

**Orleans Freshwater Ponds and Stormwater Information
Preliminary Analysis**

Basin and Stormwater Characteristics						Total Nitrogen					Total Phosphorous					Total Suspended Solids				
Basin	Watershed Area (acres) ¹	Total # Stormwater Outfalls	Outfall Catchment Area (acres) ²	Total # BMPs	BMP Watershed Area (acres) ³	Baseline TN Load (lb/yr) ⁴	Baseline TN Load (lb/yr/acre)	BMP Reduction in TN Load (lb/yr) ⁵	BMP % Reduction TN	Reduced TN Load (lb/yr)	Baseline TP Load (lb/yr) ⁴	Baseline TP Load (lb/yr/acre)	BMP Reduction in TP Load (lb/yr) ⁵	BMP % Reduction TP	Reduced TP Load (lb/yr)	Baseline TSS Load (lb/yr) ⁴	Baseline TSS Load (lb/yr/acre)	BMP Reduction in TSS Load (lb/yr) ⁵	BMP % Reduction TSS	Reduced TSS Load (lb/yr)
Bakers Pond	58.8	0	-	0	-	372	6.3	0	-	372	22	0.4	0	-	22	2,146	36.5	0	-	2,146
Boland Pond	44.3	4	1.4	0	-	261	5.9	0	-	261	18	0.4	0	-	18	4,528	102.2	0	-	4,528
Cedar Pond	119.6	6	3.9	3	3.0	1,211	10.1	37	3.0%	1,174	104	0.9	3	2.9%	101	22,572	188.7	473	2.1%	22,099
Crystal Lake	225.5	4	0.3	1	0.5	1,066	4.7	12	1.1%	1,054	62	0.3	1	1.6%	61	13,191	58.5	129	1.0%	13,062
Deep Pond	69.4	0	-	0	-	207	3.0	0	-	207	16	0.2	0	-	16	2,456	35.4	0	-	2,456
Gould Pond	232.2	0	-	0	-	361	1.6	4	1.2%	357	26	0.1	0	-	26	7,446	32.1	124	1.7%	7,322
Ice House Pond	N/A	2	0.9	0	-	N/A					N/A					N/A				
Meadow Bog Pond	N/A	0	-	0	-	N/A					N/A					N/A				
Pilgrim Lake	176.1	1	1.7	1	1.6	1,051	6.0	13	1.3%	1,038	69	0.4	1	0.8%	68	11,241	63.8	316	2.8%	10,925
Sarahs Pond	107.4	0	-	0	-	430	4.0	0	-	430	32	0.3	0	-	32	7,202	67.1	0	-	7,202
Shoal Pond	89.3	1	5.3	0	-	301	3.4	0	-	301	22	0.2	0	-	22	3,341	37.4	0	-	3,341
Twinings Pond	110.3	2	0.1	0	-	428	3.9	0	-	428	34	0.3	0	-	34	5,413	49.1	0	-	5,413
Uncle Harveys Pond	29.5	1	2.3	1	3.6	209	7.1	17	8.1%	192	15	0.5	2	11.0%	13	2,379	80.7	288	12.1%	2,091
Uncle Israels Pond	N/A	0	-	0	-	N/A					N/A					N/A				
Uncle Seths Pond	82.8	1	-	0	-	200	2.4	0	-	200	19	0.2	0	-	19	2,466	29.8	0	-	2,466
Wash Pond	N/A	0	-	0	-	N/A					N/A					N/A				

Notes:

1. Watershed delineations are not available for some fresh water ponds and some ponds required compilation of multiple sub-basin polygons to aggregate the watershed area.
2. Some stormwater outfall catchments are not delineated due to a lack of storm drain infrastructure information (refer to maps for each pond).
3. Some BMP watershed areas are not included in the total outfall catchment areas because the BMP does not have an outfall to the ground surface (refer to BMP characteristics).
4. Baseline pollutant loads are estimated using the Simple Method based on MassGIS land use characteristics and literature-based values for event mean concentrations for pollutants.
5. BMP reductions for pollutant loads are calculated using the average pollutant removal efficiencies by BMP type from the MA Stormwater Handbook, assuming the BMPs were sized (designed) appropriately and are functioning properly.