Nutrient Criteria Development Process for HRL

**August 2015**

- **State Designated Use(s) and Water Quality Goals**
  - Current designated uses and classifications
  - Define HRL water quality goal(s)

- **Refine HRL WQ Goal(s)**
  - Narrative statement reflective of protecting designated use(s)
  - NOTE: this serves as a reminder of why we’re coming up with and choosing the criteria we are

**October/December 2015**

- **Brainstorm Potential Criteria**
  - Come up with way(s) to protect the use (numeric, narrative, both) - measurable & most sensitive

**February/April 2016**

- **Analysis/Approach**
  - Select approach to derive criteria: reference conditions, stressor-response, mechanistic model, other...reflective of protecting designated use(s) - magnitude, frequency & duration
  - Fulfill any data/research needs

- **Develop Conceptual Model**
  - Shows relationship between nutrients and criteria - EX: algal blooms, organic carbon, dissolved oxygen, chlorophyll a, etc.

**December 2015**

- **Generate Recommended Indicator List**
  - Select the criteria that are protective of the most sensitive use (will be protective of all uses but possibly at different levels)
  - ID any data gaps

**July 2016**

- **Develop Estimates for Criteria & Assessment Protocols**

**July/September 2016**

- **Technical Support Document Preparation**
  - Document summarizing the science behind proposed criteria
  - Due September 2016
Definitions and Acronyms

**Analysis/Approach** - Select an approach to derive criteria (Ex: Reference condition approach, Stressor-response approach, Mechanistic modeling, etc.) that allows you to compute criteria.

**Criteria** - Elements of state water quality standards expressed as constituent concentrations, levels, or narrative statement, representing a quality of water that supports a particular use. When criteria are met, water quality will generally protect the designated use. (See: 15A NCAC 02B)

**Conceptual Model** - A visual representation of key relationships between nutrients and assessment endpoints. Illustrates linkage between causal and/or response variables and what is being protected (i.e., designated use).

**Designated Use(s)** - Those uses specified in state water quality standards for each waterbody or segment such as: recreational uses; water supply; the propagation and growth of a balanced, indigenous population of aquatic life; and protection of wildlife; are generally stated as "fishable and swimmable" uses. North Carolina refers to the designated use as a “surface water classification”. (See: 15A NCAC 02B)

**Water Quality Goal** - Narrative criteria or statement reflective of protecting a designated use.