



FOR THE ASSABET SUDBURY & CONCORD RIVERS

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Ken Moraff, Director
Office of Ecosystem Protection
USEPA Region 1
5 Post Office Square, Suite 1100
Boston MA 02109

David Ferris, Director
Mass. Wastewater Management Program
Department of Environmental Protection
1 Winter Street
Boston MA 02108

Re: Comments on draft NPDES Permit No. MA0102245 issued to the Executive Office of Public Safety and Security, Department of Correction, Massachusetts

Dear Mr. Moraff and Mr. Ferris,

Thank you for the opportunity to comment on the above referenced draft 5-year permit for the Department of Correction, Massachusetts, authorizing wastewater discharges into the Assabet River from the discharge facility located at Mass. Correctional Institute (MCI)—Concord. The draft permit has several good provisions, and we have a few suggestions to strengthen others. Below we provide some background on our organization and the Assabet River. We then provide a detailed discussion of the draft permit's provisions.

OARS is a non-profit watershed organization established in 1986 to protect, preserve, and enhance the natural and recreational features of the Assabet River, its tributaries and watershed. In 2011 the Sudbury and Concord Rivers were added to the mission of the Organization for the Assabet River (OAR) and the name changed to OARS.

OARS has over 600 members and operates a successful EPA-approved volunteer-based water quality and stream flow monitoring program, a biomass monitoring program, a large-scale volunteer annual river clean-up, and a variety of educational workshops, canoe trips and other activities designed to foster enjoyment and good stewardship of the rivers. OARS provides detailed Annual Water Quality Reports to the local municipalities, the public, the EPA and MassDEP (see:

<http://www.oars3rivers.org/river/waterquality>). The Assabet, Sudbury and Concord Rivers are federally-designated Wild and Scenic Rivers in segments flowing through the town of Concord and upstream and downstream of Concord. MCI-Concord discharges into a designated Wild and Scenic section.

As is discussed in the comments below, there are several positive aspects of the draft permit. However, the permit should be strengthened relative to addressing current collection system inadequacies and preparing for future 7Q10 conditions.

The Assabet River

The Assabet River originates in Westborough and flows north to the confluence with the Sudbury River in Concord to form the Concord River which flows north to the Merrimack River in Lowell. The Assabet

River is classified as Class B—Warm Water Fishery. The Concord River into which it flows is classified as Class B—Warm Water Fishery, Treated Water Supply, and is the sole public drinking water source of the Town of Billerica. There are three municipal wastewater treatment plants upstream of the MCI-Concord discharge: Westborough, Marlborough Westerly, Hudson and Maynard. The first three are upstream of the USGS flow gage in Maynard. The result of these wastewater flows is that the Assabet remains an effluent-dominated river, a concern in terms of public health and the health of aquatic life.

The *Massachusetts Year 2014 Integrated List of Waters* lists the Assabet River under Category 5 (Waters Requiring a TMDL). The 6.4 mile segment from Acton to the confluence with the Sudbury River is listed as impaired for total phosphorus and fecal coliform; there is a TMDL for phosphorus for the Assabet River.¹ Municipalities have made a large investment in improving the water quality and reducing the phosphorus pollution of the Assabet River through an adaptive management NPDES permitting process guided by the Assabet River TMDL for Phosphorus (2004). All four municipal wastewater treatment plants on the Assabet are meeting lower permit limits for phosphorus (0.1 mg/L TP growing season and 1.0 mg/L TP winter) contained in their 2005/2006 permits. The draft permit for the MCI-Concord plant is sets limits at 0.2 mg/L TP growing season and 0.5 mg/L TP winter. The Wayland wastewater treatment plant on the Sudbury River has a TP limit of 0.1 mg/L year-round.

This section of the Assabet River has a notable history of recreational use, particularly fishing, swimming and boating, stretching back several centuries. Despite the water quality impairments, Recreation, Scenery and Ecology were recognized as Outstandingly Remarkable Values by Congress when it was designated Wild and Scenic in 1999. RiverFest, an annual celebration of the three rivers, holds 45 river-based events every year, from canoe trips to fishing classes. As the river's popularity as a recreational resource has grown, area residents have become increasingly active in its stewardship.

The Assabet River does not yet meet its designated Class B—Warm Water Fishery water quality standard. OARS water quality data show significant decreases in in-stream TP concentrations since the upstream wastewater treatment plants were upgraded. However excessive aquatic biomass continues to be a problem in both the Assabet and Concord Rivers.

OARS' COMMENTS ON THE DRAFT NPDES PERMIT:

1. We fully support the new winter Total Phosphorus (TP) concentration of 0.5 mg/L and loading limit of 1.25 lbs/day.

The TP discharge limits contained in the draft permit finally meet the TMDL's concentration and loading requirements. It is evident from the DMRs that the treatment plant is able to meet these limits. Winter loading was thought to have little effect on eutrophication but more recent studies do not support this conclusion.²

2. More stringent future limits on TP should be anticipated in light of predicted increase in frequency of droughts and loss of base flow.

The permittee should start the process of planning and securing funds for treatment upgrades that will enable the treatment plant to meet the same growing season discharge limits as all the other facilities discharging to the Assabet and Sudbury Rivers: 0.1 mg/L TP, in the term of the next 5-year permit. Note that the far smaller Wayland treatment plant discharge limit is 0.1 mg/L year-round. This plant discharges

¹ *Assabet River Total Maximum Daily Load for Phosphorus, Report No: MA82B-01-2004-01*, 2004.

² *Assabet River Sediment and Dam Removal Study, Modeling Report*, June 2008, CDM.

to the Sudbury River; the Assabet should receive at least such stringent protection since it is already effluent-dominated.

3. We support the change from 60-day rolling average reporting to monthly average.

Due to fluctuations in the data, a monthly rolling average is a far more useful metric.

4. We support the addition of infiltration/inflow (C3), Collection System Mapping (C4), Collection System O&M Plan (C5) and Annual Reporting Requirement (C6) to Section C. Operation and Maintenance of the Sewer System

The addition of these four requirements to the O&M requirements is most welcome. Since 2010 there have been ongoing stormwater violations at the MCI-Concord facility despite an Administrative Order issued by MassDEP that year, and a further Notice of Noncompliance in 2014. Pollutants, including bacteria, surfactants and other evidence of wastewater appear to have been discharged directly into the Assabet River throughout this period. The problem is evidently from inadequacies of the wastewater collection system, some inadequacies of which have been addressed while others apparently remain; we have seen no evidence that the Administrative Order of 2010 was complied with.

We ask that the collection system mapping—corrective action required by MassDEP in 2014—be expedited in order to eliminate ongoing violations and prevent future ones. Waiting another 30 months is simply too long given the ongoing knowledge of the problem; we request that the permit be revised to require that the mapping be completed within 12 months. We also note that the MCI-Concord facility and associated buildings and police station which comprise the collection system is of very limited size and should not require 30 months to map. The preventive maintenance and monitoring program should be applied consistently to the full collection system. The permittee should include the stormwater outfall to the Assabet River in the monitoring program in order to protecting the water quality of the Assabet.

Since there is no industrial pretreatment at the facility, it is important that oil and grease from the cooking facilities be well contained and controlled, including strict adherence to maintenance procedures for oil and grease traps. We suggest that some initial testing for oil and grease be done to determine the levels in the effluent. Any oil or grease entering the Assabet River during low flow periods would have a significant detrimental effect on aesthetics, recreation and wildlife.

Lastly, due to the impact of pharmaceuticals, especially endocrine disruptors, on fish development, it is important that no pharmaceuticals be disposed of in the wastewater system except through normal human excretion. We ask that a provision for the proper disposal of pharmaceuticals be included in the O&M Plan.

5. We support the addition of limits on aluminum, cadmium and lead.

Aluminum, cadmium and lead can be highly toxic to aquatic life and discharge permits must contain limits that protect aquatic life using established criteria. We are pleased to see these metals included in the permit.

6. Calculations

It appears that the calculations of upstream flow and pollutant loading do not include the contributions of the Maynard treatment plant (Fact Sheet p. 7, 14). The Maximum Daily Flow recorded in the DMRs from Dec. 2013 onwards appears to be incorrect (Fact Sheet Appendix A, p. 2/12). If this large increase in flow is correct it needs to be explained.

CONCLUSIONS

The proposed draft permit has several good components and improvements. We expect that through timely system mapping and proper maintenance the current violations will be quickly resolved and future violations prevented. We also expect that MCI-Concord will in time invest in tertiary treatment to improve phosphorus removal to the standards of the other treatment facilities discharging to the Assabet River.

We hope that these comments are useful.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'A. Juma', with a long horizontal flourish extending to the left.

Alison Field-Juma
Executive Director

CC: Department of Correction