Appendix A

Impaired and TMDL Waters Updates

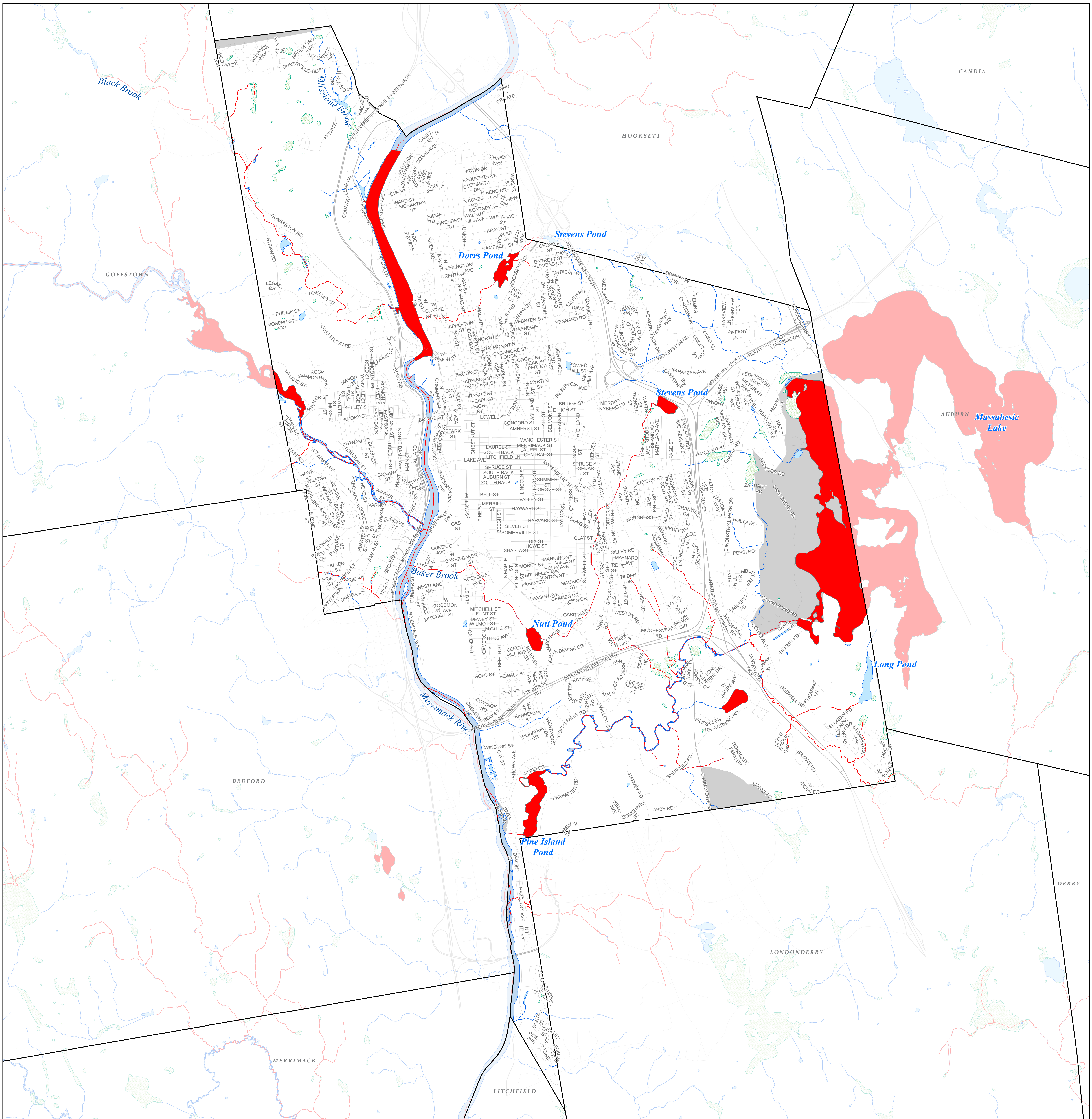
Impaired Waters Based on the 2018 303(d) List

Waterbody Name	Segment ID and Category		Impairment(s)	Approved TMDL
Baker Brook	NHRIV700060803-08	5	Chloride	
Black Brook	NHRIV700060801-05-02	5	Benthic-macroinvertebrates	
		5	pH	
Black Brook-Hardy Brook	NHRIV700060801-05-01	5	Lead	
		5	Dissolved oxygen	
		5	pH	
Cohas Brook	NHRIV700060703-08	5	pH	
	NHRIV700060703-09	4a	*E. coli*	9/21/2010
Cohas Brook- Long Pond Brook	NHRIV700060703-05	5	Benthic-macroinvertebrates	
		5	pH	
		4a	*E. coli*	9/21/2010
		4c	Stream habitat assessment	
Crystal Lake- Town Beach	NHLAK700060703-02-02	4a	*E. coli*	9/21/2010
Dorrs Pond	NHLAK700060802-01	5	Chloride	
		4a	*E.coli*	1/1/2011
		4a	Chlorophyll	5/12/2011
		4a	Dissolved oxygen	5/12/2011
		4a	Phosphorous	5/12/2011
Dorrs Pond Inlet Brook	NHRIV700060802-13	5	Chloride	
Dorrs Pond- E Inlet	NHRIV700060802-16	5	Chloride	
Humphrey Brook	NHRIV700060803-15	5	Chloride	
Little Cohas- Unnamed Brook	NHRIV700060804-05	5	Benthic-macroinvertebrates	
		5	Chloride	
		5	Iron	
		5	Dissolved oxygen	
		5	pH	
Massabesic Lake	NHLAK700060702-03	5	Dissolved oxygen	
		5	Cyanobacteria	
		4b	pH	
McQuesten Brook	NHRIV700060803-16	5	*E. coli*	
		5	Chloride	
		5	pH	
Merrimack River	NHRIV700060803-14-02	5	Aluminum	
		5	pH	
		4a	*E. coli*	9/21/2010
		4b	Phosphorous	
	NHRIV700060804-11	4a	*E. coli*	9/21/2010
Merrimack River- Amoskeag	NHIMP7000600802-04	4a	*E. coli*	9/21/2010

Waterbody Name	Segment ID and Category		Impairment(s)	Approved TMDL
Namaske Lake	NHLAK700060607-02	5	Chlorophyll	
		5	Phosphorous	
		5	pH	
		4a	*E. coli*	9/21/2010
		4c	Non-native aquatic plants	
Nutt Pond	NHLAK700060803-01	5	Chloride	
		5	pH	
		4a	Chlorophyll	5/12/2011
		4a	Phosphorous	5/12/2011
		4c	Non-native aquatic plants	
Pine Island Pond	NHLAK700060703-04	5	pH	
		4a	Chlorophyll	5/12/2011
		4a	Cyanobacteria	5/12/2011
		4a	Dissolved oxygen	5/12/2011
Piscataquog River	NHRIV700060607-22	5	pH	
		4b	*E. coli*	
Rays Brook	NHRIV700060802-15	5	Chloride	
		4a	*E. coli*	8/29/2011
Saint Anselm Brook- To Piscataquog River	NHRIV700060607-35	5	Dissolved oxygen	
		5	pH	
		4a	*E. coli*	8/29/2011
South Perimeter Brook	NHRIV700060804-12	5	Chloride	
		5	Iron	
Stevens Pond	NHLAK700060803-02	5	Chloride	
		4a	Chlorophyll	5/12/2011
		4a	Dissolved oxygen	5/12/2011
		4a	pH	9/20/2007

Notes: The “TMDL for 158 Acid Impaired Ponds and 21 Aluminum Impaired Lakes” and the “Northeast Regional Mercury TMDL” do not specify waste load allocations or other requirements either individually or categorically for the MS4 discharges and specify that load reductions are to be achieved through reduction in atmospheric deposition sources. Mercury impaired waters have been excluded from the table.

Impairments added in the 2018 303(d) list are highlighted in blue in the table.



Impaired Waters
Manchester, NH

Legend

- 303(d) Impaired Stream
- 303(d) Impaired Waterbody
- Local Roads
- State or Interstate
- Pond, Reservoir
- Swamp, Marsh
- Stream, River
- Non-Urban Area

N
W E
S

0 0.5 1 1.5 2
Miles

Comprehensive Environmental Incorporated

Data Sources: GRANIT, City of Manchester

5.12.2020

UPDATE Table 6-1. Additional Sampling Parameters for Discharges to Impaired Waters (Based on 2018 303(d) List)

Sample Parameter	Impairment	Impaired Water																			Method
		Namaske Lake	Pine Island Pond	Dorrs Pond	Stevens Pond	Dorrs Pond Inlet Brook	Dorrs Pond-E Inlet	Humphrey Brook	Little Cohas-Unnamed	Baker Brook	Black Brook	Black Brook-Hardy Brook	Cohas Brook	Cohas Brook-Long Pond	Piscataquog River	Ray Brook	Saint Anslem Brook-To Piscataquog River	South Perimeter Brook	Merrimack River	Nutt Pond	
pH	pH	X	X		X				X		X	X	X	X	X		X		X	X	Field Meter
Dissolved Oxygen	DO Saturation DO		X	X	X				X			X					X				Field Meter or Laboratory Analysis: 365.1; 365.2; 365.3
Total Phosphorus	Phosphorus DO Excess algal growth Chlorophyll-a Cyanobacteria	X	X	X	X														X	X	Laboratory Analysis: SM 4500-P
BOD5	DO Saturation DO		X	X	X				X			X					X				Laboratory Analysis: 360.1; 360.2
Aluminum	Aluminum																		X		Laboratory Analysis: EPA 405.1, SM 5210
Lead	Lead											X									Laboratory Analysis: 200.7
Iron	Iron								X									X			Laboratory Analysis: EPA 200.7
Chloride	Chloride			X	X	X	X	X	X	X						X		X		X	Laboratory Analysis: 300; SM 4500-Cl
No additional sampling required	Benthic macro-invertebrates								X		X			X							Per additional MS4 guidance from NHDES, no additional monitoring is required.

Additional sampling based on impairments added in the 2018 303(d) list are highlighted in blue in the table.