

ATTACHMENT C - WORK PLAN

Agawamuck Creek Watershed Management Plan

1. Project Description

The Village of Philmont, in partnership with Philmont Beautification, Inc. and community stakeholders, will develop a watershed management plan for Agawamuck Creek. This plan will develop management recommendations for improving water quality and restoring critical natural resources throughout the watershed, as well as identify measures to address invasive species.

The Village of Philmont will collaborate with the Towns of Claverack, Ghent, Austerlitz and Hillsdale. The watershed boundary includes towns and villages of Columbia County, including the Towns of Claverack, Ghent, Austerlitz and Hillsdale. The watershed is approximately 14,656 acres (22.9 square miles) in size. Waterbodies included in the Agawamuck Creek Watershed are Summit Lake, Philmont Reservoir, Agawamuck Creek, and their tributaries.

This Agawamuck Creek Watershed Plan will develop management recommendations for improving water quality and restoring critical natural resources throughout the watershed, identify measures to address invasive species, and incorporate information identified in the watershed analysis (e.g. waterways, stormwater runoff, invasive species, onsite wastewater treatment systems, road weather management best practices, watershed data compilation and baseline monitoring). As part of the plan, the community will prepare watershed characteristics, produce a watershed map, analyze local laws, provide recommendations, and prepare an implementation plan to improve water quality throughout the Agawamuck Creek watershed and enhance the revitalization of Summit Lake, waterfront, and the village downtown. A stand-alone, site-specific Biological Survey Study of Summit Lake and Adjacent areas document will be created as a result of this planning process. A Watershed Advisory Committee will include governmental agencies, stakeholders, non-profit watershed organizations, and other members of the community affected by the watershed. Match will be provided through a combination of cash, in-kind services, volunteer and donated professional services.

Watershed management issues identified include: streambank erosion and lake sedimentation, large delta at inlet to the lake, stormwater runoff, invasive species, and other non-point source pollution. The goals of the Agawamuck Creek Watershed Plan are to better understand watershed conditions and public accessibility to waterbodies in the watershed.

2. Project Attribution and Number of Copies

The Contractor must ensure that all materials printed, constructed, and/or produced acknowledge the contributions of the Department to the project. All final and public facing materials must include the Department of State logo and the following acknowledgment:

"This [document, report, map, etc.] was prepared with funding provided by the New York State Department of State under Title 11 of the Environmental Protection Fund."

The contributions of the Department must also be acknowledged in community press releases and other notices issued for the project, including web site postings and other forms of digital distribution. Project press releases and other notices shall be submitted to the Department for review and approval prior to release, to ensure appropriate attribution.

Unless otherwise specified in the Work Plan tasks, the Contractor shall submit products in the following formats:

- Draft products: one digital copy of each product must be submitted in Adobe® Acrobat® Portable Document Format (PDF), created using 300 dpi scanning resolution and Microsoft Word, if applicable.
- Final products: one electronic copy of each product must be submitted in PDF, created using 300 dpi scanning resolution and Microsoft Word, if applicable. In addition, one paper copy of each final product (including reports, designs, maps, drawings, and plans) must be submitted.
- Electronic data for all Geographic Information System-based mapping products and associated spatial data must be submitted in either ArcGIS format, or similar product acceptable to the Department, and comply with the requirements for Contract GIS Products. Formal metadata must be provided with all digital GIS data which includes, at minimum, a file summary/abstract, intended use, data, source data, and author information.
- Electronic data for all designs, drawings, and plans must be submitted in the original software that they were created (such as CAD format or other similar product acceptable to the Department), as well as in JPG format.
- Photographs and images must be submitted in JPG format with a minimum resolution of 300 dpi must be dated and captioned with the location and a brief description of the activity being documented and include any associated metadata (including the photo's GPS location where available).

3. Compliance with Procurement Requirements

The municipal attorney, chief legal officer or financial administrator of the municipality shall certify in writing to the Department that applicable provisions of General Municipal Law were fully complied with.

4. Project Components

Task 1: Project Initiation Meeting

The Contractor, the Department, and any partners responsible for managing the project, shall hold an initial meeting to review and agree upon the project scope and schedule, project requirements, roles and responsibilities, the selection process for procuring consultants, State Environmental Quality Review Act (SEQRA) compliance requirements, MWBE requirements, ADA requirements, the number of public meetings and techniques for public involvement proposed for the project, and any other information which would assist in project completion. In addition, the composition of a watershed advisory committee shall be discussed during the project initiation meeting. The Contractor, or a designated project partner, shall prepare and distribute to all project partners a brief meeting summary clearly indicating the agreements reached at the meeting. Work on subsequent tasks shall not proceed prior to Department approval of the proposed approach as outlined in the meeting summary.

Products: Project initiation meeting held with appropriate parties. Written meeting summary outlining agreements reached.

Task 2: Watershed Advisory Committee

In consultation with the Department, the Contractor, with other project partners, shall establish a watershed advisory committee to facilitate communication and cooperation of the involved local governments, State agencies, and other stakeholders essential to preparation and implementation of the watershed plan. The committee will help focus the planning process, assist in reviewing consultant proposals, interact with the project administrator (if one is identified) and review work products. The committee shall be representative of project stakeholders, including representatives of State, county and municipal agencies with jurisdiction

over project activities or the project area, and non-governmental and community-based organizations. A draft list of proposed members shall be circulated to the Department for review and approval prior to establishment of the committee. If appropriate, a memorandum of agreement (MOA) or other instrument that describes the purposes and responsibilities of the watershed advisory committee and its partners shall be executed.

Products: Draft and final list of proposed members of watershed advisory committee, including a representative from each local government in the watershed. Draft and final MOA or other instrument. Watershed advisory committee established.

Task 3: Procurement of Consultant (if applicable)

The Contractor shall draft a Request for Proposals (RFP) or similar instrument, including a complete project description with site conditions, expected final results, a schedule for completion, MWBE requirements, and criteria for selecting a preferred proposal. Consultant services requested shall include all applicable tasks, activities and responsibilities outlined in the "Project Components" section of this work program. To demonstrate good faith actions to achieve MWBE contract participation goals, the Contractor must actively solicit proposals for contracts and subcontracts from qualified State certified MWBEs which can be identified using the NYS Directory of Certified Firms (<https://ny.newnycontracts.com/>). The Contractor must retain records of the procurement process including direct solicitation to MWBEs and the results thereof and maintain records of actions that its subcontractors have taken toward meeting MWBE contract participation goals.

The Contractor shall submit the RFP or similar instrument to the Department for review and approval prior to release for solicitation of proposals.

Products: Approved RFP or similar instrument released through advertisement in local papers, the New York State Contract Reporter, or other appropriate means. Documentation of procurement including direct solicitation to MWBEs and actions taken toward meeting MWBE contract participation goals.

Task 4: Consultant Selection and Compliance with Local Procurement Requirements

In consultation with the Department, the Contractor and an appropriate review committee shall review all proposals received as a result of the RFP. At a minimum, the following criteria are suggested for use in evaluating consultant responses:

- Quality and completeness of the response.
- Understanding of the proposed scope of work.
- Applicability of proposed alternatives or enhancements to information requested.
- Cost-effectiveness of the proposal.
- Qualifications and relevant experience with respect to the tasks to be performed.
- Reputation among previous clients.
- Ability to complete all project tasks within the allotted time and budget.
- Ability to satisfy MWBE requirements.

Incomplete proposals that do not address all of the requested components should not be accepted for review and consideration.

NYS Department of State requires a licensed professional engineer, architect or landscape architect licensed to practice in New York State for preparation and certification of final designs and construction documents, and for supervision of construction.

The municipal attorney, chief legal officer or financial administrator of the municipality shall certify in writing to the Department that the Contractor fully complied with applicable provisions of General Municipal Law and with local procurement procedures.

The Contractor's procurement record and consultant selection are subject to approval by the Department.

Products: Consultant(s) selected and approved by the Department. Written certification of compliance with procurement procedures.

Task 5: Subcontract Preparation and Execution

The Contractor shall prepare the draft subcontract(s) to conduct project work with the selected consultant(s). The subcontract(s) shall contain a detailed work plan with adequate opportunity for review at appropriate stages of product completion, a payment schedule with payments tied to receipt of products, and project costs. The subcontract(s) shall specify the composition of the entire consultant team, including firm name and area of responsibility, firm expertise, and those professionals from the consultant team or consulting firm that will be directly involved in specific project tasks including how the identified MWBE goals will be satisfied. The Contractor shall submit the draft subcontract(s) to the Department for review of the subcontract work plan for alignment with the appropriate tasks of the work plan as set forth in Attachment C of this contract. The Contractor shall incorporate the Department's comments on the subcontract work plan, or scope of services, prior to execution of the final subcontract(s). The Contractor remains responsible for the legal sufficiency of the subcontract in accordance with the requirements in the Master Grant Contract and Attachment A-1.

Products: Draft and final, executed consultant subcontracts.

Task 6: Preparation of Community Outreach/Participation Plan

The Contractor or its consultant(s), in cooperation with the watershed advisory committee, and other partners as appropriate, shall prepare a method and process to encourage community participation in the planning process. The outreach plan will identify key individuals, organizations, and entities to be involved, and will identify the visioning process and the roles and responsibilities in coordinating the entire outreach process, logistics, and the proposed schedule of public meetings and other public engagement activities such as social media, workshops, charrettes, etc. Meetings and public engagement shall be scheduled in a manner that maximizes attendance and participation from all interested community members. The Contractor and/or its consultant(s) may utilize the Department's Office for New Americans and their Community Navigators to encourage participation from populations who are frequently underrepresented in this process, including immigrants, refugees, and minorities. All public meetings shall be publicized in the community through press releases, announcements, individual mailings, and any other appropriate means. A summary of each public outreach session shall be made available in written form and through other appropriate means, such as websites. The outreach plan and all components, such as press releases, are subject to review and approval by the Department.

Product: Community outreach plan submitted to the Department for review and approval.

Task 7: Watershed Advisory Committee Meetings

In consultation with the Department, the Contractor shall hold a second project meeting with the consultant(s), and Watershed Advisory Committee, to review project requirements, site conditions, and roles and responsibilities; identify new information needs and next steps; and transfer any information to the consultant(s) which would assist in completion of the project.

The Watershed Advisory Committee shall meet regularly over the course of the project to guide project development and review findings and documents. Following each meeting, the consultant(s) shall prepare and distribute a brief meeting summary including attendees, main topics discussed, decisions agreed upon by committee, and action items.

Products: Watershed Advisory Committee meetings. Written meeting summary of each meeting.

Task 8: Initial Vision and Watershed Goals

The Contractor or its consultant(s), in collaboration with the watershed advisory committee, shall prepare an initial vision statement that expresses an idea of what the watershed will become, and clearly describes what the community hopes to accomplish. The vision will set the tone of the watershed plan and will be used throughout the planning process. In addition, an initial set of watershed goals and objectives will be created to provide a realistic framework for achieving the vision as well as help focus limited resources. See the Department's guidebook: Watershed Plans; Protecting and Restoring Water Quality on Watershed Planning, Chapter 3, for more information.

Products: Draft initial vision statement, goals and objectives submitted to the Department for review and approval.

Task 9: Description and Assessment of the Waterbody(ies) and Watershed Resources

The Contractor or its Consultant(s) shall conduct an inventory of the waterbody(ies) and watershed(s) based on existing data (e.g., DEC Waterbody Inventory and Priority Waterbody List, DEC Water Quality Classifications, and state, county, regional or local planning and monitoring programs), and new information collected specifically for this project, as necessary. The scale for which the primary unit of analysis, presentation and recommendations for protection and restoration shall be at the subwatershed level. Based on the inventory, the Contractor or its Consultant(s) will prepare a description and assessment that:

- Provides a non-comprehensive literature review which assesses and explores existing plans, reports, and studies on the watershed.
- Delineates the watershed and its constituent subwatersheds determined by an analysis of topography, existing drainage infrastructure, surface hydrology, field observation, and other factors as appropriate.
- Identifies and describes the geographic setting and features of the watershed, including topography, geology, hydrography, floodplains, soils, areas of erosion, and precipitation.
- Identifies, describes and maps infrastructure (e.g., roads and bridges; stormwater infrastructure including outfalls; dams, and other impoundments or flow constriction structures).
- Identifies and describes well heads and public water supplies.
- Identifies and describes groundwater recharge areas contributing to aquifer replenishment, stream base flow, or wetland hydrology.
- Describes demographics, and historic, current, and projected population density.
- Describes historic, current and projected land uses and land cover.

- Describes zoning and current land use practices.
- Identifies water quality classifications for all segments of the waterbody.
- Identifies and describes impairments to water quality and living resources.
- Identifies point sources and hot spots (i.e. NPDES Phase I & II permittees, septic and underground storage tanks, landfills and superfund sites).
- Describes living resources (e.g., fish, macroinvertebrates), and overall watershed habitat.
- Describes key water and habitat resources warranting special protection or restoration.
- Describes a projected build-out for the community(ies) based on current land use plans and regulations.
- Estimates impervious cover for each subwatershed.
- Estimates runoff and pollutant loadings for each subwatershed under current conditions, and anticipated pollutant loads resulting from new or expanded uses in the watershed.
- Prioritizes subwatersheds based on data analysis.

The Contractor shall submit the draft Waterbody and Watershed Inventory Report to the Department for review and approval, and shall incorporate the Department's comments in the final watershed characterization.

Products: Written Description and Assessment of the Waterbody(ies) and Watershed Resources supported by maps, tables, and graphics, submitted in either ArcGIS format, or similar product acceptable to the Department, as appropriate. New, updated map of Agawamuck Creek Watershed.

Task 10: Conduct a Site-Specific Biological Survey Study and Literature Review

The Contractor or its Consultant(s) shall prepare and conduct a subwatershed, site-specific biological survey study and analysis on fauna and flora within the watershed based on existing data (e.g., data on the New York Natural Heritage Program, the USFWS National Wetland Inventory maps, NYS Freshwater Wetland Maps, etc.) and new information collected specifically for this project. The scale for which the primary unit of analysis, presentation and recommendations for protection and restoration shall be a small-scale, subwatershed, site specific level. Site location for the survey will be Summit Lake (“Lake”), adjoining wetlands and emergent wetlands to the north and east of the Lake, the woody wetlands along Agawamuck Creek (“Creek”), the Creek adjacent to the inlet of the Lake. Based on the inventory, the Contractor or its Consultant(s) will prepare a description and assessment that:

- Reviews existing natural resource maps (e.g. soils and geology, water and wetland resources, habitat and wildlife, land use, cultural resources, and climate), documents, reports, studies, and other forms of technical knowledge.
- Identifies and describes the different natural communities (including wetlands), other significant biodiversity areas, important fauna and flora species (e.g. rare, endangered, threatened, sensitive), and invasive species.

The Contractor shall submit the draft biological survey study to the Department for review and approval, and shall incorporate the Department's comments in the final watershed characterization.

Products: Written site-specific biological survey study supported by maps, tables, and graphics, submitted in either ArcGIS format, or similar product acceptable to the Department, as appropriate.

Task 11: Description and Assessment of the Ability of Local Laws and Programs to Implement Best Management Practices to Protect Water Quality

The Contractor or its consultant(s) shall identify and assess the ability and effectiveness of local laws and programs to implement best management practices to protect surface and groundwater quality and habitat, from point and nonpoint source pollution, including that related to new and existing development, road and bridges, onsite wastewater treatment systems, marinas, forestry and agriculture, habitat and hydrologic modification (such as channelization of streams), and riparian area management. The assessment shall be based on the nonpoint assessment tool developed by the Department to identify gaps in local programs and practices, and follow the methodology explained in Section 2, Nonpoint Assessment and Gap Analysis of Protecting Water Resources through Local Controls and Practices: An Assessment Manual for New York Municipalities at: http://www.gflrpc.org/uploads/3/1/9/1/31916115/protecting_water_resources.pdf, or equivalent tool determined to be acceptable to the Department. The assessment shall identify and document any gaps in data or information. The assessment tool is intended to result in the identification of strengths and gaps in a municipality's ability to effectively manage pollution, as related to local regulations, routine operation and maintenance practices, training and outreach programs.

The assessment of the ability of local laws and programs to implement best management practices shall be conducted in an interactive manner and include the following:

- A description of county, and local agencies as they affect nonpoint source pollution, including stormwater management, habitat protection, and restoration in the watershed. A narrative of federal and state roles will be provided to the Contractor by the Department for incorporation into this task. The Contractor shall identify and describe the roles of county and local agencies.
- A description and comprehensive assessment of the ability of local land use plans, regulations, (including zoning, site plan review, subdivision regulations, stormwater management, and wetlands, watercourse and flooding regulations), programs and practices, (including road de-icing practices, basin maintenance schedules, salt storage placement and volumes, ditch maintenance, etc.), to implement best management practices to control point and nonpoint source pollution and protect habitat, including an analysis of their strengths and weaknesses as they relate to the implementation of management practices
- Completed municipal assessment forms (see Appendix F, of Protecting Water Resources through Local Controls and Practices: An Assessment Manual for New York Municipalities)
- A listing of municipal representatives who were actively engaged by the contractor in completing the assessment forms

The Contractor or its consultant(s) shall submit the draft Assessment of the Ability of Local Laws, Programs and Practices to Implement Best Management Practices to the Department for review and approval, and shall incorporate the Department's comments in the final assessment report.

Products: Written Description and Assessment of the Ability of Local Laws and Programs to Implement Best Management Practices to Protect Water Quality

Task 12: Draft Watershed Characterization Report

The Contractor or its consultant(s) shall prepare, and submit to the Department for review and approval, a single Watershed Characterization Report including the written description and assessment of the waterbody and watershed as well as assessment of local laws programs and practices to control nonpoint source pollution and habitat degradation. The report will include current management strategies in the subwatersheds, where appropriate.

The characterization will be supported by maps and other data as appropriate that describe the physical,

biological and ecological condition of lakes, rivers, streams, wetlands, riparian areas, and upland portions of the watershed. See the Department's guidebook: Watershed Plans; Protecting and Restoring Water Quality on Watershed Planning, Chapter 3, for more information.

Product: Draft Watershed Characterization Report.

Task 13: First public participation/outreach meeting

In consultation with the Department, a public information meeting shall be conducted during the watershed and waterbody characterization phase of the project, to solicit public input in defining and characterizing the nonpoint source pollution issues in the waterbody, refine the watershed vision, goals and objectives, and to review and discuss water quality and watershed protection and restoration issues. A written summary of public input obtained at this meeting shall be prepared and provided to the Department for review and comment.

Products: First public information meeting held. Minutes/summary of meeting prepared including any presentations or handouts and submitted to the Department.

Task 14: Refinement of Vision and Watershed Goals

Based on information gathered from the characterization and comments from the public, the Contractor or its consultant(s) shall refine the initial vision statement and watershed goals and objectives, as needed. Any changes shall be submitted to the Department for review and approval.

Products: Refined vision statement, goals and objectives, submitted to the Department for review and approval.

Task 15: Final Watershed Characterization Report

The Contractor or its consultant(s) shall submit the draft and final Watershed Characterization Report to the Department for review and approval. The draft Watershed Characterization Report shall incorporate the Description and Assessment of the Waterbody(ies) and Watershed Resources, the Description and Assessment of Local Laws, Programs and Practices, and the statement of Vision and Watershed Goals into one cohesive document that discusses the relationships among these components. The final report shall be supported by maps, tables, and graphics as appropriate. The final report shall incorporate the Department's comments in the final Watershed Characterization Report.

Products: Final Watershed Characterization Report

Task 16: Watershed Management Recommendations to Achieve Goals and Objectives

A. Identify and Describe Management Strategies and Recommendations

Based on the characterization of the waterbody and its watershed, the Contractor or its consultant(s) will identify management strategies and recommendations to protect and restore the resources of the waterbody and its watershed. See the Department's guidebook: Watershed Plans; Protecting and Restoring Water Quality on Watershed Planning, Chapter 5 & 6, for more information.

Regulatory and Programmatic actions may include:

- Land use management, such as: comprehensive plans, zoning, site plan review, erosion and sediment control
- Improved stormwater management practices, including Low Impact Development and Green Infrastructure, and recommendations for each of the subwatersheds, if appropriate.
- Onsite wastewater treatment system management
- Wetlands and watercourse protection (including buffer area establishment).
- Groundwater and aquifer protection, floodplain management.
- Open space protection and land conservation and protection and forest management.
- Training, education, and stewardship programs.
- Identification of related monitoring and research, gaps, and appropriate programs (i.e. water quality monitoring program) needs to advance watershed management goals and management strategies.

Restoration and Protection Projects may include:

- Watershed-wide and site-specific actions to restore and protect water quality and living resources/habitat.
- Stormwater remediation measures to reduce pollutant loadings in each subwatershed (e.g., wetland creation, vegetative treatment systems, retrofitting, reduction of impervious surfaces).
- Identifying potential sites for fish and wildlife habitat restoration including areas within streams, stream corridors, freshwater and tidal wetlands, and ponds for potential improvement to ecological integrity (e.g., habitat structure, dynamics, connectivity, and quality).
- Structural activities such as stream restoration or stormwater treatment system retrofits
- Establishing education programs to build awareness and stewardship. This could involve activities such as storm drain stenciling that are implemented on-the-ground and are identified during field assessments.

Available resources include: (1) Watershed Plans; Protecting and Restoring Water Quality <http://www.dos.ny.gov/opd/programs/pdfs/Guidebooks/watershed/WatershedPlansGuidebook.pdf> (New York State Department of State, 2009); (2) Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, issued under Section 6217(g) of the Coastal Zone Act Reauthorization Amendments of 1990; (3) Management Practices Catalogue for Nonpoint Source Pollution Prevention and Water Quality Protection in New York State (Department of Environmental Conservation, 1994); (4) Watershed Planning Handbook for Control of Nonpoint Source Pollution (rev. 1996); (5) New York State Stormwater Management Design Manual (2015) <http://www.dec.ny.gov/chemical/29072.html> ; (6) New York Standards and Specifications for Erosion and Sediment Controls (2005) <http://www.dec.ny.gov/chemical/29066.html> ; (7) New York State Department of Health Source Water Assessment Program, www.health.state.ny.us/nysdoh/water/swap.htm ; and other structural, regulatory, or institutional management options derived from literature searches, interviews with knowledgeable individuals, and other sources.

The Contractor shall submit the draft management strategies and recommendations to the Department for review and approval, and shall incorporate the Department's comments in the final management strategies.

Products: Identification and written descriptions of specific management strategies and recommendations for water quality and habitat protection and restoration.

B. Prioritize Recommended Projects and Actions and Key to Map(s)

The Contractor or its consultant(s) shall develop, and submit to the Department for review, a prioritized list of recommendations, with supporting justification, and linked to maps and should include photographs showing project locations and conditions. See the Department's guidebook: Watershed Plans; Protecting and Restoring Water Quality on Watershed Planning, Chapter 5, for more information. The prioritization process will include:

- Evaluating subwatersheds according to impairments and/or threats to water quality and habitat.
- Identifying priorities within subwatersheds for focused nonpoint source pollution management action.
- Ranking projects and actions within each subwatershed according to anticipated reduction in nonpoint source pollution or protection of unimpaired resources. Potential ranking factors may include:
 - watershed goals, subwatershed priority, and vulnerability
 - pollutant reduction/protection afforded, water resources and/or habitat value
 - cost, permitting, and maintenance
 - landowner cooperation, public access and visibility
 - partner involvement and innovation

Products: Draft list of prioritized recommendations, keyed to maps and photographs

Task 17: Second Public Participation/Outreach Meeting

In consultation with the Department, a second public outreach/participation meeting shall be conducted to allow for public review and comment on the Watershed Management Recommendations and Prioritization. A written summary of public input obtained at this meeting shall be prepared and provided to the Department for review and comment. Public input shall be incorporated into the Final Watershed Management Plan to the satisfaction of the Department prior to finalization and/or publication of the plan.

Products: Public information meetings held. Minutes/Summary of meeting including any presentations or handouts.

Task 18: Watershed Management Recommendations Report

The Contractor or its consultant(s) shall submit the draft and final Watershed Management Recommendations Report to the Department for review and approval. The draft shall incorporate the management recommendations, and the prioritization and potential recommendations into one cohesive chapter. The final report shall incorporate the Department's comments in the final Watershed Characterization Report.

Products: Draft and Final Watershed Management Recommendations Report

Task 19: Implementation Strategy and Schedule

The Contractor or its consultant(s) shall prepare a strategy and schedule to implement the identified watershed management practices and approaches, including the specific projects and other actions that were identified through analysis and public participation. See the Department's guidebook: Watershed Plans; Protecting and Restoring Water Quality on Watershed Planning, Chapter 5, for more information. The implementation strategy will:

- Clearly articulate priorities, measurable objectives and steps to implement the identified protection and restoration strategies.
- Include cost estimates, potential funding sources, and a phasing schedule noting lead/involved organizations for each action.
- Include a schedule for periodically updating the plan.
- Articulate the ongoing role of the watershed advisory committee.

The Implementation Strategy will include a matrix of prioritized projects and other actions for advancing the implementation of the goals and objectives of the watershed plan, including steps needed to implement the specific projects (e.g., feasibility, design, permitting, construction), timeframe for implementation; short term (e.g., immediate to 1 year), medium term (e.g., greater than 1 year, up to 5 yrs), or long-term (e.g., greater than 5 years), cost estimates, potential funding sources, regulatory approvals needed, and likely project sponsor (agency or organization lead) and project partners. The Contractor shall submit the draft Implementation Strategy to the Department for review and approval, and shall incorporate the Department's comments in the final Implementation Strategy.

Products: Draft and Final Implementation Strategy and Schedule Report

Task 20: Tracking and Monitoring

The Contractor or its consultant(s) shall prepare a plan that includes strategies for tracking implementation of projects and other actions, and monitoring water and related resources to measure success in achieving project goals and objectives. The tracking and monitoring plan shall identify methods to track implementation of projects and other actions and gather baseline data on watershed conditions toward assessing the effectiveness of implementation over time. See the Department's guidebook: Watershed Plans; Protecting and Restoring Water Quality on Watershed Planning, Chapter 6, for more information.

The plan would include a method for tracking the implementation of projects and actions, and periodic monitoring of water and related resources. In addition, the plan may include identification of potential parties to conduct monitoring activities, potential funding sources, and methods of data management. The Contractor or its consultant(s) shall submit the draft tracking and monitoring plan to the Department for review and approval, and shall incorporate the Department's comments in the final monitoring and tracking plan.

Products: Draft and Final Monitoring and Tracking Plan

Task 21: Draft Watershed Management Plan

In collaboration with the Department, the Contractor or its consultant(s) shall prepare the Draft Watershed Management Plan, which shall include the elements described in the previous tasks. The Draft Plan shall reference all sources of information and identify any information gaps and issues requiring further study. The watershed management plan will contain six main sections: Executive Summary, Introduction, Characterization, Watershed Management Recommendations, Implementation Strategy, Monitoring and Tracking.

Executive Summary - The executive summary will provide a concise reference for the entire document. It will present key points of the watershed plan, provide a brief overview of the purpose of the watershed plan, who was involved in the planning process, and highlight the vision, main findings, and list watershed goals, and recommendations.

Introduction - The introduction will describe the watershed plan (including where the watershed is located, general facts about the watershed and the communities within its boundaries, and general demographics) and provide a basic understanding of the planning process (including partners involved and how they contributed, methodologies used to prepare the plan) to give the reader an understanding of the watershed and why watershed planning is important. The introduction will also contain the watershed vision - what it means to the community and how it will shape the future of the watershed.

Characterization - The characterization will provide an inventory and analysis describing the current state of the watershed and assessment of programs and practices in place for controlling pollution. This section will delineate the watershed and subwatershed boundaries and describe its waterbodies, describe physical and biological characteristics, including how the watershed functions, explain existing land use and land cover patterns, and identify trends within the watershed. The characterization will include an identification of sensitive resource areas, water quality issues, pollutants, and corresponding activities impacting water resources. This section will also assess the programs and practices in place for controlling pollution, describe the assessment process used and discuss the gaps found during the assessment. The characterization is the basis for the development of watershed management recommendations.

Watershed Management Recommendations - This section will explain how water quality will be protected and restored within your watershed through a series of projects and actions developed to correct existing impairments and prevent future impacts to water quality. You should explain how you arrived at these specific recommendations and include a discussion of the assessments conducted which support the recommendations. While recommendations should be supported by data, consider moving extensive technical information into an appendix or supplemental report.

Implementation Strategy - This section will set the stage for implementation by identifying the actions needed to address the problems and opportunities in your watershed. It will set out an implementation schedule, lay out priorities, establish realistic expectations for partner involvement, and outline budget needs.

Monitoring and Tracking - This section will outline a proposed long-term monitoring and tracking plan, describe indicators and performance criteria for monitoring restoration projects, establish milestones and tracking mechanisms to evaluate progress over time, and propose mechanisms for reporting progress and updating the watershed plan. Creating a plan for observing changes in water quality will help you understand how well certain practices work and how to adapt your plan to continue to provide water quality improvement.

See the Department's guidebook: Watershed Plans; Protecting and Restoring Water Quality on Watershed Planning, Chapter 5, for more information.

The Contractor or its consultant(s) shall submit the Draft Watershed Management Plan to the Department for review and approval. In addition, the Draft shall be distributed to members of the watershed advisory committee for review.

Products: Draft Watershed Management Plan

Task 22: Third Public Participation/Outreach Meeting

In consultation with the Department, a public participation/outreach meeting shall be conducted prior to preparation of the final Watershed Management Plan to allow for public review and comment on the draft document. A written summary of public input obtained at this meeting shall be prepared and provided to

the Department for review and comment. Public input shall be incorporated into the Final Watershed Management Plan to the satisfaction of the Department prior to finalization and/or publication of the plan.

Products: Public information meetings held. Minutes/Summary of meeting including any presentations or handouts.

Task 23: Final Watershed Management Plan

The Contractor or its consultant(s) shall complete the Final Watershed Management Plan, which shall incorporate and reflect comments received from the Department, the watershed advisory committee, and the public. Comments and revisions suggested by the Department must be incorporated into the plan to the satisfaction of the Department prior to finalization and/or publication of the document.

Products: Final Watershed Management Plan. Electronic data for all Geographic Information System-based mapping products and associated spatial data must be submitted in either ArcGIS format, or similar product acceptable to the Department, and comply with the requirements for Contract GIS Products.

Task 24: Watershed Monitoring Protocol and Pilot

The Contractor or its consultant(s) and subcontractor(s) shall draft a Watershed Monitoring Protocol to capture water quality data and sampling methodology using guidance from the New York State Department of Environmental Conservation and the U.S. Environmental Protection Agency, where appropriate. The monitoring protocol will be implemented for up to one year as a pilot in order to incorporate testing in the field for practicality, identify needed improvement to the protocol, and identify missing components. Revisions will be made based on the field testing and a final Watershed Monitoring Protocol will be drafted. The Contractor shall submit the draft Watershed Monitoring Protocol to the Department for review and approval, and shall incorporate the Department's comments and field pilot findings into the final Watershed Monitoring Protocol. This protocol can be used as a stand alone document and will be incorporated into the Agawamuck Creek Watershed Plan.

Products: Draft Watershed Monitoring Protocol. Final Watershed Monitoring Protocol incorporating the Department's comments and field pilot findings.

Task 25: MWBE Reporting

In accordance with Attachment A-1, Part I, Section M, Paragraph 6, Contractor shall be required to use the New York State Contract System ("NYSCS") to record payments to subcontractors (including a breakdown of payments issued to state-certified MWBE firms) and otherwise report compliance with the provisions of Article 15-A of the Executive Law and regulations in relation to funds used pursuant to this Agreement. Contractor shall be required to submit utilization plans in paper format until such time as submission is made available through the NYSCS and notification of such availability is provided to Contractor by the State. Upon such notification by the Department, Contractor shall submit required utilization plans through the NYSCS. So long as Contractor complies with the reporting requirements stated above in the manner directed by the Department, the requirement of Attachment A-1, Part I, Section M, Paragraph 6 for paper filing of Quarterly Reports shall be waived. Technical assistance for use of the NYSCS system can be obtained through the NYSCS website at <https://ny.newnycontracts.com> by clicking on the "Contact Us & Support" link.

In the event Contractor does not have the capacity to use the NYSCS in the manner required above, an

exception may be granted by the Department of State upon Contractor's written request and showing of good cause to allow for paper reporting. If such an exception is granted by the Department of State, paper reporting in a manner and form directed by the Department shall be required including but not limited to the submission of Quarterly MWBE Contractor Compliance Report (Form F) forms in accordance with Section M, Paragraph 6, of Attachment A-1.

Products: Ongoing reporting through NYSCS during the life of the contract.

Task 26: Project Status Reports

The Contractor or its consultant(s) shall submit project status reports semi-annually (every June 30 and December 31) on the form provided, including a description of the work accomplished, the status of all tasks in this work plan, schedule of completion of remaining tasks, and an explanation of any problems encountered.

Products: Completed project status reports submitted to the Department during the life of the contract.

Task 27: Final Project Summary Report and Measurable Results forms

The Contractor or its consultant(s) shall work with the Department project manager to complete the Final Project Summary Report and Measurable Results forms. Final payment shall not be authorized until these forms have been completed and filed with project deliverables.

Products: Completed Final Project Summary Report and Measurable Results forms submitted to the Department.

5. Project Responsibilities

The Contractor shall administer the grant, execute a contract with the Department, and ensure the completion of work in accordance with the approved Work Plan and budget.

The Contractor:

- will be responsible for conducting all project work in conformance with the Work Plan included in the executed contract with the Department.
- will be responsible for all project activities including drafting request for proposals and managing subcontracts with consultants and subconsultants.
- will certify to the Department that the procurement record for project consultants and subcontractors complies with the applicable provisions of General Municipal Law.
- will receive approval from the Department for any and all consultant subcontracts before beginning project work.
- will be responsible for submission of all products, M/WBE forms, and payment requests including backup documentation..
- will be responsible for coordinating participation and soliciting comments from local government personnel, project volunteers, and the public.
- will keep the Department informed of all important meetings for the duration of this contract.

- will receive approval from the Department before purchase of any equipment.
- will secure all necessary permits and perform all required environmental reviews.
- will ensure that all materials printed, constructed, and/or produced acknowledge the contributions of the Department to the project.
- will ensure that all products prepared as a part of this contract shall include the NYS Comptroller's contract # as indicated on the Face Page of this contract.
- will ensure the project objectives are being achieved.
- will ensure that comments received from the Department and the watershed advisory committee, or other advisory group, are satisfactorily responded to and reflected in subsequent work.
- will recognize that payments made to consultants or subcontractors covering work carried out or products produced prior to receiving approval from the Department will not be reimbursed unless and until the Department finds the work or products to be acceptable.

The Department:

- will review and approve or disapprove of subcontracts between the Contractor and consultant(s) and any other subcontractor(s).
- will participate in project initiation meeting and attend meetings that are important to the project.
- will review all draft and final products and provide comments as necessary to meet the objectives.
- must approve or disapprove any and all design, site plan, and preconstruction documents. Department approval must be obtained before construction may begin.