
Project Information

The following questions should be filled out at the 25% design stage.

WARNING: Do not attempt to cut and paste cells. Form will malfunction.

1. Have you downloaded the most recent version of the Water Quality Data Form?

Yes

For questions 2-5, please use MassDOT's Project Information Look-Up Website to populate the yellow fields.

2. Project Number (From Project Info Website):

605311

3. Project Type (From Project Info Website):

Bridge

4. Project Name (From Project Info Website):

MARION- WAREHAM- BRIDGE REPLACEMENT, M-05-001=W-06-013 & W-06-016, WAREHAM STREET (US 6)
OVER WEWEANTIC RIVER

5. Location of Project (From Project Info Website):

Project Road(s): US-6

Cities and/or Towns: Marion & Wareham

District Number: 5

6. Project Designer:

Design Firm: Parsons(Steven Dylingowski)

Contact Person for Follow-Up: Matt Creighton (BSC Group, Ecological)

Email Address for Follow-Up: mcreighton@bscgroup.com

Phone Number for Follow-Up: 617-896-4591

Extension:

7. Who will have final ownership of the road or bridge this project is addressing?

MassDOT

Receiving Water Body Information

8. Does any runoff from the site enter a separate storm sewer system (MS4) operated by an organization other than MassDOT, such as a municipality?

No

- 9a. Is the project located in a watershed with one or more Draft or Final pollutant Total Maximum Daily Load(s) (TMDL)?

Yes

- 9b. Which Draft and/or Final pollutant TMDL(s) apply to the watershed?

Bacteria/Pathogens

Nitrogen

Stormwater

Phosphorus

10. How many water bodies on MassDEP's Year 2012 *Integrated List of Waters* receive stormwater runoff from the area impacted by this project (via any combination of piped or over land flow)?

1

Water Body #1

11. Segment ID of the receiving listed water body:

MA95-05

Name of the receiving listed water body:

Weweantic River

Receiving water body status:

Impaired

Receiving water body impairments:

Estuarine Bioassessments, Fecal Coliform, Nitrogen (Total)

Final TMDLs for receiving water body:

Bacteria/Pathogens

12. Notes about conceptual BMPs that are planned to treat stormwater flowing to Water Body #1 (Weweantic River):

The waterbody and associated wetlands and marshes will be protected from construction with the use of cofferdams, siltfence and/or compost filter tubes. Generally the final proposed bridge project will utilize catch basins to protect the River and wetland resource areas.

Recommendations and Requirements for BMPs Based on Status of Water Body #1

Ensure that any BMPs are recorded on the Water Quality Data Form for the 75% design stage. See the section of this form titled **Project Specific BMP Recommendations** for project-wide recommendations and contact information for MassDOT.

Recommendations Based on Receiving Water Body Impairment Status

BMPs must be implemented to ensure that stormwater discharging from this site does not contribute to the water quality impairments of this receiving water body. Water bodies impaired for nitrogen benefit from BMPs with bio-uptake capabilities, such as bioretention basins. Water bodies with most other impairments related to stormwater runoff (such as phosphorus, turbidity, excess algal growth, dissolved oxygen, etc.) benefit from infiltration or bioretention BMPs. Water bodies impaired for chlorides benefit mostly from non-structural BMPs, such as source control, so BMPs proposed for sites adjacent to these types of water bodies should be discussed with MassDOT.

Recommendations Applicable to Receiving Water Bodies with TMDL(s)

BMPs must be implemented to ensure that stormwater discharge is consistent with any applicable Waste Load Allocation (WLA) for the TMDL(s) covering this receiving water body.

Project Specific BMP Recommendations

Reference the MassDEP Storm Water Handbook for more detailed guidance on selecting BMPs.

Recommendations for Projects Located within TMDL Watershed(s)

BMPs must be implemented to ensure that stormwater discharge is consistent with any applicable Waste Load Allocation (WLA) for the TMDL(s) covering this watershed. Nitrogen is most effectively removed using BMPs that utilize bio-uptake. Consider proposing bioretention basins as part of the project.

Recommendations for Projects with a Listed Receiving Water Body

When weighing the need for BMPs versus the feasibility of design and construction, consider the proximity of receiving water bodies on MassDEP's Year 2012 Integrated List of Waters. For example, if stormwater runoff from the project area flows through an expansive wetland or ephemeral stream prior to entering a water body on the list, take into account that many stormwater pollutants will be naturally treated. In such instances, pollutant-specific BMPs are suggested but not required under the Impaired Waters Program. It is more important to retain the integrity of the wetland or ephemeral stream and only implement additional BMPs to the maximum extent practicable in accordance with the Massachusetts Stormwater Standards.

At the other extreme, if stormwater runoff from the site is piped directly into a water body listed on the Year 2012 Integrated List of Waters, no pollutants are removed from stormwater prior to discharge, and it is more likely that stormwater runoff will negatively impact water quality. In this case, pollutant-specific BMPs need to be incorporated into the project. Consider all possibilities to overcome site limitations. This shall be a project by project determination.

Recommendations for Bridge Projects

Consider reconstructing existing outfalls so as to maximize the length of the flow path between the outfall and the receiving water body. This may involve moving the outfall further away from the receiving water body and/or positioning the outfall to discharge runoff at an angle. New outfalls should also incorporate protection against erosive discharge velocities. If land is available, consider incorporating an infiltration-style BMP at the new outfall. Otherwise, investigate the feasibility of re-routing stormwater to an area with more available space, such as within roadway interchanges and ramp systems. Leaching catch basins are also a good option for infiltrating in constrained spaces.

For project areas discharging to a cold water fishery, consider implementing infiltration BMPs to reduce the likelihood that the temperature of the stormwater will negatively impact the fishery habitat.

Consider reducing the amount of existing impervious cover in the project area while remaining in compliance with applicable safety standards.

In some cases, the surface drainage from short-span bridges can be conveyed by gutter flow to beyond the end of the bridge. In these cases, stormwater management measures may be feasible. However, this feasibility will depend in part on the space available at the abutment for installation of treatment measures.

Recommendations for Non-Structural BMPs

Consider implementing as many of the following non-structural BMPs as possible:

- Preserve as much of the pre-development vegetation as possible
- Preserve natural drainage patterns and riparian buffers
- Minimize disturbance to wetland resource areas
- Reduce or eliminate curbing in well-vegetated areas that gently slope downward and away from the road
- Use shallow, grassed roadside swales and parking lot islands with check dams instead of curb and gutter storm drainage systems
- Reduce existing impervious cover or minimize the construction of additional impervious cover

Contact Bryan Cordeiro in the Environmental Section of MassDOT for guidance selecting appropriate BMPs. He can be reached at 857-368-8813 or at Bryan.Cordeiro@state.ma.us

Form Submission

13. Submittal Type:

Original

Name of MassDOT Reviewer:

(For internal use only)

14. Date Submitted to MassDOT:

01/03/2022

(mm/dd/yyyy)

Check box once all entries have been filled out. Form can be submitted once box has been successfully checked.
