Flood Warnings
- Spring Flood Modeling
- Soil Moisture at Heath
Precipitation/Weather Stations

- Peabody
- Fall River
- Groton
- Florida
- Sheffield (new)

- $4,800/$5,800
Tide Gages ($6,800)

- Provincetown
- Dennis
- Merrimack
Landslide warning system

($2,500)
FY20 Hydrologic Monitoring Network Budget

- State
  - $850,000
- USGS
  - $290,124
- NSIP
  - $68,900
- Total Budget
  - $1,209,024
Program Budget FY20

- Streamgages
  - $884,185
- Ground Water
  - $233,750
- Precipitation/Weather
  - $26,000
- Tide Gages
  - $20,400
- Soil Moisture
  - $2,500
Questions