

Guidance on Section 208 Plan Update Consistency Review

Pursuant to recommendation R3.7 of the approved and certified Cape Cod Area Wide Water Quality Management Plan Update (the “208 Plan Update”), all municipal nutrient management plans in the region shall be prepared and implemented consistent with the 208 Plan Update, and shall be subject to review by the Cape Cod Commission for consistency with the 208 Plan Update. Such consistency review shall be the Commission’s principal means of reviewing such plans. Plans deemed consistent with the 208 Plan Update will, among other things, be eligible for State Revolving Fund (SRF) loans and other financial assistance. DEP will require the Commission’s determination that a plan is consistent with the 208 Plan Update pursuant to its watershed permitting program for Waste Treatment Management Agencies (WMAs).

As part of the approved and certified 208 Plan Update, the 15 Cape Cod municipalities were designated as WMAs under Section 208 of the Federal Clean Water Act. A WMA has standing to propose a plan and seek consistency review hereunder.

The following are general 208 Plan Update review criteria:

-  WMA assumes responsibility for controllable nitrogen for any part of the watershed within its jurisdiction
-  Plan meets nutrient reduction targets
-  Planning occurs at a watershed level with consideration of a hybrid approach
-  Public was engaged to gain plan consensus
-  Plan includes proposed strategies to manage nitrogen loading from new growth
-  Plan includes adaptive management plan
-  Plan includes monitoring program
-  Plan includes an assessment of the town’s ability to pay for the proposed work
-  WMA commits to 5-year 208 Plan Update Consistency reviews until water quality goals are achieved
-  In shared watersheds, WMA seeking 208 Consistency Review collaborates with neighboring WMA(s) on nitrogen allocation, shared solutions, and cost saving measures



The following pages provide additional detail on each of the general review criteria.

Applicable criteria may vary based on the type of plan or project proposed. Early consultation with Commission staff will be necessary to identify applicable criteria. If the applicant is engaged with a Watershed Team, this discussion and the identification of applicable criteria will be inherent in that process. All other applicants should notify the Commission of the need for a consistency review as early as possible in the planning process. A pre-application meeting or series of meetings, as necessary, will be held to discuss plan or project goals, a schedule for planning and submission for review, and applicable criteria. The following provides a list of criteria that are likely to be included based on plan type.

- Targeted Watershed Plans (TWMP) will typically be reviewed based on all criteria included in this document.
- Municipal-wide Comprehensive Wastewater Management Plans (CWMPs) will typically be reviewed based on criteria 1 through 9; however, criteria 10 (collaborating with neighboring WMAs) must be addressed. Should the applicant choose not to collaborate with neighboring communities, the applicant provide an explanation of this decision and shall quantify in the CWMP the cost differential associated with a municipal plan versus a shared watershed plan for each watershed not solely within the jurisdiction of the applicant.
- Projects seeking SRF funding but are not part of a TWMP or CWMP, or projects that are moving forward prior to submission of a complete TWMP or CWMP will typically be reviewed based on criteria 1, 4, 6, and 7 and will be considered in the context of the TWMP or CWMP, where applicable.

In instances where a municipal plan has previously been approved by the Commission under Development of Regional Impact review and is in its implementation phase, the Commission may vary application of the following criteria on a case by case basis.

1) WMA assumes responsibility for controllable nitrogen for any part of the watershed within its jurisdiction

The 208 Plan Update assigns nitrogen load responsibility for each subembayment watershed to WMAs based on the existing, controllable nitrogen load, in kilograms, from contributing homes and businesses and other land uses within their jurisdictional boundaries. In areas where attenuation information is available, the WMAs percentage contributions are based on the existing attenuated nitrogen load. The subembayment watershed is used for the purposes of assigning responsibility as it is consistent with the approach that the Massachusetts Estuaries Project (MEP) uses to establish nitrogen thresholds. The detailed methodology for assigning responsibility is described in Chapter 8 of the 208 Plan Update, beginning on page 8-7, and the complete breakdown of nitrogen responsibility for each town can be found in Appendix 8C of the 208 Plan Update and the Watershed Reports in Appendix B of the 2017 Implementation

Report. Data used to inform the calculations of Appendix 8C will be updated every five years and allocations will be reissued, as needed and appropriate.

A WMA shall assume its nitrogen loading responsibility as set out in the 208 Plan Update, or shall follow the Process for WMAs to Revise Nitrogen Load Allocation outlined in the 208 Plan Update and discussed below. A WMA shall establish in its plan a nitrogen design load based on such nitrogen allocation, and any additional nitrogen load for planned or anticipated development, and other specific municipal needs or objectives identified in the plan. Controllable nitrogen sources that a WMA may manage to achieve identified load allocation reductions include septic, wastewater treatment facility discharges, fertilizer and stormwater runoff, landfill leachate, and agricultural operations.

Process for WMAs to Revise Nitrogen Load Allocation

In the event that one or more WMAs disagrees with the nitrogen load allocation set forth in the 208 Plan Update there are two methods by which they may request a revision to the Commission. A WMA or WMAs may request a revision by mutual agreement with all of the WMAs with jurisdiction within a respective shared watershed, or a WMA may submit an individual application for a revision to its allocation. If said revision is agreed upon and approved, the Commission will amend said Appendix 8C of the 208 Plan Update to reflect said revision, and the revision and supporting information shall be incorporated into the WMAs plan accordingly.

Revision by Mutual Agreement

Requesting a revision by mutual agreement requires that each WMA with jurisdiction over land in the respective subembayment watershed be party to a binding agreement that specifies an agreed upon nitrogen load allocation for each WMA. This agreement may be in the form of a memorandum of understanding, intermunicipal agreement or through the issuance of a DEP watershed permit.

Individual Application for Revision

A request for a revision to the nitrogen load allocation in a specific watershed may be submitted by an individual WMA for one of the following three reasons:

- New or better data is available, including actual data where estimates were previously used
- A correction to the data is requested
- There is a disagreement about or a suggestion to improve the methodology for calculation of the allocation.

The request must include the supporting data or suggested calculation methodology. It will be reviewed by a 208 Technical Review Group (TRG) that consists of representatives designated by

US EPA, MassDEP, and the Cape Cod Commission, with at least one representative from each agency and which may be augmented by one or more members designated by the TRG, as necessary and appropriate. To be deemed complete the applicant must provide the proposed data, provide a narrative justification for the correction, and/or propose an alternative methodology, depending on the reason for the application.

In the event that actual data becomes available where estimates were previously used, and where no target has been established by a Massachusetts Estuaries Project (MEP) report or Total Maximum Daily Load (TMDL), an amendment to Appendix 8C of the 208 Plan Update will be issued and the newly adopted information shall be incorporated into the town's planning, regulatory and consistency documents. In all other cases of updated or corrected data the TRG will review and, upon agreement of the group that an update to the data is necessary or a correction should be made, Appendix 8C in the 208 Plan Update will be amended and the newly adopted information shall be incorporated into the town's planning.

If the application for revision concerns the methodology by which the WMA's nitrogen load allocation has been established under the 208 Plan Update, a WMA may suggest an alternative methodology which will be reviewed and considered for approval by the TRG. In the case of a shared watershed, if the group agrees that a revised methodology is appropriate such revised methodology may only be allowed by mutual agreement between all of the WMAs with jurisdiction over lands in the respective subembayment watershed.

2) Plan meets WMA's nutrient reduction targets

All plans shall achieve the nitrogen load reduction required, either as allocated in the 208 Plan Update, or as agreed upon and approved via the allocation revision process outlined in section 1 herein.

3) Planning on a watershed level with consideration of a hybrid approach

Planning and analysis shall be on a subembayment watershed basis. The goal of watershed based planning is to focus solutions on the jurisdiction of the problem (watershed boundaries) rather than municipal boundaries.

The 208 Plan Update requires a broad alternatives analysis culminating in the development of a "hybrid" plan for each watershed. This is to ensure that all potential solutions are considered and that taxpayers understand the costs and effectiveness of different strategies and the tradeoffs between those strategies. Ultimately it is expected that hybrid solutions will result in the most effective and cost efficient solutions to achieve water quality goals. A WMA shall provide a broad Alternatives analysis of potential approaches. A collection scenario and a non-collection, or non-traditional, scenario shall be developed. At least one hybrid watershed scenario shall be developed following the hybrid watershed scenario planning process outlined in the 208 Plan Update that integrates reduction, remediation and restoration technologies and approaches.

The WMA shall include MS4 permit requirements and other stormwater management controls and approaches as part of the plan.

Policies and structural and non-structural strategies to manage fertilizer nitrogen contributions shall be discussed and included in the plan.

4) The public was engaged to gain plan consensus

The local planning process shall engage the public at the watershed level to gain consensus on proposed actions and those included shall represent a range of community stakeholders. The WMA shall engage and educate a wide range of stakeholders, including those within contributing Environmental Justice communities, and encourage comments from all relevant local, state, regional and federal government entities and interested members of the public on the proposed plan.

The WMA shall coordinate where possible with existing watershed associations and/or promote the formation of new associations early in the process to ensure public involvement in the process and public support for implementation. These associations can serve as both advisors and ambassadors of local plans. The range of viewpoints represented will ensure closer coordination between plan development, local need and community values.

5) Plan includes proposed strategies to manage nitrogen loading from new growth

A WMA shall calculate its future nitrogen loading responsibility for the watershed(s) in question based on buildout, and based on unattenuated nitrogen loads (in contrast to existing loads which are calculated based on attenuated loads). Buildout is the state of maximum development permitted by zoning and other regulations. Alternative strategies for controlling the nitrogen that results from growth are summarized in Chapter 7 of the 208 Plan Update.

The WMA shall submit for review proposed strategies to handle nitrogen loading from new growth (a Nutrient Growth Management Plan) as discussed in Chapter 3 of the 208 Plan Update and in Appendix H of the 2017 Implementation Report.

6) Plan includes an Adaptive Management Plan (AMP)

As watershed plans will include numerous and alternative strategies and approaches proposed to achieve required nitrogen reduction and other goals, these plans shall also include an adaptive management plan to guide a WMA's future decision-making with respect to plan implementation. AMPs shall contain specific milestones and triggers for decision-making, undertaking actions, and reporting relative to plan implementation for the respective watershed.

As part of the AMP, a traditional collection and treatment plan, including future expansion or phases of any core collection system, shall be proposed or considered for future phases of the watershed plan if the non-traditional technologies do not perform as anticipated, and adequately to achieve the WMA's required nitrogen reduction within the time periods set out in

the AMP. A traditional sewerage plan, including future expansion, or phases, of the core collection system, will serve as the backup plan for future phases of the watershed plan in the event that the non-traditional practices do not perform adequately.

The adaptive management plan shall be structured in five year increments, enabling approximately two years for the design, permitting and construction of technologies and a minimum three-year testing and monitoring period.

The WMA shall establish a process for evaluating the performance of deployed technologies at the completion of each five-year period, including an assessment of the achieved nutrient removal, cost, and other associated benefits or relevant consequences of the technology. In instances where it is determined that the success of a particular technology has not been fully realized as intended, the AMP process shall include an evaluation of possible adjustments and improvements and potential continuation of the technology. Where it is determined that a particular technology has not performed, and likely will not perform, as intended and a WMA chooses not to pursue such technology any longer, a process for decommissioning or abandoning the technology, as deemed necessary, shall be included in the AMP.

A process for evaluating and integrating embayment water quality monitoring data with technology performance data shall be outlined in the AMP.

The AMP shall also guide a WMA's decision-making about the siting of proposed technologies. A WMA shall consider, discuss and address in its AMP potential construction and operational impacts on the built and natural environment associated with preferred siting, and alternative siting scenarios that might limit, minimize or avoid such impacts. Considerations shall include:

- Effects of technologies on drinking water resources
 - Nitrogen
 - Contaminants of Emerging Concern
- Effects of technologies on Fresh surface waters
 - Phosphorous loading
- Effects on saltwater resources
 - Salt marsh
 - Brackish waters and tributaries
- Disposal locations
- Construction Impacts



7) Plan includes a Monitoring Program

An ongoing monitoring program for technology performance shall be included in the plan. At a minimum, the monitoring program shall address nitrogen, but may include other compounds.

The performance monitoring protocol(s) shall include an assessment of downgradient resources or sensitive receptors; assessment of nitrogen concentrations in water bodies that are located in or contribute to the respective watershed; placement of monitoring stations; parameters of evaluation; methods for collecting and analyzing data; and frequency of data collection, and shall be consistent with the Monitoring Protocols issued by the 208 Plan Update Monitoring Committee as appropriate (See Appendix C of the 2017 Implementation Report).

Plans shall include monitoring for the impacts of stormwater and the efficacy of fertilizer management strategies, and a process for integrating this data with embayment water quality data and improvements.

Embayment monitoring shall rely on the current MEP monitoring locations and protocols unless and until they are altered via the ongoing efforts to regionalize and standardize monitoring as may be recommended by the Monitoring Committee and Cape Cod Commission and thereafter adopted by the Cape Cod Commission and MassDEP, or if new or revised protocols are required by a watershed permit or another regulatory scheme.

The WMA shall enter into a Data Sharing Agreement with the Cape Cod Commission to house data, technical studies, reports and maps and other relevant information that is generated as a result of data analysis associated with this plan in a regional data warehouse that will maintain water quality data sets and make them publicly available. In addition, the Data Sharing Agreement includes a process for the sharing of building permit data to identify and quantify land uses that increase water use on any parcel.

8) Plan includes an assessment of the town's ability to pay for the proposed work

In order for the town's to be able to implement water quality plans and projects they must address the development of a funding strategy.

All plans shall include a fiscal analysis of the town's ability to pay for the projects proposed. Potential local revenue sources and outside sources of funding should be identified and schedules for financing over the life of the project(s) should be included.

9) WMA commits to 5-year 208 Plan Update Consistency reviews until water quality goals are achieved

The WMA shall commit to submitting all future plans and material changes to existing plans to the Cape Cod Commission for consistency review at least every five years.

10) In shared watersheds, WMA seeking 208 Consistency Review collaborates with neighboring WMA(s) on nitrogen allocation, shared solutions, and cost saving measures

In shared watersheds, and in circumstances where nitrogen management infrastructure or approaches may be shared, an effort shall be made to engage neighboring and other appropriate WMAs and cooperate on solutions.

Treatment and disposal capacity shall be preserved where feasible in shared watersheds, or a fiscal analysis of additional costs of limiting infrastructure to the WMA boundaries has been conducted and distributed as part of the planning and public participation process.

In the event a municipality determines that it will not pursue available opportunities to design, construct and operate shared infrastructure, it shall conduct and present a fiscal analysis of potential additional costs associated with constructing infrastructure limited to town boundaries.

WMA requests a Watershed Team Technical Assistance for Watershed Plan Development

As described in Chapter 5 of the 208 Plan Update, beginning on page 5-15, and Chapter 8, on page 8-10, of the 208 Plan Update, WMAs may request a Watershed Team through the Watershed Team Technical Assistance Program to assist with the development of watershed-based solutions.

Watershed Teams are designed to supplement local capacity and can assist in the areas of water resources, GIS, land use and economic development planning, finance modeling, legal and regulatory issues and 208 consistency, infrastructure and technologies, outreach and consensus building, as requested.

Requests for Watershed Team assistance should be directed to the Cape Cod Commission Executive Director from the respective Town Manager or Administrator, in writing, and should specify the type(s) of assistance requested.

The amount and level of assistance by the Watershed Team allocated to a WMA might vary, and is based on a number of considerations including but not limited to:

- The WMA's required nitrogen load reduction and degree of water quality impairment it must address,
- Level of community plan support,
- Level of collaboration and cooperation with appropriate WMAs,
- Potential for the plan to facilitate information transfer around new technologies and approaches,
- Future growth and economic development potential facilitated by the plan,



- Planning that addresses Title 5 failures and septic variances issued,
- Planning that addresses pond recharge areas,
- Estimated and desired times to realize water quality improvements, and
- Ongoing implementation of other capital projects.