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Linking Science with Local Solutions and Decision-Making

Update on “State Guidance for Alternate Nitrogen Reduction Strategies”

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Overview

- Why develop a Guidance?
- The State's Approach to Nutrient Reduction
- Steps for a Nitrogen Removal Project
- Alternate Nitrogen Control Strategies
- Conclusion

Why develop a Guidance??

EEA?

Is anyone listening??



DFG?

DEP?

Nutrient Reduction – Our Take

SOURCE CONTROL

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- **COMPREHENSIVE SOURCE CONTROL !**
- Need an Array of Solutions – both traditional and non-traditional; short- and long-term
- All options have environmental impacts – so What is Acceptable??
- Careful consideration & planning



Steps for Project Development

- STEP 1: Establish a Context
 - An individual project or part of a CWRMP?
 - How does project address total nitrogen loading ?
- STEP 2: Identify Components of the Project
 - Traditional and non-traditional
- STEP 3: Conduct Alternatives Analysis & Characterize Impacts



Steps for Project Development

- STEP 4: Estimate Nitrogen Removal
- STEP 5: Determine Credits toward TMDL Compliance
 - Project-specific Monitoring
 - Nitrogen & WQ; Environmental Impact
 - TMDL Compliance Monitoring
- STEP 6: Permitting Steps and Process
 - Pre-application discussion
 - Types of permits needed-local, state, federal, regional
 - Multiple town filings



Alternate Nitrogen Control Strategies

- Wetland Creation and Restoration
 - Wetland Creation
 - Restoration of Cranberry Bogs
- Inlet Widening, Culvert Improvements & Barrier Beach Breaching
- Nutrient Harvesting
 - Shellfish and Algae
- Freshwater Pond Dredging
- Groundwater Treatment through Permeable Reactive Barriers



Included within each Strategy

- Description of Strategy
- Benefits and Impacts
- Nutrient Removal Capability
- Key Information Needed for Review
- Monitoring Requirements



Conclusion



- State supports the use of non-traditional strategies as part of an overall approach to reduce N
- Alternative and Impact analyses are crucial
- Very interested in learning the effectiveness of these Demonstration projects over the long-term
- Will continue to be a key partner with local communities

Thank you!

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