

Update on Addressing Flow for the 2018 IR

Low Flow

- **Dissolved oxygen, temperature, pH, and chronic toxic substances in water** samples collected **below 7Q2** (or presumed 0.1 cfs for perennial streams) or those with a **Flow Severity = 1 (No Flow)** and **no reported streamflow value are excluded** for assessment.
- *307.8(a)(1) The following standards do not apply below critical low-flows:*
 - *(A) site-specific criteria for dissolved oxygen, pH, temperature, and numerical chronic criteria for toxic materials, as listed in Appendices A, D, and E of §307.10 of this title (relating to Appendices A - G);*
 - *(B) numerical chronic criteria for toxic materials as established in §307.6 of this title (relating to Toxic Materials);*
 - *(C) total chronic toxicity restrictions as established in §307.6 of this title;*

Low Flow

- **Dissolved solids, bacteria, and human health** samples collected **below 0.1** cfs in perennial streams or in **pools less than 20%** in intermittent streams **are excluded** from assessment.
- *307.9(e)(8) Site-specific criteria for aquatic recreation (geometric mean), total dissolved solids, chloride, and sulfate as established in Appendix A of §307.10 of this title, and human health criteria as established in Table 2 of §307.6(d)(1) of this title do not apply in the following stream types and flow conditions:*
 - *(A) perennial streams when flows are below 0.1 cubic feet per second;*
 - *(B) intermittent streams when less than 20% of the stream bed of a 500 meter sampling reach is covered by pools; or when extremely dry conditions are indicated by comparable observations of flow severity.*

Low Flow

- **Acute toxic substances** in water samples collected at streamflow **below $\frac{1}{4}$ the 7Q2** (or presumed 0.1 cfs for perennial streams) **are excluded** from assessment.
- *307.8(a)(3) - Numerical acute criteria for toxic materials and preclusion of total acute toxicity as established in §307.6 of this title are applicable at stream flows that are equal to or greater than one-fourth of critical low-flows.*

High Flow

- **All samples** collected with an associated **Flow Severity = 4 (Flood Flow)** will be excluded from assessment.
- *307.9(b) - Sample results that are used to assess standards attainment must not include samples that are collected during extreme hydrologic conditions such as high-flows and flooding immediately after heavy rains.*

Impacts

- In the 2018 IR date range (December 1, 2009 – November 30, 2016):
 - Less than 3000 routine events were excluded due to low-flow conditions
 - Approximately 800 routine events were excluded due to flood flow conditions