

Whole Effluent Toxicity (WET) testing is required to be included in NPDES Direct Discharge permits. The EPA has a range of manuals for conducting these tests and have published a summary of testing conditions and acceptability criteria. A copy of that table can be found [here](#), and criteria can also be found in the individual test methods.

One testing issue that has caused concern is the use of receiving water for the test dilutions and control. EPA guidance allows for the use of lab water when it is not critical to observe the interactions between the receiving water and the effluent samples, and also when the receiving water introduces interference into the test. This interference can be seen as receiving water controls that have poor survival or reproduction rates, or sometimes as poor survival or reproduction rates in tests with lower effluent concentrations (and therefore higher concentrations of receiving water).

Lab water can be used in lieu of receiving water for lab blanks and for diluting samples if any of the following apply, and if the purpose of the test is not to evaluate the toxicity of the combined receiving water and effluent flows.

- 1) Previous test show that receiving water blanks have survival and reproduction problems when compared to the lab water blank.
- 2) Previous tests show toxicity in lower concentrations of effluent diluted with receiving water that are not seen at higher concentrations of effluent.
- 3) Environmental conditions make it difficult or hazardous to collect receiving water samples. This is primarily for locations where receiving water can not be collected near the discharge point due to ice, or for locations where accessing the receiving water is difficult to do due to topography.

The permittee, the DEC analyst for the facility and the laboratory staff should decide collaboratively if the use of receiving water for dilutions is required. An email documenting this decision should be saved in the Correspondence folder for the facility.