PA 12-155 Scientific Methods Workgroup Updates

Connecticut Department of Energy and Environmental Protection





May 12, 2014



Dr. Peter Raymond, Yale University-Study Manager <u>CASE Project Staff</u> Richard Strauss-Executive Director

Terri Clark-Associate Director

- Private, nonprofit, public-service institution patterned after the National Academy of Sciences
- Provides unbiased, expert advice on science and technology-related issues to state government and other Connecticut institutions



CASE Scope of Work

- 1. How does phosphorus impact water quality in general and what factors are important in CT?
- 2. What is CT's current approach to addressing phosphorus to achieve water quality standards?
- 3. How can phosphorus impacts be measured in non tidal waters such that relevant stressors are considered to achieve water quality standards?
- 4. What methods are appropriate for use in CT to measure phosphorus impacts on water quality and aquatic life and other designated uses?



CASE Progress Report

- Have met 3 times with study work group since last Coordinating Committee meeting on February 10, 2014
- ✓ Indicated that "fact finding" is coming to close
- ✓ Switch focus to summarizing findings in draft form
- Future meeting will discuss straw proposal for response indicators



February 24, 2014 CASE Meeting

- Warren Kimball MA DEP Massachusetts Nutrient Management Framework
- Ralph Abele and Dave Pincumbe- USEPA Nutrient Limits EPA Region 1
- Rowland Denny and Chris Malik- DEEP Updates from Workgroups 1 and 3
- Peter Raymond- Research Team Update



March 26, 2014 CASE Meeting

- Part A-

Dr. Jeroen Gerritsen and Dr. Mike Paul- Tetra Tech Biological Condition Gradient – Partitioning Causation of Confounding Variables

- Part B

CLOSED SESSION – STUDY COMMITTEE ONLY Committee Discussion – Brainstorming Session Peter Raymond, Study Manager



May 1, 2014 CASE Meeting

- Dr. Mike Suplee MT DEQ
 Montana's Approach to Phosphorus: Combined Criteria
 Implementation Scheme
- Dr. Tom Danielson ME DEP
 Maine's Approach to Phosphorus: Combined Criteria Implementation Scheme
- David Keiser CASE Committee Member
 An Economics Approach to Measuring the Impacts from Phosphorus
- Peter Raymond Study Manager- Research Team Update



Thoughts on Quinnipiac River from CASE

- Investigate sediment concentrations of phosphorus in the system
- Sampling water chemistry from tributaries could help quantify nonpoint source load to get at land management
- Continuous dissolved oxygen could be a helpful response variable to measure
- New technology- Isotopes for "fingerprinting" sources of phosphorus

