

**USING BIOMONITORING DATA TO IDENTIFY WATERS OF EXCEPTIONAL  
ECOLOGICAL SIGNIFICANCE AND IMPLEMENT CLEAN WATER ACT  
ANTIDegradation POLICIES IN NEW JERSEY.**

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**ABSTRACT**

Antidegradation policies in the Federal Clean Water Act (CWA) are designed to prevent the degradation of water quality and the loss of existing or designated uses. The Surface Water Quality Standards establish antidegradation policies for all surface waters of the State at N.J.A.C. 7:9B. The SWQS rules require that all existing and designated uses shall be maintained and protected for all surface waters of the State. Impaired waters must be restored to meet SWQS. Existing water quality shall be maintained. The SWQS are implemented through the National Pollutant Discharge Elimination System (NPDES) rules, Land Use Management rules, and Water Quality Management Planning rules.

The most protective tier of antidegradation designation is Outstanding National Resource Waters (ONRW) which include surface waters classified as FW1 and PL. These waters are set aside for posterity because of their unique significance. The Department cannot approve any activity which might alter existing water quality in these waters. The second tier of antidegradation designation is Category One (C1). C1 waters are protected from measurable changes in water quality because of their Exceptional Ecological Significance, Exceptional Water Supply, Exceptional Recreation, and Exceptional Fisheries to protect and maintain their water quality, aesthetic value, and ecological integrity. All waters not designated as ONRW (FW1 or PL) or C1 are designated as Category Two (C2).

New Jersey has used monitoring data to identify waters which qualify for additional level of protection (C1) under Exceptional Ecological Significance where benthic macroinvertebrate data indicates a healthy unimpaired aquatic community as well as two other data sources; habitat, fish Index of Biotic Integrity (IBI) data, water quality criteria for selected parameters, and impervious surface must indicate exceptional ecological conditions.

**KEYWORDS**

antidegradation, clean water act, exceptional water quality, exceptional ecological significance, category one, benthic macroinvertebrates, index of biotic integrity.