

Delaware River Basin Commission

Methodology for 2022 Water Quality Assessment

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Methodology for 2022 Water Quality Assessment

- * 2021 is off year for DRBC Water Quality Assessment
- * Draft methodology for 2022 assessment report will be completed by August 2021
- * Published methodology will describe any changes to the assessment procedures
- * DRBC is considering several potential changes

Potential Changes

* TDS

- * Clarify the evaluation of TDS for **drinking water use**.

Total Dissolved Solids. Not to exceed
a. 133 percent of background, or
b. 500 mg/l, whichever is less.

A. Background, Total Dissolved Solids. The following background levels of total dissolved solids shall be utilized for the specified zones of the Delaware River:

Zone	T.D.S.
1A	75 mg/l
1B	90 mg/l
1C	90 mg/l
1D	90 mg/l
1E	200 mg/l
2	200 mg/l

- * Observed TDS values always fall well within the secondary standard of 500 mg/L, but occasionally exceed the 133% of background standard.
- * This situation caused zones 1A, 1B, and 1D to fail drinking water uses assessment in 2020 even though TDS rarely exceed 100 mg/L.
- * We would like to re-evaluate whether this situation should result in drinking water use exceedances.

Potential Changes

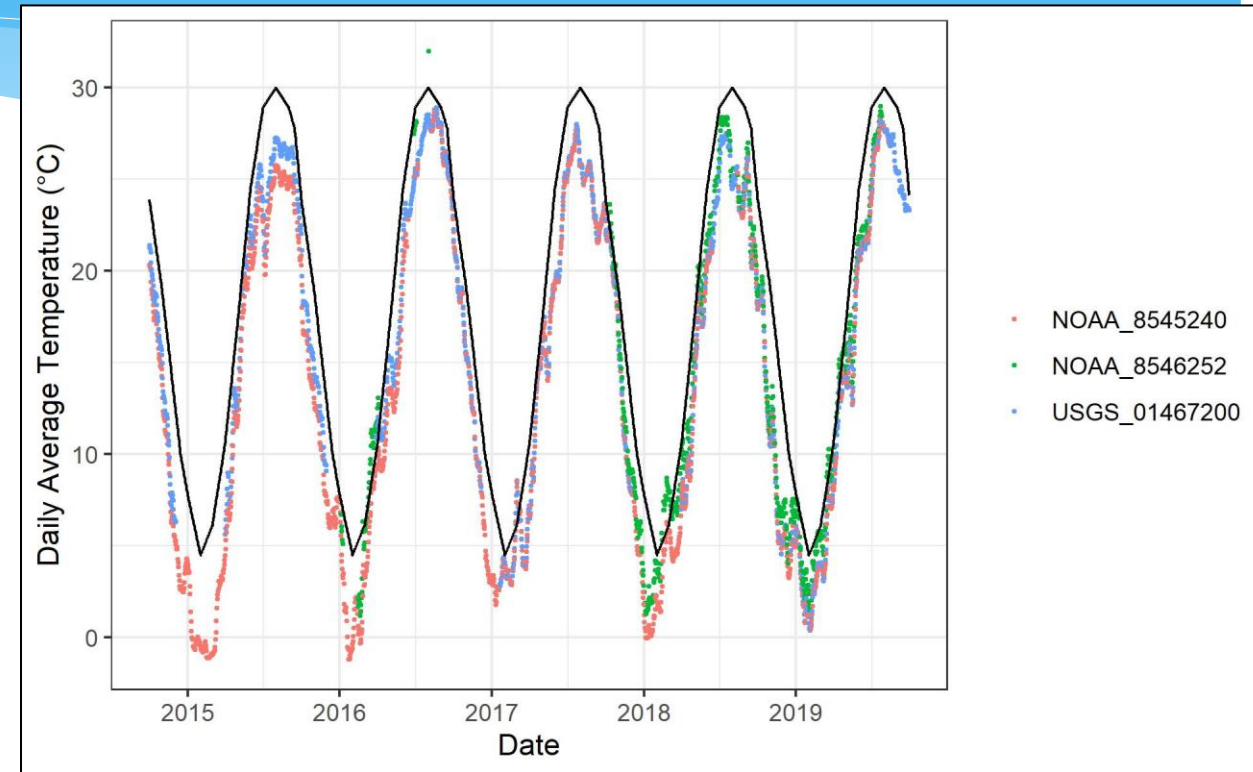
* Temperature

- * Zones 2, 3, and 4 failed the temperature assessment for aquatic life use in 2020 due to exceedances of the historical temperature gradient

2. **Temperature.** Shall not exceed

- 5°F (2.8°C) above the average 24-hour temperature gradient displayed during the 1961-66 period, or
- a maximum of 86°F (30.0°C), whichever is less. [See 4.30.6.F.3.]

- * Ambient air temperatures have risen since the 1960's
 - * Is the temperature gradient from the 1960's still appropriate to use as a standard
- * Craft a plan to better define the linkage between atmospheric and meteorological drivers of temperature exceedances

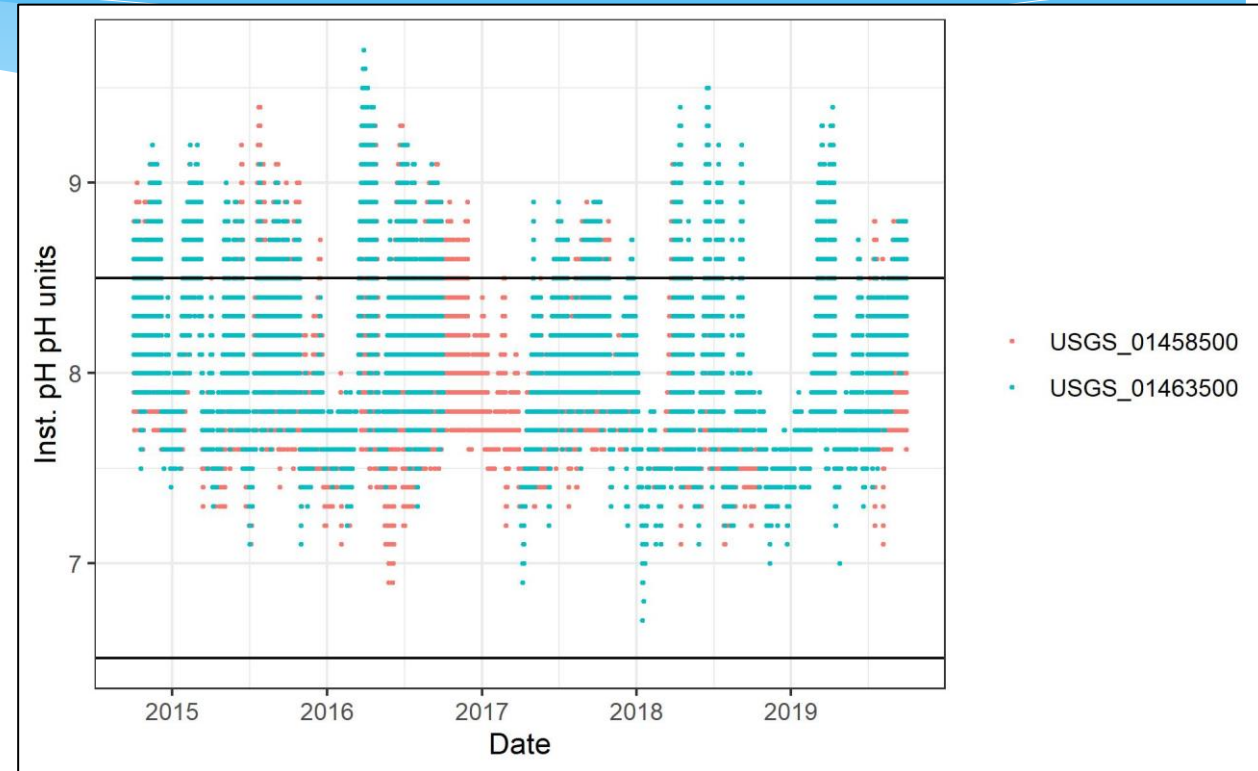


2020 Temperature Assessment
Comparison to Historical Gradient
Zone 3

Potential Changes

* pH

- * DRBC pH criteria allow exceedances if due to natural conditions, however the Commission has not defined what would constitute demonstration of natural conditions.
- * The entirety of Zone 1 failed the pH assessment for aquatic life use in 2020.
- * Evaluate the definition of natural conditions for the application of pH criteria before the next assessment.



2020 pH Assessment for Aquatic Life Use
Zone 1E

Summary

- * Draft methodology for 2022 Assessment will be published in August 2021
- * May reevaluate the assessment of TDS, Temperature, and pH
- * Any feedback is welcome