



Town of

Orleans
Massachusetts

Board of Selectmen

Water Quality and Wastewater Planning

Draft Funding Article for Special Town Meeting

August 24, 2016

Draft Funding Article for Special Town Meeting Agenda

- ❖ Continued Planning and Engineering
- ❖ Adaptive Management Implementation
- ❖ Program Management



**Draft Funding Article for Special Town Meeting
Budget Change Summary**

Item Number	Description	03/23/16 Budget	08/19/16 Budget	08/24/16 Budget
1	Continued Planning and Engineering	\$1,827,500	\$3,292,500	\$2,732,600
2	Adaptive Management Implementation	\$353,000	\$420,500	\$420,500
3	Program Management	\$225,400	\$353,900	\$353,900
	Totals	\$2,405,900	\$4,066,900	\$3,507,000



**Draft Funding Article for Special Town Meeting
Scope Change Summary From March 23, 2016 Budget**

- Effluent Disposal
- Aquaculture Expansion
- Permeable Reactive Barriers - 1,4 Dioxane at Town Landfill
- Nitrogen Reduction Barriers
- Adaptive Management Monitoring
- Freshwater Ponds Evaluation
- P3 Development and Financial Analysis
- Public Participation



**Draft Funding Article for Special Town Meeting
Explanation of Scope Revisions From March 23, 2016 Scope
Continued Planning and Engineering**

Description	Components	Why Now?
1.a - Treatment and Disposal Site Investigations	<ul style="list-style-type: none"> • Effluent Disposal GeoHydro Evaluation <ul style="list-style-type: none"> ✓ Overland Way Parcel 1/1A - Supplements Existing GeoHydro to Verify Applicability ✓ Downtown – Site 1 	<ul style="list-style-type: none"> • Completion of ACWMP Requires Approvable Effluent Disposal Location(s)
1.b - NT Demonstration Projects	<ul style="list-style-type: none"> • Aquaculture <ul style="list-style-type: none"> ✓ Lonnie's Pond – Continuation and Expansion ✓ Quanset Pond – Implementation ✓ Grant Expansion – Evaluation ✓ Town Cove Quahog – Study 	<ul style="list-style-type: none"> • Meet MEP Reduction Requirement • Meet MEP Reduction Requirement • Optimize Local Shellfish Program • Determine Current Population and Recommend Improvement(s)



**Draft Funding Article for Special Town Meeting
Explanation of Scope Revisions From March 23, 2016 Scope
Continued Planning and Engineering (cont.)**

Description	Components	Why Now?
1.b - NT Demonstration Projects (cont.)	<ul style="list-style-type: none"> • Permeable Reactive Barriers Demonstration Projects <ul style="list-style-type: none"> ✓ Eldridge Park - Monitoring ✓ Town Landfill - Evaluation • Nitrogen Reduction Barriers <ul style="list-style-type: none"> ✓ 4 Pilot Studies 	<ul style="list-style-type: none"> • Continued Monitoring of Eldridge Park PRB to Verify Effectiveness • MassDEP Requirement to Address 1,4 Dioxane at Landfill • Need Replacement for Floating Constructed Wetlands • Availability of Current Barnstable County Grant • Requires Multi-Year Monitoring to Verify Applicability



**Draft Funding Article for Special Town Meeting
Explanation of Scope Revisions From March 23, 2016 Scope
Continued Planning and Engineering (cont.)**

Description	Components	Why Now?
1.c – Facilities Engineering – Downtown Area	<ul style="list-style-type: none"> • Develop Preliminary Design Report (25%) <ul style="list-style-type: none"> ✓ Obtain Topographic Survey ✓ Perform Subsurface Investigation ✓ Perform Cultural Resource Evaluation ✓ Update Collection System Type Evaluation and Preliminary System Configuration (Plan and Profiles) ✓ Update WWTF Process Selection ✓ Develop Design Data ✓ Summarize Existing Utilities ✓ Permit Requirements ✓ Update Program Cost Estimate 	<ul style="list-style-type: none"> • Traditional Technology Required for Wastewater Needs • Required to: <ul style="list-style-type: none"> ✓ Develop Cost-Effective System ✓ Reduce Current Program Risks ✓ Refine Program Cost Estimates (Reduce Contingency) ✓ Evaluate Cost Sharing • Necessary for Incorporation into Design-Build Proposal • Needed for Dedicated Local Funding • Needed for Federal and State Grant Support (Principal Forgiveness)



**Draft Funding Article for Special Town Meeting
Explanation of Scope Revisions From March 23, 2016 Scope
Adaptive Management Implementation**


Description	Components	Why Now?
2.a and 2.b - Water Quality Monitoring	<ul style="list-style-type: none"> • MEP Compliance • Project Baselines 	<ul style="list-style-type: none"> • Verify Effectiveness of Demonstration Projects • Required for MEP Compliance
2.f - Cedar Pond and Rock Harbor Creek Resolution	<ul style="list-style-type: none"> • SMAST Support • Develop EIR • Water Quality Monitoring 	<ul style="list-style-type: none"> • Required EIR for Cedar Pond for Weir Change • Required Increased Monitoring by Agencies
2.g - Freshwater Ponds Management Plan	<ul style="list-style-type: none"> • Update Water Quality Database • Develop Freshwater Management Plan 	<ul style="list-style-type: none"> • Part of Nutrient Removal Program and Consensus Plan • Needed so that Implementation Action Can be Taken and Estimated Cost Identified



**Draft Funding Article for Special Town Meeting
Explanation of Scope Revisions From March 23, 2016 Scope
Program Management**

Description	Components	Why Now?
3.b - Public Engagement Coordination	<ul style="list-style-type: none"> • OWQAP Meetings • Stakeholder Workshops • NT Project Workgroups • Frequent Status Reports 	<ul style="list-style-type: none"> • Continued Sharing of Information • Required to Make Informed Decisions
3.c - P3 Development and Financial Analysis	<ul style="list-style-type: none"> • Include Parcel Based Analysis • Refine Model for Various User Rates • Refine Model for Zoning Changes • Develop Model User Interface • Perform Additional Affordability Evaluations 	<ul style="list-style-type: none"> • Continued Interface with Downtown Businesses to ID Cost Sharing Options • Required to Provide the Users with Necessary Financial Information • Continue Support, as needed, to Ongoing Downtown Rezoning Discussion





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Thank You