

Scope of Work: Workgroup 2 Project

Timeframe: November 2013 – September 2014

Tasks:

- 1. How does phosphorus impact water quality in general and what factors are important in Connecticut?**
 - a. Develop a conceptual model diagram that graphically depicts the relationship between sources of phosphorus and effects on aquatic life and other designated uses.
 - b. Provide an explanation of other stressors that may contribute to eutrophication and impairment of aquatic life uses and other designated uses and describe the relative importance of excessive phosphorus to impairment of such uses.
- 2. What is Connecticut's current approach to addressing phosphorus to achieve Water Quality Standards?**
 - a. Identify relevant CT Water Quality Standards, such as the narrative phosphorus standard and narrative biological condition standard.
 - b. Explain the aquatic life assessment methodology process in CT CALM and how it relates to the narrative biological condition standard. Identify elements of methodology that may be related to phosphorus.
 - c. Provide an overview of the CT Statewide Phosphorus Strategy for Non-Tidal Waste-Receiving Streams
- 3. How can phosphorus impacts be measured in non-tidal waters such that relevant contributing stressors are considered in order to achieve Water Quality Standards?**
 - a. Discuss the landscape of methodologies including any existing examples of site-specific applications.
 - b. Consider methodologies being used or under consideration.
 - c. Discuss the pros and cons of each methodology in terms of application in CT.
- 4. What methodologies are appropriate for use in Connecticut to measure phosphorus impacts on water quality and aquatic life and other designated uses?**
 - a. Identify the method or methodologies best suitable for CT. Recommend a method or methodologies.

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- b. Identify how the methodology is used to assess the site-specific conditions of a water body and determine the level of phosphorus needed to attain aquatic life uses and water quality standards given the measurement of other relevant response variables.
- c. Identify the method by which to determine that an acceptable level of phosphorus has been achieved in a water body as measured by specific water quality parameters which are related to phosphorus and biological conditions, while recognizing the site-specific conditions of a water body and impacts of other response variables.
- d. Identify the methods, tools and data needed to apply the method identified in 4a. above.
- e. Identify what existing available CT data may be relevant and used to implement such an approach in an example water body.