

DEEP Develops New Connecticut Stream Flow Classifications

Required Releases May Substantially Affect Water Utilities Across the State

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In conjunction with [Public Act 05-142](#) (CGS Section 26-141a and b), the Connecticut Department of Energy and Environmental Protection (DEEP) is amidst a five-year process to classify each stream and river segment in the state. The four stream flow classifications, which are based on ecological conditions and human use characteristics, will determine the flow management goals and standards for each segment.

While this effort is intended to help manage and protect state water resources, the effects on some water utilities may be substantial. For instance, dam owners/operators that impound, divert, or otherwise affect the flow of a river or stream may face required releases, leading to less available water. By understanding and influencing the classification of segments downstream of their dam(s), utilities can do their part to protect Connecticut water resources while minimizing the negative impacts to their organization.

2005–Present: The Development of Stream Flow Standards, Regulations, and Classifications

The Connecticut General Assembly passed Public Act 05-142 in 2005, requiring DEEP to update standards for maintaining minimum flows in streams and rivers.

Following several years of collaboration with stakeholder work groups, DEEP released the [Stream Flow Standards and Regulations](#) in December 2011. The standards aim to balance river and stream ecology, wildlife, and recreation while providing for public health, flood control, industry, public utilities, water supply, public safety, agriculture, and other lawful uses of water.

DEEP then began the process of classifying each of the state's estimated 36,000 stream segments as one of four designated stream flow classes:

- **Class 1:** Free flowing, priority given to protecting ecological health
- **Class 2:** Minimally altered, free-flowing stream system (75 percent of inflow)
- **Class 3:** Moderately altered, intermediate balance points between ecological and human uses (baseline seasonal flows)
- **Class 4:** Substantially altered, priority given to human uses requires approved, site-specific releases

As shown in *Figure 1*, the five-year classification project has been divided into five stages and eight river basins.

Classification of the Thames, Pawcatuck, and Southeast Coast were completed in October 2014, and the South Central Coast was completed in September 2016. *Figure 2* highlights the classifications of streams within these river basins.

Proposed classifications for the Connecticut River watershed were released in February 2017 (see *Figure 3*). Final classifications are pending.



Figure 1. Five-year classification scheme (DEEP)

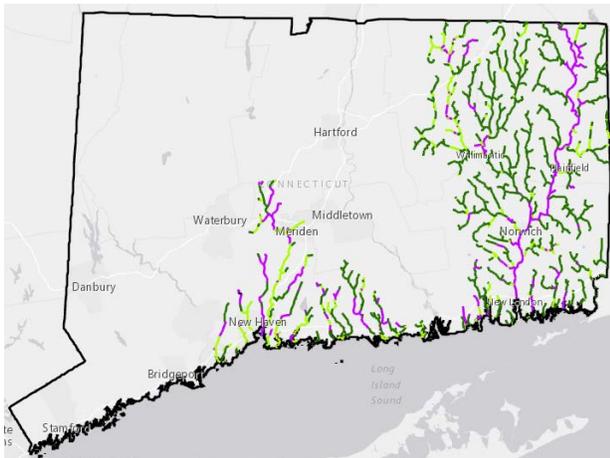


Figure 2. Stream flow classifications of the Thames, Pawcatuck, and Southeastern Coast

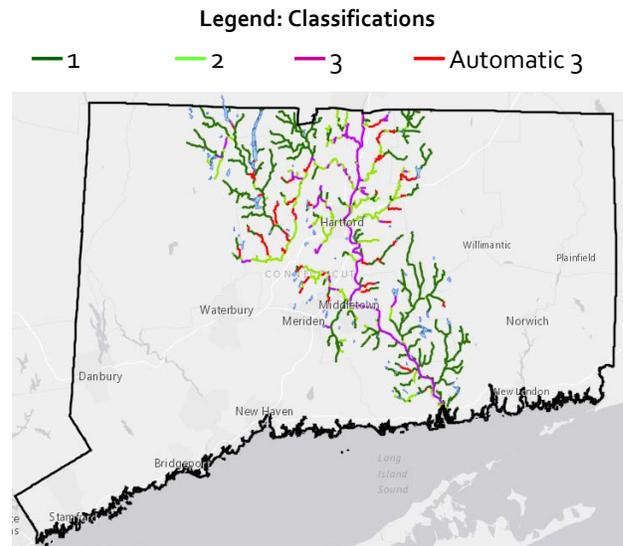


Figure 3. Proposed stream flow classifications of the Connecticut River watershed

Classification Process, Timeline, and Considerations

To complete the classification process, DEEP is first identifying streams that align with qualities of Class 3 (moderately altered).*

DEEP is then assigning proposed Class 1 and 2 designations based on current stream flow conditions, then increasing or decreasing each classification (as necessary) based on additional factors related to ecological attributes or goals for specific stream segments.

Once the proposed classifications are released for a given river basin, DEEP is opening the designations to public comment. For example, DEEP recently held a public comment period for proposed classifications of the Connecticut River watershed (Figure 3) from March 1 to June 2, 2017.

The public comment period is an important opportunity for water utilities to influence the classification of streams and river segments critical to their dam operations.

Maintaining Ongoing Compliance with Classification Requirements

Compliance will take effect no later than 10 years after final classifications are issued for rivers and streams. At that time, utilities must initiate required releases and maintain a corresponding operating log.

As proposed classifications are issued for the Housatonic, Hudson, and South West Coast river basins, utilities should consider segments immediately downstream of their dam(s) and how each classification may warrant required releases.

If the utility disagrees with the proposed classification, it is highly recommended that the operator submits comments regarding the:

- Factors for consideration in the regulations
- Impact of the proposed classification on any prior investment made to create a permitted or registered diversion and the alternatives
- Relationship of an existing or proposed diversion to economic development or jobs
- Practicality and potential for achieving ecological benefit from restoring streamflow to the specific river or stream

*DEEP does not initially propose Class 4 designations, since it requires additional, detailed information regarding societal needs, economic costs, and environmental impacts.

For example, some dam operators in the Thames, Southeast Coastal, and Pawcatuck basins had to submit an initial reporting form to DEEP by October 7, 2015. Some operators in the South Central Coast basin must submit an initial reporting form by September 6, 2017.

Flow management compacts and DEEP-approved plans for specific watershed needs are allowed following site-specific studies.

Potential for Site-Specific Regulatory Exemptions

Utilities should determine whether they are eligible for one of the site-specific regulatory exemptions under Section 26-141b-3 of the Public Act 05-142 (see examples below).

Potential Exemptions Available to Water Utilities

- Safety
- Emergencies
- Limited/short term water use
- Non-consumptive uses
- Stormwater detention
- Small watersheds
- Certain man-made conveyances
- Pollution abatement
- Hydropower under FERC
- Fire emergencies
- Flood control dams
- Dams not on streams
- Permitted diversions
- Diversions subject to approved flow management plans
- Tidal rivers
- Impoundments with no active manipulation or withdrawal
- Small intermittent withdrawals
- Drawdowns for dam inspection and weed control
- Agriculture and golf courses
- Dams with watersheds less than 3 square miles or naturally limited flows
- Certain streams between reservoirs

Contact Kleinschmidt today to learn more about the new stream flow classifications and other technical, regulatory, and environmental issues facing water utilities. Also, click [here](#) to explore recent papers, presentations, and articles produced by Kleinschmidt professionals.

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