



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0016

JOHN ELIAS BALDACCI
GOVERNOR

DAVID A. COLE
COMMISSIONER

May 14, 2007
Subject: **Brewer**
Project No. FBD-9840(100)X
Pin No. 9840.10
Amendment No. 3

Dear Sir/Ms:

Please make the following changes to the Bid Documents:

In the Bid Book, REMOVE the existing: "Schedule of Items" nine page total, dated 070423 and REPLACE with the attached updated: "Schedule of Items" eight pages total, dated 070514.

On page 42: "Special Provision, Section 203, (Crushed Stone Fill)" under sub-section: "Pay Item" CHANGE the Pay Item number from 203.35 to Pay Item 203.36. Make this change in pen and ink.

On page 62: "Special Provision, Section 652, Maintenance of Traffic, (Traffic Control)" After the first Paragraph, DELETE in its entirety the following statement: "**ORIGINAL CONTRACT AMOUNT**" and REPLACE with the following statement: "**BASE BID AMOUNT.**" Make this change in pen and ink.

REMOVE the existing pages 130 through 136 and REPLACE with the attached: "Department of the Army Permit" four pages total.

ADD the attached: "State of Maine, Department of Environmental Protection" permit, nine pages total.

In the Plan Sheets, On sheet G-02 titled: "Tables, Abbreviations, and Notes" under the "Estimated Quantities Table" ADD (Item Number)-602.41, (Description)-24" RCP Class IV, (Base Bid Quantity)-42, (Units)-LF. Make this change in pen and ink.

On sheet G-02 titled: "Tables, Abbreviations, and Notes" under the "Estimated Quantities Table" ADD (Item Number)-618.143, (Description)-Special Seeding, (Base Bid Quantity)-10, (Units)-Unit. Make this change in pen and ink.



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On sheet G-02 titled: "Tables, Abbreviations, and Notes" under the "Estimated Quantities Table" under (Item Number)-652.35, (Description)-Construction Signs, CHANGE the (Base Bid Quantity) from 20 to 200, also DELETE the quantities from the Option 1, 2 & 3 columns. Make these changes in pen and ink.

On sheet G-02 titled: "Tables, Abbreviations, and Notes" under the "Estimated Quantities Table" under (Item Number)-652.36, (Description)- Maintenance of Traffic Control Devices, CHANGE the (Base Bid Quantity) from 90 to 300, also DELETE the quantities from the Option 1, 2 & 3 columns. Make these changes in pen and ink.

On sheet G-02 titled: "Tables, Abbreviations, and Notes" under the "Estimated Quantities Table" under (Item Number)-652.38, (Description)- Flaggers, CHANGE the (Base Bid Quantity) from 20 to 200, also DELETE the quantities from the Option 1, 2 & 3 columns. Make these changes in pen and ink.

On Plan Sheet L-04 titled: "Plan Sta. 57+00 to 69+50" under "Notes": ADD the following Note 3: "Payment for Meadow Mix/New England Wild Flower Mix or approved equal denoted on the plans between Stations 64+75+/- and 70+10 +/- will be made under Item 618.143 Special Seeding." Make this change in pen and ink.

The following questions have been received.

Question: Plan sheet C-02 denotes 42 LF of 24" RCP, how is this paid for?

Response: It will be paid for under Item 603.41.

Question: The plans reference "park mix" for seeding in the bid item list (Plan Sheet G-02) and on Plan Sheet L-05, but they reference "New England Wild Flower Mix" on Plan Sheet L-04. Which plant material goes where and what is the method of payment for each?

Response: See change made earlier in this amendment.

Question: The Schedule of Items calls for Item 203.36, Crushed Stone Fill. There does not appear to be a special provision for that Item.

Response: See change made earlier in this amendment.

Question: There is a material specification for 703.25, Stone Fill that calls for stone ranging in size from 1" to 4". The presumption from looking at the plans is that the 2" minus stone is for behind the sheet piling and the 4" stone is for under the riprap (which is incidental to the riprap). Is this presumption correct?

Response: Yes.

Question: We are requesting wage rates for the following classifications: crane operators, pile drivers, carpenters and iron workers reinforcing.

Response: The apparent low bidder will need to request wage rates for additional classifications by contacting the Maine Department of Transportation Labor Compliance Officer in the Civil Rights Office.

Question: The City of Brewer has informed a contractor that they will not allow use of the former Brewer Public Works site off Hardy Street as a staging area for any of the project except for the actual installation of stabilization along that site. Additionally, the restrictions on the use of the Children's garden are problematic. The path on the west side will be destroyed by doing the riprap work there and will require restoration. Why not let the contractor use that as an access point.

Response: The Contractor is correct in his/her understanding that the City of Brewer will not allow use of the former Brewer Public Work site as a staging area. Please see note on Plan C-02 for restrictions relative to the Children's garden. See State of Maine Standard Specifications Section 104 for contractor responsibility regarding access to property outside the Project Limits.

Consider this information and changes prior to submitting your bid on May 16, 2007.

Sincerely,



For Scott Bickford
Contracts & Specifications Engineer

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 009840.10

PROJECT(S): FBD-9840(100)X

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
SECTION 0001 PROJECT ITEMS						
0010	202.07 REMOVAL AND DISPOSAL OF CRIB WORK	850.000 T				
0020	202.19 REMOVING EXISTING BRIDGE	LUMP	LUMP			
0030	203.20 COMMON EXCAVATION	750.000 CY				
0040	203.2318 DISPOSAL OF SPECIAL WASTE	850.000 T				
0050	203.36 CRUSHED STONE FILL (TRUCK MEASURE)	300.000 CY				
0060	501.92 PILE DRIVING EQUIPMENT MOBILIZATION	LUMP	LUMP			
0070	502.219 STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	LUMP	LUMP			
0080	507.0841 STEEL PIPE HAND RAILING	LUMP	LUMP			
0090	542.93 STEEL SHEET PILE BULKHEAD	LUMP	LUMP			
0100	603.04 4" PVC DRAIN SERVICE	10.000 LF				

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 009840.10

PROJECT(S): FBD-9840(100)X

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0110	603.05 6 INCH PVC PIPE	20.000 LF				
0120	603.165 15 INCH REINFORCED CONCRETE PIPE CLASS III	42.000 LF				
0130	603.179 18 INCH CULVERT PIPE OPTION III	10.000 LF				
0140	603.41 24 INCH REINFORCED CONCRETE PIPE CLASS IV	42.000 LF				
0150	603.44 42 INCH REINFORCED CONCRETE PIPE CLASS IV	6.000 LF				
0160	604.09 CATCH BASIN TYPE B1	1.000 EA				
0170	604.18 ADJUSTING MANHOLE OR CATCH BASIN TO GRADE	6.000 EA				
0180	610.08 PLAIN RIPRAP	50.000 CY				
0190	610.162 HEAVY RIPRAP - PLAN QUANTITY	8520.000 CY				
0200	615.07 LOAM	1704.000 CY				
0210	618.1301 SEEDING METHOD NUMBER 1 - PLAN QUANTITY	52.000 UN				

SCHEDULE OF ITEMS

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CONTRACT ID: 009840.10

PROJECT(S): FBD-9840(100)X

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0220	618.143 SPECIAL SEED MIX:	10.000 UN				
0230	619.1201 MULCH - PLAN QUANTITY	54.000 UN				
0240	620.54 STABILIZATION GEOTEXTILE	600.000 SY				
0250	621.037 EVERGREEN TREES (5 FOOT - 6 FOOT) GROUP A	11.000 EA				
0260	621.195 MEDIUM DECIDUOUS TREE (1.75 INCH - 2 INCH CALIPER) GROUP A	72.000 EA				
0270	621.531 DECIDUOUS SHRUBS (12"-18"CAL.) GROUP A	146.000 EA				
0280	621.54 DECIDUOUS SHRUBS (18 INCH - 24 INCH) GROUP A	79.000 EA				
0290	621.546 DECIDUOUS SHRUBS (2 FOOT - 3 FOOT) GROUP A	115.000 EA				
0300	621.71 HERBACEOUS PERENNIALS GROUP A	1082.000 EA				
0310	621.80 ESTABLISHMENT PERIOD	LUMP	LUMP			
0320	629.05 HAND LABOR, STRAIGHT TIME	40.000 HR				

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 009840.10

PROJECT(S): FBD-9840(100)X

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0330	631.10 AIR COMPRESSOR (INCLUDING OPERATOR)	16.000 HR				
0340	631.11 AIR TOOL (INCLUDING OPERATOR)	16.000 HR				
0350	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	16.000 HR				
0360	631.13 BULLDOZER (INCLUDING OPERATOR)	16.000 HR				
0370	631.171 TRUCK - SMALL (INCLUDING OPERATOR)	16.000 HR				
0380	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	10.000 HR				
0390	631.22 FRONT END LOADER (INCLUDING OPERATOR)	16.000 HR				
0400	631.28 BRUSH CHIPPER (INCLUDING OPERATOR)	20.000 HR				
0410	639.18 FIELD OFFICE TYPE A	1.000 EA				
0420	652.31 TYPE I BARRICADE	4.000 EA				
0430	652.33 DRUM	15.000 EA				

SCHEDULE OF ITEMS

REVISED:

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PROJECT(S): FBD-9840(100)X

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0440	652.34 CONE	20.000 EA				
0450	652.35 CONSTRUCTION SIGNS	200.000 SF				
0460	652.36 MAINTENANCE OF TRAFFIC CONTROL DEVICES	300.000 CD				
0470	652.38 FLAGGER	200.000 HR				
0480	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP	LUMP			
0490	659.10 MOBILIZATION	LUMP	LUMP			
0500	660.21 ON-THE-JOB TRAINING (BID)	1000.000 HR				
SECTION 0001 TOTAL						.

SECTION 0002 OPTION 1
ALT GROUP OP1

0510	202.07 REMOVAL AND DISPOSAL OF CRIB WORK	100.000 T				
0520	203.20 COMMON EXCAVATION	60.000 CY				

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 009840.10

PROJECT(S): FBD-9840(100)X

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0530	203.2318 DISPOSAL OF SPECIAL WASTE	600.000 T				
0540	610.162 HEAVY RIPRAP - PLAN QUANTITY	1740.000 CY				
0550	615.07 LOAM	50.000 CY				
0560	618.1301 SEEDING METHOD NUMBER 1 - PLAN QUANTITY	5.000 UN				
0570	619.1201 MULCH - PLAN QUANTITY	5.000 UN				
0580	620.54 STABILIZATION GEOTEXTILE	100.000 SY				
0590	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP	LUMP			
0600	659.10 MOBILIZATION	LUMP	LUMP			
0610	660.21 ON-THE-JOB TRAINING (BID)	80.000 HR				
SECTION 0002 TOTAL						.

SECTION 0003 OPTION 2
ALT GROUP OP2

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 009840.10

PROJECT(S): FBD-9840(100)X

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0620	202.07 REMOVAL AND DISPOSAL OF CRIB WORK	100.000 T				
0630	203.2318 DISPOSAL OF SPECIAL WASTE	1200.000 T				
0640	610.162 HEAVY RIPRAP - PLAN QUANTITY	617.000 CY				
0650	615.07 LOAM	50.000 CY				
0660	618.1301 SEEDING METHOD NUMBER 1 - PLAN QUANTITY	5.000 UN				
0670	619.1201 MULCH - PLAN QUANTITY	5.000 UN				
0680	620.54 STABILIZATION GEOTEXTILE	100.000 SY				
0690	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP	LUMP			
0700	659.10 MOBILIZATION	LUMP	LUMP			
0710	660.21 ON-THE-JOB TRAINING (BID)	80.000 HR				
SECTION 0003 TOTAL						.

SECTION 0004 OPTION 3
ALT GROUP OP3

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 009840.10

PROJECT(S): FBD-9840(100)X

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0720	202.07 REMOVAL AND DISPOSAL OF CRIB WORK	100.000 T				
0730	203.2318 DISPOSAL OF SPECIAL WASTE	1000.000 T				
0740	610.162 HEAVY RIPRAP - PLAN QUANTITY	4113.000 CY				
0750	615.07 LOAM	40.000 CY				
0760	618.1301 SEEDING METHOD NUMBER 1 - PLAN QUANTITY	4.000 UN				
0770	619.1201 MULCH - PLAN QUANTITY	4.000 UN				
0780	620.54 STABILIZATION GEOTEXTILE	100.000 SY				
0790	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP	LUMP			
0800	659.10 MOBILIZATION	LUMP	LUMP			
0810	660.21 ON-THE-JOB TRAINING (BID)	200.000 HR				
	SECTION 0004 TOTAL					
TOTAL BID INCLUDING ALL OPTIONS						

DEPARTMENT OF THE ARMY PERMIT

Maine DOT, 16 State House Station Augusta, ME 04333-0016

Permittee City of Brewer, 80 North Main Street, Brewer, ME 04412

Permit No. NAE-2005-3165

Issuing Office New England District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

1. Fill approximately 104,070SF (2.389 acres) of the Penobscot River in conjunction with construction of a 5,520 linear foot shoreline protection project. Sheet pile bulkhead will be used along 1,930 feet of the project and the remaining 3,590 feet will be ripraped.
2. Fill approximately 2,755SF (0.062 acres) of the Penobscot River in conjunction with the upgrade of an unimproved boat ramp used by emergency response units.

This work is shown on the attached plans entitled, "MAINE DEPARTMENT OF TRANSPORTATION, AUGUSTA, MAINE/CITY OF BREWER, RIVER BANK STABILIZATION PROJECT", on 53 sheets, and dated "July 2005."

Project Location:

In the Penobscot River at Brewer, Maine

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on MAR 3 2011. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. The permittee shall ensure that a copy of this permit is at the work site whenever work is being performed and that all personnel performing work at the site of the work authorized by this permit are fully aware of the terms and conditions of the permit. This permit, including its drawings and any appendices and other attachments, shall be made a part of any and all contracts and sub-contracts for work which affects areas of Corps of Engineers jurisdiction at the site of the work authorized by this permit. This shall be done by including the entire permit in the specifications for work.

(Special Conditions continued on Page 4)

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

Section 404 of the Clean Water Act (33 U.S.C. 1344).

Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1414).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

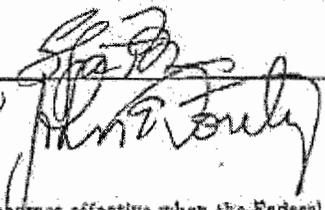
d. Design or construction deficiencies associated with the permitted work.

- c. Damage claims associated with any future modification, suspension, or revocation of this permit.
- 4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
- 5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
 - a. You fail to comply with the terms and conditions of this permit.
 - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
 - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 320.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

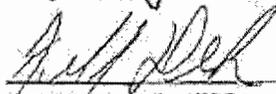
6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.



 (PERMITTEE) 3-27-06
(DATE)
 CHIEF ENGINEER MAR 31 2006

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.



 (DISTRICT ENGINEER) 3-3-06
(DATE)
 Curtis L. Thalken
 Colonel, Corps of Engineers
 District Commander

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

 (TRANSFeree) (DATE)

(Special Conditions continued from Page 2)

If the permit is issued after the construction specifications but before receipt of bids or quotes, the entire permit shall be included as an addendum to the specifications. If the permit is issued after receipt of bids or quotes, the entire permit shall be included in the contract or sub-contract as a change order. The term "entire permit" includes permit amendments. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions of the entire permit, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps jurisdiction.

2. Adequate sedimentation and erosion control devices, such as geo-textile silt fences or other devices capable of filtering the fines involved, shall be installed and properly maintained to minimize adverse impacts on waters and wetlands during construction. These devices must be removed upon completion of work and stabilization of disturbed areas. The sediment collected by these devices must also be removed and placed upland, in a manner that will prevent its later erosion and transport to a waterway or wetland.

3. All bank preparation, trenching & backfilling or placement of riprap shall occur when the tide is below the work area. When the tide is above the work area no work is authorized unless further consultation with the National Marine Fisheries Service (NMFS) has occurred. Point of contact with NMFS for Atlantic salmon is Jeff Murphy (Jeff.Murphy@noaa.gov) at 207-866-7379. Point of contact with NMFS for shortnose sturgeon is Julie Crocker (Julie.Crocker@noaa.gov) at 978-281-9328 ext 6530.

4. No additional filling, clearing or other disturbance of waters of the United States (wetlands or waterways) is authorized without written approval from the Corps.

5. Mitigation shall be performed in accordance with a final mitigation plan which shall be submitted within 90 days of permit issuance and which shall not be implemented until the Corps of Engineers approves it in writing. The final mitigation plan shall be based on the draft mitigation plan entitled, "Preliminary Wetland Mitigation Plan for the MDOT and the City of Brewer Proposed Penobscot River Shoreline Improvement Project in Brewer, Maine." and dated "September 15, 2005" and shall be in accordance with the attached guidance.



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE HOUSE STATION 17 AUGUSTA, MAINE 04333

DEPARTMENT ORDER

IN THE MATTER OF

CITY OF BREWER/MDOT) NATURAL RESOURCES PROTECTION ACT
Brewer, Penobscot County) SHORELINE STABILIZATION
PENOBSCOT RIVER STABILIZATION PROJECT) WATER QUALITY CERTIFICATION
L-20551-4D-D-N (approval)) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S.A. Sections 480-A *et seq.* and Section 401 of the Federal Water Pollution Control Act, the Department of Environmental Protection has considered the application of CITY OF BREWER/MDOT with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. History of Project: The shoreline of the Penobscot River has been eroding and timber cribbing and other forms of shoreline protection have been failing for many years. The loss of property and potential for damage to structures along the shore increased to the point that individuals along the waterfront considered making improvements to the shoreline and, in conjunction with the City of Brewer, prepared Permit-by-Rule Notifications for the work on each of their properties. However, the Department required that the project be permitted as a whole and the notifications were withdrawn. Around that same time, the U. S. Army Corps of Engineers also considered a project to stabilize particularly vulnerable sections of the shoreline but ceased moving forward with their studies when the City and the Maine Department of Transportation expressed desire to take responsibility for the project.

B. Summary: The applicant now proposes to stabilize the eroding shoreline and construct a multi-use trail along the bank of the Penobscot River. The system that will be affected is a riverine wetland system, predominately a freshwater system, influenced by the tide.

The goal of the proposed project is to further the efforts of the City of Brewer to maintain its shoreline and meet the goals included in the City's Comprehensive Plan, which includes an Open Space and Trails Plan. The Comprehensive Plan, Open Space and Trails Plan, states that the Penobscot River is the preeminent focal point and natural feature of the City and that the City's waterfront is an asset to be retained and enhanced.

The proposed project comprises approximately 5,520 feet of riverbank stabilization, including around a manmade island, a 4,100-foot multi-use trail, and improvement of a boat launch, on the east bank of the Penobscot River in Brewer, Maine at the location

L-20551-4D-D-N

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shown on Figure 3-1 in Attachment 3. The entire length of the project area is over 8,455 feet, but during the feasibility phase of the project, portions of the riverbank were identified as stable by the Maine DEP and no work is proposed in those areas. An additional 600-foot long section of particularly vulnerable riverbank was stabilized with riprap in late 2003. That project was known as the Muddy Rudder project and is referred to as such in this application. Shoreline stabilization is required to prevent further loss of the riverbank. The area of impact below Spring High Tide is 106,825 square feet. The area of impact below Spring High Tide that resulted from the Muddy Rudder project was 17,045 feet.

The City is obtaining easements for the project from property owners along the route. These easements will also be used for access to the shoreline for construction of the shoreline stabilization. Portions of the trail will be located in an existing sewer easement. Additional easements on the river side of the sewer easement will also be obtained for the projects. Copies of easements obtained to date, or property owner agreements for work on the project are attached. Easements for all work areas will be obtained prior to construction in those areas.

The existing deteriorated bulkheads in some locations were installed prior to 1970. In some cases, they are constructed of timbers. In other areas, they are constructed of old car bodies and appliance parts. The old structures are falling apart and causing erosion to occur. In some areas, failure could cause other manmade materials, which have been buried in the area and are now held back by the old bulkhead structures, to fall into the river. Installation of steel sheet pile bulkhead in those areas will significantly decrease the risk of harmful materials being released into the River. Riprap will also be used to stabilize and protect the existing riverbank from further slumping and loss in certain locations. It will limit the potential for erosion and thereby decrease the amount of sediment entering the River and depositing downstream of the project area.

The project site is located on Route 15 in the City of Brewer.

C. Current Use of the Site: The site is currently used for a mix of heavy and light commercial activities with some residences intermixed.

2. WATER QUALITY CONSIDERATIONS:

Two basic methods will be used to provide riverbank stabilization along the length of the project. One method will be armor the slope with riprap. Riprap will be used to provide shoreline stabilization along approximately 3,590 feet of the project. Riprap is primarily proposed in locations where no significant shoreline protection structures, or remnants of such structures, exist. There are a few places where timber cribbing will be removed to install the riprap. The toe of the riprap will be placed during phases of the tide when water is below the work area. Design of the riprap was changed as the project evolved to minimize the work below the elevation of mean low water.

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There are areas where the final design includes installation of the toe of the riprap below the elevation of mean low water but outside of the channel. Cross section Station 68+00, on Figure 5-41, illustrates this situation. Installation in those areas will be made during low tides when a berm of existing river bottom material will be maintained, in its original state, between the water and the work area. Demolition of existing wooden cribs and installation of riprap in the vicinity of Station 64+00 will take place at low tides to minimize disturbance in the water. The use of coffer dams was considered, but was ruled out as not being practical. The construction contractor may also propose to use floating boom silt curtain in those areas. Erosion and sedimentation control for the project is explained in Attachment 8 of this application. The top of the riprap will extend to the elevation of anticipated ice action when the river water is high or to the height of existing adjacent riprap where it occurs. The elevation of the top of riprap ranges from 15 feet to 21 feet, with the majority at an elevation of 17.6 feet.

The other method of shoreline stabilization is sheet pile bulkhead walls. The steel sheet pile bulkhead stabilization alternative will be used along approximately 1,930 feet of the shoreline where existing walls are at risk, or have previously failed. The sheet pile will follow the toe of the existing wall to the greatest extent practicable. The new sheet pile cannot be immediately adjacent to the City of Brewer old wall in all places, because the face of the existing wall is not flush, as seen in Photos F and G. The sheet pile wall will be installed within a foot of the existing wall/cribwork. There are cross-sections where it appears there is no existing wall. Cross-sections 31+50 and 40+50 are two such instances. These are locations where the cribbing is deteriorated and/or buried and was not discernable by the contour interval of the topographic mapping. However, the survey located timber cribbing at those locations. Because the extent of what is buried is unknown, and potentially could cause foundation problems for the wall, it was the professional opinion of the design engineer to encase, rather than drive through, the existing cribbing in those areas. The proposed sheet pile wall design provides for structural integrity while minimizing the area of impact. Fill will be placed behind the sheet pile wall to bring the area to the final design grade. It will provide material to hold the anchors attached to the sheet pile walls. Placement of fill for this purpose is particularly necessary behind the sheet pile wall in the area of the J.R. Redemption property (Station 34+00 to 37+00) because the existing material at that site should not be disturbed because of the debris that may be buried in that location. The final design elevation of the top of the sheet pile wall is based on a combination of matching the existing grade and providing the best protection from ice and water forces of the river. The top of the sheet pile wall ranges from 16.3 feet to 19.0 feet (20 feet with the concrete cap) elevation. Further descriptions of the construction methods to be used for each stabilization method are included in Attachment 7. Plan views of the work areas are shown on the Figures 5-2 through 5-23 in Attachment 5. Alternatives considered for both the stabilization and trail are described in Attachment 2. The plans show the entire project, including the proposed multi-use trail and sheet pile bulkhead wall that will be constructed in the future when sufficient funds are available. A proposed construction schedule is included in Attachment 7. Thirty-nine cross sections are included on Figures

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S-24 through S-44 in Attachment 5. A detail of the transition between sheet pile walls and riprap slopes is included as Figure 6-1 in Attachment 6.

The Department does not anticipate that the proposed project will violate any state water quality law, provided that the project is implemented and maintained as proposed by the applicant in the application and detailed above, including those governing the classification of the State's waters.

3. HABITAT CONSIDERATIONS:

The Maine Department of Inland Fisheries and Wildlife reviewed the proposed project and stated that there are no Essential or Significant Wildlife Habitats at the project site.

A botanist from the Department of Conservation visited the site on September 19, 2005. He observed 4 plants of special significance detailed in his comment letter dated September 22, 2005. The botanist noted that one location of the project, these species may be impacted, and made the following are the recommendation for the entire site;

1. No fill shall be placed on the riverbank below the high tide line on any portion of the project unless it is part of the stabilization structure;
2. From the I-395 bridge south to the cove, the work shall be done only from the upland when ever possible. If it is necessary to work in the area below high tide, mats shall be used by any wheeled or tracked vehicle.
3. Prior to construction, all the locations of the rare plants shall be mapped and flagged. By September 1st of the year following the completion of the construction is completed, the applicant shall map the location of the rare species, and compare the post construction findings with the pre-construction findings.

In Attachment 9 of the application, the applicant submitted an Ecological Characterization of the work area which included habitat maps, field data sheet and photos; the report detailed the location of rare plant species.

Provided that the above mentioned recommendations are implemented and maintained, the Department does not anticipate that the proposed project will negatively impact any habitats.

4. WETLANDS AND WATERBODIES PROTECTION RULES:

The Department's Wetlands and Waterbodies Protection Rules, Chapter 310, require that the applicant meet the following standards:

- a. **Avoidance.** No activity may be permitted if there is a practicable alternative to the project that would be less damaging to the environment. Each application for a freshwater wetland/coastal or a tidal riverine wetland system alteration permit must

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provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist. The applicant submitted an alternative analysis for the proposed project completed by Woodlot Alternatives, Inc and dated March 2005. The applicant has altered the project to stabilize just those area that are eroding into the River

b. Minimal Alteration. The amount of wetland to be altered must be kept to the minimum amount necessary for meeting the overall purpose of the project. Wetland impacts resulting from the shoreline stabilization project have been avoided and minimized to the extent practicable in the design process. As currently designed, the proposed shoreline work will result in approximately 2.4 acres of wetland impact, including approximately 106,825 square feet of freshwater intertidal habitat and 1,000 square feet of freshwater subtidal habitat..

c. Compensation. Compensation is required to achieve the goal of no net loss of wetland functions and values. The principal wetland functions and values that occur within the riverine wetland system of the project area are groundwater interchange, flood flow alteration, fish and shellfish habitat, sediment/toxicant retention, nutrient removal, production export, wildlife habitat, recreation, and endangered species habitat. Of these, fish and shellfish habitat, flood flow alteration, wildlife habitat, and endangered species habitat will be altered by the proposed shoreline stabilization. Options for compensatory mitigation to offset the unavoidable wetland impacts were discussed during an April 1, 2005, meeting between MDOT, the City, the Maine Department of Environmental Protection (DEP), and the Corps. Those discussions focused on the need to maximize the amount of on-site, in-kind wetland restoration and to make up the remainder through off-site mitigation. A search by the applicants of the project area identified the existing, so-called Mill Street Dam on Sedgeunkedunk Stream in Brewer as a viable mitigation opportunity. During the April 1, 2005, pre-application meeting, the DEP and Corps agreed in concept that the Mill Street Dam site offered the opportunity to restore stream flows, habitats, and fish passage, and along with the on-site restoration, these measures would provide appropriate compensation to offset the wetland functions and values being impacted by the shoreline stabilization work along the Penobscot River.

On-Site Mitigation

Figures 2-A through 2-F show the locations of 7 individual areas where the removal of existing fill and structures from the proposed shoreline stabilization reaches will allow for in-kind restoration of intertidal freshwater riverine habitat. Table 1 provides a summary of these restoration opportunities, and Photos 1 through 7 show the existing conditions at each location. Restoration will consist of removing fill or cribwork structures and re-grading the substrates to match the elevation of the adjacent, undisturbed intertidal habitats. Restoration work will be concurrent with the stabilization work, and removal and regrading will be done in-the-dry (i.e., between tide cycles) to minimize sedimentation and siltation of river water. Because the restoration areas are within the regularly-flooded, intertidal zone of the river, it is expected that substrates will stabilize and the vegetation and benthic fauna will establish naturally over time. Though intertidal

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plantings were considered early in the mitigation design process, none are being proposed. This is because it is anticipated that the forces of river ice would damage or remove plantings. In addition, plants with deeper roots would damage the filter fabric under the riprap, thereby compromising the integrity of the stabilization structure on those portions of the project. Listed in Table 1 of the proposed wetland Compensation plan is a summary of on-site wetland compensation for a total 17,305 S.F.

Off-Site Mitigation

Off-site mitigation is proposed at the site of an existing dam on Sedgeunkedunk Stream in Brewer, located approximately 1.5 miles from the Penobscot River project area. The Mill Street Dam, as it is referred to by the Corps and DEP, was constructed in the late 1930s to provide a source of processing water for the former Eastern Fine Paper mill located along the river near the mouth of Sedgeunkedunk Stream. The mill is currently closed and the dam is not being used. The 240-foot long concrete and earthen dam has a structural height of 15 feet and a hydraulic height of 12 feet. Data from the Maine Office of Geographical Information Systems compiled by DEP and the Corps indicate the dam has a significant hazard potential classification 2. There is a remnant section of a previous dam just upstream of the current spillway within the impoundment. This concrete structure, which was visible just below the water surface during an August 11, 2005, site visit by Woodlot Alternatives, Inc. (Woodlot), is attached to the west wall of the intake bay of the current dam. Observations suggest that a portion of the old dam was previously removed when the current dam was constructed. The Mill Street Dam is the first (i.e., most downstream) obstruction on Sedgeunkedunk Stream and is located approximately 3,000 linear feet upstream of the confluence with the Penobscot River. As such, the dam is relatively low in the stream's watershed, but it is located in a topographic ravine rather than a broad plain. The dam currently impounds an area of approximately 1.5 to 2 acres, with influence extending upstream approximately 1,500 to 1,600 linear (river) feet, directly adjacent to Mill Street and a few residential properties. The next dam, called the East Orrington Dam or the Fields Pond Dam, is located approximately 2.5 miles upstream of the Mill Street Dam.

MDOT and the City propose to breach the Mill Street Dam to restore natural flows to this portion of Sedgeunkedunk Stream and provide unobstructed upstream and downstream fish passage. Breaching will be accomplished by removal of the concrete face of the dam, including the spillway and the gate structure (shown in Photo 8). A natural sediment management approach will be implemented, allowing sediment that has accumulated above the dam to be scoured over time.

The primary objectives of the dam breaching are to:

1. Improve water quality (e.g., temperatures, dissolved oxygen, and nutrient concentrations) within and downstream of the impoundment area;
2. Restore natural stream flows, in-stream habitats, channel morphology, and natural communities (e.g., flora and fauna) to the current impoundment; and

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3. Restore upstream and downstream fish passage to allow anadromous and catadromous (i.e., diadromous) species access to the 2.5 miles of free-flowing stream habitat above the dam. Species that could potentially benefit from the dam breaching include Atlantic salmon (*Salmo salar*), alewife (*Alosa pseudoharengus*), and American eel (*Anguilla rostrata*).

The Department finds that the applicant has avoided and minimized wetland impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project.

5. OTHER CONSIDERATIONS:

The Department did not identify any other issues involving existing scenic, aesthetic, or navigational uses, soil erosion, habitat or fisheries, the natural transfer of soil, natural flow of water, water quality, or flooding.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S.A. Sections 480-A et seq. and Section 401 of the Federal Water Pollution Control Act:

- A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses.
- B. The proposed activity will not cause unreasonable erosion of soil or sediment.
- C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.
- D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life.
- E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.
- F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters.
- G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.
- H. The proposed activity is not on or adjacent to a sand dune.
- I. The proposed activity is not on an outstanding river segment as noted in Title 38 M.R.S.A. Section 480-P.

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THEREFORE, the Department APPROVES the above noted application of the CITY of BREWER/MDOT to stabilize portions of the Brewer shoreline on the Penobscot River, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

1. Standard Conditions of Approval, a copy attached.
2. The applicant shall take all necessary measures to ensure that their activities or those of their agents do not result in measurable erosion of soil on the site during the construction of the project covered by this approval.
3. By September 1st of the year following the completion of the construction is completed, the applicant shall map the location of the rare plant species, and compare the post construction findings with the pre-construction findings and submit the results to the Department.
4. Within 3 months of project completion, the applicant shall submit to the Department, an evaluation of the wetland compensation measures proposed in Finding 4 of this Order.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED AT AUGUSTA, MAINE, THIS 13TH DAY OF December, 2005.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

By: 
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application August 1, 2005

Date of application acceptance August 16, 2005

Date filed with Board of Environmental Protection

RC/55952/20551.DN

