

New Hampshire Small MS4
Phosphorus Source Identification Report
Appendix H – Part II 1.b
Town of Windham

Prepared By:
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The purpose of this document is to meet the requirement in Appendix H section II.1.b.i to create a Phosphorus Source Identification Report. Though the Town of Windham does include both the raw municipally and privately owned parcel data in Attachment A of this report, the information presented in this report focuses on municipally owned parcels rather than privately owned. The reason for this focus was to still complete this Year 4 requirement but to also start to prepare for the Year 5 requirement in section II.1.c.i to evaluate all permittee-owned properties for BMP retrofit opportunities.

1. Calculation of total MS4 area draining to the water quality limited receiving water segments or their tributaries, incorporating updated mapping of the MS4 and catchment delineations produced pursuant to Part 2.3.4.6.

The Town of Windham has calculated raw data for municipal-owned and privately-owned parcels, based on impervious cover, for the entirety of the regulated NH MS4 area. A spreadsheet containing all of the Town of Windham raw data can be found in Attachment A.

The total MS4 area within the Town of Windham is: 8,438.55 acres.

The Town of Windham is using raw data that was prepared by a collaborative effort between the UNH Stormwater Center, GRANITE, and NH Department of Environmental Services. Information contained in the raw data has been sorted to identify non-conservation parcels owned by the Town of Windham in descending order by acreage of impervious cover, which indicates the priority rank for BMP implementation of municipally-owned properties. A focus on municipally-owned properties is a priority for the Town of Windham in order to prepare for the Year 5 requirement which states, *“Within five years of the permit effective date, the permittee shall evaluated all permittee-owned properties identified as presenting retrofit opportunities or areas for structural BMPs installation...”* Reports using the raw data, and of which have the highest total phosphorus loads, have been prepared to identify the ranking and optimal number of parcels to be treated by BMPs. The top ranked municipally-owned parcels are represented as the “knee” and can be found in Attachment C. During Year 5 the Town of Windham will complete a similar report for all privately-owned parcels located within the NH MS4 regulated area.

2. All screening and monitoring results pursuant to Part 2.3.4.7.d., targeting the receiving water segment(s)

All screening and monitoring results pursuant to Part 2.3.4.7.d for the Town of Windham can be found in Attachment B of this report.

3. Impervious area and DCIA for the target catchment

For the purpose of this report, the Town of Windham does not distinguish between Impervious area and directly connected impervious area (DCIA). The Town of Windham determined priority parcels based on directly connected impervious cover (IC) areas for consideration of disconnection and treatment using structural BMP implementation.

The total impervious cover (IC) area within the Town of Windham is: 1,041.94 acres.

4. Identification, delineation and prioritization of potential catchments with high phosphorus loading

A spreadsheet identifying and prioritizing the top municipally-owned potential parcels with high phosphorus loading can be found in Attachment C of this report.

The Town of Windham is using raw data that was prepared by a collaborative effort between the UNH Stormwater Center, GRANITE, and NH Department of Environmental Services. Information contained in the raw data has been sorted to identify non-conservation parcels owned by the Town of Windham in descending order by acreage of impervious cover, which indicates the priority rank for BMP implementation of municipally-owned properties. A focus on municipally-owned properties is a priority for the Town of Windham in order to prepare for the Year 5 requirement which states, *“Within five years of the permit effective date, the permittee shall evaluate all permittee-owned properties identified as presenting retrofit opportunities or areas for structural BMPs installation...”* Reports using the raw data, and of which have the highest total phosphorus loads, have been prepared to identify the ranking and optimal number of parcels to be treated by BMPs. The top ranked municipally-owned parcels are represented as the “knee” and can be found in Attachment C. During Year 5 the Town of Windham will complete a similar report for all privately-owned parcels located within the NH MS4 regulated area.

5. Identification of potential retrofit opportunities or opportunities for the installation of structural BMPs during redevelopment, including the removal of impervious area of permittee-owned properties.

The Town of Windham has identified potential retrofit opportunities for the installation of structural BMPs of municipally-owned properties during redevelopment, including the removal of impervious cover (IC) area. Attachment D contains the prioritized list of municipally-owned parcels with consideration of multiple factors including: 1.) prioritized list of municipally-owned parcels with the highest total phosphorus pollutant loads and 2.) a number of factors from section 2.3.6.e that are used to determine the potential of each parcel to be retrofitted with a stormwater BMP.

A focus on municipally-owned properties is a priority for the Town of Windham in order to prepare for the Year 5 requirement which states, “*Within five years of the permit effective date, the permittee shall evaluate all permittee-owned properties identified as presenting retrofit opportunities or areas for structural BMPs installation...*” During Year 5 the Town of Windham will complete a similar ranking for all privately-owned parcels located within the NH MS4 regulated area.

ATTACHMENT A (separate file)

**Raw Municipal and Private Parcel Data in MS4
Regulated Area**

ATTACHMENT B (separate file)
Screening and Monitoring Results

ATTACHMENT C

Identification, Delineation and Prioritization of Potential Catchments with High Phosphorus Loading

PSIR Attachment C- Windham identification, delineation and prioritization of potential catchments with high phosphorus loading

Treatment Priority	Street Address	Parcel Acreage (acres)	Impervious Cover Area (acres)	Total Phosphorus Load (lb/year)
1	Fellows Rd	50.44	4.74	16.11
2	2 Ledge Rd	12.11	3.23	9.02
3	Nashua Rd	26.47	1.61	5.18
4	39 Marblehead Rd	21.06	0.52	4.86
5	11 Cobbetts Pond Rd	8.09	2.47	4.27
6	Haverhill Rd	18.28	0.26	2.72
7	3 No Lowell Rd	3.27	1.33	2.54
8	Londonderry Rd	8.03	0.28	2.46
9	Cobbetts Pond Rd	6.77	1.00	1.89
10	45 Cobbetts Pond Rd	0.97	0.96	1.64
11	4 No Lowell Rd	1.49	0.60	1.30
12	21 Haverhill Rd	0.98	0.37	0.60
13	Rockingham Rd	0.51	0.43	0.58
14	8 Depot Rd	0.58	0.33	0.53
15	Frost Rd	1.03	0.22	0.51
16	Depot Rd	0.32	0.26	0.42
17	Seavey Rd	0.63	0.20	0.35

ATTACHMENT D (separate file)
Identification of Potential Retrofit