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March 22, 2017

Richard Shea, Supervisor
Town of Philipstown
238 Main Street
P.O. Box 155
Cold Spring, NY 10516

Re: Hudson Highlands Fjord Trail Contract for Services.

Dear Supervisor Shea:

This is an agreement between the Town of Philipstown (Client) and AKRF, Inc. (Consultant) for the provision of SEQRA and Design Engineering Services for the Hudson Highlands Fjord Trail. We understand that Scenic Hudson will be serving as the Project Manager for the assignment, and NYS OPRHP will be serving as Lead Agency for the SEQRA review.

The specific services that AKRF shall provide are set forth the Scope of Services (Attachment A) Compensation for AKRF's services shall be in accordance with the "Fee Schedule" (Attachment C). All such services shall be provided in accordance with the Terms and Conditions attached hereto as Appendix A.

Sincerely,
AKRF, Inc.

Nina Peek, AICP
Vice President

Christon Robbins
Senior Technical Director

cc: Amy Kacala, Scenic Hudson

ACKNOWLEDGED AND ACCEPTED:

Signature: _____ **Title:** _____
For: _____ **Date:** _____

APPENDIX A
STANDARD TERMS AND CONDITIONS

1. Services.

- a. Subject to the terms and conditions hereof, the Client hereby engages the Consultant to perform the Services, furnishing the agreed-upon reports, drawings and/or other work product described in the attached Scope of Services and the Consultant hereby agrees to provide the same. The rendering of Services hereunder is premised on the Consultant receiving full and timely access to the Site and Client's personnel as well as receipt of all information from the Client and its agents relating to the Project as reasonably requested by the Consultant from time to time.
- b. The Services are limited to those tasks specified in the Scope of Services. If the Client directs the Consultant to perform, or instructs the Consultant to undertake, work or provide Deliverables that are beyond those specified in the annexed Scope of Work and/or Services described in the Scope of Services (collectively, "Additional Work"), the Consultant may in its discretion agree to undertake to perform the same, but the Client shall pay compensation for such Additional Work separate from and in addition to the compensation provided for Services herein. In the absence of written agreement to the contrary, all Additional Work provided by the Consultant from time to time relating to the Project shall be provided for compensation on a time and material basis at the Consultant's then current standard hourly rates in effect from time to time, but otherwise upon and subject to the terms and conditions of this Agreement.
- c. The Consultant shall determine the continued adequacy of this Agreement in light of occurrences or discoveries that were not originally contemplated by or known to the Consultant. Should the Consultant call for contract renegotiation, the Consultant shall identify the changed conditions necessitating renegotiation, and the Consultant and the Client shall promptly and in good faith enter into renegotiation of this Agreement. If terms cannot be agreed to, then either party has the absolute right to terminate this Agreement by delivery of ten (10) days prior written notice.
- d. Notwithstanding any other provision of this Agreement or any other agreement entered into by Consultant with respect to the Project, Consultant shall not have control or charge of, and shall not be responsible for, construction means, methods, techniques, sequences or procedures, for safety precautions and programs in connection with work or activities at the project site, for the acts or omissions of any contractor, subcontractors or any other persons performing any work or undertaking any activities at the project site, or for the failure of any of them to carry out any work or perform their activities in accordance with their contractual obligations, including, but not limited to, the requirements of any drawings, specifications or other documents prepared by Consultant.

2. Compensation, Invoicing and Payment.

- a. The Client shall reimburse the Consultant for the expenses incurred of the type, and in the manner, described in the Scope of Services. Invoices shall be submitted by the Consultant monthly, are due upon presentation and shall be paid in full within 30 calendar days after the applicable invoice date. If payment is not received in full on or before the applicable due date then the Consultant shall have the right to charge interest on any unpaid amount from the due date in an amount equal to the lesser of 1-1/2% per month or the maximum amount permitted by applicable law, calculated on a daily basis. Payments will be credited first to interest and then to principal. Consultant shall be entitled to recover any and all costs incurred, including reasonable attorneys' fees ("Collection Costs") in connection with its efforts to collect past due sums. The minimum amount of such Collection Costs is agreed to be the lesser of (1) ten percent (10%) of the past due amount, or (2) the maximum amount allowed by law.
- b. The Client shall pay all taxes, fees, assessments and charges applicable to the Services and any Additional Work and any other pass-through charges (other than taxes imposed upon the net income of the Consultant) including, without limitation, all sales, use, gross receipts, excise, transaction, consumption, Valued Added ("VAT"), Goods and Services ("GST"), utility, message, personal property, intangible tax and any other federal, state and local taxes, fees and charges applicable to the Services and Additional Work provided hereunder, including interest and other charges thereon chargeable by the taxing authorities.

3. Performance Standards.

- a. The Consultant shall use reasonable commercial efforts to render the Services, any Additional Work and all other obligations under this Agreement in accordance with (i) the standard of care and skill ordinarily used by reputable members of the same profession practicing under similar circumstances at the same time and in the same locale and (ii) all applicable codes, regulations, ordinances, and laws in effect as of the date of the execution of this Agreement (collectively, "Laws"). Neither the Consultant's entering into this Agreement nor any performance hereunder by the Consultant, or any affiliate or subcontractor thereof, or any of their respective officers, directors, owners or employees or agents shall create any fiduciary obligation owed to the Client or any other person or entity. Client or any other person or entity and any such obligation is hereby fully and expressly disclaimed.
- b. EXCEPT AS EXPRESSLY SET FORTH HEREIN, THE CONSULTANT IS MAKING NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY, ACCURACY OR FITNESS FOR A PARTICULAR PURPOSE, REGARDING THE SERVICES, ADDITIONAL WORK OR ANY DELIVERABLES.
- c. The Consultant shall not be responsible for the acts or omissions of any subcontractor, supplier or other personnel based on interpretations or clarifications of the Project or the Services or Additional Work to be rendered hereunder by the Client without confirmation thereof by the Consultant.
- d. In the event of an emergency affecting the health or safety of persons or property, the Consultant may act, in its reasonable discretion, to prevent threatened damage, injury or loss to person or property notwithstanding that it may be outside the scope of the Services or Additional Work or not approved in advance by the Client.

4. Indemnification.

- a. The Consultant agrees, to the fullest extent permitted by law, to indemnify and hold the Client, its subsidiaries and affiliates and their respective officers, directors, employees, owners, subcontractors and agents (collectively, the "Client Parties") harmless from any damage, liability, or cost (including reasonable attorneys' fees and costs of defense) to the extent caused by the Consultant's negligence. The indemnification obligation created by this Paragraph is subject in every respect to the limitation of liability provisions in Paragraph 5 of this Agreement.
- b. The Client agrees, to the fullest extent permitted by law, to indemnify and hold the Consultant, its subsidiaries and affiliates and their respective officers, directors, employees, owners, subcontractors and agents (collectively, the "Consultant Parties") harmless from any damage, liability, or cost (including reasonable attorneys' fees and costs of defense) to the extent: caused by the Client's negligence, or arising from or attributable to the failure of the Client to timely and/or properly implement or adhere to recommendations, designs, specifications, work plans or other items specifying or outlining the construction and/or implementation of future work beyond the Scope of Services, Services or Additional Work provided by Consultant in Deliverables.
- c. As a condition precedent to claiming any indemnification hereunder, the applicable indemnified party (i) shall promptly provide the applicable indemnifying party with written notice of any claim sufficiently promptly and in sufficient detail to avoid prejudicing the defense of such claim; (ii) shall not settle or compromise any such claim without the indemnifying party's written consent, which shall not be unreasonably withheld or delayed; and (iii) shall promptly provide reasonable cooperation relating to defending such claim. The indemnified party may, at its own expense, assist in the defense if it so chooses, but shall not be permitted to control such defense or any negotiations relating to the settlement of any such claim so long as the party responsible for indemnification hereunder is actively defending such claim. Notwithstanding clause (ii) above, if the party responsible for indemnification hereunder refuses or fails to timely defend the claim or abandons such defense, the indemnified party (parties) may settle such claim without the prior consent of the indemnifying party and the indemnifying party shall remain fully liable to indemnify the indemnified party (parties) to the extent that the indemnified party (parties) are otherwise entitled to indemnification for such claim under this Section 4.

- d. No party shall be liable for any claim or cause of action seeking indemnification of any kind under this Section 4, regardless of the type or nature of the damage, liability, claim or cause of action for which indemnification is sought (the "Underlying Claim"), if such indemnification action or claim is brought or asserted more than three years after the Underlying Claim accrued.
- e. NOTWITHSTANDING ANYTHING TO THE CONTRARY SET FORTH IN THIS AGREEMENT OR IN ANY DOCUMENT SIGNED BETWEEN THE PARTIES REGARDING THE SUBJECT MATTER OF THIS AGREEMENT, EITHER PRIOR OR SUBSEQUENT TO THIS AGREEMENT, OR PROVIDED UNDER APPLICABLE LAW, NEITHER PARTY, OR ANY OFFICER, DIRECTOR, OWNER, EMPLOYEE, SHAREHOLDER OR AGENT THEREOF, SHALL BE LIABLE TO THE OTHER, EITHER IN CONTRACT OR IN TORT, FOR ANY LOSS OR INACCURACY OF DATA OR MATERIAL OR FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, SPECIAL OR PUNITIVE DAMAGES, INCLUDING WITHOUT LIMITATION ANY DELAY DAMAGES, LOSS OF FUTURE REVENUE, INCOME OR PROFITS, OR ANY DIMINATION OF VALUE, FINANCING COSTS, OR COST OF LOST OPPORTUNITIES, RELATING TO THIS AGREEMENT, EVEN IF THE SAME HAS BEEN SPECIFICALLY ADVISED OF THE POSSIBILITIES OF SUCH DAMAGES, EXCEPT TO THE EXTENT THAT ANY SUCH DAMAGES ARE PAYABLE BY ONE OF THE PARTIES HERETO TO A THIRD PARTY AND THE CLAIM IS ONE FOR WHICH THE PARTY REQUIRED (WHETHER BY JUDGMENT, SETTLEMENT OR OTHERWISE) TO PAY SUCH DAMAGES IS ENTITLED TO INDEMNIFICATION UNDER THIS SECTION 4.

5. Limitation of Liability.

In recognition of the relative risks and benefits of the Project to both the Client and the Consultant, the risks have been allocated such that the Client agrees, to the fullest extent permitted by law, to limit the liability of the Consultant Parties hereunder to the Client Parties and to all construction contractors, subcontractors on the Project and others under the Client's control for any and all claims, suits, demands, judgments, payments, losses, costs, damages of any nature whatsoever, or expenses from any cause or causes, regardless of the nature or type of action, so that the total aggregate liability of the Consultant Parties shall be limited to and in no event exceed the compensation actually paid to Consultant for services rendered on this Project under this Agreement, or \$100,000, whichever is greater.

6. Suspension of Services or Additional Work.

If the Project is suspended for more than 30 calendar days in the aggregate (whether consecutive or non-consecutive), the Consultant shall be compensated for all Services and any Additional Work performed and charges incurred prior to receipt of notice to suspend and, if and when the Consultant resumes providing Services and/or Additional Work, a mutually agreed upon equitable adjustment in fees payable to the Consultant shall be made to accommodate the resulting demobilization and remobilization costs. In addition, there shall be a mutually agreed upon equitable adjustment in any applicable performance schedule relating to the Project based on the delay caused by the suspension.

7. Term.

Unless terminated earlier in accordance with Section 8 hereof, this Agreement shall have a term commencing on the date of this Agreement and ending, unless terminated earlier as provided herein, when the Services and any Additional Work relating to the Project are completed or as otherwise set forth in the Scope of Services.

8. Termination.

- a. Either party may terminate this Agreement by delivery of written notice to the other (i) if the other party commits a material breach of this Agreement and fails to remedy such breach within 30 days after receipt of written notice specifying the alleged breach in reasonable detail, (ii) if either party makes an assignment for the benefit of its creditors, or the filing by or against it of a voluntary or involuntary petition under any bankruptcy or insolvency law, under the reorganization or arrangement provisions of the United States Bankruptcy Code, or under the provisions of any law of like import, or the appointment of a trustee or receiver for such party or its property, or (iii) as provided by Section 1(c) hereof.
- b. If full payment is not received by the Consultant by the applicable due date, then the Consultant may, at its sole discretion and without liability to any Consultant Parties, terminate this Agreement or suspend

any Services or Additional Work to be performed hereunder upon 10 days prior written notice. If the Project is suspended for any reason for more than 60 calendar days in the aggregate (whether consecutive or non-consecutive), the Consultant may, at its discretion and without liability, terminate this Agreement.

- c. The termination of this Agreement by either party hereto shall not affect, restrict, diminish or remove any rights, obligations or remedies possessed by either party arising under the terms of this Agreement up to and through the effective date of termination hereof. In addition, the following provisions shall survive termination of this Agreement: Sections 4, 5 and 10 through 20, inclusive. The remedies available to each party hereunder are cumulative and termination of this Agreement shall be in addition to and not in lieu of any equitable remedies available.
- d. Upon termination the Consultant shall be paid in full in accordance with the terms of this Agreement for all Services and Additional Work rendered and reimbursable expenses incurred through the date of termination, including reasonable termination costs.

9. Force Majeure.

Except as provided in Section 6 or 7 hereof, neither party shall be liable for damages for any delay or failure to perform its obligations hereunder, if such delay or failure is due to reasons beyond the control of the concerned party or without its fault or negligence, including without limitation, strikes, riots, wars, terrorism, fires, epidemics, quarantine restrictions, unusually severe weather, earthquakes, explosions, acts of God or state or any public enemy or acts mandated by applicable laws, regulation or order, whether valid or invalid, of any governmental body.

10. Non-Solicitation.

Each party agrees that during the term of this Agreement and for one year thereafter it will not solicit, or attempt to solicit, for hire or engagement, directly or indirectly any of the other party's employees or other personnel who have been involved in the provision of Services or Additional Work under this Agreement or otherwise involved in the transactions contemplated hereby.

11. Assignment.

Neither party shall assign its rights, duties or obligations under this Agreement to any person or entity, in whole or in part, without the prior written consent of the other party hereto; provided, however, that either party may assign this Agreement in the event of a merger or consolidation or the sale of all or substantially all of its applicable line of business and Consultant may delegate any of its duties and obligations hereunder if it remains responsible for the performance thereof.

12. Independent Contractor.

Notwithstanding any other provision of this Agreement, Consultant's status shall be that of an independent contractor and not that of a servant, agent, or employee of the Client. Neither party shall hold itself out as, nor claim to be, acting in the capacity of an officer, servant, agent, or employee of the other or that it is authorized to contractually bind the other in any way. The Consultant shall be free to choose the manner in which it performs the Services and Additional Work and furnishes the Deliverables and may delegate and use subcontractors, consultants and suppliers of its choice in satisfying any of its duties and obligations hereunder, provided that the Consultant shall be responsible for any breach of this Agreement by the same.

13. Governing Law; Consent to Jurisdiction.

The rights and obligations of the parties hereunder shall be governed by the laws of the State of New York, without regard to principles of conflicts of laws. Each of the parties hereby (a) irrevocably agrees that any legal or equitable action or proceeding arising under or in connection with this Agreement shall be brought exclusively in the courts of the State of New York in the County of New York and the United States District Court for the Southern District of New York, except that the foregoing venue shall be non-exclusive with respect to any application for injunctive relief pursuant to Section 18 hereof, (b) accepts for itself and in respect of its property, generally and unconditionally, the jurisdiction of the aforesaid courts and appellate courts thereof, (c) waives personal service of any summons, complaint or other process, and agrees that the service thereof may be made either (i) in the manner for giving of notices provided for in this Agreement or (ii) in any other manner permitted by law. The parties agree that this Agreement was negotiated and shall not be construed against the party which initially drafted the same.

14. Severability.

If any term or provision of this Agreement shall to any extent be determined to be illegal, invalid or unenforceable under law, regulations or ordinances of any federal, state or local governments to which this agreement is subject, such term or provision shall be deemed severed from this Agreement and the remaining terms and provisions shall remain unaffected thereby.

15. Third Party Claims.

Nothing in this Agreement shall create or shall give to third parties any claim or right of action against the Consultant, its officers, directors, owners, employees and agents.

16. Notices.

All notices required or permitted by this Agreement shall be in writing and shall be delivered personally, by certified or registered mail, return receipt requested, or nationally recognized overnight courier service to the respective addresses set forth above. Either party may, by notice given in the same manner set forth above, designate a different address or addresses to which subsequent notices shall be sent. Notice shall be deemed given upon receipt.

17. Amendment; Waiver.

- a. This Agreement may only be modified or amended by a writing that is signed by both authorized parties.
- b. Any right of any party hereunder may only be waived by a writing that is signed by the authorized party granting the waiver. No course of dealing or trade usage or custom and no course of performance shall be deemed a waiver of any right.
- c. The failure by either party to insist upon strict performance of any of the provisions of this Agreement will in no way constitute a waiver of its rights as set forth in this Agreement, at law or in equity, or a waiver of any other provisions or subsequent default by the other party in the performance or compliance with any of the terms and conditions set forth in this Agreement.

18. Injunctive Relief.

The parties agree that the violation or threatened violation by either party of any of the provisions of Section 10 of this Agreement shall cause immediate and irreparable harm to the other party. In the event of any breach or threatened breach of any of said provisions, each party consents to the entry of preliminary and permanent injunctions by a court of competent jurisdiction prohibiting such party from any violation or threatened violation of such provisions and compelling such party to comply with such provisions, without the requirement of posting any bond. This Section shall not affect nor limit, and any injunctive relief granted pursuant to this Section shall be in addition to, any other remedies available to the other party at law or in equity for any such violation or threatened violation by either party.

19. Entire Agreement.

This Agreement, including the Attachment and any Scope of Services, and any written agreements relating to Additional Work represents the entire Agreement between the parties concerning the subject matter hereof. This Agreement supersedes any other written or oral proposal, representation, communication, letter of intent or other agreement by or on behalf of the parties hereto relating to the subject matter hereof.

20. Counterparts.

This Agreement may be executed by facsimile and in one or more counterparts, each of which shall be deemed an original.

ATTACHMENT A
SCOPE OF SERVICES

The Scope of Services is provided as Attachment A to the Primary Agreement between AKRF, Inc. and the Town of Philipstown.

Scenic Hudson will serve as the Project Manager for this assignment leading project coordination with the Steering Committee, municipal and agency partners, including scheduling, noticing and securing venues for project related meetings.

OPRHP will serve as the Lead Agency under SEQRA and will prepare all required notices and resolutions. Scenic Hudson and OPRHP will be responsible for securing locations for, stenographers (if required) at and noticing all SEQRA related meetings, including for Scoping, DGEIS Hearing(s) and Public Engagement Meetings.

I. Draft Master Plan Trail Alignment

Scenic Hudson will provide the In Design files of the Preliminary Hudson Highlands Fjord Draft Master Plan in an editable format.

Although the proposal for the SEQRA review assumed the final alignment to be analyzed through the SEQRA process would be roughly the same length and run roughly along the same route as the Preferred Alignment presented in the Preliminary Hudson Highlands Fjord Trail Draft Master Plan (May 2015), environmental and public policy obstacles and constraints throughout the corridor have been identified. As such, alteration of the Preferred Alignment has occurred. The DGEIS will analyze the Draft Master Plan Trail alignment.

Deliverable: Using the previously completed files as a base, AKRF will prepare a Draft Master Plan Trail Alignment, which will be analyzed in the DGEIS. The Draft Master Plan will comprise one 11x17 map of the overall trail alignment, and individual maps for each of the eight proposed trail segments that are the subject of the environmental review. The Draft Master Plan Trail Alignment will be provided as a stand-alone document.

DRAFT MASTER PLAN FEE: \$10,440

II. Draft Generic Environmental Impact Statement

A. Project Scoping - OPRHP commenced a coordinated review and circulated Part 1 of the Full Environmental Assessment Form (EAF) and Notice of Intent to serve as Lead Agency under SEQRA to Interested and Involved Agencies. OPRHP declared itself Lead Agency and issued a Positive Declaration (October 7, 2015) and prepared, posted and circulated a Draft DGEIS Scoping Document (July 6, 2016). AKRF will prepare a Final Scoping Document for the DGEIS.

Deliverables:

1. Inventory of all Scoping Document comment letters received from Interested and Involved Agencies and the Community.
2. Draft Final DGEIS Scoping Document incorporating revisions for Project Client/Team review.
3. Final DGEIS Scoping Document for OPRHP and Scenic Hudson for final review.

B. Draft Generic Environmental Impact Statement (DGEIS) – The DGEIS Proposed Action to be reviewed under SEQRA is the Final Master Plan Trail as defined in Section II.A. The

DGEIS will also include a site specific analysis of the Riverfront Trail Segment, Phase 1 of the overall Final Master Plan. Unlike the remainder of the Trail segments, the Riverfront Trail Segment will be designed and seek site plan approval in parallel with the proposed environmental review. As such, specific analyses on the actual design will be incorporated into the DGEIS document. The technical issues to be analyzed in the DGEIS are defined in the Final DGEIS Scoping Document (Attachment B). The DGEIS will be consistent with and meet the requirements of the Final Scoping Document. Should the Final Scoping Document (Attachment A) be amended, AKRF will complete the revisions, and amend both the Contract Scope of Work and Fee as required to capture those changes. Our proposed approach to and assumptions for specific required technical analyses as well as the chapters to be included in the DGEIS follow.

1. Executive Summary
2. Description of the Proposed Action
3. Chapter A: Land Use and Zoning:

AKRF's Scope of Services and the information to be presented in this Chapter of the DGEIS will be consistent with and meet the requirements of the Final Scoping Document (Attachment B).

4. Chapter B: Land Ownership, Management and Maintenance

AKRF's Scope of Services and the information to be presented in this Chapter of the DGEIS will be consistent with and meet the requirements of the Final Scoping Document (Attachment B). For this section of DGEIS, the following work tasks are allocated as presented below:

AKRF	OPRHP	Scenic Hudson
Map of land owners within or adjacent to the Trail corridor	Narrative description of land owners within or adjacent to the Trail corridor	
	Narrative description of the land owners relationship to the planning process.	Narrative description of the land owners relationship to the implementation of the project and any ongoing responsibilities for operation and maintenance of the Trail
		Narrative discussion of eminent domain
	Narrative describing current management/maintenance arrangements and jurisdictions for existing sections of the OPRHP (Park Preserve) property.	Narrative describing current management/maintenance arrangements and jurisdictions for non OPRHP property abutting or adjacent to existing sections of the Trail route and other smaller park areas including the role of volunteer groups in meeting maintenance needs and any real or perceived deficiencies.
		Narrative describing proposed long term management, maintenance (including potential

AKRF	OPRHP	Scenic Hudson
		funding sources), operation (including hours of operation), cleanliness and safety of the proposed Trail including: trash removal, snow removal, access restrictions (gates), repair and response to vandalism.
	Inventory of trash and recycling receptacles in the Trail corridor for the OPRHP property (Park Preserve), how they are emptied and maintained and where additional receptacles are needed;	Inventory of trash and recycling receptacles in the Trail corridor (non-OPRHP properties), how they are emptied and maintained and where additional receptacles are needed;
	Hours of operation of the OPRHP property (Park Preserve), including seasonal variations and how demand has been changing over time for existing recreation assets.	Hours of operation of the existing (non-OPRHP) public recreation assets including seasonal variations and how demand has been changing over time for existing recreation assets.

5. Chapter C: Land

a) **Surficial Geology and Soils:** AKRF's Scope of Services is consistent with the Final Scoping Document (Attachment B). AKRF will use existing available data for geology and soils in the corridor to establish existing conditions and to assess impacts. Type and quantity of materials to be excavated, disposal of excess materials and geotechnical information (including borings) would be provided, as necessary, for the Riverfront Trail segment, only.

b) **Bedrock Geology:** AKRF's Scope of Services is consistent with the Final Scoping Document (Attachment B). We will use existing available data on bedrock geology in the corridor to establish existing conditions and to assess impacts. Type and quantity of materials to be excavated, disposal of excess materials and geotechnical information (including borings) would be provided, as necessary, for the Riverfront Trail segment, only.

c) **Topography:** AKRF's Scope of Services is consistent with the Final Scoping Document (Attachment B). We will use existing available data on bedrock geology in the corridor to establish existing conditions and to assess impacts.¹

6. Chapter D: Water

AKRF's Scope of Services and the information to be presented in this Chapter of the DGEIS is consistent with the requirements of the Final Scoping Document (Attachment B). This Chapter will include:

a) **Existing Conditions** - The DGEIS will present and describe wetland and surface water resources located for the Preferred Alignment. Data sources to be

¹ Topographic and metes and bounds survey is excluded for all but the Riverfront Trail segment. Topographic and metes and bounds survey for the Riverfront Trail segment will be subcontracted by D&B.

reviewed will consist of maps from: the USFWS National Wetland Inventory; NYSDEC freshwater and tidal wetlands; the effective FEMA FIRM floodplain mapping; NRCS and NYSDEC soils and geology mapping; NYSDEC projections of Sea Level Rise on the Hudson²; and additional surface water mapping as available from Dutchess/Putnam County GIS and the Project Client Team. Information collected during the multi-day ecological site investigation (described below) will supplement the presentation of water resources obtained from published resources. Where wetlands/surface waters are identified in the field (during site inspection) beyond the boundaries of NWI/DEC mapping of such features, their approximate location (using hand held GPS data) and general extent will be included on the maps prepared for the DGEIS.

b) For the Riverfront Trail segment, from Little Stony Point to Breakneck Ridge, the AKRF Team will complete a wetland delineation in accordance with Federal/State wetland delineation methodology. This would involve flagging the wetland/surface water boundary(s)³. This segment is located entirely outboard (west) of the Metro North Railroad line and consists primarily of the hard shoreline of the Hudson River. The delineation will be used to quantify impacts to regulated wetlands and waters based on the preferred alignment. The wetland delineation would be completed to aid in permitting and impact minimization efforts during design.⁴

Should other segments of the Trail require wetland/surface water delineation, a separate scope and fee can be provided as a contingency item. Results of the ecological site investigation will be used to determine the need for and scope of wetland delineation efforts for other segments of the Trail if necessary.

Should geotechnical investigation reports be available for portions of the project site, their descriptions of groundwater elevations and potential impediments posed by shallow groundwater for Trail development will be disclosed.

c) *Potential Impacts of the Proposed Project* - Impacts to wetlands/surface waters and floodplains and the need for federal/state permitting will be described qualitatively based on NWI/DEC mapping and site inspection for the Preferred Alignment. Similarly, impacts to 100-year floodplain will be described qualitatively based on the Preferred Alignment. This impact assessment will determine the magnitude of potential impacts to wetlands, streams and floodplains and will guide the discussion of project location/alignment and design alternatives necessary to minimize impacts.

For the overall Trail alignment, detailed quantification of impacts to wetlands/surface waters, such as the Trail's footprint within wetlands, quantities of fill, and design parameters to avoid floodplain impacts would not be included in the DGEIS. These are best undertaken during the site plan development and permitting stage of project development for each proposed Trail segment.

² The New York State Department of Environmental Conservation (NYSDEC) established science-based projections for sea-level rise to guide state adaptation decisions and to demonstrate conformity with New York's the Community Risk and Resiliency Act (CRRA). Along the Hudson River, DEC's sea level rise projections range from 8 inches to 30 inches by the 2050's.

³ Once flagging of wetland/surface water boundaries is completed, the physical survey of the boundaries would be handled by the AKRF Project Team. Once the need for a physical survey is determined, a separate scope and fee will be provided.

⁴ Preparation of and fees for wetland permitting (Local, State, Federal) are not included herein.

As noted above, if wetland delineation is determined to be necessary and completed for the Riverfront Trail segment, impacts to regulated wetlands in terms of quantity of fill and square foot of coverage would be calculated and provided herein.

The proposed Trail will generate stormwater runoff that must be assessed, managed and permitted in accordance with NYSDEC's General Permit for Stormwater Discharges from Construction Activity prior to construction. Such factors as the materials used for the Trail surface, the existing conditions of the Trail route, and the amount of regrading necessary to support the Trail will all affect the amount of runoff generated and the design of stormwater management measures. Rather than preparing a detailed SWPPP for entire length of the proposed Trail, including segments that have not yet been designed, the DGEIS will include a qualitative analysis so that areas of stormwater management facilities (detention basins, swales, etc.) can be sized approximately and located conceptually along the Trail route. This will allow for consideration of the additional footprint necessary for stormwater management facilities and the added ecological impacts of such facilities and qualitative impacts to water quality in the biological impact assessment.

For the Riverfront Trail segment, a detailed Stormwater Pollution Prevention Plan (SWPPP) will be prepared in accordance with the New York State Stormwater Management Design Manual and General Permit #GP-0-15-002 and summarized in the DEIS. This SWPPP will analyze changes in stormwater runoff with the proposed project and will incorporate stormwater management (mitigation) facilities as required by SPDES General Permit based on the proposed design of the Riverfront Trail.

7. Chapter E: Biological Resources

a) AKRF's Scope of Services and the information to be presented in this Chapter of the DGEIS will be consistent with and meet the requirements of the Final Scoping Document (Attachment B). *Existing Conditions* - Baseline ecological conditions will be determined via a seven-day (1 day per Trail mile) ecological site inspection to identify and characterize ecological habitats and communities within the Preferred Alignment and to prepare lists of plants and animals observed during the Fall of 2016 and the Spring of 2017). The product of this effort will be an inventory of existing plant and animal species and mapping of ecological communities and habitats within the footprint of the Preferred Trail Alignment.

Areas of invasive species will also be noted. If invasives are generally scattered throughout the Trail corridor, species will be noted and presented in the DGEIS. Areas with larger populations of invasive species will be recorded with a hand held GPS unit and depicted on the figure presented in the DGEIS.

Publicly available sources of information as well as the data and information provided by OPRHP will be used to inform and supplement the findings of the onsite ecological inspection. These will include:

- (1) Lists of threatened and endangered species and Significant Natural Communities known to occur within or in the vicinity of the project site based on records of occurrence obtained from the U.S. Fish and Wildlife Service (USFWS), Parks and NYS Natural Heritage Program (NYNHP);

- (2) Lists of plants and animals known to occur in habitats observed onsite, including those described in published ecological resource assessments completed by or for the Town of Philipstown, City of Beacon, Town of Fishkill or by Putnam and Dutchess Counties⁵ as well as information provided by OPRHP;
- (3) Ecological resources described by any NYSDOS “Significant Coastal Fish and Wildlife Habitats” located onsite or in the vicinity of the Preferred Trail Alignment; and
- (4) Wetland and surface waters mapping prepared by USFWS National Wetlands inventory and NYSDEC.

Based on input received from NYNHP/OPRHP, known or suspected threatened, endangered, rare, special concern, or exploitably vulnerable plant or animal species known to flower or nest during the period of terrestrial ecology site inspection will be described in the DGEIS and noted if identified during the multi-day onsite field inspection.⁶ The need for targeted species surveys, and the season during which they should be undertaken, will be described and identified in the DGEIS.

Aquatic Resources will be described from existing published sources including information on stream and river flows, flora and fauna, State/Federally-listed species, the location of submerged aquatic vegetation (SAV), and other relevant ecological functions of the Hudson River documented by the NYSDEC’s Hudson River Estuary Program and other publicly available sources. No aquatic sampling (dip netting, trawl surveys, SAV mapping etc.) would be undertaken for the DGEIS.

b) *Potential Impacts of the Proposed Project* - Potential impacts to known or expected vegetation and wildlife will be assessed and described. Direct impacts to habitats will be described based on the general mapping of habitats undertaken during the existing conditions assessment considering the footprint of the Preferred Trail Alignment. Impacts to listed species and the potential need for an Incidental Take Permit will be assessed. Just as important will be an assessment of indirect impacts to ecological resources and to regional ecology. The Trail has the potential to impede the movement of animals from protected lands upslope, to facilitate the movement of invasive plants/animals along the corridor, and to increase use and disturbance of the existing trails, parks and protected lands in the Hudson Highlands.

These potential impacts will be addressed qualitatively in the DGEIS and impact avoidance measures described. Potential mitigation measures will be identified and described qualitatively, including upland and wetland habitat creation or

⁵ Including, but not limited to: Biodiversity Assessment Manual for the Hudson River Estuary Corridor (NYSDEC, 2001); Hudson River Estuary Wildlife and Habitat Conservation Framework – An Approach for Conserving Biodiversity in the Hudson River Estuary Corridor, (HREP, 2006); Philipstown Natural Resource and Open Space Plan (Philipstown, 2007); Natural Areas and Wildlife Habitat Summary Town of Philipstown (NYSDEC, 2014); Significant Habitats of the Fishkill and Sprout Creek Corridors (Hudsonia, 2005); Natural Resource Inventory of Dutchess County NY (CCEDC/Dutchess County, 2010); Biodiversity Assessment of the North Highlands, Philipstown (Anderson et al., 2003).

⁶ Targeted species surveys for plants/animals would be a contingency item, and are considered outside the scope of the DGEIS. Such surveys may include: plant surveys within habitats identified onsite that are known to harbor State/Federal listed plant species; acoustic surveys for the federally-listed Indiana bat or northern long-eared bat; surveys for herptile species known to occur in specific habitat types found onsite.

improvement via planting plans, methods to remove and/or minimize the spread of invasive species, etc.

8. Chapter F: Historic and Archeological Resource Analysis⁷

The proposed Hudson Highlands Fjord Trail will require review by OPRHP's Division for Historic Preservation (DHP) pursuant to Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law. AKRF will consult with DHP and prepare a Phase 1A Historic and Archeological Resources Assessment of the Preferred Alignment to identify historic and archaeological resources. The first step pursuant to Section 14.09⁸ will be to review the Preliminary Draft Master Plan and other planning documents, in consultation with DHP, to determine the Project Impact Area (PIA), the area where the project could directly impact archaeological and historic resources or indirectly impact nearby historic resources. The PIA would include locations where staging, construction, and subsurface work would be expected to occur to create the trail. The Phase 1A will then identify historic and archaeological resources in the PIA.

For historic resources, known resources (e.g. those listed on or determined eligible for listing on the State/National Register of Historic Places) will be identified through a review of OPRHP's Cultural Resources Information System (CRIS). A reconnaissance survey will also be undertaken to identify any potential historic resources (e.g. properties not yet evaluated but appearing to meet S/NR criteria) in the PIA. For archaeological resources, the Phase 1A will include a review of the following datasets through CRIS: previously identified archaeological sites; archaeological sites listed on the National Register; archaeological districts; previously completed archaeological surveys; museum areas; and archaeologically sensitive areas. In addition, the team archaeologist will examine historic maps, aerial photographs, and primary and secondary documentary sources to identify previous land uses with the potential to affect site formation and preservation. All collected data will be synthesized to identify areas of archaeological sensitivity.

The Phase 1A will include an assessment of the project's potential impacts on identified historic and archaeological resources and make recommendations for any further study of cultural resources as appropriate. The Phase 1A will be submitted to DHP for review and the Phase 1A and correspondence with DHP will be summarized in the DGEIS.⁹ The DGEIS will describe the measures by which impacts to historic and archaeological resources and/or areas of archaeological sensitivity, if identified, would be avoided, minimized, or mitigated.

9. Chapter G: Scenic Resources

AKRF's Scope of Services and the information to be presented in this Chapter of the DGEIS will be consistent with and meet the requirements of the Final Scoping Document (Attachment B).

⁷ If required, a scope and fee for consultation pursuant to Section 106 of the National Historic Preservation Act, which would be triggered as part of permitting by USACE or if the proposed project seeks funding from the U.S. Department of Transportation would be developed.

⁸ Development of a Letter of Resolution pursuant to Section 14.09 and costs therefor would be provided if the project would have potential impacts on historic and archaeological resources and mitigation is required. At such time as the project's potential impacts on historic and cultural resources are identified, an additional scope of work and cost estimate could be developed.

⁹ It is not possible, at this time, to identify the need for or the scope and cost of such studies until the Phase 1A has been prepared. Additional scope and cost estimates for further archaeological investigations, such as Phase 1B subsurface testing, would be developed as appropriate.

10. Chapter H: Noise and Air Resources

AKRF's Scope of Services and the information to be presented in this Chapter of the DGEIS will be consistent with and meet the requirements of the Final Scoping Document (Attachment B).¹⁰

11. Chapter I: Recreational and Open Space Resources, Accessibility

AKRF's Scope of Services and the information to be presented in this Chapter of the DGEIS will be consistent with and meet the requirements of the Final Scoping Document (Attachment B). For this section of DGEIS, the following work tasks are allocated as presented below:

AKRF	OPRHP	Scenic Hudson
Map of recreational resources.	Table and narrative of OPRHP connecting recreational resources, type of recreation, current use levels and capacities, noting accessibility facilities and parking within or directly adjacent to the Trail corridor.	Narrative description of ownership, operation and maintenance responsibilities for non-OPRHP connecting recreational resources.
	Existing conditions assessment of OPRHP recreational facilities in the immediate vicinity of the Trail.	
	Qualitative discussion of potential increase in visitation at existing OPRHP recreational facilities in the immediate vicinity of the Trail, and the capacity to accommodate the increased demand.	Qualitative discussion of potential increase in visitation at existing non-OPRHP recreational facilities in the immediate vicinity of the Trail, and the capacity to accommodate the increased demand.
		Narrative description regarding consideration of user fees.

12. Chapter J: Growth and Community Character

AKRF's Scope of Services and the information to be presented in this Chapter of the DGEIS will be consistent with and meet the requirements of the Final Scoping Document (Attachment B).

13. Chapter K: Socioeconomics

AKRF's Scope of Services and the information to be presented in this Chapter of the DGEIS will be consistent with and meet the requirements of the Final Scoping Document (Attachment B).

14. Chapter L: Traffic and Transportation

AKRF's Scope of Services and the information to be presented in this Chapter of the DGEIS will be consistent with and meet the requirements of the Final Scoping Document

¹⁰ Analysis would be limited to a qualitative discussion of construction related impacts. The DGEIS would not include a quantitative analysis of emission related impacts due to potential increases in vehicular traffic.

(Attachment B). AKRF will assess and document the Preferred Alignment's effect on parking and vehicular, bicycle, and pedestrian traffic in the Trail corridor. The traffic and transportation analysis included in the DGEIS will provide a detailed analysis of weekend conditions and a qualitative assessment of weekday conditions. AKRF will also qualitatively discuss transit impacts to the Metro-North Railroad Beacon and Breakneck Ridge Stations.

15. Chapter M: Infrastructure

a) Water Supply: AKRF's Scope of Service for this Section is consistent with the Final Scoping Document (Attachment B). We will use existing available data on water supply in the corridor to establish existing conditions and to assess impacts.

b) Waste Water and Sewerage: AKRF's Scope of Services is consistent with the Final Scoping Document (Attachment B). We will use existing available data on wastewater and sewerage in the corridor to establish existing conditions and to assess impacts.

c) Electricity and Lighting: AKRF's Scope of Services for this Section is consistent with the Final Scoping Document (Attachment B). We will use existing available data on electrical supply and lighting in the corridor to establish existing conditions and to assess impacts.

d) Roads and Bridges: AKRF's Scope of Services for this Section is consistent with the Final Scoping Document (Attachment B). We will use existing available data on water supply in the corridor to establish existing conditions and to assess impacts.

16. Chapter N: Emergency and Public Services

AKRF's Scope of Services and the information to be presented in this Chapter of the DGEIS will be consistent with and meet the requirements of the Final Scoping Document (Attachment B).

17. Chapter O: Other Planning Effort—Breakneck Ridge Visitor Management Plan

AKRF's Scope of Services and the information to be presented in this Chapter of the DGEIS will be consistent with and meet the requirements of the Draft Scoping Document (Attachment A).

18. Chapter P: Hazardous Materials Assessment

AKRF would include a hazardous materials assessment in the DGEIS to address the suspected presence of historic fill material and the reported proximity of NYSDEC remediation sites referenced in the Preliminary Draft Hudson Highlands Fjord Master Plan. This would include a corridor assessment to determine whether areas of environmental concern (AOCs) are present along the Preferred Trail alignment. The assessment would include a review of environmental databases, aerial photographs, and Sanborn maps to identify target inspection locations. A site inspection of the target locations would be completed to confirm existing conditions. A summary report would be prepared to document the scope of the assessment, the AOCs identified during the inspection and the potential impacts, and recommendations for additional work, if prudent.

As part of the hazardous materials review, a separate focused review would be incorporated into the full corridor assessment to address the Riverfront Trail Design segment. The focused review would include a site and adjacent property inspection, and a database review of federal, local, and state sources that is consistent with the search requirements stated in ASTM Standard E1527-05. AKRF would prepare a separate report for the Riverfront Trail segment that includes a review of the activities performed, information gained, and observations made during the study. The separate report would be included as part of the hazardous materials assessment summary.

19. Chapter Q: Cumulative Impacts

AKRF's Scope of Services and the information to be presented in this Chapter of the DGEIS will be consistent with and meet the requirements of the Final Scoping Document (Attachment B).

20. Chapter R: Unavoidable Adverse Impacts

AKRF's Scope of Services and the information to be presented in this Chapter of the DGEIS will be consistent with and meet the requirements of the Final Scoping Document (Attachment B).

21. Chapter S: Irreversible and Irretrievable Commitment of Resources

AKRF's Scope of Services and the information to be presented in this Chapter of the DGEIS will be consistent with and meet the requirements of the Final Scoping Document (Attachment B).

22. Chapter T: Supplemental Environmental Review

AKRF's Scope of Services and the information to be presented in this Chapter of the DGEIS will be consistent with and meet the requirements of the Final Scoping Document (Attachment B).

23. Chapter U: Coastal Zone Management Program Consistency

The Project Area is located within the State's Coastal Zone, a Scenic Area of Statewide Significance, Hudson River Estuary Area of Biological Concern, and adjacent to and within two Significant Coastal Fish and Wildlife Habitats, as designated by NYSDOS. Therefore, the Project will need to be assessed for consistency with the State's Coastal Management Program (CMP), and both the City of Beacon (adopted) and Village of Cold Spring (draft) Local Waterfront Revitalization Program (LWRP) Plans. Adopted under the federal Coastal Zone Management Act of 1972, the CMP is administered by NYSDOS. The program consists of 44 State policies, addressing such issues as water dependency, flooding, erosion, natural resources, and water quality. Using information from other DGEIS chapters (natural resources, land use, etc.) the Coastal Zone Consistency chapter would list and discuss each of these policies and the project's consistency with them.

24. Chapter V: Alternatives to the Proposed Project

As required by the SEQRA statute, the DGEIS would describe and evaluate reasonable alternatives to the Proposed Action. We believe two alternatives should be considered, including: the No Build alternative, which would assume the project corridor (with the exception of the Breakneck Connector, which is functionally independent from the Proposed Project and the subject of a separate environmental review) would remain as-is; and an alternative alignment. The discussion of the alternatives would be qualitative, except where impacts resulting from the project have been identified.

25. Chapter W: Riverfront Trail - Site – Specific Environmental Review

This Chapter would summarize the site specific environmental review prepared for the Riverfront Trail Segment.

AKRF will complete the DGEIS and provide it in electronic format to OPRHP, Scenic Hudson, and the Steering Committee for their review. AKRF would receive one round of consolidated comments from the Steering Committee and incorporate one round of revisions to the DGEIS. The revised DGEIS would be provided to OPRHP and Scenic Hudson for final review.

Once OPRHP determines the DGEIS complete for the purposes of public review, OPRHP would distribute the Notice of Completion and DGEIS to Interested and Involved agencies and make the document, and its Appendices, available for public review at designated repositories and on the project website. Scenic Hudson and OPRHP would secure venues for the SEQRA DGEIS Public Hearings and publish required notices. AKRF will provide a note-taker for the meeting to document public comment offered at the Public Hearings.

Deliverables:

1. An Inventory of all comment letters received from Interested and Involved Agencies and Community.
2. The DGEIS in an electronic format for project client team review.
3. The revised DGEIS in an electronic format to OPRHP and Scenic Hudson for final review.
4. The accepted DGEIS in hard copy (# of copies TBD) and electronic format for posting to project website.

DGEIS FEE: \$294,850 +\$17,900 (traffic data collection) = \$312,750

Notes:

- The WBE allocation for this scope of work is approximately 10%. This percentage will change depending upon what is identified in the field during site surveys.
- AKRF will retain the services of Shumaker Consulting Engineering & Land Surveying, D.P.C., a certified WBE, to perform a portion of the biological resources and wetland survey work.
- AKRF will retain the services of STRATA, LLC, a certified WBE firm to perform Phase IA Archeological Sensitivity Assessment.
- AKRF will retain the services of Traffic Counts Collecting, Inc., a certified WBE, to collect vehicle, pedestrian and bicycle counts.

III. Prepare Final GEIS (FGEIS)

Once the public hearing on the DGEIS has been closed, AKRF would begin preparing the FGEIS. The FGEIS would contain a chapter devoted to summarizing and responding to all comments, either verbal or written, made during the public review of the DGEIS, and may also contain revised or new analyses undertaken as a result of the public review. In addition, the FGEIS would also reflect any modifications to the proposal that are made during this public review period.

It is difficult to accurately predict what additional analyses would be required or the quantity of public comments. As such, AKRF will provide a budget for the preparation of the FGEIS following the closure of the DGEIS public comment period.

AKRF would receive one round of consolidated comments from the Steering Committee and incorporate one round of revisions to the FGEIS. The FGEIS would be provided to OPRHP and Scenic Hudson final review after which OPRHP. The FGEIS is considered the responsibility of the Lead Agency, and therefore AKRF would be responsive to direction from the OPRHP for the preparation of this document.

Deliverables:

1. An inventory of all comment letters received from Interested and Involved Agencies and the Community/Public.
2. The Draft FEIS providing comment/response in an electronic format for review by the project client team.
3. The revised FEIS in an electronic format for review by the OPRHP and Scenic Hudson.
4. The accepted FEIS in an electronic format for posting on the project website, and hard copies (# TBD).

FEE: TBD

IV. Prepare Statement of Findings

After a FGEIS has been filed, OPRHP will prepare the Statement of Environmental Findings (Findings Statement) marking the closure of the environmental review process. AKRF will provide an estimate to support OPRHP in the preparation of the Findings Statement after the FGEIS is adopted.

The Findings Statement would certify that the requirements of SEQRA have been met and that the lead agency took a “hard look” at the environmental impacts of the Proposed Action including, to the maximum extent practicable, measures to avoid or mitigate potentially significant adverse impacts on the environment, consistent with social, economic, and other essential considerations. A positive findings statement means that the project or action is approvable after consideration of the FGEIS. The Findings Statement can be finalized no sooner than 10 days following the filing of the Notice of Completion of the FGEIS. OPRHP’s Findings must be made within 30 days of the filing date. We would anticipate one round of comments from the Steering Committee before the Findings Statement is adopted marking the completion of the SEQRA review.

FEE: TBD

V. Project Schedule

Total project schedule is estimated at 24 to 36 months. The DGEIS and Draft Master Plan would be completed within 18 months of Notice to Proceed and signed contract (assumed to be January 2017) with the additional 12 to 18 months for completion and final engineering design and permitting for the Riverfront Trail segment.

VI. Project Team Meetings/Calls/Coordination and Public Engagement/Outreach:

A. Project Team Meetings – Monthly team meetings or conference calls as described below. If AKRF Project Team attendance is required at additional meetings beyond those listed herein, we would bill these at our standard hourly billing rates (Attachment C).

1. Steering Committee/PAC Meeting #1 - Kick off meeting to identify and transfer all relevant documents, previous studies, reports and data, and set a detailed meeting schedule for the remainder of the project. Existing conditions data and baseline studies, collected by OPRHP, Scenic Hudson and other project partners during development of the Draft Master Plan, available GIS databases (or letters of data authorization to

Putnam/Dutchess County GIS departments from Scenic Hudson/OPRHP to partner agencies) would be provided to AKRF.

2. Project Scoping (1 meeting) – OPRHP (Lead Agency) issued a positive declaration on October 7, 2015 and has circulated the Draft Scoping Document to Interested and Involved Agencies and also posted the document to the project website for community review. AKRF will attend one weekday Scoping Meeting. This meeting would include a brief presentation/overview of the critical findings identified during the Master Plan process, and the resulting revisions to the Trail Master Plan. AKRF will present a summary of the proposed SEQR process and solicit comments from the community on each of the proposed areas of review to be completed as part of the environmental review. Scenic Hudson and OPRHP will secure venues for the Scoping Meeting and publish required notices. Following the closure of the Scoping Session, OPRHP will accept written comments for a specified period of time, after which, OPRHP will forward written comments to AKRF to revise and finalize the Scoping Document for its adoption.

3. DGEIS Public Hearings – (2 meetings) - AKRF would prepare a presentation for and attend two (2) public hearings on the DGEIS (one weekday evening and one weekend day) to support the project presentation.

4. Public Engagement Meetings (3 meetings)

B. Project Website and Social Media outreach - The current project website (<http://www.hudsonfjordtrail.org/>) and Facebook page provide consistent updates for meetings, deliverables and also provide contact information. These sites would continue to be maintained by the Client Team. AKRF will provide documents and materials for posting, in formats that are easily reviewed and downloaded.

C. Also and in addition to the meetings and conference calls identified in Subtask A above, included in this Task is effort related to Project Oversight and SEQRA Coordination. Under this subtask, AKRF will participate in team meetings and conference calls at the request of Scenic Hudson and/or OPRHP. These meetings and conference calls include those required for addressing project status, scheduling, planning, and developing strategies with members of the Project Team.

Included in this subtask are project status conference calls, meetings and other coordination related work with the Project Team and Town. Staff attending meetings or participating in calls and other coordination efforts will be limited to those needed to address the topics to be covered. Meetings, conference calls and coordination efforts beyond this allowance will be billed on a time and material basis in accordance with the rate schedule in Attachment C. AKRF has included this scope for planning and environmental review related meetings/conference calls in order to track these costs separately. This task does not include engineering related task meetings.

Deliverables:

1. Meeting summaries and action items (to-do lists) for project related meetings.
2. Presentation materials (PPT) and handouts for Public Engagement Meetings.
3. Project materials for posting on Project Website.

MEETINGS, CALLS, OUTREACH, COORDINATION and STRATEGY FEE: \$62,050

VII. Riverfront Trail Engineering Program

The engineering program is divided into two parts: Part 1 relates to the engineering and feasibility analysis and Part 2 relates to the development of full construction-level engineering drawings, bid documents, and permitting for the Riverfront Trail segment.

Part 1: Complete an Engineering and Feasibility Analysis for Riverfront Trail Section.

The work includes a detailed field survey and engineering feasibility assessment and design study on the Riverfront Trail section between Little Stony Point and Breakneck Ridge (which includes a bridge over Metro-North Railroad tracks at the Breakneck Ridge Trailhead) to ascertain feasible routes and conceptual designs and their respective potential impacts. In the Preliminary Draft Master Plan, the Riverfront Trail is labeled as Segment 1.2 and 1.3. We understand this effort will include working with Metro-North Railroad, the NYS Department of State, the NYS Department of Environmental Conservation, and other project partners to develop alternatives that include consideration of sea level rise resilience of the railroad and trail infrastructure as a key variable.

The services of a licensed land surveying firm will be procured to perform a detailed survey of the Breakneck Ridge Trail segment. The survey will locate the property and right-of-way lines within the approved project area. The survey will be prepared in accordance with the existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors, Inc. The survey will also locate and map those improvements that do not appear on the existing topographic mapping. Generally, these items will include objects too small to be seen in the aerial photographs and other items that cannot be determined photogrammetrically, such as pipe materials, sizes and inverts. When the field survey is done, we will reduce and add the data to the existing map set. The survey will be related to the New York State Coordinate System, East Zone (NAD-83, expressed in feet and the North American Vertical Datum of 1988. These are the same datums as were used for Phase 1 and all the topographic mapping.

FEASIBILITY ANALYSIS FEE: \$70,510

Part 2: Develop Full Construction-level Engineering Drawings, Bid Documents, and Permitting for the Riverfront Trail Section

A. Develop Full Construction-level Engineering Drawings and Bid Documents

Through the GEIS process, a final preferred alignment for the Trail (the Draft Trail Master Plan) will be developed and subsequently complete design and construction-level engineering drawings, bid documents, and cost estimates for the Riverfront Trail segment. This work would include securing necessary permits and approvals for this segment.

As presented in the Preliminary Draft Master Plan, we understand the preliminary preferred alternative route includes the construction of a bridge north of the Breakneck Tunnel to connect the Riverfront Trail segment with the Breakneck Connector at the Breakneck Ridge Trailhead.

Once the Draft Master Plan and GEIS have been published, which will include the Preferred Alignment for the Trail, the Preferred Alignment for the Riverfront Trail section to complete design and construction-level engineering drawings, bid documents, and cost estimates will be prepared. A geotechnical boring program to inform the design is included in this task. The final design and construction-level engineering drawings will be certified by a licensed professional engineer, architect or landscape architect and the appropriate seal will be affixed to these documents.

- Materials and design theme for the trail will, to some degree, be guided by the design and construction of the Breakneck Connector segment of the trail (Breakneck Ridge Trailhead north to the Metro-North Railroad Breakneck Ridge Station). This is currently in design and engineering with an anticipated construction start of the 2017.

- The preliminary preferred alternative route will include the construction of a bridge north of the Breakneck tunnel to essentially connect the Riverfront Trail section with the Breakneck Connector at the Breakneck Ridge Trailhead. Conversations have been underway with New York City Department of Environmental Protection (DEP) and Metro-North Railroad on the possibility of this bridge. DEP is a potential collaborating partner on its construction, as it would provide them dedicated access to DEP's drainage chamber along the Hudson River. The bridge will therefore need to be able to carry a small pick-up truck.
- The preliminary preferred alternative, a riverfront trail between the tracks and river from Little Stony Point to and around Breakneck Ridge before crossing the tracks via a new bridge, is considered the most complex to engineer. Scopes and associated bid costs should budget to this as a not-to-exceed number. Once the preliminary design is selected, the phase two work plan and budget will be refined accordingly.

ENGINEERING DRAWING and DOCUMENT FEE: \$251,940

B. Permitting

This part of the engineering related effort will include securing necessary permits and approvals including, but not limited to, the following:

Regulatory	Anticipated Permits and Approvals	Notes and Assumptions
State		
NYS Department of Environmental Conservation	Article 15, Title 5, Protection of Waters-Stream Disturbance, Excavation/Fill in Navigable Waters, Docks (where not subject to a NYSOGS license); Article 24, Freshwater Wetlands; State Pollutant Discharge Elimination System (SPDES) for stormwater discharge from construction; Water Quality Certification pursuant to Section 401 of the Clean Water Act; Article 11, Title 5 Endangered & Threatened Species Incidental Take permit.	A key to the approach in obtaining the Article 15 permit is to avoid unnecessary fill in the navigable waters, etc. The State does look favorably upon reduction of shoreline or fill in shorelines.
NYS Office of Parks, Recreation and Historic Preservation	Parks, Recreation and Historic Preservation Law Section 14.09 Review; cooperative agreement; access permits; construction permits; trail maintenance permits	Our Team is working closely with NYSOPRHP. D&B is selected as a term contract designer for State Parks in this region.
Regulatory	Anticipated Permits and Approvals	Notes and Assumptions
State (Continued)		
NYS Department Of State	Local Waterfront Revitalization Program Consistency Review; Coastal Zone Management Approval and Federal Consistency Determination	
NYS DOT	Highway Work Permits; Funding	
NYS Office of General Services	Possible State-Owned Lands Under Water easements	No easements or costs to purchase easements are included in this proposal.
Local Regional		

Regulatory	Anticipated Permits and Approvals	Notes and Assumptions
Metro-North Railroad Metropolitan Transportation Authority (MTA)	Metro-North Railroad entry permit; MTA Board Approval and Metro-North Railroad land use agreement	Our Team is well versed in obtaining a MTA/MNR entry permit
New York City Department of Environmental Protection	Potential Easement or Agreement	No easements or costs to purchase easements are included in this proposal.
Federal		
US Army Corps of Engineers	Section 404 Clean Water Act and Section 10 Rivers and Harbors Act; Essential Fish Habitat	
US Fish and Wildlife Service		Consultation

PERMITTING FEE: \$62,180

TOTAL RIVERFRONT TRAIL ENGINEERING AND PERMITTING FEE: \$384,630

Notes:

- The MBE/WBE allocation for this scope of work is 18%.
- D&B will utilize Badey & Watson Surveying & Engineering, P.C., a certified WBE, to perform the Topographic and Metes and Bounds survey.
- D&B will retain the services of an M/WBE firm to perform geotechnical engineering services; the firm will be determined at a later date.

Exclusions and Assumptions:

1. Any wetland or stream delineation is excluded.
2. Any permitting fees are excluded from our fee; an allowance can be set aside for permit fees.
3. Our fees do include a \$3,500 charge from our insurance company for the required RR policy, this is our best estimate and may change depending on MTA.
4. Staff identified to determine the fees are subject to change based on project needs.
5. No hazardous material assessments or handling is included.
6. No Design Services during construction are included herein nor requested in the RFP.
7. Effort assumes attendance at up to 12 design meetings/workshops/public meetings.

TOTAL FEE for all work documented in this Scope is \$799,437. This includes \$26,067 in estimated direct expenses, \$3,500 in estimated RR insurance fees, \$45,000 (included in Section VII. Part 2) for geotechnical borings and \$30,510 (included in Section VII. Part 1) for a metes and bounds survey. Refer to the attached fee table.

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ATTACHMENT B
FINAL SCOPING DOCUMENT

B-1

Initials

**New York State Environmental Quality Review Act (SEQR)
FINAL SCOPING DOCUMENT**

**For a Draft Generic Environmental Impact Statement (DGEIS)
HUDSON HIGHLANDS FJORD TRAIL**

Project Location

**Corridor between City of Beacon and Village of Cold Spring Train Stations
Towns of Fishkill and Philipstown
Dutchess and Putnam Counties, New York**

**Originally Circulated: July 6, 2016
Public Scoping Meeting: November 14, 2016**

SEQR CLASSIFICATION: TYPE 1

LEAD AGENCY: New York State Office of Parks, Recreation and Historic Preservation
(OPRHP)
Environmental Management Bureau
625 Broadway
Albany, NY 12238

LEAD AGENCY CONTACT: Nancy Stoner, Environmental Analyst 1
518-474-0409

LEAD CONSULTANT: AKRF, Inc.
Environmental Planning Consultants
34 South Broadway, Suite 401
White Plains, NY 10601
914-949-7336

Lead Agency: New York State Office of Parks, Recreation & Historic Preservation

LIST OF INVOLVED AND INTERESTED AGENCIES:

State Agencies/Authorities:

- New York State Department of Environmental Conservation (DEC)
- New York State Department of Transportation (NYSDOT)
- New York State Department of State (DOS)
- New York State Office of General Services (NYSOGS)
- MTA Metro-North Railroad (Metro-North)

Local Agencies and Interest Groups:

- New York City Department of Environmental Protection
- Dutchess County
- Putnam County
- Town of Fishkill
- Town of Philipstown
- City of Beacon
- Village of Cold Spring
- Village of Nelsonville
- Midtown Trackage Ventures LLC
- Scenic Hudson
- Riverkeeper
- Hudson River Fisherman's Association
- Hudson River Foundation
- National Audubon Society, Audubon New York
- Hudson River Environmental Society
- DEC Hudson River Estuary Program
- Hudson Highlands Land Trust
- New York-New Jersey Trail Conference
- Little Stony Point Citizens Association
- Friends of Fahnestock and Hudson Highlands State Parks

Federal Agencies:

- United States Army Corps of Engineers
- United States Fish & Wildlife Service
- United States Department of Transportation

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I. INTRODUCTION

The New York State Office of Parks, Recreation and Historic Preservation (hereinafter "OPRHP") is the Lead Agency for the State Environmental Quality Review Act (SEQR) review of the proposed Hudson Highlands Fjord Trail (Fjord Trail or Trail). Scenic Hudson is serving as Project Manager for this assignment. This scoping document provides a table of contents for items to be analyzed in a Draft Generic Environmental Impact Statement, which will identify and evaluate benefits and potentially significant adverse impacts that are pertinent to the Proposed Action, and to identify appropriate mitigation measures, as well as, viable alternatives. It also eliminates consideration of any impacts that are irrelevant or non-significant.

The Draft Scoping Document was published on July 6, 2016 for public comment, made available for review on the OPRHP project website, the Scenic Hudson website (www.hudsonfjordtrail.org), and circulated to all involved and interested agencies. A public scoping session was held on November 14, 2016, and public comments were received on the Draft Scoping Document until November 18, 2016. A Draft Generic Environmental Impact Statement (DGEIS) will be developed addressing all items identified in this Final Scoping Document.

II. PROJECT DESCRIPTION

A. BACKGROUND

Scenic Hudson is representing an ad-hoc coalition (steering committee) of state and regional agencies/authorities, municipalities, and various non-governmental organizations that have been working together to advance this project. Through over a year-long effort, including on-site visits and public outreach, the *Preliminary Draft Master Plan for the Hudson Highlands Fjord Trail* (Preliminary Draft Master Plan) was developed by a consultant in conjunction with the steering committee. The Preliminary Draft Master Plan was published in May 2015 and identified a preliminary preferred Trail alignment for the proposed Hudson Highlands Fjord Trail (Fjord Trail or Trail) as an ADA Accessible (Accessible) shared-use trail connecting the Village of Cold Spring, in Putnam County, to the City of Beacon, in Dutchess County.

The preliminary preferred Trail alignment was developed based on very general assessments of the Trail corridor, including constrictions, and was balanced with public sentiment. The Trail alignment was not analyzed and quantified in a detailed fashion. The process of developing a Hudson Highlands Fjord Trail Draft Master Plan (Draft Master Plan)/DGEIS for the proposed Fjord Trail will analyze the preferred route presented in the Preliminary Draft Master Plan, and analyze viable alternatives necessary to avoid significant adverse impacts, and propose mitigation measures, where necessary.

B. SITE LOCATION AND DESCRIPTION BACKGROUND

The DGEIS will briefly describe the general setting of the project's region (Hudson Highlands) putting the proposed Fjord Trail into context. It will include a project location map with municipalities, counties, and nearby parks shown and a Trail corridor map delineating the boundary of the Project Area. (The term 'Trail corridor' will be used throughout the Scoping Document to refer to this mapped area.) The DGEIS will include population of the region, approximate annual number of visitors to the region and where visitors mainly come from.

The DGEIS will provide a brief description of the geologic formation of this river valley and general geographic features common to this region. This will include a short description of the Hudson River, Hudson Highlands State Park Preserve and Storm King State Park as significant natural, recreational, and scenic features of the Trail corridor.

The DGEIS will briefly describe access to the Trail corridor including interstate and state routes, train stations and bus routes located in the region.

The DGEIS will briefly describe the major public and private landowners adjacent to the Trail corridor and recreational opportunities (natural, scenic, and cultural) available in and adjacent to the Trail corridor.

C. PROPOSED ACTION

The Proposed Action is the adoption/approval and implementation of the Hudson Highlands Fjord Trail Final Master Plan/FGEIS which will include a site specific analysis/site plan approval for the Riverfront Trail Segment. The Proposed Project involves development of an approximately 9-mile long non-motorized shared-use Trail connecting the Village of Cold Spring (Putnam County, New York) north to the City of Beacon (Dutchess County, New York) and partially running within or adjacent to Hudson Highlands State Park Preserve (Park Preserve). The Project may also include improvements along State Route 9D necessary to effectuate the Trail. As noted in the Preliminary Draft Master Plan, the proposed Trail has been divided up into sections for ease of discussion and analysis over a long length of land and for future phasing of construction. The DGEIS will include a map of the Trail corridor showing the DGEIS Proposed Action/Preferred Alternative. The Preliminary Draft Master Plan will be updated to reflect the DGEIS Proposed Action/Preferred Alternative.

The DGEIS will describe the Proposed Action/Preferred Alternative including Trail alignment, the use of existing pathways/trails and where new Trail development will take place. As feasible for each section, it will describe design details, Trail uses, access points, parking, signage and other corridor improvements.

The DGEIS will identify alternatives, including the No Build/No Action alternative and potentially a Hudson River/Fair Street Bypass Route (Dockside) alternative. These alternatives will be described in detail in Chapter IV: "Alternatives" of the DGEIS. Discussion of each alternative will include a detailed assessment and analysis of the impacts of the Alternative as compared to the Proposed Action. The DGEIS will include potential environmental impacts, the degree to which the Trail route alternatives successfully achieve the stated project goals, and short- and long-term costs for construction and maintenance.

The DGEIS will describe the comprehensive wayfinding, pedestrian traffic management and signage program that were developed for the proposed Fjord Trail. This includes gateway, directional, Trail junction, auto, and parking signs. "The Hudson Highlands Fjord Trail –A Plan for Wayfinding and Other Signs" (Vox, February 2, 2015) will be included as an appendix. The DGEIS will describe any adjustments that need to be made to the wayfinding and signage program based on analysis during the development of the DGEIS.

D. PROJECT PURPOSE, GOALS, PUBLIC NEED AND BENEFITS

The project purpose, as noted in the Preliminary Draft Master Plan, is to evaluate the feasibility of routing a multi-use, non-motorized recreational Trail between Cold Spring and Beacon. The goals were developed through

the Preliminary Draft Master Plan process. This included the input of the steering committee and the priorities expressed by the public in workshops.

The Proposed Project is working to achieve four major goals (from the Preliminary Draft Master Plan):

1. **Safety:** Lack of pedestrian, hiker and cyclist safety was the initial issue that led to the grassroots support for the Trail. It is necessary to address traffic safety concerns along this portion of State Route 9D, where visitors currently park to access the Trailheads, by calming traffic and implementing pedestrian safety measures.
2. **Recreation:** Creation of this Trail is an opportunity to provide a new recreational amenity for the region accessible to a broader population than just hikers. This project could transform the character of this stretch of Route 9D from that of a dangerous high-speed thoroughfare into a multi-modal recreational corridor that acknowledges the diverse needs of the motorists, pedestrians and cyclists using it. ADA access was sought where possible to open this unique area to people with disabilities, families with young children and the aging population. A Trail located here would ultimately connect into a regional greenway and Trail network, as well as the broader Hudson River Greenway, to create a multi-modal link between adjacent recreational opportunities and natural assets that people of all physical abilities could use.
3. **Highlight and Retain Natural Beauty, Ecology and Environment:** Creating a continuous off-road, multi-use Trail that provides visual and physical connection to the Hudson River and surrounding streams and woodlands is a major focus, given the strong public support for such a Trail. The design concepts developed were based on analysis of critical areas of environmental, cultural and archaeological significance, and have been developed to minimize environmental impacts during construction, to the extent possible, while maximizing exposure to natural surroundings and views.
4. **Economic Development:** Encouraging non-motorized travel between Cold Spring and Beacon and their tourism-based destinations is a major goal that would be realized as a by-product of this Trail. Once built, a continuous Trail will highlight assets of these two communities as well as Hudson Highlands State Park Preserve. Therefore, unless there are specific economic development benefits for a given route segment, this goal is not analyzed in detail for each segment. Rather, it is regarded as a strong reason in support of implementing the entire Trail route.

The DGEIS will examine how these goals are being addressed and met by the Proposed Action/Preferred Alternative.

The analysis in the Preliminary Draft Master Plan also included consideration, in a general manner, of jurisdiction, property ownership, significant environmental concerns, and the engineering feasibility of constructing the Trail. These items will be analyzed in depth in the DGEIS. Specifically regarding potential significant adverse environmental impacts, avoidance and minimization of impacts will be guiding the analysis process.

The Trail would also further the goals of the communities through their adoption of their respective county's Greenway Compact (http://www.hudsongreenway.ny.gov/Planning/Greenway_Compact.aspx). The Trail can provide a critical link in the Hudson River Valley Greenway Trail, established as a state priority by the Greenway Act of 1991, further identified as a priority in the New York State Open Space Plan and the Statewide Comprehensive Outdoor Recreation Plan.

E. PROJECT WEBSITE AND COMMUNICATIONS

A website has been developed (www.hudsonfjordtrail.org) to share project information and documents, announce public meetings, and connect interested parties to volunteer opportunities related to the project or the Park Preserve.

F. PUBLIC INVOLVEMENT AND OUTREACH

Four public workshops were held as part of the Preliminary Draft Master Plan process, with between 125 and 150 people attending each meeting. The workshops were held at the Chalet on the Hudson, just south of the Breakneck Ridge Trailhead along Route 9D in Cold Spring. The topics of each workshop, and therefore the nature of information shared and feedback received, were as follows:

1. **Project Overview and Initial Route Idea Generation (3/21/14):** This first workshop introduced the project and discussed potential routes to be explored through the planning process.
2. **Existing Conditions and Constraints and Route Alternatives (7/9/14):** This workshop occurred after the consultants had completed their field assessment and had identified potential alternative routes. The workshop showed the plausible routes and discussed the constraints and considerations of each and gathered public route preferences for each section.
3. **Draft Preferred Route (10/23/14):** This workshop presented the draft preferred route to the public, explaining the rationale for why each section was selected as the preferred route.
4. **Preliminary Draft Master Plan (4/29/15):** This final workshop presented the Preliminary Draft Master Plan, focusing on the Trail route, and highlighted the survey responses for each section of Trail.

An important additional outreach method used between the third and fourth workshops was the release of an on-line survey. The survey was publicized through the Hudson Highlands Fjord Trail Facebook page, which has almost 1,000 followers, the listserv of stakeholders and past workshop attendees (several hundred), and through various newsletters and e-lists of the project partners. The link to the survey was available through the project website. The survey was designed to capture public comment on the draft preferred alternative route (presented in the third workshop) and then for the results to be presented in the fourth workshop, as well as, environmental, functional, or aesthetic considerations the community wanted to raise for inclusion in future environmental review and design efforts. The survey received 464 individual responses, predominantly from residents local to the area. Interestingly, most survey respondents did not attend one or more public workshops, so the survey successfully captured new input from different members of the community than were reached in the standard evening workshop meeting format.

G. SUMMARY OF ENVIRONMENTAL REVIEW PROCESS

OPRHP initiated the SEQR process for review of the Proposed Action to develop and adopt the Hudson Highlands Fjord Trail Final Master Plan. OPRHP commenced a coordinated review and requested Lead Agency status by circulating Part 1 of the Full Environmental Assessment Form to interested and involved agencies on August 18, 2015. OPRHP declared itself Lead Agency and issued a Positive Declaration on October 7, 2015, requiring the preparation of an EIS for the Proposed Action.

As noted in the Positive Declaration (will be included in the Appendix), reasons supporting this determination included:

- The Trail corridor is adjacent to the Hudson River and wetland complexes and crosses the Fishkill Creek.
- The Trail corridor contains significant natural and scenic resources.
- There are seven significant ecological communities noted in the Trail corridor or on adjacent lands as identified by the New York Natural Heritage Program. There are also several endangered, threatened or special concern species.
- The Project Area is located in the Hudson River National Heritage Area and a Scenic Area of Statewide Significance.
- There are many sites in the vicinity of the Project Area listed on the National Register for Historic Places, and there are documented archaeological resources.
- Multiple remediation sites have been identified in the corridor.

Additionally, the Project Area is located adjacent to and within two Significant Coastal Fish and Wildlife Habitats and within an area designated as a Hudson River Estuary Area of Biological Concern.

A Generic Environmental Impact Statement (GEIS) was determined to be appropriate for the Project due to the conceptual nature of some Trail sections, the need for broadly analyzing the cumulative impacts of a series of actions (phased development of Trail sections), and the regional extent of the Project Area. The DGEIS will describe and analyze reasonable alternatives for each component of the proposed improvements; discuss potential significant adverse impacts associated with the action; and identify and consider mitigation measures to reduce or eliminate potential adverse impacts. The Riverfront Trail segment will be analyzed in detail while others more generally. The DGEIS will identify thresholds and conditions that would trigger the need for a supplemental environmental review, including site-specific analyses. After its publication, the Draft Master Plan/DGEIS will be made available for public and involved/interested agency review and comment for a minimum 30-day period. Comments may be provided to the Lead Agency in writing during the DGEIS comment period, and a public hearing will also be held to receive comments on the DGEIS. A Final Master Plan/FGEIS will then be produced considering and incorporating substantive comments received.

H. SEPARATE SEQR ACTION – BREAKNECK CONNECTOR

As described in the Preliminary Draft Master Plan, the Breakneck Connector of the Hudson Highlands Fjord Trail (Breakneck Ridge Trailhead north to the Metro-North Railroad Breakneck Ridge Station) is the most heavily-used section of the Trail corridor with thousands of visitors on peak weekends navigating a narrow half-mile section of land between Route 9D and the Metro-North Railroad station to access the Breakneck Ridge Trailhead. The Breakneck Connector was the subject of a separate SEQR review with the Town of Fishkill as Lead Agency, which concluded with a Negative Declaration issued on July 6, 2016. In this circumstance, segmented environmental review is justifiable because of the independent utility of this section of the Trail corridor. The Breakneck Trail

connector has emergent safety issues for pedestrians, bicyclists and vehicles that necessitate a faster track for completion of the project. Having received separate grant funding for the Breakneck Connector, the design phase is already underway and relevant information to be gleaned from the Town's SEQR review of the Breakneck Connector and EAF will be incorporated into the Final GEIS.

I. APPROVALS, REVIEWS AND PERMITS

The anticipated approvals required for the proposed Hudson Highlands Fjord Trail are listed in Table 1, below. An updated list of all involved agencies along with anticipated approvals and other permits will be provided in the DGEIS.

Table 1: Anticipated Permits and Approvals

Regulatory Agency	Anticipated Permits and Approvals
State	
NYS Department of Environmental Conservation	Article 15, Title 5, Protection of Waters-Stream Disturbance, Excavation/Fill in Navigable Waters, Docks (where not subject to a NYSOGS license); Article 24, Freshwater Wetlands; State Pollutant Discharge Elimination System (SPDES) for stormwater discharge from construction; Water Quality Certification pursuant to Section 401 of the Clean Water Act; Article 11, Title 5 Endangered & Threatened Species Incidental Take permit.
NYS Office of Parks, Recreation and Historic Preservation	Parks, Recreation and Historic Preservation Law Section 14.09 Review; cooperative agreement; access permits; construction permits; Trail maintenance permits
NYS Department Of State	Local Waterfront Revitalization Program Consistency Review; Coastal Zone Management Approval and Federal Consistency Determination
NYS Department Of Transportation	Highway Work Permits; Funding
NYS Office of General Services	Possible State-Owned Lands Under Water
Local/Regional	
Metro-North Railroad Metropolitan Transportation Authority (MTA)	Metro-North Railroad entry permit; MTA Board Approval; Metro-North Final Approval
New York City Department of Environmental Protection	Potential Easement or Agreement
City of Beacon	Resolution of Support endorsing the Final Master Plan/FGEIS; Site Plan approval; SWPPP approval
Village of Cold Spring	Resolution of Support endorsing the Final Master Plan/FGEIS; Site Plan approval
Town of Fishkill	Resolution of Support endorsing the Final Master Plan/FGEIS; Site Plan approval; SWPPP approval
Town of Philipstown	Resolution of Support endorsing the Final Master Plan/FGEIS; Site Plan approval; SWPPP approval
Dutchess County	Potential zoning modification approval
Putnam County	Potential zoning modification approval
Federal	
US Army Corps of Engineers	Section 404 Clean Water Act and Section 10 Rivers and Harbors Act; Essential Fish Habitat Assessment may be required.
US Department of Transportation	Potential Funding
US Fish and Wildlife Service	Consultation

III. ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

The DGEIS will describe the existing environmental conditions of the local setting, potential impacts of the Proposed Action/Proposed Project, and recommended mitigation measures. Environmental conditions will include natural and cultural landscape features and characteristics of the local communities and the built environment. This will help guide the planning, analysis, and design for the new recreational Trail and related facilities. Technical information will be presented in a user-friendly format with maps and tables and clear language to facilitate broad understanding and input into the process. This includes baseline information derived from surveys and inventories. Sufficient detail will be provided so that reviewers are able to gain an understanding of current conditions and to inform the alternatives and analysis process.

The majority of the Trail corridor contains or is adjacent to the Hudson Highlands State Park Preserve. In 2010, a *Final Master Plan/Final EIS for Clarence Fahnestock Memorial State Park and Hudson Highlands State Park Preserve (2010 Fahnestock/Hudson Highlands Master Plan/EIS)* was adopted. The entirety of Hudson Highlands State Park was designated as a Park Preserve with the adoption. The Park Preserve law (Article 20 of the Parks, Recreation and Historic Preservation Law) provides for designation of park land containing wildlife, flora, scenic, historical and archeological sites that are unique and rare in New York State. Designating the Park as a preserve provides legal protection to all of the park's resources—natural, historic and archeological. Potential impacts considered during the development of the DGEIS will include those on the Park Preserve lands not only in the Trail corridor but adjacent and connecting to the corridor.

The Riverfront Trail section (shoreline between Little Stony Point and Breakneck Ridge), as discussed in the Preliminary Draft Master Plan, is a very constricted section of land between steep slopes and the Hudson River and containing both Route 9D and Metro-North Railroad tracks right-of-ways. Due to the complexity of terrain and number of constraints within this section, a detailed survey and engineering feasibility assessment and design study will be conducted to determine how the connection from the shore (north of Little Stony Point) to the Breakneck headlands could be made from an engineering perspective, as well as, design for a bridge over the railroad tracks. The Preferred Alignment for this segment, and alternatives necessary to avoid significant adverse environmental impacts, will be evaluated within the DGEIS.

Each topic below will include three subsection headings (Environmental Setting, Potential Impacts, Mitigation Measures) for a clear discussion of the environmental issues. Specifically regarding potential significant adverse environmental impacts, avoidance and minimization of impacts will be guiding the analysis process. This is crucial for meeting Protection of Waters and Freshwater Wetland permit issuance standards and in either avoiding the need for, or meeting the permit issuance requirements for, an Incidental Taking permit. Proposed and potential mitigation measures for identified adverse environmental impacts shall indicate which mitigation measures have been incorporated into the plans, as well as, those which have not and the reasons behind that decision.

A. LAND USE AND ZONING

The DGEIS will describe the variety of land uses and zoning within and adjacent to the Trail corridor.

It will discuss the Proposed Action's consistency with local planning documents and zoning laws. Local planning documents include, but are not limited to:

- City of Beacon's Comprehensive Plan (2007) and Local Waterfront Revitalization Program (1992, amended 2011)
- Village of Cold Spring's Comprehensive Plan (2012) and Draft Local Waterfront Revitalization Program (2014)
- Town of Fishkill's Comprehensive Plan (2009)
- Town of Philipstown's Comprehensive Plan (2006)
- Cold Spring Special Board on Comprehensive Plan/LWRP (2009), which envisioned a riverside walkway from Dockside leading to a bridge over the Metro North tracks to the Village garage property.
- Poughkeepsie Dutchess County Transportation Council Plans e.g. Walk/Bike Dutchess (Chapter 5.1) and Moving Dutchess (Chapter 6-1 and Chapter 8)
- Federal Highway Administration/Federal Railroad Administration Reports and "Rails with Trails" reports
- Dutchess and Putnam County's Greenway Compacts

The DGEIS will discuss non-conformance of the Proposed Action with these plans and laws and propose mitigation measures, as necessary.

There are multiple historic fill areas, remediation sites and landfills within the Trail corridor. An initial list of sites was included in the Preliminary Draft Master Plan. The DGEIS will describe which sites or areas, if any, may be impacted by the Proposed Action, potential impacts, and mitigation measures, as necessary.

B. LAND OWNERSHIP, MANAGEMENT AND MAINTENANCE

The proposed Trail involves multiple land owners with various management roles.

The DGEIS will include a map and describe the land owners within or adjacent to the Trail corridor who are involved with and/or may be impacted by the Proposed Action. It will also describe each entity's relationship to the planning process, the implementation of the project, and any on-going responsibilities for operation or maintenance of the Trail. The discussion will include any potential adverse impacts to land owners and propose mitigation measures, as needed. The DGEIS will also address the issue of eminent domain.

The DGEIS will inventory current management/maintenance arrangements for existing sections of the Trail route, the Park Preserve, and other smaller park areas, including the role of volunteer groups in meeting maintenance needs and any real or perceived deficiencies. Maintenance jurisdictions will be defined in the DGEIS.

The DGEIS will identify various proposed alternatives for the long-term management, maintenance, and operation of the proposed Trail including those related to trash removal, snow removal, access restrictions (gates), repair and response to vandalism. Initial recommendations are provided in the Preliminary Draft Master Plan. With the length of the Trail and various ownership entities, coordination between land owners and partners will be key to this component.

The DGEIS will inventory trash and recycling receptacles in the Trail corridor and how they are emptied and maintained. The DGEIS will analyze where and what types of additional receptacles and/or programs may be needed to maintain the cleanliness and safety of the proposed Trail. Where they exist, funding sources for maintenance of the Trail will be identified and discussed.

The DGEIS will review the hours existing public recreation assets are open to the public, including any seasonal variations. To the extent possible, this will also attempt to inventory seasonal use levels and how demand has been changing over time for existing recreation assets. It will assess appropriate hours of operation for the proposed Trail and whether any seasonal variations are required for the Trail or sections of the Trail. Seasonal variations may also pertain to potential impacts to wildlife, which will be discussed in Section III.E.3. Fauna.

C. LAND

1. Surficial Geology and Soils

The DGEIS will contain information on the surficial geology and soils in the Trail corridor. It will contain a map showing soil classifications within the Project Area. Classifications may be grouped in to soil families/types if there are an excessive number of individual soil classifications. Due to the potential for large numbers of soil families/types, specific soil information may be summarized in the DGEIS with full details provided in an appendix. Source: United States Department of Agriculture's Natural Resources Conservation Service. The DGEIS will briefly describe the range of limitations on specific soils located in the Trail corridor.

The DGEIS will provide details for the type and quantity of materials to be excavated for the Riverfront Trail segment and will include an analysis for the disposal of excess materials. If portions of the Trail are to be constructed adjacent to steep slopes, the DGEIS will examine the impacts associated with steep slopes as they relate to construction activities and to long-term stabilization of the slopes. The DGEIS, or the related appendix, will include as many detailed measurements as feasible in regards to areas and depths of disturbance, including any boring results for the Riverfront Trail segment, and identify proposed mitigation measures to minimize impacts.

2. Bedrock Geology

Bedrock geology, as known from available data sources, will be mapped and described here along with limitations and/or significant aspects of bedrock (i.e. depth, fault lines, etc.). This is relevant to the potential for footings or pile driven structures in the Project Area. Therefore, the DGEIS will be augmented with the results of borings which are slated to be taken as part of engineering feasibility assessment and design study work for the Riverfront Trail section and any other required section. Full results will be included in an appendix with summary information contained in the DGEIS.

The DGEIS will provide details for the type and quantity of materials to be excavated for the Riverfront Trail segment and will include an analysis for the disposal of excess materials. The DGEIS, or the related appendix, will include as many detailed measurements as feasible in regards to areas and depths of disturbance and identify proposed mitigation measures to minimize impacts.

3. Topography

The topography of the Project Area is varied, with much of the Trail corridor as a narrow flat area located between mountainous terrain on the east side and the Hudson River on the west. The DGEIS will contain maps showing topography (minimum 5-foot contours for the Trail corridor with 2-foot contours along the proposed Trail alignment) and a slope analysis.

Topography will be reviewed closely with existing slope and contour information as well as on-site survey and observation. This includes analysis for Accessibility following design standards provided by the United States Access Board. Existing conditions and limitations will be described. Additionally, the Riverfront Trail section, and any other sections adjacent to the Hudson River, will be reviewed for elevation in relation to sea level rise projections as they relate to the susceptibility of the railroad tracks and potential Trail route to sea level rise inundation, flooding, storm surge, and ice impacts. The assessment will follow guidance provided in the New York State Community Risk and Resilience Act - 6 NYCRR Part 490, Projected Sea-level Rise Rulemaking (<http://www.dec.ny.gov/energy/102559.html>). DOS's Geographic Information Gateway (<http://opdgig.dos.ny.gov/#/home>) will be used as a resource as well. Additionally, design features developed by the Corps of Engineers' Cold Regions Research Labs (CRREL) will be considered with regard to prevention of ice damage.

D. WATER

1. Watersheds

The entire Project Area is within the Lower Hudson River Watershed. The DGEIS will include a map and description of the extent of the watershed and sub watersheds. The Park Preserve serves as a watershed protection area for water supply reservoirs for the City of Beacon (Beacon and Melzingah Reservoirs) and also for Foundry Brook which provides the Village of Cold Spring water supply.

The DGEIS will describe more details about the watershed, potential impacts to the watershed, if any, and proposed mitigation measures.

2. Surface Water and Hydrogeological Setting

This section of the DGEIS will focus on the physical characteristics of surface water resources and potential impacts to and from these resources, such as water quality, surface area, dredging, filling, turbidity, sea level rise, sand accretion and storm surge. Section III.E. Biological Resources will include information and analysis of aquatic species (flora and fauna) and habitat.

The DGEIS will include a map(s) and descriptions of surface water features in the Trail corridor. This will include, but not be limited to, the Hudson River, all DEC protected streams and waterbodies, federally-regulated wetlands, state-regulated freshwater wetlands, vernal pools and floodplains. The description will include the classification of all DEC-regulated waterbodies, streams, and wetlands. Wetland boundaries will be delineated where the Trail may be in or adjacent to wetlands.

The direction of surface water flow within and between surface water bodies will also be described and mapped. As pertains to the Proposed Action, the function of the wetlands and other water bodies, such as points of recharge, discharge, entrapped, low flow, etc., will be defined with respect to surface water and groundwater flow.

Potential physical impacts from the Proposed Action on surface water resources, including the Hudson River and floodplain, will be discussed and analyzed. These may include fill, excavation, construction and installation of structures along the shoreline and through or adjacent to water bodies. The DGEIS will also consider elevation in relation to sea level rise projections, following the guidance provided in the

Community Risk and Resilience Act, as they relate to the susceptibility of the railroad tracks and potential Trail route to sea level rise inundation, flooding, storm surge and ice impacts. The DGEIS will discuss the Hudson River Sustainable Shorelines project (<https://www.hrnerr.org/udson-river-sustainable-shorelines/>) as it relates to the Proposed Action.

The DGEIS will include an analysis of temporary and permanent potential impacts to all water resources and from water resources (such as sea level rise inundation, flooding) and propose mitigation measures, as necessary.

3. Groundwater

The groundwater resources will be described regarding the geology and hydrology of the Trail corridor. Detailed on-site information, related to groundwater, collected during subsurface investigations, including geotechnical and soil borings, will be included in an appendix.

The DGEIS will discuss potential impacts to groundwater, if any, and propose mitigation measures, as necessary.

4. Stormwater

The location of the Trail, between or along slopes and the Hudson River means that stormwater runoff is a significant factor. The DGEIS will describe existing stormwater infrastructure and management measures along pertinent sections of the Trail corridor. An analysis of the Proposed Action's impacts on stormwater quantity and flow will be conducted. The DGEIS will identify potential impacts of the Proposed Action and any proposed mitigation measures. The DGEIS will evaluate potential impacts of stormwater drainage on the NYSDOT right-of-way.

Construction will likely require a State Pollution Discharge Elimination System (SPDES) General Permit for Construction Activity and the preparation of a Stormwater Pollution Prevention Plan (SWPPP) and Erosion and Sedimentation Control Certification. The detailed engineering for each Trail section may be at different stages in the DGEIS. A draft full, preliminary SWPPP shall be included as an appendix to the DGEIS for sections where feasible. A short summary of the SWPPP(s) will be included within the body of the DGEIS.

E. BIOLOGICAL RESOURCES

This section of the DGEIS will focus on ecological communities and flora and fauna, including rare, threatened, and endangered species and their habitats. It will include both terrestrial and aquatic species and habitats.

Much of the Trail alignment may follow existing corridors, such as existing trails, old road bed, and railroad track and highway right-of-ways. Even so, there will likely be impacts to biological resources within the Trail corridor, due to construction activity and use of the Trail, and to adjacent land and water due to the potential of increased visitors to the area and associated recreational activities such as fishing. Each Trail segment will be assessed using data collected during the site ecological inspection and impacts considered individually and together as a whole (cumulative impacts).

The Hudson River, from the federal lock and dam in Troy to the ocean, has been noted by the NYSDEC as the Hudson River Estuary Area of Biological Concern. This is included in the Hudson River Estuary Wildlife and Habitat Conservation Framework – An Approach for Conserving Biodiversity in the Hudson River Estuary Corridor, developed by the Hudson River Estuary Program. The DGEIS will describe the reasons for this designation to provide a better understanding of the resource. The Hudson River, including the mouth of Fishkill Creek, is a NYNHP identified significant ecological community and will be described in detail including bathymetry, tides, ice scour, variety of habitats, and the species that depend on the river for spawning. Details including qualities and functions of Submerged Aquatic Vegetation (SAV) found in the Hudson River will be included as well as a map of SAV locations.

In the *2010 Fahnestock/Hudson Highlands Master Plan/EIS*, the entirety of Hudson Highlands State Park and a large section of nearby Clarence Fahnestock Memorial State Park were designated as Natural Heritage Areas (NHA) due to both parks containing very significant natural resources. The New York NHA Program was established in 2002 in amendments to the Environmental Conservation Law (§11-0539.7). The DGEIS will describe pertinent aspects of the NHA designation and OPRHP management responsibilities for habitats of rare, threatened, and endangered species and significant ecological communities within the Park Preserve.

As part of the DGEIS, a Rare Species (flora and fauna) Survey or Surveys will be conducted along the Trail corridor. Results, along with known occurrences, will be included in an appendix and considered during analysis.

The Protection of Waters permit issuance standards include no unreasonable damage to natural resources of the state, which include both regulated resources like endangered/threatened species and unregulated resources such as Hudson River SAV. The analysis will include discussion of how the Project will meet the required standards or justify that the loss of benefits have been minimized such that the social/ economic benefit is greater than the loss.

The DGEIS will discuss the potential impacts to each of the following components below, how the Project will avoid and minimize impacts, and describe potential mitigation measures. The development of the Breakneck Ridge Visitor Management Plan (see **Section O. Other Planning Efforts** below), in conjunction with development of the DGEIS, will also help identify management techniques and strategies to improve the user experience while continuing to protect the significant natural resources of the area.

A number of resources will be used to identify species, habitats and strategies for natural resource protection, including those noted above, DEC and United States Fish & Wildlife Service, the *2010 Fahnestock/Hudson Highlands Master Plan/EIS*, Rare Species and Ecological Communities of Hudson Highlands State Park (OPRHP/NYNHP, 2010), Hudson River Sustainable Shorelines Project - ecologically enhanced erosion control approaches, and significant habitat guidance, among others.

Baseline ecological conditions will be determined via a seven-day (1 day per Trail mile) ecological site inspection to identify and characterize all habitats within the Trail route and to prepare lists of plants/animals observed during one growing season (to be conducted in the Fall of 2016 – 1 day and the Spring of 2017 – 6 days). The product of this effort will be an inventory of existing plant/animal species and mapping of ecological communities within the footprint of the proposed Trail.

1. Ecological Communities

According to the New York Natural Heritage Program (NYNHP) data, there are a variety of ecological communities found along the Trail corridor and a number of significant ecological communities including the tidal Hudson River and communities found in uplands of the Park Preserve adjacent to the Trail corridor. Maps will be provided by NYNHP and OPRHP that depict the ecological communities within the Park Preserve and, where available, in adjacent areas. Descriptions of the ecological communities will be included in an appendix.

The Park Preserve is one of a few state parks in the Taconic and Palisades Regions, which contains unique open summit and ridgeline habitats. These sites historically have supported occurrences of Rocky Summit Grassland and similar exemplary Natural Communities, as well as several rare plant species. A field-based study of the Rocky Grassland Summit Natural Communities of state parks in these regions by the NY Natural Heritage Program is ongoing, and set for completion in spring of 2017. The completed study will include updated data and maps of exemplary Natural Community and rare plant and animal element occurrences from these areas. The intent is for these data to be used to aid future management and land use decisions in the parks, as well as to better understand the role of fire in the maintenance of these unique ecosystems and the conservation of the rare species they contain. The information collected will be used during the analysis of potential impacts of the Proposed Action. The DGEIS will contain a summary of relevant information from the report.

The DGEIS will identify potential impacts of the Proposed Action upon ecological communities and propose mitigation measures, as necessary. These impacts and mitigation measures will include for the construction and use of the Fjord Trail as well as potential increases in use of connecting trails and areas, especially of the Park Preserve. The Proposed Action will likely result in the loss or conversion of some habitat area but also offers the opportunity to restore or enhance existing degraded habitats to mitigate these adverse impacts.

2. Flora

The DGEIS will describe the typical flora found in the Trail corridor including the Park Preserve. Construction of the Trail may impact vegetation in some sections whether on land or in water (e.g., submerged aquatic vegetation). The DGEIS will evaluate the potential impacts on the resources identified, including a quantitative assessment of potential loss and/or reduction of function, and necessary mitigation measures designed to offset, reduce, or eliminate such losses.

Mitigation may be accomplished by improvements to existing degraded habitats that are reduced in value due to the presence of invasive species or isolation. Mitigation strategies that may be considered include planting desirable woody species, control or removal of invasive species, development of a vegetation management plan, or a combination of these methods as appropriate. Any proposed management of vegetation to be conducted as mitigation on OPRHP land will be assessed in accordance with OPRHP Policy on Management of Trees and other vegetation (3/ 12/2009 or most recent version) and OPRHP Policy on Native Plants in State Parks and Historic Sites (6/29/2015 or most recent version).

a) RARE, THREATENED OR ENDANGERED SPECIES

Rare plant species have been identified within or adjacent to the Trail corridor. As noted above, a Rare Species Survey(s) will be conducted as part of the DGEIS process. The survey(s) will be conducted at the appropriate time(s) of the year for the phenology of the species involved. The DGEIS will discuss potential impacts to threatened or endangered flora known in the Project Area and proposed mitigation measures.

b) INVASIVE SPECIES

Invasive plant species exist within the Trail corridor and may easily be transported into or within the Trail corridor during construction, Trail use, and by migration from surrounding areas. The DGEIS will map and describe the types of invasive plants known to be located in and adjacent to the Trail corridor. The iMap Invasives website - <http://www.imapinvasives.org/> may provide existing data and guidance information.

Invasive species control is known to be critical to protecting biodiversity and healthy native communities. The DGEIS will detail Best Management Practices (BMPs) to be used to minimize the spread of invasive species. BMPs should be used during construction and on-going Trail projects. On-going monitoring, removal efforts, and public education may be used for long-term protection of the native resources.

3. Fauna

The DGEIS will describe the typical and documented fauna and their habitats found in and adjacent to the Trail corridor. This will include terrestrial and aquatic species and habitats. In 2010, the Park Preserve was designated as a Bird Conservation Area (BCA) which provides added recognition of its importance for bird habitat, particularly for migratory waterfowl, neo-tropical migratory songbirds and state listed species. The DGEIS will include discussion about the Park Preserve's BCA designation, as well as, an Audubon New York Important Bird Area. In addition, the DGEIS will examine the impacts on biological resources that infrastructure associated with the Project, such as fencing along the Metro-North corridor, could have on the movement of fauna.

The Trail corridor includes or is adjacent to two Significant Coastal Fish and Wildlife Habitats (SCFWH), Hudson Highlands and Fishkill Creek, as designated by DOS. The DGEIS will include a map and description of these significant areas. An impact assessment for each SCFWH will be conducted as described on the DOS website: <http://www.dos.ny.gov/opd/programs/consistency/scfwhhabitats.html>.

a) RARE, THREATENED OR ENDANGERED SPECIES

As noted above, a Rare Species Survey will be conducted as part of the DGEIS process. The DGEIS will describe threatened or endangered fauna, species of Special Concern, and any other Species of Greatest Conservation Need known to be in or adjacent to the Trail corridor. Currently nine rare species are known including reptile, bird, mammal, and fish species and including at least one federally listed species (NYNHP database 12/2015).

The DGEIS will describe Significant Animal Assemblages, as listed by NYNHP, in or adjacent to the Trail corridor that may be impacted including the Anadromous Fish Concentration Area and Waterfowl Winter Concentration Area. More information can be found at <http://www.dec.ny.gov/animals/29338.html> and http://www.dec.ny.gov/docs/wildlife_pdf/rareanimal514.pdf

The DGEIS will identify habitats, potential impacts to species and their habitats (such as loss, alteration, or degradation of habitats and interference with essential behaviors during construction or by Trail users), and the potential need for an Incidental Take Permit. Any in-water activities that may impact aquatic species and habitat, such as fill, excavation or installing structures that could result in shading, will be evaluated. Impacts will be fully assessed based on Project details, Trail construction, and Trail operation and will be assessed both for the Trail corridor, which may include the Hudson River and mouth of Fishkill Creek, and adjacent natural areas with recreation use (such as Denning's Point and Breakneck Ridge within the Park Preserve).

There are potential direct impacts from construction of the Trail, and long-term, permanent impacts from operation and use of the Trail. There are also potential indirect temporary and permanent impacts to species. Impacts will be addressed through avoidance and minimization measures. If impacts cannot be fully addressed, then mitigation and net conservation benefit to the species will be required through the Incidental Take Permit process. Mitigation measures may include, among others: aligning the Trail away from sensitive habitat areas; design considerations; adjusting the timing and phasing of construction to minimize impacts on wildlife, especially during critical periods of higher biological activity, such as breeding seasons; seasonal Trail section closures; and considerations in siting locations of staging areas. On-going monitoring of sensitive species may be required as well.

b) INVASIVE SPECIES

The DGEIS will describe invasive fauna known to be located in or adjacent to the Trail corridor. The iMap Invasives website - <http://www.imapinvasives.org/> may provide existing data and guidance information.

Invasive species control is known to be critical to protecting biodiversity and healthy native communities. The DGEIS will describe ways to minimize the spread of invasive fauna species as pertinent to the Proposed Action. On-going monitoring and public education may be used for long-term protection of the native resources.

F. HISTORIC AND ARCHAEOLOGICAL RESOURCES

The Trail corridor is located within the Hudson River Valley National Heritage Area although there are currently no designated heritage sites within the Trail corridor. There are a number of historic districts and structures in or near the Trail corridor, which are either listed or eligible for listing on the State and National Registers of Historic Places. An initial list was included in the Preliminary Draft Master Plan, as well as, it noted multiple archaeological sensitive sites along the Trail corridor. The DGEIS will include a map(s) of the Hudson River Valley National Heritage Area, Historic Districts, State or National Registers of Historic Places, and archeologically sensitive areas. Consultation will be continued with OPRHP's Division for Historic Preservation (DHP) to determine the presence of and potential impact on historic and archaeological resources from the Proposed Action. A Phase 1A Study of the Trail corridor will be conducted and any required follow up cultural resource investigations. Results of any surveys performed along the Trail corridor will be included as an appendix to the DGEIS, in addition to all correspondence to and from DHP.

The DGEIS will discuss how impacts will be avoided or minimized and propose mitigation measures, as necessary.

G. SCENIC RESOURCES

The DGEIS will discuss the visual character of the Trail corridor including the designation by DOS of the Hudson Highlands Scenic Area of Statewide Significance (SASS) and scenic vistas from, within, and of the Trail corridor.

A number of viewing areas of the scenic vistas of the Hudson River and surrounding lands are located along the Trail corridor. These include from Long Dock Park, Denning's Point, Madam Brett Park, Klara Sauer Trail, Little Stony Point, and Mayor's Park. Views of the proposed Trail can potentially be seen from the west bank of the river (i.e. from Storm King, Route 218, Cornwall, and West Point). The DGEIS will include a map(s) of scenic resources showing existing viewing locations from and to the Trail corridor. The map will indicate the boundary of the SASS and will key to photos depicting the scenic nature of the area.

A visual analysis will be conducted to assess potential impacts and ways to minimize impacts. The NYSDEC Program Policy, Assessing and Mitigating Visual Impacts, DEP-00-2 guidance and 617.20 Appendix B State Environmental Quality Review - Visual EAF Addendum may be used as part of this analysis. Results of a visual analysis will be included as an appendix.

The DGEIS will discuss the impacts of the Proposed Action on the scenic views of and from the Trail and on the general character of the Trail corridor during both construction and operation of the Trail and describe mitigation measures.

H. NOISE AND AIR RESOURCES

The Proposed Action will likely result in construction-related impacts to noise levels and air resources. The DGEIS will evaluate these impacts and identify proposed mitigation measures. These will include standard construction practices, such as construction equipment will not be left to idle and a water truck to be utilized when needed to control dust. Construction projects may be phased to reduce impacts at any given time.

Once the new Trail is operational, there may be an increase in vehicular traffic levels and related emissions. The DGEIS will evaluate these potential impacts and propose mitigation measures, as necessary.

I. RECREATIONAL AND OPEN SPACE RESOURCES, ACCESSIBILITY

The Fjord Trail is intended as an Accessible waterfront and woodland Trail between Cold Spring and Beacon. As such, it is anticipated to be a recreation resource in itself as well as a connection to additional recreation opportunities within the Park Preserve, City of Beacon, and Village of Cold Spring. The DGEIS will include a map and describe the connecting recreational resources, noting Accessible facilities and parking, within or directly adjacent to the Trail corridor including ownership, operation/maintenance responsibilities, type of recreation, current use levels, and capacities. These will include but are not limited to: trails, playgrounds and other recreational resources of the Preserve including Breakneck Ridge and connecting trails, Denning's Point and Little Stony Point; Madam Brett Park; Klara Sauer Trail; Long Dock Park; and Mayor's Park. The existing conditions assessment will document the conditions of the area in the immediate vicinity of the proposed Trail.

The proposed Fjord Trail is expected to positively impact recreation in the area by increasing the availability, access to, and diversity of recreational facilities. There is also the likelihood of increased visitation to existing adjacent recreational resources, such as Mayor's Park and Madam Brett Park, by construction of the Trail. The DGEIS will present the beneficial and adverse impacts of the proposed Trail and also analyze the potential

impacts to adjacent recreational resources in terms of user capacity and any proposed mitigation measures as necessary. Other sections of the DGEIS will address other potential environmental impacts of increased visitor use in the area. In addition, the DGEIS will address the projected increase in use of existing recreational facilities due to the development of the Fjord Trail including the associated impacts to other recreational areas surrounding the Trail. The DGEIS will also consider the potential use and impact of access fees for Recreation and Open Space Resources.

J. GROWTH AND COMMUNITY CHARACTER

There will be on-going efforts by partner organizations to manage the increased visitation to maintain the integrity and quality experience of the new recreational resource with regard to adjacent communities, as well as, protect the area's important character, and natural, scenic, and historic resources.

As noted above, it is anticipated that construction of the Trail and associated facilities will result in increased visitation to the area. The DGEIS will describe the character of the community including, but not be limited to: population; demographics; education; and housing.

The DGEIS will identify and assess any potential adverse impacts increased use of the area will have on the character of adjacent communities.

In this section, the DGEIS will reference results of the visitorship model documented in Chapter L. Traffic and Transportation, including potential impact and proposed mitigation, if necessary.

K. SOCIOECONOMICS

The DGEIS will discuss potential socioeconomic impacts. Construction of the Trail is expected to create jobs in the area. The estimated construction duration and the number of jobs anticipated will be included as feasible, but do not represent the equivalent jobs needed for construction material manufacturing and supply. The DGEIS will also review the existing sales tax sharing arrangement between the Counties and the local jurisdictions.

There is potential for a resultant local economic impact if visitors also stop in at local businesses, such as, gas stations, restaurants, and convenient stores. Tourism-related expenditures for recreational facilities located in the area are important to the economic vitality of the area. Using information provided by the local tax assessors, the DGEIS will examine current municipal expenditures specifically allocated to the Trail. Any other beneficial or adverse impacts and mitigation measures identified will be described as well.

L. TRAFFIC AND TRANSPORTATION

The four project communities are located roughly an hour and a half north of New York City and the Project Area is accessible by car and commuter rail (Metro-North Railroad). Major transportation corridors to the area include Interstate 84 over the Newburgh-Beacon Bridge, which connects to State Route 9D just north of the Trail corridor. The Taconic State Parkway and State Route 9 are both major north-south roadways to the east which connect to the Trail corridor via I-84, Route 52 or Route 301.

1. Parking

Parking areas are located, from north-to south, at Long Dock Park, Denning's Point and Madam Brett Park in Beacon; along Route 9D in Fishkill at the Breakneck Ridge lot; at the Washburn Lot in Philipstown

across the road from Little Stony Point; and at the metered public lot next to Mayor's Park in Cold Spring. There is considerable informal parking occurring along the shoulders of Route 9D from the Breakneck Ridge lot north and south to Little Stony Point. This informal parking situation has become a significant safety hazard to pedestrians and motorists alike. Parking overflow also happens in Cold Spring along village streets including along Fair Street near Mayor's Park. The Washburn Lot, just south of Breakneck Ridge, is currently being expanded from a 20-car capacity dirt/gravel lot to a formalized 48-car capacity paved lot.

The DGEIS will review current supply in terms of total number of available spaces and compare that to anticipated demand and in the context of capacity of resources as noted in the Recreational and Open Spaces Resources section above. This analysis may be connected with the visitor use projection study noted in Section III.L.2. Traffic and Access.

It is generally understood that on-site parking is inherently limited by the highly constrained topography of the site. Additional alternatives for parking provision and shuttling that don't currently exist will be identified and assessed. These may include the potential reactivation of Dutchess Junction Park as identified in the Preliminary Draft Master Plan and parking along the east side of Route 9D on Park Preserve land (Woodle Parcel) within the City of Beacon's boundary. This section will also inventory existing and proposed (if any) ADA compliant parking. Pay-for-parking and other parking management tools will also be considered.

2. Traffic and Access

This section will include a traffic study which will evaluate the existing traffic conditions and counts including vehicular, tour bus, bicycle and pedestrian traffic on Route 9D, Main Street and Fair Street during the spring, summer or fall months. The existing conditions documented in the DGEIS will include the improvements made during the development of the Breakneck Connector project along 9D. Intersection operations will be analyzed at the following locations:

- Beacon Station Road / Beekman Street
- Red Flynn Drive / Beekman Street
- Route 9D (Wolcott Avenue) / South Avenue
- Route 9D / Fair Street
- Route 9D (Morris Avenue) / Main Street
- Main Street / Fair Street

Research will be conducted to identify any previous traffic studies conducted along this section of the Route 9D corridor and Main and Fair Streets in Cold Spring. A review of existing roadway conditions and associated restrictions including speed limits as well as parking and standing restrictions will be documented. Included in the DGEIS will be a graphic depicting the highway boundaries on preliminary layout plans.

A traffic trip generation model based on the Visitor Projection Study (see Section 5 below) will be used to identify the specific type and level of increased vehicle use anticipated under the Proposed Action.

3. Transit

This section will describe public transportation available within or connecting to the Trail corridor including the three Metro-North railroad stations. Rider counts will be taken at the Breakneck Ridge Station using a standard methodology to then estimate visitors arriving near the trailhead by train over an extended period of time. Schedules for trains servicing the whistle stop will be documented. The DGEIS will also look at existing transit connection directly to Cold Spring.

4. Vehicle and Pedestrian Safety

This section will address traffic safety along Route 9D, where visitors currently park to access the trailheads. This portion of the assessment will include pedestrian, bicycle and vehicular safety along the Route 9D corridor and on Main Street and Fair Street in Cold Spring. The number and type of crashes recorded will be summarized for the following locations:

- NYS Route 9D between NYS Route 301 (Main Street in Cold Spring) and Beekman Street/West Church Street (in Beacon)
- Beekman Street between its northern and southern intersections with NYS Route 9D
- NYS Route 301 (Main Street) between NYS Route 9D (Morris Avenue/Chestnut Street) and Fair Street
- Fair Street between NYS Route 9D and NYS Route 301 (Main Street)

The DGEIS will map and describe potential impacts to existing emergency access points to and within the Trail corridor. It will identify, for the Proposed Action, any additional projected needs for emergency access points to and within the Trail corridor for the various types of emergency access vehicles.

5. Visitor Projection Study

A visitor use projection study will be completed to determine how much increased visitation may be expected from development of the Fjord Trail. This includes visitation not just for use of the Fjord Trail but for use of connecting Trails, such as Breakneck Ridge. This will consider those arriving via public transportation, by bicycle, or by private vehicle.

6. Construction Assessment

The DGEIS will analyze how construction of the new facility and construction vehicles entering and exiting the project site may impact traffic flow. Contractors will likely need to access sections of the Trail via Route 9D and/or other local roads with materials, equipment, and personnel during construction phases. They may also need to remove materials from the construction site. Cross-track and Metro-North right-of way access during construction will be assessed as part of this section. The DGEIS will include an estimate of the size, type, and number of trips anticipated for construction of the different sections. It will also identify mitigation measures to minimize these impacts, such as, timing and phasing of construction, limited work hours, designated parking for employees, construction only temporary access points, and designated storage areas.

The DGEIS will summarize the results of all studies. It will discuss potential impacts to traffic, transportation and access for the Proposed Action and mitigation measures for each item identified above, if necessary. Access configurations and access locations to Route 9D from the proposed Fjord Trail for vehicles, bicycles and pedestrians will be presented. Mitigation measures may include, but are not limited to, roadway and intersection improvements, traffic controls and traffic calming measures, creating temporary one-way streets, alternative parking areas, public education and outreach about use of alternative transportation opportunities, and future monitoring. In addition, parking enforcement measures will be explored.

Full results of studies will be included in the Appendices.

M. INFRASTRUCTURE

1. Water Supply

The DGEIS will identify the location and capacity of water supply service as relates to the Trail. It will discuss any amenities requiring a water supply identified in the Proposed Action/Preferred Alternative, like drinking fountains and restrooms, and discuss potential adverse impacts, if any, and mitigation measures.

2. Waste Water and Sewerage

The DGEIS will discuss existing public facilities, including portable toilet facilities, and the sewer capacity along the proposed Trail route. OPRHP recently added portable toilets near the Breakneck Ridge Trailhead and Little Stony Point to address immediate needs. It will discuss any proposed installation of toilet facilities, potential adverse impacts to resources, and propose mitigation measures, as necessary.

3. Electricity and Lighting

The DGEIS will document the electrical service provider to the Trail corridor, presence of lines, and potential for accessing, and the need to access electricity for the Proposed Action.

The DGEIS will describe existing and proposed lighting along the preferred Trail route.

It will discuss potential impacts to resources and mitigation measures for electricity use and lighting, if needed.

4. Roads and Bridges

The DGEIS will identify roads and bridges by type, ownership, widths and right of way, speeds, and/or presence of breakdown lanes and sidewalks as pertinent to the Proposed Action. The DGEIS will reference/summarize guidance provided in existing relevant studies of trails along active rail lines (e.g. Rails With Trails: Lessons learned, Aug 2002). The Proposed Action will likely improve this infrastructure by providing appropriate widths and access for vehicles and pedestrians to promote safety through the corridor. The DGEIS will identify any potential impacts and mitigation measures, if needed.

N. EMERGENCY AND PUBLIC SERVICES

Development of the Trail is expected to increase the number of visitors to the area and Trail corridor. This would create the need for enhanced coordination and/or additional capacity of community services including police,

fire, and other emergency services. The DGEIS will identify the capabilities of existing emergency service providers to serve the potential increase in demand, including rescue of lost hikers. The impact, including financial impacts, of the proposed Trail project on each service area will be discussed here and mitigation measures to minimize any adverse impacts presented. Discussion of the ongoing efforts to coordinate emergency services from various local, county and state providers will be summarized herein. Park's staff and resources will also be documented in this section.

1. Police

The Project is within the police service area for the following departments: Putnam County Sheriff, Dutchess County Sheriff, Town of Fishkill, Town of Philipstown, OPRHP, and the Village of Cold Spring. The DGEIS will review current dispatch capacities of each and whether increased patrols and security will be required with the Proposed Action. Using information supplied by police providers, this section will summarize the number of emergency service calls from the Trail vicinity near Breakneck Ridge for the past two years.

2. Fire

Using information supplied by the various fire service providers, this section will inventory fire response services, rescue equipment operated by each department, staffing, call volume, and response times for each department as well as capacity, equipment, and training needed to meet increased service demands.

3. Ambulance and Emergency Rescue

The DGEIS will inventory which ambulance and emergency first responder and medical service providers currently serve the area, their total service geography, response times, and training levels of personnel.

4. All-Hazard Emergency Operations Plan

The DGEIS will review the status of an All-Hazard Emergency Operations Plan for the area which includes four communities in two counties. This may also include the role of the Coast Guard who patrol the River, if information is available. The DGEIS will describe any recommended implementation measures from the plan, any proposed updates to the plan, and identify all entities that are involved.

The southern portion of the proposed Trail in Putnam County is located within the Indian Point 10-mile radius Emergency Planning Zone/Protective Action Area. The Indian Point Emergency Guide for Putnam County is located here: http://www.safesecurevital.com/pdf/PutnamIPEG_2015.pdf. The Emergency Guide will be reviewed for potential impacts or considerations of the Proposed Action.

O. OTHER PLANNING EFFORT - BREAKNECK RIDGE VISITOR MANAGEMENT PLAN

Hiking on the Breakneck Ridge Trail and in the surrounding Park Preserve is a very popular activity. The rugged beauty and easy access make the trails in the area some of the most popular in New York's State Parks system. Like many recreation areas, this intensive use has had an impact on the natural resources, operations management, and visitor experience of the Park Preserve in addition to residents in the Village of Cold Spring.

OPRHP partners with New York-New Jersey Trail Conference (NYNJTC) to provide a Breakneck Ridge Trail Steward Program. Numbers show a 32% increase in visitors from 2014 to 2016, with 35,291 hikers ascending

Breakneck Ridge over the 44 weekend days and holidays in 2016 between Memorial Day and Columbus Day when counts were performed (NYNJTC, 2016). An additional 11,440 hikers were counted between October 15, 2016 and November 20, 2016, seeing the highest single day count of the 2016 season with 1,704 hikers.

OPRHP is developing a Visitor Management Plan (VMP) for the Breakneck Ridge Trail and connecting trails within the Park Preserve. The goal of the VMP is to develop and implement management techniques and strategies to improve the user experience and protect the natural resources of the area. The VMP is being developed concurrently with the development of the Hudson Highlands Fjord Trail DGEIS, and the planning processes will likely inform each other to some degree. A web link to or summary of the VMP will be included in the DGEIS.

P. HAZARDOUS MATERIALS ASSESSMENT

A hazardous materials assessment will be included in the DGEIS to address the suspected presence of historic fill material and the reported proximity of NYSDEC remediation sites referenced in the Preliminary Draft Master Plan. This would include a corridor assessment to determine whether areas of environmental concern (AOCs) are present along the preferred Trail alignment. The assessment would include a review of environmental databases, aerial photographs, and Sanborn maps to identify target inspection locations. A site inspection of the target locations would be completed to confirm existing conditions. A summary report would be prepared to document the scope of the assessment, the AOCs identified during the inspection and the potential impacts, and recommendations for additional work, if prudent.

As part of the hazardous materials review, a separate focused review would be incorporated into the full corridor assessment to address the Riverfront Trail segment. The focused review would include a site and adjacent property inspection, and a database review of federal, local, and state sources that is consistent with the search requirements stated in ASTM Standard E1527-05. AKRF would prepare a separate report for the Riverfront Trail segment that includes a review of the activities performed, information gained, and observations made during the study. The separate report would be included as part of the hazardous materials assessment summary.

IV. ALTERNATIVES TO THE PROPOSED ACTION

- A. NO BUILD/NO ACTION
- B. ALTERNATIVE ALIGNMENT

V. CUMULATIVE IMPACTS

This section will identify and assess potential cumulative impacts, including those of the Breakneck Connector section of the proposed Trail.

VI. UNAVOIDABLE ADVERSE IMPACTS

The DGEIS will describe and assess the short-term construction impacts and long-term, permanent impacts that are likely to occur, despite mitigation measures, and will compare in summary form the beneficial and adverse implications of these unavoidable impacts.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The DGEIS will identify those natural man-made resources consumed, converted or otherwise made unavailable for future use as a consequence of the Proposed Action. It will also identify the long-term commitment of resources to manage, operate, and maintain the Fjord Trail.

VIII. SUPPLEMENTAL ENVIRONMENTAL REVIEW

The DGEIS will establish thresholds and describe the types of future actions that may require supplemental environmental review.

IX. COASTAL ZONE MANAGEMENT PROGRAM CONSISTENCY

The DGEIS will discuss the Proposed Action and its consistency with the New York State Coastal Policies. The entire project is located within the Coastal Zone and is subject to consistency determination under the New York Coastal Management Program. The Coastal Program is administered by the Division of Coastal Resources through the New York State Department of State. The primary purpose of the program is to revitalize, promote and protect local waterfronts. The City of Beacon has an approved LWRP. The Village of Cold Spring has a draft LWRP. LWRPs, as well as the state-wide coastal area policies, will be consulted for this project's coastal consistency discussion. A Coastal Assessment Form will be completed to assist in the identification of applicable policies.

X. RIVERFRONT TRAIL

This Chapter will include a site-specific analysis for each impact category referenced herein.

XI. REFERENCES

The DGEIS will include a list of references and sources utilized throughout the DGEIS development process.

XII. APPENDICES

The Appendices will include all items noted throughout the text above and the following at a minimum:

- A. PRELIMINARY DRAFT MASTER PLAN
- B. SEQR DOCUMENTATION
- C. COPIES OF ALL TECHNICAL STUDIES

ATTACHMENT C
HOURLY RATES AND FEE SCHEDULE

AKRF Hourly Rate Schedule	
Employee Category	Hourly Rate
Senior Officer	\$250
Officer	\$225
Senior Technical Director	\$215
Technical Director	\$200
Senior Professional	\$175
Professional II	\$145
Professional I	\$135
Technical II	\$125
Technical I	\$95
Notes: Out of pocket expenses will be billed at 1.10 times actual cost. These rates are effective through December 31, 2017	

