



# **Orleans Comprehensive Wastewater Management Plan**

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**Commission DRI Public Hearing  
Staff Report  
March 1, 2011**

## **Presentation Overview**



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- **Project Description**
  - **Commission Jurisdiction**
  - **Commission Staff Analysis of Project**
    - Natural Resources - Wetlands, Wildlife, Open Space
    - Coastal Resources
    - Heritage Preservation/Community Character
    - Transportation
  - **Conclusions**

## **Project Description**

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- **Comprehensive Wastewater Management Plan**
- **Covers all of Orleans**
- **Primary focus is nitrogen management**
- **Preferred Alternative involves reuse and expansion of the existing Tri-Town Septage Treatment Plant**
- **Construction of new treatment capacity**
- **Phased construction sewer mains**
- **Cluster treatment systems in key sub-watersheds**

## **Commission Jurisdiction**

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- **Required preparation of an Environmental Impact Report (EIR)**
- **Development of Regional Impact (DRI)**
- **Section 2(d)(i) of *Enabling Regulations***
- **Secretary of Executive Office of Energy and Environmental Affairs issued a Certificate on January 28, 2011 completing MEPA process**
- **Section 7(c)(iv)[1] of *Enabling Regulations***
- **Hold a hearing on DRI within 45 days of Certificate**

## **Staff Analysis: Natural Resources Wetlands and Wildlife Habitat**

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- Preferred Alternative: Reuse Tri-Town site
- Mapped as endangered species habitat and contains or abuts wetland resources
- Potential impacts to Eastern Box Turtle addressed
- Revised site design - Maximize use of existing facility and disturbed areas
- Determination of "No Take" from state Natural Heritage and Endangered Species Program
- Use disturbed areas along rights of way for the majority of sewer line construction/installation
- Propose wetland replication to address possible impacts
- MPS WET 1.1 does not allow wetland replication
- ✓ Recommend restoration of wetlands as potential mitigation for any wetlands impacts
- ✓ Town should describe wetland mitigation plans

## **Staff Analysis: Natural Resources Open Space**

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- Project components mapped as Significant Natural Resource Area (SNRA), including Tri-Town plant site
- Even with revised site design, reuse of plant site disturbs 4-5 acres of Box Turtle habitat
- RPP requires 8-10 acres of permanently protected open space in areas mapped as SNRA
- State Natural Heritage and Endangered Species Program may require a Conservation Management Plan
- ✓ Could address RPP open space requirements
- CWMP has a growth-neutral policy
- ✓ Could transfer Town-owned property to conservation as part of this policy

## Staff Analysis: Coastal Resources



- **Tri-Town site does not impact coastal resources, but some project components may impact dunes, beaches, and Land Subject to Coastal Storm Flowage (LSCSF)**
- ✓ **Staff suggests a variety of measures to address compliance with Coastal Resources MPS**
  - Work in LSCSF - avoid activities that increase flooding
  - New structures in FEMA A-zones should be elevated
  - New public infrastructure must show public benefit
  - Avoid construction that impacts Coastal Banks
  - Maintain at least 100 foot buffer to coastal wetlands
  - Wastewater effluent should avoid or minimize adverse impacts to eel grass and fish, shellfish, crustaceans and their habitats

## Staff Analysis: Heritage Preservation & Community Character



- **Massachusetts Historical Commission (MHC) has determined unlikely to impact significant archeological resources at Tri-Town site (12/20/10 letter)**
- **Town will conduct a survey for archeological resources at sites selected for Cluster systems**
- **Historic resources - Relates to aboveground structures within Old Kings Highway Historic District (OKHHD)**
- **Will be reviewed by MHC and OKHHD**
- ✓ **Likely to be consistent with RPP MPS for protection of archeological sites and historic structures and consistent with distinctive areas**

## Staff Analysis: Transportation Safety, Congestion, Trip Reduction

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- Estimate a reduction in septage truck trips to Tri-Town facility once upgraded (*Single/Final EIR*)
- ✓ Town should provide estimates of all daily and peak hour trips
- MPS TR1.2 & TR1.3 - Intersection safety analysis
- ✓ Safety analysis may not be warranted if less than 25 peak hour trips
- MPS TR1.8 - Sight distance analysis
- ✓ Tri-Town plant's driveway should be analyzed, to determine if it meets sight distance standards
- MPS TR3.1 - Level of Service analysis at site drive
- ✓ Conduct LOS at Tri-Town plant's site drive

## Conclusions: Findings for Approval

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- **Section 7(c)(iii) of *Enabling Regulations***
- **Criteria for approval of DRIs**
  - Probable benefits greater than probable detriments
  - Consistent with Regional Policy Plan
  - Consistent w/Town's Local Comprehensive Plan
  - Consistent w/Local development bylaws
  - Consistent w/Districts of Critical Planning Concern (DCPC)
- **2/11/11 letter from George Meservey**
- **No DCPCs in Orleans - criteria not applicable**