

Department of Environmental Protection: Final Proposed Stream Flow Regulations

Why Are New Stream Flow Regulations Needed?

The Connecticut Department of Environmental Protection (DEP) is proposing revisions to the state's stream flow regulations in response to requirements in legislation approved by the General Assembly and signed into law by the Governor in 2005 (PA 05-142).

This law directed the agency to develop regulations that would expand the coverage of existing stream flow standards to include all rivers and streams – rather than only those stocked with fish by DEP as is the case under current regulations. The statute also directed DEP to develop standards that allows the state to meet its needs for water in a manner that balances human and ecological needs.

What is the Process for Adopting the Regulations?

DEP issued draft proposed stream flow regulations on Oct. 13, 2009. The agency held numerous public information sessions on this draft, and held a formal public hearing on Jan. 21, 2010, accepting public comment on the draft regulations until early February. Sixty-eight individuals provided oral testimony and three hundred eighty provided written comment. After thorough consideration of the public comment, revisions were made to the regulations and a hearing report was prepared.

DEP is now proposing final regulations. The regulations must be approved by the General Assembly's Regulations Review Committee before taking effect.

How Will the Stream Flow Regulations Work?

The regulations establish four categories, or classes, of rivers and establish management standards for each category. The process for classifying streams includes public input and consultation with the Department of Public Health. The key considerations for determining class appropriate to specific waters are detailed in the regulations.

The categories of rivers and streams are:

- Class 1 waters are considered “natural,” characterized as a resource having little current development in the watershed and having not been affected by the removal of water for human uses.
- Class 2 waters are be considered “near natural,” sharing many characteristics with Class 1 systems. The flow standards for this class, however, allow for some levels of human alteration.
- Class 3 waters are defined as “working rivers,” where human uses may have a significant influence on steam flow patterns. These rivers and streams are expected to have adequate water resources available to support viable aquatic communities. Some changes in use may be necessary to restore flow patterns needed to ensure these conditions.

- Class 4 waters are characterized as systems where past practices have resulted in a significant deviation from the natural stream flow pattern and restoring these rivers and streams to a natural condition would be impractical. In order to prevent additional water quantity degradation, the regulations now require the use of “best management practices” in the taking of water along Class 4 rivers.

In Class 1 waters, priority would be given to protecting the ecological health of a river or stream. In Class 4 waters, support of human activities would be weighted most heavily. In Class 2 and Class 3 waters, activities would strike a balance between ecological and human needs. The regulations include exemptions for minor water uses and simplified rules for certain categories of dams. Provisions for proposing alternate flow standards that meet the classification goals can be made through development of a Flow Management Compact. Finally, provisions are made for limited-term variances to address unusual climatic or temporary operational circumstances and for drought relief are included.

How Do the Final Proposed Regulations Differ from the Initial Draft?

The scientific foundation of the regulations originally proposed remains intact – but DEP listened carefully to a wide range of stakeholders during the comment period and at the public hearing and as a result made significant adjustments in the final proposed regulations.

Five themes were established to guide the changes to the regulations: (1) increasing the predictability of the classification of stream and river systems and segments; (2) reducing the overall complexity of the regulations; (3) reducing the cost of complying with the regulations; (4) increasing the time for compliance; and (5) focusing on impaired stream and river systems.

An overview of the most significant changes in the final proposed regulations shows that they:

- Double the timeframe for compliance – from five to 10 years – for rules governing releases from dams
- Simplify rules governing releases from dams
- Streamline requirements governing groundwater to focus on diversions that are determined to contribute to the low flow of rivers and streams

In more detail, the final proposed regulations include the following changes compared to the proposed regulations issued in October, 2009:

(1) Increase Predictability of Classification of stream and river systems and segments:

- (a) Consult with the Department of Public Health (DPH) prior to preparing the map of proposed classifications to provide certainty that public water supply needs will be represented;
- (b) Add language to classification factors clarifying that existing conditions will be taken into account;

- (c) Modify the definition of Class 4 to make it clear that while these river and stream segments have been substantially altered by human activity, reasonable efforts must still be made to minimize impact while meeting societal needs;

(2) Reduce the Overall Complexity of the Regulations:

- (a) Delete intermediate compliance with presumptive standards five years post-classification; instead, require full compliance ten years after the effective date of classification for the relevant river or stream system or segment;
- (b) Eliminate the variable wet/dry release for all bioperiods except the rearing and growth bioperiod, which simplifies operation, makes more water available for storage, and reduces the impact on drinking water system margin of safety while continuing to protect aquatic organisms during that period of the year when they are most vulnerable;
- (c) Include additional circumstances (e.g., watersheds under three square miles, impoundments with minimal storage) where a dam does not need to periodically adjust the release of water as long as an ecologically protective minimum flow release is made (i.e., release the rearing and growth bioperiod Q80 or natural inflow, whichever is less);
- (d) Exclude owners and operators of “other structures” (e.g., wells and intake structures) from meeting numeric criteria, and include provisions allowing such owner or operator the flexibility to determine how best to minimize stream flow impacts while meeting legitimate water needs;
- (e) Promote flexibility by allowing a subset of all diverters or a single diverter within a river or stream system to propose a flow management compact to address impairments, so long as other diverters that are not a party to the compact are taken into consideration;

(3) Reduce the Cost of Complying with the Regulations:

- (a) Include longer time for compliance with a one-step compliance for dam owners and operators ten years post-classification rather than a two-step compliance schedule. This gives dam owners eleven or more years to invest in the infrastructure necessary to make the required releases;
- (b) Eliminate the need to calculate a minimum release of water twice per month during the eight months outside the four month rearing and growth bioperiod (July 1 through October 31), which reduces operating cost;
- (c) Include provisions, such as the elimination of wet-release requirements outside of the rearing and growth bioperiod, that allow more water to be stored, thereby reducing the need to develop new drinking water sources;
- (d) Include the ability for dam owners or operators to request additional time to comply with the minimum release requirements when the water supply system’s supply of water may not be enough to meet the demand for water (determined to be a 1.15% margin of safety by the DPH);

- (e) Eliminate requirement for owners and operators of other structures to demonstrate compliance with presumptive standards (i.e., the numeric criteria);

(4) Increasing the Time for Compliance:

- (a) Include longer time for compliance with the release standards for dam owners and operators – ten years post-classification rather than five years;
- (b) Include ability for dam owners or operators to request additional time to comply with the minimum release requirements when the water supply system's supply of water may not be enough to meet the projected demands for water (at or below 1.15% margin of safety as determined by the DPH);

(5) Focusing on Impaired Stream and River Systems:

- (a) Expand the Class 4 narrative standard to make clear that river and stream systems or segments that have been assigned a Class 4 designation, because of substantial impact on stream flow due to human alteration, will be subject to a requirement that best management practices be applied to work towards achieving consistency with the Class 3 narrative standard while meeting societal needs;
- (b) Include provisions where, when narrative standards are not met in a stream or river system or segment, the commissioner may order owners and operators of other structures in such systems or segments to evaluate the impairment and implement site-specific measures to reduce the impact and meet the narrative standard; and
- (c) Allow those proposing a flow management compact to also propose best management practices that are appropriate to the specific impairment situation, for the commissioner's approval.