Fact Sheet for Stream Flow Classification Process under Section 26-141b-1 to 26-141b-8 of the Regulations of Connecticut State Agencies

INTRODUCTION: The State of Connecticut Stream Flow Standards and Regulations (*Section 26-141b-1 to 26-141b-8 of the Regulations of Connecticut State Agencies*) require that the Department of Energy and Environmental Protection in consultation with the Department of Public Health prepare a State-wide map of proposed classifications indicative of the degree of human alteration of natural stream flow. The regulations define four stream flow class standards. The regulations include consideration of 18 factors when adopting river or stream system classifications. This fact sheet provides an overview of the classification process. For more detail, see *Section 26-141b-5 RCSA Adoption of river or stream system classifications* and Technical Support Document, *METHODOLOGY FOR DEFINING PRELIMINARY STREAM FLOW CLASSIFICATIONS*.

STREAM FLOW CLASSES AND THE NARRATIVE STANDARDS



| Stream flow Class | Stream Condition | Narrative Standard |
|----------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Free Flowing Stream | Shall exhibit, at all times, the depth, volume, velocity and variation of stream flow and water levels necessary to support and maintain habitat conditions supportive of an aquatic, biological community characteristic of that typically present in free-flowing river or stream systems |
| 2 | Minimally Altered | Shall exhibit, at all times, the depth, volume, velocity and variation of stream flow and water levels necessary to support and maintain habitat conditions supportive of an aquatic, biological community minimally altered from that typically present in free-flowing river or stream systems |
| 3 | Moderately Altered | Shall exhibit, at all times, the depth, volume, velocity and variation of stream flow and water levels necessary to support and maintain habitat conditions supportive of an aquatic, biological community moderately altered from that typically present in free-flowing river or stream systems |
| 4 | Altered | May exhibit substantially altered stream flow conditions caused by human activity to provide for societal need |

CLASSIFICATION FACTORS

Certainty Factors for Class 3

A river or stream segment shall be Class 3 if:

- * immediately downstream of an existing dam that impounds a public water supply source or intersects a Level A aquifer protection area
- *area immediately downstream of an existing dam
- *dentified as potential source of water supply with significant investment

<u>Hydrologic Stressors</u> (Considered in conjunction with "Additional Factors" below.)

Size and location of:

- *permitted and registered diversions
- *dams, reservoirs and other impoundments
- *return flows of water
- *existing development and impervious cover

Additional Factors (Some increase classification, some decrease classification)

- *Planned land use in the upstream watershed for future development
- *Available data on species that are dependent upon stream and riparian habitat
- *Available data related to the presence or restoration of anadromous fish runs
- *Existence of trout management areas
- *The location of stream gages operated by USGS that have been identified as an index station
- *Areas designated as protected for conservation purposes
- * River or stream segments identified as a potential source of water supply
- * River or stream segments identified by the DPH pursuant to Section 59 of Public Act 11-242
- * Practicality or, and potential for, restoring stream flow patterns to achieve consistency with the Stream Flow Standards and Regulations due to the extent of prior channel modification or the impact of development and impervious cover in the watershed as of the date of such mapping
- * Publicly available data regarding the impact of stream classification on a community's water supply's margin of safety
- * Any other factor indicative of the degree of human alteration of natural stream



The presence of fluvial specialist species (those that depend on flowing water) are excellent indicators of healthy stream flow conditions. Brook trout is a good example of a fluvial specialist species in Connecticut.

BASIN CLASSIFICATIONS



The classification process will be conducted by major basin, and will take approximately 5 years. Thus far, the Thames/ Southeast Coast / Pawcatuck River Basins and the South Central Coastal Basin have been completed. The Connecticut River Basin is in progress in 2017.

STREAM FLOW CLASS ADOPTION PROCESS



For more information, please see the DEEP webpage www.ct.gov/deep/streamflow

