

Update on Watershed TMDL Implementation Issues



Pleasant Bay Resource Management Alliance

November 2006

Alliance Steps toward Nutrient Management

- 1998: RMP identifies threat of nutrient overloading
- 2000-Present: Water Quality Monitoring Program
- 2003-2006: initiate bay-wide focus for MEP; coordinate expanded study
- 2005- 2006: Review and comment on MEP and TMDL process and documents; convene watershed workgroup to develop watershed-wide implementation strategies

Status of MEP and TMDL

- MEP Final Technical Report issued May 2006
- Draft TMDL public comment period closed October 20th
- Final TMDL and Response to Comments anticipated November 20th

Implications of TMDL

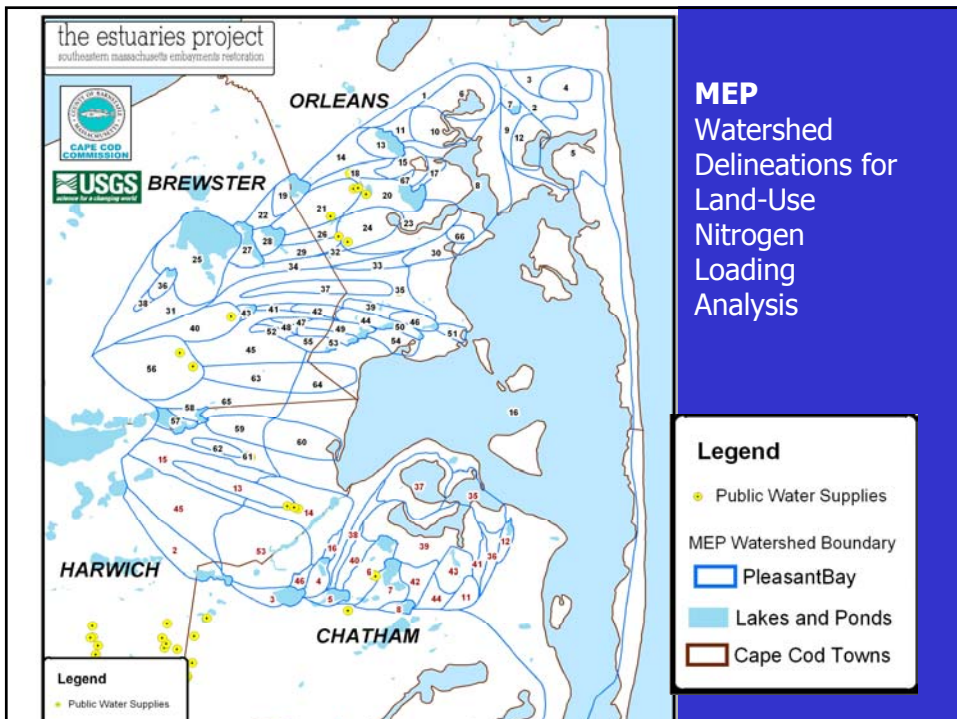
- Provides the regulatory targets for CWMP
- Provides one scenario of nutrient load reduction to achieve targeted thresholds needed for restoration

Why a Watershed Approach?

- Pleasant Bay is a complex system with many shared subwatersheds.
- Shared planning, monitoring, and solutions may assist towns in achieving targeted thresholds in a more cost effective manner.

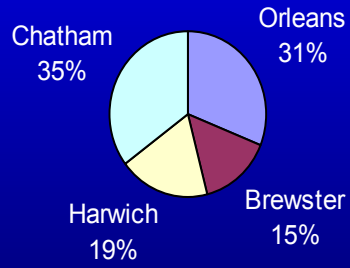


Courtesy of Stearns & Wheeler

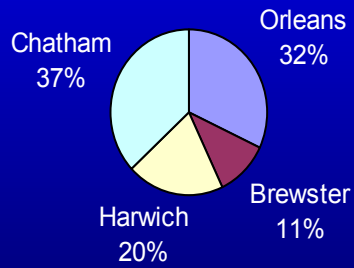


MEP
Watershed
Delineations for
Land-Use
Nitrogen
Loading
Analysis

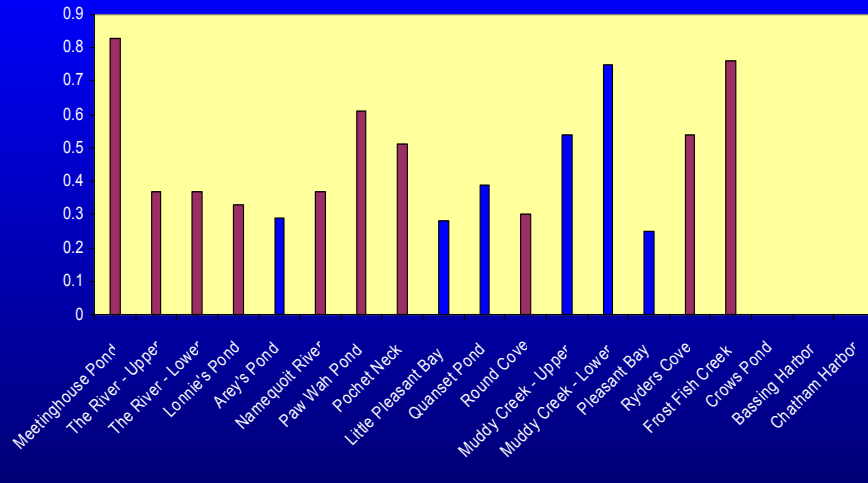
Unattenuated Town Loading Allocations Pleasant Bay Watershed



Attenuated Town Loading Allocations Pleasant Bay Watershed



Percent Load Reduction Targeted for Pleasant Bay Subwatersheds



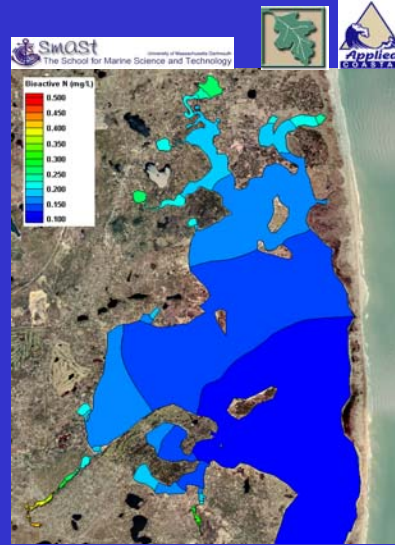
Focus of Watershed Approach

- Coordinated planning...looking at ways to coordinate relevant sections of watershed towns' CWMPs
- Estimated completion of Town CWMPs
 - Chatham 2007
 - Orleans 2008
 - Harwich 2010
 - Brewster TBA



Focus of Watershed Approach

- Modeling...
looking at system-wide modeling to identify the most cost effective solutions to achieve targeted thresholds and to augment town CWRMP planning



Focus of Watershed Approach

- Monitoring & Reporting...
developing protocols for monitoring, analysis and documentation of eelgrass health, benthic health and water column nitrogen.



Photo courtesy of Jan Schneider

Focus of Watershed Approach

- Cost sharing....exploring ways to determine how costs of planning, monitoring, and facilities implementation will be shared.



Focus of Watershed Approach

- Working with MassDEP to address on-going questions concerning permitting, point of compliance, reporting and adaptive management.





COMMENTS/QUESTIONS?