

Interagency Memorandum
Department of Environmental Protection
Bureau of Water Protection and Land Reuse

To: Ellen Weitzler
USEPA

From: Traci Iott
CTDEP

Date: January 19, 2011

Re: Supporting documentation for proposed modifications to CT Site-specific
Copper Criteria

In the proposed revisions to the Connecticut Water Quality Standards (WQS) submitted to Region 1 of the United States Environmental Protection Agency (EPA) on January 4, 2011 for review and approval, the Connecticut Department of Environmental Protection (CTDEP) had proposed 2 additional stream reaches to be considered for application of the Connecticut Site-Specific Copper Criteria. These criteria were approved by EPA in October 1997 and are based on the adjustment of nationally recommended copper criteria with the application of a Connecticut-specific Water Effect Ratio. This Water Effect Ratio was derived for stream reaches in which the Instream Waste Concentration of treated effluent from municipal wastewater facilities was 20% or greater.

During the informal public comment period which CTDEP provided when noticing the intent to review and revise the WQS as necessary, CTDEP received comments from the towns of Sharon and Newtown asking that the portions of the stream to which they discharge be included on the list of stream reaches to which the Connecticut Site-Specific Copper Criteria apply based on the calculated Instream Waste Concentrations for their discharges, 19.5% and 38.5%, respectively. As the Instream Waste Concentration for these facilities is consistent with the Instream Waste Concentration on which Site-Specific Copper Criteria is based, CTDEP has recommended including the associated stream reaches in the list of waters to which the site-specific criteria apply. Additionally, CTDEP has reviewed the whole effluent toxicity monitoring data for these facilities. The effluent from both facilities has not been acutely toxic to either *Daphnia pulex* or *Pimephales promelas* for an extended period of time. The 2008 Integrated Water Quality Report was also reviewed. The Pootatuck River had previously been assessed for Aquatic Life Use Support and found to be in full attainment of Aquatic Life Use Support at that time. Indian Lake Creek has not

been assessed and so is not included in the 2008 Integrated Water Quality Report.

A summary of pertinent information is provided below in Table 1 in support of the proposed revisions to the Water Quality Standards. Additionally, the current NPDES permits for the facilities have been appended to this memo along with the comments received from the municipalities during the public notice period for the Intent to Revise the Water Quality Standards. Please note that Table A in each of the permits shows the Instream Waste Concentration for each facility.

Table 1

Additional Waters to be Included in Class Definition for Application of Site-specific Copper Criteria			
Waterbody	From/To	Sewage Treatment Facilities Discharging to Water Body	IWC⁽¹⁾
Pootatuck River	Newtown POTW to confluence with Housatonic River	Newtown POTW	38.5%
Indian Lake Creek	Sharon POTW to confluence with unnamed tributary near Sharon Valley Road	Sharon POTW	19.5%
⁽¹⁾ IWC calculated by dividing design flow of treatment facility by the sum of the design flow and 7Q10 base low stream flow at the point of discharge.			