Massachusetts Department of Environmental Protection
Bureau of Water Resources
One Winter Street, Boston MA 02108

Guidance for a Watershed Permit Plan

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Minimum Elements of a Watershed Permit Plan

An application to address pollutants of concern under a Watershed Permit must include a plan that uses an adaptive management approach to select the mitigation strategies to be implemented to achieve compliance with established restoration targets for the receiving waters of the watershed(s) or subwatershed(s), as identified in Total Maximum Daily Loads (TMDLs), Massachusetts Estuaries Project (MEP) reports or other methodologies approved by MassDEP. For nitrogen mitigation, compliance shall be demonstrated by the achievement of a threshold nitrogen concentration at a sentinel station or stations as defined and described in the Total Maximum Daily Load (TMDL) report or MEP report for the watershed(s), or at a secondary check station for the subwatershed(s), or by other methodologies approved by MassDEP. When there is an approved up-to-date 208 plan, the Watershed Permit Plan must be consistent with that document.

The submitted plan must:

1. **Describe the authority of the permittee to implement the plan and identify the entity responsible to manage implementation of the plan**

   The plan must clearly describe the permittee's authority and ability to: 1) secure the necessary financing and permits; and 2) conduct or contract for all required activities. The plan must also identify the management entity(ies) responsible for implementing each element of the plan and managing compliance with the permit.

2. **Identify the watershed(s) or subwatershed(s) that is the subject of the permit**

   The plan must delineate the boundaries of the entire watershed or subwatershed being permitted, and identify all parcels within the watershed(s) or subwatershed(s) that is the subject of the permit. When a watershed crosses a municipal boundary, appropriate consideration should be given for regional solutions, such as inter-municipal agreements or other mechanisms, so that the Watershed Permit Plan encompasses an entire watershed. If regional watershed-wide solutions cannot be developed, a municipality, District or other entity may submit a permit application and related plan for a subwatershed so long as the entire watershed is not within its boundary, jurisdiction or control. As MassDEP strongly encourages regional watershed-wide planning and solutions, the Department may require documentation of failed efforts to agreement on a regional watershed-wide solution or may elect to not grant a Watershed Permit for a subwatershed.

3. Quantify and confirm projected load reductions

The plan must quantify the proposed reduction credit and - when appropriate for the technology/approach to be used - removal efficiency for each technology/approach and service area. The plan must identify the projected load reductions for each area serviced by the proposed technology(ies) or approach(es) and provide the method to be used to verify that the required mass loading or percentage removals are attained. For nitrogen mitigation, the Plan must include a confirmatory model run to demonstrate that nitrogen threshold concentrations as defined and described in the TMDL or MEP report will be met.

4. Identify all proposed technologies and approaches in all service areas in the proposed watershed or subwatershed.

The plan must identify the entire area serviced by each proposed technology or approach to be used in the watershed or subwatershed. Proposed technology/approach service areas may overlap. For alternative technologies and approaches, the plan must include demonstration protocols, including monitoring, that will confirm that the proposed reduction credits and, when appropriate, removal efficiencies are met. (If an alternative technology or approach completely eliminates the discharge [e.g., certain eco-toilets], confirmatory monitoring may not be necessary.) The implementation schedule in the demonstration protocol for each alternative technology or approach will generally not exceed five years, at which time a determination must be made as to whether the alternative technology/approach meets the intended efficacy goal. If a multi-watershed plan is proposed, service areas may cross subwatershed or even watershed boundaries.

The plan must identify all areas where, due to poor soils, high groundwater, current impact, high density, anticipated/planned growth and other appropriate considerations, sewers are the only feasible alternative. If applicable, the plan must include the minimum size of the core sewer service area and any associated treatment.

5. Describe the process to be used for making implementation decisions throughout the term of the permit (i.e., adaptive management).

The description must include the following components:

a. An **adaptive management strategy**

The plan must be based on an adaptive management approach to guide technology and approach decision-making as the plan is implemented. Without limitation, the adaptive management strategy must include the following:

(i) The implementation timeline for the proven and alternative technologies or approaches proposed for use within the entire watershed or subwatershed being permitted, the methodology and criteria to evaluate effectiveness of alternative technologies and approaches to determine when alternative technologies and approaches should be discontinued, expanded to other service areas, or replaced by other alternative technologies or approaches or proven technologies (generally not more than 5 years); and

(ii) The timeline, methodology and criteria to evaluate and address changing physical conditions within the watershed(s) or subwatershed(s), and to propose modifications to the original plan based upon such changing characteristics.

b. An **implementation schedule** prioritizing subwatersheds

The implementation schedule must include specific timelines for all activities to be implemented under the permit, including, without limitation, the different phases of the project based upon the subwatershed priority groupings, piloting of demonstration projects, municipal approvals and processes, and implementation/construction schedules. The entire implementation schedule to achieve, or demonstrate that the reduction targets could be achieved through application of adaptive management, cannot exceed the 20 year permit term, at which time the permit can be renewed to include a plan to fully meet goals using proven technologies and the alternative technologies and approaches demonstrated as effective during the initial 20 year permit term.

6. Specify the monitoring plan

The monitoring plan must include two categories:

a) System Demonstration Monitoring– specific monitoring designed to prove the effectiveness of each alternative approach or technology used; and

b) Sentinel Station Monitoring– designed to show that restoration targets or goals at the sentinel station or designated location are being met.

The monitoring plan must specify the parameters, frequency of sampling and laboratory methods for analysis for each category.

7. Describe a contingency plan

The plan must include a conceptual contingency plan which describes what proven technologies and approaches will be implemented to meet reduction targets in the event that some or all of the proposed alternative technologies and approaches fail to meet projected targets. The contingency plan can be modified for final implementation, dependent on the effectiveness of the alternative technologies used, as shown through testing and the adaptive management strategy.

8. Provide a list of permits required

The plan must list all federal, state, regional and local permits and approvals that are anticipated as required to implement all elements of the plan along with the timeline for application and anticipated procurement of such permits and approvals.

Note: This guidance document is not final. The Department will be working with interested towns to further develop this guidance.