

## Parker-Ipswich-Essex River Watersheds Net Zero Water Use Tools

<b>Policy &amp; Land Use Tools</b>
Establish a temporary inter-departmental Working Group to implement the recommendations and tools in this toolkit
Adopt a Water Neutral Growth Bylaw or Ordinance that requires new development and re-development projects to offset their projected additional water demand to the extent feasible and offset the rest. Draft a custom Bylaw using the Alliance for Water Efficiency Water Neutral Growth Tool <a href="#">here</a> .
Adopt a Water Use Mitigation Program (WUMP) or “Water Bank” based on the model <a href="#">here</a> (or join a regional WUMP) designed to offset at least 2 gallons of exiting use for every one gallon of new water use proposed.
Conduct a thorough audit of the local zoning and land use regulations to identify opportunities to reduce water use through the benefits of Green Infrastructure and Low Impact Development (LID) utilizing Mass Audubon’s Bylaw Review Tool <a href="#">here</a> .
Conduct a town-wide analysis of soils using GIS to identify and prioritize important groundwater recharge zones within the watershed of all public water supplies. Create a groundwater protection zoning overlay for these areas that prohibits development that would negatively impact groundwater recharge in any way.
<b>Water Conservation and Mitigation Tools</b>
Conduct a Water Use Profile analysis of all water customers to inform water conservation & mitigation strategies utilizing the <i>Greenscapes coalition</i> as a resource. Based on the profile: <ul style="list-style-type: none"> <li>● Conduct customer-specific water conservation outreach on the top 10% of commercial customers and conduct water audits on the highest users.</li> <li>● Implement DEP’s Healthy Lawn, Happy Summer <a href="#">Toolkit</a> with the top 15% of residential water customers.</li> </ul>
Implement seasonal water use restrictions based on the ecological flow trigger established for the USGS stream gage closest to the municipality.
Conduct an M-36 Audit to inform a comprehensive unaccounted for water use (UAW) reduction plan and implement a rigorous leak detection and repair program with a goal of achieving 6% UAW or less. Because of the benefit to the municipal system, the public leak detection program should include and prioritize service connections on private property.
Covert all water meters to <a href="#">SMART</a> meters and fully utilize all water-reduction tools that the new Smart Meter system makes available.
Convert to monthly water billing (to provide near time customer feedback) and establish conservation-oriented seasonal <i>and</i> an increasing block rate price structure with a sufficient number of blocks to incentivize the reduction in discretionary water use.
Establish a water conservation incentive program to pay for residential and commercial water audits, rebates for fixture upgrades, rain barrels and other measures.

## Net Zero Water Use Tools

## PIE-Rivers

### Watersheds

Monitor the Town's Residential Gallons uses Per Capita Per Day (RGPCD) to ensure that it is a steady declining trajectory until it reaches and sustains a level of 42 or less.
Conduct a water audit of all municipal and school buildings and outdoor use, implement measures to maximize the efficient use of water, educate municipal staff on water conservation practices, and prominently interpret water-saving projects and activities to the public.
Prohibit the installation of new underground irrigations systems and offer a generous rebate program for the decommissioning of existing underground irrigation systems.
Increase the municipal capacity to enforce its water savings activities and regulations.
Expand participation in/optimize use of the Greenscapes North Shore Coalition, the Parker-Ipswich-Essex Rivers Partnership (PIE-Rivers) water conservation Task Force to increase municipal capacity to manage water neutral growth programs and initiatives.
Increase participation in the MA Legislatures Ipswich River Task force to pursue regional solutions and alternate sources of water to increase the resiliency of local municipal water supplies.
Implement a private well bylaw based on the model <a href="#">here</a> so that private withdrawals are subject to the same rules as the public water supply.
Implement other relevant water conservation standards <i>and</i> recommendations in the <a href="#">2018 Massachusetts Water Conservation Standards</a> .