# Upper Cape Fear River Basin Association meeting August 6th 2019

*Department of Environmental Quality*
*Water Sciences Section*

# *DWR Metals Data Request: Overview*

- Collection of metals data was suspended in 2007
- North Carolina developed “new” criteria for total and dissolved
- Created new standards, developed new sampling procedures
- 2015-2016 DWR & LCFRP resumed metals data collection
- Targeted assessment units (AUs) that 10% exceedances < 90% confidence
- 303(d) list 2018 Results:
  - 35 AUs delisted as being impaired for metals
  - 6 of those were impaired for 2 metals
  - 41 total de-listings
  - 5 impairments for copper
    - 4 previously impaired, 1 new listing

# *DWR Metals Data Request*

- Goal:
  - obtain total and dissolved metals at selected stations before Dec 31st 2020.
- Reason:
  - To assess water quality conditions for the 2022 Integrated Report (i.e. 303(d) list).
- Why?
  - Current data is for total metals only.
  - Data is over 11 years old.
  - New standards have been adopted
- Plan of action:
  - DWR will be collecting data at 45 stations
  - DWR is requesting the Monitoring Coalition Program to collect data at 26 stations
    - YPDRBA = 11 stations
    - UCFRBA = 8 stations
    - LNBA = 4 stations
    - LCFRP = 3 stations

# *DWR Metals Data Request: Metals needed*

| Metal | Fraction | Notes |
|---|---|---|
| Arsenic | total | All waters |
| Cadmium | dissolved | All waters |
| Chromium | dissolved | All waters |
| Chromium III | dissolved | Freshwaters only (See Notes) |
| Chromium VI | dissolved | All waters (*Optional, see Notes) |
| Copper | dissolved | All waters |
| Lead | dissolved | All waters |
| Selenium | total | All waters |
| Nickel | total | WS only |
| Nickel | dissolved | All waters |
| Silver | dissolved | All waters |
| Zinc | dissolved | All waters |
| Beryllium | dissolved | Freshwaters only |
| Hardness | total | Freshwaters only |

10 samples by December 31st 2020

**Notes related to chromium**:

Dissolved chromium (total species) results can be compared to applicable Cr VI and Cr III water quality standards. Other option:

* If Cr VI is analyzed, the result will be compared to the applicable Cr VI water quality standards, and Cr III will be calculated as the difference between dissolved Cr (total species) and Cr VI for comparison to Cr III standards (freshwater only).

# DWR Metals Data Request: Stations

**Metals (and hardness): Sampling to Confirm Impairment**

**UCFRBA STATIONS**

| Station | Station Location | Comments | Note | 2014_AU_Number | AU_Description |
|---|---|---|---|---|---|
| B0050000 | Haw River @ US 29 | *ups Reidsville WWTP | WS | 16-(1)c1 | From SR 2426 to Troublesome Creek at US29 |
| B0540050 | North Buffalo Creek @ SR 2770 | dns North Buffalo WWTP | WS | 16-11-14-1b | From North Buffalo Creek WWTP to Buffalo Creek |
| B3025000 | Third Fork Creek @ NC 54 | *Durham Stormwater runoff | WS | 16-41-1-12-(2) | From a point 2.0 miles upstream of NC HWY. 54 to New Hope Creek |
| B3300000 | Northeast Creek at SR 1102 | ups Durham RTP WWTP | WS Inactive | 16-41-1-17-(0.7)a | From US Hwy 55 to Durham Triangle WWTP |
| B3670000 | Northeast Creek at SR 1731 | *dns Durham RTP WWTP, Jordan Lake TMDL | WS | 16-41-1-17-(0.7)b2 | From Kit Creek to a point 0.5 mile downstream of Panther Creek |
| B5070000 | Deep River @ SR 2615 | *ups Ramseur WWTP | C | 17-(10.5)d2 | From Gabriels Creek to Brush Creek |
| B5100000 | Deep River @ SR 2628 | *dns Ramseur WWTP | C | 17-(10.5)d2 | From Gabriels Creek to Brush Creek |
| B5390800 | Cotton Creek @ SR 1372 | dns Starr WWTP | WS | 17-26-5-3b3 | From SR 1369 to SR1371 |

* 10% exceedences with < 90% confidence

NORTH CAROLINA
Department of Environmental Quality

# DWR Metals Data Request: Questions?

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