# Case 10-T-0139

# Champlain-Hudson Power Express Project Environmental Trust Governance Agreement

This Environmental Trust Governance Agreement (the "Agreement"), entered into between Champlain Hudson Power Express, Inc. and CHPE Properties (collectively, the "Certificate Holders"); the Staff of the New York State Department of Public Service ("DPS Staff"); the New York State Department of Environmental Conservation ("NYSDEC"), the New York State Department of State ("NYSDOS"), the New York State Office of Parks, Recreation and Historic Preservation ("NYSOPRHP"), the New York State Adirondack Park Agency ("APA"), the City of New York, New York ("New York City"), the New York State Council of Trout Unlimited ("NYSCTU"), Riverkeeper, Inc. ("Riverkeeper"), and Scenic Hudson, Inc. ("Scenic Hudson") (collectively, the "Members of the Governance Committee for the Environmental Trust," or the "Governance Committee" and individually, a "Member"), WITNESSETH THAT:

**WHEREAS**, on April 18, 2013, the New York State Public Service Commission (the "Commission") issued an Order Granting Certificate of Environmental Compatibility and Public Need ("Certificate") that approved the Joint Proposal of Settlement (the "JP") filed by the Signatory Parties thereto (the "Signatory Parties") in Case 10-T-0139 (the "Order"); and

**WHEREAS**, the Certificate authorized Certificate Holders to construct and operate a 1,000 MW High Voltage, Direct Current transmission facility running from New York's border with the Province of Quebec to New York City (the "Facility"), portions of which are to be located in the waters of Lake Champlain and the Hudson, Harlem and East Rivers; and

WHEREAS, in recognition of the ecological significance of the watersheds of Lake Champlain, and the Hudson, Harlem and East Rivers, the Certificate provides that Certificate Holders will supply \$117 million in funds to establish and maintain the Hudson River and Lake Champlain Habitat Enhancement, Restoration, and Research/Habitat Improvement Project Trust (the "Trust") for the benefit of these waterbodies on the terms and conditions set out therein; and

**WHEREAS,** the Order contains the Certificate Conditions approved by the Commission to govern construction and operation of the Facility (the "Certificate Conditions"); and Section U of the Certificate Conditions includes the provisions regarding the establishment of the Trust; and

WHEREAS, Certificate Condition 165 provides that the Trust shall be established solely for the purposes provided therein, which include protecting, restoring, and improving aquatic habitats and fisheries resources in the Hudson River Estuary, the Harlem and East Rivers, Lake Champlain, and their tributaries, (collectively, the "Trust Area") in order to minimize, mitigate, study, and/or compensate for the short-term adverse aquatic impacts and potential long-term

aquatic impacts and risks to these water bodies from construction and operation of the Facility and for the administration of the Trust to the extent expressly authorized in the Certificate; and

**WHEREAS**, the types of projects for which Certificate Condition 165 authorizes monies in the Trust to be used include, but are not limited to, studies, monitoring, conservation, restoration, preservation, clean-up, data sampling and analysis, and education and outreach relating to fish, wildlife, plant, habitat, and other natural and cultural resources in the Trust Area.

**NOW, THEREFORE,** in exchange for the covenants contained herein, the Members of the Governance Committee hereby stipulate and agree as follows:

#### I. GOVERNANCE AND EFFECTIVE DATE

- **A. Governance.** The operation of the Trust will be governed by a Governance Committee in accordance with the terms and conditions of the Certificate, the JP, and this Agreement. In the event of any conflict between the provisions of this Agreement and any of the provisions of the Certificate or the JP, the provisions of the Certificate (to the extent pertinent) or of the JP (if not in conflict with the Certificate) shall govern.
- **B.** Monies in the Trust. Monies in the Trust will be directed to specific environmental and conservation projects as authorized in Certificate Condition 165 in accordance with the procedures set forth in this Agreement. In no event will the Trust be overdrawn to provide funding to projects hereunder or for any other purpose.
- C. Effective Date. This Agreement shall be effective on the latter of: (1) the date on which this Agreement is ratified by all of the Members of the Governance Committee; (2) the date on which this Agreement is accepted or approved by the Commission; or (3) to the extent required by law, the date on which this Agreement is accepted or approved by the New York Attorney General and the Comptroller of New York State.
- **D. Definitions.** Any term that has not been expressly defined in this Agreement shall have the meaning given in the Certificate Conditions.
- **E.** Amendments. This Agreement may only be amended by a written instrument signed by the Certificate Holders and by a three-quarters (3/4) majority of the Governance Committee Members, including Certificate Holders. Any amendment will be filed with the Commission.

#### II. MEMBERSHIP

**A.** Current Membership. In accordance with the provisions of Certificate Condition 165, the initial Members of the Governance Committee shall be: Certificate Holders, DPS Staff, NYSDEC, NYSDOS, NYSOPRHP, APA, New York City, NYSCTU, Riverkeeper, and Scenic Hudson. Each Member shall be entitled to one vote on the Governance Committee. For the purposes of this provision, Certificate Holders shall be collectively regarded as a single party.

- **B.** Chairperson, Vice Chairperson and Secretary. At the first meeting of the Governance Committee and each year thereafter, the Members shall select by a two-thirds (2/3) majority vote a Chairperson and Vice Chairperson from among the membership. The Chairperson shall conduct the meeting and serve as a spokesperson for the Governance Committee. In the absence of the Chairperson, the Vice Chairperson shall substitute for the current Chairperson. A Secretary shall also be selected by a two-thirds (2/3) majority vote of the Governance Committee Members in attendance to keep minutes and to maintain the Governance Committee's records.
- **C. Succession of Membership**. Any Member representative may resign at any time after the Effective Date by delivering a resignation in writing to the Governance Committee. If a Member dissolves or resigns, the other Members of the Governance Committee may elect a successor to that Member by a two-thirds majority vote.
- **D. Trust Administrator.** The Governance Committee may designate a third-party administrator (the "Trust Administrator") as described in greater detail in Article IV of this Agreement to assist in the conduct of its business and for the administration of the Trust for tasks including but not limited to developing: (A) cash flow schedules for the Trust expenditures; (B) measures to track administrative costs; and (C) associated auditing and reporting tasks.
- E. Technical Working Groups. The Governance Committee may establish Technical Working Groups, one each for the Hudson, Harlem and East Rivers region and the Lake Champlain region, for the purpose of working with the Governance Committee and the Trust Administrator to provide scientific and technical advice, support and recommendations. Upon request of the Trust Administrator, the Technical Working Groups may evaluate and assist with the implementation of the projects approved for funding. Members of the Technical Working Groups will be selected by a two-thirds (2/3) majority vote of the Members of the Governance Committee in attendance. Technical Working Group members need not be members of the Governance Committee but shall consist of Signatory Parties to the JP, interested state and federal resource agencies, or others which have demonstrated technical expertise related to the protection, restoration and study of aquatic habitats in the relevant water bodies. Technical Working Group members may be added, removed or replaced at the option of the Governance Committee by a two-thirds (2/3) majority vote of the Members of the Governance Committee in attendance.
- **F. Sub-Committees.** The Governance Committee may create or eliminate sub-committees as it determines to be appropriate, each of which shall include two or more Committee Members and each of which shall have authority as determined by the Governance Committee.
- **G.** Compensation. Governance Committee and Technical Working Group Members shall not receive any compensation from the Trust for their services and shall not be reimbursed by the Trust for their expenses incurred related to service on the Governance Committee or Technical Working Group.
- **H.** Contributions to the Trust. Annual payments and the nature of the contributions to the Trust shall be governed by Certificate Condition 165.

- **I. Member's Authorized Representative.** Each Governance Committee Member representative shall file with the Governance Committee the name and contact information of the Member's authorized representative and one or more alternates that are authorized to act on the Member's behalf. Only the authorized representative or in lieu of the authorized representative, an alternate, may cast votes on behalf of the Member.
- **J.** The Records Access Officer for the Governance Committee will be the Department of Public Service's Records Access Officer.

#### III. MEETINGS

- A. Notice. The Governance Committee will meet a minimum of four times a year on a schedule to be determined by the Governance Committee. The Governance Committee may convene additional meetings as necessary. Meetings of the Governance Committee shall be convened by the Chairperson and may be held at any place within the State of New York as the Governance Committee may from time to time fix, or as shall be specified in the notice thereof. Written notice, which for these purposes may be transmitted electronically, shall be sent to the authorized representative(s) of each Member at least thirty (30) days in advance of the day the meeting is to be held. In the case of a special meeting required by urgent circumstances, any Member, with the concurrence of the Chairperson may call a meeting by giving not less than three (3) days' notice to all Governance Committee Members. Notice of a meeting need not be given to any Member's representative who submits a signed waiver of notice before or after the meeting, or who attends the meeting without protesting, prior thereto or at its commencement, the lack of notice to them.
- **B. Quorum.** Two-thirds (2/3) of the Governance Committee must be present to constitute a quorum for the transaction of Governance Committee business. If a Member's representative is absent from two successive meetings, the quorum will be revised to exclude that Member's representative for future actions. When and if that Member's representative returns, the quorum will return to two-thirds (2/3) of all Governance Committee Members.
- **C. Voting.** Unless otherwise provided in this Agreement, the vote of a two-thirds (2/3) majority of Members present at the time of the vote, if a quorum is present at such time, shall constitute an act of the Governance Committee.

#### D. Other Requirements.

Meetings of the Governance Committee shall be conducted in compliance with the Open Meetings Law, Article 7 of the Public Officers Law.

### IV. TRUST ADMINISTRATOR

# A. Selection.

1. A third-party Trust Administrator will be selected to supervise the Trustee holding the monies in the Trust and to administer the projects to be funded by the trust.

- 2. The Governance Committee shall have the authority to replace the Trust Administrator by a vote of three-quarters (3/4) of the Members. Any such replacement shall be selected in accordance with the provisions of this Section.
- 3. The Request for Expression of Interest for Trust Administrator for the Hudson River and Lake Champlain Habitat Enhancement, Restoration, and Research/Habitat Improvement Project Trust setting out the criteria by which potential Trust Administrators shall be evaluated is attached hereto as Appendix A.

## B. Responsibilities.

The duties of the Trust Administrator shall include:

- 1. Ensuring that the Trustee maintains investment accounts on behalf of the Trust at one or more financial institution(s), subject to the condition that each such financial institution is a member of the Federal Deposit Insurance Corporation, is accredited by and does business in New York State. For accounting purposes, the Trust shall be distinguishable from all other accounts maintained by the Trust Administrator.
- 2. Managing, investing and reinvesting the monies in the Trust to generate returns, provided that investment income accruing to the Trust shall be credited back to the Trust, and shall be used to carry out the purposes of the Trust as set forth in Certificate Condition 165.
- 3. Overseeing the cash flow of the Trust, including payments to grantees and optimizing timing of disbursements with respect to the resources of the Trust, the schedule of contributions to the Trust, and anticipated outlays due to project commitments.
- 4. Providing reports to the Governance Committee on the financial activities, projects and status of the Trust within such time limits as the Governance Committee shall specify.
- 5. Convening two Technical Working Groups, one each for the Lake Champlain and Hudson, Harlem, and East Rivers regions.
- 6. With guidance from the Governance Committee and the Technical Working Groups, developing Requests for Proposals ("RFPs") for projects that respond to the technical and programmatic priorities of the Trust.
- 7. Preparing and overseeing administration of RFPs, entering into contracts and/or Recipient Agreements for projects selected by the Governance Committee, paying for Recipients' requests for disbursements in accordance with procedures set forth in respective contracts and/or Recipient Agreements
- 8. Managing the grant competitions, including publishing RFPs, accepting proposals, coordinating proposal reviews with the Technical Working Groups, and providing granting recommendations to the Governance Committee.

- 9. Tracking the funded projects and receiving reports from grantees.
- 10. Providing reports to the Governance Committee on the progress of funded projects with such time limits as the Governance Committee shall specify.
- 11. Maintaining a database of funded proposals, final reports, and subsequent publications and making them publically accessible.
- 12. Participating with the Technical Working Groups in annual technical reviews to evaluate the progress and results of projects financed by the Trust.
- 13. Submitting Trust activity reports to the Governance Committee semi-annually by January 15 and July 15 of each year the Trust is in existence. The Trust Administrator shall report on deposits, disbursements, fees, and investment income during each semi-annual period, with a reconciliation of the remaining, un-obligated balance of the Trust. The reports also shall include the current status of all active Recipient Agreements.

#### V. PROJECT SELECTION

The Governance Committee may delegate the authority to identify projects to be considered for financing by the Trust to the Trust Administrator, provided however that final authority to approve projects for funding will be retained by the Governance Committee. In determining the projects to be financed from the Trust, the Governance Committee shall apply the requirements of Certificate Condition 165 to determine whether project proposals are related to the Hudson River, Harlem River, East River or Lake Champlain, respectively, and within the purpose of the Certificate Conditions and this Agreement.

# A. Priority Projects.

- 1. The "Priority Projects" listed in Appendix B attached hereto, totaling approximately \$32.5 million, have been pre-approved for funding through the Trust and shall be implemented by the Trust Administrator pursuant to a schedule to be developed by the Governance Committee in order to meet the primary objectives of the Trust during its initial phase. The Governance Committee, by a three-quarters (3/4) vote, may determine, on the basis of changed circumstances, that a Priority Project should not be implemented in whole or in part.
- 2. In accordance with Certificate Condition 165, no more than 75% of the monies to be provided by Certificate Holders to the Trust in any year may be designated for such Priority Projects during the first fifteen (15) years of the Trust's existence or until the Priority Projects have been completed.

## B. Other Projects.

- 1. Project ideas shall from time to time be solicited from the Governance Committee Members, other Federal and State Agencies or municipalities, the Trust Administrator, the Technical Working Groups, individuals, and organizations located along the route of the Facility and shall be submitted to the Governance Committee for consideration and approval.
- 2. The Governance Committee shall provide direction regarding the solicitation of potential projects, the selection of projects, and the disposition of monies from the Trust to pay for selected projects by and through the Trust Administrator.

If the Governance Committee approves a solicitation for project proposals:

- i. The Trust Administrator will prepare and implement a customized RFP and recommend projects submitted in response to such RFP for approval and funding by the Governance Committee. Any such RFP shall include a clear statement of the purpose of this Trust, as established in Certificate Condition 165. The RFP will be issued through the Trust Administrator's website.
- ii. The Governance Committee will verify that any projects selected and presented to the Governance Committee by the Trust Administrator for approval and funding are in accordance with the purposes set forth in Certificate Condition 165.
- iii. The Governance Committee may authorize the Trust Administrator to negotiate and execute Recipient Agreements on behalf of the Trust, and make corresponding disbursements of monies from the Trust, for the performance of the projects selected according to this Agreement.
- iv. The Trust Administrator will participate in annual technical reviews to evaluate the success of projects funded by the Trust. In such event, the Trust Administrator shall make available such personnel and other resources as are reasonably necessary to successfully participate in such reviews.
- 3. The Governance Committee may terminate or cancel a particular project approved under this section V.B., in whole or in part.

#### VI. CONFLICTS OF INTEREST

- **A.** Member's representatives shall take all reasonable steps to avoid any action or circumstance that might result in, or create the appearance of:
  - 1. Undermining their independence and impartiality of action;
  - 2. Taking official action on the basis of unfair considerations, unrelated to the merits of the matter;

- 3. Using their positions on the Governance Committee for the advancement of personal or parochial interest; or
- 4. Using their positions on the Governance Committee to secure special privileges or exemptions.
- **B.** In the case of an actual or perceived conflict of interest of a Member's representative regarding a pending action of the Governance Committee, the Member's representative may cure this conflict by abstaining from the vote(s) and decision-making related to said specific action.

#### VII. INDEMNIFICATION

The Trust shall indemnify, hold harmless and defend all Members of the Governance Committee from liability for any actions and/or inactions of the Trustee, the Trust Administrator, or any representative(s) of any of them. The Trust shall also indemnify, hold harmless and defend any person made, or threatened to be made, a party to any action or proceeding by reason of the fact that he or she was a representative of a Member of the Governance Committee, and any other person whom it shall have the power to indemnify, against any judgments, fines, amounts paid in settlement and reasonable expenses, including attorneys' fees.

[SIGNATURE PAGES FOLLOW AT THE END OF THE DOCUMENT]

# **Champlain-Hudson Power Express Project Environmental Trust Governance Agreement**

# **APPENDIX A**

The Request for Expression of Interest for Trust Administrator for the Hudson River and Lake Champlain Habitat Enhancement, Restoration, and Research/Habitat Improvement Project Trust

# **Request For Expression of Interest** for

# Trust Administrator for the Hudson River and Lake Champlain Habitat Enhancement, Restoration, and Research/Habitat Improvement Project Trust

Dated: December 3, 2012

Description: Trust Administrator for the Hudson River and Lake Champlain Habitat Enhancement, Restoration, and Research/Habitat Improvement Project Trust

Contract Period: Five (5) years, with renewal at the discretion of the Trust Governance Committee.

Proposal Due Date: 5:00 PM New York City time on February 4, 2013

# **Designated Contacts:**

William S. Helmer, Esq.
Senior Vice President & General Counsel
Champlain Hudson Power Express, Inc.
Pieter Schuyler Building
600 Broadway
Albany, New York 12207-2283
Phone: (518) 465-0710
bill.helmer@transmissiondevelopers.com

#### I. STATEMENT OF PURPOSE

Champlain Hudson Power Express, Inc. and CHPE Properties, Inc. (collectively "CHPE" or "Certificate Holders"), is seeking a Trust Administrator ("TA") for the Hudson River and Lake Champlain Habitat Enhancement, Restoration, and Research/Habitat Improvement Project Trust ("Trust"), a grant program that will fund projects that protect, restore, and improve aquatic habitats and fisheries resources in the Hudson River Estuary, the Harlem and East Rivers, Lake Champlain, and their tributaries ("Project Area").

# II. TRUST OBJECTIVE

The purpose of the Trust is to fund projects that protect, restore, and improve aquatic habitats and fisheries resources in the Project Area and to minimize, mitigate, study, and/or compensate for the short-term adverse aquatic impacts and potential long-term aquatic impacts and risks to these water bodies from the construction and operation of the Chaplain Hudson Power Express transmission cable.

#### III. TRUST BACKGROUND

CHPE is the developer of a proposed 1,000 MW High Voltage Direct Current ("HVDC") transmission line from New York's border with Canada to Astoria, Queens, New York (the "Facility"). To minimize the environmental impacts of the Facility, CHPE proposes to locate its HVDC transmission lines on the bottom of Lake Champlain and the Hudson, Harlem and East Rivers to the maximum extent practicable.

On February 24, 2012, a Joint Proposal ("JP") supporting CHPE's application for a Certificate of Environmental Compatibility and Public Need ("Certificate") for construction of the Facility was filed with the New York State Public Service Commission ("PSC") in Case 10-T-0139. The JP proposes certain Certificate Conditions to apply to the construction of the Facility, including proposed Certificate Condition 165 providing for the establishment of the Trust. No party to the proceedings before the PSC in Case 10-T-0139 opposed the formation of the Trust; therefore, the Signatory Parties to the JP expect that, if the PSC grants a Certificate, it will include a condition similar to proposed Certificate Condition 165 (Appendix 1).

Proposed Certificate Condition 165 requires Certificate Holders to establish the Trust to fund projects that protect, restore or improve aquatic habitats and fisheries resources within the waterbodies affected by the construction or operation of the transmission cable. The Trust will be funded by the Certificate Holders, to an aggregate total of \$117.15 million dollars over a period of 35 years (as described in Appendix 2).

#### IV. NATURE OF PROJECTS TO BE FUNDED BY THE TRUST

The projects or activities to be financed by the Trust must have a nexus to the Facility and shall include, but not be limited to: (A) habitat restoration, enhancement, or protection; (B) habitat research; (C) fish and wildlife species restoration, enhancement, or protection; (D) stewardship activities including additional or new activities, formally adopted by the Governance Committee ("GC"), that are part of or are consistent with applicable State and Federal resource management and land use plans; (E) water quality

improvement (excluding projects eligible for funding under the Clean Water State Revolving Fund); and (F) scientific or administrative support to ensure coordination of Trust projects with each other and externally funded research, restoration, and stewardship projects; delivery of final products; review of reports, data sets, and metadata; and placement of project results and data to insure public access in appropriate digital and hard copy media.

Projects are intended to (A) achieve multiple environmental goals; (B) involve multistakeholder collaboration; (C) encourage matching funds; and/or, (D) be cost effective.

#### V. TRUST ADMINISTRATION AND GOVERNANCE STRUCTURE

- a. The Trust will be overseen by a Governance Committee ("GC") consisting of: Certificate Holders; Department of Public Service Staff; NYS Department of Environmental Conservation; NYS Department of State; NYS Office of Parks, Recreation & Historic Preservation; NYS Adirondack Park Agency; City of New York; the New York State Council of Trout Unlimited; Riverkeeper, Inc.; and Scenic Hudson, Inc. The GC will be authorized to: approve all expenditures of the monies of the Trust; ensure that funded projects are consistent with the terms of the Certificate and the description provided above; and, retain a TA for the purposes of carrying out the terms of the Certificate and maintaining the activities of the Trust.
- b. The TA will be responsible for operational and fiscal duties of the Trust and its grant program, according to the Scope of Services described below. The TA will receive guidance from and report to the GC on the programmatic and fiscal activity of the Trust.
- c. The GC may also direct the TA to convene Technical Working Groups ("TWGs") of experts to solicit advice on the highest priority actions for achieving the goals of the Trust, identify research and restoration needs for the Project Area covered by the Trust, and to review proposals for grants under the grant program. The TA may informally request permission from the GC members to convene a TWG.

# VI. SCOPE OF SERVICES FOR THE TRUST ADMINISTRATOR

The selected TA will provide the following Scope of Services:

- a. Grant Program Management
- b. Fiscal/Fiduciary Management
- c. Program Tracking, Recordkeeping and Reporting

The TA will assist the GC in its work to implement these services and to ensure that the programmatic and financial activities of the grant program supports, and is consistent with, the goals of the Trust and in conformance with the Certificate Condition. The TA shall at all times remain subject to the supervision of the GC with respect to its administration of the grant program.

#### a. Grant Program Management

The TA will manage a grant program, subject to oversight and approval by the GC, that identifies research and restoration goals, solicits and evaluates proposals for projects,

provides funds to selected projects and tracks project progress.

- i. The TA will convene separate TWGs for the Lake Champlain, and the Hudson/Harlem Rivers regions. The TWGs will advise the GC on programmatic goals and priorities to maximize the positive impact of the Fund's activities for the Lake Champlain and the Hudson, Harlem, and East Rivers' ecosystem.
- ii. The TA, with guidance from the TWGs and with the approval and under supervision of the GC, will develop Requests for Proposals (RFPs) for projects that respond to the technical and thematic priorities of the Fund.
- iii. The TA will manage the resulting grant competitions, including publishing RFPs, accepting proposals, coordinate proposal reviews with TWG, and provide project granting recommendations to the GC.
- iv. With the approval of the projects by the GC, the TA will ensure the expeditious transfer of funds to each selected project.
- v. When authorized to do so by the GC, the TA will enter into grant contracts with grantees, track the funded projects and receive reports from grantees on the implementation progress and budgetary status.
- vi. The TA shall support and assist the GC in developing guidance and other administrative documents relevant to the operation of the GC, TCs, the grant program, and the Trust, if requested by the GC.

# b. Fiscal/Fiduciary Management

The TA will:

- i. Serve as the fiduciary and administrator of the Trust and the grant program funds on behalf of the GC.
- ii. Serve as the Trustee of the Trust through an association with a bank accredited to operate and conduct business in the State of New York, or, with the GC's authorization, work with a Trustee that is a bank accredited to operate and conduct business in the State of New York.
- iii. Exercise wise and prudent investment strategies in order to minimize risk, while maximizing the net investment income earned on the balance.
- iv. Implement adequate financial and accounting processes and procedures to safeguard the Trust and the grant program from waste, misuse and fraud.
- v. Ensure timely payment of funds to project grantees, optimizing timing of disbursements with respect to the resources of the Trust, the schedule of contributions to the Trust, and anticipated outlays due to project commitments.
- vi. Seek to leverage funding from the Trust with matching funds.

# c. Program Tracking, Recordkeeping and Reporting

The TA will:

- i. Track project status, including progress-to-completion and budget, at a detail and frequency necessary to prepare required reports to the GC, and to identify problems, barriers and other issues related to projects that necessitate intervention to ensure expeditious resolution.
- ii. Maintain and archive complete, detailed and organized records related to the Trust, the grant program and all elements of its implementation.
- iii. Prepare a semiannual report to the GC that addresses the implementation of each

- project, including its progress-to-completion and budgetary status, and provides a summary of the overall status and accomplishments of the Trust.
- iv. Prepare and file all relevant financial statements and tax documents for the Trust, or work with Trustee bank to ensure same.
- v. Prepare and file with the GC: (i) audited annual financial statements of the Trust, and (ii) unaudited quarterly financial statements of the Trust.

# VII. ELIGIBILITY REQUIREMENTS

The eligibility requirements represent prerequisites necessary for a TA to perform the Scope of Services and achieve the Trust's objectives. Only Prospective TAs that meet each of the following requirements will be eligible for consideration as the TA:

- i. The Prospective TA must be a not-for-profit entity, tax-exempt under 501(c)(3) of the Internal Revenue Code.
- ii. The Prospective TA must be in compliance with all local, state and federal laws.
- iii. The Prospective TA must have at least 5 years experience in Program Administration related to environmental improvement projects.
- iv. The Prospective TA must have administered a grant program involving funds of \$10 million or more. If a partnership is proposed, the partner(s) conducting grant program management and fiscal/fiduciary management must have participated, in their respective role(s), in the administration of a grant program involving funds of at least \$10 million.
- v. The Prospective TA must not be involved in paid advocacy or lobbying activities within Project Area.
- vi. The Prospective TA must have a working association with a bank accredited to operate and conduct business in the State of New York.

#### VIII. EVALUATION CRITERIA

All complete responses to this RFEI will be reviewed to ensure that the Prospective TAs meet the Eligibility Requirements described in section VII above. Proposals that meet these requirements will be further evaluated, using the criteria described below, with respect to their qualifications and ability to be successful in performing the Scope of Services and achieving the Trust's objectives.

Prospective TAs will be evaluated with respect to their demonstration of *experience*, *resources* and *capabilities* related to criteria in the following 4 categories:

- a. Grant Program Management
- b. Fiscal/Fiduciary Management
- c. Program Tracking, Recordkeeping and Reporting
- d. Budget and Fee Structure

#### a. Grant Program Management

- i. Management of grant programs involving the environmental projects identified in Appendix 3;
- ii. Management of grant programs that include technical review as part of the project selection process;

- iii. Capacity to manage grants programs for projects located or performed in the Hudson River, Lake Champlain, and New York City regions;
- iv. Capacity and history of leveraging third-party funds and in-kind services to support grant projects, including federal and private support;
- v. Management of multiple significant RFPs and identifying high-quality project proposals;
- vi. Adherence to well-defined and effective grants policies and procedures (Prospective TAs should provide a copy of any such written policies and procedures with their Proposal);
- vii. Management of project grants to a variety of grantees, including state agencies, research institutions, and non-profit/non-governmental entities.

# **b.** Fiscal/Fiduciary Management

- i. Experience in maintaining grant funds through prudent investment, particularly with respect to funds of \$10 million or more;
- ii. Success in achieving positive returns on invested funds, particularly with respect to program funds of \$10 million or more;
- iii. Demonstrate success in obtaining matching funds from third parties and achieving positive returns on these funds;
- iv. Adherence to well-defined and effective fiscal management policies or procedures (Prospective TAs should provide a copy of any such written policies and procedures with their Proposal), and the participation of a certified investment planner;
- v. Adherence to well-defined and effective fiduciary management policies or procedures, particularly as related to safeguarding grant programs against waste, misuse and fraud (Prospective TAs should provide a copy of any such written policies and procedures with their Proposal);
- vi. Strong institutional governance and board oversight of the Prospective TA's organization.

#### c. Program Tracking, Recordkeeping and Reporting

i. Tracking, recordkeeping and reporting on all aspects of grant programs (including overall program and project-specific implementation schedules and budgets), especially with respect to grant programs involving funds of \$10 million or more.

# d. Budget and Fee Structure

- i. Clarity of proposed budget and fee structure, including identification of staff roles and responsibilities, estimated hours and hourly rates;
- ii. Justification of budgeted resources and level of effort;
- iii. Maintaining policies and/or procedures related to budget tracking (Prospective TAs should provide a copy of any such written policies and procedures with their Proposal).

#### IX. TERM OF THE POSITION

The successful Prospective TA will be required to enter into a contract with CHPE that governs the TA position for the Program.

The term of the contact will be a minimum of five (5) years, with renewal at the option of the GC. The GC will administer periodic performance reviews during the course of the term, and the contract will provide for the termination of the Agreement upon a determination by the GC of unsatisfactory performance by the TA.

The successful Prospective TA shall agree to comply with all federal, and State, laws rules and regulations applicable to this grant and shall provide proof of Workers' Compensation and Disability Insurance.

Additional legal provisions will be included in the agreement with the successful Prospective TA (the "Agreement"), as described in Appendix 4.

#### X. PRE-EXPRESSION OF INTEREST INFORMATION SESSION:

The GC will hold a voluntary Pre-Expression of Interest (EI) Information Session via conference call on December17, 2012, beginning at 1:00 PM Eastern Time, for the purpose of reviewing the RFEI and addressing related questions of Prospective TAs.

If a Prospective TA plans to participate, the Prospective TA must RSVP (by email) to Nancy.Clarke@transmissiondevelopers.com by at least one day prior to Pre-EI Information Session (December 16, 2012) to obtain access to the conference call. Additional meeting details will be provided to those who RSVP.

Answers to questions raised at the Pre-EI Information Session may be deferred by the parties designated as members of the GC (identified above in Section V(a)), and addressed through a memorandum provided to all Prospective TAs or an RFEI addendum, as necessary and appropriate. The parties designated as members of the GC will not respond to questions regarding the RFEI outside of the Pre-EI Conference.

#### XI. SUBMISSION OF PROPOSALS:

Responses to this RFEI must be sent electronically (in PDF format) to CHPE at: <a href="Mancy.Clarke@transmissiondevelopers.com">Nancy.Clarke@transmissiondevelopers.com</a>. Responses to this RFEI must be received by 5:00 pm New York City time on February 4, 2013.

# Trust Administrator for the Hudson River and Lake Champlain Habitat Enhancement, Restoration, and Research/Habitat Improvement Project Trust Response to RFEI

The Prospective TA should include in its response to this RFEI the following information in the order given.

### PROSPECTIVE TA INFORMATION

The Prospective TA should provide the following information:

- 1. Name of Organization
- 2. Mailing Address
- 3. Telephone Number
- 4. Organizational Website Address, if any
- 5. Federal Not-for-Profit ID #
- 6. New York State Charities Registration #, if any
- 7. Name and Title of Contact Person
- 8. Telephone # and E-mail Address of Contact Person

## PROPOSAL SUMMARY (250 word limit)

The Prospective TA should provide a concise summary of its proposal, including a description of the Organization, its qualifications related to the Scope of Services and Program Objective, and the proposal budget.

#### DESCRIPTION OF THE ORGANIZATION

### A. Overview (500 word limit, exclusive of attachments):

The Prospective TA should provide a brief overview of the Organization, its mission and history. A list of staff currently committed to Program Administration should be provided, particularly as related to projects involving community development or environmental improvement. Include Prospective TA's history of involvement with similar grant and non-grant activities regarding comparable environmental goals.

If a partnership is proposed, the overview must include a full description of the structure of the partnership, including its management and decision-making processes.

### **B.** Supporting Information

The Prospective TA should provide copies of the following supporting information as attachments:

- i. Annual Operating Budget of the Organization. The Organization's operating budget for the two (2) most recently completed fiscal years and the current fiscal year. Any recent deficits or dramatic changes in funding should be explained. If applicable, contingency plans for expected changes in funding this fiscal year or next should be discussed.
- ii. Financial Statement. The Organization's most recent Audited Financial Statement, Federal Form 990 including Schedule A.
- iii. Financial Report. The organization's most recent Annual Financial Report, if any.

# **DESCRIPTION OF QUALIFICATIONS**

# A. Eligibility Requirements

1. Description (500 word limit)

The Prospective TA should provide a brief description of the Organization's satisfaction of each of the **Eligibility Requirements** outlined in **Section VII**.

# 2. Supporting Information

The Prospective TA should provide the following supporting information as attachments:

- i. The Organization's most recent IRS 501(c)(3) Determination Letter indicating tax exempt status or, if not available, an explanation.
- ii. Two (2) letters of reference from a funder of a grant program administered by the Applicant. If a partnership is proposed, one (1) such reference is required for each partner and in relation to its respective role in the partnership.
- iii. Two (1) letters of reference from a grantee of a grant program administered by the Prospective TA. If a partnership is proposed, one (1) such reference is required for each partner, with the exception of any partner(s) with responsibility solely related to fiscal/fiduciary management or program tracking, recordkeeping and reporting.

# **B. Performance of Scope of Services**

1. Description (750 word limit)

The Prospective TA should provide an elaboration of the Organization's experience, resources and capabilities related to performing the Scope of Services and achieving the Trust's objectives. The narrative should specifically address grant program management (including both proposal solicitation, development and evaluation, and project implementation), fiscal/fiduciary management, community engagement/collaboration, and program tracking, recordkeeping and reporting, and should be responsive to the **Evaluation Criteria** outlined in **Section VIII**.

The description should include proposed staffing of the Organization with stated responsibilities, including the names, titles, and resumes of key individuals.

# 2. Supporting Information

Where possible, the Prospective TA should provide, as attachments, documentation (e.g., reports, brochures) of the Organization's related experience, resources and capabilities, including that relating to any past or present involvements of the Organization in community development or environmental improvement projects, particularly those of a size, scope or nature similar to that of the Program.

# DESCRIPTION OF PROGRAM BUDGET/FEE STRUCTURE A. Description (500 word limit)

The Prospective TA should provide a narrative description of the Organization's proposed budget and fee structure for performing the Scope of Services and achieving the Trust's objectives.

The description should describe:

i. Assumptions used in formulating the Proposal Budget;

- ii. Strategies proposed for budgeting (the Prospective TA may propose different strategies for different Program activities, e.g., fixed-fee budgeting for project solicitation and evaluation, and percentage-based budgeting for project implementation administration);
- iii. Contingencies addressed by the Proposal Budget, including general contingencies for major budgetary items, as well as those related to additional rounds of grant program funding; and
- iv. The Prospective TA should provide a detailed accounting of the proposed budget for the Trust and grant program, including on a task by task basis for each of the core services:
  - a. Grant Program Management (separately addressing Project Solicitation, Development and Evaluation, and Project Implementation);
  - b. Fiscal/Fiduciary Management of the Trust and grant program
  - c. Program Tracking, Recordkeeping and Reporting For the overall Trust and each core service, the detailed Proposal Budget should provide dollar amounts and explanations for the following categories (as applicable):
  - d. Personnel
  - e. Fringe Benefits
  - f. Travel
  - g. Supplies and Materials
  - h. Other

# VII. CERTIFICATIONS AND SIGNATURE

Signature of Authorized Certifying

Submissions by Prospective TAs shall include the following signed statement with their respective responses:

The undersigned, as an authorized official of the Prospective TA, does hereby certify under penalty of perjury that:

- The information contained within this Proposal, and all documents submitted with this Proposal, are true, accurate and complete;
- The Prospective TA is a not-for-profit entity, tax-exempt under 501(c)(3) of the Internal Revenue Code, with an active New York State Charities registration number, or an approved exemption, and in good standing;
- The Prospective TA is in compliance with all local, state and federal law; and
- The Prospective TA understands that false statements made herein are punishable as a Class A Misdemeanor pursuant to NY Penal Law Section 210.45.

Signature of Fluidonized Certifying	
Name/Title	
Official Date	
Sworn to before me this day of	
Notary Public	

## APPENDIX 1

# CHAMPLAIN HUDSON POWER EXPRESS, INC. PROPOSED CERTIFICATE CONDITIONS

#### **Certificate Condition 165**

- 165. The Certificate Holders shall establish the Hudson River and Lake Champlain Habitat Enhancement, Restoration, and Research/Habitat Improvement Project Trust ("the Trust") solely for the purposes of protecting, restoring, and improving aquatic habitats and fisheries resources in the Hudson River Estuary, the Harlem and East Rivers, Lake Champlain, and their tributaries, in order to minimize, mitigate, study, and/or compensate for the short-term adverse aquatic impacts and potential long-term aquatic impacts and risks to these water bodies from Facility construction and operation and for the administration of the Trust to the extent expressly authorized in these Certificate Condition.
  - (a) Certificate Holders shall file an agreement providing for the establishment of the Trust (the "Trust Agreement") within one hundred and twenty (120) days after issuance of this Certificate. The trustee selected by Certificate Holders to oversee the Trust (the "Trustee") shall be, or shall be associated with, a bank accredited by and doing business in the State of New York. Both the Trust Agreement and the selection of the Trustee shall be subject to review and approval by the Commission (in consultation with NYSDEC) and, if required, the New York State Comptroller, and Attorney General.
  - (b) Within thirty (30) days of the Closing, the Certificate Holders shall endow the Trust with an interest-bearing account established at the Trustee bank,

with a first payment of \$2.5 million. Within one (1) month of the COD, the Certificate Holders shall make a second payment of \$7.21 million (the "Second Payment") into the Trust. Certificate Holders shall thereafter make annual payments to the Trust, adjusted as described below in Table 2 attached hereto, of \$2.15 million on or before each anniversary of the date of the Second Payment for a period of thirty five (35) years. On the fifth (5<sup>th</sup>) anniversary of the Second Payment, Certificate Holders shall make a payment to the Trust of \$5 million in addition to the annual payment. On each of the seventh (7<sup>th</sup>), ninth (9<sup>th</sup>), eleventh (11<sup>th</sup>), thirteenth (13<sup>th</sup>) and fifteenth (15<sup>th</sup>) anniversaries of the Second Payment, Certificate Holders shall make a payment to the Trust of \$1 million in addition to the annual payment described above.

- (c) Within thirty (30) days of the Closing, Certificate Holders shall prepare and file with the Commission for its approval a written agreement to govern the administration and operation of the Trust (the "Governance Agreement"). The Governance Agreement shall:
  - (i) provide that the funding commitments of the Certificate Holders will be fixed in accordance with Table 2 attached hereto and the terms stated in this condition, and that they will not be increased for any reason or decreased except as provided for in subsections (d)(vii) and (d)(ix) of this Certificate Condition;
  - (ii) establish a Governance Committee consisting of: Certificate

    Holders; DPS Staff; NYSDEC; NYSDOS; CNY; APA; the New

- York State Council of Trout Unlimited; Riverkeeper, Inc.; and Scenic Hudson, Inc.;
- (iii) authorize the Governance Committee to meet prior to COD to perform the preliminary work required to implement the Trust, including consideration of whether to use a third-party administrator (the "Administrator") to assist in the conduct of its business and for the administration of the Trust for tasks including but not limited to developing: (A) cash flow schedules for the Trust expenditures; (B) measures to track administrative costs; and (C) associated auditing and reporting tasks;
- (iv) permit the Governance Committee to retain an Administrator, if desired by the Governance Committee, and to compensate the Administrator (if any) from monies available in the Trust;
- (v) provide that members of the Governance Committee other than

  Certificate Holders will not be obligated to pay into the Trust and
  that no member of the Governance Committee, including

  Certificate Holders, shall be obligated to directly fund or perform
  any of the responsibilities of the Trustee, including compensation
  of the Trustee or the Administrator;
- (vi) obligate the Trust to indemnify and hold harmless all members of the Governance Committee, including Certificate Holders, from liability for any and all actions and/or inactions of the Trustee, the Administrator (if any), or any representative(s) of any of them;

- (vii) provide that the studies, projects and activities listed in Attachment
  5 hereto totaling approximately \$ 32.4 Million (the "Priority
  Projects") satisfy the requirements of this Certificate Condition and
  shall be implemented by the Administrator (or by the Trustee if no
  Administrator has been selected) pursuant to a schedule to be
  developed by the Governance Committee in order to meet the
  primary objectives of the Trust during its initial implementation
  phase. The Governance Committee, by a three quarters vote, may
  determine, on the basis of changed circumstances, that a Priority
  Project should not be implemented; and
- (viii) provide that the Governance Committee shall be empowered to approve all expenditures of the monies of the Trust, provided however that no more than 75% of the monies to be provided by Certificate Holders to the Trust in any year may be designated for such Priority Projects during the first fifteen (15) years of the Trust's existence or until the Priority Projects have been completed; and
- (ix) require the Administrator (or the Trustee if no Administrator has been selected) to maintain a clear written record identifying any criteria and justification for the decisions of the Governance Committee and for all expenditures by the Trust itself.
- (d) The Governance Agreement shall further require that:

- (i) the Governance Committee shall manage the Trust so that, over the life of the Facility, the monies of the Trust will be able to support additional studies, projects, or activities that may result from (A) the Priority Projects, (B) studies to be agreed to at a later time by the Governance Committee, or (C) information produced by the Governance Committee, consistent with the criteria set forth in this Condition 165 below;
- the Governance Committee shall manage the Trust so that money remains available for future projects that were not identified in this Certificate and, from time to time, project ideas shall be solicited from the Governance Committee's members, other Federal and State Agencies or municipalities, individuals, and organizations located along the route of the Facility, provided these ideas are consistent with the purposes of the Trust and approved by the Governance Committee;
- (iii) projects and activities approved by the Governance Committee for funding shall not replace natural resource management programs funded by the General Fund of the State of New York or NYSDEC Environmental Programs, meet an obligation of the State of New York or any other party to this proceeding, or replace funding for the operation and maintenance of any project not previously funded by the Trust. The Governance Committee may, however, authorize the Administrator (or the Trustee if no Administrator has

been selected) to use the monies of the Trust to carry out additional or new activities that are part of or are consistent with applicable State and Federal resource management and land use plans;

- studies, projects or activities to be financed by the Trust shall have (iv) a nexus to the Facility and shall include, but not be limited to: (A) habitat restoration, enhancement, or protection; (B) habitat research; (C) fish and wildlife species restoration, enhancement, or protection; (D) stewardship activities including additional or new activities, formally adopted by the Governance Committee, that are part of or are consistent with applicable State and Federal resource management and land use plans; (E) water quality improvement (excluding projects eligible for funding under the Clean Water State Revolving Fund); and (F) scientific or administrative support to ensure coordination of Trust projects with each other and externally funded research, restoration, and stewardship projects; delivery of final products; review of reports, data sets, and metadata; and placement of project results and data to insure public access in appropriate digital and hard copy media;
- (v) prior to funding any studies, projects or activities, the Governance

  Committee must find that such studies, projects or activities have
  been proven: (A) to make a contribution to the long-term
  protection and enhancement of fish and wildlife species and
  habitats in the Hudson River Estuary, the Harlem and East Rivers,

and/or Lake Champlain and their tributaries; (B) to have a strong scientific foundation; (C) to achieve identified environmental goals; (D) to be consistent with applicable State and Federal natural resource management plans; (E) to address impacts associated with the construction, operation, maintenance or security of the Facility; and, (F) to be feasible from an engineering perspective;

- (vi) the Governance Committee shall give preference to projects that:
   (A) achieve multiple environmental goals; (B) involve multistakeholder collaboration; (C) feature matching funds; and/or, (D) are cost effective;
- (vii) the Administrator (or the Trustee if no Administrator has been selected) shall pay any administrative costs associated with the establishment and maintenance of the Trust from any accrued interest on monies of the Trust or, if adequate interest is not accrued, such administrative costs shall be borne by the Trust, provided however that the monies of the Trust shall not be used to compensate any party, including Certificate Holders, for participation in the Governance Committee or to reimburse any such party for any expenses incurred in such participation;
- (viii) Certificate Holders' obligation to make the payments into the Trust set out above and in Table 2 attached hereto shall terminate upon receipt by the Administrator (or the Trustee if no Administrator has

been selected) of documentation from the NYISO or DPS stating that the Facility has ceased commercial operation. Should the Facility resume operations, the Certificate Holders shall resume the payments to the Trust on January 1<sup>st</sup> of the following year;

- (ix) if the Facility ceases permanent operation for any reason, payments owed to the Trust as of the date of the final termination and the balance of unused monies in the Trust, plus any accrued interest and minus any administrative cost, shall be retained in the Trust and administered by the Governance Committee until completely expended;
- (x) the Trustee, Administrator (if any) and the Governance Committee shall all be prohibited from directly or indirectly bonding or pledging any funds to be provided by the Certificate Holders at any future date; and
- (xi) in the event that any department, agency, authority, office or other instrumentality or subdivision of the State of New York shall claim ownership or control of the Trust or any of the funds paid into the Trust by Certificate Holders or any interest thereon, the Trustee shall immediately return all monies held in the name of the Trust to Certificate Holders.

APPENDIX 2
Summary of the Payment Stream for the Champlain Hudson Environmental Research and Development Trust (\$ millions)

earch and Development Trust (\$ mimons)		
Nominal \$	\$117.15	
2% Escalator		
Financial Close	\$2.5	
	T	
COD	\$7.21	
2	\$2.15	
3	\$2.19	
4	\$2.24	
5	\$7.81	
6	\$2.14	
7	\$3.33	
8	\$2.23	
9	\$3.47	
10	\$2.32	
11	\$3.61	
12	\$2.41	
13	\$3.75	
14	\$2.51	
15	\$3.90	
16	\$2.61	
17	\$2.66	
18	\$2.71	
19	\$2.77	
20	\$2.82	
21	\$2.88	
22	\$2.94	
23	\$3.00	
24	\$3.06	
25	\$3.12	
26	\$3.18	
27	\$3.24	
28	\$3.31	
29	\$3.37	
30	\$3.44	
31	\$3.51	
32	\$3.58	
33	\$3.65	
34	\$3.73	
35	\$3.80	
	1 .	

# **APPENDIX 3**

List of Approved Projects for the Hudson River and Lake Champlain Habitat Enhancement, Restoration, and Research/Habitat Improvement Project Trust

# First Priority Hudson River Projects

# Field sampling and analysis of adult and juvenile resident and migratory fish habitat distributions

Description: This project will identify important habitat areas for resident and migratory adult and juvenile fish within the upper Hudson River Estuary. A variety of habitat types over a large region in the river will be sampled including shallow vegetated and unvegetated areas, shoals, open channel and backwaters. Juvenile and adult fish community composition and abundance will be compared across all habitat types to determine relative importance of each habitat to each fish species and community. This work will lead to identifying specific locations that will serve as reference sites for developing design parameters and target conditions for restoration sites throughout the region.

# Analysis of preferred habitat characteristics for migratory and resident larval and juvenile fish

Description: This project is an in-depth study of the biotic and abiotic characteristics of important habitats identified in project #1 and similar ongoing research on larval fish. Plant communities, water chemistry, benthic fauna, sediment characteristics, flow regimes, along with a variety of other measures will increase our understanding of the preferred habitat types and how they function. This information will be used to guide the design of future projects that restore similar types of habitats. There will be fewer, but more intensively studied sites than in project #1.

#### Analysis and summary of existing tracking and mapping data

Description: This project involves combining data gathered by three separate and existing projects: high resolution, deepwater benthic mapping and Atlantic sturgeon and American shad tracking information collected by the NYSDEC. Position data on individual fish collected as part of on-going fish telemetry work will be spatially referenced to benthic mapping data. Statistical analysis of how spatial distributions of classes of benthic environment are related to spatial distributions of tagged fish will be done. Project will seek to identify deep water habitat (as defined by sediment environment and sediment type) preferences throughout the river for sturgeon and shad.

# Modeling transport of upper estuary fine grain sediment and contaminants

Description: Model transport of upper estuary fine grain sediment and contaminants to predict how habitat restoration designs will affect sediment management and contaminant distribution in the upper estuary. This information is needed to guide design of restoration projects that will benefit migratory fish species while minimizing impact to sediment management plans and contaminant distribution in the estuary. Modeling work will address three challenges: 1) to effectively predict local conditions at the scale of ~10 meters while at the same time including significant factors throughout the estuary

watershed that might affect local conditions; 2) to model ice scour, and 3) to properly model fine-grained sediment transport and deposition which include some physical properties not found in coarser-grained sediment transport. This last is important in that contaminants are generally associated with fine-grained mud.

& 5a. Hudson River Habitat Restoration plan- Implementation of a migratory fish spawning and juvenile refuge habitat restoration project.

Description: A secondary channel refuge habitat restoration project will be implemented in the upper estuary consistent with the goals of the Draft Hudson River Habitat Restoration Plan. The restoration project will be implemented consistent with the Society of Ecological Restoration International's (SER) "Guidelines for developing and managing ecological restoration projects, 2nd Edition", (2005). Total project costs may include baseline and post construction monitoring of restoration and reference sites, design, implementation and land acquisition costs. Mitigation funding may be used for any part of the project cost, or used as matching funds for state or federal habitat restoration grants.

# Second Priority Hudson River Projects

# Atlantic and shortnose sturgeon tracking

Description: This project entails tagging juvenile and adult life stages of Atlantic and shortnose sturgeon with acoustic tags, and tracking fish movements using mobile hydrophones mounted on boats. Deploy and use arrays of fixed receivers to monitor habitat utilization at high resolution within the array study area. Tag 30 to 40 fish for each life stage for each species each year. The purpose of this work is to expand knowledge of how individual fish species use different parts of the Hudson River Estuary's varied habitat (in terms of water depth, salinity, and bottom type) at different times of the year and at different life stages.

#### Adult American shad tagging and tracking

Description: Tag adult American shad with acoustic tags and track fish movements in the estuary using mobile hydrophones mounted on boats. Deploy and use arrays of fixed receivers to determine habitat utilization by the tagged fish at high resolution within the array study area. Tag and monitor 30 to 40 fish each year. The purpose of this work is to expand knowledge of how individual fish species use different parts of the Hudson River Estuary's varied habitat (in terms of water depth, salinity, and bottom type) at different times of the year and at different life stages.

#### Third Priority Hudson River Projects

# Shallow water mapping

Description: Complete shallow water benthic mapping to map the bathymetry and sediment environment of the waters less than 4 meters deep in the Hudson River Estuary from the harbor at New York City to Troy. The purpose of this project is to develop a detailed description of the physical environment in which fish live, and to support management activities related to fish and wildlife management and contaminant transport. Project will include development of databases and products consistent with techniques used in prior Hudson River shallow water mapping, building on the Hudson River benthic mapping project, including use of several different types of sonar to

measure water depth and sediment character at 1-meter horizontal resolution, supplemental sediment cores and grabs, and sediment profile imagery, to create detailed bathymetric maps and interpretive maps of sediment type and sediment environment.

#### **Hudson River Estuarium**

Description: Provide funding for the construction and operation of the Hudson River Estuarium, a field research station currently being developed at Pier 26 in Manhattan. The facility will house and support scientists performing field studies within the estuary, and will serve as a hub for the collection and transmission of remote sensing data. Hudson River habitat restoration plan- Implement a second migratory fish spawning and juvenile refuge habitat restoration project

Description: Implement a secondary channel refuge habitat restoration project in the upper estuary consistent with the goals of the Draft Hudson River Habitat Restoration Plan. Restoration project will be implemented consistent with the Society of Ecological Restoration International's (SER) "Guidelines for developing and managing ecological restoration projects, 2nd Edition", (2005). Total project costs may include baseline and post construction monitoring of restoration and reference sites, design, implementation and land acquisition costs. Available mitigation funding may be used as matching funds for state or federal restoration grant applications.

# Fourth Priority Hudson River Projects

# Sturgeon habitat and forage

Description: Project will include field studies to determine dietary habits of sturgeon and the relationship between benthic biota and benthic characteristics. Sturgeon will be captured and stomach contents sampled, on location prior to release. Location information will be spatially referenced to Benthic Mapping data identifying benthic characteristics (sediment composition and dynamics). Evaluation of benthic fauna using shallow cores collected in the field will correlate benthic community compositions with sediment environment and observed dietary preferences of the target species. Project will help identify priority areas and habitat type for feeding sturgeon.

### **Recreation fishery survey**

Description: Project will include field survey of anglers utilizing the Hudson River Estuary to identify catch composition, total catch, total effort, and catch rates during ice free season. Fish populations and fisheries are likely to respond to any construction or operational impacts. A fishery survey is an economical way to assess change to a wide range of fished species. Earlier surveys will be used as a baseline for change analysis, post-installation.

# Hudson River Habitat Restoration Plan: Implement a third migratory fish spawning and juvenile refuge habitat restoration project.

Description: Implement a secondary channel refuge habitat restoration project in the upper estuary consistent with the goals of the Draft Hudson River Habitat Restoration Plan. Restoration project will be implemented consistent with the Society of Ecological Restoration International's (SER) "Guidelines for developing and managing ecological restoration projects, 2nd Edition", (2005). Total project costs may include baseline and

post construction monitoring of restoration and reference sites, design, implementation and land acquisition costs. Available mitigation funding may be used as matching funds for state or federal restoration grant applications.

# First Priority Bronx, Harlem and East River Projects

#### **Bronx Kill Habitat Restoration**

Description: Restore habitats in and along the Bronx Kill by softening the shoreline, creating wetlands, and removing flow impediments in order to benefit migratory and resident species affected by cable construction and operation.

## **Bronx River Fish Passage**

Description: Implement dam removal or bypass projects along the Bronx River to improve fish migration, in order to benefit migratory and resident species affected by cable construction and operation.

# Harlem River Designing the Edge Project

Description: Reconfigure existing vertical shoreline structures along the Harlem River to create habitat complexity, and provide refugia for migratory and resident fish species in order to compensate for habitat disturbance associated with cable construction and operation.

## **Oyster Bed Development and Restoration**

Description: Oysters are "ecosystem engineers," creating a complex environment that supports a diversity of aquatic organisms. Oysters help to moderate the concentration of phytoplankton in the water, thereby benefitting other marine life by reducing the competition for dissolved oxygen. Once ubiquitous in the Hudson-Raritan Estuary and New York Harbor, decades of overfishing, disease and pollution almost eliminated the oysters that once blanketed those areas. Recent water quality improvements have enabled efforts to restore this vital element of the Estuary.

Restoration of oyster beds in New York waters, including areas of the Hudson River, is one of the key targets in the Army Corps of Engineers' Comprehensive Restoration Plan for the Hudson-Raritan Estuary. Pilot oyster reefs were constructed as part of the Oyster Restoration Research Project ("ORRP"), a partnership of more than 30 entities. Ongoing two-year studies of the pilot reefs conducted by the ORRP have shown positive results that warrant further investigation consistent with the Corps of Engineers' Comprehensive Restoration Plan. The initial two-year studies of pilot oyster reefs are expected to be completed in the spring of 2012. An infusion of funds from the Trust would allow the City to conduct additional studies of existing pilot oyster reefs consistent with the Corps of Engineers' Comprehensive Restoration Plan, including (i) a comprehensive evaluation of the ecosystem services and water quality benefits that the oyster reefs provide, and (ii) an examination of oyster larval development, disease resistance, and obstacles to oyster reproduction. Also, ongoing studies of the pilot oyster reefs have demonstrated that larval oysters "planted" at the reefs may be lost to hydraulic transport. With the Trust funding, new methods to reduce such losses would be studied within the existing footprint of the Soundview Park pilot reef in the Upper East River in the Bronx. If approved as presently proposed, the HVDC Transmission Facility will be

installed in the bed of the East River as the cables are laid between the Hudson River and the East River.

Timing: Data collected from the two-year pilot oyster reef study to be completed in the spring of 2012 will be used to evaluate the feasibility of oyster reef expansion, particularly at the Soundview Park in the Bronx. This evaluation of the pilot project studies, together with any additional data or other relevant information obtained during the period between completion of the initial pilot oyster reef studies and CHPE Project construction financial closing, will be reviewed again at Project construction financial closing. If warranted by that review, and approved by the Trust Governance Committee, the process necessary to enable pilot oyster reef expansion may be initiated.

# **New York Harbor Contaminated Sediment Assessment**

Description: Sediments in the Hudson River and New York Harbor are contaminated with many harmful chemicals, including polychlorinated biphenols (PCB)s. The disturbance (i.e. dredging) and disposal of contaminated material is problematic, as it is harmful to the environment, and expensive. Since sediment contamination may impact benthic communities and other aquatic species, it should be considered and evaluated as part of certain restoration and remediation projects. An understanding of how sediment contaminant levels change over time is important for a variety of purposes, including the conduct and evaluation of sediment remediation efforts and informing policies on where and how to dispose of contaminated dredged material. The contaminated sediment assessment project will develop, update and refine our understanding of how the quality of dredged sediments level of sediment contamination changes over time by efforts including, for example: (a) collecting sediments and quantifying contaminant levels, including the levels of substances of concern for dredged material management; (b) determining which sediment areas are currently toxic and the identity and level of their contaminants; and (c) how the quality of dredged sediments may change over time, including, for example, by burial by cleaner sediments entering the system or transport to other parts of the system. The project initially will focus on contaminant load in, and transport through, the Hudson, Harlem and East Rivers. These areas include part of the present configuration for the route of the CHPE cables. This project will be conducted over a period of approximately two (2) years. The information produced from this project will be presented in a final report that will inform the Design Guidelines for Shoreline Enhancements project, for example, by factoring information regarding the nature and extent of contamination into shoreline restoration projects, as well as future efforts to restore or enhance aquatic habitat in the study areas.

# Develop design guidelines for shoreline enhancements

Description: The shoreline and shallow areas of the waters surrounding New York City have been heavily altered over the centuries to meet human demands. These alterations were driven almost exclusively by engineering and economic considerations with little regard to the ecological needs of those waters, aquatic species and the aquatic habitat. As a result, the City's shoreline has a significantly reduced capacity to provide important habitat for aquatic species, to reduce wave energy, and limit nutrient and sediment delivery from the watershed to the Harbor Estuary. This proposal is based on the observation that new designs for engineered structures in the shore zone that meet

engineering and economic requirements, and that enhance and rehabilitate ecologically-degraded shore-zone ecosystems are necessary to guide shoreline restoration projects.

To increase our understanding of the ecological functions of shore zone ecosystems, to facilitate future shoreline restoration projects, including those upriver shoreline projects that are currently in progress, and to enhance and protect aquatic habitat and aquatic species in City waters, this project will develop: (a) a classification scheme specific to the urban shoreline habitats of New York City; (b) a comprehensive shoreline and shallow waters characterization and habitat map; and (c) design guidelines and recommendations for managing the City's shoreline and shallow waters to enhance the ecological function of City waters. This work will be conducted over a period of approximately three (3) years and will create a final report that will be used to guide the design and location of shoreline enhancement projects.

The design guidelines presented in the report may be evaluated and/or otherwise implemented at locations along the shorelines of the Hudson, East and Harlem Rivers. Shoreline areas near the Project may also be the subject of potential future funding requests, if determined to be feasible, to enhance habitat or water quality in the Project area. Such activities along those rivers may include, for example: (a) selection of one or more locations that would be suitable for a pilot or larger-scale project that would demonstrate and study the effectiveness of ecological enhancement measures identified in the guidelines (such potential sites may include, for example, open space located at the mouth of the Harlem River and Roberto Clemente State Park); (b) monitoring and evaluating the effectiveness of existing shoreline enhancement measures (e.g., Harlem River Park); and (c) incorporating shoreline enhancements into certain CNY permitting processes for shoreline construction projects. This project will build off, and complement, the Sustainable Shorelines effort underway north of New York City. The two projects share similar goals and, where practical, can exchange information and coordinate efforts.

# First Priority Lake Champlain Projects

# Development and Implementation of Fish Population and Recreational Fisheries Surveys

Description: The shallow, eutrophic South Lake section of Lake Champlain favors warmwater species and is the primary area of concern for potential impacts from cable installation. An increase in turbidity due to construction activities is the main concern for the South Lake fish community. Eggs and larval and juvenile fish are the most susceptible life stages to increases in turbidity, therefore impacts to adult populations and sportfisheries resulting from construction activities may not be evident for several years. In order to gauge the potential impacts of cable installation on the Lake's warmwater fish community, a comprehensive monitoring program for the lake, with an emphasis in South Lake, should be developed and implemented. The monitoring program should be comprised of studies focused on: 1) obtaining up to date angler creel and opinion information; 2) assessing the characteristics and potential impacts of black bass tournaments; 3) the status of important sport- and panfish populations such as walleye, yellow perch, black bass, northern pike, and muskellunge; 4) the status and ecology of Species of Greatest Conservation Need such as sauger and mooneye; and 5) assessing the fish community dynamics for the lake, including assessments of forage and invasive fish

populations. These studies will aid in the development and implementation of management recommendations for the aforementioned species. The monitoring program will be consistent with the guiding principles, nearshore fish community sub-goals, and information priorities in the Strategic Plan for Lake Champlain Fisheries (Fisheries Technical Committee 2009).

#### Fish Habitat Assessments

Description: Protecting and restoring fish habitats is critical to the proper management of fish populations in Lake Champlain and is a guiding principle in the Strategic Plan for Lake Champlain Fisheries (Fisheries Technical Committee 2009). In addition, habitat quality and connectivity are important criteria in determining the potential impacts of certain stressors, such as expansion of invasive species or increases in turbidity. In Lake Champlain, there is a need to identify locations and characteristics of important habitats for critical life stages of a number of migratory and resident fish species. Habitat assessments should focus on percids, esocids, black bass, rainbow smelt, lake trout, landlocked salmon, steelhead, lake sturgeon, and mooneye. In addition, there should be an assessment of the links between deep water benthic habitats and the pelagic fish community. This will involve an assessment of mysid shrimp abundance and the impacts that invasive fish such as alewife may be having on these organisms. Information will be used to document current habitat suitability and connectivity, and identify habitat restoration goals for restoring and managing resident and migratory fish.

#### **Critical Habitat Restoration**

Description: Restoration and maintenance of critical fish habitats is essential to improve and sustain productive fisheries and is a key component of fish community conservation. Management actions to increase fish production and expand distribution should incorporate identification, protection and restoration of spawning, nursery, or other critical habitats (Fisheries Technical Committee 2009). Lake Champlain has experienced substantial habitat degradation due to the damming of rivers, nuisance invasive species, loss of shoreline wetlands, and sedimentation and contamination from adjacent land use practices. Habitat restoration goals and target restoration areas will be identified in the Fish Habitat Assessment project (Project 2). This project will involve the implementation of priority critical habitat restoration projects identified in Project 2. The selected restoration projects will be consistent with the guiding principles and healthy fish community sub goals of the Strategic Plan for Lake Champlain Fisheries. Projects will need to include intensive pre and post condition monitoring to identify project outcomes and adaptive management opportunities. Projects may include, but are not limited to, installation of reefs, improving connectivity between habitats (including fish passage) and submerged aquatic vegetation restoration and will provide benefits to both the resident and migratory fish communities. Priority will be given to projects benefiting lake sturgeon, sauger, whitefish, landlocked salmon and other rare or game fish species.

#### **Aquatic Invasive Species Management**

Description: Aquatic invasive species can have tremendous ecological impacts (e.g., dense water chestnut growth limits littoral habitat in the South Lake and expanding alewife populations may prevent successful natural reproduction of walleye). Also,

combining invasives with other stressors that impair habitat quality can have profound detrimental effects on fish populations and has resulted in the declines of several species native to Lake Champlain that are now listed as endangered, threatened, or of special concern (Fisheries Technical Committee 2009). Controlling aquatic invasive species is a means to improve habitat quality, manage existing habitats, and reduce risks to important fish populations. Management activities may include removal of aquatic invasive plants, developing a program to minimize the risk for introduction of invasives via the Champlain Canal and other connecting waters, recreational boats, and fishing practices, and developing and implementing research, monitoring, and control programs for invasive species such as spiny water flea, zebra and quagga mussels, sea lamprey, and alewife. Removal of aquatic invasive plants will result in changes to the plant communities of managed areas. Aquatic plant community responses should be assessed in these areas.

# **APPENDIX 4**

Potential additional Legal Provisions that may be included in the agreement with the successful Prospective TA.

## **NYS Ethics Compliance**

All grantees and their employees must comply with the requirements of Public Officers Law, 73 and 74, and other State codes, rules and regulations establishing ethical standards for the conduct of business with New York State.

#### **Public Information**

Disclosure of items related to the Agreement shall be permitted consistent with the laws of the State of New York and specifically the Freedom of Information Law (FOIL) contained in Section 87 of the Public Officers Law. The New York Office of the Attorney General shall take reasonable steps to protect from public disclosure any records relating to the grantee or its application that are otherwise exempt from disclosure under that statute. Information constituting trade secrets, for purposes of FOIL, must be clearly marked and identified as such upon submission. If the grantee intends to seek an exemption from disclosure of these materials under FOIL, the grantee shall, at the time of submission, request the exemption in writing and provide an explanation of why the disclosure of the identified information would cause substantial injury to the competitive position of the grantee. Acceptance of the identified information by the New York Office of the Attorney General does not constitute a determination that the information is exempt from disclosure under FOIL. Determinations as to the availability of the identified information will be made in accordance with FOIL at the time a request for such information is received by the New York Office of the Attorney General.

#### Indemnification

All grantees agree to indemnify and hold harmless the members of the Governance Committee, their respective organizations or agencies, and their officers, agents, and employees, from liability for loss or damage to the extent caused by the negligent acts, misconduct, or omissions of the grantees, their agents, employees or subcontractors.

#### **Independent Contractor**

Grantee, in accordance with its status as an independent contractor covenants and agrees that it shall conduct itself consistent with such status, that it shall neither hold itself as, nor claim to be an officer, agent or employee of the State New York or Office of the Attorney General by reason hereof, and that it shall not make any claim, demand or application to or for any right or privilege applicable to an officer or employee of the State, including but not limited to Workers' Compensation coverage, Unemployment Insurance Benefits, Social Security coverage or Retirement membership.

#### **Dispute Resolution Policy** (Protests and Appeals)

It is the policy of the Office of the Attorney General, Budget & Fiscal Management Bureau, to provide grantees with an opportunity to administratively resolve disputes, complaints or inquiries related to bid solicitations or contract awards. The Budget &

Fiscal Management Bureau encourages grantees to seek resolution of disputes through consultation with agency staff. All such matters will be accorded impartial and timely consideration. Interested parties may also file formal written disputes.

#### Confidentiality

All the reports, information, data, and other papers and materials in whatever form prepared or assembled by the grantee under this Agreement are confidential, and the grantee shall not discuss them with or make them available to any individual or organization without the prior written approval of the Attorney General or his representative. These provisions do not apply in whatever form to information that is in the public domain nor shall they restrict the grantee from giving notices required by law or complying with an order to provide information or data when such order is issued by a judge. If disclosure of confidential information is required of the grantee by any subpoena or other court process, the grantee agrees to immediately notify the Office of the Attorney General to inspect any such data or information and interpose objections prior to delivery to the court.

# Publications, Copyrights, and Software Licenses

The Office of the Attorney General, Department of Environmental Conservation and State of New York expressly reserves the right to a royalty-free, non-exclusive and irrevocable license to reproduce, publish, distribute or otherwise use, in perpetuity, any and all copyrighted or copyrightable material resulting from this grant contract or activity supported by this grant contract. Grantee shall grant the Office of the Attorney General, Department of Environmental Conservation and the State of New York a non-exclusive, perpetual license to use, execute, reproduce, display, perform, or merge any custom software application created as a result of the grant funds awarded to a grantee under the grant.

# Compliance with Executive Order #4, Establishing a State Green Procurement and Agency Sustainability Program

Grantees will comply with the provisions of Executive Order 4. Publications shall be printed on 100% post-consumer recycled content paper. Where paper with 100% post-consumer recycled content is not available, or does not meet required form, function and utility, paper used shall have post-consumer recycled content to the extent practicable. Non-recycled content shall be derived from a sustainably-managed renewable resource to the extent practicable, unless the cost of the product is not competitive.

# **Champlain-Hudson Power Express Project Environmental Trust Governance Agreement**

# **APPENDIX B\***

List of Approved Projects for the Champlain Hudson Environmental Research and Development Trust

\*The List of Approved Projects was annexed to the Certificate Conditions as Attachment 5 in Case 10-T-0139. This list is also same as the "Appendix 4" of the Request For Expression of Interest attached to this Governance Agreement above.

#### **Attachment 5**

# <u>List of Approved Projects for the</u> <u>Champlain Hudson Environmental Research and Development Trust</u>

# **First Priority Hudson River Projects**

1. Field sampling and analysis of adult and juvenile resident and migratory fish habitat distributions

Description: This project will identify important habitat areas for resident and migratory adult and juvenile fish within the upper Hudson River Estuary. A variety of habitat types over a large region in the river will be sampled including shallow vegetated and unvegetated areas, shoals, open channel and backwaters. Juvenile and adult fish community composition and abundance will be compared across all habitat types to determine relative importance of each habitat to each fish species and community. This work will lead to identifying specific locations that will serve as reference sites for developing design parameters and target conditions for restoration sites throughout the region.

 Analysis of preferred habitat characteristics for migratory and resident larval and juvenile fish

Description: This project is an in-depth study of the biotic and abiotic characteristics of important habitats identified in project #1 and similar ongoing research on larval fish. Plant communities, water chemistry, benthic fauna, sediment characteristics, flow regimes, along with a variety of other measures will increase our understanding of the preferred habitat types and how they function. This information will be used to guide the design of future projects that restore similar types of habitats. There will be fewer, but more intensively studied sites than in project #1.

3. Analysis and summary of existing tracking and mapping data

Description: This project involves combining data gathered by three separate and existing

projects: high resolution, deepwater benthic mapping and Atlantic sturgeon and American shad tracking information collected by the NYSDEC. Position data on individual fish collected as part of on-going fish telemetry work will be spatially referenced to benthic mapping data. Statistical analysis of how spatial distributions of classes of benthic environment are related to spatial distributions of tagged fish will be done. Project will seek to identify deep water habitat (as defined by sediment environment and sediment type) preferences throughout the river for sturgeon and shad.

# 4. Modeling transport of upper estuary fine grain sediment and contaminants

Description: Model transport of upper estuary fine grain sediment and contaminants to predict how habitat restoration designs will affect sediment management and contaminant distribution in the upper estuary. This information is needed to guide design of restoration projects that will benefit migratory fish species while minimizing impact to sediment management plans and contaminant distribution in the estuary. Modeling work will address three challenges: 1) to effectively predict local conditions at the scale of ~10 meters while at the same time including significant factors throughout the estuary watershed that might affect local conditions; 2) to model ice scour, and 3) to properly model fine-grained sediment transport and deposition which include some physical properties not found in coarser-grained sediment transport. This last is important in that contaminants are generally associated with fine-grained mud.

# 5. & 5a. <u>Hudson River Habitat Restoration plan- Implementation of a migratory fish spawning and juvenile refuge habitat restoration project.</u>

Description: A secondary channel refuge habitat restoration project will be implemented in the upper estuary consistent with the goals of the Draft Hudson River Habitat Restoration Plan. The restoration project will be implemented consistent with the Society of Ecological Restoration International's (SER) "Guidelines for developing and managing ecological restoration projects, 2<sup>nd</sup> Edition", (2005). Total project costs may include baseline and post construction monitoring of restoration and reference sites, design, implementation and land acquisition costs. Mitigation funding may be used for any part of the project cost,

or used as matching funds for state or federal habitat restoration grants.

## **Second Priority Hudson River Projects**

#### 6. Atlantic and shortnose sturgeon tracking

Description: This project entails tagging juvenile and adult life stages of Atlantic and shortnose sturgeon with acoustic tags, and tracking fish movements using mobile hydrophones mounted on boats. Deploy and use arrays of fixed receivers to monitor habitat utilization at high resolution within the array study area. Tag 30 to 40 fish for each life stage for each species each year. The purpose of this work is to expand knowledge of how individual fish species use different parts of the Hudson River Estuary's varied habitat (in terms of water depth, salinity, and bottom type) at different times of the year and at different life stages.

# 7. Adult American shad tagging and tracking

Description: Tag adult American shad with acoustic tags and track fish movements in the estuary using mobile hydrophones mounted on boats. Deploy and use arrays of fixed receivers to determine habitat utilization by the tagged fish at high resolution within the array study area. Tag and monitor 30 to 40 fish each year. The purpose of this work is to expand knowledge of how individual fish species use different parts of the Hudson River Estuary's varied habitat (in terms of water depth, salinity, and bottom type) at different times of the year and at different life stages.

#### **Third Priority Hudson River Projects**

#### 8. Shallow water mapping

Description: Complete shallow water benthic mapping to map the bathymetry and sediment environment of the waters less than 4 meters deep in the Hudson River Estuary from the harbor at New York City to Troy. The purpose of this project is to develop a detailed

description of the physical environment in which fish live, and to support management activities related to fish and wildlife management and contaminant transport. Project will include development of databases and products consistent with techniques used in prior Hudson River shallow water mapping, building on the Hudson River benthic mapping project, including use of several different types of sonar to measure water depth and sediment character at 1-meter horizontal resolution, supplemental sediment cores and grabs, and sediment profile imagery, to create detailed bathymetric maps and interpretive maps of sediment type and sediment environment.

#### 9. Hudson River Estuarium

Description: Provide funding for the construction and operation of the Hudson River Estuarium, a field research station currently being developed at Pier 26 in Manhattan. The facility will house and support scientists performing field studies within the estuary, and will serve as a hub for the collection and transmission of remote sensing data.

10. <u>Hudson River habitat restoration plan- Implement a second migratory fish spawning and juvenile refuge habitat restoration project</u>

Description: Implement a secondary channel refuge habitat restoration project in the upper estuary consistent with the goals of the Draft Hudson River Habitat Restoration Plan. Restoration project will be implemented consistent with the Society of Ecological Restoration International's (SER) "Guidelines for developing and managing ecological restoration projects, 2<sup>nd</sup> Edition", (2005). Total project costs may include baseline and post construction monitoring of restoration and reference sites, design, implementation and land acquisition costs. Available mitigation funding may be used as matching funds for state or federal restoration grant applications.

#### **Fourth Priority Hudson River Projects**

#### 11. Sturgeon habitat and forage

Description: Project will include field studies to determine dietary habits of sturgeon and the

relationship between benthic biota and benthic characteristics. Sturgeon will be captured and stomach contents sampled, on location prior to release. Location information will be spatially referenced to Benthic Mapping data identifying benthic characteristics (sediment composition and dynamics). Evaluation of benthic fauna using shallow cores collected in the field will correlate benthic community compositions with sediment environment and observed dietary preferences of the target species. Project will help identify priority areas and habitat type for feeding sturgeon.

# 12. Recreation fishery survey

Description: Project will include field survey of anglers utilizing the Hudson River Estuary to identify catch composition, total catch, total effort, and catch rates during ice free season. Fish populations and fisheries are likely to respond to any construction or operational impacts. A fishery survey is an economical way to assess change to a wide range of fished species. Earlier surveys will be used as a baseline for change analysis, post-installation.

# 13. <u>Hudson River habitat restoration plan- Implement a third migratory fish spawning and juvenile refuge habitat restoration project.</u>

Description: Implement a secondary channel refuge habitat restoration project in the upper estuary consistent with the goals of the Draft Hudson River Habitat Restoration Plan. Restoration project will be implemented consistent with the Society of Ecological Restoration International's (SER) "Guidelines for developing and managing ecological restoration projects, 2<sup>nd</sup> Edition", (2005). Total project costs may include baseline and post construction monitoring of restoration and reference sites, design, implementation and land acquisition costs. Available mitigation funding may be used as matching funds for state or federal restoration grant applications.

#### First Priority Bronx, Harlem and East River Projects

#### 1. Bronx Kill Habitat Restoration

Description: Restore habitats in and along the Bronx Kill by softening the shoreline, creating wetlands, and removing flow impediments in order to benefit migratory and resident species

affected by cable construction and operation.

# 2. Bronx River Fish Passage

Description: Implement dam removal or bypass projects along the Bronx River to improve fish migration, in order to benefit migratory and resident species affected by cable construction and operation.

# 3. Harlem River Designing the Edge Project

Description: Reconfigure existing vertical shoreline structures along the Harlem River to create habitat complexity, and provide refugia for migratory and resident fish species in order to compensate for habitat disturbance associated with cable construction and operation.

## 4. Oyster Bed Development and Restoration

Description: Oysters are "ecosystem engineers," creating a complex environment that supports a diversity of aquatic organisms. Oysters help to moderate the concentration of phytoplankton in the water, thereby benefitting other marine life by reducing the competition for dissolved oxygen. Once ubiquitous in the Hudson-Raritan Estuary and New York Harbor, decades of overfishing, disease and pollution almost eliminated the oysters that once blanketed those areas. Recent water quality improvements have enabled efforts to restore this vital element of the Estuary.

Restoration of oyster beds in New York waters, including areas of the Hudson River, is one of the key targets in the Army Corps of Engineers' Comprehensive Restoration Plan for the Hudson-Raritan Estuary. Pilot oyster reefs were constructed as part of the Oyster Restoration Research Project ("ORRP"), a partnership of more than 30 entities. Ongoing two-year studies of the pilot reefs conducted by the ORRP have shown positive results that warrant further investigation consistent with the Corps of Engineers' Comprehensive Restoration Plan. The initial two-year studies of pilot oyster reefs are expected to be completed in the spring of 2012. An infusion of funds from the Trust would allow the City to conduct additional studies of existing pilot oyster reefs consistent with the Corps of Engineers' Comprehensive Restoration Plan, including (i) a comprehensive evaluation of the ecosystem services and water quality benefits that the oyster reefs provide, and (ii) an examination of oyster larval development,

disease resistance, and obstacles to oyster reproduction. Also, ongoing studies of the pilot oyster reefs have demonstrated that larval oysters "planted" at the reefs may be lost to hydraulic transport. With the Trust funding, new methods to reduce such losses would be studied within the existing footprint of the Soundview Park pilot reef in the Upper East River in the Bronx. If approved as presently proposed, the HVDC Transmission Facility will be installed in the bed of the East River as the cables are laid between the Hudson River and the East River.

Timing: Data collected from the two-year pilot oyster reef study to be completed in the spring of 2012 will be used to evaluate the feasibility of oyster reef expansion, particularly at the Soundview Park in the Bronx. This evaluation of the pilot project studies, together with any additional data or other relevant information obtained during the period between completion of the initial pilot oyster reef studies and CHPE Project construction financial closing, will be reviewed again at Project construction financial closing. If warranted by that review, and approved by the Trust Governance Committee, the process necessary to enable pilot oyster reef expansion may be initiated.

#### 5. New York Harbor Contaminated Sediment Assessment

Description: Sediments in the Hudson River and New York Harbor are contaminated with many harmful chemicals, including polychlorinated biphenols (PCB)s. The disturbance (*i.e.* dredging) and disposal of contaminated material is problematic, as it is harmful to the environment, and expensive. Since sediment contamination may impact benthic communities and other aquatic species, it should be considered and evaluated as part of certain restoration and remediation projects. An understanding of how sediment contaminant levels change over time is important for a variety of purposes, including the conduct and evaluation of sediment remediation efforts and informing policies on where and how to dispose of contaminated dredged material. The contaminated sediment assessment project will develop, update and refine our understanding of how the quality of dredged sediments level of sediment contamination changes over time by efforts including, for example: (a) collecting sediments and quantifying contaminant levels, including the levels of substances of concern for dredged material management; (b) determining which sediment areas are currently toxic and the identity and level of their contaminants; and (c) how the quality of dredged sediments may change over time, including, for example, by burial by cleaner sediments entering the system or transport to other

parts of the system. The project initially will focus on contaminant load in, and transport through, the Hudson, Harlem and East Rivers. These areas include part of the present configuration for the route of the CHPE cables. This project will be conducted over a period of approximately two (2) years. The information produced from this project will be presented in a final report that will inform the Design Guidelines for Shoreline Enhancements project, for example, by factoring information regarding the nature and extent of contamination into shoreline restoration projects, as well as future efforts to restore or enhance aquatic habitat in the study areas.

# 6. Develop design guidelines for shoreline enhancements

Description: The shoreline and shallow areas of the waters surrounding New York City have been heavily altered over the centuries to meet human demands. These alterations were driven almost exclusively by engineering and economic considerations with little regard to the ecological needs of those waters, aquatic species and the aquatic habitat. As a result, the City's shoreline has a significantly reduced capacity to provide important habitat for aquatic species, to reduce wave energy, and limit nutrient and sediment delivery from the watershed to the Harbor Estuary. This proposal is based on the observation that new designs for engineered structures in the shore zone that meet engineering and economic requirements, and that enhance and rehabilitate ecologically-degraded shore-zone ecosystems are necessary to guide shoreline restoration projects.

To increase our understanding of the ecological functions of shore zone ecosystems, to facilitate future shoreline restoration projects, including those upriver shoreline projects that are currently in progress, and to enhance and protect aquatic habitat and aquatic species in City waters, this project will develop: (a) a classification scheme specific to the urban shoreline habitats of New York City; (b) a comprehensive shoreline and shallow waters characterization and habitat map; and (c) design guidelines and recommendations for managing the City's shoreline and shallow waters to enhance the ecological function of City waters. This work will be conducted over a period of approximately three (3) years and will create a final report that will be used to guide the design and location of shoreline enhancement projects.

The design guidelines presented in the report may be evaluated and/or otherwise implemented at locations along the shorelines of the Hudson, East and Harlem Rivers. Shoreline

areas near the Project may also be the subject of potential future funding requests, if determined to be feasible, to enhance habitat or water quality in the Project area. Such activities along those rivers may include, for example: (a) selection of one or more locations that would be suitable for a pilot or larger-scale project that would demonstrate and study the effectiveness of ecological enhancement measures identified in the guidelines (such potential sites may include, for example, open space located at the mouth of the Harlem River and Roberto Clemente State Park); (b) monitoring and evaluating the effectiveness of existing shoreline enhancement measures (e.g., Harlem River Park); and (c) incorporating shoreline enhancements into certain CNY permitting processes for shoreline construction projects. This project will build off, and complement, the Sustainable Shorelines effort underway north of New York City. The two projects share similar goals and, where practical, can exchange information and coordinate efforts.

# First Priority Lake Champlain Projects

## 1. Development and Implementation of Fish Population and Recreational Fisheries Surveys

Description: The shallow, eutrophic South Lake section of Lake Champlain favors warmwater species and is the primary area of concern for potential impacts from cable installation. An increase in turbidity due to construction activities is the main concern for the South Lake fish community. Eggs and larval and juvenile fish are the most susceptible life stages to increases in turbidity, therefore impacts to adult populations and sportfisheries resulting from construction activities may not be evident for several years. In order to gauge the potential impacts of cable installation on the Lake's warmwater fish community, a comprehensive monitoring program for the lake, with an emphasis in South Lake, should be developed and implemented. The monitoring program should be comprised of studies focused on: 1) obtaining up to date angler creel and opinion information; 2) assessing the characteristics and potential impacts of black bass tournaments; 3) the status of important sport- and panfish populations such as walleye, yellow perch, black bass, northern pike, and muskellunge; 4) the status and ecology of Species of Greatest Conservation Need such as sauger and mooneye; and 5) assessing the fish community dynamics for the lake, including assessments of forage and invasive fish populations. These studies will aid in the development and implementation of management recommendations for the

aforementioned species. The monitoring program will be consistent with the guiding principles, nearshore fish community sub-goals, and information priorities in the Strategic Plan for Lake Champlain Fisheries (Fisheries Technical Committee 2009).

#### 2. Fish Habitat Assessments

Description: Protecting and restoring fish habitats is critical to the proper management of fish populations in Lake Champlain and is a guiding principle in the Strategic Plan for Lake Champlain Fisheries (Fisheries Technical Committee 2009). In addition, habitat quality and connectivity are important criteria in determining the potential impacts of certain stressors, such as expansion of invasive species or increases in turbidity. In Lake Champlain, there is a need to identify locations and characteristics of important habitats for critical life stages of a number of migratory and resident fish species. Habitat assessments should focus on percids, esocids, black bass, rainbow smelt, lake trout, landlocked salmon, steelhead, lake sturgeon, and mooneye. In addition, there should be an assessment of the links between deep water benthic habitats and the pelagic fish community. This will involve an assessment of mysid shrimp abundance and the impacts that invasive fish such as alewife may be having on these organisms. Information will be used to document current habitat suitability and connectivity, and identify habitat restoration goals for restoring and managing resident and migratory fish.

#### 3. Critical Habitat Restoration

Description: Restoration and maintenance of critical fish habitats is essential to improve and sustain productive fisheries and is a key component of fish community conservation. Management actions to increase fish production and expand distribution should incorporate identification, protection and restoration of spawning, nursery, or other critical habitats (Fisheries Technical Committee 2009). Lake Champlain has experienced substantial habitat degradation due to the damming of rivers, nuisance invasive species, loss of shoreline wetlands, and sedimentation and contamination from adjacent land use practices. Habitat restoration goals and target restoration areas will be identified in the Fish Habitat Assessment project (Project 2). This project will involve the implementation of priority critical habitat restoration projects identified in Project 2. The selected restoration projects will be consistent with the guiding principles and

healthy fish community sub goals of the Strategic Plan for Lake Champlain Fisheries. Projects will need to include intensive pre and post condition monitoring to identify project outcomes and adaptive management opportunities. Projects may include, but are not limited to, installation of reefs, improving connectivity between habitats (including fish passage) and submerged aquatic vegetation restoration and will provide benefits to both the resident and migratory fish communities. Priority will be given to projects benefiting lake sturgeon, sauger, whitefish, landlocked salmon and other rare or game fish species.

# 4. Aquatic Invasive Species Management

Description: Aquatic invasive species can have tremendous ecological impacts (e.g., dense water chestnut growth limits littoral habitat in the South Lake and expanding alewife populations may prevent successful natural reproduction of walleye). Also, combining invasives with other stressors that impair habitat quality can have profound detrimental effects on fish populations and has resulted in the declines of several species native to Lake Champlain that are now listed as endangered, threatened, or of special concern (Fisheries Technical Committee 2009). Controlling aquatic invasive species is a means to improve habitat quality, manage existing habitats, and reduce risks to important fish populations. Management activities may include removal of aquatic invasive plants, developing a program to minimize the risk for introduction of invasives via the Champlain Canal and other connecting waters, recreational boats, and fishing practices, and developing and implementing research, monitoring, and control programs for invasive species such as spiny water flea, zebra and quagga mussels, sea lamprey, and alewife. Removal of aquatic invasive plants will result in changes to the plant communities of managed areas. Aquatic plant community responses should be assessed in these areas.