



Signature Report

May 21, 2007

Ordinance 15778

Proposed No. 2007-0295.1

Sponsors Phillips

1 AN ORDINANCE authorizing the executive to enter into a  
2 project cooperative agreement with the United States  
3 Department of the Army, Corps of Engineers, for the repair  
4 of the Briscoe School levee on the Green river; and  
5 declaring an emergency.

6  
7 STATEMENT OF FACTS:

- 8 1. The Green river has historically experienced significant flooding and  
9 flood damages. The Howard A. Hanson dam was completed in 1962 and  
10 levees constructed to reduce flooding on the lower and middle Green river.  
11 A secondary purpose of the dam is water conservation and municipal  
12 water supply. The Howard A. Hanson dam is operated by the United  
13 States Department of the Army, Corps of Engineers ("the Corps").  
14 2. January 2006 rainfall and snowmelt resulted in a discharge of eleven  
15 thousand two hundred cubic feet per second of floodwater at the Auburn  
16 gage based on a regulated outflow from Howard A. Hanson dam. This  
17 flood event resulted in approximately four hundred feet of rotational slope

18 failure and an additional two hundred feet of damage along the right bank  
19 of a portion of the Green river levee system known as the Briscoe School  
20 Levee, located near river mile 16.5 , Section 2, Township 22 N, Range 4 E  
21 within the city of Kent.

22 3. The Briscoe School Levee is a non-federal levee maintained by King  
23 County, and the levee is active in the Public Law 84-99 Rehabilitation and  
24 Inspection program. King County has requested federal assistance to help  
25 repair the damaged levee, and will act as the local sponsor for the repair  
26 project.

27 4. The Corps, Seattle District, has prepared a Project Information Report  
28 for the Briscoe School levee. The report evaluated multiple repair  
29 alternatives. The recommended alternative selected by the Corps is the  
30 sponsor preferred levee setback alternative. The Corps defines the levee  
31 setback alternative as a "betterment" rather than repairing the levee to the  
32 preflood condition, which is defined as the least cost alternative. The  
33 levee setback alternative will repair the damaged section of the levee to a  
34 one-hundred-year level of flood protection at the project location.

35 5. The levee setback alternative was chosen as the preferred alternative by  
36 both the Corps and King County, since it will provide one-hundred-year  
37 level of flood protection. The no-action alternative could eventually result  
38 in a breach and subsequent failure of the levee.

39 6. The estimated cost for rehabilitation of the Briscoe School Levee to the  
40 least cost alternative is \$553,600, including design and construction. The

41 levee setback alternative, including design and construction, is estimated  
42 to cost \$834,000. King County is responsible for twenty percent of the  
43 total construction cost for portion of the levee construction within the  
44 existing footprint of the levee, and one hundred percent of the additional  
45 construction cost for the portion to be constructed beyond its existing  
46 footprint, or the betterment cost, or the difference between the levee  
47 setback alternative and the least cost alternative, and all necessary utility  
48 relocates, real estate, and disposal costs. King County's total cost share is  
49 equal to forty-four percent of the total construction costs, or \$368,900.  
50 King County matching funds will be contributed by the river improvement  
51 fund and the Green River Flood Control Zone District fund.

52 7. King County is responsible for obtaining all necessary real estate,  
53 providing appropriate disposal area or areas, utility relocates, and  
54 obtaining local permits. The Corps will be responsible for federal permits,  
55 which include a Section 7 consultation with the National Marine Fisheries  
56 Services and the United States Fish and Wildlife Service, in accordance  
57 with Section 7 of the Endangered Species Act of 1973, to determine  
58 whether federally listed or proposed threatened or endangered species  
59 and/or candidate species in the project vicinity could be affected by  
60 construction of this project.

61 8. King County will enter into a cooperative agreement with the Corps to  
62 establish the roles and responsibilities and identify the cost shares.

63 9. The repair will involve reconstruction of the failing section of the levee  
64 with a stable levee set-back configuration and habitat features.

65 Construction will be phased in order to complete the project this summer.

66 Phase I will entail the King County road services division completing  
67 most of the excavation work down to the toe starting in July, followed by  
68 Phase II in which the Corps contractor will reconstruct the toe, lower and  
69 upper slopes, place habitat structures, and complete restoration of the  
70 vegetation, trail and temporary work areas.

71 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

72 SECTION 1. The King County executive is authorized to enter into a cooperative  
73 agreement on behalf of King County with the United States Department of the Army,  
74 Corps of Engineers, substantially in the form of the agreement attached as Attachment A  
75 to this ordinance, for the rehabilitation of the Briscoe School levee on the Green river.

76 SECTION 2. The county council finds as a fact and declares that an emergency  
77 exists and that this ordinance is necessary for the immediate preservation of public peace,

**Ordinance 15778**

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78 health or safety, or for the support of county government and its existing public  
79 institutions.

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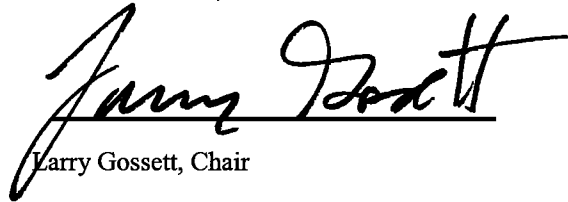
Ordinance 15778 was introduced on 5/7/2007 and passed by the Metropolitan King  
County Council on 5/21/2007, by the following vote:

Yes: 7 - Mr. Gossett, Ms. Lambert, Mr. von Reichbauer, Mr. Dunn, Mr.  
Phillips, Ms. Hague and Mr. Constantine

No: 0

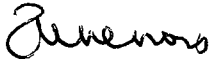
Excused: 2 - Ms. Patterson and Mr. Ferguson

KING COUNTY COUNCIL  
KING COUNTY, WASHINGTON



Larry Gossett, Chair

ATTEST:



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Anne Noris, Clerk of the Council

**Attachments**

A. Cooperation Agreement Between the United States of America and King County,  
Washington for Rehabilitation of a Non-Federal Flood Control Work--Green River,  
Briscoe School Levee--Job No. GRE-01-07, B. Project Information Report--  
Rehabilitation of Damaged Flood Control Works--Seattle District--April 2007

**COOPERATION AGREEMENT**

**BETWEEN**

**THE UNITED STATES OF AMERICA**

**And**

**KING COUNTY, WASHINGTON**

**For**

**REHABILITATION OF A NON-FEDERAL FLOOD CONTROL WORK**

**GREEN RIVER, BRISCOE SCHOOL LEVEE  
JOB NO. GRE-01-07**

**THIS AGREEMENT**, entered into this \_\_\_\_ day of \_\_\_\_\_, 2007, by and between THE DEPARTMENT OF THE ARMY (hereinafter referred to as the "Government") represented by the District Engineer, Seattle District, U.S. Army Corps of Engineers, and King County, Washington Department of Natural Resources and Parks, (hereinafter referred to as the "Public Sponsor"), represented by the Director, Department of Natural Resources and Parks, King County, Washington.

**WITNESSETH THAT:**

**WHEREAS**, pursuant to 33 U.S.C. 701n, the Government is authorized to assist in the repair or restoration of flood control improvements threatened or destroyed by flood;

**WHEREAS**, via written correspondence, the Public Sponsor has requested the Government to repair or restore a certain flood control work damaged by recent flooding or coastal storms, in accordance with 33 U.S.C. 701n and established policies of the U.S. Army Corps of Engineers; and,

**WHEREAS**, the Public Sponsor hereby represents that it has the authority and legal capability to furnish the non-Federal cooperation hereinafter set forth and is willing to participate in the rehabilitation effort in accordance with the terms of this Agreement.

**NOW, THEREFORE**, the Government and the Public Sponsor agree as follows:

**ARTICLE I - DEFINITIONS AND GENERAL PROVISIONS**

For purposes of this agreement:

A. The term "Rehabilitation Effort" shall mean the repair of approximately 600 linear feet of levee, by rebuilding the levee, repairing the crown landward and riverward slopes and replacing the armor and toe rock. Included in the Rehabilitation Effort is the Locally Preferred Plan Work Effort, which includes a set back of the levee, slope regraded, and a riverward bench established, construction of a short retaining wall on the landward side of the levee, and adding habitat features over the repair. These efforts are generally described in a report entitled Project Information Report - Rehabilitation of Damaged Flood Control Works, Job No. GRE-01-07, prepared by the District Engineer, U.S. Army Engineer District Seattle, dated April 13, 2007, and approved by the Division Engineer on April 16, 2007.

B. The term "Rehabilitation Effort costs" shall mean all costs incurred by the Public Sponsor and the Government, in accordance with the terms of this Agreement, directly related to implementation of the Rehabilitation Effort. The term shall include, but is not necessarily limited to, actual construction costs, including supervision and inspection costs; costs of contract dispute settlements or awards; and the cost of investigations to identify the existence of hazardous substances as identified in Article XIIA. The term shall not include any costs for operation and maintenance; any costs that correct deferred or deficient maintenance; any increased costs for betterments or Public Sponsor preferred alternatives; or the costs of lands, easements, rights-of-way, relocations, or suitable borrow and dredged or excavated material disposal areas required for the Rehabilitation Effort.

C. The term "betterment" shall mean the design and construction of a Rehabilitation Effort feature accomplished on behalf of, or at the request of, the Public Sponsor, in accordance with standards that exceed the standards that the Government would otherwise apply for accomplishing the Rehabilitation Effort.

**ARTICLE II - OBLIGATIONS OF THE GOVERNMENT AND PUBLIC SPONSOR**

A. The Government, subject to receiving funds appropriated by the Congress of the United States and using those funds and funds provided by the Public Sponsor, shall expeditiously implement the Rehabilitation Effort, applying those procedures usually followed or applied in Federal projects, pursuant to Federal laws, regulations, and policies. The Public Sponsor shall be afforded the opportunity to review and comment on solicitations for all contracts, including relevant plans and specifications, prior to the issuance of such solicitations. The Contracting Officer will, in good faith, consider the comments of the Public Sponsor, but award of contracts, modifications or change orders, and performance of all work on the Rehabilitation Effort (whether the work is performed under contract or by Government personnel), shall be exclusively within the control of the Contracting Officer.

B. As further specified in Article III, the Public Sponsor shall provide all lands, easements, and rights-of-way, and suitable borrow and dredged or excavated material disposal areas, and perform all relocations determined by the Government to be necessary for construction, operation, and maintenance of the Rehabilitation Effort and the Project.

C. As further specified in Article IV, the Public Sponsor shall contribute, in cash, in-kind services, or a combination thereof, a contribution toward construction of the Rehabilitation Effort in an amount equal to 20 percent of total Rehabilitation Effort costs. Additionally, the Public Sponsor shall provide all Locally Preferred Plan Work Effort costs.

D. The Public Sponsor shall not use Federal funds to meet its share of total Rehabilitation Effort costs under this Agreement unless the Federal granting agency verifies in writing that the expenditure of such funds is expressly authorized by statute.

E. The Public Sponsor shall hold and save the Government free from all damages arising from the construction, operation, and maintenance of the Rehabilitation Effort, and any related betterments, except for damages due to the fault or negligence of the Government or the Government's contractors.

F. The Public Sponsor agrees to participate in and comply with the policies and procedures of the U.S. Army Corps of Engineers Rehabilitation and Inspection Program.

G. The Public Sponsor may request the Government to accomplish betterments. The Public Sponsor shall be solely responsible for any increase in costs resulting from the betterments and all such increased costs will be paid in advance by the Public Sponsor in accordance with Article IV.

### **ARTICLE III - LANDS, RELOCATIONS, DISPOSAL AREAS, AND PUBLIC LAW 91-646 COMPLIANCE**

A. The Government shall provide the Public Sponsor with a description of the anticipated real estate requirements and relocations for the Rehabilitation Effort. Thereafter, the Public Sponsor shall furnish all lands, easements, and rights-of-way, including suitable borrow and dredged or excavated material disposal areas, and perform any relocations, as may be determined by the Government in that description, or in any subsequent description, to be necessary for the construction, operation, and maintenance of the Rehabilitation Effort. The necessary lands, easements, and rights-of-way may be provided incrementally for each construction contract. All lands, easements, and rights-of-way determined by the Government to be necessary for work to be performed under a construction contract must be furnished prior to the solicitation of that construction contract.



B. The Public Sponsor shall comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, Public Law 91-646, as amended by Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17), and the Uniform Regulations contained in 49 CFR Part 24, in acquiring lands, easements, and rights of way, and performing relocations for construction, operation, and maintenance of the Rehabilitation Effort, including those necessary for relocations, borrow materials, and dredged and excavated material disposal, and shall inform all affected persons of applicable benefits, policies, and procedures in connection with said Act.

## **ARTICLE IV - METHOD OF PAYMENT**

A. The Public Sponsor shall provide, during the period of construction, cash payments, in-kind services, or a combination thereof, required to meet the Public Sponsor's obligations under Article II of the Agreement. Rehabilitation Effort costs are currently estimated to be \$522,200 and the Public Sponsor's share (cash and services in kind) of total Rehabilitation Effort costs is currently estimated to be \$104,500. The additional sponsor cost for the Locally Preferred Plan Work Effort is estimated to be \$264,400. In order to meet the Public Sponsor's cash payment requirements, the Public Sponsor must provide a cash contribution estimated to be \$154,900. The dollar amounts set forth in this paragraph are based upon the Government's best estimates that reflect projections of costs, price level changes, and anticipated inflation. Such cost estimates are subject to adjustments based upon costs actually incurred and are not to be construed as the total financial responsibilities of the Government and the Public Sponsor.

B. The required cash contribution shall be provided as follows: At least ten calendar days prior to the award of the first construction contract, the Government shall notify the Public Sponsor of the Public Sponsor's estimated share of the total Rehabilitation Effort costs and Locally Preferred Plan Work Effort costs, including the Public Sponsor's estimated share of the costs attributable to the Rehabilitation Effort incurred prior to the initiation of construction. Within five calendar days thereafter, the Public Sponsor shall provide the Government the full amount of the required contribution by delivering a check payable to "FAO, USAED "Seattle" to the Contracting Officer representing the Government. The Government shall draw on the funds provided by the Public Sponsor such sums as the Government deems necessary to cover contractual and in-house fiscal obligations attributable to the Rehabilitation Effort as they are incurred, as well as Rehabilitation Effort costs incurred by the Government. In the event that Rehabilitation Effort costs and/or Locally Preferred Plan Work Effort costs are expected to exceed the estimate given at the outset of construction, the Government shall immediately notify the Public Sponsor of the additional contribution the Public Sponsor will be required to make to meet the Public Sponsor's share of the revised estimate. Within ten calendar days thereafter, the Public Sponsor shall provide the Government the full amount of the additional required contribution.

C. During the period of construction, the Government will provide periodic financial reports on the status of the total Rehabilitation Effort costs and Locally Preferred Plan Work Effort costs, and status of contributions made by the Public Sponsor. Upon completion of the Rehabilitation Effort and resolution of all relevant contract claims and appeals, the Government shall compute the Rehabilitation Effort costs and Locally Preferred Plan Work Effort costs and tender to the Public Sponsor a final accounting of the Public Sponsor's share of those costs.

1. In the event the total contribution by the Public Sponsor is less than the Public Sponsor's required share of total Rehabilitation Effort costs and Locally Preferred Plan Work Effort costs, the Public Sponsor shall, no later than 90 calendar days after receipt of written notice, make a cash payment to the Government of whatever sum is required to meet the Public Sponsor's required share of Rehabilitation Effort costs and Locally Preferred Plan Work Effort costs.

2. In the event total contribution by the Public Sponsor is more than the Public Sponsor's required share of Rehabilitation Effort costs and Locally Preferred Plan Work Effort costs, the Government shall, no later than 90 calendar days after the final accounting is complete, subject to the availability of funds, return the excess to the Public Sponsor; however, the Public Sponsor shall not be entitled to any refund for in-kind services. In the event the existing funds are not available to repay the Public Sponsor for excess contributions provided, the Government shall seek such appropriations as are necessary to repay the Public Sponsor for excess contributions provided.

#### **ARTICLE V - CREDITING OF IN-KIND SERVICES**

The Government has approved a credit for In-Kind Services, compatible with the Rehabilitation Effort, in the estimated amount of \$214,000 for implementation of such services by the Public Sponsor. The affording of such credit shall be subject to an onsite inspection by the Government to verify that the work was accomplished in a satisfactory manner and is suitable for inclusion in the Rehabilitation Effort. Crediting and/or reimbursement is subject to satisfactory compliance with applicable Federal labor laws covering non-Federal construction, including, but not limited to, 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (revising, codifying and enacting without substantive change the provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a *et seq.*), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 *et seq.*) and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c)). Crediting and/or reimbursement may be withheld, in whole or in part, as a result of the Public Sponsor's failure to comply with its obligations under these laws. The actual amount of such credit shall be subject to an audit conducted to determine reasonableness, allocability, and allowability of costs. The Government shall apply the credit amount toward any additional cash contribution required under this Agreement. The Public Sponsor shall not receive credit for any amount in excess of such additional cash contribution, nor shall the Public Sponsor be entitled to any reimbursement for any excess credit amount.

## **ARTICLE VI - OPERATION AND MAINTENANCE**

A. After the Contracting Officer has determined that construction of the Rehabilitation Effort is complete and provided the Public Sponsor with written notice of such determination, the Public Sponsor shall operate and maintain the Project, at no cost to the Government, in accordance with specific directions prescribed by the Government in Engineer Regulation 500-1-1 and any subsequent amendments thereto.

B. The Public Sponsor hereby gives the Government a right to enter, at reasonable times and in a reasonable manner, upon land that the Public Sponsor owns or controls for access to the Project for the purposes of inspection, and, if necessary, for the purpose of completing, operating, and maintaining the Project. If an inspection shows the Public Sponsor for any reason is failing to fulfill the Public Sponsor's obligations under this Agreement without receiving prior written approval from the Government, the Government will send a written notice to the Public Sponsor. If, after 30 calendar days from receipt of such notice, the Public Sponsor continues to fail to perform, then the Government shall have the right to enter, at reasonable times and in a reasonable manner, upon lands the Public Sponsor owns or controls for access to the Project for the purposes of completing, operating, and maintaining the Project, or to deny further assistance under Public Law 84-99. No action by the Government shall operate to relieve the Public Sponsor of responsibility to meet the Public Sponsor obligations as set forth in this Agreement, or to preclude the Government from pursuing any other remedy at law or equity to assure faithful performance pursuant to this Agreement.

## **ARTICLE VII - FEDERAL AND STATE LAWS**

In the exercise of the Public Sponsor's rights and obligations hereunder, the Public Sponsor agrees to comply with all applicable Federal and state laws and regulations, including, but not limited to: Section 601 of the Civil Rights Act of 1964, Public Law 88-352 (42 U.S.C. 2000d) and Department of Defense Directive 5500.11 issued pursuant thereto; Army Regulation 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army"; and all applicable Federal labor standards requirements including, but not limited to, 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (revising, codifying and enacting without substantive change the provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a *et seq.*), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 *et seq.*) and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c)).

## **ARTICLE VIII - RELATIONSHIP OF PARTIES**

The Government and the Public Sponsor act in an independent capacity in the performance of their respective functions under this Agreement, and neither party is to be considered the officer, agent, nor employee of the other.

### **ARTICLE IX - OFFICIALS NOT TO BENEFIT**

No member of or delegate to the Congress, or resident commissioner, shall be admitted to any share or part of this Agreement, or to any benefit that may arise there from.

### **ARTICLE X - COVENANT AGAINST CONTINGENT FEES**

The Public Sponsor warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Public Sponsor for the purpose of securing business. For breach or violation of this warranty, the Government shall have the right to annul this Agreement without liability, or, in the Government's discretion, to add to the Agreement or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

### **ARTICLE XI - TERMINATION OR SUSPENSION**

If at any time the Public Sponsor fails to carry out its obligations under this Agreement, the District Engineer shall terminate or suspend work on the Rehabilitation Effort, unless the District Engineer determines that continuation of work on the Rehabilitation Effort is in the interest of the United States or is necessary in order to satisfy agreements with any other non-Federal interests in connection with this Rehabilitation Effort and Project. However, deferral of future performance under this agreement shall not affect existing obligations or relieve the parties of liability for any obligation previously incurred. In the event that either party elects to terminate this Agreement pursuant to this Article, both parties shall conclude their activities relating to the Rehabilitation Effort and proceed to a final accounting in accordance with Article IV of this Agreement. In the event that either party elects to defer future performance under this Agreement pursuant to this Article, such deferral shall remain in effect until such time as either the Government or Public Sponsor elects to proceed with further construction or terminates this Agreement.

### **ARTICLE XII - HAZARDOUS SUBSTANCES**

A. After execution of this Agreement and upon direction by the Contracting Officer, the Public Sponsor shall perform, or cause to be performed, such investigations for hazardous substances as are determined necessary by the Government or the Public Sponsor to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 42 U.S.C. Sections, 9601-9675, on lands necessary to Rehabilitation Effort construction, operation, and maintenance. All actual costs incurred by the Public Sponsor that are properly allowable and allocable

to performance of any such investigations for hazardous substances shall be included in total Rehabilitation Effort costs and cost shared as a construction cost or included in the Locally Preferred Plan Work Effort costs, as applicable.

B. In the event it is discovered through an investigation for hazardous substances or other means that any lands, easements, rights-of-way, or disposal areas to be acquired or provided for the Project or the Rehabilitation Effort contain any hazardous substances regulated under CERCLA, the Public Sponsor and the Government shall provide prompt notice to each other, and the Public Sponsor shall not proceed with the acquisition of lands, easements, rights-of-way, or disposal areas until mutually agreed.

C. The Government and the Public Sponsor shall determine whether to initiate construction of the Rehabilitation Effort, or, if already in construction, to continue with construction of the Rehabilitation Effort, or to terminate construction of the Rehabilitation Effort for the convenience of the Government in any case where hazardous substances regulated under CERCLA are found to exist on any lands necessary for the Rehabilitation Effort. Should the Government and the Public Sponsor determine to proceed or continue with the construction after considering any liability that may arise under CERCLA, the Public Sponsor shall be responsible, as between the Government and the Public Sponsor, for any and all necessary clean up and response costs, to include the costs of any studies and investigations necessary to determine an appropriate response to the contamination. Such costs shall not be considered a part of the total Rehabilitation Effort costs as defined in this Agreement. In the event the Public Sponsor fails to provide any funds necessary to pay for clean up and response costs or to otherwise discharge the Public Sponsor's responsibilities under this paragraph upon direction by the Government, the Government may either terminate or suspend work on the Rehabilitation Effort or proceed with further work as provided in Article XI of this Agreement.

D. The Public Sponsor and Government shall consult with each other to assure that responsible parties bear any necessary clean up and response costs as defined in CERCLA. Any decision made pursuant to paragraph C of this Article shall not relieve any party from any liability that may arise under CERCLA.

E. As between the Government and the Public Sponsor, the Public Sponsor shall be considered the operator of the Project (which the Rehabilitation Effort is repairing and restoring) for purposes of CERCLA liability. To the maximum extent practicable, the Public Sponsor shall operate and maintain the Project in a manner that will not cause liability to arise under CERCLA.

## **ARTICLE XIII - NOTICES**

A. All notices, requests, demands, and other communications required or permitted to be given under this Agreement shall be deemed to have been duly given

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if in writing and delivered personally, given by prepaid telegram, or mailed by first-class (postage prepaid), registered, or certified mail, as follows:

If to the Public Sponsor:

King County  
Director of Department  
of Natural Resources and Parks  
201 South Jackson Street, Suite 600  
Seattle, WA 98104-3855

If to the Government:

District Engineer  
P.O. Box 3755  
Seattle, WA 98124-3755

B. A party may change the address to which such communications are to be directed by giving written notice to the other party in the manner provided in this Article.

C. Any notice, request, demand, or other communication made pursuant to this Article shall be deemed to have been received by the addressee at such time as it is either personally delivered, or, seven calendar days after it is mailed, as the case may be.

**IN WITNESS HEREOF**, the parties hereto have executed this Agreement, which shall become effective upon the date it is signed by the District Engineer.

**THE DEPARTMENT OF THE ARMY**

**KING COUNTY, WASHINGTON**

BY: \_\_\_\_\_  
MICHAEL McCORMICK  
Colonel, Corps of Engineers  
District Engineer

BY: \_\_\_\_\_  
PAM BISSONETTE  
Director, Department of Natural  
Resources and Parks

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

**CERTIFICATE OF AUTHORITY**

I, Joseph B. Rochelle III, do hereby certify that I am a Senior Deputy Prosecuting Attorney of King County, Washington, that King County, Washington is a legally constituted public body with full authority and legal capability to perform the terms of the Agreement between the Department of the Army and King County, Washington in connection with the Green River Briscoe School Levee, Rehabilitation Project, Job No. GRE-01-07, and to pay damages in accordance with the terms of this Agreement, if necessary, in the event of the failure to perform, as required by Section 221 of Public Law 91-611 (42 U.S.C. Section 1962d-5b), and that the persons who have executed this Agreement on behalf of King County, Washington, have acted within their statutory authority.

IN WITNESS WHEREOF, I have made and executed this certification this \_\_\_\_\_ day of \_\_\_\_\_ 2007.

\_\_\_\_\_  
Joseph B. Rochelle III  
Senior Deputy Prosecuting Attorney  
King County, Washington

**CERTIFICATION REGARDING LOBBYING**

The undersigned certifies, to the best of his or her knowledge and belief that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 2007

KING COUNTY, WASHINGTON

\_\_\_\_\_  
PAM BISSONETTE  
Director, Department of Natural  
Resources and Parks



**PROJECT INFORMATION REPORT  
REHABILITATION OF DAMAGED FLOOD CONTROL WORKS  
SEATTLE DISTRICT**

**April 2007**



**Green River, King County, WA  
Briscoe School Levee**

**PROJECT INFORMATION REPORT  
REHABILITATION OF DAMAGED FLOOD CONTROL WORKS  
BRISCOE SCHOOL LEVEE**

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**PART III. APPENDICES AND TABS**

- A. Project Sponsor's request for Rehabilitation Assistance
- B. Project Photos, Design Drawings and site map
- C. Disaster Incident – see body of report
- D. Damages – see body of report
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- F. Economics – see body of report
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## **PART I - EXECUTIVE SUMMARY**

PROJECT NAME: Briscoe School Levee, Job No. GRE-1-07

PROJECT FUNDING CLASS: 320

PROJECT CWIS NUMBER: 030768

LOCATION AND DESCRIPTION: This non-Federal flood control project is located on the right bank of the Green River in King County, Washington. The damaged project section is located near river mile 16.5, Section 2, Township 22 N, Range 4 E Willamette Meridian, King County, Washington. Appendix B provides photographs of damage, location and site maps, and typical cross sections for the proposed repair.

The levee is non-federal, and the project is active in the Public Law 84-99 Rehabilitation and Inspection Program. The Corps of Engineers performed restorative work on this levee in 1965 under PL 84-99. The Briscoe School Levee is part of an overall facility called the Desimone-Briscoe Levee which is approximately 12,150 feet long located from River Mile (RM) 15.2 to 17.8 on the Green River.

DESCRIPTION OF DAMAGE: Two separate disaster incidents have affected the Briscoe School Levee in 2006. The first occurred in January 2006 when rainfall and snowmelt resulted in an approximately 8-year event with a peak flow of 11,200 cfs at USGS gage #12113000 near Auburn, in King County, Washington. The frequency was based on regulated outflow from Howard Hanson Dam. The second occurred in early November 2006 when a large rainfall event fell over Western Washington, including 8.7" inches of rain over a 24 hour period at Howard Hanson Dam. This yields an estimated return interval for the November 2006 event on the Green River levees of between 5 and 15 years.

The flood events resulted in a rotational failure of a portion of the levee embankment along the right bank of the Green River near river mile 16.5. The damage to the structure is approximately 600 linear feet (LF).

PROPOSED REPAIR: The District considered multiple repair alternatives, including the repair to Pre-Flood Condition alternative. The no-action and non- structural alternatives were evaluated. The recommended structural alternative is the Locally Preferred Plan. The no action alternative could eventually result in a breach and subsequent failure of the levee. Due to the costs of buying out all property owners for the non structural alternative compared to the level of benefit, this alternative was not investigated further. The recommended plan is the Locally Preferred Plan. Per ER 500-1-1, the local sponsor is responsible for all costs in excess of the least cost alternative. Therefore, two sets of cost estimates were prepared; one for the repair to Pre-Flood Condition alternative, and another for the Setback alternative. Drawings, maps, and other pertinent design

information are located in Appendix B. The repair will return the levee to the pre-flood 100-year level of protection.

**SUMMARIZED FINANCIAL AND ECONOMIC DATA:**

	Least Cost Alternative	Locally Preferred Plan
Total Construction Cost	\$522,200	\$786,700
Engineering and Design (Federal Cost)*	\$47,300	\$47,300
Total Project Cost	\$553,600	\$834,000
80% of Least Total Construction Cost	\$417,800	\$417,800
Total Federal Cost	\$465,100	\$465,100
Total non-Federal Cost	\$88,500	\$368,900
Annual Costs	\$31,800	\$46,900
Annual Benefits (minimum expected annual damages prevented)	\$479,200	\$479,200
Benefit Cost Ratio	15	10

\*the least cost alternative E&D is anticipated to be low due to increased environmental coordination requirements.

The estimated cost for rehabilitation of the damaged project for the Least Cost Alternative is \$553,600 at the August 2007 price level. The Locally Preferred Plan has a total cost of \$834,000. King County has proposed performing in-kind work with a value of \$214,000. The expected annual benefits from prevention of significant damages using estimated values shows significant damages avoided by repairing the levee and the benefit cost ratio was calculated at a favorable 10 to 1.

**ADDITIONAL INFORMATION:** None

**POINT OF CONTACT:** Doug Weber, CENWS-OD-EM, (206) 764-3406 or Layna Goodman, CENWS-OD-TS-PS, (206) 764-5523

## **PART II – BASIC REPORT**

### **1. Project Identification:**

- a. Briscoe School Levee, Job no. GRE-1-07
- b. Project Funding Class: 320
- c. Project CWIS Number: 030768

### **2. Project Authority:**

- a. Classification: Non-Federal levee designed for flood control to provide protection from periodic, recurring floods.
- b. Authority: The Briscoe School Levee was constructed in approximately 1964 with a weighted toe and riprap slope protection.
- c. Estimated original cost of project: Cannot be determined.
- d. Construction completion date of the original project: 1964.
- e. PL 84-99 rehabilitations have most recently been completed in 1965.

### **3. Public Sponsor:**

#### **a. Sponsor Identification:**

Deborah A. Scheibner, P.E.  
King County  
Water and Land Resources Division  
Department of Natural Resources and Parks  
KSC-NR-0600  
201 South Jackson Street, Suite 600  
Seattle, WA 98104  
(206) 263-7269  
Deborah.scheibner@metrokc.gov

#### **b. Application for Assistance:**

(1) Date of issuance of District's public notice: No notice issued for January 2006 floods. Issue for November 2006 flooding was sent on 29 November 2006.

(2) Date of public sponsor's written request: King County has requested assistance in repairing the damaged levee for two disaster incidents on 8 August 2006 and on December 28, 2006. (Appendix A). King County will act as the Public Sponsor. This includes providing all necessary real estate and cost share requirements. Before Government begins any construction work, the County will sign a Cooperation Agreement (CA) to provide the usual items of the local cooperation.

### **4. Project Location:**

a. This non-Federal flood control project is located on the right bank of the Green River in King County, Washington. The damaged project section is located near river mile 16.5, Section 2, Township 22 N, Range 4 E Willamette Meridian, King County, Washington.

b. The levee is an earthen material levee with armor rock on the riverward side. See Appendix B for photographs of damage, location and site maps, and typical cross sections for the proposed repair.

5. Project Design:

This non-federal, urban levee was constructed for flood control to provide protection from periodic recurring flooding for the residents of King County. The Briscoe School Levee is 6,350 feet long and is a part of an overall Briscoe-Desimone levee system on the Green River. The levee varies from about 3 to 12 feet high in the damaged areas, the top width is about 15 to 20 feet, and the riverward and landward slopes are approximately 2 horizontal (H) on 1 vertical (V) (2H:1V). The riverward slopes are armored throughout the system. The levee is predominantly composed of silty sand and/or gravel and native material and has an asphalt path on the crown. In the presently damaged state, the levee only provides protection from approximately the 17-year flood. With restoration, the levee would provide protection from the 100-year flood event. The Briscoe School Levee is currently shown on FEMA FIRM maps as protecting against the 100-year flood, but has never been certified.

6. Disaster Incidents: Two separate disaster incidents have affected the Briscoe School Levee in 2006. The first occurred in January 2006 when rainfall and snowmelt resulted in a peak flow of 11,200 cfs at USGS gage #12113000 near Auburn, in King County, Washington. The peak flow was approximately an 8-year event. This is still significant due to the fact that the Green River is regulated by Howard Hanson Dam. The regulated operation results in a small difference between the 2-year and 100-year event since the target for Howard Hanson Dam outflows is less than 12,000 cfs at Auburn.

The second occurred in early November 2006 when a large rainfall event fell over Western Washington, including 8.7" inches of rain over a 24 hour period at Howard Hanson Dam. The Green River is regulated by Howard Hanson Dam so that the discharge from the dam combined with the downstream flow doesn't exceed 12,000 cfs at the USGS Auburn gage #12113000.

- The combination of excessive rainfall and high freezing level produced daily average discharges above 10,000 cfs in the Green River for approximately three days with a peak discharge of about 12,000 cfs for a few hours.
- Based on the regulated discharge at the Auburn gage, daily discharges above 10,000 for one or more days have been observed in 9 of the 44 years since regulation began with Howard Hanson Dam, which has an estimated return interval of approximately 5 years.
- Peak inflows to the Howard Hanson Dam of 23,500 cfs were observed during this event, which has an estimated return interval of approximately 15 years.
- Peak discharges of between 10,000 and 12,000 cfs have been observed in 10 out of 44 years, which has estimated return interval of approximately 15 years.

This yields an estimated return interval for the November 2006 event on the Green River levees of between 5 and 15 years.

7. Project Damages: The flood event resulted in a rotational failure of a portion of the levee embankment along the right bank of the Green River near river mile 16.5. The damage to the structure is approximately 600 LF. The levee elevation dropped and resulted in transverse cracks in the asphalt surface. There is a 400 LF longitudinal crack running through the asphalt surface. There is a slough along the face of the levee approximately 200' long located about 2 feet below the levee crown with a depth that varies from 18 inches to 30 inches. Scour protection has also been lost in this reach. An emergency repair is needed to ensure the integrity of the project. (See Appendix B for photographs of damage). The second flood in November resulted in a more pronounced separation of the transverse cracks in the asphalt surface.

8. Project Performance:

King County has maintained the levee with periodic vegetation maintenance. The level of maintenance is consistent with Seattle District recommendations. There are no maintenance deficiencies. The levee was last inspected in October 2005 and was found to be in acceptable condition. The annual levee vegetation maintenance budget is approximately \$500.

9. Project Repair Alternatives Considered: The District considered multiple repair alternatives, including the repair to pre-flood condition alternative. The no-action and non-structural alternatives were also evaluated. The no action alternative could eventually result in a breach and subsequent failure of the levee. Due to the costs of buying out all property owners for the non structural alternative compared to the level of benefit, this alternative was not investigated further. The recommended alternative is the Locally Preferred Plan which will return the levee to the pre-flood 100-year level of protection and consists of setting back the levee, large woody debris (LWD) placement and rock placed at the toe of the repair section and. The Locally Preferred Plan is not the lowest cost alternative.

Alternatives:

a. No Action Alternative

The No action alternative was rejected due to the high likelihood of partial or total failure of the levee with the occurrence of a 17 year event. The results of a failure would include damages of commercial establishments, local infrastructure including roads and utilities.

b. Repair to Pre-flood Condition (Least Cost Alternative):

This alternative was evaluated and would return the levee to pre-flood condition. This plan consists of pulling the riverward slope back to 2H:1V, removing the material to the failure plane and rebuilding the levee for a length of approximately 600 feet. It would also include repairing the crown, landward and riverward slopes and replacing the armor and toe rock and placing willows at the ordinary high water elevation and hydroseed the embankment. The Services generally request large woody debris placement (LWD) for levee repairs. LWD is therefore considered to be a necessary element of the flood control project repair and is within the original levee footprint. This plan provides the lowest-cost solution.

c. Flood Wall with Bench Alternative

The flood wall with bench alternative would include a concrete capped sheetpile wall constructed on the backside of the levee. The wall would be the full levee height. This alternative was evaluated due to the small easement footprint. It would allow room for the asphalt path on top and a riverward bench to create habitat. This alternative is not being further evaluated at this time due to the excessive estimated costs.

d. Locally Preferred Plan

This alternative was chosen because it is the sponsor preferred alternative and will return the levee to the pre-flood level of protection. Per ER 500-1-1, the local sponsor is responsible for all costs in excess of the least cost alternative. The Engineering and Design (E&D) costs for the locally preferred plan are estimated to be equal to or less than the E&D costs of the least cost alternative. The primary reason for this is the reduced environmental coordination costs due to the selection of an option preferred by the resource agencies. This alternative provides additional habitat features over the repair to pre-flood condition alternative. The levee will be set back, and the slope regraded, and a riverward bench will be established. A rock toe will be installed, and LWD will be anchored by large riprap along the toe. Various shrubs will be planted along the bench and slope at and above the ordinary high water line.

e. Non-Structural Alternative

This alternative would relocate all existing commercial structures, roads, utilities and other infrastructure within the damage area protected by this section of levee. This was not a viable alternative for our sponsor. The costs associated with this alternative were deemed too high for the level of benefit associated with this alternative.



10. Recommended Alternative (Locally Preferred Plan): The recommended alternative is the Locally Preferred Plan. The repair will be accomplished through emergency contracting procedures. The repair of damages will be approximately 600 linear feet (LF). The landward slope will be regraded to 2H:1V and the riverward slope will be regraded to 2H:1V with rock toe with coir wrapped willow and dogwood cuttings placed above the ordinary high water mark. LWD will be anchored at the rock toe. An approximately 30 LF bench will be constructed and planted with native vegetation. A short retaining wall will be built on the landward side of the levee prism. The asphalt path on the levee crown will be replaced. This alternative offers pre-flood level of protection, with added habitat benefits and is preferred by the sponsor. The riverward levee toe will be armored with Class IV riprap. All protection material will consist of clean, non-contaminated material. Creation of an access ramp to the levee face will be required. See Appendix B for design drawings, maps and photos.

In water work is anticipated to be completed during the fish window from August 1 - 31. Due to the emergency nature of this work, construction must be completed as soon as possible.

#### 11. Real Estate

The Cooperative Agreement will require that the Public Sponsor provide all lands, easements and rights of way, relocations and disposal areas that the Corps of Engineers Real Estate Division identifies as necessary for the construction of the Rehabilitation Effort and for the operation and maintenance of the Briscoe School Levee Project. The lands necessary for the Rehabilitation Effort must be made available prior to solicitation for the construction contract. See the proposed project schedule under Section 15 of this report.

To meet these real estate requirements, the Public Sponsor will need to demonstrate that it has adequate flood protection easements. From preliminary discussions and an initial review of its existing real estate rights, the Public Sponsor will need to acquire permanent flood protection easements for the Rehabilitation Effort and possibly for portions of the Briscoe School Levee Project.

The footprint for the Rehabilitation Effort in the Locally Preferred Plan includes state aquatic lands managed by the Washington State Department of Natural Resources (DNR). USACE policy requires perpetual flood protection easements but DNR policy precludes perpetual easement grants on state aquatic lands. However, DNR policy does allow for 90 year term easements. Consequently, the Public Sponsor will need to acquire from DNR a non-standard 90 year flood protection levee easement with a right to renew. Seattle District will request higher authority approval for a policy deviation and the non-standard estate as shown below. It is anticipated that the time needed to obtain this higher approval should not adversely impact the current project schedule.

#### NON-STANDARD FLOOD PROTECTION LEVEE EASEMENT

An assignable right and easement in, on, over and across the lands of the Grantor(s) described in Exhibit A, attached hereto, for a period of ninety (90) years from \_\_\_\_\_ 2007 until \_\_\_\_\_ 2097, to construct, maintain, repair, operate, patrol, and replace a flood protection levee, and all appurtenances thereto including woody debris and anchoring structures;<sup>1</sup> reserving, however, to the owners, their heirs and assigns, all such rights and privileges in the land as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads, and pipelines.

The Public Sponsor also needs to acquire a perpetual road easement located upstream of the repair area for the construction, operation and maintenance of the levee. This permanent easement will come from South 194<sup>th</sup> Street, across private property (Parcel # 788880-0170) to the levee.

The Public Sponsor will need to acquire three (3) temporary work area easements to support the proposed construction of the levee, see the project drawing in Appendix B for the approximate location of the staging areas.

The location of a temporary disposal site will be determined during the E&D phase. If the Public Sponsor is unable to provide a suitable disposal area; then the material will be taken to a suitable commercial site for disposal.

## 12. Economic Evaluation:

a. Benefits attributable to the proposed levee repair are calculated on the difference in probabilities associated with the Level Of Protection<sup>2</sup> (LOP) provided by the levee in the repaired condition compared to the damaged or post event condition. With repair, the levee will be restored to a 100-year level of protection. In accordance with ER 500-1-1, the economic life applicable to non-Federal urban levees shall be 50-years, or the degree of protection afforded by the project, whichever is less. Therefore, the following economic analysis is based on the federal FY07 discount rate of 4.875 percent with an economic life of 50 years. Prior to the event, this levee provided protection from floods with a 100 year recurrence interval. The recent high water event caused damages to the levee that degraded the LOP to an event (or combination of events) equivalent to an estimated seventeen year recurrence interval. The properties protected by this levee are in the Kent Valley on the Right bank of the Green River.

<sup>1</sup> Estate language supports current proposed plan, but is subject to change if woody debris is removed and/or estate is not approved as presented by higher authority.

<sup>2</sup> Note concerning the use of the phrase Level of Protection. The US Army Corps of Engineers emphasizes that we do not protect against anything, we reduce potential risks and damages and descriptions this risk reduction are given in terms of performance. For example 100-year Level of protection in terms of risk reduction performance means that there is a 90% probability of containing inside the banks of the river a flow or stage that is expected to have a frequency or annual probability of 1%. However, the data requirements and analysis required to define the level of performance is typically out of scope for this level of study, so "Level of Protection" in this document shall imply nothing more than a high probability of containing a flow or stage of the frequency indicated by the specified "Level of Protection".

The flood plain protected extends at least two miles east of the right bank and 2.5 miles north (downstream); an industrialized area of at least 5 square miles with an average of approximately 100 light manufacturing, warehouses, and distribution structures per square mile with an average value of approximately \$1.3 Million per structure based on a limited sample of 15 structures. Thus providing flood risk reduction benefits to approximately \$650 Million dollars in structures. In addition there are numerous roads that provide transportation access between Auburn, Kent, and Renton and utilities that supply gas and electricity to the many businesses. A series of events with an approximate recurrence interval of 17 years could result in a levee failure at the Briscoe School levee.

Typically when levees fail, they fail catastrophically. Water violently and rapidly erodes the levee down to the river bottom and any structures and properties within the immediate vicinity are usually destroyed. It is estimated that it would inundate the protected area with an average minimum depth of at least four inches of water. The failure mechanism is based on an event in which an approaching weather event requires a rapid drawdown to ensure reservoir space. The rapid drawdown would cause slumping of the levee and a subsequent event within a short time period would cause failure of the levee. According to historical records the recurrence interval of this particular sequence of events is about 17 years. The pre-damage level of protection for this levee is the 100 year reoccurrence interval event. However, due to the nature of this regulated system there would not be a difference in inundation depths or damages from a 100 year event. Based on data from 1998 FEMA Depth Damage Curves four inches of water could cause structure and content damages equivalent to about 28% of the \$650 Million in structure value or about \$181 Million. With an annual probability of 0.059 this is a minimum of about \$10 Million in expected annual damages.

Due to the frequent observation of near total destruction of structures in the immediate vicinity of levee breaches the damages prevented by the rehabilitation of this part of the levee will be based on five buildings in the immediate vicinity of the levee damage that would probably be destroyed if a failure occurred during a seventeen year event. Based on King County tax assessor building data and the Marshal and Swift Valuation Service these five buildings have a total depreciated replacement value of approximately \$8.8 Million plus estimated content values of at least \$973,000 or a total of about \$9.8 Million in potential property damages to these five buildings and the businesses that use them. Since the levee only provides protection to the .01% event it is the difference in probabilities between the protected and non-protected state of the levee or .059 minus the 100 year event or .01 probability event. Assuming 100% damages with an annual probability 0.059 minus the 100 year event or .01 probability equal to a .049 % probability the, the expected annual damages prevented by repairing the levee are at least \$479,200.

With repair, the levee will be restored to a 100 year LOP; therefore the expected annual damages of at least \$479,200 are considered preventable and taken as project benefits.

April. 2007 Prices

Annual Damage Prevented: \$ 479,200

First Cost: \$ 834,000

Annual Cost:

Interest and Amortization (50 years @ 4.875%) \$ 44,900

Operation & Maintenance \$ 2,000

Total Annual Costs \$ 46,900

Benefit-to-Cost Ratio (minimum) 10 to 1

The following checks were performed:

1. Assessed property improvements protected \$ 646,000,000  
(More than \$834,000 in total project costs)
2. Value of Cropland: Not Applicable
3. Net Farm Income: Not Applicable

c. Distribution of Project Benefits: There are over 100 property owners in the protected area. No individual beneficiary receives greater than 25 percent of the total project benefits.

13. Environmental:

The Green river provides rearing habitat for fall Chinook, coho, and summer steelhead. Pink, sockeye, and fall chum salmon, bull trout, and winter steelhead are also present in this system. The following species are listed under the Endangered Species Act (ESA) and may be found in the project area:

Puget Sound Chinook <i>Oncorhynchus tshawytscha</i>	Threatened
Coastal/Puget Sound Bull Trout <i>Salvelinus confluentus</i>	Threatened
Bald Eagle <i>Haliaeetus leucocephalus</i>	Threatened
Marbled Murrelet <i>Brachyramphus marmoratus</i>	Threatened
Northern Spotted Owl <i>Strix occidentalis Caurina</i>	Threatened
Puget Sound Steelhead* <i>Oncorhynchus mykiss</i>	*Proposed for listing

It is anticipated that there will be no major, long-term adverse effects to any listed species. The majority of work will be conducted out of the water and any in-water work will be targeted for construction during the approved Washington Department of Fish and Wildlife (WDFW) in-water work window (August 1-31).

Issues:

a. Water Quality. Short-term, discountable adverse impacts may result from the repairs to the levee. A temporary increase in turbidity due to fill placement is expected. Turbidity will be monitored during construction. If turbidity exceeds water quality standards, construction will recommence when turbidity returns to acceptable levels.

b. Fish and Wildlife. Short-term, discountable adverse impacts may result from construction activities during repairs to the levee. If present, fish and wildlife may be temporarily displaced from this area by short-term increases in noise and turbidity. Several large, mature trees will likely be removed during construction of the levee setback. Limited vegetation other than non-native Himalayan blackberry exists at the project site. However, proposed new plantings should increase the vegetative cover with native species along the levee in the long-term.

Beneficial long-term impacts to the environment are anticipated. In water construction will likely occur during the approved WDFW work window. Levee setbacks will result in widening of the Green River channel along approximately 600 linear feet resulting in increases in fish habitat. Willow plantings will aid in shading the river and developing a vegetative riparian corridor. Further plantings on the proposed bench include native shrubs and trees. Hydraulic modeling will determine if coniferous logs can be safely placed along the levee toe.

c. Wetlands. The proposed project is not anticipated to impact wetlands based on a reconnaissance survey conducted by a Corps biologist. A wetlands biologist will determine if an additional reconnaissance of the proposed access alignment, staging area, and construction footprint will be necessary.

d. Cultural Resources. Preliminary background research indicates that there were both Native American and early historic-period Euro-American settlements within the immediate vicinity and the project area should be considered likely to contain evidence of both structures and associated activities.

e. Recreation. This section of levee is part of the Green River Trail in King County. This trail is heavily used by walkers, joggers, cyclists, and other recreational enthusiasts. Construction to repair this part of the levee will temporarily close this section of the trail and cause recreational activities to be routed around the area.

f. Coordination. The proposed work is formally coordinated throughout the planning, design, and construction phases with the following agencies and Tribe:

- (1) U.S. Fish and Wildlife Service
- (2) NOAA Fisheries
- (3) Muckleshoot Indian Tribe
- (4) Washington Department of Fish and Wildlife
- (5) Washington Department of Ecology
- (6) State Historic Preservation Office
- (7) King County

Their recommendations will be considered and implemented as appropriate. The design will be coordinated with and reviewed by the above listed agencies. In accordance with ER 200-2-2, Procedures for Implementing NEPA, paragraph 8, Emergency Actions, the environmental effects of the proposed levee rehabilitation will be considered during the planning process. An environmental assessment (EA) is being prepared to evaluate probable impacts of the project on the existing environment. Factors addressed by the evaluation include public safety, water quality, wetlands, threatened and endangered species, noise, economics, fish, and wildlife. The EA will be coordinated with applicable Federal and State resource agencies. The NEPA process will be concluded as pursuant to requirements in ER 200-2-2. In addition, the requirements for compliance with the ESA will also be completed. The local sponsor will be required to obtain all applicable local and state permits. According to the Code of Federal Regulations, Title 33, Section 323.4 (a) (2), emergency reconstruction of recently damaged parts of levees does not require a Section 404 permit provided that the work does not include any modification that changes the character, scope, or size of the original fill design. Concerning scope and size, the proposed repair would not require a Section 404 permit as long as the footprint of the levee repair that falls within waters of the United States is no larger than the pre-damage footprint. All work on this project either will be conducted outside the limits of Section 404 or within the existing footprint and with the same character and materials. Since a Section 404 permit is not required, a Section 401 water quality certification from the Department of Ecology is not required. A Coastal Consistency Determination will be completed prior to construction. The Corps believes this proposal is exempt from substantial development permit requirements making it consistent to the maximum extent practical with the Washington State Shoreline Management Act.

g. Environmental enhancement features. Project construction will include the following environmental enhancement features: Approximately 600 linear feet of the levee is proposed to be setback. Logs positioned as deflectors may be placed at the bottom of the lower slope. Willow stakes will be planted in between coir wrapped over sand and gravel just below the mid-slope bench. The mid-slope bench will be planted with trees and shrubs and the upper slope will also be planted with vegetation. The long-term results of these habitat features would likely increase high water refuge, increase habitat complexity for juvenile salmonids, increase river shading, and increase riparian community production.

Historic Preservation Considerations: The Section 106 of the National Historic Preservation Act, of 1966 as amended (NHPA), compliance process has not been completed as of this date. A search of the Washington State Department of Archaeology and Historic Preservation electronic database found that there were no sites, buildings, or structures listed on National Register of Historic Places or the state's inventory within or close to the project's Area of Potential Effects (APE). Preliminary background research indicates that there was both Native American and early historic-period settler activity in the area, but no recorded cultural resources sites are present. Due to the reported presence of a Muckleshoot village and an early-historic period settler structure in the area, it is likely that archaeological monitoring during construction will be necessary. Tasks remaining to complete include tribal and SHPO coordination, shovel testing and augering along the backside of the existing levee, preparation and submittal of a final report with a determination of effects, and possible archaeological construction monitoring and preparation of a monitoring report.

14. Interagency Levee Task Force (ILTF)

HQUSACE has not directed activation of an ILTF for the flood event associated with the January 2006 floods in Western Washington.

15. Project Management

a. Funding Authority

- (1) Program and Appropriation: FCCE, 96x3125
- (2) Project Funding Class: 320
- (3) Project CWIS Number: 030768

b. Project Funds - Construction Cost Estimate - August 2007 Price Level

(1) Least Cost Alternative (LCA)

Construction Cost Estimate				
Briscoe School Levee - approximately 600 LF				
Item	Quantity	Unit of Measure	Unit Cost	Amount
Equipment Mob & Demob	2	Lump Sum	2,500	\$5,000
Class IV Riprap	2,500	tons	35	\$87,500
Demolition and disposal, asphalt and unsuitable material	100	tons	90	\$9,000
Material for access ramp	200	tons	20	\$4,000
Embankment (clay)	1,000	tons	25	\$25,000
2" Asphalt	670	sq yds	15	\$10,100
Removal and replacement of levee embankment to fix failure plane	5,835	tons	32	\$186,800
Disposal of unsatisfactory material	1,000	tons	20	\$20,000
6"-8" Quarry Spalls	2,000	tons	25	\$50,000
Gravel for access ramps	1,200	cy	20	\$24,000
Return staging area to pre-construction condition	1,670	sq yds	15	\$25,100
Hydroseed	1	Acre	3,000	\$3,000
Environmental Features	5%	Percent	22,500	\$22,500
<b>Subtotal</b>				<b>\$472,100</b>
Supervision and Administration	6%			\$28,400
Contingency	10%			50,100
<b>Total Construction Cost</b>				<b>\$522,200</b>
Engineering and Design	6%			\$47,300
<b>Total Project Cost</b>				<b>\$553,600</b>
Fed share 80% + E & D				\$449,200
Sponsor 20% construction cost				\$104,500



(2) Locally Preferred Plan

Construction Cost Estimate				
Briscoe Levee –				
Approximately 600 LF				
Item	Quantity	Unit of Measure	Unit Cost	Amount
Mobilization/ Demobilization	2	LS	2,500	\$5,000
Rock	2,178	CY	28	\$61,000
Asphalt Trail	600	LF	16	\$9,600
Asphalt demolition	7,200	SF	1.29	\$9,288
Staging Area Restoration	2,000	SY	15	\$30,000
Access Ramps	200	Tons	20	\$4,000
Gravel for Access Ramps	1,200	CY	20	\$24,000
Clearing and Grubbing	807	CY	22	\$17,800
Ecology Blocks	200	Each	90	\$18,000
Excavation	12,037	CY	25	\$301,000
Imported Fill	2422	CY	23	\$55,800
Revegetation	2046	Plants	3	\$6,200
Coir	17	Rolls	900	\$15,300
Planting Soil	1912	CY	9	\$17,300
Wood Deflectors	60	Logs	1,000	\$60,000
Log Chain	3000	LF	5.00	\$15,000
Hydroseed	1	AC	3,000	\$3,000
Light Loose Riprap	1489	CY	28.00	\$41,692
Gravel Ballast	489	CY	25.00	\$12,300
Temp Erosion Control	1	LS	5,000.00	\$5,000
<b>Subtotal</b>				<b>\$711,300</b>
Supervision and Administration	6%			\$42,700
Contingency	10%			75,400
<b>Total Construction Cost</b>				<b>\$786,700</b>
Engineering and Design	6%			\$47,300
<b>Total Project Cost</b>				<b>\$834,000</b>
Fed share 80% LCA construction + E & D				\$465,100
Sponsor 20% LCA construction cost + all additional costs				\$368,900

(3) In-Kind

The local sponsor has proposed to perform in-kind work totaling \$214,000. The work will involve constructing access ramps, clearing and grubbing, setting up erosion control measures and excavating the existing levee to the bench.

PROJECT REPAIR SCHEDULE (2007)

(1) Expected Division Approval of PIR	27 April
(2) Cooperation Agreement to King County	4 May
(3) LERRD Certification request to King County	4 May
(4) Initiate NEPA public participation	4 May
(5) Cooperation Agreement signed by King County	25 May
(6) Environmental Compliance Memo Completed	14 May
(7) Cooperation Agreement signed by Commander	16 May
(8) King County provides their cost share	28 May
(9) Real Estate Certified by Sponsor	22 May
(10) Real Estate Certified by COE RE Div	27 July
(11) Contract advertisement	3 July
(12) Contract bid opening	3 July
(13) Contract award	18 July
(14) Environmental Compliance Completed	1 August
(15) Notice to proceed issuance	1 August
(16) Construction start	2 August
(17) Construction completion	18 October
(18) Construction final inspection	15 December
(19) Fiscal closeout completed	15 January 2008

16. PROJECT AUTHENTICATION:

Prepared by: Layna Goodman, March 2007	(206) 764-5523
Emergency Management Approval by: Doug Weber	(206) 764-3406
District-level approval by: Diane Parks	(206) 764-3431

Technical Points of Contact

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