FY 2015 DWR Modeling and Assessment Branch Prioritization of Impaired Waters

This prioritization framework was developed to identify North Carolina's prioritization goals as required by EPA's Long-Term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program. This long-term vision was developed jointly by states (including NC), the Association of Clean Water Administrators, and EPA. Additionally, the long-term vision has been incorporated into Section 106 grant work plan for North Carolina.

North Carolina's prioritization of impaired waters for TMDL development or alternative restoration practices is based on a twofold approach:

1. A point-based systematic ranking of waters including:
    a. Waterbody classification
    b. Number of impairments for that waterbody
    c. Cumulative drainage area size for the waterbody
2. Applying DWR staff interpretation of the resulting ranking of waters with factors including:
    a. Known public interest
    b. Knowledge of willing stakeholders in the watershed to assist with restoration
    c. Knowledge of natural processes or known stressors in the watershed
    d. Emerging Division priorities

The systematic ranking of impaired waters is based on a point system involving the waterbody classification, number of impairments, and drainage area size. This ranking begins with waters from categories 4 and 5 (impaired waters) of the 2014 Integrated Report.

Exclusions
Toxic impairments (Arsenic, Copper, Mercury, Nickel, PCB, Toxic Impacts, Zinc), Fish Tissue Mercury, and Shellfish Prohibited are excluded from the ranking for the following reasons:

- Toxic impairments typically have not been selected for TMDL development or alternative restoration as data on these impairments have largely not been collected since 2007. Toxic impairments will be included after NC adopts revised criteria for metals and is able to collect and assess new data on these waterbodies.
- In addition to the statewide mercury TMDL, a permitting strategy and state air quality laws will ensure that NC's mercury reductions are met and maintained.
- Prohibited shellfish closures are not based on water quality data. These are administrative closures based on surrounding marinas, NPDES discharges, or land uses that NC DHHS deems potentially damaging to water quality near shellfish beds.
- Only category 5 waters need a TMDL or alternative restoration plan however both category 4 and 5 waters were used in this ranking as this list may be used for purposes other than TMDL development.

Steps
The following steps were used to develop the systematic ranking:

1. Starting with the pool of impaired waters described above, each waterbody is assigned points based on its respective classification. The classification ranking is intended to give higher priority to waters that have greater economic and social importance. Assigning higher points for water supply

watersheds is also consistent with one of EPA's regional and national priorities - source water protection. The points received are based on classifications using the following scale:

Class	Points	Class	Points
B	10	SB:#	10
C	1	SC	1
C:+	1	Sw	1
CA	0	Sw:+	1
CA:*	0	Tr	5
HQW	5	Tr:+	5
HQW:@	5	WS-II	10
NSW	3	WS-III	10
NSW:+	3	WS-IV	10
ORW	5	WS-IV:*	10
SA	5	WS-IV:+	10
SB	10	WS-V	10

For example if a waterbody was classified as B;Tr (Primary recreation and trout waters) it would receive 15 points. For a full description of abbreviations and classifications see http://portal.ncdenr.org/web/wq/ps/csu/classifications.

2. Each waterbody receives points based on the number of Category 5 waters listed within the pool of waters used for this exercise. This represents the severity of degradation for the waterbody by giving higher priority to waters with multiple impairments. The points assigned are the number of impairments x 2. For example, if a waterbody has two Category 5 impairments it will receive 4 points. (Only category 5 impairments are considered as a way to give higher priority to waters that do not have a restoration plan yet.)

3. Each waterbody receives points based on its cumulative drainage area. Smaller cumulative drainage areas were given higher points as a restorability factor, in that pollutants are easier to identify in a smaller watershed and improvements in water quality due to restoration activities are more likely to be detected. The points scale is as follows:

   Drainage areas <=25 sqmi = 10 points
   Drainage areas 26-50 sqmi = 7 points
   Drainage areas 51-99 sqmi = 5 points
   Drainage areas 100-200 sqmi = 3 points
   Drainage areas > 200 sqmi = 0 points

4. The points for each waterbody based on these criteria are added up and those with the highest total are considered to be the highest priority.

5. Flexibility and application of DWR staff interpretation: Important factors including stakeholder and public interest, staff knowledge of stressors in the watershed, and emerging division priorities are

not currently stored in a numeric format (or database) and are difficult to include in a systematic, quantitative process. Therefore the resulting prioritized list of waters from this framework should serve as a guide for prioritization yet leave room for staff interpretation and application of other factors.

6. Where will restoration begin: DWR staff will apply a recommendation on the most effective path to, or tool for, restoration for each waterbody on the list. Tools include, but are not limited to: TMDL alternatives such as 4b or 5R, nine-element watershed plan, compliance/ enforcement action, natural conditions evaluation, or traditional TMDLs. Restoration will generally begin with higher priority waters on this list but may deviate based on DWR staff interpretation (#5). Restoration could begin immediately on waters that could be good candidates for a 4b demonstration project with a willing municipality, while waters what are likely impaired due to agricultural activities will need a 9-element plan first to be eligible for 319 funding, and then will require willing landowners to take advantage of this funding for BMP installation.

7. Public engagement: DWR plans to publish the entire priority list on a website, along with the recommended restoration approach, and possibly watershed characteristics and notes on or before the 2016 IR publication date. It will be important to stress to the public that even though a waterbody maybe lower ranked on the list the restoration of all waters on the list is important.