

APPENDIX B

Terms and Definitions

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Antidegradation policy – A policy or legal principal stating that activities degrading a waterbody’s quality will not be allowed.

Aquatic Life Support – The waterbody provides suitable habitat for protection and propagation of desirable fish, shellfish, and other aquatic organisms.

Designated uses – See ‘Use Classification’

Indicator bacteria – Some waterborne bacteria, viruses and protozoa can cause human illnesses, ranging from typhoid and dysentery to minor skin diseases. These pathogens may enter waters through a number of routes, including inadequately treated sewage, storm water drains, septic systems, runoff from livestock pens and sewage dumped overboard from recreational boats. Because it is impossible to test waters for every possible disease causing organism, regulatory agencies usually measure fecal coliforms (like *Escherichia coli* or “e. coli”) as indicator bacteria (which are found in great numbers in the stomachs of warm blooded animals). The presence of indicator bacteria suggests that the waterbody may be contaminated with untreated sewage and that other, more dangerous organisms may also be present. Bacterial criteria are frequently used to determine if waters are safe for contact recreation or shellfish harvesting.

National Shellfish Sanitation Program (NSSP) – The NSSP requires annual assessments of shellfish growing areas to ensure that the growing areas are properly classified. These ‘Shellfishing Area Classifications’ are different from the water quality classifications mentioned above and are designated specifically for shellfish growing areas. More information is available from the *Guide for the Control of Molluscan Shellfish 2003*. U. S. Department of Health and Human Services Public Health Service, Food and Drug Administration, Center for Food Safety and Nutrition, Washington D.C. (<http://www.cfsan.fda.gov/~ear/nss2-toc.html>).

Primary Contact Recreation (Swimming) – People can swim in the waterbody without risk of adverse human health effects (such as catching waterborne diseases from raw sewage contamination).

Shellfish Grow Area Classifications – A shellfish growing area is any area which supports, or could support, the growth and/or propagation of molluscan shellstock (live clams, oysters, mussels and scallops in their shell). All shellfish growing areas are classified in accordance with the Interstate Shellfish Sanitation Conference (ISSC) National Shellfish Sanitation Program Model Ordinance (NSSP-MO). These classifications established to minimize health risks and may restrict the taking and use of shellfish from some areas. No fresh water areas have been classified for the harvesting of shellfish (CT DOAG).

Shellfishing / Shellfish Harvesting – The waterbody supports a population of shellfish free from toxicants and pathogens that could pose a human health risk to consumers.

Tier – Waters are assigned to one of five tiers for the 303(d) List. **Tier 2** signifies that it has been determined that the impairment is caused by a pollutant stressor (*e.g.*, chemical, clean sediment and/or temperature), a surrogate indicator (*e.g.*, indicator bacteria) or can be attributed to a source that contributes multiple pollutants to a waterbody such that implementing a TMDL for one or more pollutants can be reasonably expected to result in attainment of uses. Where more than one pollutant is associated with the impairment, the waterbody or waterbody segment will remain in this category until TMDLs for all pollutants have been completed and approved by USEPA. Further investigative monitoring, if necessary, will be scheduled to confirm causes. Follow-up monitoring will be scheduled to determine if the standard is attained following TMDL implementation. **Tier 3** – The waterbody or waterbody segment does not support a use based on biological, or other information, and the cause is unknown. It is uncertain whether the impairment is caused by a pollutant. Additional monitoring will be scheduled to identify the cause of the impairment. If the additional monitoring determines the cause of the impairment to be a pollutant(s), CTDEP will complete a TMDL(s) for the pollutant(s). If the additional monitoring determines the impairment is not caused by a pollutant, the waterbody or waterbody segment will be moved to Tier 5.

TMDL (Total Maximum Daily Load) – “A TMDL is a watershed plan that focuses resources on reducing loads of known pollutants. TMDLs provide the framework to restore impaired waters by establishing the maximum amount of a pollutant that a waterbody can assimilate without adverse impact to aquatic life, recreation, or other public uses. The TMDL is then divided up between all potential sources of that pollutant. TMDLs are often expressed by the mathematical equation:

$$\text{TMDL} = \text{Point Sources} + \text{Nonpoint Sources} + \text{Background} + \text{Margin of Safety}.$$

The end result of the TMDL process is a Water Quality management Plan with quantitative goals to reduce pollutant loadings to the impaired waterbody. TMDLs are implemented under the existing authorities of CT DEP and may include both regulatory and voluntary actions as part of a larger Water Quality Management Plan.” CTDEP, 2004b

Use classification – Classifications are assigned to surface and groundwater in all areas of the state. These assignments are based on both the use, or potential use, of such waters as well as on their known, or presumed, quality. Generally, the classification describes the actual activities that the waterbody is expected to support (*e.g.* swimming, fishing, habitat for fish and wildlife). The individual water quality classifications are described in more detail at CTDEP’s website: <http://dep.state.ct.us/wtr/wq/wqsinfo.htm>.

Use Support Category – “In making water quality assessments, each designated use of a waterbody or waterbody segment is assigned a level of support (*e.g.*, full support, partial support), which characterizes the degree to which the water is suitable for that use.” CTDEP, 2004c.

Water Quality Impairments – Describes the state of pollution of a waterbody with relation to the negative impacts it has on the use of that waterbody.

Water quality standards (WQS) – Standards that set an “overall policy” for management of Connecticut’s surface and groundwaters in accordance with the directives provided by Section 22a-426 of the Connecticut General Statutes and Section 303 of the Federal

Clean Water Act. These standards are made up of three components: designated uses, water quality or pollution criteria/thresholds, and a policy of antidegradation.

Water quality or pollution criteria – Criteria or limits on the levels of biological, chemical and physical characteristics of water.