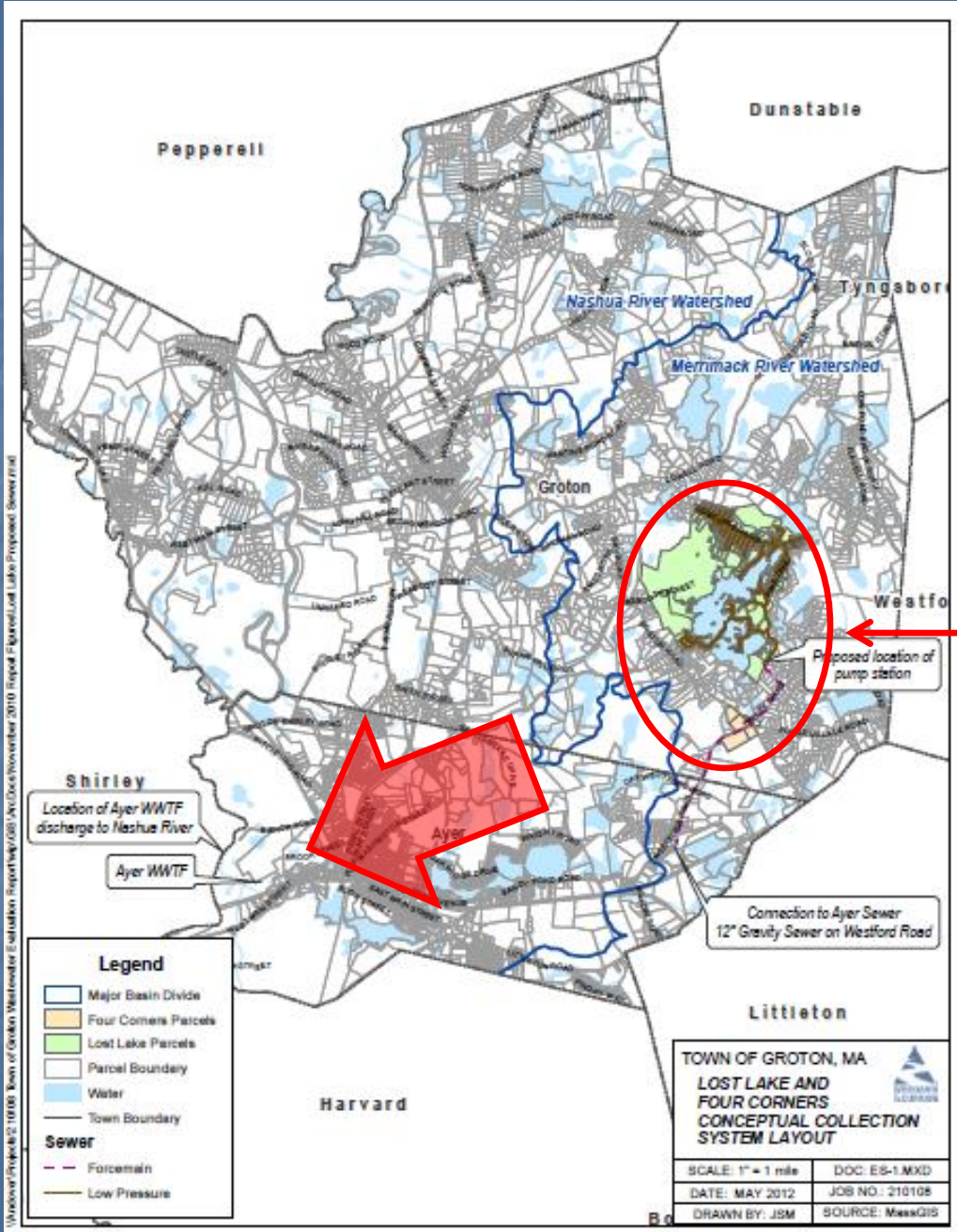# Groton
# Lost Lake Sewering
# IBT Insignificance
# Vote

Massachusetts
Water Resources Commission
October 11, 2012

Areas to be sewered (green and tan)

# Proposed Transfer

- Sewering around Lost Lake, Groton

- Merrimack Basin to Nashua Basin

- Sewer District connection to Ayer WTTP

- 0.363 MGD Max Day, 0.125 MGD Ave Day

# Donor Basin/Source Water

- Residential area served by private wells

- Four Corners commercial area served by public water supply wells / Merrimack basin

- Residential and commercial properties use onsite private septic systems for wastewater disposal

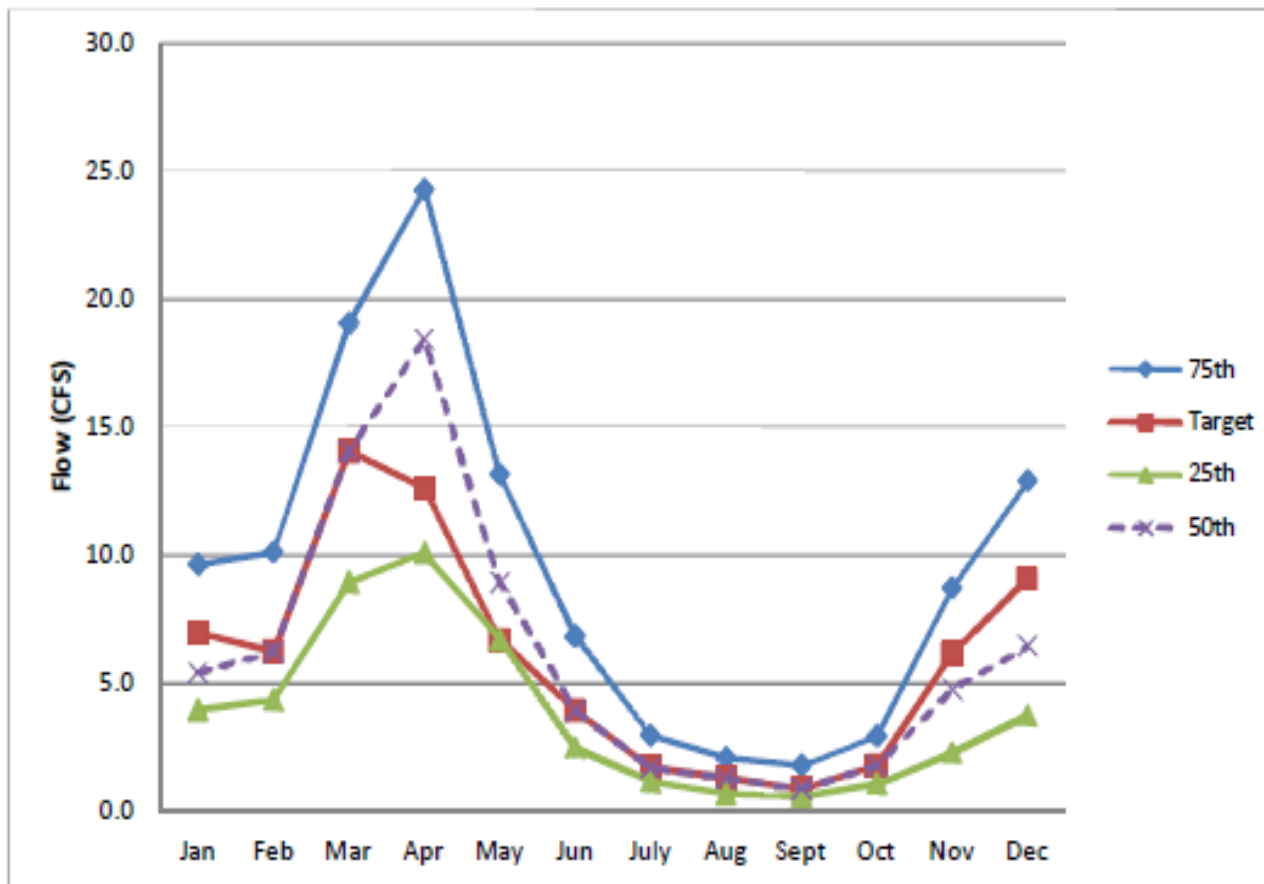- Wastewater will be transferred out of Merrimack Basin/Lost Lake drainage system (donor basin)

# IBT Insignificance criteria

* "Proposed flow augmentation provisions, flow protection thresholds, or other methods to protect instream flows" mitigate impacts of transfer on donor basin.
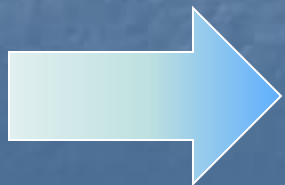
➡️ Dam Management Plan

# Lost Lake, Groton Summary of Release Plan

# Lost Lake, Groton Summary of Release Plan

| Month | Estimated Natural Flows * (cubic feet per second) | | | | | Target Releases cfs |
|---|---|---|---|---|---|---|
| | 10th pctl | 25th pctl | 50th pctl | 75th pctl | 90th pctl | |
| Jan | 1.92 | 3.97 | 5.42 | 9.64 | 13.80 | 7.0 |
| Feb | 3.16 | 4.37 | 6.24 | 10.13 | 15.10 | 4.3-10.1 |
| Mar | 5.89 | 8.94 | 14.07 | 19.06 | 24.74 | 8.9-19.1 |
| Apr | 7.63 | 10.11 | 18.43 | 24.27 | 28.89 | 12.6 |
| May | 4.70 | 6.68 | 8.94 | 13.15 | 16.53 | 6.7 |
| Jun | 1.59 | 2.47 | 3.93 | 6.84 | 11.40 | 2.5-6.8 |
| Jul | 0.56 | 1.14 | 1.70 | 2.97 | 3.52 | 1.1-3.0. |
| Aug | 0.30 | 0.69 | 1.29 | 2.07 | 2.72 | 0.7-2.1 |
| Sep | 0.26 | 0.57 | 0.87 | 1.77 | 2.21 | 0.6-1.8 |
| Oct | 0.52 | 1.06 | 1.79 | 2.94 | 6.14 | 1.1-2.9 |
| Nov | 1.40 | 2.30 | 4.75 | 8.73 | 12.20 | 6.2 |
| Dec | 2.11 | 3.75 | 6.46 | 12.91 | 15.51 | 9.1 |
| Drought | N/A | N/A | N/A | N/A | N/A | 0.19 |

# Lost Lake Dam Management Plan Part of the "Project as Proposed"

- Instream flow mitigation for IBT Act

- Monthly release rates (flows)

- Release mechanism to be installed

- Flow monitoring (pre-and post-sewering)

- Lake level monitoring (pre-and post-sewering)

- Outdoor Water Use Restrictions

- Annual Reporting to WRC

# Dam Management Plan

- Provides river flows in natural seasonal range

- Likely increases low flows as no releases currently occur

- *  "Proposed flow augmentation provisions, flow protection thresholds, or other methods to protect instream flows" mitigate impacts of transfer on donor basin.

# Summary

- Recommendation for project as proposed for approval under insignificance

- Improves existing flow conditions

- Provides for outdoor water restrictions to maintain instream flows

- (Improves water quality as a side benefit)