



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
NORTH ATLANTIC DIVISION, US ARMY CORPS OF ENGINEERS
FORT HAMILTON MILITARY COMMUNITY
BROOKLYN, NEW YORK 11252-6700

JAN 22 2008
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CENAD-PSD-P

MEMORANDUM FOR Commander, New York District, ATTN: CENAN-PP

SUBJECT: Review Plan Approval for Jamaica Bay, Marine Park and Plumb Beach, New York Feasibility Study

1. Reference:

- a. EC 1105-2-408, Peer Review of Decision Documents, 31 May 2005.
- b. Memorandum, CECW-CP, 30 March 2007, subject: Peer Review Process.

2. The enclosed Review Plan for the Jamaica Bay, Marine Park and Plumb Beach, New York Feasibility Study has been prepared in accordance with the referenced guidance.

3. The Plan has been made available for public comment, and any comments received have been incorporated. It is being coordinated with the Ecosystem Restoration Planning Center of Expertise of Mississippi Valley Division, which is the lead office to execute this plan. The Plan currently includes external peer review.

4. I hereby approve this Plan, which is subject to change as study circumstances require, consistent with study development under the Project Management Business Process. Subsequent revisions to this Plan or its execution will require new written approval from this office.

Encl

Joseph R. Vietri
Chief, Planning & Policy Community of Practice
Program Support Division
Programs Directorate

CENAN: JAMAICA BAY, MARINE PARK & PLUMB BEACH, NEW YORK PEER REVIEW PLAN

1.0 PURPOSE

This Peer Review Plan (PRP) presents the process that assures quality products for the Jamaica Bay, Marine Park and Plumb Beach, New York feasibility study. The focus of the study was ecosystem restoration at the urban watershed of Jamaica Bay within the counties of Brooklyn and Queens in the City of New York. This PRP defines the responsibilities and roles of each member on the study and technical review team.

The product to be reviewed by the technical review team is the Jamaica Bay, Marine Park and Plumb Beach, New York interim feasibility report. Under the provisions of new U.S. Army Corps of Engineers (USACE) policy, as detailed in EC1105-2-408 dated May 31, 2005, the ITR will be conducted by specialists from organizations outside of the district responsible for the study. External ITR will be conducted for all decision documents and will be independent of the technical production of the project. This PRP is, by reference, a part of the project management plan for this master plan.

2.0 APPLICABILITY

This document provides the quality control plan for the Jamaica Bay, Marine Park and Plumb Beach, New York Interim Feasibility Report. It identifies quality control processes and independent technical review for all work to be conducted under this study authority, including in-house, sponsor and contract work.

3.0 REFERENCES

EC 1105-2-408 "Peer Review of Decision Documents" (May 31, 2005)
EC 1105-2-407 "Planning Models Improvement Program: Model Certification" (May 31, 2005)
EC 1105-2-409 "Planning in a Collaborative Environment" (May 31, 2005)
ER 1105-2-100 "Planning Guidance Notebook and Appendices"

4.0 GENERAL PROJECT DESCRIPTION

Jamaica Bay lies within the Southern Long Island watershed (United States Geological Survey (USGS) Hydrologic Unit 2030202). Jamaica Bay, situated within the Boroughs of Brooklyn and Queens, New York City, is about 8 miles long, 4 miles wide, covers 26 square miles and opens into the Atlantic Ocean via Rockaway Inlet. Jamaica Bay opens to the Atlantic Ocean via Rockaway Inlet, which is about 17 miles by water southeast of the Battery. Jamaica Bay lies in an urban area and is connected to the lower bay of New York Harbor. The bay is located approximately 22 miles from midtown Manhattan in New York City and lies between the city's two most populated boroughs, Brooklyn and Queens. The bay is surrounded by salt marshes, disturbed upland ecosystems, parks, landfills, residential communities, commercial and retail facilities, parkways and major roadways, and public transportation, including the John F. Kennedy International Airport.

A Beach Erosion Control and Hurricane Protection project for the Atlantic Coast of New York City between East Rockaway Inlet and Rockaway Inlet and Jamaica Bay was authorized by the Flood Control Act (1965). There is no existing Federal project for storm damage reduction at the Bay shoreline areas. There is, however, an existing Federally maintained navigation project for Jamaica Bay. Over the past century, the Bay's fragile ecosystem has been degraded through human encroachment and increased urbanization. Combined Sewer Outfall (CSO) discharges have also exacerbated these effects. In effect, there are potential threats to human health based on a number of degradation factors, and valuable ecosystem services to attain environmental quality, social well being and economic benefits are being adversely impacted.

A reconnaissance study for Jamaica Bay, Marine Park and Plumb Beach, NY was authorized by a resolution of the Committee on Public Works and Transportation of the United States House of Representatives adopted 1 August 1990 to determine the feasibility of improvements for beach erosion control, hurricane protection and environmental improvements in Jamaica Bay, including environmentally sensitive areas along Plumb Beach. The reconnaissance report was completed in January 1994. It recommended that a cost-shared feasibility study be undertaken to investigate restoration of the Bay environment, including its wetland and aquatic habitats and the water quality that supports them. The New York City Department of Environmental Protection (NYCDEP) is the Non-Federal sponsor for the feasibility study. A Feasibility Cost Sharing Agreement (FCSA) was executed between the Corps of Engineers and the NYCDEP in February 1996 and the Environmental Restoration feasibility study was initiated. Restoration sites were selected in conjunction with input from environmental resource agencies, the Harbor Estuary Program (HEP) and the local sponsor.

The feasibility study restoration alternatives were formulated in accord with Planning Guidance and Collaborative Planning Guidance. Restoration plans outlined in the draft feasibility report emphasize ecosystem restoration activities that involve modification of hydrology or aquatic substrates and are most likely to be appropriate for Corps initiatives. Habitats targeted include wetlands, riparian and other aquatic systems, but also include adjacent maritime forest and grasslands as appropriate, totaling about 550 acres across eight project sites. The first costs for the eight sites are as follows: Dead Horse Bay \$56,162,210; Paerdegat Basin \$54,172,950; Fresh Creek \$28,306,159, Spring Creek \$61,794,675; Hawtree Point \$663,931; Bayswater State Park \$3,185,055, Dubos Point \$6,428,073 and Brant Point \$5,508,902.

The non-Federal sponsor (NYCDEP) is fully supportive of measures to restore the degraded ecosystem of Jamaica Bay. New York State Department of Environmental Conservation (NYSDEC) has also committed to using funds from the Jamaica Bay Damages account it manages to assist in the construction of several of the recommended sites. Similarly, the New York City Department of Parks and Recreation (NYCDPR) has expressed an interest in partnering on post-feasibility activities related to their own lands in the bay. In addition, the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), National Park Service (NPS), and the U.S. Environmental Protection Agency (USEPA) have been involved in the study and support the project. Furthermore, the project compliments the goals and efforts of national programs such as the New York/New Jersey Harbor Estuary Program which is managed through the USEPA to conserve and restore estuaries of national significance, and the North American Waterfowl Management Plan, an international agreement signed in 1986 that seeks to increase waterfowl populations through increasing and restoring wetland habitat.

In combination with New York City's ongoing combined sewer overflow abatement projects, waste treatment plant upgrades, and landfill remediation to improve the overall water quality of Jamaica Bay, and the city's recently enacted law requiring the development and implementation for a comprehensive plan to protect and restore the bay and its habitats, the Jamaica Bay project will be positioned at a unique opportunity in time to make a substantial contribution to significantly improving the environmental quality of this critically acclaimed and ecologically important ecosystem.

5.0 REVIEW REQUIREMENTS

Initial Quality Control (QC) review has been handled within the Section or Branch performing the work. Additional QC will be performed by the Project Delivery Team (PDT) during the course of completing the Feasibility Study. The detailed checks of computations and methodology should be performed at the District level, and the processes for this level of review are well established. Pursuant to EC 1105-2-408, item 2 c (2), Models used in the preparation of decision documents covered by this Circular will be reviewed in accordance with EC 1105-2-407, Planning Models Improvement Program: Model Certification. The assessment model utilized was EPW, a standard, accepted model; therefore the approval of its use will be coordinated through the Ecosystem Center of Expertise while the External Peer Review process is ongoing.

Pursuant to EC 1105-2-408, the Feasibility Report and EA will need a full ITR team endorsed by the Planning Center of Expertise (PCX) for Environmental Restoration (National Ecosystem Planning) Projects. NAN proposed the use of New England District Regional Technical Experts for the Planning ITR effort, which MVD approved in their memo dated 21 June 2007. Dr. David Vigh (CEMVD-RB-T) and Ms. Jodi Staebell (CEMVR-PM-F) will validate the assignment of other members of the team, including Engineering and Real Estate. Although the study is neither controversial nor precedent setting, nor does it have highly significant national importance so as to warrant External Peer Review (EPR), this study meets the cost criteria (high magnitude > \$50 million) for EPR outlined in EC 1105-2-408. Consequently, EPR will be conducted on Jamaica Bay. The District has prepared a memorandum detailing the effects of EPR upon the schedule and budget for the Jamaica Bay study (Attachment A).

The ITR will focus on:

- Review of the planning process and criteria applied.
- Review of the methods of preliminary analysis and design.
- Compliance with authority and NEPA requirements.
- Completeness of preliminary support documents.
- Spot checks for interdisciplinary coordination.

The EPR will focus on:

- Formulation of the restoration plan.
- Project scope, alternatives screening
- Likelihood of producing significant ecological output

6.0 REVIEW PROCESS

The ITR review process has commenced, however additional ITR members must be assigned for Engineering and Real Estate disciplines. The review will cover key formulation and benefit and cost assessment areas. Major review process milestones include review of the Draft Feasibility Report and the Final Feasibility Report.

The EPR review process will require three individuals with expertise in estuarine ecology and coastal processes (geomorphology), to be arranged through Mississippi Valley Division (MVD). The draft Interim Feasibility Report and Environmental Assessment with appendices will be provided to the reviewers. The reviewers will have up to 80 hours to conduct the review. There will be no travel or conference calls among reviewers on the subject of the review. The reviewers will provide their comments independently of each other. The reviewers will be compensated through a contract with MVD. MVD will manage the EPR. Management tasks will include identifying, contacting, and selecting reviewers; preparing scopes of work and procuring contracts with reviewers; compiling review comments, compiling NAN response to comments and compiling comments and responses into an EPR Report. MVD will follow EC-1105-2-408 in managing the EPR.

7.0 REVIEW COST

It is assumed that any remaining documents to be reviewed will be transmitted electronically via the ftp site. Comments will be made and addressed in Dr. Checks. It is also assumed that the external ITR team will be working virtually. Only under extreme circumstances should the external ITR team, or a representative of that team, be required to physically attend team or milestone meetings. The team should participate in all remaining milestone meetings; however, via conference call or video teleconference as warranted to improve efficiency. The estimated cost for the EPR on Jamaica Bay is \$100,000.00. The final cost of the ITR and EPR is to be determined between the team and the PCX.

8.0 REVIEW SCHEDULE

Note that since the commencement of this study preceded the requirement for PCX involvement and development of this review plan, the review schedule below is tailored to work remaining to be completed:

<u>TASK</u>	<u>START DATE</u>	<u>FINISH DATE</u>
*Develop PRP and post to Web Site, PCX	June 2007	June 2007
*Identify Regional ITR resources and Recommend PRP to PCX	June 2007	
*Identify Addt'l ITR team for EN/RE	July 2007	
*PCX Approves/Assigns Addt'l ITR Team	July 2007	
*Addt'l EN/RE ITR	August 2007	
*Sponsor Approves PRP	September 2007	
*Review of Models	N/A - standard	
*Alternative Formulation Briefing	Anticipate waiver	
*Review of Draft Report	October 2006	
*EITR complete	October 2007	
*PCX initial coordination to set up EPR	November 2007	
*PCX selects EPR panel & submits draft SOW to NAN	January 2008	
*Negotiation of SOW for EPR	February 2008	
*Request of additional Federal funds for EPR	March 2008	
*Request additional non-Federal funds for EPR	March 2008	
*Receipt of all additional funds to conduct EPR	TBD	
*EPR (2 weeks)	TBD	
*NAN receives EPR comments	TBD	
*Resolution to EPR comments	TBD	
*MVD/NAD approval of Draft Report	TBD	
*Release of Draft to Public	TBD	
*Public Response Period	TBD	
*Revise Draft Report	TBD	
*Review of Final Report	TBD	

9.0 PROJECT RISK

The PDT has completed an initial risk assessment associated with this project based upon five factors and rated the project quantitatively among five levels of project risk of failure ranging from low to high (risk score class). The PDT scored each Project Risk Item in the Review Plan Score Guide (Table 9.1) and calculated an overall Average Project Risk Assessment Score. The exact value of the scores were not as important as compared to what risk score class (low, medium or high) the Average Project Risk Assessment Score was classified. Based upon the PDT analysis, the project is low to moderate in risk because it did not receive an overall high risk score.

The PDT considered previous District project experience when making this analysis. No attempt was made to tie this to a national scale of rating. The Project Schedule and Cost were assessed as a low degree of risk if they both remained flexible and a high degree of risk if the Project schedule and cost was fixed. Staff Technical Experience was assessed as a low degree of risk if the staff had a high level of ecosystem restoration experience and a high degree of risk if the staff had a low level of ecosystem restoration experience. The results of the evaluation are tabulated as follows:

Table 9.1 Review Plan Score Guide

Project Risk Item	Risk Assessment Score (Low Degree to High Degree)					Score
	Low		Medium		High	
Project Complexity	1	2	3	4	5	3
Customer Expectations	1	2	3	4	5	4
Product Schedule/Cost	1	2	3	4	5	4
Staff Technical Experience	1	2	3	4	5	2
Failure Impact and Consequences	1	2	3	4	5	2
Average Project Risk Assessment Score						3.0 (Low-Medium)

10.0 REVIEW PLAN

The components of the review plan (ITR only not external peer review) were developed pursuant to the requirements of EC1105-2-408.

10.1 Team Information

The decision document that will be the ultimate focus of the review process is the Jamaica Bay interim Feasibility Report. The purpose of the interim Feasibility Report and associated EA will be to guide the Corps' efforts to restore habitat for the development and protection of ecosystem services and values for not only fish and wildlife, but humans as well. This list provides the points of contact at NAN team members who are available to answer specific technical questions as part of the review process. The list also provides the names and organization of participating outside entities.

District Project Team Members:

MAIN REPORT PRODUCT	STUDY TEAM MEMBERS	REVIEW TEAM MEMBER
Feasibility Report Main Text	Olivia Cackler CENAN-PL-F	All review team members will review this document internally External ITR: NAE
NEPA Documentation	Peter Weppler CENAN-PL-E	All review team members will review this document internally External ITR: NAE

Sections	STUDY TEAM MEMBER	REVIEW TEAM MEMBER	SPECIALIZED EXPERIENCE
Plan Formulation	Olivia Cackler	Rich Heidebrecht- NAE	Ecosystem restoration
Economics	Naomi Fraenkel	Ed O'Leary - NAE	IWR-PLAN
Environmental	Peter Weppler	Bill Hubbard - NAE	Ecosystem restoration
Cultural Resources	Lynn Rakos	Bill Hubbard - NAE	N/A
Real Estate	Stanley Nuremberg	Joe Redlinger – NAE	N/A
Hydrology and Hydraulics	Kerry Anne Donohue	Brian Waz – NAE	Ecosystem restoration, coastal engineering
Geotechnical/Structural	Marty Goff	Siamac Vaghar - NAE	Shoreline stability
Cost Engineering	Anthony Schiano	Chris Lindsay - NAE James Neubauer -NWW	Ecosystem restoration in urban settings

10.2 Scientific Information

It is unlikely that the USACE report to be disseminated will contain influential scientific information. Influential scientific information is defined by the Office of Management Budget as scientific information the agency reasonably can determine will have or does have a clear and substantial impact on important public policies or private sector decisions. The environmental restoration measures that were identified were evaluated using standard biological and economic processes. The covered subject matter was analyzed using data collected through conventional,

well-understood methods. That data was put into an accepted, standard model (Evaluation of Planned Wetlands), used many times before, both by the Corps and by others, to assess benefits. This model was developed by other entities, and has withstood historical informal reviews. This particular case sets no scientific or analytical precedents, and is of interest to other State or Federal agencies only insofar as its implementation would further their missions.

10.3 Timing

The ITR process will re-start upon assessment of Engineering and Real Estate external ITR requirements with the PCX.

10.4 External Peer Review Process

Based upon the high implementation cost of the Jamaica Bay recommended plan, it is anticipated that external peer review will be required. It should be noted, however, that the implementation cost is the only trigger for EPR in this case, as outlined in EC 1105-2-408. External peer review applies to studies of a certain level of risk (potential for failure or controversy, irreversibility, or uncertainty of prediction or outcome) and magnitude (cost and benefits, scale, complexity, long term/cumulative effects).

The magnitude (ie: scale and cost) of the project, over \$200 million, was raised as a possible issue; however, the team noted that implementation of the eight sites would likely be staggered over time with different non-Federal sponsors, thus allowing for smaller components to move forward and serve as opportunities for lessons learned and adaptive management. Use of an accepted, standard model (EPW) did not pose any concerns about the benefits, and the complexity and cumulative effects of the plan were not deemed to be such as to warrant special consideration since work on Elders Point and other similar restoration/mitigation Harbor Deepening related efforts have utilized similar techniques that we would be looking to utilize in similar type locations in the Bay.

The risk was deemed insignificant in relative and absolute terms for a number of reasons. The potential project poses no potential loss of life or safety consequences as may be the case in flood damage reduction efforts. Furthermore, an interagency team was intimately involved in developing the restoration plans and they support the recommendations. Plan screening yielded sites and measures that do not appear to pose any controversy; in fact these recommendations would complement the larger New York City Jamaica Bay Watershed Protection Plan and other local initiatives, including the agenda of the Jamaica Bay Task Force.

As discussed above in Section 10.2 (Scientific Information), the covered subject matter was analyzed using data collected through conventional, well understood methods. That data was input to analytical models that have been used many times before, both by the Corps and others. No extreme assumptions were made in the course of applying these models, nor were the results obtained unexpected or otherwise controversial.

The subject of ecosystem restoration generally, and coastal wetlands restoration specifically is not a novel one to the Corps or the non-Federal sponsor, or to the public at large. Moreover, this particular case sets no scientific or analytical precedents and is of interest to other state or Federal agencies only insofar as its implementation would further their missions. While

implementation of the project would have significant environmental effects, and consequently significant economic and social effects, those effects are all positive in their nature and represent incremental improvements rather than radical changes.

Although the majority of the criteria set forth in paragraph 9a of EC 1005-2-408 triggering External Peer Review (EPR) have not been met, under additional guidance in the "Supplemental Information" for the CECW-CP 30 March 2007 memorandum, the high expense of the project alone may warrant External Peer Review even if the other criteria are not met. Therefore, EPR will be scheduled and budgeted for this study, as recommended by the PCX and the Vertical Team.

10.5 Public Comment

Public involvement is anticipated during the outreach phase between the draft and final feasibility reports. The draft Feasibility Report will be released to the public through the District website, through Compact Disc mailings to members of the Jamaica Bay Study Mailing List, and on hardcopy in response to written requests. The Public Comment period will last for 30 business days. At the end of the comment period, the public will be invited to a public information session. A public information session is anticipated rather than a public meeting in the NEPA sense because the Feasibility Report is accompanied by an Environmental Assessment. Technically, a meeting is not necessary, but one will be held due to strong public interest in Jamaica Bay. Comments from the public will be taken at this information session. Additionally, the public will be able to express its views to the District via email or written communication to the NEPA coordinator. Public comments will be compiled and added to the Feasibility Report as an appendix to the revised, Final Feasibility Report. Further public involvement activities have not been scheduled at this time.

10.6 ITR Reviewers

It is anticipated that four to five reviewers total should be available in the following disciplines: hydraulics & hydrology, economics, ecology, planning, real estate, geotechnical, and cost estimating. The reviewer contact information is stated in Section 10.1 of this review plan. Cost Estimating - as required by HQUSACE, the review will be coordinated by Cost Estimating Center of Expertise (NWW).

10.7 External Peer Review Selection

Reviewers with expertise in estuarine ecology and coastal processes (geomorphology) will be selected by the PCX, who will arrange and manage the review. The reviewers will be compensated through a contract with MVD.

10.8 MSC Approval

The MSC (NAD) is reviewing this Peer Review Plan. The MSC has recommended that External Peer Review be conducted on the draft Interim FR/EA. The MSC has final approval of this Peer Review Plan.