



Stormwater Retrofit Application

RETROFIT PROGRAM INFORMATION

The CWC/DEP Stormwater Retrofit Program funds the study, design, construction, implementation, and maintenance of stormwater best management practices (BMP's) that are necessary to correct or reduce stormwater runoff, erosion and/or pollutant loading in concentrated areas of impervious surfaces in the West of Hudson Watershed.

[CWC/DEP Retrofit Program Rules](#)

WHO IS ELIGIBLE TO APPLY:

- Applicants must be seeking a Stormwater Retrofit Project located within the West of Hudson Watershed.
- Applicants may be, but are not limited to, individuals, municipalities, governments, businesses, or public or private entities.

WHAT TYPES OF PROJECTS ARE ELIGIBLE:

- CWC jointly with DEP, selects projects proposed for areas that receive runoff from concentrations of impervious surfaces for installation of BMPs, identifies sites where BMPs can be constructed to catch and treat runoff, and allocates funds to design, permit, construct and maintain each BMP.
- Criteria that CWC and DEP consider when determining whether a project is an Eligible Project include:
 - Water quality problems associated with stormwater runoff from impervious sites;
 - Erosion problems currently existing at sites due to the impacts of stormwater runoff;
 - The amount and type of pollutant loadings from sites; and
 - The volume and effectiveness of pollutant removal from the proposed practice, which may include the anticipated pollutant loading reductions to be achieved by the diversion of stormwater away from a contaminated site.
- Selection and approval of Eligible Projects may be based on factors such as: topography, soils, imperviousness, water quality, land area, land use, land ownership, contributing drainage areas, cost effectiveness, applicant's and/or proposed Project Sponsor's record of compliance in other CWC programs

WHAT IS THE APPLICATION PROCESS:

Applications will be accepted on an ongoing basis.

- The application process may adhere to phases, as follows:
 - Phase 1— Feasibility Study (this phase is not required if information on the checklist is already known)
 - Phase 2— Engineering Design
 - Phase 3—Construction and Implementation
 - Phase 4—Operations & Maintenance
- Community-Wide P&A's will generally be applied for prior to project specific feasibility studies.
- Applicants should contact CWC Retrofit Program Staff to schedule a pre-application meeting prior to their initial application to the program.
- Proposals supported by CWC staff and DEP will be presented to the CWC Stormwater/Wastewater Committee. Proposals not supported by DEP will include written comments.
- The Committee will review and evaluate all proposals and provide recommendations to the CWC Board.
- Proposals receiving Committee and DEP approval shall be presented to the CWC Board to determine inclusion in the program. Once an application is approved by the Board and DEP, an applicant must sign a Program Participation Agreement prior to receiving funds.



Stormwater Retrofit Application

WHERE CAN I FIND INFORMATION FOR BMPS:

- Standards for identifying appropriate retrofits and BMPS, BMP design, acceptable pollutant removal rates (Appendix A), construction standards and specifications shall be based on the following:
 - [New York State Standards & Specifications for Erosion and Sediment Control](#), or current New York State Standards
 - [New York State Stormwater Management Design Manual \(Design Manual\)](#), or current New York State Standards
 - [NYS Department of Environmental Conservation SPDES General Permit, Permit # GP-20-001](#)
 - Alternate methods with demonstrated pollutant removal effectiveness may be approved if jointly agreed upon by CWC and DEP.

PROJECT SPONSOR RESPONSIBILITIES:

- Each Project Sponsor shall identify the project site location or assessment area, describe the water quality problems, and detail the project goals in the application.
- The Project Sponsor, or its agents, shall coordinate with all regulatory agencies with review authority over the project, and shall complete all permit processes as needed. No design shall be considered complete until all reviews and approvals are complete.
- Project sponsors are responsible for complying with the State Environmental Quality Review Act. This Program is intended to provide water quality benefits and properly situated and designed BMPS should not adversely impact watercourses or wetlands.
- Project sponsors are responsible for complying with the Watershed Regulations, and any other applicable federal, state, or municipal laws and permits
- Project Sponsors must meet insurance requirements and submit a completed Business Integrity form (Appendix B) per grant contract.

APPLICATION PHASES

Feasibility Phase

- A feasibility study must be conducted by a P.E. licensed in the State of New York; or other qualified professionals as determined by CWC and DEP; be in conformance with the Program Rules; and utilize existing site information and minimal investigation.
- At the conclusion of a feasibility study, the Program Sponsor must provide documentation to be sent to CWC/DEP that includes the feasibility deliverables. A feasibility study must include the information and deliverables required in the “Stormwater Retrofit Feasibility Study Checklist”. Information should be gathered from the approved DEP data gathering methods and websites listed on the checklist.
- A feasibility study must be completed within one year, unless the CWC Executive Director approves an extension.
- The completion of a feasibility study does not necessarily indicate that a proposed project will receive further funding through the Program for Stormwater Retrofit design or construction.

Design Phase

- Requests for Stormwater Retrofit Design funding should include a completed feasibility study, conducted in accordance with and including the necessary information as required in 7:01:03, unless deemed unnecessary by CWC.
- A Stormwater Retrofit Design must be completed by a P.E. licensed in New York State or other qualified professional as determined by CWC and DEP, and abide by the Watershed Regulations, and any other applicable federal, state, or municipal laws and permits;
- At the conclusion of design, the design shall provide a detailed site schematic showing the proposed BMP’s, impervious surfaces, proposed stormwater flow on site and in the vicinity of the Project, and proposed stormwater and erosion



Stormwater Retrofit Application

control measures and removal rates; The Useful Life of the BMP's and a preliminary Operations & Maintenance Plan (that may be subject to change during the Construction Phase) or a frequency chart and checklist for the project and BMP's; Estimates for construction. (These estimates are intended for office use and are not binding)

- The engineer or other qualified professional shall provide 30%, 60%, and 90% completed design work for comment and review.
- Final Design work shall be completed within two years of approval. Should an applicant require additional time to complete the Design Phase, CWC may grant such extension.

Construction Phase

- Requests for Stormwater Retrofit Construction and Implementation should include a completed design, conducted in accordance with and including the necessary information as required in 7:01:04.
- All applications for construction must have fully completed information fields from the previous phases, which may include a completed design plan; Construction estimates; and description of project team, contractors, and responsible parties
- Prior to the disbursement of funds, the Project Applicant must provide evidence of a recorded restrictive covenant, as indicated in the Program Participation Agreement, requiring future property owners to maintain the BMP for its Useful Life.
- Following the close of construction, the engineer or other qualified project manager shall submit As-Built Drawings
- Applicants may apply for O&M funding once the Construction Phase of the project has reached substantial completion.
- Should a Project Participant choose not to apply for O&M funding through the Program, the Program Participant is still obligated to comply with the O&M Plan as prepared in the Stormwater Retrofit Design.

Operation & Maintenance Phase (O&M)

- Requests for Operations & Maintenance must be received by CWC within one year of the final completion letter issued by DEP.
- Program Participants and subsequent property owners are required to maintain the BMP's for the Project's useful life, as determined by the O&M Plan.
- CWC may provide funding for O&M up to 17.6% of the total Design and Construction costs of the Project.
- All applications for O&M must have fully completed information fields, which may include As-Built construction documents and an updated O&M Plan
- Program Participants must abide by the detailed Operations & Maintenance Plan developed by the individual who provided the design work for the project, as amended during the Construction Phase, if applicable.
- Program Participants must submit invoices with which to withdraw against at the close of each year, detailing the work completed in accordance with the O&M Plan to maintain the BMP's.
- Standards for Maintaining BMP's include, but are not limited to:
 - Practices delineated in [Chapter 12: Maintenance Guidance of the New York State Stormwater Management Design Manual](#), or the most recent iteration thereof



Stormwater Retrofit Application

PHASE 1: FEASIBILITY

APPLICANT INFORMATION

APPLICANT/ENTITY NAME:	APPLICANT TYPE: (Non-Profit, Municipal, Commercial, Institutional, Residential, Private etc.)
APPLICANT/ENTITY MAILING ADDRESS:	
PROJECT ADDRESS:	PROJECT PARCEL ID #'s
TELEPHONE NUMBER:	APPLICANT EMAIL ADDRESS:
PROJECT SPONSER NAME & TITLE:	PROJECT SPONSER PHONE/ EMAIL:

PROJECT CONSULTANT INFORMATION: (consultants can be anticipated)

ENGINEER NAME & COMPANY:	EMAIL ADDRESS:
CONTRACTOR NAME & COMPANY:	EMAIL ADDRESS:
OTHER:	EMAIL ADDRESS:
OTHER:	EMAIL ADDRESS:

PROJECT INFORMATION

Please describes the stormwater and water quality issues that presently exist and the need for a retrofit project to benefit water quality:

Please indicate the types of pollutants to be addressed and the location of their sources (i.e., phosphorus, TSS)

Please indicate suggested Stormwater Best Management Practices and anticipated areas they will be located to address the water quality concerns.

REQUIRED LIST OF ENCLOSED ATTACHMENTS

✓ cost estimate and schedule to complete the feasibility study

PROJECT SPONSOR SIGNATURE & DATE:



Stormwater Retrofit Application

FEASIBILITY PHASE DELIVERABLES

PROJECT INFORMATION

ESTIMATED START & END DATE	ESTIMATED COST
DESIGN PHASE:	DESIGN PHASE:
CONSTRUCTION PHASE:	CONSTRUCTION PHASE:

**Dates, schedules and estimated costs listed above are not binding. Applicants should provide a construction cost estimate that explains the basis of the estimate and identifies the project elements included. While applicants are not bound by this estimate, it is necessary to show what was considered and to provide clarity on the scope of work covered.*

LAND OWNERSHIP AND PARCEL ID'S OF ALL ANTICIPATED STORMWATER BMP LOCATIONS:

PROJECT DATA	RESOURCES
--------------	-----------

**Data can be provided by DEP during the Feasibility Study in order to assist in preparation of these deliverables.
 **These items can be estimated.
 *** Published values can be used.
 **** Calculated using removal efficiencies and worksheet for phosphorous calculations provided to applicant*

Soil type*		(NRCS Soil Survey GIS layer)
Estimated depth to groundwater*		(Field soil testing and/or NRCS soil survey data)
Drainage Area (acres)**		
Impervious Area (acres)**		
Impervious Area (%)		
Total Annual Rainfall (in)***		(NOAA precipitation data)
Phosphorus concentration****		Please double click the Paperclip Icon below to open the Calculation Worksheet
Phosphorus load (lb/yr)****		
Phosphorus Removal Efficiency and Removal (lb/yr) ****		
Resulting Phosphorus Load (lb/yr) ****		
Suggested Retrofit Practices with estimated sizing and quantities:		

ATTACHMENTS TO INCLUDE:

✓ Location and Status of Existing Drainage Systems	✓ 2' contour map of site, including drainage area boundaries and a sketch plan of proposed BMP*	✓ Presence of 100-year floodplain* (FEMA mapping GIS layer)
✓ Presence of waterbodies on 303(d) list	✓ conformance to the NYS DEC Stormwater Management Design Manual for chosen practice(s)	✓ Estimated design and construction cost breakout

CATSKILL WATERSHED CORPORATION



Stormwater Retrofit Application

PHASE 2: DESIGN

PROJECT INFORMATION

ESTIMATED START & END DATE	ESTIMATED COST
DESIGN PHASE:	DESIGN PHASE:
CONSTRUCTION PHASE:	CONSTRUCTION PHASE:

Please indicate any changes in Scope from the Feasibility Phase if applicable:

Please indicate suggested BMP's and anticipated areas they will be located to address the water quality concerns.

- ENGINEERING APPLICATION ATTACHMENTS:**
1. Engineering Scope of Work
 2. Detailed Design Schedule
 3. Engineering Estimated Cost
 4. Insurance Documents
 5. Business Integrity Form

- ENGINEERING DELIVERABLES:**
1. 30% engineering design for review and comment by CWC/DEP
 2. 60% engineering design for review and comment by CWC/DEP
 3. 90% engineering design for review and comment by CWC/DEP and draft contract documents
 4. Final contract documents
 5. Construction Schedule
 6. Construction Estimate
 7. Draft Operation & Maintenance Manual that includes the useful life of each BMP.

PROJECT SPONSOR SIGNATURE & DATE:



Stormwater Retrofit Application

PHASE 3: CONSTRUCTION

PROJECT INFORMATION

ESTIMATED START & END DATE

ESTIMATED COST

CONSTRUCTION PHASE:

CONSTRUCTION PHASE:

CONSTRUCTION APPLICATION ATTACHMENTS:

1. Final Engineering contract documents
2. Temporary and Permanent Easement documents
3. Construction Bid Evaluation
4. Construction Schedule
5. Restrictive Deed Covenant
6. Insurance Documents
7. Business Integrity Form

CONSTRUCTION PHASE DELIVERABLES:

1. Construction Phase Services (CPS) including all construction submittal reviews and approvals.
2. Site Inspection as required to verify engineering design.
3. Produce Record Documentation including "As-built" construction plans.
4. Easements
5. Engineering Certification Letter
6. Notice of Termination
7. Closeout of any opened regulatory permit for the constructed BMP
8. Approved Operation and Maintenance Manual that includes the useful life of each BMP

PROJECT SPONSOR SIGNATURE & DATE:

--	--



Stormwater Retrofit Application

PHASE 4: OPERATION & MAINTENANCE

PROJECT INFORMATION

FINAL DESIGN COST	FINAL CONSTRUCTION COST	17.6% of Final Design + Construction Costs

ENTITY PERFORMING THE O&M

O&M APPLICATION ATTACHMENTS:

1. Final O&M Manual
2. O&M Schedule

PROJECT SPONSOR SIGNATURE & DATE:



Stormwater Retrofit Application

APPENDIX A

Pre-approved Removal Rate

Retrofit Type	P Reduction (%)
Bioretention	65%
Dry Swale	50%
Dry Well	50%
ED Shallow Wetland	39%
Hydrodynamic Separator	10%
Infiltration Basin	50%
Infiltration Trench	68%
Micropool ED Pond	40%
Multiple Pond	76%
Organic Filter	61%
Perimeter Sand Filter	41%
Pocket Pond	67%
Pocket Wetland	57%
Pond/Wetland System	56%
Shallow Wetland	43%
Storm Basin	50%
Subsurface Infiltration	100%
Surface Sand Filter	59%
Underground Sand Filter	59%
Wet ED Pond	55%
Wet Pond	49%
Wet Swale	28%



Stormwater Retrofit Application

APPENDIX B

Business Integrity Form

PROJECT CONTRACTOR APPROVAL FORM

**STORM RETROFIT PROGRAM III
PROJECT CONTRACTOR APPROVAL FORM**

(DEP Contract Number: _____; Registration No. _____)

**For CW Corp. Stormwater Retrofit III Program Project Contractors subject to
Section 7.04 of the Program Agreement**

PROJECT CONTRACTOR INFORMATION:

Business Name of Project Contractor: _____

Principal Place of Business Address: (Street, State, zip code)

BUSINESS CONTACT INFORMATION:

Phone Number: _____

Email: _____

Type of Business: (sole proprietorship, partnership, corporation, other)

Business EIN/SSN: _____

I hereby affirm that the information supplied is true and correct.

Signature: _____

Print Name: _____

Date: _____

Part II: AGENCY REVIEW

Business Integrity Approved: _____

Business Integrity Rejected: _____