



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

1595 Wynkoop Street  
Denver, CO 80202-1129  
Phone 800-227-8917  
<http://www.epa.gov/region08>

FEB 10 2010

Ref: 8FNF-W

**CERTIFIED MAIL:**  
**RETURN RECEIPT REQUESTED**  
**#7008-3230-0003-0731-3651**

Robert Pfaffenhauser  
P.O. Box 843  
Walsenburg, Colorado 81089

Re: Findings of Violation and Administrative  
Order for Compliance.  
Docket No. **CWA-08-2010-0006**

Dear Mr. Pfaffenhauser:

Based on our review of all available information, the United States Environmental Protection Agency (EPA) has determined that you are in violation of §§ 301 and 404 of the Clean Water Act, as amended (CWA), 33 U.S.C. §§ 1311 and 1344. Section 301(a) of the CWA, 33 U.S.C. § 1311(a), among other things, prohibits the discharge of pollutants into waters of the United States except as in compliance with § 404 of the CWA, 33 U.S.C. § 1344. Section 404 of the CWA requires that an authorizing permit be obtained from the United States Army Corps of Engineers (Corps) prior to the discharge of dredged or fill material into waters of the United States. See, 33 U.S.C. § 1311. Waters of the United States include both surface waters and wetlands as defined by 40 C.F.R. § 122.2 and 33 C.F.R. § 328.3.

Specifically, EPA has determined that you and/or persons acting on your behalf discharged dredged or fill material into waters of the United States without authorization under the CWA. These discharges of pollutants into the Huerfano River and its adjacent wetlands occurred on property owned, leased, and/or otherwise controlled by you, located in Section 5, Township 27 South, Range 68 West, Badito, Huerfano County, Colorado.

Enclosed please find a document entitled "Findings of Violation and Administrative Order for Compliance" (Order), which specifies the nature of the violations and describes actions necessary in order for you to achieve compliance with §§ 301 and 404 of the CWA. Pursuant to this Order, within ten (10) days after your receipt of this Order, you must inform EPA in writing of your intent to fully comply with the Order. EPA's authority for such action is provided under § 309(a)(3) of the CWA, 33 U.S.C. § 1319(a)(3).



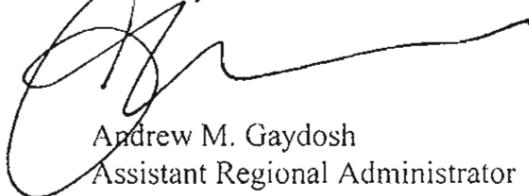
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The CWA requires the Administrator of EPA to take all appropriate enforcement action necessary to secure prompt compliance with the CWA and any order issued thereunder. Section 309 of the CWA, 33 U.S.C. § 1319, authorizes a variety of possible enforcement actions, including filing of a civil or criminal action, administrative penalty action, and/or debarment from Federal contracts and/or loans for any noncompliance with the CWA or an order issued pursuant to the CWA. Please be advised that failure to comply with the requirements of the Order is a violation of that Order and may be enforced through the mechanisms referenced above. Please also be advised that the issuance of this Order does not preclude civil or criminal actions in U.S. District Court pursuant to §§ 309(b) or (c) of the CWA, 33 U.S.C. §§ 1319(b) or (c), or assessment of civil penalties pursuant to §§ 309(d) or (g) of the CWA, 33 U.S.C. §§ 1319(d) or (g), for the violations cited in the Order or for any other violations that you may have committed prior to or may commit after the issuance of the enclosed Order.

EPA has agreed to notify small businesses of their right to comment on regulatory enforcement activities at the time of an Agency enforcement activity pursuant to the Small Business Regulatory Enforcement and Fairness Act (SBREFA). SBREFA does not eliminate your responsibility to comply with the CWA or the Order, nor does it create any new rights or defenses under law. We have enclosed a SBREFA information sheet containing further information on compliance assistance resources and tools available to small businesses.

Please review the Order carefully. If you have any questions, the most knowledgeable people on my staff are Thomas Sitz, Enforcement Attorney, at 303-312-6918, and Kenneth Champagne, Section 404 Enforcement Officer, at 303-312-6608.

Sincerely,



Andrew M. Gaydosh  
Assistant Regional Administrator  
Office of Enforcement, Compliance and  
Environmental Justice

#### Enclosures

1. Findings of Violation and Administrative Order for Compliance
2. SBREFA Information Sheet

cc: Van Truan, U.S. Army Corps of Engineers, w/enclosures  
Steve Gunderson, Director, CDPHE, w/enclosures  
Tina Artemis, EPA, 8RC, w/enclosures



UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

2010 FEB 10 PM 1:48

FILED  
EPA REGION VII  
HEARING CLERK

IN THE MATTER OF )  
 )  
Robert Pfaffenhauser )  
6186 County Road 530 )  
Walsenburg, Colorado 81089 )  
 )  
Respondent. )  
\_\_\_\_\_ )

FINDINGS OF VIOLATION AND  
ADMINISTRATIVE ORDER FOR  
COMPLIANCE

Docket No. CWA-08-2010-0006

**I. STATUTORY AUTHORITY**

1. This Findings of Violation and Administrative Order for Compliance (Order) is issued pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency (EPA) by §§ 308 and 309(a) of the Clean Water Act (CWA), 33 U.S.C. §§ 1318 and 1319(a). This authority has been properly delegated to the Assistant Regional Administrator of the Office of Enforcement, Compliance and Environmental Justice, EPA Region 8. The Order is based on the following findings of violation of § 301(a) of the CWA, 33 U.S.C. § 1311(a), which, among other things, prohibits the discharge of pollutants into waters of the United States except as in compliance with § 404 of the CWA, 33 U.S.C. § 1344.

**II. FINDINGS OF VIOLATION**

2. Respondent Robert Pfaffenhauser is an individual with a street address of 6186 County Road 530, Walsenburg, Colorado 81089 and a mailing address of P.O. Box 843, Walsenburg, Colorado 81089.

3. At all relevant times, Respondent owned, controlled and/or operated property located in Section 5, Township 27 South, Range 68 West, Badito, Huerfano County, Colorado (the Site). The Huerfano River and its adjacent wetlands are located at the Site.

4. The Huerfano River is a perennial tributary to the Arkansas River. From the Site, the Huerfano River flows approximately 65 river miles to the Arkansas River. The Arkansas River is, and was at all relevant times, a navigable, interstate water.

5. Beginning sometime in or around April 2009, Respondent and/or persons acting on his behalf, using his own equipment, graded and realigned a portion of the Huerfano River at the Site, filled its adjacent wetlands with the sidecast materials, and filled the original channel of the Huerfano River at the Site for the purpose of construction and maintenance of a diversion dam and associated irrigation structures.

6. On April 2, 2009, the United States Army Corps of Engineers (Corps) conducted an inspection of the Site after receiving a complaint of impacts to the Huerfano River and its adjacent wetlands at the Site. The Corps found, and EPA through issuance of this Order finds, that Respondent and/or persons acting on his behalf discharged dredged or fill material into the Huerfano River and its adjacent wetlands during Respondent's construction and maintenance of a diversion dam and associated irrigation structures at the Site. The Corps estimated that approximately 2,000 linear feet of the Huerfano River was graded and realigned and an undetermined amount of adjacent wetlands were filled during Respondent's unauthorized activities.

7. In a letter to Respondent, dated April 2, 2009, the Corps found, and EPA through issuance of this Order finds, that Respondent's activities, as described in paragraphs 5 and 6 of this Order, required prior authorization from the Corps and that the required authorization had not been sought or granted. Further, the Corps directed Respondent to "cease and desist" any further unauthorized work at the Site.

8. In accordance with initial corrective measures found at 33 C.F.R. § 326.3(d), the Corps sent a letter to Respondent dated June 30, 2009, and ordered Respondent to:

- a. Within ten (10) calendar days of receipt of June 30, 2009, letter, inform the Corps in writing of his intent to fully comply and implement a channel stabilization and streambank engineering plan, dated April 29, 2009, prepared for Respondent by the Natural Resource Conservation Service (NRCS);
- b. Fully implement the channel stabilization and streambank engineering plan by August 14, 2009; and
- c. Submit photographs to the Corps documenting completion of this action no later than August 21, 2009.

9. On July 31, 2009, Respondent telephoned to the Corps to discuss the required initial corrective measures. During that telephone call, Respondent indicated that he could not do the work and would not comply with the Corps' June 30, 2009, letter.

10. On August 24, 2009, the Corps referred this case to EPA for enforcement in accordance with the "Memorandum of Agreement Between the Department of the Army and the Environmental Protection Agency Concerning Federal Enforcement of the Section 404 Program of the Clean Water Act," dated January 19, 1989.

11. The activities described in paragraphs 5 and 6 of this Order were performed using common earthmoving vehicles and equipment, all of which were operated by Respondent and/or by persons acting on his behalf.

12. Respondent is a "person" within the meaning of § 502(5) of the CWA, 33 U.S.C. § 1362(5).

13. The discharged dredged or fill material referenced above is and was at all relevant times "dredged material" or "fill material" within the meaning of 33 C.F.R. § 323.2(c) or 33 C.F.R. § 323.2(e), respectively, and "pollutants" within the meaning of § 502(6) of the CWA, 33 U.S.C. § 1362(6).

14. The Huerfano River and its adjacent wetlands filled and disturbed by Respondent's unauthorized activities provided various functions and values, including: wildlife habitat for birds, mammals, reptiles and amphibians; water quality enhancement; flood attenuation; and/or aesthetics.

15. The vehicles and equipment described in paragraph 11 of this Order are and were at all relevant times each a "point source" within the meaning of § 502(14) of the CWA, 33 U.S.C. § 1362(14).

16. The Huerfano River and its adjacent wetlands referenced above are and were at all relevant times "waters of the United States" within the meaning of 33 C.F.R. § 328.3(a) and therefore "navigable waters" within the meaning of § 502(7) of the CWA, 33 U.S.C. § 1362(7).

17. The placement of dredged or fill material into the Huerfano River and its adjacent wetlands constitutes the "discharge of pollutants" within the meaning of § 502(12) of the CWA, 33 U.S.C. § 1362(12).

18. Section 301(a) of the CWA, 33 U.S.C. § 1311, prohibits, among other things, the discharge of pollutants by any person into waters of the United States except as in compliance with § 404 of the CWA, 33 U.S.C. § 1344.

19. Section 404 of the CWA, 33 U.S.C. § 1344, sets forth a permitting system authorizing the Secretary of the Army, acting through the Chief of Engineers of the Corps, to

issue permits for the discharge of dredged or fill material into navigable waters which are defined as waters of the United States.

20. 33 C.F.R. § 323.3(a) specifies that, unless exempted pursuant to 33 C.F.R. § 323.4, a permit issued by the Corps is required for the discharge of dredged or fill material into waters of the United States.

21. Respondent is not and never has been authorized by a permit issued pursuant to § 404 of the CWA, 33 U.S.C. § 1344, to conduct any of the activities described in paragraphs 5 and 6 of this Order.

22. The activities conducted by Respondent and/or by persons acting on his behalf as described in paragraphs 5 and 6 of this Order violate § 301 of the CWA, 33 U.S.C. § 1311. Each discharge of pollutants from a point source by Respondent into waters of the United States without the required permits issued pursuant to § 404 of the CWA, 33 U.S.C. § 1344, constitutes a violation of § 301(a) of the CWA, 33 U.S.C. § 1311(a). Each day the discharges remain in place without the required permits constitutes an additional day of violation of § 301(a).

23. The removal of the dredged or fill material illegally discharged into waters of the United States at the Site and restoration of the impacted waters, including the Huerfano River and its adjacent wetlands, to a condition that closely approximates their condition and function prior to the discharge of the dredged or fill material, can be achieved as a practical matter through commonly used methods of construction, digging, revegetation, and best management practices.

24. Activities to be carried out under this Order are remedial, not punitive, and are necessary to achieve the CWA's objective "to restore and maintain the chemical, physical, and

biological integrity of the Nation's waters," as specified in § 101(a) of the CWA, 33 U.S.C. § 1251(a). The removal and restoration described in paragraph 23 of this Order are appropriate to alleviate actual and potential harm to water quality, aquatic habitat, and wildlife habitat caused by Respondent's unpermitted activities.

25. This Order was issued after consultation and coordination with the Corps' Albuquerque District, Southern Colorado Regulatory Office.

### **III. ORDER FOR COMPLIANCE**

Based upon the foregoing FINDINGS OF VIOLATION, and pursuant to the authority vested in the Administrator of the EPA pursuant to §§ 308 and 309(a) of the CWA, 33 U.S.C. §§ 1318 and 1319(a), as properly delegated to the Assistant Regional Administrator of the Office of Enforcement, Compliance and Environmental Justice, EPA Region 8, it is hereby ORDERED:

26. Respondent shall immediately terminate all unauthorized discharges of dredged or fill material, now and in the future, into waters of the United States, unless specifically authorized by the Corps under a valid permit issued pursuant to § 404 of the CWA, 33 U.S.C. § 1344. This prohibition includes all mechanical land clearing, dredging, filling, grading, leveling, installation of utilities, construction, and any other activities that result in a discharge of dredged or fill material into waters of the United States.

27. Within ten (10) calendar days of receipt of this Order, Respondent shall inform EPA in writing of its intent to fully comply with the Order. If Respondent has concerns or questions about the requirements of the Order, EPA requests that Respondent schedule a meeting and/or conference call with EPA within fourteen (14) calendar days of receipt of this Order to discuss these concerns or questions. The scheduling of such a meeting and/or conference call

shall not alter Respondent's responsibility to meet any of the deadlines specified in this Order unless otherwise clearly stated in a written communication to Respondent by EPA.

28. Upon EPA approval of the Restoration Plan required by paragraph 30 of this Order, Respondent shall remove all dredged or fill material that was discharged as a result of the violations identified in this Order and restore the impacted waters and wetlands at the Site to their pre-impact condition and grade, unless otherwise approved by EPA in the Restoration Plan.

29. All dredged or fill material removal and restoration activities shall be conducted in accordance with an EPA-approved Restoration Plan prepared by a consultant experienced in stream and wetland restoration. The consultant also shall directly supervise all work performed pursuant to the EPA-approved Restoration Plan. A statement of the consultant's qualifications, including professional resume and business references, shall be submitted to EPA within twenty-one (21) calendar days of receipt of this Order.

30. Within sixty (60) calendar days of receipt of this Order, Respondent shall submit to EPA for review, comment, and approval a Restoration Plan, prepared by the consultant referenced in paragraph 29 of this Order, providing for the: (1) removal of all dredged or fill material that was discharged into the waters and wetlands at the Site; and (2) restoration, to their pre-impact configuration and/or grade, of the waters and wetlands that were impacted as a result of Respondent's unauthorized discharges of dredged or fill material at the Site.

31. The Restoration Plan shall be prepared in accordance with "U.S. Environmental Protection Agency, Region 8 - Clean Water Act § 404 Enforcement: Removal/Restoration Plans and Habitat Mitigation/Monitoring Proposals," attached hereto as Exhibit A, and with the guidelines referenced in § 404(b)(1) of the CWA, 33 U.S.C. § 1344(b)(1), and set forth in 40 C.F.R. Part 230. In addition, the Restoration Plan shall include:

- a. A detailed work plan and schedule for completion of all of the work and activities identified by the Restoration Plan, including the application for any required permits, providing for completion of all aspects of the restoration work no later than six (6) months after EPA approves the Restoration Plan;
- b. The engineering designs included in the NRCS's channel stabilization and streambank engineering plan, dated April 29, 2009;
- c. Locations and delineations of all wetlands and other waters of the United States included in the restoration. The delineations shall be performed in accordance with the procedures in the "Corps of Engineers Wetlands Delineation Manual, January 1987 - Final Report," including the procedures for atypical situations, and subsequent interpretive guidance published by the Corps;
- d. Locations of the existing natural features and man-made improvements, including all surface disturbance, fills, channel excavations, road crossings, culverts, structures, and any other work, including a corresponding map (scale 1":100') of these locations;
- e. Grading, planting, and monitoring plans, measurable criteria for success of restoration or mitigation, and provisions for proper disposal of any excess soils or other materials generated during construction and/or restoration;
- f. Detailed professional drawings of all of the work to be accomplished by the Restoration Plan, including plan and profile drawings with control elevations; and
- g. A description of all costs to prepare and implement the Restoration Plan, including the costs of all consultations, permits, construction, monitoring, land acquisition, etc.

32. EPA will review the Restoration Plan and approve it, approve it with modifications, or reject it with comments. If EPA rejects the Restoration Plan, Respondent shall, within thirty (30) calendar days of receipt of EPA's rejection letter, submit a revised plan that corrects the deficiencies identified by EPA.

33. Upon receiving EPA's written approval of the Restoration Plan, Respondent shall obtain all necessary permits to implement the EPA-approved plan and then commence all restoration activities in accordance with the approved plan, including the time frames specified therein, and all granted permits. Respondent shall demonstrate that all necessary permits have been granted by providing complete copies of all such permits, and any amendments thereto, to EPA within seven (7) calendar days of issuance of each permit.

34. This Order is not a permit or an authorization to place or discharge dredged or fill material in waters of the United States. Respondent shall consult with the Corps at the address and telephone number below to determine if any work to be performed pursuant to this Order requires a permit from the Corps under § 404 of the CWA. If any such permit is required, Respondent shall obtain such permit(s) and provide a copy or copies to EPA pursuant to paragraph 33 of this Order prior to initiating any work that is to be performed pursuant to this Order.

U.S. Army Corps of Engineers  
Southern Colorado Regulatory Office  
200 South Santa Fe Avenue, Suite 301  
Pueblo, CO 81003  
Telephone: 719-543-6914  
Facsimile: 719-543-9475

35. Respondent shall submit two (2) hard copies of the Restoration Plan, one (1) electronic copy of the Restoration Plan, all notifications, and related correspondence to:

Kenneth M. Champagne, 8ENF-W  
U.S. Environmental Protection Agency, Region 8  
1595 Wynkoop Street  
Denver, CO 80202-1129  
Telephone: 303-312-6608  
Facsimile: 303-312-7518

A hard copy and electronic copy of the Restoration Plan, all notifications, and related correspondence also shall be provided to:

Thomas Sitz, 8ENF-L  
U.S. Environmental Protection Agency, Region 8  
1595 Wynkoop Street  
Denver, CO 80202-1129  
Telephone: 303-312-6918  
Facsimile: 303-312-6953

A hard copy and electronic copy of the Restoration Plan also shall be provided to the Corps at the address noted in paragraph 34 of this Order.

36. In addition to the notification requirements set forth in paragraph 35 of this Order, after issuance of any Corps authorization for the restoration work, Respondent shall submit all notifications and correspondence to the Corps in accordance with the terms and conditions in the Corps permit.

37. All plans (including, but not limited to, the Restoration Plan), deliverables, reports, specifications, schedules, and attachments required by this Order are, upon approval by EPA, incorporated into this Order. Any non-compliance with such EPA-approved plans, deliverables, reports, specifications, schedules, or attachments shall be deemed a failure to comply with this Order and subject to EPA enforcement.

38. If Respondent leases, subleases, or transfers control and/or ownership of any property, in whole or in part, where work is to be performed pursuant to the Restoration Plan before he has fulfilled his obligations under this Order, Respondent shall provide a copy of this

Order and the EPA-approved Restoration Plan to the lessee, sublessee, or transferee not less than thirty (30) calendar days prior to the lease, sublease, or transfer. A lease, sublease, or transfer of such property interest shall not relieve Respondent of any responsibility in the Order unless EPA, Respondent, and the lessee, sublessee, or transferee agree in writing to allow the lessee, sublessee, or transferee to assume such responsibility. Additionally, at least thirty (30) calendar days prior to such lease, sublease, or transfer, Respondent shall notify EPA regarding the details of the lease, sublease, or transfer at the addresses specified in paragraph 35 of this Order.

39. Respondent shall allow, or use his best efforts to allow, access by any authorized representatives of EPA, the Corps, the NRCS, the U.S. Fish and Wildlife Service, Colorado Division of Water Resources, and the Colorado Department of Public Health and Environment, or any of the agencies' contractors, upon proper presentation of credentials, to sites and records relevant to this Order for any of the following purposes:

- a. To inspect and monitor progress of the activities required by this Order;
- b. To inspect and monitor compliance with this Order; and
- c. To verify and evaluate data and other information submitted to EPA.

40. This Order shall in no way limit or otherwise affect EPA's authority, or the authority of any other governmental agency, to enter the Site, conduct inspections, have access to records, issue notices and orders for enforcement, compliance, or abatement purposes, or monitor compliance pursuant to any statute, regulation, permit, or court order.

41. This Order shall be effective upon receipt by Respondent.

42. Please be advised that § 309(d) of the CWA, 33 U.S.C. § 1319(d), authorizes civil penalties of up to \$32,500 per day for each violation which occurred before January 12, 2009, and \$37,500 per day for each violation thereafter, of § 301 of the CWA, 33 U.S.C. § 1311,

and for each violation of an order issued by the Administrator of EPA under § 309(a) of the CWA, 33 U.S.C. § 1319(a), including this Order. Additionally, § 309(g) of the CWA, 33 U.S.C. § 1319(g), authorizes EPA to impose administrative penalties for violations of the CWA. Further, § 309(c) of the CWA, 33 U.S.C. § 1319(c), authorizes fines and imprisonment for willful or negligent violations of the CWA.

43. Issuance of this Order shall not be deemed to be an election by the United States to forego any civil or criminal action to seek penalties, fines, or other appropriate relief under the CWA for violations giving rise to the Order;

44. Compliance with the terms and conditions of the Order shall not be construed to relieve Respondent of his obligation to comply with any applicable Federal, state, or local law or regulation.

45. Failure by Respondent to complete the tasks described herein in the manner and time frame specified pursuant to this Order may subject Respondent to a civil action under § 309 of the CWA, 33 U.S.C. § 1319, for violation of this Order.

DATED this 10<sup>th</sup> day of February, 2010.



Andrew M. Gaydosh  
Assistant Regional Administrator  
Office of Enforcement, Compliance and  
Environmental Justice

# **EXHIBIT A**

**U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 8**

**CLEAN WATER ACT § 404 ENFORCEMENT:  
REMOVAL/RESTORATION PLANS  
AND HABITAT MITIGATION/MONITORING PROPOSALS**

**INTRODUCTION**

These guidelines are designed to assist respondents in the preparation of (1) removal and restoration plans and (2) habitat mitigation and monitoring plans associated with projects required under EPA administrative orders. They have been developed from the experiences of many cases and are intended to be merely guidelines. In the event of a conflict between an administrative order and these guidelines, the administrative order controls.

For answers to questions regarding the interpretation of these guidelines or of acceptable restoration and mitigation for a specific project, please contact the person at EPA Region 8 in the Technical Enforcement Program who is handling the case.

**CLEAN WATER ACT § 404 ENFORCEMENT:**  
**GENERAL GUIDELINES FOR DEVELOPMENT OF  
REMOVAL AND RESTORATION PLANS**

**I. GENERAL INFORMATION**

The following guidelines serve as general specifications for preparing removal and restoration plans to remediate the unpermitted filling of wetlands. As environmental conditions vary from site to site, precise specifications will depend upon the environment conditions peculiar to the site in question. The size of the wetland area to be restored, its biological and physical characteristics, and the level of disturbance the wetland has experienced will further define the scope and complexity of the restoration plan. In most cases, the types of information listed below represent only the minimum required to formulate an acceptable removal and restoration plan.

**When these guidelines are incorporated into an EPA administrative order, the recipient of the order should obtain the approval of EPA's technical representative on the case before departing from the general specifications outlined below.**

**II. RECOMMENDED REMOVAL AND RESTORATION PLAN FORMAT**

The removal and restoration plan should be presented using the following six subsections when possible. An explanation of the kind of information that should be included in each subsection is provided.

**I. Existing Physical Conditions**

- A. A surveyed site plan depicting property boundaries, streets, buildings, waterbodies (with ordinary high water line indicated), wetlands, FEMA 100-year floodplain (if applicable), areas of unpermitted fill, elevation contours, and other ground surface features at a scale no greater than 1":40'. This plan shall include a cross-section view of the site which shows soil depths, fill depths, and average depth to groundwater across the site.
- B. A narrative description of existing physical conditions, including the area of the site; area of unpermitted fill; existing wetlands (including the types of vegetation); the soil types present (including the types of unpermitted fill present); the hydrologic regime of the site; and other relevant information.

## **2. Proposed Physical Conditions**

- A. Using the site plan described in Subsection 1.A. as a base, show the exact areas where remedial activities will occur (e.g., removal of fill, replacing dredged material into ditches, etc.). Indicate proposed finished grades, expected ordinary high water elevations, the location of proposed plantings/seedings, and the location of all sediment and erosion control structures (e.g., hay bales, silt screens, etc.). This plan shall include a cross-section view of the site which shows proposed soil depths and average depth to groundwater across the site.
- B. Provide a narrative description of the remedial work to occur, including the methods and equipment to be employed; how access to the site to perform the work will be obtained; how equipment will be brought to the site; the location of the ultimate disposal site for any removed fill; how the work will progress across the site; a listing of the plant species to be seeded/planted at the site; the sources of the plant material [*note*: as a rule, transplanting of plant stock will not be permitted]; the planting method(s) and scheme (i.e., physical layout of the how plant material will be installed); any methods to be used to minimize adverse impacts while remedial work is underway; the expected hydrologic regime of the site in its restored condition; and other relevant information.
- C. Delineate the area(s) on the site to be restored by installation of flagging, sedimentation and erosion control structures, or other appropriate method. This delineation shall represent the limit of construction activities such that no work shall occur beyond those boundaries.

## **3. Actual Restored Physical Conditions**

Using the site plan described in Subsection 1.A. as a base, show the actual physical conditions to exist at the site at the completion of grading activities (i.e., as "as-built" plan), including actual finished grades and all pertinent ground surface features. This plan shall include a cross-section view of the site which shows actual soil depths and average depth to groundwater across the site. This as-built plan shall be prepared and submitted prior to planting/seeding activities.

## **4. Monitoring/Measures of Success**

- A. Normally, monitoring shall be performed midway through and near the end of the first and second growing seasons, then annually near the end of each successive growing season for the duration of the required monitoring period. Monitoring shall be performed for a period of at least

five years due to the scope and complexity of the remedial efforts required.

- B. A monitoring plan shall incorporate a simple statistical approach to assessing relative success or failure of restoration efforts (e.g., transects with sampling stations for measuring parameters such as percent areal cover in each vegetative stratum). A permanent photographic record shall be included as part of the monitoring plan.
- C. Depending upon the scope and complexity of the remedial efforts, general criteria to measure success shall be determined by EPA. These criteria shall be directly related to reestablishing the structural components of the aquatic ecosystem being restored. A general provision shall be included to allow for corrective action to be taken, at the direction of EPA, should monitoring show that criteria for success are not being met.
- D. A report shall be prepared and submitted after each monitoring event which describes the environmental conditions at the site and assesses relative success or failure of restoration efforts. This report shall include photographic evidence as well. This report shall identify any problems discovered and recommend appropriate corrective action to ensure the success of restoration.

## **5. Inspections**

The plan shall provide for inspections by EPA personnel after installation of all sedimentation and erosion control structures, after completion of grading activities, after completion of initial planting/seeding activities, and after monitoring indicates that the criteria for success have been attained.

## **6. Schedule**

A comprehensive schedule integrating all removal, restoration, inspection, and monitoring activities as well as report/product submissions shall be included.

## **CLEAN WATER ACT § 404 ENFORCEMENT:**

### **GENERAL GUIDELINES FOR DEVELOPMENT OF HABITAT MITIGATION AND MONITORING PROPOSALS**

#### **I. GENERAL INFORMATION**

Submission of a mitigation and monitoring proposal as described in these guidelines will not be a substitute for complete compliance with the Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army Concerning the Mitigation under the Clean Water Act Section 404(b)(1) Guidelines dated November 7, 1989, which took effect on February 7, 1990. Therefore, mitigation proposals will only be considered if avoidance and minimization have been fully pursued.

Although all the individual components presented here may not be applicable to every project, a proposal should address each heading in the guidelines. Appendix A provides text and figure format guidelines.

#### **II. PLACE OF MITIGATION AND MONITORING PROPOSAL IN CLEAN WATER ACT § 404 PERMIT PROCEDURE**

##### **1. Individual Permit**

If a respondent is applying for an individual permit from the U.S. Army Corps of Engineers (the "Corps") and proposes mitigation, it is preferable that a preliminary mitigation and monitoring plan be submitted along with application materials. A detailed preliminary mitigation plan should generally not be completed until a final jurisdictional map has been accepted by EPA, and the area of fill to be mitigated for has been identified. The final mitigation plan will usually be submitted following the public comment period and Corps review of the preliminary plan.

##### **2. Nationwide Permit**

If a respondent is requesting confirmation of a project's qualification for a Corps nationwide permit and proposes mitigation, a detailed mitigation and monitoring plan must be submitted with the request for confirmation.

##### **3. Final Submission**

The final submission of all mitigation and monitoring plans must be in a *single* document. It must contain up-to-date versions of all materials, even if other versions were submitted earlier in the application process.

### **III. EPA/CORPS POLICY**

In general, the goal of both EPA and the Corps is to permit no net loss of functions and values of wetland habitat. The replacement ratio of wetland acreage required to achieve this goal is typically *at least* 1:1, and is often higher. The attainment of replacement functions and values and an acreage replacement ratio are usually included in final success criteria associated with the completion of a respondent-permittee's mitigation responsibility.

### **V. SUMMARY OF RECOMMENDED MITIGATION AND MONITORING PROPOSAL FORMAT**

The mitigation and monitoring proposal should be presented using the following nine subsections when possible. Detailed explanations of the kind of information that should be included in each subsection is provided in Section VI below.

#### **1. PROJECT DESCRIPTION**

- A. Location of Project
- B. Brief Summary of Overall Project
- C. Responsible Parties
- D. Jurisdictional Areas to be Filled
- E. Type(s), Functions, and Values of the Jurisdictional Areas

#### **2. GOAL(S) OF MITIGATION**

- A. Type(s) of Habitat to be Created
- B. Functions and Values of Habitat to be Created
- C. Time Lapse

#### **3. FINAL SUCCESS CRITERIA**

- A. Target Functions and Values
- B. Target Hydrological Regime
- C. Target Jurisdictional Acreage to be Created

#### **4. PROPOSED MITIGATION SITE**

- A. Location and Size of Mitigation Area
- B. Ownership Status
- C. Existing Functions and Values of Mitigation Area
- D. Present and Proposed Uses of Mitigation Area
- E. Jurisdictional Delineation (if applicable)
- F. Present and Proposed Uses of All Adjacent Areas
- G. Zoning

**5. IMPLEMENTATION PLAN**

- A. Rationale for Expecting Implementation Success
- B. Responsible Parties
- C. Site Preparation
- D. Planting Plan
- E. Schedule
- F. Irrigation Plan
- G. As-Built Conditions

**6. MAINTENANCE DURING MONITORING PERIOD**

- A. Maintenance Activities
- B. Responsible Parties
- C. Schedule

**7. MONITORING PLAN**

- A. Performance Criteria
- B. Monitoring Reports
- C. Annual Reports
- D. Schedule

**8. COMPLETION OF MITIGATION**

- A. Notification of Completion
- B. Corps Confirmation

**9. CONTINGENCY MEASURES**

- A. Initiating Procedures
- B. Alternative Locations for Contingency Mitigation
- C. Funding Mechanism
- D. Responsible Parties

**VI. DETAILED RECOMMENDED MITIGATION AND MONITORING PROPOSAL FORMAT**

Detailed information to be included in each subsection of the mitigation and monitoring proposal is presented below. The nine subsections should be preceded by a one-page summary of the report contents.

## 1. PROJECT DESCRIPTION

### A. Location of Project

1. Describe
2. Provide:
  - a. Road map with site location clearly indicated
  - b. USGS quad map with project site outlines (clear photocopy is acceptable)

### B. Brief Summary of Overall Project

In one or two paragraphs, describe the overall project (not just the jurisdictional area to be filled). Include type of development and project size.

### C. Responsible Parties

Provide the name(s), title(s), address(es), and phone number(s) of the applicant(s)<sup>1</sup>, including the contact person(s) if the applicant is a company, and of the preparer(s) of the mitigation plan.

### D. Jurisdictional Areas to be Filled

Provide a full-size topo base map with verified Corps/EPA jurisdictional area(s) and area(s) of proposed fill outlines. (See Appendix A for map format information.)

### E. Type(s), Functions, and Values of the Jurisdictional Areas

1. Type: e.g., seasonal wetland, vernal pool, freshwater marsh, playa, etc.
2. Functions and Values

Formal procedures to assess functions and values of wetlands have not yet been adopted. Therefore, to assist in evaluation of the project, a knowledgeable professional should provide a summary of the functions and values of the wetland to be filled. Any jurisdictional areas other than wetlands should also be assessed for functions and values. Examples of features to be addressed are:

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<sup>1</sup> The "applicant" refers to the permit applicant, who will in most instances be the respondent.

Water Quality

- ground water
- recharge/discharge
- flood storage
- other

Habitat

- rare/threatened/endangered species
- known or probable wildlife use
- plant communities
- complete species list
- known or probable fish, shellfish, and aquatic vertebrate use
- other

Recreational Use

- non-consumptive (e.g., birdwatching, walking)
- consumptive (c.g., fishing, hunting)

**2. GOAL(S) OF MITIGATION**

This refers to the long-term goals, which may not be reached until some years after the applicant's mitigation responsibilities have been completed.

A. Type(s) of Habitat to be Created

If out-of-kind, present rationale. (Refer to Subsection 1.E.1 above.)

B. Functions and Values of Habitat to be Created

Identify, describe, and provide location of any local reference site if different from the wetland to be filled. (Refer to Subsection 1.E.2. above.)

C. Time Lapse

Describe how many years it is likely to take for the long-term goal habitat to develop.

**3. FINAL SUCCESS CRITERIA**

These are the criteria that are proposed by the applicant for Corps approval and are used to determine completion of permittee's mitigation responsibilities. Fulfillment of these criteria should indicate that the mitigation area is progressing well toward the habitat

type, functions, and values which constitute the long-term goal of this mitigation. For mitigation plantings, final success criteria will not be considered to have been met until a minimum of two years after all human support (e.g., irrigation, replanting, rodent control, and fertilization) has ceased. Major factors to be considered are:

A. Target Functions and Values

- wildlife species
- percentage vegetation cover and/or density
- approximate plant height criteria (shrubs and trees)
- plant and animal species diversity
- root development
- canopy stratification
- other quantifiable measures of success

B. Target Hydrological Regime

- source(s) of water
- discharge point(s)
- area(s) affected by seasonal flooding
- direction(s) of flow
- size (and map) of watershed

C. Target Jurisdictional Acreage To Be Created

Where applicable, a formal wetlands determination must be submitted for Corps approval as a part of the final success criteria.

#### 4. PROPOSED MITIGATION SITE

A. Location and Size of Mitigation Area

1. Describe location, including rationale for choice. If offsite, indicate distance from project site.
2. Provide the following maps:
  - a) full-size copy of USGS quad map with the mitigation location outlined
  - b) road map marked with the site location
  - c) base topo map with the proposed mitigation area outlined and acreage indicated. (See Appendix A for figure format information.)

B. Ownership Status

1. Indicate who presently owns the mitigation site. If any owner is different from the permit applicant(s), describe and explain the availability of the property. Describe and explain any easements or encroachments that the property carries. If any of the property is located on public land, describe and explain what arrangements, if any, have been discussed with the managing agency.
2. Indicate expected ownership of the mitigation area following completion of the mitigation project. Identify who will be responsible for long-term management and protection of the area. Describe and explain what if any long-term management plan been prepared for the area. If an entity other than the applicant will assume management responsibilities following completion of mitigation project, describe and explain any signed, written agreement that the manager will manage the area in conformance with goals of the mitigation. Include copies of any written plans or agreements.
3. Indicate what entity, if any, controls water flow to or from the site. Identify and describe the party who is to maintain water control structures. Describe and explain what arrangements have been made to guarantee appropriate water flow in the mitigation area during and after the establishment of the mitigation project.

C. Existing Functions and Values of Mitigation Area

(Refer to Section I.E. above.)

D. Present and Proposed Uses of Mitigation Area

Briefly describe all known present and proposed uses of the mitigation area. Discuss non-native landscape plantings, pipelines, powerlines, roads, distance and location of nearest structures, if any, etc., on the property containing the mitigation site.

E. Jurisdictional Delineation (if applicable)

Describe any jurisdictional areas that are already present on the mitigation site. Provide a topo base map of the site with jurisdictional areas (and any proposed fill) indicated. Describe the probable future of the mitigation area as habitat if left undisturbed.

F. Present and Proposed Uses of All Adjacent Areas

Briefly describe all known present and proposed uses of all property sharing a common border with the property containing the mitigation.

G. Zoning

Give all present and proposed zoning designations for the mitigation site and adjoining properties, including city, county, BCDC, etc.

**5. IMPLEMENTATION PLAN**

A. Rationale for Expecting Implementation Success

May refer to previous relevant experience of applicant and/or implementation consultant or to other similar and successful mitigation projects. Include hydrology and soils information.

B. Responsible Parties

Provide the name(s), title(s), address(es), and phone numbers of the person(s) responsible for implementing the mitigation project.

C. Site Preparation

1. Describe plans for grading, hydrologic changes, water control structures, soil amendments, erosion control, bank stabilization, equipment and procedures to be used, site access control, etc., as applicable. Include a description of exotic vegetation control techniques, planting hole excavation methods (e.g., auguring, hand digging), and the size of the planting hole (e.g., twice size of container).
2. Provide base topo maps showing planned site preparation. (See Appendix A for figure format information.)
3. Provide representative cross-sections of the mitigation site with elevations and scale indicated.
4. Provide the name, title, address, and phone number of the person supervising or providing biological monitoring during grading activities.

D. Planting Plan

1. Briefly describe the planting plan and methods
2. Provide a table of species to be planted, including numbers, spacing, types of propagules, pot sizes, etc.
3. Indicate the source-locale of seeds, plant plugs, cuttings, etc.
4. Show planting and species locations on a base topo map. (See Appendix A for figure format information.)
5. If transplanting is to be done, describe the storage method and duration.
6. Describe any expected volunteer native revegetation that is included in mitigation planning.

E. Schedule

Provide a schedule in the form of a legible flow chart showing intended timing of site preparation and plantings.

F. Irrigation Plan

1. Describe irrigation method(s), estimated frequency, and amount during dry months.
2. Indicate water source(s) for the mitigation area.
3. Show the planned irrigation system and/or water flow on base topo (may be included on the planting plan map).

G. As-Built Conditions

The plan should specify that the applicant will:

1. Submit a report to EPA within 6 weeks of the completion of site preparation and planting, describing the as-built status of the mitigation project. If avoidance is incorporated into development project design, describe the as-built status of the development project, including and deviations from the original plan in the vicinity of, or that will affect, jurisdictional area(s). Submit separate reports for grading and planting work if not completed within six weeks of each other.

2. Provide topo maps showing as-built contours of the mitigation area. Indicate the location of plantings and any other installations or structures.

## 6. MAINTENANCE DURING MONITORING PERIOD

### A. Maintenance Activities

Describe planned maintenance activities, including irrigation system inspection, plant replacement, weeding, water structure inspection, fertilization, erosion control, herbivore protection, trash removal, and/or any other such activities.

### B. Responsible Parties

Identify the persons/entities responsible for financing and carrying out maintenance activities, including names, titles, addresses, and phone numbers.

### C. Schedule

Provide a table showing the schedule of maintenance inspections.

## 7. MONITORING PLAN

### A. Performance Criteria

Provide yearly target criteria to be met, as appropriate, based on reasonably-paced progress toward final success criteria. (Refer to Section III.)

### B. Monitoring Methods

1. Describe the monitoring methods. If using sampling methods, include sample sizes, statistical justification for sampling regime, and data analyses to be performed. If appropriate, include assessment of natural population growth by target species.
2. Provide samples of all proposed data sheets.
3. Photos shall be taken during each monitoring period. They shall be taken from the same vantage point and in the same direction every year, and shall reflect material discussed in the monitoring report.

When percent cover estimates are made of herbaceous vegetation, photographs shall be taken of sampling quadrants.

C. Annual Reports

1. Annual reports shall be submitted which present monitoring results. They shall assess both attainment of yearly target criteria and progress toward final success criteria.
2. Annual reports shall include the following:
  - a. A list of names, titles, and companies of all persons who prepared the content of the annual report and participated in monitoring activities for that year.
  - b. A copy of any Corps permit attached. Special Conditions and any subsequent Letters of Modification shall be included as an appendix.
  - c. Analysis of all quantitative monitoring data.
  - d. Prints of all included monitoring photographs (photocopies are not acceptable).
  - e. Maps identifying monitoring areas, transects, planting zones, etc., as appropriate. (See Appendix A for figure format information.)
3. Copies of all field data sheets shall be available for Corps review as needed.

D. Schedule

Since planting and/or site modification may not occur when planned, monitoring and performance criteria shall be tied to the actual implementation date rather than to predetermined years (e.g., the first annual report shall be delivered on (month, day) of the year following the first growing season after planting.)

**8. COMPLETION OF MITIGATION**

A. Notification of Completion

When the initial monitoring period is complete, and if the applicant believes that the final success criteria have been met, the applicant shall

notify the Corps when the annual report that documents this completion is submitted. If it is appropriate here, a current jurisdictional delineation of the created wetland areas should be submitted with the report. (This delineation shall be accompanied by legible copies of all field data sheets.)

B. Corps Confirmation

Following receipt of the report, the Corps may require a site visit to confirm the completion of the mitigation effort and any jurisdictional delineation.

9. **CONTINGENCY MEASURES**

A. Initiating Procedures

If an annual performance criterion is not met for all or any portion of the mitigation project in any year, or if the final success criteria are not met, the permittee shall prepare an analysis of the cause(s) of failure and, if determined necessary by the Corps, propose remedial action for approval.

B. Alternative Locations for Contingency Mitigation

Indicate specific alternative mitigation locations that may be used in the event that mitigation cannot be successfully achieved at the intended mitigation site. Include current ownership information for any offsite alternative locations.

C. Funding Mechanism

Indicate what funds will be available to pay for planning, implementation, and monitoring of any contingency procedures that may be required to achieve mitigation goals.

D. Responsible Parties

List names, addresses, and phone numbers of persons/entities responsible for implementing and monitoring contingency procedures.

## APPENDIX A – FORMAT INFORMATION

### A. Text Format Notes for Mitigation/Monitoring Proposals, As-Built Reports, and Annual Reports.

1. The Corps file number and the date of the report should be included in title-page reading.
2. Include a distribution page listing names, titles, companies/agencies and addresses of all persons/agencies receiving a copy of the report.

### B. List of Figures to be Submitted

*(Page and section numbers in parentheses indicate location of figure request in unannotated outline. For recommended figure formats, refer to Section (C) below.)*

1. Mitigation and Monitoring Proposal
  - a. Jurisdictional Areas and Proposed Fill on Project Site (*p. 8, 1.D.*) (outlines and acreages indicated.).
  - b. Location and Size of Mitigation Area
    - U.S.G.S. quad map (*p. 10, 4.A.2*)
    - road map (*p. 10, 4.A.2*)
    - topo map (*p. 10, 4.A.2*)
  - c. Jurisdictional Areas and Any Proposed Fill on Mitigation Site (*p. 11, 4.E.*)
  - d. Mitigation Site Preparation (*p. 12, 5.C.2*)  
(base topo map showing preparation plans)
  - e. Planting Plan (*p. 13, 5.D.4*)
    - plan view of base topo
    - representative cross-sections
  - f. Irrigation Plan (*p. 13, 5.F.3*) (may be on planting plan topo)

2. As-Built Report (*p. 14, 5.G.2*)
  - a. Final site contours
  - b. Plantings as installed

**C. Figure Format Notes**

- All maps and plans submitted shall be legible and include title, date of preparation, and date of submission.
- A legend shall be provided if symbols, patterns, or screens are used on the map or plan.
- If colors are used to indicate areas on the original map, color copies shall be included in all copies of the report submitted to the Corps.
- Indicate North and provide a scale and datum (if appropriate, i.e., tidal data).
- Scale and orientation shall be the same for all maps, except for detail sections.
- Base topo maps (i.e., for jurisdictional areas, location and size of mitigation areas, mitigation site preparation plans, planting plans, irrigation plans, and as-built reports) shall be full-size (1 inch = 100 feet or less, 1 inch = 200 feet for very large projects).
- USGS quad maps shall be full-size and full scale (may be photocopies, if clearly legible).

NOTE: Reduced copies of maps shall be bound with all documents to facilitate review by advisory agencies. For Corps review, at least two sets of full-sized copies shall accompany mitigation and monitoring proposal, and one set shall accompany each annual report.

**D. Schedule**

When submitting the mitigation and monitoring plan, the applicant shall indicate the month and date on which the yearly report will be delivered. If plan involves planting, this date should be made between growing seasons for the primary plants so that timely decisions can be made about any modifications to the plan.