



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NORTHWESTERN DIVISION
PO BOX 2870
PORTLAND OR 97208-2870

CENWD-PDD

28 September 2010


MEMORANDUM FOR Commander, Portland District

SUBJECT: NWP Peer Review Plan (RP) Approval: Westmoreland Park Ecosystem Restoration Report

1. Reference EC 1165-2-209, Civil Works Review Policy, 31 January 2010.
2. The RP for the Westmoreland Park Ecosystem Restoration Report has been reviewed by Northwestern Division, and has been prepared in accordance with the referenced guidance (Encl).
3. The RP shall be posted on the internet and made available for public comment.
4. I hereby approve this RP, which is subject to change as study circumstances require, consistent with study development under the Project Management Business Process. Subsequent revisions to the RP or its execution will require new approval from this office.
5. Please contact Mr. Martin Hudson, at (503) 808-3851, if you have any further questions regarding this matter.

FOR THE COMMANDER:

Encl


WITT ANDERSON, SES
Director, Programs

CF:
CENWP-PM-F Hicks



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, PORTLAND DISTRICT
P.O. BOX 2946
PORTLAND, OREGON 97208-2946

Reply to
Attention of:

CENWP-PM-FP

MEMORANDUM FOR Valerie Ringold, CENWD-PDD

SUBJECT: Approval of the Westmoreland Park Ecosystem Restoration Report Review Plan.

1. Reference:

- a. ER 1105-2-100 Appendix F Amendment #2 dated 31 January 2007.
- b. Program Management Plan for the Continuing Authorities Program (CAP PgMP).
- c. Westmoreland Ecosystem Restoration Study Fact Sheet dated 13 September 2010.

2. Attached is the Westmoreland Ecosystem Restoration Study Decision Document Review Plan. The plan closely followed the National Programmatic Review Plan Model. A District Quality Control Review and an Agency Technical Review (ATR) will be performed. Based on the discussion presented in the plan, there is no need for an IEPR.

3. Attached is an updated Westmoreland Ecosystem Restoration Project Fact Sheet dated 13 September 2010.

3. District Recommendation: The Portland District recommends approval of the Westmoreland Ecosystem Restoration Report Review Plan.

A handwritten signature in cursive script that reads "Laura Hicks".

Laura Hicks
Chief, Planning and Project Management Branch
Portland District.

CENWP STAFFING SHEET

DATE: 13 September 2010
OFFICE SYMBOL: CENWP-PM-FP
SUBJECT: Westmoreland Ecosystem Restoration Study Review Plan
DESIRED ACTION: Approval of the Review Plan by Northwestern Division
RETURN TO: James R. Adams at CENWP-PM-FP (x4742).

DETAILED SUMMARY: The Westmoreland Ecosystem Restoration Feasibility Study was originally completed in October 2003. Because the Project Cost-Sharing Agreement was not ready to be submitted to NWD and the drop in CAP funding at that time, the Feasibility Study was never approved by the Commander of NWD. Due to renewed funding of the CAP program in 2010, the project was re-initiated. This review plan addresses the review procedures associated with the update of the original feasibility study to bring the document up to current conditions. An Alternative Formulation Briefing (AFB) was completed on 2 September 2010. District Quality Control Review (RQC) and the Agency Technical Review (ATR) will be completed following the guidelines described in the attached review plan in October 2010.

ADAMS *JA*
CENWP-PM-FP *9/14/10*

FERGUSON *erf*
CENWP-PM-FP *9/14/10*

DASSO *MD*
CENWP-PM-FP *9/14*

HICKS *HA*
CENWP-PM *9-14*

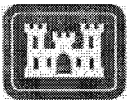
**Continuing Authorities Program
Section 206, Water Resources Development Act of 1996, as Amended
Aquatic Ecosystem Restoration Projects**

**DECISION DOCUMENT REVIEW PLAN
USING THE NATIONAL PROGRAMMATIC REVIEW PLAN MODEL**

Westmoreland Park Section 206 Ecosystem Restoration

Portland District

**MSC Approval Date: Pending
Last Revision Date: 13 September 2010**



**US Army Corps
of Engineers ®**

**DECISION DOCUMENT REVIEW PLAN
USING THE NATIONAL PROGRAMMATIC REVIEW PLAN MODEL**

**Section 206, Water Resources Development Act of 1996, as amended
Aquatic Ecosystem Restoration Decision Documents**

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1. PURPOSE AND REQUIREMENTS

- a. **Purpose.** This Review Plan defines the scope and level of peer review for the Westmoreland Park Aquatic Ecosystem Restoration project decision document developed under Section 206, Water Resources Development Act of 1996, as amended.

Section 206 of the Water Resources Development Act of 1996, Public Law 104-305, authorizes the Secretary of the Army to carry out a program of aquatic ecosystem restoration with the objective of restoring degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition considering the ecosystem's natural integrity, productivity, stability and biological diversity. This authority is primarily used for manipulation of the hydrology in and along bodies of water, including wetlands and riparian areas. This authority also allows for dam removal. It is a Continuing Authorities Program (CAP) which focuses on water resource related projects of relatively smaller scope, cost and complexity. Traditional USACE civil works projects are of wider scope and complexity and are specifically authorized by Congress. The Continuing Authorities Program is a delegated authority to plan, design, and construct certain types of water resource and environmental restoration projects without specific Congressional authorization. The Federal share of costs for any one Section 206 project may not exceed \$5,000,000.

- b. **Applicability.** This review plan is based on the model National Programmatic Review Plan for Section 206 project decision documents, which is applicable to projects that do not require Independent External Peer Review (IEPR), as defined in ER 1165-2-209 Civil Works Review Policy. A Section 206 project does not require IEPR if ALL of the following specific criteria are met:

- The project does not involve a significant threat to human life/safety assurance;
- The total project cost is less than \$45 million;
- There is no request by the Governor of an affected state for a peer review by independent experts;
- The project does not require an Environmental Impact Statement (EIS),
- The project is not likely to have significant economic, environmental, and/or social effects to the Nation;
- The project/study is not likely to have significant interagency interest;
- The project/study is not likely highly controversial;
- The decision document is not likely to contain influential scientific information or be a highly influential scientific;
- The information in the decision document or proposed project design is not likely to be based on novel methods, involve the use of innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices; and
- The project has not been deemed by the USACE Director of Civil Works or Chief of Engineers to be controversial nature.

If any of the above criteria are not met, the model National Programmatic Review Plan is not applicable and a study specific review plan must be prepared by the home district, coordinated with the National Ecosystem Planning Center of Expertise (ECO-PCX) and approved by the home Major Subordinate Command (MSC) in accordance with EC 1165-2-209.

Applicability of the model National Programmatic Review Plan for a specific project is determined by the home MSC. If the MSC determines that the model plan is applicable for a specific study, the MSC Commander may approve the plan (including exclusion from IEPR) without additional coordination with the ECO-PCX or Headquarters, USACE. The initial decision as to the applicability of the model plan should be made no later than the Federal Interest Determination milestone (as defined in Appendix F of ER 1105-2-100, F-10.e.1) during the feasibility phase of the project. In addition, the home district and MSC should assess at the Alternatives Formulation Briefing (AFB) whether the initial decision on the use of the model plan is still valid or if a project specific review plan should be developed based on new information. If a project specific review plan is required, it must be approved prior to execution of the Feasibility Cost Sharing Agreement (FCSA) for the study.

This review plan does not cover implementation products. A review plan for the design and implementation phase of the project will be developed prior to approval of the final decision document in accordance with EC 1165-2-209.

c. References

- (1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010
- (2) EC 1105-2-412, Assuring Quality of Planning Models, ~~xxx~~ 2010
- (3) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
- (4) ER 1105-2-100, Planning Guidance Notebook, Appendix F, Continuing Authorities Program, Amendment #2, 31 Jan 2007
- (5) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007

d. Requirements. This programmatic 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).

- (1) District Quality Control/Quality Assurance (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 Major Subordinate Command (MSC).
- (2) 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 US Army Corps of Engineers (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 a designated Review Management Organization (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.

For decision documents prepared under the model National Programmatic Review Plan, the leader of the ATR team shall be from outside the home district, but may be from within the home MSC.

- (3) 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 is generally for decision documents and Type II is generally for implementation products.

- (a) 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.

For decision documents prepared under the model National Programmatic Review Plan, Type I IEPR is not required.

- (b) 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.

For decision documents prepared under the model National Programmatic Review Plan, Type II IEPR is not required.

(4) 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.

(5) Cost Engineering DX Review and Certification. All **decision documents** shall be coordinated with the Cost Engineering Directory of Expertise (DX), located in the Walla Walla District.

For decision documents prepared under the National Programmatic Review Plan Model, Regional cost personnel that are pre-certified by the DX will conduct the cost estimate ATR. The DX will provide the Cost Engineering DX certification.

(6) Model Certification/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. The use of engineering models is also subject to DQC, ATR, and IEPR (if required).

For decision documents prepared under the model National Programmatic Review Plan, use of existing certified or approved planning models is encouraged. Where uncertified or unapproved model are used, approval of the model for use will be accomplished through the ATR process. The ATR team will apply the principles of EC 1105-2-412 during the ATR to ensure the model is theoretically and computationally sound, consistent with USACE policies, and adequately documented. If specific uncertified models are identified for repetitive use within a specific district or region, the appropriate PCX, MSC(s), and home District(s) will identify a unified approach to seek certification of these models.

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 Section 206 decision documents is the home MSC. The MSC will coordinate and approve the review plan and manage the ATR. The home District will post the approved review plan on its public website. A copy of the approved review plan (and any updates) will be provided to the National

Ecosystem Planning Center of Expertise (ECO-PCX) to keep the PCX apprised of requirements and review schedules.

3. STUDY INFORMATION

a. **Decision Document.** The Westmoreland Park Ecosystem Restoration Report decision document will be prepared in accordance with ER 1105-2-100, Appendix F. The approval level of decision documents (if policy compliant) is the Northwestern Division. An Environmental Assessment (EA) will be prepared along with the decision document.

b. **Study/Project Description.**

Westmoreland Park is located along approximately 2,400 feet (0.7 km) of Crystal Springs Creek, a tributary to Johnson Creek, in southeast Portland. Crystal Springs Creek is a unique system; it is groundwater fed stream and almost 90% of the stream corridor is within public ownership or otherwise publicly accessible.

Historically, the Crystal Springs Creek corridor and Westmoreland Park were a complex system of braided channels and wetlands that may have periodically been a flood channel of the Willamette River. Early maps from the 1800s (Adolfson, 2001 draft report) show Johnson Creek flowing north in the vicinity of the existing Crystal Springs Creek channel and on into the Willamette River in the approximate location occupied currently by the Oregon Museum of Science and Industry (OMSI). It is likely that the area supported a diverse assemblage of fish and wildlife species including Chinook, coho and chum salmon, steelhead and cutthroat trout, and many resident fish such as sculpin, dace, northern pike minnow, suckers, and lamprey. The complex wetland habitats would have supported many species of wildlife including red-legged frog, western pond turtle and numerous species of waterfowl and migratory birds. The wetlands were drained and the creek was channelized for farming and residential development purposes in the late 1800s. The Union Pacific Railroad was also constructed through the corridor at approximately the same time. Extensive modifications to the natural drainages occurred. Crystal Springs Lake and Reed Lake were artificially created through damming the creek, likely to provide water supply and also for aesthetic reasons. As the City of Portland developed through the first half of the 20th century, further modifications were made to the creek alignment and the watershed became almost completely urbanized. Westmoreland Park could provide critical rearing and refuge habitat for juvenile salmon, as well as a diverse riparian corridor for wildlife species, if restoration is undertaken. Furthermore, habitat restoration along Crystal Springs Creek will significantly improve water quality; further benefiting Johnson Creek with cool water flows during summer and fall.

Potential restoration features may include the following features:

- Removal of concrete lining along creek and pond banks.
- Alignment of creek channel to through the duck pond and place fill to create a mix of emergent and scrub-shrub wetlands in the rest of the pond area.
- Restore a riparian corridor on both banks.
- Excavate small area of wetlands adjacent to SE Lambert Street
- Place large woody debris in channel and wetlands.
- Remove fine sediment from channel, excavate 2-3 pools, and remove pump vault from creek bed.
- Remove concrete lining from the casting pond, provide overflow connection to the casting pond, fill in the south half of the pond for wetlands, and bring in material for a sandy beach on the north side of the pond.

- Replace culverts at Umatilla, Tenino, and Tacoma Streets, and remove private carport.
- Realign the creek between Tacoma and Nehalem Streets to create a riparian and wetland buffer.

The project will provide juvenile fish passage from Johnson Creek up to the upper end of Westmoreland Park 1 mile of habitat in Crystal Springs Creek, significantly improve aquatic habitat for salmon rearing and refuge, provide a significant riparian corridor and wetland habitat for wildlife species, and significantly improve water quality conditions by eliminating the duck pond (which currently causes significant heating of the water), reducing excessive waterfowl use of the park, and reducing runoff of other contaminants by providing a buffer for the creek and wetlands.

c. Factors Affecting the Scope and Level of Review.

The Detailed Project Report and EA are not likely to develop or contain influential scientific information and as such are not expected to be influential scientific assessments. The decision document and proposed project design are not based on novel methods and do not use innovative materials or techniques. The document does not contain any precedent setting methods or models, nor does it present conclusions that are likely to change prevailing practices. The report information and executed project will not involve a significant threat to human life, or have the potential to be highly controversial with the public or other environmental agencies. The document will not contain any information that is based on novel methods, nor will it have complex challenges for interpretation, or present conclusion that are likely to change prevailing practices. It is not anticipated that the project will have significant economic, environmental, and/or social effects to the Nation. It is not anticipated that the Governor of Oregon will request a peer review by independent experts. Therefore the Detailed Project Report (i.e., the “without project” report, the “with-project” report, and the Draft and Final Implementation Report and EA) and major engineering products will only be reviewed by an ATR team selected and approved by the appropriate Planning Center of Expertise (PCX).

Project risks include the blockage of streets during replacement of culverts. This portion of the project will need to be split into two phases to enable the Tacoma Street to be used as a detour route while the culvert beneath Tenino Street is being replaced. This is expected to occur in the summer of FY11. Then, in FY12, Tenino Street will be used as the detour route while the culvert at Tacoma Street is being replaced. Also, it is anticipated that work on the Sellwood Bridge is going to occur in FY12 and it is advantageous to do the work on the Tacoma Street culvert concurrently (the Sellwood Bridge is part of Tacoma Street).

Another project risk includes the ability of the City of Portland to purchase properties for some of the channel work between Tacoma and Nehalem Streets. The City of Portland is attempting to acquire easements in this area for the channel work. All the remaining real properties are currently owned by the City.

d. In-Kind Contributions.

Since the project study was stalled due to lack of funding for CAP projects and just recently restarted, the Local Sponsor has moved forward with studies and project designs with the intention of re-partnering with the Corps to complete the project. Therefore, the City of Portland has prepared 100% design plans for three of the downstream culverts and has 30% designs for one culvert and the restoration in the parkland area. Since these activities/products were performed/created prior to the signing of any contractual agreement with the Federal government, they will not be awarded work-in-kind for these. However, these projects will be utilized in the Feasibility Study as well as in the implementation phase. The City of Portland understands that all

products created by the city will need to meet Corps guidelines and regulations and are subject to DQC and ATR.

Once the Project Partnership Agreement has been signed, the City of Portland will be provided labor contributions for planning and technical studies. In addition, it is likely that the City of Portland will execute construction contracts for completion of portions of the project.

4. DISTRICT QUALITY CONTROL (DQC)

District Quality Control (DQC) will be performed in DRChecks, allowing the comments and responses to easily be shared electronically and otherwise with both the project team and the ATR Team.

5. AGENCY TECHNICAL REVIEW (ATR)

a. Products to Undergo ATR. ATR will be performed in accordance with the District and MSC Quality Management Plans. Certification of the ATR will be provided prior to the District Commander signing the final report. Products to undergo ATR include the Draft Final Ecosystem Restoration Report and Environmental Assessment. The Alternative Formulation Briefing (AFB) will be completed prior to the implementation of ER 1165-2-209 guidance.

b. Required ATR Team Expertise

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional with experience in preparing Section 206 decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. Typically, 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 ecosystem restoration projects. Experience in wetland function and fish spawning and rearing habitats will also be needed.
Economics	The Economics reviewer should be a senior Economics technical specialist with experience in habitat evaluation techniques and benefits estimation.
Environmental Resources	The Environmental Resources reviewer will need to be an environmental compliance specialist with experience in Federal (ESA, NEPA, Section 106 NHPA, and CWA) and State of Oregon (DEQ, ODFW, and DSL) guidelines and regulations.
Hydraulic Engineering/Hydrology	The H&H reviewer will be experienced in the field of hydraulics and hydrology and have a thorough understanding of computer modeling techniques. Experience in the hydrology and hydraulics of wetlands and stream corridors would be beneficial.
Civil/Structural Engineering	The Civil/Structural Engineering reviewer will be experienced in the planning process as well as with the replacement of stream corridor culverts.
Cost Engineering	The Cost Engineering review will be accomplished by the Cost

	Engineering DX or an approved DX approved Reviewer.
Real Estate	The Real Estate reviewer will have experience in developing real estate plans involving multiple land owners and various types of ownership, easements, and access agreements.

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:

- (1) The review concern – identify the product’s information deficiency or incorrect application of policy, guidance, or procedures;
- (2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not be properly followed;
- (3) 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
- (4) 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 Portland District, RMO, Northwestern Division, 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 1110-2-12 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 prior to the District Commander signing the final report. A sample Statement of Technical Review is included in Attachment 2.

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

- a. **Decision on IEPR.** Based on the information and analysis provided in paragraph 3(c) of this review plan, the project covered under this plan is excluded from IEPR because it does not meet the mandatory IEPR triggers and does not warrant IEPR based on a risk-informed analysis.
- b. **Products to Undergo Type I IEPR.** Not applicable.
- c. **Required Type I IEPR Panel Expertise.** Not Applicable.
- d. **Documentation of Type I IEPR.** Not Applicable.

7. MODEL CERTIFICATION AND APPROVAL

- a. **Planning Models.** The following planning 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	Certification / Approval Status
Modified Habitat Evaluation Procedure (HEP)	<p>This model has been developed to assess the existing condition and potential future benefits of proposed restoration measures in the Crystal Springs Creek watershed in Portland, OR. Suitability indices (SI) for the following species or groups of species will be used for this HEP: 1) anadromous salmon, including steelhead, chinook and coho); and 2) neotropical migratory birds, including the yellow warbler and green-backed heron. The SIs are derived and modified primarily from existing models developed by the U.S. Fish and Wildlife Service (see references). The overall habitat suitability index (HSI) is then calculated based on the following equation:</p> $HSI_{all} = [SI_{fish} + SI_{birds}] / 2$ <p>The selected HSI reflects the project objectives to restore habitat for both fish and wildlife species. It is assumed that restoration efforts intended to enhance habitat for the salmon species and neotropical migratory birds will also enhance habitat for amphibians, reptiles and mammals. Also, the project area is within the City of Portland and only disturbance-tolerant amphibians, reptiles and mammals are likely to be present or become established. The overall habitat</p>	Needs Certification through the ATR Process.

	<p>suitability index will then multiplied by the project area (acres) to yield habitat units for each species. Alternatives which have an SI score less than 0.3 for any variable will be considered failing to meet the purposes of the restoration project. This threshold is based on minimum acceptable habitat suitability requirements diminishing exponentially below a score of 0.3. The HSI model is expected to be suitable for use in wetland, stream and riparian habitats in the Crystal Springs Creek watershed.</p>	
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b. 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
HEC-RAS 4.1.0 (River Analysis System)	The Hydrologic Engineering Center's River Analysis System (HEC-RAS) program will be used for this study. A steady-state flow analysis will be performed to evaluate the future without- and with-project conditions in the Westmoreland Park wetland area and the stream course between the wetlands area and the confluence with the Johnson Creek. This model was originally developed for completion of the original Feasibility Report completed in December 2003.

8. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost.

(1) ATR Schedule:

- a. Completion of Detailed Project Report: 15 October 2010
- b. Start of ATR Review: 18 October 2010
- c. ATR Review Conference: 28 October 2010
- d. ATR Review Comment Response/Resolution Complete: 5 November 2010
- e. Completion of the ATR Statement of Technical Review: 12 November 2010

(2) ATR Cost:

Reviewer Type	Hours	Labor Rate	Total
ATR Team Lead	36	\$120/hr	\$4,320
ATR Team Members (7)	24	\$120/hr	\$20,160
Total:	---	---	\$24,480

b. Type I IEPR Schedule and Cost. Not applicable.

c. Model Certification/Approval Schedule and Cost. Approval of the model for use will be accomplished through the ATR process. The ATR team will apply the principles of EC 1105-2-412

during the ATR to ensure the model is theoretically and computationally sound, consistent with USACE policies, and adequately documented.

9. PUBLIC PARTICIPATION

State and Federal resource agencies may be invited to participate in the study covered by this review plan as partner agencies or as technical members of the PDT, as appropriate. Agencies with regulatory review responsibilities will be contacted for coordination as required by applicable laws and procedures. The ATR team will be provided copies of public and agency comments. The Draft Detailed Project Report and EA will be made available for public review and comment following completion of the ATR process.

10. REVIEW PLAN APPROVAL AND UPDATES

The Northwestern Division Commander is responsible for approving this review plan and ensuring that the use of the Model PROGRAMMATIC REVIEW Plan is appropriate for the specific project covered by the plan. The review plan is a living document and may change as the study progresses. The Portland District is responsible for keeping the review plan up to date. Minor changes to the review plan since the last Northwestern Division 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 Northwestern Division Commander following the process used for initially approving the plan. Significant changes may result in the Northwestern Division Commander determining that use of the Model Programmatic Review Plan is no longer appropriate. In these cases, a project specific review plan will be prepared and approved in accordance with EC 1165-2-209. The latest version of the review plan, along with the Commanders' approval memorandum, will be posted on the Portland District's webpage.

11. REVIEW PLAN POINTS OF CONTACT

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

- James Adams, Project Manager, Portland District, (503) 808-4742
- Valerie Ringold, District Support Team Member, Northwest Division, (503) 808-3984

ATTACHMENT 1: TEAM ROSTERS

NAME	DISCIPLINE	ORGANIZATION	PHONE	E-MAIL
James Adams	Project Manager	USACE-NWP	(503) 808-4742	James.r.adams@usace.army.mil
Mike Gross	Civil Design	USACE-NWP	(503) 808-4913	Michael.j.gross@usace.army.mil
Steve Helm	Environmental/ Biologist	USACE-NWP	(503) 808-4748	Steven.r.helm@usace.army.mil
Doris Cope	Real Estate/Lands	USACE-NWS	(206) 316-4417	Doris.l.cope@usace.army.mil
Merri Martz	Contractor	TetraTech	(503) 223-5388	Merri.martz@tetrattech.com
Kaitlin Lovell	Watershed Group Manager	City of Portland	(503) 823-7032	Kaitlin.lovell@portlandoregon.gov
Christine Ferguson	CAP Program Manager	USACE-NWP	(503) 808-4735	Christine.r.ferguson@usace.army.mil

ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the Westmoreland Ecosystem Restoration Report for Westmoreland Ecosystem Restoration Project, Portland Oregon. 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 DrCheckssm.

SIGNATURE

Name
ATR Team Leader
Office Symbol/Company

Date

SIGNATURE

James R. Adams
Project Manager
Office Symbol

Date

SIGNATURE

Name
Architect Engineer Project Manager¹
Company, location

Date

SIGNATURE

Name
Review Management Office Representative
Office Symbol

Date

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
Chief, Engineering Division
Office Symbol

Date

SIGNATURE

Name
Chief, Planning Division
Office Symbol

Date

¹ Only needed if some portion of the ATR was contracted

ATTACHMENT 3: REVIEW PLAN REVISIONS

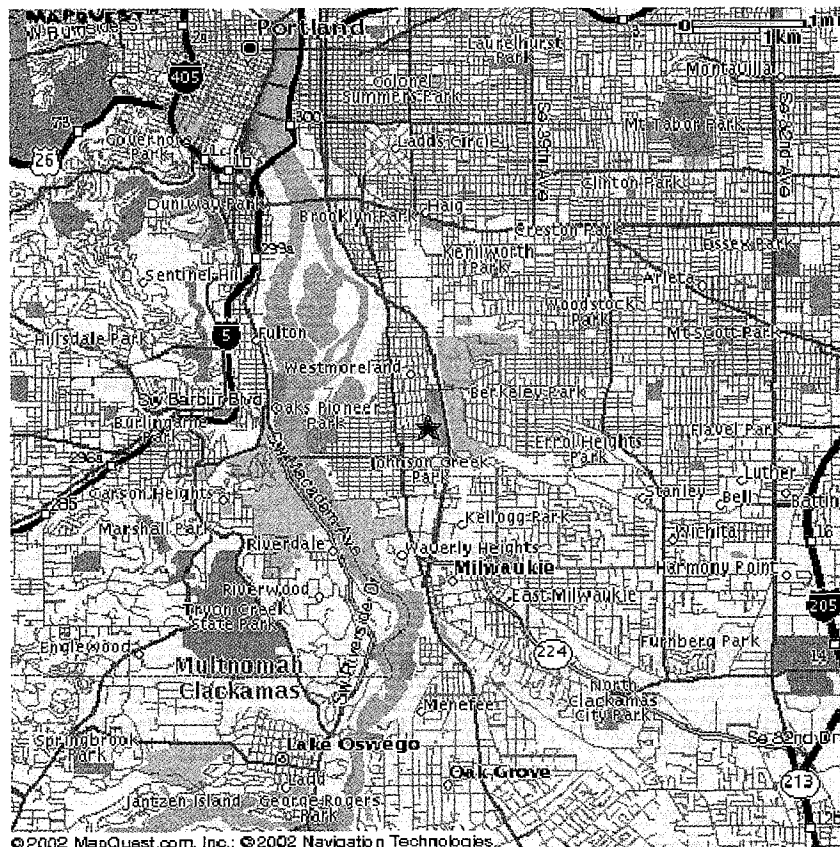
Revision Date	Description of Change	Page / Paragraph Number

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

<u>Term</u>	<u>Definition</u>	<u>Term</u>	<u>Definition</u>
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
CAP	Continuing Authorities Program	O&M	Operation and maintenance
CSDR	Coastal Storm Damage Reduction	OMB	Office and Management and Budget
DPR	Detailed Project Report	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
DQC	District Quality Control/Quality Assurance	OEO	Outside Eligible Organization
DX	Directory of Expertise	OSE	Other Social Effects
EA	Environmental Assessment	PCX	Planning Center of Expertise
EC	Engineer Circular	PDT	Project Delivery Team
EIS	Environmental Impact Statement	PAC	Post Authorization Change
EO	Executive Order	PMP	Project Management Plan
ER	Ecosystem Restoration	PL	Public Law
FDR	Flood Damage Reduction	QMP	Quality Management Plan
FEMA	Federal Emergency Management Agency	QA	Quality Assurance
FRM	Flood Risk Management	QC	Quality Control
FSM	Feasibility Scoping Meeting	RED	Regional Economic Development
GRR	General Reevaluation Report	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

WESTMORELAND ECOSYSTEM RESTORATION PROJECT FACT SHEET

1. **Project:** Westmoreland Ecosystem Restoration Project
P2#: 110532
CWIS #: 169054
2. **Authority:** Section 206 of the Water Resources Development Act of 1996, authorizes the Secretary of the Army to carry out a program of aquatic ecosystem restoration with the objective of restoring degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition considering the ecosystem's natural integrity, productivity, stability and biological diversity.
3. **Local Sponsor:** City of Portland, Oregon
4. **Congressional Delegation:** Senators Ron Wyden (D) and Jeff Merkley (D) and Representative Earl Blumenauer (D-3-OR)
5. **Location:** City of Portland, Multnomah County, Oregon.
6. **Vicinity Map:**



7. Background:

Westmoreland Park is located along approximately 2,400 feet (0.7 km) of Crystal Springs Creek, a tributary to Johnson Creek, in southeast Portland. Crystal Springs Creek is a unique system; it is groundwater fed stream and almost 90% of the stream corridor is within public ownership or otherwise publicly accessible. The Westmoreland Ecosystem Restoration Feasibility Report was completed in October 2003 and submitted to the Northwestern Division, but was never signed by the Commander of the Northwestern Division. Then, as a result of cuts to the CAP program, the project laid dormant. In the meantime, the City of Portland has moved forward with project designs based on the original feasibility report. As a result in renewed CAP funding, the City of Portland requested that the Corps re-initiate the project. Current efforts on the project are related to updating the original feasibility report to reflect current conditions.

8. Problem:

Historically, the Crystal Springs Creek corridor and Westmoreland Park were a complex system of braided channels and wetlands that may have periodically been a flood channel of the Willamette River. As a result of adjacent development and modifications to the stream channel, Crystal Springs Creek is confined to a uniform channel with minimal aquatic habitat. Significant deposition of fine sediments has occurred in recent years. Only a few small natural wetlands are present along its course, and while it may provide some low to moderate quality rearing habitat for juvenile salmon, the uniform habitat and fine sediments in the channel have significantly reduced its functioning.

9. Eligibility Criteria:

The Westmoreland Ecosystem restoration is aquatic ecosystem restoration with the objective of restoring degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition considering the ecosystem's natural integrity, productivity, stability and biological diversity. The Westmoreland restoration will provide critical rearing and refuge habitat for juvenile salmon, as well as a diverse riparian corridor for wildlife species, if restoration is undertaken. Furthermore, habitat restoration along Crystal Springs Creek will significantly improve water quality; further benefiting Johnson Creek with cool water flows during summer and fall.

10. Preliminary Restoration Plan:

Potential restoration features may include the following features:

- Removal of concrete lining along creek and pond banks.
- Alignment of creek channel to through the duck pond and place fill to create a mix of emergent and scrub-shrub wetlands in the rest of the pond area.
- Restore a riparian corridor on both banks.
- Excavate small area of wetlands adjacent to SE Lambert Street
- Place large woody debris in channel and wetlands.
- Remove fine sediment from channel, excavate 2-3 pools, and remove pump vault from creek bed.

- Remove concrete lining from the casting pond, provide overflow connection to the casting pond, fill in the south half of the pond for wetlands, and bring in material for a sandy beach on the north side of the pond.
- Replace culverts at Umatilla, Tenino, and Tacoma Streets, and remove private carport.
- Realign the creek between Tacoma and Nehalem Streets to create a riparian and wetland buffer.

11. Expected Environmental Outputs (With Project Condition):

The project will provide juvenile fish passage from Johnson Creek up to the upper end of Westmoreland Park 1 mile of habitat in Crystal Springs Creek, significantly improve aquatic habitat for salmon rearing and refuge, provide a significant riparian corridor and wetland habitat for wildlife species, and significantly improve water quality conditions by eliminating the duck pond (which currently causes significant heating of the water), reducing excessive waterfowl use of the park, and reducing runoff of other contaminants by providing a buffer for the creek and wetlands.

12. Preliminary Cost Estimate:

These cost estimates are based on October 2003 Estimates. These will be updated as soon as the 2010 Draft Feasibility Report has been completed.

	Federal	Non-Federal	Federal Funding Requirements				Totals
			FY01-FY03	FY04	FY05	FY06+	
Feasibility/1	\$ 350,000	-	\$350,000	-	-	-	\$ 350,000
P&S	\$ 152,000	\$ 200,000	-	\$ 152,000	-	-	\$ 352,000
Construction	\$1,339,150	\$ 504,850	-	\$ 600,000	\$ 500,000	\$ 239,150	\$1,844,000
Monitoring/1	\$ 75,000	-	-	-	\$ 10,000	\$ 65,000	\$ 75,000
LERRD	\$41,000	\$ 349,000	-	\$41,000	-	-	\$ 390,000
Restoration							
Sub Total	\$1,957,150	\$1,053,850	\$350,000	\$793,000	\$510,000	\$304,150	\$3,011,000
Recreation	\$ 71,250	\$ 71,250	-	\$ 71,250	-	-	\$ 142,500
Total (Rest. + Rec)	\$2,028,400	\$1,125,100	\$350,000	\$ 864,250	\$ 510,000	\$ 304,150	\$3,153,500

1/ Monitoring and feasibility are cost shared 65% federal and 35% local, the same as the other project costs; and is accounted for in the construction cost-share for the local sponsor.

Non-Federal Requirements:	LERRD	\$ 349,000
	Cash	\$ 130,100
	Work-in-kind	\$ 646,000
	Annual OMRR&R	\$ 8,000

13. Preliminary Project Implementation Schedule:

The schedule for the project is:

Initiate Plans and Specs	December 2010
Sign PPA	December 2010
Sponsor Certify Lands	April 2011
Advertise	April 2011
Initiate Construction Phase I	July 2011
Complete Phase I	August 2011
Initiate Construction Phase II	July 2012
Complete Phase II	August 2011
Complete Monitoring	October 2016