DO Criteria In Tidally influenced Waters

- The DO criteria used for assessment is dependent on the specific conductivity values.
  - If the specific conductivity is $\geq$ 4580 µmhos/cm marine DO criteria applies.
  - If the specific conductivity is < 4580 µmhos/cm freshwater DO criteria applies.

Effects of DO Criteria Rule Changes

- Replaces the mg/L with a percent saturation assessment
- Can convert DO mg/L to percent saturation (requires temp and salinity within 15 minutes)
- Revised criteria apply differently to:
  - Class 1 and Class 3F
  - Class 2 and Class 3M waters
- <u>Allows for diel monitoring</u>
  - More robust data set
  - For streams and lakes, includes a time of day translation
- Less waters inappropriately listed as impaired

Effects of DO Criteria Rule Changes

- Data Sufficiency
  - **Freshwater and marine DOSAT assessment;**
    - Minimum 20 samples, with at least 5 temporally independent sampling events
    - Can be collected with by diel monitoring or grab samples
  - **7 - day average marine DOSAT assessment:**
    - Three daily average DO concentrations calculated from three full-days of diel measurements during the week. Diel measurements should be collected at least once every hour, with a minimum of 24 measurements per day, or
    - Ten grab samples, collected over at least three days of the week and at least four hours apart. For example: morning and afternoon.

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Effects of DO Criteria Rule Changes

- Data Sufficiency, cont.
  - **30 – day average marine DOSAT assessment:**
    - Three daily average DO concentrations calculated from three full-days of diel measurements collected during three different weeks of the month.
    - Diel measurements should be collected at least once every hour, with a minimum of 24 measurements per day (this is the preferred method), or
    - Ten grab samples, collected from a minimum of ten different days of the month.

Strategic Monitoring Plan Update

The SMP Will Include Diel DOSAT Measurements

- Current (*DRAFT*) Plan
  - Each ROC will monitor ≤ 10 WBIDs annually.
  - 20 full-days of diel measurements.
  - At least 5 independent sampling events with a minimum of 1 event in each quarter.
  - Marine waters may require additional measurements so a 30 day average can be calculated.
  - At least one water quality sample with each deployment.
  - Data files will be save on the FTP.
  - Diel measurements should be collected at least once every hour, with a minimum of 24 measurements per day.

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