

**BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.**


_____)
In the Matter of:)
)
City of Lowell)
)
)
NPDES Permit No. MA0100633)
_____)

NPDES Appeal No. 19-03

CERTIFIED INDEX TO THE ADMINISTRATIVE RECORD

As Ken Moraff, Director of the Water Division, United States Environmental Protection Agency, Region 1, I hereby certify that the attached index constitutes the Certified Index to the Administrative Record of NPDES Permit No. MA0100633, issued to the City of Lowell, Massachusetts.

12/9/19
Date



Ken Moraff
Director
Water Division
EPA, Region 1

ADMINISTRATIVE RECORD INDEX
LOWELL REGIONAL WASTEWATER UTILITY, MA0100633

A. PERMIT DOCUMENTS

1. Final Permit. Lowell Regional Wastewater Utility Final 2019 NPDES Permit, MA0100633. September 25, 2019.
2. Final Permit Transmittal Letter. Final Permit letter from EPA to Mike Vosnakis, Sewer Superintendent, Chelmsford Sewer Commission, Chelmsford, MA. September 30, 2019.
3. Final Permit Transmittal Letter. Final Permit letter from EPA to Jay F. Reynolds, Sewer Superintendent, Dracut Sewer Department, Dracut, MA. September 30, 2019.
4. Final Permit Transmittal Letter. Final Permit letter from EPA to Brian Martin, Chair, Tyngsborough Sewer Commission, Tyngsborough, MA. September 30, 2019.
5. Final Permit Transmittal Letter. Final Permit letter from EPA to Richard Montuori, Town Manager, Town of Tewksbury, Tewksbury, MA. September 30, 2019.
6. Final Permit Transmittal Letter. Final Permit letter from EPA to Mark Young, Executive Director, Lowell Region Wastewater Utility, Lowell, MA. September 30, 2019.
7. Public Notice. Joint Public Notice of the Draft Permit, MA0100633. June 7, 2019.
8. Letter. Draft Permit public notice letter to Mark Young, Executive Director, Lowell Region Wastewater Utility, Lowell, MA. June 4, 2019.
9. Letter. Draft Permit public notice letter to Mike Vosnakis, Sewer Superintendent, Chelmsford Sewer Commission, Chelmsford, MA. June 4, 2019.
10. Letter. Draft Permit public notice letter to Jay Reynolds, Sewer Superintendent, Dracut Sewer Department, Dracut, MA. June 4, 2019.
11. Letter. Draft Permit public notice letter to Scott Brinch, Tewksbury, MA 01876. June 4, 2019.

12. Letter. Draft Permit public notice letter to Brian Martin Chair, Tyngsborough Sewer Commission, Tyngsborough, MA. June 4, 2019.
13. Public Notice. Public Notice extending comment period of a Draft Permit for Lowell Regional Wastewater Utility Draft 2019 NPDES Permit, MA0100633. July 23, 2019.
14. Draft Permit. Lowell Regional Wastewater Utility Draft 2019 NPDES Permit, MA0100633. June 8, 2019.
15. Fact Sheet. Lowell Regional Wastewater Utility 2019 Fact Sheet, MA0100633. June 8, 2019.
16. Permit Application Transmittal Letter. Lowell EPA Application Request Letter. March 10, 2009.
17. Permit Application Correspondence. Lowell EPA Application Deficient Letter. October 15, 2010.
18. Permit Application Correspondence. Lowell EPA Complete Application Letter. November 10, 2010.
19. Permit Application Correspondence. Lowell NPDES Application. May 26, 2010.
20. Permit Application Correspondence. Lowell Additional Data for Application. August 8, 2010.
21. Prior Permit. Lowell Regional Wastewater Utility Final 2019 NPDES Permit, MA0100633. September 1, 2005.

B. RESPONSE TO COMMENTS

1. Response to Comments. Response to Comments on Draft NPDES Permit No. MA0100633, Lowell Regional Wastewater Utility Final 2019 NPDES Permit. September 25, 2019

C. PUBLIC COMMENTS

1. Comment Letter. Town of Dracut, MA. August 26, 2019.
2. Comment Letter. Town of Chelmsford, MA. July 23, 2019.
3. Comment Letter. Groundwork Lawrence. July 23, 2019.

4. Comment Letter. Gene Porter, Lower Merrimack River Local Advisory Council (LMRLAC). July 23, 2019.
5. Comment Letter. Massachusetts Rivers Alliance and Conservation Law Foundation. July 23, 2019.
6. Comment Letter. Massachusetts Coalition for Water Resources Stewardship (MCWRS). July 23, 2019.
7. Comment Letter. Massachusetts Water Resources Authority (MWRA). July 23, 2019.
8. Comment Letter. Organization for the Assabet, Sudbury and Concord Rivers (OARS). July 23, 2019.
9. Comment Letter. Town of Tewksbury, MA. July 23, 2019.
10. Comment Letter. Town of Tyngsborough, MA. July 23, 2019.
11. Email. Peter Severance to Meridith Finegan transmitting comments. July 22, 2019.
12. Comment Letter. Lowell Wastewater Utility. July 22, 2019.
13. Comment Letter. Merrimack River Watershed Council (MRWC). July 22, 2019.
14. Comment Letter. David Chatfield. July 12, 2019.

D. WATER QUALITY CERTIFICATION

1. Certification. 401 Certification from Lealdon Langley, Director, Massachusetts Department of Environmental Protection, September 24, 2019.
2. Letter. 401 State Certification letter from EPA to Lealdon Langley, June 4, 2019.

E. OTHER CORRESPONDENCE

1. Letter. Mark Young to David Pinkham and Jennifer Wood re: Potential Total Phosphorous Effluent Limit for LWWU's Duck Island WWTF Discharge. November 13, 2015.

2. Letter. Mark Young to David Pinkham and Jennifer Wood re: Potential Lead Effluent Limit for LWWU's Duck Island WWTF Discharge. December 1, 2015.
3. Letter. Daniel St. Marie to Ms. Tymon, P.E. re: Lowell Regional Wastewater Utility Request for Determination of Applicability for the Duck Island Wastewater Treatment Facility Improvement Project. April 21, 2017.
4. Email. Mark Young to Meridith Finegan requesting comment period extension. June 14, 2019.
5. Letter. EPA to Mark Young Re: Comment Period Extension Request. June 20, 2019.
6. Letter. Philip Guerin to EPA requesting extension of public comment period, Massachusetts Coalition of Water Resources Stewardship. June 24, 2019.
7. Letter. Senator Diana DiZoglio to EPA requesting a Public Hearing. June 27, 2019.
8. Letter. EPA to Senator Diana DiZoglio Re: Request for Public Hearing. July 16, 2019.
9. Email. Email with letter attached from Mark Young to Ken Moraff re: Meeting Request from Lowell Wastewater Utility, August 30, 2019.
10. Letter. EPA Region 1 to Mark Young, re: meeting request to discuss reissuance of NPDES Permit for Lowell Regional Wastewater Utility. September 24, 2019.

**F. SITE-SPECIFIC DISCHARGE INFORMATION (FACILITY;
EFFLUENT DATA; AMBIENT DATA)**

1. Map. Duck Island Map
2. Map. USGS Location Map of Lowell Regional Wastewater Utility and Combined Sewer Overflow Locations.
3. DMRs. Network Discharge Monitoring Report Index for MA0100633 DMR reports and Attachments (NetDMR), October 2013-October 2019.
4. Data. CSO Discharge Data, 2014-2018 as submitted by the LRWU (File Name: Lowell_2005-2017_HighFlowOperationalData.xlsx)

5. Data. 1990 to 2017 7Q10 Calculator (Merrimack River).
6. Data. 2018_2_6 Lewis-Franz re: Merrimack 7Q10.
7. Calculation. 7Q10 (By hand) calculation.
8. Data. All Continuous Data Merrimack 2017.
9. Analysis. Merrimack 7Q10 Analysis.
10. 2018 Lowell Regional Wastewater Sludge Production and Disposal Report. January-December 2018.
11. Email. Michael Stuer to Finegan, Meridith; claire.golden@MassMail.State.MA.US; 'susannah.king@mass.gov' re: Metals data in Lowell Reach of the Merrimack River with attachment, Ambient Metals in Lowell Reach of Merrimack River. April 24, 2019.
12. Map. Map of Clean Metals Sampling Locations.
13. Email. Gregory Coyle to Meridith Finegan re: Lowell Data, with attachment, Lowell Regional Wastewater Sampling Data 2018. February 9, 2019.
14. Email. Meridith Finegan to Mark Young re: Information for draft NPDES Permit development. July 10, 2014.
15. Email. Jennifer Wood to Michele Bardon re: update to Milford bacteria RTC. July 29, 2019.
16. Email. Gregory Coyle to Meridith Finegan re: Question about number of industrial users. February 27, 2019.
17. Email. Michael Stuer to Meridith Finegan re: Monthly Average Flow Spreadsheet. May 24, 2019.
18. Report. Lowell Quarterly Toxicity Report. January 2014.
19. Report. Lowell Quarterly Toxicity Report. April 2014.
20. Report. Lowell Quarterly Toxicity Report. July 2014.
21. Report. Lowell Quarterly Toxicity Report. October 2014.

22. Report. Lowell Quarterly Toxicity Report. January 2015.
23. Report. Lowell Quarterly Toxicity Report. April 2015.
24. Report. Lowell Quarterly Toxicity Report. July 2015.
25. Report. Lowell Quarterly Toxicity Report. October 2015.
26. Report. Lowell Quarterly Toxicity Report. January 2016.
27. Report. Lowell Quarterly Toxicity Report. April 2016.
28. Report. Lowell Quarterly Toxicity Report. July 2016.
29. Report. Lowell Quarterly Toxicity Report. October 2016.
30. Report. Lowell Quarterly Toxicity Report. January 2017.
31. Report. Lowell Quarterly Toxicity Report. April 2017.
32. Report. Lowell Quarterly Toxicity Report. July 2017.
33. Report. Lowell Quarterly Toxicity Report. October 2017.
34. Report. Lowell Quarterly Toxicity Report. January 2018.
35. Report. Lowell Quarterly Toxicity Report. April 2018.
36. Report. Lowell Quarterly Toxicity Report. July 2018.
37. Report. Lowell Quarterly Toxicity Report. October 2018.
38. Report. Lowell_TP95 Percentile Calculation April through October,
39. Permit. FERC Permit P-2800 (Essex Dam in Lawrence). February 15, 1979.
40. Miscellaneous. Sign-in sheet for Lowell Meeting, May 15, 2019.

G. SCIENTIFIC STUDIES, REPORTS AND PLANS

1. Plan. 1975 Merrimack Wasteload Allocation 84-D-1
2. Study. Camp, Dresser and McKee (CDM)/US Army Corps of Engineers, Final Phase III Lower Merrimack Summary Report, February 2019.

3. Study. Camp, Dresser and McKee (CDM)/US Army Corps of Engineers, Final Phase III Lower Merrimack Summary Report, Appendix C. Data Tables, February 2019.
4. Study. Camp, Dresser and McKee (CDM)/ US Army Corps of Engineers, Phase II Lower Merrimack Appendix C. Data Tables, December 2018.
5. Study. Camp, Dresser and McKee (CDM)/US Army Corps of Engineers, Merrimack River Watershed Assessment Study, Final Phase I Report, September 2006.
6. Report. Howes, Brian, et al, Site Specific Nitrogen Thresholds for Southeastern Massachusetts Embayments: Critical Indicators Interim Report, Massachusetts Estuary Project, December 22, 2003.

H. CSO-RELATED INFORMATION

1. Report. 2018 Annual CSO Report, Lowell_Annual Clean Water Report 2018.
2. Report. 2017 Annual CSO and Nine Minimum Controls Report, 2018-4-30_Lowell_Lowell_2017 Annual Report.
3. Report. 2016 Annual CSO Report, Lowell CSO 2016 Annual Report.
4. Report. 2015 Annual CSO Report, 2015 CSO Annual Data.
5. Letter. EPA to LRWU transmitting comments on Lowell's Phase 2 LTCP Report, "Long Term Control Plan Final Letter," September 15, 2016.
6. Letter. MassDEP to LRWU transmitting comments on Lowell's Phase 2 LTCP Report "Lowell LTCP MassDEP Comments", December 16, 2016.
7. Letter. Lowell Regional Wastewater Utility High Flow Management Plan, March 1, 2011.
8. Letter. Lowell Regional Wastewater Utility Long Term Control Plan Executive Summary, August 15, 2014.
9. Administrative Order. 2017 Administrative Order on Consent, October 2, 2017. City of Lowell Final Administrative Consent Order with cover letter.
10. Plan. High Flow Management Plan Appendices A&B, March 1, 2011.
11. Plan. High Flow Management Plan Appendices C&D, March 1, 2011.

12. Data. Lowell 2005-2017 High Flow Operational Data.
13. Email. Meridith Finegan to Mark Young re: Discussion on Draft Permit, April 4, 2019.
14. Email. Gregory Coyle to Meridith Finegan re: Lowell CSO data, February 14, 2019.
15. Summary. Combined Sewer Overflows Background and Annual CSO Discharge Summary 2014-2018.
16. Federal Register Notice. "National Combined Sewer Overflow Control Strategy," 54 Fed. Reg. 37371 (Sept. 8, 1989).
17. Federal Register Notice. "Combined Sewer Overflow (CSO) Control Policy," 59 Fed. Reg. 18688 (April 19, 1994). Published Online:

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19. Guidance. U.S. EPA, Office of Water, 1995 "Combined Sewer Overflows Guidance for Permit Writers", EPA-832-B-95-008. Published Online:

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20. Report. Report to Congress Impacts of CSOs, SSOs, 2004. Published Online:

https://www.epa.gov/sites/production/files/2015-10/documents/csosortc2004_full.pdf.
21. Guidance. Environmental Protection Agency. 1999. Combined Sewer Overflows. Guidance for Monitoring and Modeling. United States Environmental Protection Agency, Office of Water. EPA 832-B-99-002.
22. Administrative Order. 2010 Administrative Order for Compliance. City of Lowell Final Administrative Order, dated September 30, 2010.

I. 303(D) AND 305(B) MATERIALS

1. Listing. Massachusetts Year 2014 Integrated Lists of Waters (303d list).
Published Online:

https://www.mass.gov/files/documents/2016/08/sa/14list2_0.pdf.
2. Listing Approval. Approval letter from EPA to Massachusetts Department of Environmental Protection 2014 Section 303(d) list, February 23, 2016.
Published Online:

<https://www.mass.gov/files/documents/2016/08/rz/14epa-iw.pdf>.
3. Report. Merrimack River Watershed, 2004-2009 Water Quality Assessment Report, January 2010. Published Online:

<https://www.mass.gov/files/documents/2016/08/nz/84wqar09.pdf>.
4. Report. Merrimack River Basin, 1999 Water Quality Assessment Report, 84-AC-1. Published Online:

<https://www.mass.gov/lists/water-quality-assessment-reports-merrimack-through-weymouth-weir-watersheds>.
5. Guidance. Massachusetts Consolidated Assessment and Listing Methodology (CALM) Guidance Manual for 2018 Reporting Cycle, May 3, 2018. Published Online:

<https://www.mass.gov/files/documents/2018/05/07/2018calm.pdf>.
6. Email. Laurie Kennedy to Betsy Davis, September 18, 2019 re: Merrimack River segment 84A-04 and designated uses, with attachment, Merrimack River Survey 1986.

J. EPA NUTRIENT PERMITTING MATERIALS

1. Technical Guidance. Quality Criteria for Water 1986. Also known as the “Gold Book.” United States Environmental Protection Agency, Office of Water, Regulations and Standards. EPA 440/5-86-001. Published Online:

<https://www.epa.gov/wqc/quality-criteria-water-gold-book>.
2. Technical Guidance. Nutrient Criteria Technical Guidance Manual: Rivers and Streams. U.S. Environmental Protection Agency, Office of Water and

Office of Science and Technology, EPA822-B-00-002. July 2000. Published Online:

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4. Technical Guidance. Nutrient Criteria Technical Guidance Manual: Rivers and Streams. U.S. Environmental Protection Agency, Office of Water and Office of Science and Technology, EPA822-B-00-002. July 2000. Excerpt at p. 101. Table 4.
5. Technical Guidance Nutrient Criteria Technical Guidance Manual: Estuarine and Coastal Marine Waters. U.S. Environmental Protection Agency, Office of Water, EPA-822-B-01-003. October 2001. Published Online:

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7. Technical Guidance. Nutrient Criteria Technical Guidance Manual: Lakes and Reservoirs. U.S. Environmental Protection Agency, Office of Water and Office of Science and Technology, EPA822-B00-001. April 2000. Published Online:

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8. Technical Guidance. Ambient Water Quality Criteria Recommendations, Information Supporting the Development of State and Tribal Nutrient Criteria, Rivers and Streams in Ecoregion XIV. Environmental Protection Agency, Office of Water. EPA 822-B-00-022. December 2000.
9. Technical Guidance. Ambient Water Quality Criteria Recommendations: Information Supporting the Development of State and Tribal Nutrient

Criteria, Lakes and Reservoirs in Ecoregion XIV. Environmental Protection Agency, Office of Water. EPA 822-B-00-010. Published online at:

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12. Technical Guidance. National Estuary Program Coastal Condition Report. U.S. Environmental Protection Agency, Office of Water/Office of Research and Development. EPA 842/B-06/001. 2006.
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14. Technical Guidance. National Coastal Condition Report. U.S. Environmental Protection Agency, Office of Water/Office of Research and Development. EPA 620/R-01/005. September 2001.
15. Technical Guidance. Clarifications Regarding Certain Aspects of EPA's Surface Water Toxics Control Regulations. U.S. Environmental Protection Agency, Office of Water. (August 14, 1992). Published Online:

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17. Technical Guidance. Development and Adoption of Nutrient Criteria into Water Quality Standards, Geoffrey Grubbs, Director, EPA Office of Science and Technology. November 2001.
18. Technical Guidance. Rapid Bioassessment Protocols For Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates, and Fish. EPA. 1999.

19. Literature. Walter K. Dodds *et al.* 1997. Nitrogen and phosphorus relationships to benthic algal biomass in temperate streams. *Can. J. Fish. Aquat. Sci* Vol 59.
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21. Literature. Walter K. Dodds and Eugene Welch. 2000. Establishing Nutrient Criteria in Streams. *Bridges*, Vol 19 186-196.
22. Literature. Walker K. Dodds and Robert M. Oakes. 2004. The Technique for establishing reference nutrient concentrations across watersheds affected by humans. *Limnology and Oceanography; Methods*. 333-341.
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49. NPDES Permit, Response to Comments and Fact Sheet. Upper Blackstone Water Pollution Abatement District, NPDES Permit No. MA0102369.
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K. OTHER EPA MATERIAL

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