



Town of

Orleans
Massachusetts

Orleans Water Quality Advisory Panel

Water Quality and Wastewater Planning

Program Status Update

June 14, 2017

Agenda

- ❖ **Approval of Meeting Minutes of April 12, 2017**
- ❖ **Public Comment**
- ❖ **Tri-Town Septage Treatment Facility Demolition Status Update**
- ❖ **Pleasant Bay Composite Nitrogen Plan: PBA Presentation & Orleans Engagement**
- ❖ **FY 2018 Work Plan: Current Project Status and Next Steps**
- ❖ **Key Board of Selectmen Decisions for Fall Special Town Meeting**
- ❖ **Other Items**
- ❖ **Public Comment**





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Tri-Town Septage Treatment Facility Demolition Update

Tri-Town Septage Treatment Facility Demolition Update

Status

- ❖ Decommissioning Plan ✓
- ❖ Design Phase ✓
- ❖ Bidding Phase ✓
- ❖ Funding Approved ✓

Next Steps and Decisions

- ❖ June 26, 2017 Vote to Award
- ❖ July and August – Contractor Submittals
- ❖ September 2017 through April 2018 – Demolition and Site Restoration





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Pleasant Bay Composite Nitrogen Plan: PBA Presentation & Orleans Engagement



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FY 2018 Work Plan: Current Project Status and Next Steps

- a. Effluent Disposal Plan: Finalize Site Recommendations for ACWMP
- b. Downtown System Design and Contracting Approach
- c. Shellfish Program Status Update
- d. PRB Projects Status Update: Eldredge Park and Landfill
- e. Freshwater Ponds Action Plan
- f. Monitoring & Modeling Technical Support
- g. Cost Estimates, Financial Plan, Funding Mechanisms and Cost Allocation
- h. Amended CWMP Submittal Plan

Effluent Disposal Plan: Finalize Site Recommendations for ACWMP

Status

- ❖ Siting Screening and Study Technical Memorandum ✓
- ❖ Hydrogeologic Evaluation Proposals ✓
- ❖ Hydrogeologic Evaluation
 - Field Activities ✓
 - Analysis ✓
 - Computer Model ✓

Next Steps and Decisions

- ❖ Finalize Model Runs at Site 1/1A and Route 6 Exit 12
- ❖ Complete Hydrogeologic Evaluation Technical Memorandum
- ❖ Prepare Groundwater Discharge Permit Application
- ❖ Complete Additional Investigations Pending Results of Current Investigations
- ❖ Make Recommendation to the BOS





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Downtown System Design and Contracting Approach

Downtown System Design and Contracting Approach

Status

- ❖ Topographic Survey ✓
- ❖ Subsurface Investigation ✓
- ❖ Cultural Resource Evaluation ✓
- ❖ Collection System ✓
- ❖ WWTF Process Selection ✓
- ❖ Design Data ✓
- ❖ Program Cost Estimate ✓

Next Steps and Decisions

- ❖ Complete Technical Memorandums
- ❖ Update Project Cost File for Input into Financial Model
- ❖ Evaluate the Impact on the Downtown Area from Meetinghouse Pond Area Wastewater Flows



Downtown System Contracting Approach

Factors Affecting Design/Build/Operate Feasibility

- ❖ **Size of project:**
 - **Ability to attract competitors based on financial incentive to invest in expensive proposal**
 - **Fixed costs to town of legal, financial, management becomes larger % of potential benefits of D/B/O**
- ❖ **Certainty of Project Definition: 20-35% design preferred to reduce proposal cost yet allow innovation by successful firm**
- ❖ **Basic Design Information Required: Soils, geotechnical, topography, utilities information needed for “firm price” bid by proposers**
- ❖ **Prospect for Future Changes in Project Scope: The more “phasing” the more risk to Town and potential contractors**
- ❖ **Interest of client in D/B/O process: 25% design is “skin in the game”**
- ❖ **Elimination of MHP 25% design affects overall feasibility of D/B/O as option for FY2018**





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Shellfish Program Status Update

Shellfish Program Status Update

Status

- ❖ Lonnie's Pond
 - O&M and Monitoring ✓
 - Expansion ✓
 - Year 1 Report ✓
- ❖ Kent's Point – Withdrawn Due to Regulatory Factors
- ❖ Existing Grant Expansion – On Hold Pending Management Plan
- ❖ Town Cove Quahog Inventory – On Hold Pending Management Plan

Next Steps and Decisions

- ❖ Prepare Management Plan
- ❖ Lonnie's Pond
 - Perform O&M and Monitoring
 - Prepare Year 2 Report
- ❖ Kent's Point – N/A
- ❖ Existing Grant Expansion - Develop Future Implementation Planning Program
- ❖ Town Cove - Develop Future Implementation Planning Program





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PRB Projects Status Update (Eldredge Park and Landfill)

PRB Projects Status Update - Eldredge Park

Status

- ❖ Monitoring Wells ✓
- ❖ Perform Quarterly Sampling and Analysis ✓
- ❖ Prepare Quarterly Report ✓

Next Steps and Decisions

- ❖ Perform Quarterly Sampling and Analysis
- ❖ Prepare Quarterly Report



PRB Projects Status Update - Landfill

Status

- ❖ Prepare Phase 1 Field Investigation Plan ✓
- ❖ Prepare Phase 1 Field Investigation Report ✓
- ❖ Coordinate with SMAST ✓

Next Steps and Decisions

- ❖ Finalize and Complete Phase 2 Field Investigation per AECOM/SMAST Scope
- ❖ Prepare and Implement Short-term Nitrogen Mitigation with DPW
- ❖ Define Long-term Nitrogen Management; Confirm impacts with MEP model analyses
- ❖ Obtain funding approval and Implement Long Term Nitrogen Mitigation





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Freshwater Ponds Action Plan



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Monitoring & Modeling Technical Support



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Cost Estimates, Financial Plan, Funding Mechanisms and Cost Allocation

Cost Estimates, Financial Plan, Funding Mechanisms and Cost Allocation

Status

- ❖ Develop Detailed Model with Functionality ✓
- ❖ Develop Initial Scenarios ✓
- ❖ Incorporate Implementation Phasing Program ✓
- ❖ Incorporate Parcel Level Data and Cost Allocation ✓
- ❖ Compare User Costs to EPA Affordability Benchmark (2% MHI) and Approved CWMP ✓

Next Steps and Decisions

- ❖ Enhance the Model
- ❖ Apply Update Program / Costs
- ❖ Confirm Legal and Administrative Feasibility of Financial and Cost Allocation Methods
- ❖ BOS and/or Finance Committee Workshops
- ❖ Recommend Cost Allocation and Financial Management Plan





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Amended CWMP Submittal Plan

Amended CWMP Submittal Plan

Status

- ❖ Preliminary ACWMP Update ✓
 - Current Activities
 - Comments
- ❖ Agency Coordination ✓

Next Steps and Decisions

- ❖ Update ACWMP
 - Proposed Activities
 - Comments
 - Incorporate New Information
- ❖ Prepare Notice of Project Change and Submit Late 2017 to Regulatory Agencies





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Key Board of Selectmen Decisions for Fall Special Town Meeting

Key Board of Selectmen Decisions for Fall Special Town Meeting

- ❖ **Effluent Disposal Plan for Downtown System**
- ❖ **Landfill – Long -Term Nitrogen Management Plan**
- ❖ **Financial and Cost Allocation Approach**
- ❖ **Downtown Project Procurement Schedule**





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Other Items and Public Comment

Other Items and Public Comment

❖ Recent and Proposed Public Information Activities

- Board of Selectman
 - June 14 , 2017 - Program Status Update and FY18 Approvals
 - TBD - Effluent Disposal; Landfill; Financial Model; and DBO Risk Workshops
- OWQAP
 - July 19, 2017
 - August 16, 2017
 - September 20, 2017
 - October 18, 2017
- Shellfish and Waterways Improvement Advisory Committee
 - June 13, 2017 - Management Plan
 - June 13, 2017 - Management Plan
- Orleans Brewster Eastham GW Protection District
 - June 26, 2017



Other Items and Public Comment (cont.)

❖ Recent and Proposed Public Information Activities (cont.)

- Finance Committee
 - July 13, 2017
 - August 10, 2017
 - September 14, 2017
- Special Town Meeting – October 23, 2017

❖ Status Reports and FAQ on Various Projects





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Thank You