REVIEW PLAN

Bronx River Basin Ecosystem Restoration, New York
Feasibility Report

New York District

MSC Approval Date: January 2008
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US Army Corps
of Engineers ®

REVIEW PLAN

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Feasibility Report

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1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of peer review for the Bronx River Basin Ecosystem Restoration Feasibility Report.

b. References

- Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010
- EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2010
- Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
- ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007
- PMP for study, November 2003
- New York District Quality Management Plan

c. Requirements. This review plan was developed in accordance with EC 1165-2-209, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation (OMRR&R). The EC outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. In addition to these levels of review, decision documents are subject to cost engineering review and certification (per EC 1165-2-209) and planning model certification/approval (per EC 1105-2-412).

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO is responsible for managing the overall peer review effort described in this Review Plan. The RMO for decision documents is typically either a Planning Center of Expertise (PCX) or the Risk Management Center (RMC), depending on the primary purpose of the decision document. The RMO for the peer review effort described in this Review Plan is the Ecosystem Restoration PCX at Mississippi Valley Division (MVD).

The RMO will coordinate with the Cost Engineering Directory of Expertise (DX) to ensure the appropriate expertise is included on the review teams to assess the adequacy of cost estimates, construction schedules and contingencies.

3. STUDY INFORMATION

a. Decision Document. The study is the Bronx River Basin, New York Feasibility Report. The purpose of the Feasibility Report is to document project evaluations and facilitate acceptance of the study conclusions and recommendations by the sponsor, public, state and local agencies, and the Federal government. The study will recommend implementation of ecosystem restoration opportunities at two distinct sites within the Bronx River Basin and request programmatic authority for the remainder of the opportunities within the watershed in response to the study authority. Following headquarters approval, the next step is Congressional authorization for implementation. The Feasibility Report will be accompanied by an Environmental Assessment.

b. Study/Project Description. The Bronx River, located in Bronx and Westchester Counties, is one of the principal tributaries to the East River, a tidal strait linking New York Harbor to the Long Island Sound. The Bronx River flows 23 miles south from its headwaters at Davis Brook to the East River. Tidal influence on the Bronx River extends approximately 2 miles north of its confluence with the East River to the weir at East 172nd Street. The Bronx River flows through densely populated urban and suburban areas. There is also industrial activity at the southern end of the River. The river flows near the Bronx River Parkway and the Harlem Line of the Metro-North commuter railroad for most of its length.

Navigation improvements to the Bronx River were originally authorized by the River and Harbors Act of 1913. A 10 foot deep by 100 foot wide navigation channel is maintained from the East River to east 172nd Street for a distance of approximately 2.5 miles. Commerce on the navigable portion of the river includes transport of sand and gravel, and iron and steel scrap.

Intense urbanization and development over the past centuries have led to the degradation of the Bronx River Basin ecosystem, in the form of loss of wetland riparian corridor acreage, increased sedimentation, excessive nutrient and pollutant-loading impacts on water quality, and channel instability. Other adverse effects due to urban development are increased velocities and volumes of storm water run-off, reduced groundwater recharge leading to decreased base flows in the Bronx River, and increased water temperatures. Development has also resulted in losses of native vegetation and increase of invasive species. In effect, water resources problems focus on potential threats to human health and loss of sustainable ecosystem services, and these overarching problems manifest themselves through the aforementioned degradation factors.

The feasibility and reconnaissance study was authorized by a resolution of the Committee on Transportation and Infrastructure of the United States House of Representatives adopted 24 March 1998 to determine the feasibility of measures to address flood control, environmental restoration and protection, and other related purposes. Engineering solutions are available to meet ecosystem restoration goals and objectives, such as improvements in fish and wildlife habitat values. Valuable ecosystem services to attain environmental quality, social well being and economic benefits are being assessed.

A Feasibility Study Cost-Sharing Agreement (FCSA) for ecosystem restoration was executed between the Corps of Engineers, New York City Department of Environmental Protection, and Westchester County in November 2003. Measures to be considered during the feasibility study include removal of fill to restore wetlands, fish ladders for fish passage, streambank stabilization and softening, and

invasive species removal. A programmatic assessment of the entire Bronx River watershed must be developed to demonstrate that projects are being implemented in a logical manner.

Currently, the Corps and the non-Federal sponsors, the NYC Department of Environmental Protection (NYCDEP) and the Westchester County Department of Planning (WCDOP), are working with resource agencies, local governments and stakeholders, particularly the Bronx River Alliance, to identify the problems, needs and opportunities and restoration measures for the Bronx River Basin.

c. Factors Affecting the Scope and Level of Review.

- This will not be a highly controversial study, as the resource agencies and members of the public all support ecosystem restoration in the Bronx River Basin. Implementation of the Bronx River project will provide National Ecosystem Restoration benefits to the Nation, in terms of habitat units. There is no influential scientific information presented in this study, as the study is essentially a larger scale ecosystem restoration study, recommending alternatives on two sites within the Bronx River Basin.
- The risks of this project occur mostly in the implementation phase, where risk of not receiving federal and non-federal funds would drive the costs of the project higher and delay the implementation and receipt of benefits to the environment. The risks of the project not performing as designed would result in those environmental restoration improvements not being realized and the Bronx River would retain the existing poor aquatic habitat quality and water quality.
- There are no significant threats to human life or safety as the alternatives mainly involve restoration of fresh and salt marsh grasses and earth moving. The purpose of the project does not involve storm damage reduction or flood risk management and there is no expectation from any stakeholder that the implementation of this project would provide any storm damage protection. As per the Deputy Chief, Engineering Division, New York District "The alternatives to be analyzed for the ecosystem restoration measuresfor the Bronx River will not be designed to increase potential flood risk from its existing condition. The alternatives identified are traditional/routine in nature and the use of or unique or innovation, technology, materials or construction methodologies are not envisioned or anticipated and does not pose a significant threat to human life."
- There has not been a request by the Governor of an affected state for a peer review by independent experts;
- There has not been any significant public dispute as to the size, nature, effects, or the projected economic or environmental benefits of the project, only the timing, with our non-Federal partners and stakeholders interested in accelerating implementation of the project.
- The alternatives identified in this ecosystem restoration study would be designed in such a way as they would be self-sustaining. The redundancy, resiliency and/or robustness discussion does not apply to this ecosystem restoration study, as the purpose of this study is to bring natural restoration to the Bronx River.

d. In-Kind Contributions. Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR. The in-kind products and analyses to be provided by the non-Federal sponsor include:

- Water Quality Modeling of Bronx River (NYCDEP)
- Wetland Field Assessment and Management Plan (Westchester County)

- Watershed Treatment Models (Westchester County & NYCDEP)

4. DISTRICT QUALITY CONTROL (DQC)

All decision documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). The home district shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home MSC.

a. Documentation of DQC. District Quality Control will be documented through the use of a Quality Control Report, which is managed in Dr Checks and signed by the members performing the DQC as well as the Division Chiefs of the major technical offices responsible for producing this DQC report. This report will include the printout of all comments from Dr Checks.

b. Products to Undergo DQC. DQC will be conducted on the FSM package, the AFB package, and the draft and final Feasibility Reports.

c. Required DQC Expertise. The expertise of the DQC review team will consist of Section Chiefs and subject matter experts or regional technical specialists in the fields of Plan Formulation, NEPA compliance, Engineering Design and Analysis as well as Real Estate.

5. AGENCY TECHNICAL REVIEW (ATR)

ATR is mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc.). The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR is managed within USACE by the designated RMO and is conducted by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product. ATR teams will be comprised of senior USACE personnel and may be supplemented by outside experts as appropriate. The ATR team lead will be from outside the home MSC.

a. Products to Undergo ATR. ATR will be conducted on the FSM package, the AFB package, and the draft and final Feasibility Reports (including NEPA and supporting documentation), and Final Report (including NEPA and supporting documentation).

b. Required ATR Team Expertise.

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional with extensive experience in preparing Civil Works decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. The ATR lead may also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc).

Planning	The Planning reviewer should be a senior water resources planner with experience in the plan formulation process. The reviewer should be familiar with evaluation of alternative plans for ecosystem restoration projects in urban settings.
Economics	The economics reviewer should be able to evaluate the appropriateness of cost effectiveness and incremental cost analysis (CE/ICA), using IWR-Planning Suite, as applied to dollar costs and ecosystem restoration benefits. The reviewer should also have experience with National Ecosystem Restoration analysis procedures.
Environmental Resources	The Environmental Resources Reviewer should have particular knowledge of ecosystem restoration, including the methods used to evaluate benefits, and should also be familiar with all National Environmental Policy Act (NEPA) requirements. The reviewer should have experience in wetland ecology of urban regions, preferably experience in the densely populated mid-Atlantic or Northeast.
Cultural Resources	The Cultural Resources reviewer will be familiar with Section 106 requirments, and Corps of Engineers practices and ERs.
Hydrology	The Hydrology reviewer will have a thorough understanding of hydrologic transport models, including point source and surface area run-off inputs, for the analysis of sediment and pollutant movements within the river system.
Civil Engineering	The civil engineering reviewer should have experience with engineering analysis and design of wetland restoration or related projects in urban areas.
Cost Engineering	Team member will be familiar with cost estimating for similar projects using MII. Team member will be a Certified Cost Technician, Certified Cost Consultant, or Certified Cost Engineer. A separate process and coordination is also required through the Walla Walla District DX for cost engineering.
Real Estate	The real estate reviewer will be familiar with the Corps of Engineers ER on Real Estate.
Hazardous, Toxic and Radioactive Waste (HTRW)	The HTRW reviewer will be familiar with HTRW investigations and Corps of Engineers practices and ERs.

c. Documentation of ATR. DrChecks review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments should be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

- The review concern – identify the product's information deficiency or incorrect application of policy, guidance, or procedures;
- The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not be properly followed;
- The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost),

effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and

- The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in order to then assess whether further specific concerns may exist.

The ATR documentation in DrChecks will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-1-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

At the conclusion of each ATR effort, the ATR team will prepare a Review Report summarizing the review. Review Reports will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;
- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issue (if any); and
- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

ATR may be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Technical Review certifying that the issues raised by the ATR team have been resolved (or elevated to the vertical team). A Statement of Technical Review should be completed, based on work reviewed to date, for the AFB, draft report, and final report. A sample Statement of Technical Review is included in Attachment 2.

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

IEPR may be required for decision documents under certain circumstances. IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-209, is made as to whether IEPR is appropriate. IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted. There are two types of IEPR:

- Type I IEPR. Type I IEPR reviews are managed outside the USACE and are conducted on project studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-209.

- Type II IEPR. Type II IEPR, or Safety Assurance Review (SAR), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. Type II IEPR panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.

a. Decision on IEPR. Type I IEPR will be conducted on the draft feasibility report for this study. Although the study is neither controversial nor precedent setting, nor does it have highly significant national importance, the total project cost (given a programmatic authority) would exceed the $45M threshold and therefore, Type 1 IEPR is required. Type II IEPR is not warranted, as this is an ecosystem restoration study and little to no threat to human life or safety is at risk if the project fails. The consequences of non-performance on project economics would mean that the region and nation do not realize the level of National Ecosystem Restoration benefits that this project would provide.

b. Products to Undergo Type I IEPR. The draft feasibility report and environment assessment are the products reviewed for the Type I IEPR.

c. Required Type I IEPR Panel Expertise. The expertise represented on the Type I IEPR panel is shown in the table below.

IEPR Panel Members/Disciplines	Expertise Required
Economics	The Panel Member should have a degree in economics or a related field and should be able to evaluate the appropriateness of cost effectiveness and incremental cost analysis (CE/ICA), as applied to dollar costs and ecosystem restoration benefits, and preferably familiar with the Corps of Engineers tool for CE/ICA called IWR-Planning Suite. Panel member should also have experience with National Ecosystem Restoration analysis procedures.
Environmental	The Panel Member should have at minimum a Masters Degree in ecology or biology. Panelist should have particular knowledge of

	ecosystem restoration and should also be familiar with all National Environmental Policy Act (NEPA) requirements. Panel Member should have experience in wetland ecology of urban regions, preferably experience in the densely populated mid-Atlantic or Northeast.
Civil Engineering	The Panel Member should have degrees in civil engineering and have demonstrated experience in performing cost engineering/construction management for all phases of ecosystem restoration or related projects. Team member should be familiar with similar projects across US and related Cost Engineering. Experience in associated contracting procedures, total cost growth analysis and related cost risk analysis is desired. Panel member should be familiar with construction industry and practices used in wetland restoration.
Civil Works Planning	The Panel Member should have a degree in planning or a related field and should have experience in the plan formulation process. Panelist should be familiar with evaluation of alternative plans for ecosystem restoration projects. Familiarity with USACE standards and procedures is required.

d. Documentation of Type I IEPR. The IEPR panel will be selected and managed by an Outside Eligible Organization (OEO) per EC 1165-2-209, Appendix D. Panel comments will be compiled by the OEO and should address the adequacy and acceptability of the economic, engineering and environmental methods, models, and analyses used. IEPR comments should generally include the same four key parts as described for ATR comments in Section 4.d above. The OEO will prepare a final Review Report that will accompany the publication of the final decision document and shall:

- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions; and
- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

The final Review Report will be submitted by the OEO no later than 60 days following the close of the public comment period for the draft decision document. USACE shall consider all recommendations contained in the Review Report and prepare a written response for all recommendations adopted or not adopted. The final decision document will summarize the Review Report and USACE response. The Review Report and USACE response will be made available to the public, including through electronic means on the internet.

7. POLICY AND LEGAL COMPLIANCE REVIEW

All decision documents will be reviewed throughout the study process for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100.

These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the home MSC Commander. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in decision documents.

8. COST ENGINEERING DIRECTORY OF EXPERTISE (DX) REVIEW AND CERTIFICATION

All decision documents shall be coordinated with the Cost Engineering DX, located in the Walla Walla District. The DX will assist in determining the expertise needed on the ATR team and Type I IEPR team (if required) and in the development of the review charge(s). The DX will also provide the Cost Engineering DX certification. The RMO is responsible for coordination with the Cost Engineering DX.

9. MODEL CERTIFICATION AND APPROVAL

EC 1105-2-412 mandates the use of certified or approved models for all planning activities to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. Planning models, for the purposes of the EC, are defined as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision making. The use of a certified/approved planning model does not constitute technical review of the planning product. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

EC 1105-2-412 does not cover engineering models used in planning. The responsible use of well-known and proven USACE developed and commercial engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed. As part of the USACE Scientific and Engineering Technology (SET) Initiative, many engineering models have been identified as preferred or acceptable for use on Corps studies and these models should be used whenever appropriate. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

a. Planning Models. The following planning models are anticipated to be used in the development of the decision document:

b.

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Certification / Approval Status
IWR-PLAN	This is the approved, certified model developed by IWR that will be used to evaluate alternatives.	Certified
Environmental Benefits model (like EPW) – to be determined on site specific basis	The details of the environmental benefits model(s) to be used are still being developed. In the plan formulation of the Bronx River, we are using the plan formulation method of analysis developed for the Hudson-Raritan Estuary Feasibility Study, which was approved by HQ in January 2010. This method allows us to use a GIS-based approach to identify conceptual-	Unknown at this time.

	level project alternatives on individual sites within the watershed. These sites are then compared to the ecological restoration goals set for the Bronx River watershed and conceptual levels costs as developed as well. This process allows us to present BCR-like results for the entire watershed. As a site is then identified by the non-Federal sponsor for implementation, we would proceed to developing site-specific detailed alternatives and impacts, using an IBI or other suitable habitat evaluation model and comparing the results through the use of IWR-Plan. At this point in the study, the sponsors have just identified the sites they would like us to focus on for the purpose of the detailed feasibility-level analyses. So, we haven't yet done the work to figure out which ecological model would be used for that purpose. As we initiate the site-specific data collection, we will identify possible benefit model(s) and update the review plan accordingly.	

c. **Engineering Models.** The following engineering models are anticipated to be used in the development of the decision document:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Approval Status
HEC-1	The HEC-1 model was used to quantify hydrologic existing conditions for the Bronx River Watershed.	HH&C CoP Preferred Model
Sediment Impact Assessment Model (SIAM)	The SIAM model was used to assess short-term changes in sediment delivery and the potential morphological response to sediment management features such as bank stabilization, grade control structures, flow control, land treatments, or any other measures that alter the flow or sediment regime.	HH&C CoP Preferred Model
Watershed Treatment Model Westchester County	Used in the Westchester County Watershed Management Plan (2007) to develop estimates of loading on a sub-watershed basis, based on present and projected land use and extent of impervious cover in each sub-watershed, with the associated run-off coefficients. The District is not running this model, rather, the output of this model was used to provide quantitative data on the sediment, nutrient and pathogen loading characteristics of the watershed to assist in identifying restoration opportunities that would also have a beneficial impact on water quality. This data was published by the Westchester County Department of Planning as the Bronx River Watershed Management Plan, which can be found at: http://www.westchestergov.com/planning/environmental/BronxRiver/Mana	Not approved

	gement%20Plan.htm	
Watershed Treatment Model Bronx County	Developed by the Center for Watershed Protection for the New York City Department of Parks & Recreation – Natural Resources Group, it relies upon the Simple Method for estimates of run-offs to the five Bronx County combined sewers, based on present land use and extent of impervious cover in each CSO-shed, with the associated run-off coefficients. The District is not running this model, rather, the output of this model was used to provide quantitative data on the pollutant loading characteristics of the watershed to assist in identifying restoration opportunities that would also have a beneficial impact on water quality. This data was published by the New York City Department of Parks and Recreation and can be found at: http://www.nycgovparks.org/sub_about/parks_divisions/nrg/bronx_river_epa/water_quality/water_quality_pages/pollutant_loading_model.html	Not approved

10. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost. The first feasibility study product to undergo ATR is the FSM package, which is anticipated to begin in June 2011 and is expected to take six weeks at a cost of $25,000; AFB review will occur in August 2012 at a cost of $40,000; the Draft Feasibility Report review will occur in June 2013 at a cost of $25,000; and the Final Feasibility Report review will occur in December 2013 at a cost of $25,000.

b. Type I IEPR Schedule and Cost. IEPR will begin in June 2013 at a cost of $125,000.

c. Model Certification/Approval Schedule and Cost. To be determined.

11. PUBLIC PARTICIPATION

Members of the public have provided comments on this study at public meetings and information sessions held throughout the study development. Additional public participation will occur with the release of the draft report to the public for their review and comment. The final decision document, associated review reports, will be made available to the public through the use of the District's Web site and mailing of notices that information is available to interested parties and stakeholders.

12. REVIEW PLAN APPROVAL AND UPDATES

The North Atlantic Division Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving district, MSC, RMO, and HQUSACE members) as to the appropriate scope and level of review for the decision document. Like the PMP, the Review Plan is a living document and may change as the study progresses. The home district is responsible for keeping the Review Plan up to date. Minor changes to the review plan since the last MSC Commander approval are documented in Attachment 3. Significant changes to the Review Plan (such as changes to the scope and/or level of review) should be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders' approval memorandum, should be posted on the Home District's webpage. The latest Review Plan should also be provided to the RMO and home MSC.

13. REVIEW PLAN POINTS OF CONTACT

Public questions and/or comments on this review plan can be directed to the following points of contact:

- Jodi McDonald, Chief, Flood Risk Management and Ecosystem Restoration Section, New York District, (917) 790-8720
- Clifford Jones, North Atlantic Division Planning and Policy Community of Practice Team Leader, (347) 370-4514
- Sue Ferguson, NAD Regional Program Manager, ECO-PCX, (615) 736-7192

ATTACHMENT 1: TEAM ROSTERS

Bronx River Basin Ecosystem Restoration Feasibility Study PDT, ATR, Vertical Team POCs.
PDT Members

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ATR Team Members

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TBD			
TBD			
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ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECSION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the *<type of product>* for *<project name and location>*. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-209. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrChecks[sm].

SIGNATURE _____ _____

Name Date
ATR Team Leader
Office Symbol/Company

SIGNATURE _____ _____

Name Date
Project Manager
Office Symbol

SIGNATURE _____ _____

Name Date
Architect Engineer Project Manager[1]
Company, location

SIGNATURE _____ _____

Name Date
Review Management Office Representative
Office Symbol

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: *Describe the major technical concerns and their resolution.*

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

SIGNATURE _____ _____

Name Date
Chief, Engineering Division
Office Symbol

SIGNATURE _____ _____

Name Date
Chief, Planning Division
Office Symbol

[1] Only needed if some portion of the ATR was contracted

ATTACHMENT 3: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number
June 2011	Update to format of review plan	All

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

Term	Definition	Term	Definition
AFB	Alternative Formulation Briefing	NED	National Economic Development
ASA(CW)	Assistant Secretary of the Army for Civil Works	NER	National Ecosystem Restoration
ATR	Agency Technical Review	NEPA	National Environmental Policy Act
CSDR	Coastal Storm Damage Reduction	O&M	Operation and maintenance
DPR	Detailed Project Report	OMB	Office and Management and Budget
DQC	District Quality Control/Quality Assurance	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
DX	Directory of Expertise	OEO	Outside Eligible Organization
EA	Environmental Assessment	OSE	Other Social Effects
EC	Engineer Circular	PCX	Planning Center of Expertise
EIS	Environmental Impact Statement	PDT	Project Delivery Team
EO	Executive Order	PAC	Post Authorization Change
ER	Ecosystem Restoration	PMP	Project Management Plan
FDR	Flood Damage Reduction	PL	Public Law
FEMA	Federal Emergency Management Agency	QMP	Quality Management Plan
FRM	Flood Risk Management	QA	Quality Assurance
FSM	Feasibility Scoping Meeting	QC	Quality Control
GRR	General Reevaluation Report	RED	Regional Economic Development
Home District/MSC	The District or MSC responsible for the preparation of the decision document	RMC	Risk Management Center
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RMO	Review Management Organization
IEPR	Independent External Peer Review	RTS	Regional Technical Specialist
ITR	Independent Technical Review	SAR	Safety Assurance Review
LRR	Limited Reevaluation Report	USACE	U.S. Army Corps of Engineers
MSC	Major Subordinate Command	WRDA	Water Resources Development Act