

Town of Oak Bluffs

Comprehensive Wastewater Management Planning Project (CWMP)

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Agenda

- 1 Planning History
- 2 Massachusetts Estuaries Project Reports
- 3 CWMP Process
- 4 Project Schedule



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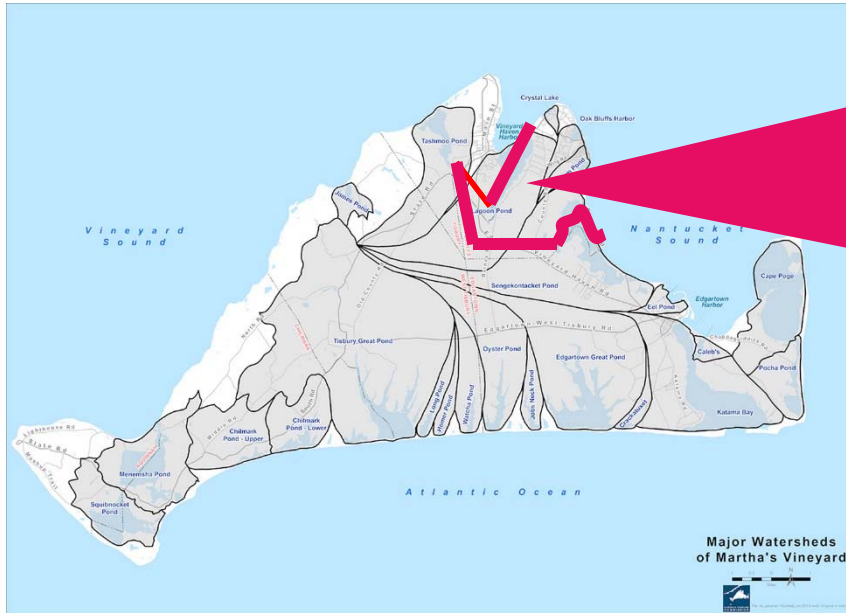


History

- Oak Bluffs initiated wastewater planning efforts in mid 1970's
- A Comprehensive Wastewater Management Plan (CWMP) was accepted by the Town at Special Town Meetings in 1998
- CWMP recommended construction of a centralized treatment facility
 - Completed in 2002
 - Sized to treat wastewater from lots requiring offsite solutions (small lots)
 - Equipment has 20 year design life
 - Facility approaching design capacity



History



Centralized treatment facility



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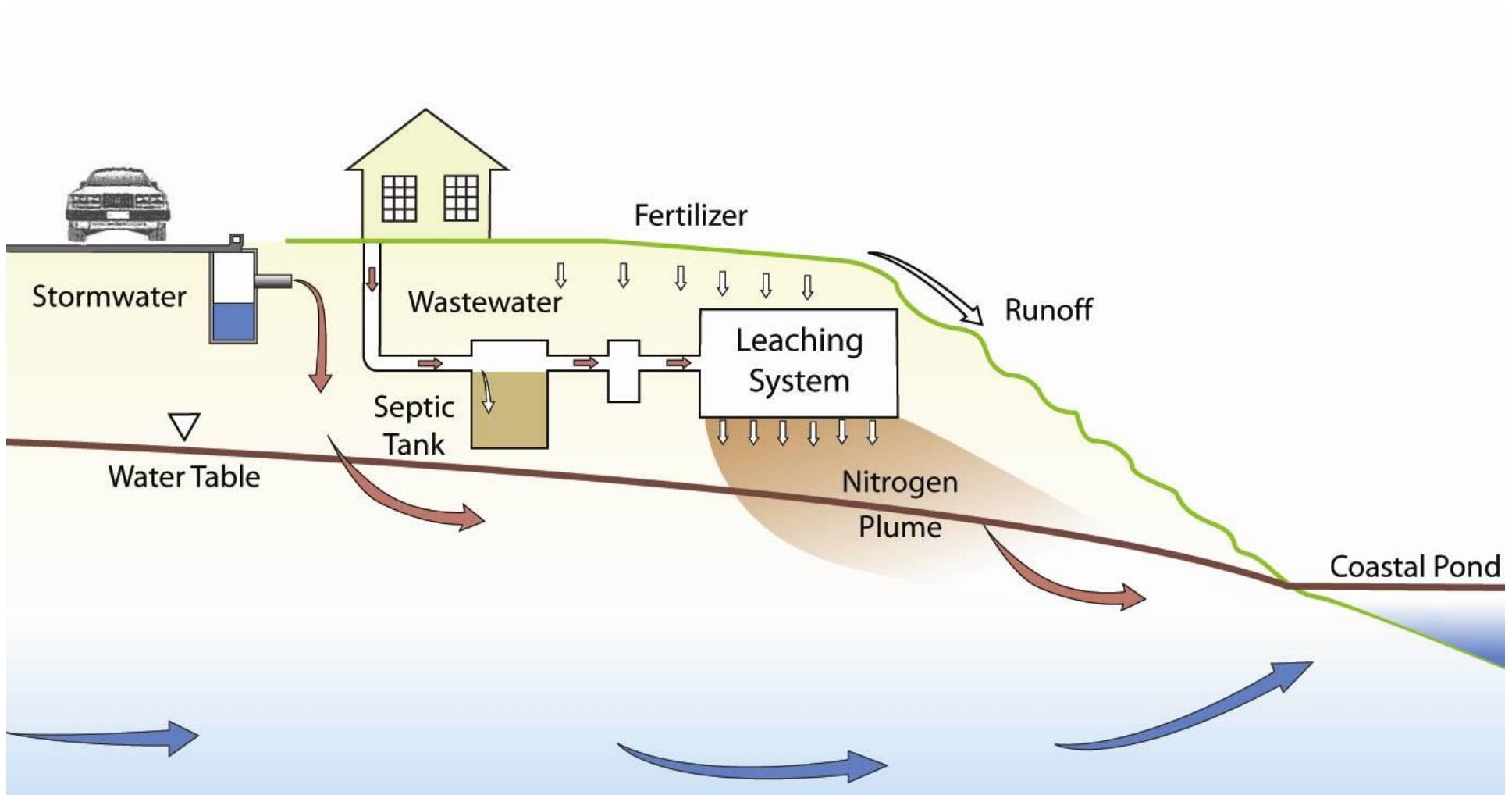


Massachusetts Estuaries Project (MEP)

- MEP Reports developed by MassDEP and UMass/SMAST
- Classifies nitrogen sensitivity for SE Massachusetts coastal bays and estuaries
- Total Maximum Daily Limits (TMDLs) established based on findings of reports
- TMDLs established for:
 - Lagoon Pond
 - Sengekontacket Pond
 - Farm Pond
 - Lake Tashmoo (Draft)



Nitrogen Impacts



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CWMP Project

Goals:

- Comprehensively and effectively manage wastewater and nutrients in the Town of Oak Bluffs
- Improve water quality
- Protect public health
- Sustain and enhance the Town's economic vitality and property values
 - Valuation of the Ecosystem Services Provided by Oak Bluffs' Public Coastal Resources (presented at 9/2017 Conservation Committee Meeting)



CWMP Project

- Build upon work completed for the original CWMP, Lagoon Pond OB/Tisbury Joint Committee, Martha's Vineyard Commission and others
- Initiate planning for nutrient impacted estuaries
- Evaluate and recommend wastewater management solutions, to include a combination of:
 - Centralized collection and treatment
 - On-site Innovative/Alternative Systems
 - Sewering alternatives (shellfish, permeable reactive barriers, etc.)
- Determine most cost effective solution for wastewater needs



CWMP

Needs Assessment (Phase I) - Establish projected wastewater needs for 20 year planning period

Alternatives Analysis (Phase II) – Review alternatives to meet wastewater needs

Recommended Plan (Phase III) - Develop recommended plan to meet wastewater needs



CWMP

Needs Assessment (Phase I)

- Defines Town's goals for WW management
- Initial assessment of Town wastewater needs
- Evaluation of existing conditions
- Review of regulatory requirements
- Projection of future conditions
- Comparison of goals and conditions to the WW limitations in the Town

Alternatives Analysis (Phase II)

Recommended Plan (Phase III)



CWMP

Needs Assessment (Phase I)

Alternatives Analysis (Phase II)

- Development of alternative solutions for established needs
- Screening to identify most feasible alternatives - feasible solutions (technical as well as management) are then grouped into a limited number of alternative scenarios for detailed evaluation.

Recommended Plan (Phase III)



CWMP

Needs Assessment (Phase I)

Alternatives Analysis (Phase II)

Recommended Plan (Phase III)

- Detailed alternatives evaluation cost estimate development
- Development of a Recommended Plan to meet established wastewater needs



Public Participation

- [Environmental review \(MEPA\)](#) - Preparation of Draft and Final Environmental Impact Reports
- [Public Involvement](#) - Board of Selectmen, Wastewater Commissioners and a Public Hearing
- [Website](#)

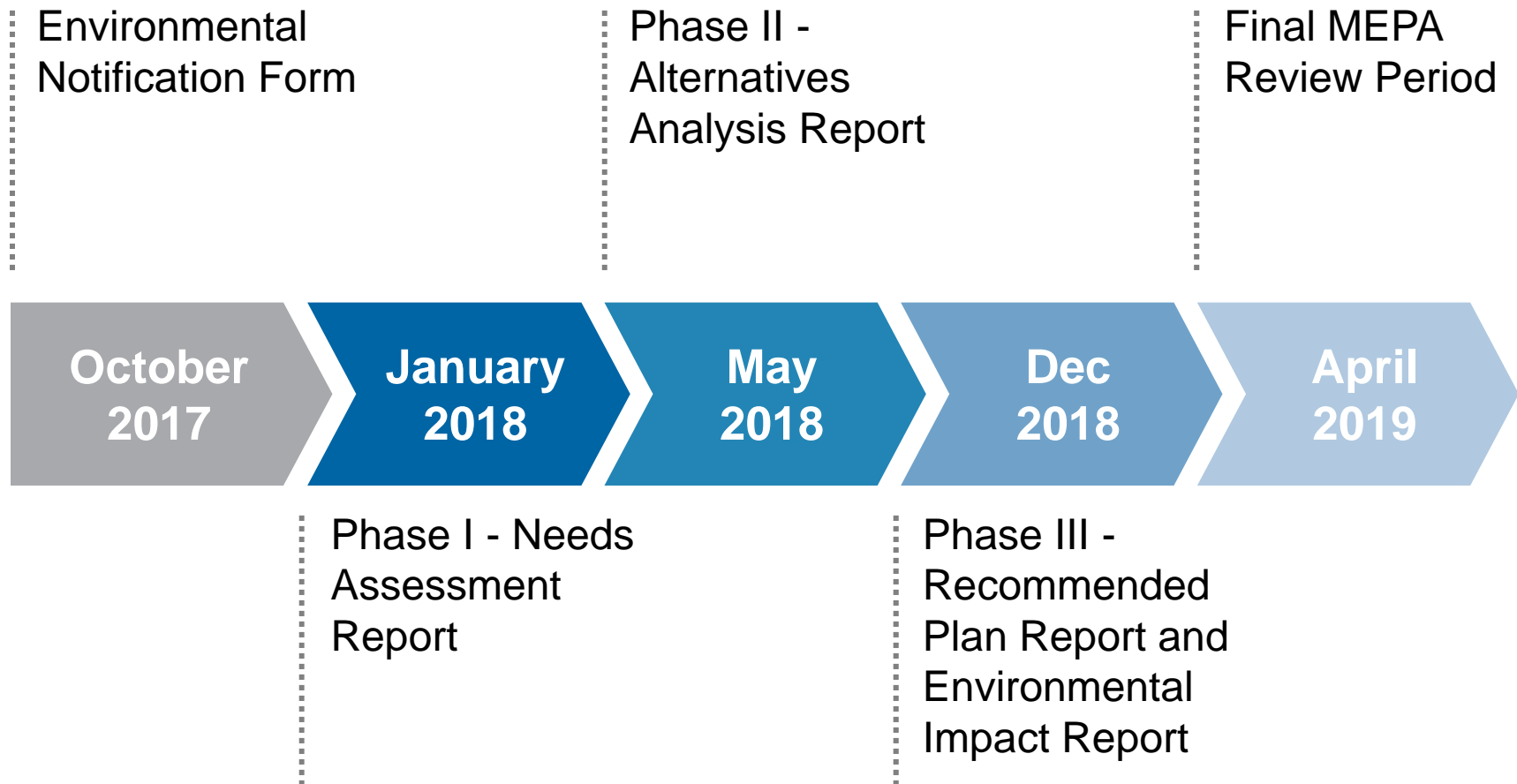


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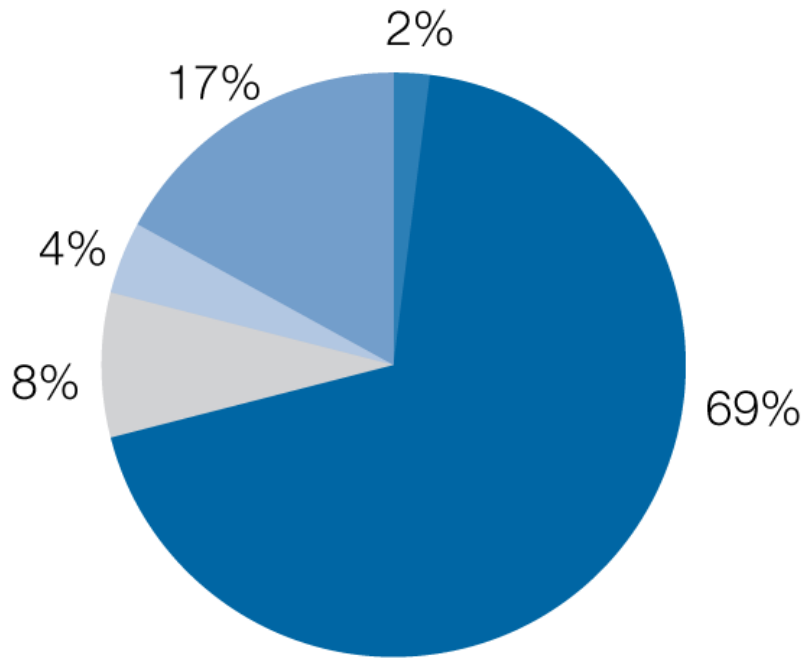
Tentative Project Schedule



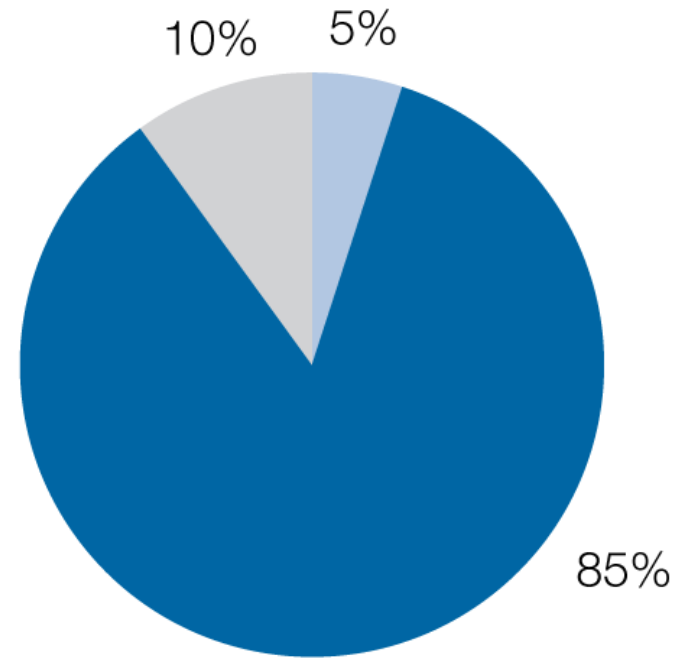


Questions and Discussion

Typical nitrogen sources and contribution percentage



Total Sources



Controllable Sources

- Wastewater
- Fertilizers
- Runoff from roads and roofs
- Atmospheric deposition on ponds & bays
- Atmospheric deposition on natural (forest) areas



Background

- Excess nitrogen is the main cause of decline in estuaries
- Principal sources of nitrogen:
 - Septic Systems
 - Fertilizers
 - Road Runoff



Oak Bluffs

