**New Hampshire Small MS4**

**##Waterbody Name**

**Lake Phosphorus Control Plan**

**Appendix F**

**Part III.1.**

**##MUNICIPALITY**

**Template Prepared By:**

**Seacoast Stormwater Coalition &**

**New Hampshire Lower Merrimack Stormwater Coalition**

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***Introduction:*** *2017 NH MS4 permittees that fall under the Appendix F requirements due to a phosphorus TMDL are required to complete a written Lake Phosphorus Control Plan (LPCP) during Year 5 and submit the plan as part of the Year 5 Annual Report. The following permittees are identified in the 2017 NH MS4 permit under Part 2.2.1.f.1 for a phosphorus TMDL:*

*AMHERST*

*BEDFORD*

*DERRY*

*HOLLIS*

*HUDSON*

*KINGSTON*

*MANCHESTER*

*MERRIMACK*

*NEWTON*

*RAYMOND*

*SANDOWN*

*This document is only intended to complete the requirements outlined in Appendix F Part III.1. which is for permittees with phosphorus TMDLs.*

Lake Phosphorus Control Plan

The purpose of this document is to meet the requirements outlined in Appendix F Part III.1. to complete a written Lake Phosphorus Control Plan (LPCP) for ##Waterbody Name. ##MUNICIPALITY will fully implement this LPCP no later than 15 years after the effective date of the 2017 NH MS4 Permit.

##MUNICIPALITY has made the Lake Phosphorus Control Plan available on ##website or physical location and provided an opportunity for public review and comment on ##Date. No comments were received **or** note comments received and how they were incorporated into the LPCP.

##MUNICIPALITY will update the LPCP as needed to support the achievement of the LPCP including in Year 10 with the requirement to update the written LPCP with any new changes. ##MUNICIPALITY will conduct annual performance evaluations in intervals outlined in the permit during each permit year starting in Year 6.

##MUNICIPALITY has updated the SWMP to reflect the development of the written LPCP and all required elements.

Legal Analysis

***Important Note:*** *This requirement was due in Year 2 but must be added to this written LPCP. For reference, see* [*Manchester’s LPCP Legal Analysis*](https://www.nhms4.des.nh.gov/sites/g/files/ehbemt636/files/documents/2023-08/manchester-lpcp-legal-analysis.pdf) *on the NH MS4 Website.*

***Instructions:*** *Attach the legal analysis, which was due in Year 3, to this plan and label it Attachment A. Also include an update on any regulatory changes that have been made or when said changes are planned to be made.*

***Permit Language:*** *The permittee shall develop and implement an analysis that identifies existing regulatory mechanisms available to the MS4 such as bylaws and ordinances and describe any changes to these regulatory mechanisms that may be necessary to effectively implement the LPCP. This may include the creation or amendment of financial and regulatory authorities. The permittee shall adopt necessary regulatory changes by the end of the permit term.*

*The municipality should include the following statement:*

##MUNICIPALITY has developed and implemented an analysis that identifies existing regulatory mechanisms available to the MS4, such as bylaws and ordinances, and described the changes to these regulatory mechanisms that are necessary to effectively implement the LPCP. The legal analysis can be found in Attachment A of this plan. The status of the changes needed to ##MUNICIPALITY’s regulatory mechanisms, as identified in the legal analysis, can be found below:

*The municipality should choose one of the following statements:*

##MUNICIPALITY has not yet made any changes to the municipal existing regulatory mechanisms as noted in the legal analysis.

*Or*

##MUNICIPALITY has made the following changes to the municipal regulatory mechanisms ##regulatory mechanism changes.

Funding Source Assessment

***Important Note:*** *This requirement was due in Year 3 but must be added to this written LPCP.*

***Instructions:*** *Attach the funding source assessment, which was due in Year 3, to this plan and label it Attachment B.*

##MUNICIPALITY has conducted a funding source assessment and attached it as Attachment B of this plan.

Define LPCP Scope (LPCP Area)

***Important Note:*** *This requirement was due in Year 4 but must be added to this written LPCP.*

***Instructions:*** *Choose one of the following statements below depending on if you chose the scope of the LPCP area to be either the* ***entire area*** *within the town’s jurisdiction that is discharging to the phosphorus impaired waterbody or the* ***urbanized area (MS4 area)*** *within the town’s jurisdiction that is discharging to the phosphorus impaired waterbody. You chose your preferred option in Year 4 and reported it in your Year 4 Annual Report.*

*The University of New Hampshire Stormwater Center recommends that permittees choose the first option where the LPCP area is the entire area within the town’s jurisdiction. The reason for this recommendation is that by including all of the permittees municipal area, and not limiting it to just the MS4 regulated area, the permittee will have a larger number of municipal parcels to choose from for the installation of structural stormwater control measures to reduce phosphorus.*

***Permit Language:*** *The permittee shall indicate the area in which the permittee plans to implement the LPCP, this area is known as the “LPCP Area”. The permittee must choose one of the following: 1) to implement its LPCP in the entire area within its jurisdiction discharging to the impaired waterbody (for a municipality this would be the municipal boundary) or 2) to implement its LPCP in only the urbanized area portion of its jurisdiction discharging to the impaired waterbody. If the permittee chooses to implement the LPCP in its entire jurisdiction discharging to the impaired waterbody, the permittee may demonstrate compliance with the Phosphorus Reduction Requirement and Allowable Phosphorus Load requirements applicable to it through structural and non-structural controls on discharges that occur both inside and outside the urbanized area. If the permittee chooses to implement the LPCP in its urbanized area only discharging to the impaired waterbody, the permittee must demonstrate compliance with the Phosphorus Reduction Requirement and Allowable Phosphorus Load requirements applicable to it through structural and nonstructural controls on discharges that occur within the urbanized area only.*

*The municipality should choose one of the following statements:*

##MUNICIPALITY chose to implement the LPCP area in the entire area within its municipal jurisdiction discharging to the impaired waterbody.

*Or*

##MUNICIPALITY chose to implement the LPCP area in only the urbanized area (regulated MS4 area) portion of its municipal jurisdiction discharging to the impaired waterbody.

Calculate Baseline Phosphorus Load (Pbase), Phosphorus Reduction Requirement (PRR) and Allowable Phosphorus Load (Pallow)

***Important Note:*** *This requirement was due in Year 4 but must be added to this written LPCP.*

***Instructions:*** *Open the “Appendix F: Name of Waterbody Scope and Calculations” spreadsheet located on your permittee’s* [*permittee-specific page*](https://www.nhms4.des.nh.gov/nh-resources/permittee-specific-resources/bedford) *on the NH MS4 Website. Depending on how you defined the LPCP area in Year 4, either choose the LPCP* ***Area 1*** *calculation information (use the LPCP Area 1 calculations if you chose to define the LPCP area as all the municipal area within the impaired waterbodies watershed) or choose the LPCP* ***Area 2*** *calculation information (use the LPCP Area 2 calculations if you chose to define the LPCP area to just be the MS4 area within the impaired waterbodies watershed). Take the calculations for the Allowable Phosphorus Load, Phosphorus Reduction Requirement, and Baseline Phosphorus Load for whichever way you defined the LPCP scope and put them in the “LPCP Calculations” table below.*

***Permit Language:*** *Permittees shall calculate their numerical Allowable Phosphorus Load and Phosphorus Reduction Requirement in mass/yr by first estimating their Baseline Phosphorus Load in mass/yr from its LPCP Area consistent with the methodology in Attachment 1 to Appendix F or the applicable TMDL, the baseline shall only be estimated using land use phosphorus export coefficients in Attachment 1 to Appendix F or the applicable TMDL methodology and not account for phosphorus reductions resulting from implemented structural BMPs completed to date. Table F-2 contains the percent phosphorus reduction required from urban stormwater consistent with the TMDL of each impaired waterbody. The permittee shall apply the applicable required percent reduction in Table F-2 to the calculated Baseline Phosphorus Load to obtain the permittee specific Phosphorus Reduction Requirement in mass/yr. The Phosphorus Reduction Requirement load shall then be subtracted from the Baseline Phosphorus Load to obtain the permittee specific Allowable Phosphorus Load.*

##MUNICIPALITY calculated the Baseline Phosphorus Load, Allowable Phosphorus Load, and Phosphorus Reduction Requirement for the LPCP area by using the methodology found in Attachment 1 of Appendix F. The calculation results can be found in the table below.

LPCP Calculations

|  |  |
| --- | --- |
| **Name of Calculation** | **Calculation Result** |
| Baseline Phosphorus Load | ##Number mass/yr |
| Phosphorus Reduction Requirement | ##Number mass/yr |
| Allowable Phosphorus Load | ##Number mass/yr |

Description of Planned Non-Structural Stormwater Controls

***Instructions:*** *Choose any of following non-structural stormwater control measures listed in the “Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that have Established and Approved EPA Credits)” table below to implement within the whole LPCP area or only in certain areas or locations within the LPCP area (for example, only at one park instead of every park within the LPCP area). All of the non-structural stormwater control measures listed in this table have been approved by EPA and can be found listed within* [*Appendix F Attachment 2*](https://www3.epa.gov/region1/npdes/stormwater/nh/2017-appendix-f-attach-2-sms4-nh-mod.pdf)*.*

*Use the equations in the* [*LPCP Non-Structural Stormwater Control Measures Calculations*](https://www.nhms4.des.nh.gov/sites/g/files/ehbemt636/files/documents/2023-08/lpcp-non-structural-stormwater-control-measures-calculations-.xlsx) *spreadsheet on the NH MS4 Website to calculate the expected annual phosphorus reduction for all the chosen non-structural stormwater control measures listed in the “Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that have Established and Approved EPA Credits)” table below that the permittee intends to implement. Remove all non-structural stormwater control measures from the table the permittee does not intend to implement.*

*Attach the completed LPCP Non-Structural Stormwater Control Measures Calculations as Attachment C to this document.*

***Permit Language:*** *The permittee shall describe the non-structural stormwater control measures to be implemented to support the achievement of the milestones in Table F-3. The description of non-structural controls shall include the planned measures, the areas where the measures will be implemented, and the annual phosphorus reductions that are expected to result from their implementation. Annual phosphorus reduction from non-structural BMPs shall be calculated consistent with Attachment 2 to Appendix F. The permittee shall update the description of planned non-structural controls as needed to support the achievement of the milestones in Table F-3, including an update in the updated written LPCP 10 years after the permit effective date.*

##MUNICIPALITY is planning to implement the following non-structural stormwater control measures listed in the Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that have Established and Approved EPA Credits) table below. ##MUNICIPALITY will update the description of the planned non-structural stormwater control measures listed in the Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that have Established and Approved EPA Credits) table below as needed to support the achievement of the LPCP including in Year 10 within the required update to the written LPCP. All of ##MUNICIPALITY’s estimated annual phosphorus reductions from the non-structural stormwater control measures listed in the Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that have Established and Approved EPA Credits) table below, were calculated using the equations within Attachment 2 to Appendix F. Information about the equations and calculations used to calculate the annual phosphorus reduction credits for these non-structural stormwater control measures, can be found in Attachment C of this plan.

**Non-Structural Stormwater Control Measures**

**(Non-Structural Stormwater Control Measures that have Established and Approved EPA Credits)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Planned Non-Structural Stormwater Control Measures** | **Description of Non-Structural Stormwater Control Measures** | **Area Where Non-Structural Stormwater Control Measures Will be Implemented** | **Expected**  **Annual Phosphorus Reduction (lbs/yr)** | **Additional Implementation Notes** |
| Enhanced Street/Pavement Cleaning Program | ##MUNICIPALITY will implement an enhanced street/pavement cleaning program. ##MUNICIPALITY will conduct this enhanced program ##number months per year. | The enhanced street/pavement cleaning program will be conducted in the whole LPCP area **or** specific locations. | ##Number lb/yr | ##Additional Notes as Needed |
| Catch Basin Cleaning | ##MUNICIPALITY will implement catch basin cleanings. ##MUNICIPALITY will conduct catch basin cleanings so that the minimum sump storage capacity of 50% is maintained throughout the year. | Catch basin cleanings will be conducted in whole LPCP area **or** specific locations. | ##Number lb/yr | ##Additional Notes as Needed |
| Turf Grass Fertilizer Management with No Applications of Fertilizers that Contain Phosphorus | ##MUNICIPALITY or any of its agents (including contractors and subcontractors), will not apply fertilizers containing phosphorus to any **or** certain turf grass areas within the LPCP area. Certification of the ##MUNICIPALITY’s fertilizer usage can be found in Attachment G. Note: “Phosphorus free” fertilizers that contain no more than 0.67% phosphorus shall be considered a fertilizer that does not contain phosphorus and applicable for earning this credit as stated in Attachment 2 of Appendix F. | All municipally maintained turf grass areas within the LPCP area **or** certain turf grass areas within the LPCP area | ##Number lb/yr | ##MUNICIPALITY will provide written certification to EPA annually that no fertilizers containing phosphorus have been applied by the permittee or its agents to any **or** certain turf grass areas within the LPCP area for which the permittee is claiming phosphorus reduction credit |
| Enhanced Organic Waste and Leaf Litter Collection Program | ##MUNICIPALITY will gather, remove, and properly dispose of all landscaping wastes, organic debris, and leaf litter from impervious roadways and parking lots at least once per week during the period of September 1 to December 1 of each year. | All municipally maintained impervious roadways and parking lots within the LPCP area **or** certain municipally maintained impervious roadways and parking lots within the LPCP area | ##Number lb/yr | The gathering, removal, and disposal of all landscaping wastes, organic debris, and leaf litter will occur immediately following any landscaping activities in the LPCP area and at additional times when necessary to achieve a weekly cleaning frequency. ##MUNICIPALITY will ensure that the disposal of these materials will not contribute pollutants to any surface water discharges. |
| Impervious Disconnection | ##MUNICIPALITY will divert stormwater runoff from impervious municipal areas to specifically chosen permeable areas. | Impervious disconnection will be implemented at ## location(s) of impervious disconnection. | ##Number lb/yr | This could be considered structural or non-structural depending on the BMP.  ##Additional Notes as Needed |

***Instructions:*** *The following non-structural stormwater control measures listed in the Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that DO NOT have Approved EPA Credits)” table below* ***HAVE NOT BEEN APPROVED BY EPA*** *to be used in the LPCP. The New Hampshire Stormwater Coalitions will be submitting the required documentation and supporting information to EPA to review to determine if they can be used in the future to receive phosphorus reduction credit. The purpose of providing these non-structural stormwater control measures is for permittees to prepare for if/when they are approved by EPA. Permittees may include these non-structural stormwater control measures if they are comfortable with doing so but are not required to. If permittees would like to use these non-structural stormwater control measures, please follow the instructions below.*

*Choose any of following non-structural stormwater control measures listed in the “Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that DO NOT have Approved EPA Credits)” table below to implement within the whole LPCP area or in only certain areas or locations within the LPCP area (for example, only at one park instead of every park within the LPCP area).*

*Use the equations in the* [*LPCP Non-Structural Stormwater Control Measures Calculations*](https://www.nhms4.des.nh.gov/sites/g/files/ehbemt636/files/documents/2023-08/lpcp-non-structural-stormwater-control-measures-calculations-.xlsx) *spreadsheet to calculate the expected annual phosphorus reduction for all the chosen non-structural stormwater control measures listed in the “Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that DO NOT have Approved EPA Credits)” table below that the permittee intends to implement. Remove all non-structural stormwater control measures from the table the permittee does not intend to implement. Attach the completed LPCP Non-Structural Stormwater Control Measures Calculations as Attachment C to this document.*

##MUNICIPALITY is planning to implement the following non-structural stormwater control measures listed in the Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that DO NOT have Approved EPA Credits) table below. The non-structural stormwater control measures listed in the Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that DO NOT have Approved EPA Credits) table do not have existing EPA authorized nutrient reduction credits within the 2017 NH MS4 Permit. ##MUNICIPALITY is aware that because there are not currently existing EPA authorized nutrient reduction credits for these non-structural stormwater control measures, that any phosphorus reduction from these select measures cannot be officially claimed by ##MUNICIPALITY within this LPCP. The purpose for providing these non-structural stormwater control measures is because ##MUNICIPALITY, in conjunction with the New Hampshire Stormwater Coalitions, will be collaborating with EPA to obtain formal approval to receive phosphorus reduction credit for these proposed non-structural stormwater control measures. ##MUNICIPALITY will use the process noted within Attachment 2 of Appendix F to provide EPA with all the required documentation and supplemental information to make an informed decision on the purposed non-structural stormwater control measures BMPs.

If EPA provides approval of the non-structural stormwater control measures listed in the Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that DO NOT have Approved EPA Credits) table below, ##MUNICIPALITY will take the following steps. ##MUNICIPALITY will update the description of the planned non-structural stormwater control measures listed in the Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that DO NOT have Approved EPA Credits) table below as needed to support the achievement of the LPCP including in Year 10 within the required update to the written LPCP. Information about the equations and calculations used to calculate the annual phosphorus reduction credits for these non-structural stormwater control measures, can be found in Attachment C of this plan.

**Non-Structural Stormwater Control Measures**

**(Non-Structural Stormwater Control Measures that *DO NOT* have Approved EPA Credits)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Planned Non-Structural Stormwater Control Measures** | **Description of Non-Structural Stormwater Control Measures** | **Area Where Non-Structural Stormwater Control Measures Will be Implemented** | **Expected**  **Annual Phosphorus Reduction (lbs/yr)** | **Additional Implementation Notes** |
| Shoreline Buffer | ##MUNICIPALITY will install larger shoreline buffers on municipally owned parcels abutting ##Name of Impaired Waterbody. | Shoreline buffers will be implemented at ##location(s) of shoreline buffers. | ##Number lb/yr | ##Additional Notes as Needed |

***Instructions:*** *The following non-structural stormwater control measures listed in the Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that are Non-Traditional and DO NOT currently have Associated Phosphorus Reduction Credits and HAVE NOT been approved by EPA)” table below* ***DO NOT CURRENTLY HAVE PHOSPHORUS REDUCTION CREDITS ATTACHED TO THEM*** *and* ***HAVE NOT BEEN APPROVED BY EPA*** *to be used in the LPCP. The purpose of providing these non-structural stormwater control measures was for permittees to show EPA the additional steps that are being taken by the permittee to reduce phosphorus. The other reason is that in the future if these non-structural stormwater control measures start to receive phosphorus reduction credits, it will be documented in the permittees LPCP that they have already been implemented. Permittees may include these non-structural stormwater control measures if they are comfortable with doing so but are not required to. If permittees would like to use these non-structural stormwater control measures, please follow the instructions below.*

*Choose any of the following non-structural stormwater control measures listed in the “Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that are Non-Traditional and DO NOT currently have Associated Phosphorus Reduction Credits and HAVE NOT been approved by EPA)” table below to implement within the whole LPCP area or only in certain areas or locations within the LPCP area (for example, only at one park instead of every park within the LPCP area). Remove all non-structural stormwater control measures from the table the permittee does not intend to implement.*

##MUNICIPALITY is planning to implement the following non-structural stormwater control measures listed in the Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that are Non-Traditional and DO NOT currently have Associated Phosphorus Reduction Credits and HAVE NOT been approved by EPA) table below. The non-structural stormwater control measures listed in the Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that are Non-Traditional and DO NOT currently have Associated Phosphorus Reduction Credits and HAVE NOT been approved by EPA) table do not currently have phosphorus reduction credits associated with them since the phosphorus reductions are currently difficult to track. The non-structural stormwater control measures listed in the Non-Structural Stormwater Control Measures (Non-Structural Stormwater Control Measures that are Non-Traditional and DO NOT currently have Associated Phosphorus Reduction Credits and HAVE NOT been approved by EPA) table are also not listed within Attachment 2 of Appendix F of the 2017 NH MS4 Permit and therefore have not received approval by EPA.

##MUNICIPALITY is aware that because there are no phosphorus reduction credits associated with these non-structural stormwater control measures nor have they been approved by EPA, that no associated phosphorus reduction credits can be claimed by ##MUNICIPALITY within this LPCP. The reason for providing these non-structural stormwater control measures is to document the additional steps that ##MUNICIPALITY is implementing to reduce phosphorus. If in the future, these non-structural stormwater control measures start to receive phosphorus reduction credits, it has been documented that they have been implemented.

**Non-Structural Stormwater Control Measures**

**(Non-Structural Stormwater Control Measures that are Non-Traditional and *DO NOT* currently have Associated Phosphorus Reduction Credits and *HAVE NOT* been approved by EPA)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Planned Non-Structural Stormwater Control Measures** | **Description of Non-Structural Stormwater Control Measures** | **Area Where Non-Structural Stormwater Control Measures Will be Implemented** | **Expected**  **Annual Phosphorus Reduction (lbs/yr)** | **Additional Implementation Notes** |
| Septic System Education and Outreach | ##MUNICIPALITY educates and encourages residents to properly maintain their septic systems through activities such as inspections and getting their septic system pumped regularly. | Septic System education and outreach materials are distributed to the whole LPCP Area. | No current calculation for annual phosphorus reduction. | ##Additional Notes as Needed |
| Septic Operation and Maintenance Program | ##MUNICIPALITY provides information and assistance to residents on the installation, retrofitting, and maintenance of their septic systems. | ##MUNICIPALITY provides information and assistance to all of ##MUNICIPALITY’s residents including those in the LPCP Area. | No current calculation for annual phosphorus reduction. | ##Additional Notes as Needed |
| Municipal Regulations | ##MUNICIPALITY has updated their regulations and ordinances to require the installation of phosphorus reducing structural stormwater control measures during new development and redevelopment projects. | ##MUNICIPALITY’s regulations and ordinances apply to the whole LPCP Area. | No current calculation for annual phosphorus reduction. | ##Additional Notes as Needed |
| Pet Waste Education and Outreach | ##MUNICIPALITY educates residents on how to properly dispose of pet waste and the negative effects on water quality of not disposing of pet waste properly. | Pet waste education and outreach materials are distributed to the whole LPCP Area. | No current calculation for annual phosphorus reduction. | ##Additional Notes as Needed |
| Pet Waste Management Program | ##MUNICIPALITY has installed and maintains pet waste trash receptacles at key locations within the LPCP Area to reduce pet waste related runoff. | ##MUNICIPALITY installed and maintains pet waste trash receptacles at the ##location of receptacles within the LPCP Area. | No current calculation for annual phosphorus reduction. | ##Additional Notes as Needed |
| Lawn Care Education and Outreach | ##MUNICIPALITY educates residents on how to properly fertilizer their lawns and dispose of grass clippings to reduce impacts on water quality. | Lawn care education and outreach materials are distributed to the whole LPCP Area. | No current calculation for annual phosphorus reduction. | ##Additional Notes as Needed |
| Yard Waste Education and Outreach | ##MUNICIPALITY educates residents on how to properly dispose of yard waste to reduce impacts on water quality. | Yard waste education and outreach materials are distributed to the whole LPCP Area. | No current calculation for annual phosphorus reduction. | ##Additional Notes as Needed |

Description of Planned Structural Stormwater Controls

***Instructions:*** *Open the “Appendix F: Name of Waterbody LPCP Parcel Priority Ranking” spreadsheet on your permittee’s* [*permittee-specific page*](https://www.nhms4.des.nh.gov/nh-resources/permittee-specific-resources/bedford) *on the NH MS4 Website. Depending on how you defined the LPCP area, either choose the LPCP Municipal Boundaries tab (use this tab if you chose to use the LPCP* ***area 1*** *option which is the municipal area within the impaired waterbodies watershed) or choose the LPCP MS4 Boundaries tab (use this tab if you chose to use the LPCP* ***area 2*** *option which is just the MS4 area within the impaired waterbodies watershed). Fill out all the information within the spreadsheet to the best of your ability with the information you currently have available to you. It is important to note that you can also include any structural stormwater control measures that have or will be installed by a third party, such as lake or pond associations, within this spreadsheet if you have that information available. Attach the completed spreadsheet as Attachment D to this document.*

*To fill out the “Structural Stormwater Control Measures” table below, make sure that your “Name of Waterbody LPCP Parcel Priority Ranking” spreadsheet is sorted by highest to lowest in column AA. This is important to do because it will allow you to see which municipal parcels have the highest potential to have a structural stormwater control measure installed. In the “Structural Stormwater Control Measures” table below, copy all the street addresses out of your completed “Name of Waterbody LPCP Parcel Priority Ranking” spreadsheet and paste them into the “Address Where Structural Stormwater Control Measures Will be Implemented” column below. Then take the information out of the “Total Phosphorus Loading (lb/year)” column from the spreadsheet and paste it into the “Expected Annual Phosphorus Reduction (lbs/yr)” column in the “Structural Stormwater Control Measures” table. In the “Planned Structural Stormwater Control Measures” column, enter the structural stormwater control measures you plan to implement for each address (this is not set in stone and you can always change the structural stormwater control measure later on when you do updates to this Written LPCP document). If unsure of the type of structural stormwater control measure that will be installed on a certain parcel, you can put “structural stormwater control measure to be implemented on this parcel is still being evaluated”. The types of potential structural stormwater control measures can be found in the paragraph below. Lastly, in the “Priority Ranking” column in the “Structural Stormwater Control Measures” table, put in “1” in the first cell, “2” in the second cell, and keep adding numbers until you have run out of parcels listed in the table. This will service as the priority ranking for the municipal parcels you have evaluated.*

*The types of BMPs (as listed in Appendix F Attachment 3 on page 6) that can be installed are as follows:*

* *Infiltration Trench*
* *Surface Infiltration Practices (i.e., basins, rain gardens and bio-retention);*
* *Bio-filtration Practice*
* *Gravel Wetland System*
* *Enhanced Bio-filtration with Internal Storage Reservoir (ISR)*
* *Sand Filter*
* *Porous Pavement*
* *Wet Pond or wet detention basin*
* *Dry Pond or extended dry detention basin*
* *Dry Water Quality Grass Swale with Detention*

*Additionally, the permit (Appendix F Attachment 3 on page 7) also provided methods to determine phosphorus reduction credit for the following types of semi-structural BMPs:*

* *Impervious Area Disconnection through Storage (e.g., rain barrels, cisterns, etc.);*
* *Impervious Area Disconnection;*
* *Conversions of Impervious Area to Permeable Pervious Area;*
* *Soil Amendments to Enhance Permeability of Pervious Areas*

***Permit Language:*** *The permittee shall develop a priority ranking of areas and infrastructure within the municipality for potential implementation of phosphorus control practices. The ranking shall be developed through the use of available screening and monitoring results collected during the permit term either by the permittee or another entity and the mapping required pursuant to Part 2.3.4.6 of the Permit. The permittee shall also include in this prioritization a detailed assessment of site suitability for potential phosphorus control measures based on soil types and other factors. The permittee shall coordinate this activity with the requirements of Part 2.3.6.e. of the Permit. A description and the result of this priority ranking shall be included in the LPCP. The permittee shall describe the structural stormwater control measures necessary to support achievement of the milestones in Table F-3. The description of structural stormwater control measures shall include the planned measures, the areas where the measures will be implemented, and the annual phosphorus reductions in units of mass/yr that are expected to result from their implementation. Structural stormwater control measures to be implemented by a third party may be included in the LPCP. Annual phosphorus reduction from structural stormwater control measures shall be calculated consistent with Attachment 3 to Appendix F. The permittee shall update the description of planned structural stormwater control measures as needed to support the achievement of the milestones in Table F-3, including an update in the updated written LPCP 10 years after the permit effective date.*

##Municipality has developed a priority ranking of municipal parcels and infrastructure within the LPCP area that could potentially have structural stormwater control measures implemented within them to reduce phosphorus loading. The ranking was created using a variety of different factors and information including screening and monitoring results, current mapping data, and a variety of site specific factors such as soil type. The priority ranking of municipal parcels and infrastructure, along with the information and data used to create the ranking, can be found in Attachment D of this document.

##Municipality is planning to implement the following structural stormwater control measures listed in the table below. ##Municipality will update the description of the structural stormwater control measures listed, along with the priority rankings, as needed to support the achievement of the LPCP including in Year 10 within the required update to the written LPCP. All of ##Municipality’s estimated annual phosphorus reductions from the structural stormwater control measures listed in the table below were calculated using the equations within Attachment 3 to Appendix F.

**Structural Stormwater Control Measures**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Priority Ranking** | **Planned Structural Stormwater Control Measure** | **Address Where Structural Stormwater Control Measure Will be Implemented** | **Expected**  **Annual Phosphorus Reduction (lbs/yr)** | **Additional Implementation Notes** |
| ##Priority Ranking Number (ex. 1, 2 or 3) | ##BMP | ##Address | ##Number lb/yr | ##Additional Notes as Needed |
| ##Priority Ranking Number (ex. 1, 2 or 3) | ##BMP | ##Address | ##Number lb/yr | ##Additional Notes as Needed |
| ##Priority Ranking Number (ex. 1, 2 or 3) | ##BMP | ##Address | ##Number lb/yr | ##Additional Notes as Needed |
| ##Priority Ranking Number (ex. 1, 2 or 3) | ##BMP | ##Address | ##Number lb/yr | ##Additional Notes as Needed |
| ##Priority Ranking Number (ex. 1, 2 or 3) | ##BMP | ##Address | ##Number lb/yr | ##Additional Notes as Needed |
| ##Priority Ranking Number (ex. 1, 2 or 3) | ##BMP | ##Address | ##Number lb/yr | ##Additional Notes as Needed |

Description of Operation and Maintenance (O&M) Program

***Instructions:*** *In the “Operation and Maintenance Schedule” table below, copy all the street addresses out of the “Structural Stormwater Control Measures” table above and paste them into the “Address of Structural Stormwater Control Measure” column below. Take all of the structural stormwater control measures listed in the “Planned Structural Stormwater Control Measure” column in the “Structural Stormwater Control Measures” table above and paste them into the “Type of Structural Stormwater Control Measure” column in the table below. Fill out the rest of the table with information on how often the structural stormwater control measures will be receiving inspections and maintenance, for example annually or biannually, along with who will be responsible for doing the inspections and maintenance. Attach all completed structural stormwater control measure inspection forms as Attachment E to this document.*

*A variety of structural stormwater control measure inspection forms have been developed by UNH and are located on the* [*MCM #5*](https://www.nhms4.des.nh.gov/mcm-and-appendices/mcm-5) *webpage of the NH MS4 Website. Another example of a structural stormwater control measure inspection form is the Operation and Maintenance Program’s* [*Annual Inspection and Maintenance Reporting Form*](https://www.nhms4.des.nh.gov/sites/g/files/ehbemt636/files/documents/2022-09/attachment-b2.docx) *found on the NH MS4 Website.*

***Permit Language:*** *The permittee shall establish an Operation and Maintenance Program for all structural BMPs being claimed for phosphorus reduction credit as part the LPCP. This includes BMPs implemented to date as well as BMPs to be implemented. The Operation and Maintenance Program shall become part of the LPCP and include: (1) inspection and maintenance schedule for each BMP according to BMP design or manufacturer specification and (2) program or department responsible for BMP maintenance.*

##MUNICIPALITY will conduct operation and maintenance of all structural stormwater control measures that have either been installed or will be installed in the future that are being claimed for phosphorus reduction credits as part of this LPCP. A schedule can be found in the table below that contains the structural stormwater control measures that have or will be installed as part of this LPCP along with the operation and maintenance information for each of them. ##MUNICIPALITY will conduct inspections of these structural stormwater control measures using inspection forms created by the University of New Hampshire Stormwater Center **or** ##MUNICIPALITY. Completed structural stormwater control measure inspection forms can be found in Attachment E.

Operation and Maintenance Schedule

|  |  |  |  |
| --- | --- | --- | --- |
| **Address of Structural Stormwater Control Measure** | **Type of Structural Stormwater Control Measure** | **Inspection and Maintenance Schedule** | **Program or Department Responsible for Structural Stormwater Control Measure Maintenance** |
| ##Address | ##BMP | ##Annually, Biannually, etc. | ##DPW, Stormwater Program, etc. |
| ##Address | ##BMP | ##Annually, Biannually, etc. | ##DPW, Stormwater Program, etc. |
| ##Address | ##BMP | ##Annually, Biannually, etc. | ##DPW, Stormwater Program, etc. |
| ##Address | ##BMP | ##Annually, Biannually, etc. | ##DPW, Stormwater Program, etc. |
| ##Address | ##BMP | ##Annually, Biannually, etc. | ##DPW, Stormwater Program, etc. |

Implementation Schedule

***Instructions:*** *Review and edit as needed the “LPCP Implementation Schedule” table below. The table is based on the requirements located in Appendix F of the 2017 NH MS4 Permit.*

*The permit requires the training of employees involved with the permittees LPCP. The New Hampshire Stormwater Coalitions recommend that the training be annual and focus on the inspection and maintenance of structural stormwater control measures. All LPCP trainings conducted by the permittee should be recorded using the* [*LPCP Training Log*](https://www.nhms4.des.nh.gov/sites/g/files/ehbemt636/files/documents/2023-08/lpcp-training-log.docx) *located on the NH MS4 Website. The LPCP Training Log should be attached as Attachment F to this document.*

***Permit Language:*** *An initial schedule for implementing the BMPs, including, as appropriate: funding, training, purchasing, construction, inspections, monitoring, O&M and other assessment and evaluation components of implementation. Implementation of planned BMPs must begin upon completion of the LPCP, and all non-structural BMPs shall be fully implemented within six years of the permit effective date. Where planned structural BMP retrofits or major drainage infrastructure projects are expected to take additional time to construct, the permittee shall within four years of the effective date of the permit have a schedule for completion of construction consistent with the reduction requirements in Table F-3. The permittee shall complete the implementation of its LPCP as soon as possible or at a minimum in accordance with the milestones set forth in Table F-3. The implementation schedule shall be updated as needed to support the achievement of the milestones in Table F-3, including an update in the updated written LPCP 10 years after the permit effective date.*

##MUNICIPALITY has created a schedule in the table below to guide the process of fully implementing the LPCP. ##MUNICIPALITY will work towards completing the LPCP as soon as possible but at a minimum will have it fully implemented no later than Year 15.

##MUNICIPALITY will update the LPCP implementation schedule in the table below as needed to support the achievement of the LPCP including in Year 10 within the required update to the written LPCP.

##MUNICIPALITY will annually evaluate the effectiveness of the LPCP by tracking the phosphorus reductions achieved through implementation of the non-structural and structural stormwater control measures and tracking increases in phosphorus loading from the LPCP defined area starting in Year 6.

##MUNICIPALITYwill annually review the LPCP to determine if any changes have been implemented and require a revision to this plan including in Year 10 within the required update to the written LPCP. If no changes have been made to the LPCP, it will be identified as such. Any changes to this LPCP will be noted in this LPCP and in the Stormwater Management Program Plan (SWMP).

##MUNICIPALITY conducts annual training to employees that participate in the inspection and maintenance of structural stormwater control measures. The training(s) date, materials, and list of employees trained can be found in Attachment F.

LPCP Implementation Schedule

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **LPCP Task** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** | **2030** | **2031** | **2032** |
| Implementation of all non-structural stormwater control measures | 2023 | 2024 |  |  |  |  |  |  |  |  |
| Locating and finalizing funding for structural stormwater control measures | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Purchasing of construction materials | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Construction of structural stormwater control measures | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| LPCP Related Training of Municipal Employees | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Inspections of Installed BMPs | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Monitoring of Water Quality Associated with Installed BMPs | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Operation and Maintenance Program to Monitor Installed BMPs | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Full implementation of LPCP (full implementation of LPCP will occur as soon as possible but will be completed no later than 2032) |  |  |  |  |  |  |  |  |  | 2032 |

Cost and Funding Source Assessment

***Instructions:*** *Open the “Name of Waterbody LPCP Parcel Priority Ranking” spreadsheet that was completed in the* “*Description of Planned Structural Stormwater Control Measures” section above and add up all of the columns in the “Estimated Cost for 0.1 inch BMP Sizing (Dollars)” column. Take that total number and paste it into the section below.*

*Review the options for the steps that you as a permittee will take to help secure additional funding for the LPCP. Add or remove any of the steps you plan or don’t plan to use to find additional funding opportunities.*

*Lastly, look over the list of potential funding opportunities listed at the end of this section and add or remove any opportunities you plan or don’t plan to use.*

***Permit Language:*** *The permittee shall estimate the cost for implementing its LPCP and describe known and anticipated funding mechanisms. The permittee shall describe the steps it will take to implement its funding plan. This may include but is not limited to conceptual development, outreach to affected parties, and development of legal authorities.*

##MUNICIPALITY has estimated the cost of implementing its LPCP to be ##estimated cost of LPCP which was determined by calculating the estimated cost of each of the planned non-structural and structural stormwater control measures that are currently planned to be installed as part of the LPCP which can be seen in Attachment D.

##MUNICIPALITY will take multiple steps to help secure funding for the implementation of the LPCP. These steps include but are not limited to:

* ##MUNICIPALITY will research and apply to available grants, loans, and other funding opportunities.
* ##MUNICIPALITY will incorporate specific structural stormwater control measures to reduce phosphorus into it’s Capital Improvement Plan.
* ##MUNICIPALITY will contact local organizations such as lake associations or non-profits located within the LPCP area to see if they currently implement or plan to implement phosphorus reducing structural stormwater control measures that ##MUNICIPALITY could work with them to implement or build upon with additional funding.
* ##MUNICIPALITY will look into the creation or the updating of municipal regulations and legal authorities to allow the acceptance of more LPCP related funding opportunities.

##MUNICIPALITY has created a list of currently known funding mechanisms, along with a description of the associated funding opportunities, which can be found below. ##MUNICIPALITY will continue to look for additional funding mechanisms as more become available or as ##Municipality becomes aware of them.

* **Aquatic Resource Mitigation Fund (ARM)**

When there are unavoidable impacts to streams and wetlands, the ARM Fund offers an alternative to permittee-responsible mitigation. An In-Lieu Fee (ILF) payment may be made to the ARM Fund to compensate for losses to aquatic resources and functions from a project. The funds are pooled according to nine watersheds called Service Areas, and then made available as competitive grants to fund preservation, restoration, and enhancement activities across the state. As the ILF sponsor, NHDES holds and manages the collected funds, and announces a grant round (i.e., Request for Proposals) annually. The goal of the program is to support activities that are ecologically important and will effectively sustain aquatic resource functions in the watershed for the long term.

For more information see the [Aquatic Resource Mitigation Fund | NH Department of Environmental Services](https://www.des.nh.gov/business-and-community/loans-and-grants/aquatic-resource-mitigation-fund) webpage.

* **Land & Community Heritage Investment Program (LCHIP)**

The New Hampshire Land and Community Heritage Investment Program (LCHIP) is an independent state authority that makes matching grants to NH communities and non-profits to conserve and preserve New Hampshire's most important natural, cultural, and historic resources. Through this investment Program every $1 in resources brings back more than four times the local, private, federal funds, and helps to secure NH's greatest business advantage: The quality of life and traditional values of our state.

LCHIP works in partnership with New Hampshire municipalities and non-profits to acquire land and cultural resources, or interests therein, with local, regional, and statewide significance. The legislatively mandated mission of the program is to ensure the perpetual contribution of these resources to the economy, environment, and quality of life in New Hampshire.

For more information see the [Land & Community Heritage Investment Program](https://www.lchip.org/) webpage.

* **NH State Conservation Committee (SCC) Grant Program (Moose Plate Grants)**

County Conservation Districts, municipalities (including commissions engaged in conservation programs), and qualified nonprofit organizations are eligible to apply for the SCC grant program. Projects must qualify in one of the following categories: Water Quality and Quantity; Wildlife Habitat; Soil Conservation and Flooding; Best Management Practices; Conservation Planning; and Land Conservation.

For more information see the [Conservation Grant Program](https://www.agriculture.nh.gov/divisions/scc/grant-program.htm#:~:text=The%20NH%20State%20Conservation%20Committee%20has%20awarded%20twent-yone,application%20and%20instructions%20will%20be%20posted%20by%207%2F1%2F2021.) webpage.

* **Great Bay Resource Protection Partnership: Land Transaction Grant Program**

The Great Bay Resource Protection Partnership offers the Land Protection Transaction Grant Program. The matching grants program assists with the costs for permanent land protection projects (donation and/or acquisition of full fee and conservation easements) within the coastal watershed including coastal New Hampshire and part of southern Maine. Eligible applicants include qualified nonprofit tax-exempt 501(c)(3) conservation organizations and units of government.

For more information see the [Great Bay Resource Protection Partnership: Land Transaction Grant Program](http://www.greatbaypartnership.org/grant-prog) webpage.

* **Clean Water State Revolving Loan Fund (CWSRF)**

This fund offered through NHDES provides low-interest loans to communities, nonprofits, and other local government entities to improve and replace wastewater collection systems with the goal of protecting public health and improving water quality. A portion of the CWSRF program is used to fund stormwater, nonpoint source, watershed protection and restoration, and estuary management projects that help improve and protect water quality in New Hampshire. Principal Forgiveness is only provided to municipalities.

For more information see the [Clean Water State Revolving Fund](https://www.des.nh.gov/business-and-community/loans-and-grants/clean-water-state-revolving-fund) webpage.

* **New Hampshire Charitable Foundation**

A statewide community foundation that awards multiple types of grants, including ones for environmental projects.

For more information see the [NH Charitable Foundation webpage.](https://www.nhcf.org/)

* **Water Quality Planning Grants**

Water Quality Planning grants are available to Regional Planning Commissions and municipalities for water quality planning purposes.

For more information see the [Water Quality Planning 604(b) Grants webpage](https://www.des.nh.gov/business-and-community/loans-and-grants/watershed-assistance#faq37046).

* **Watershed Assistance Grants**

Competitive grant program offered annually through the NHDES Watershed Assistance Section for communities, nonprofits, and local government entities to support implementation of restoration actions to restore impaired waters and protect high-quality waters as described in completed “a – i” watershed-based management plans.

For more information see the [Watershed Assistance Grants webpage.](https://www.des.nh.gov/business-and-community/loans-and-grants/watershed-assistance#faq37046)

* Note any additional funding sources.

Attachment A

Legal Analysis

Attachment B

Funding Source Assessment

Attachment C

LPCP Non-Structural Stormwater Control Measures Calculations

Attachment D

Priority Ranking of Parcels and Infrastructure within LPCP Area for Potential Implementation of Phosphorus Structural Stormwater Controls

Attachment E

Completed Structural Stormwater Control Measure Inspection Forms

Attachment F

LPCP Training Log

Attachment G

Turf Grass Fertilizer Management Certification Letter