

§4.8 Rivers and Streams

1. Preamble Rivers and Streams are likely to be significant to the protection of public and private water supply, protection of ground water, flood control, storm damage prevention, prevention of pollution, protection of water quality, protection of fisheries and wildlife habitat, protection of rare species and their habitat, protection of aquaculture and agriculture, and protection of open lands and public recreation values.
2. Definition, Characteristics, Critical Boundaries. Streams are defined as a body of running water, including brooks and creeks, which move in a definite channel in the ground due to a hydraulic gradient, and which flows within, into, or out of an Area Subject to Protection Under the Act and Ordinance.
 - A. Rivers and Perennial Streams. A river is any natural flowing body of water that empties into any ocean, lake, pond, wetland, other perennial stream or river and which flows throughout the year
 1. Perennial streams are regulated the same as Rivers and therefore have Riverfront Area.
 2. A river or perennial stream is characterized by horizontal zonation, demonstrating flow.
 3. A river or stream shown as perennial (a solid blue line) on the current USGS topographic quadrangle map or more recent map provided by the department is perennial, and thus a river.
 4. A river or stream shown as intermittent or not shown on the current USGS map or more recent map provided by the Department, that has a watershed size greater than or equal to one square mile, is perennial.
 - B. Intermittent Streams. A body of running water, including brooks and creeks, which moves in a definitive channel, in the ground due to a hydraulic gradient, and which flows within, into, or out of an Area Subject to Protection Under the Ordinance, but does not flow throughout the year.
 1. A stream shown as intermittent or not shown on the current USGS map or more recent map provided by the Department, that has a watershed of less than one (1) square mile is intermittent unless:
 - i. Said stream has a watershed size of at least 0.05 square mile and has a flow rate of 0.01 cubic feet per second at the 99th percentile flow duration using the USGS StreamStats method. The Commission shall find such streams to be perennial.
 - ii. When the USGS StreamStats method cannot be used because the stream does not have a mapped and digitized centerline, and the stream has a watershed size of at least ½ square mile and the surficial geology contains 75% or more of stratified drift, the Commission shall find such streams to be perennial.
 2. Notwithstanding §4.8.2.A(3) and (4) above, the Commission shall find that any stream is intermittent based upon a documented field observation that the stream is not flowing. A documented field observation shall be made by a competent source and shall be based upon an observation made at least once per day, over four days in any consecutive 12 month period, during a non-drought period on a stream not significantly affected by drawdown from withdrawals of water supply

wells, direct withdrawals, impoundments, or other man-made flow reductions or diversions. Field observation shall be documented by field notes and by dated photographs or video. All field observations shall be submitted to the Conservation Commission with a statement signed under the penalties of perjury attesting to the authenticity and veracity of the filed notes, photographs or video and other credible evidence. Department staff, Conservation Commissioners and Conservation Commission staff are competent sources; a Conservation Commission may consider evidence from other sources that are determined to be competent.

- C. The Conservation Commission recognizes the functions and values associated with both perennial and intermittent streams. Accordingly, the Ordinance protects the adjacent upland to the resource area within 200 feet of the following streams (known as the Riverfront Area) whether the segment of stream is intermittent or perennial. This list is not all inclusive and may be changed given environmental factors, sustainability, and risk analysis:
1. Arm Brook
 2. Ashley Brook
 3. Brickyard Brook
 4. Cooley Brook
 5. Jacks Brook
 6. Jims Brook
 7. Little Stream
 8. Moose Brook
 9. Powdermill Brook
 10. Simmons Creek
 11. Walker Brook
- D. Channels which are fed purely by stormwater structures (i.e. do not flow from a Resource Area) are not subject to jurisdiction as an Intermittent Stream until said channel intersects with or combines into another Resource Area.
1. In a case where an above ground drainage swale or ditch is unmaintained, the Commission may consider it a River or Stream if they exhibit features and characteristics as defined in sections (A) and (B) above and contribute significantly to the interests defined in the Preamble.

3. Presumption. Where a proposed activity involves work within Rivers and Streams, the Commission shall presume that the Area is significant to protection of the interest specified in §4.8.1. This presumption is rebuttable and may be overcome by a clear showing by the Applicant that the River or Stream does not play a role in the protection of a majority of these interests.

In the event that the presumption is deemed to have been overcome as to the protection of all the interests, the issuing authority shall make a written determination to this effect, setting forth its grounds. Where the applicant provides information that the River or Stream at the site of the activity does not play a role in the protection of a majority of said interest, the issuing authority may determine that the presumption for that interest has been rebutted and the presumption of significance is partially overcome.

4. Performance Standards. Where the presumption set forth in §4.8.3 is not overcome, any proposed work or activity within or adjacent to Rivers and Streams shall not impair the ability of the Area to protect the interests specified in §4.8.1.

- A. The Commission shall assess work within or upon River and Streams through application of the performance standards of Bank (310 CMR 10.55) and Land Under Water Bodies and Waterways (310 CMR 10.56).
- B. All Intermittent Streams protected by this ordinance are granted protection of a 100ft Buffer Zone. As such, the Commission shall apply the performance standards of Buffer Zone (§4.10.3) in assessing a proposed project that would alter the adjacent upland to a River or Stream.
- C. Notwithstanding (C) above, the adjacent upland to those Rivers and Streams listed in §4.8.2.C, are granted protection of a 200-foot riparian zone, known as the Riverfront Area. As such, the Commission shall apply the performance standards of Riverfront Area (310 CMR 10.58) in assessing a proposed project that would alter the adjacent upland to these specific Rivers and Streams.
- D. Notwithstanding the provisions in §4.8.4(A) through (C), no project may be permitted which will have any adverse effect on sites specified as being habitat of rare plants or species as identified on the most recent Natural Heritage and Endangered Species Estimated Habitats of Rare Plants Map as well as rare wildlife, identified under Section 10.59 (Rare Species) of the Regulations which accompany the Wetlands Protection Act (310 CMR 10.59)

DRAFT