UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 8

June 12, 2020
10:37 AM
Received by
EPA Region VIII
Hearing Clerk

IN THE MATTER OF	)	
	)	
James Hein	)	**ADMINISTRATIVE ORDER**
2917 Highway 312	)	**ON CONSENT**
Worden, Montana 59088	)	
	)	
Respondent.	)	
	)	Docket No. CWA-08-2020-0014

I. INTRODUCTION

1. This Administrative Order on Consent (Consent Order) is voluntarily entered into by the United States Environmental Protection Agency (EPA) and James Hein (Respondent). This Consent Order concerns riverbank restoration and mitigation for environmental damage caused by alleged illegal discharges of dredged or fill material to waters of the United States in Section 21, Township 3 North, Range 29 East, Yellowstone County, Montana (the Site).

II. STATUTORY AUTHORITY

2. This Consent Order is issued under section 309(a) of the Clean Water Act (the Act), 33 U.S.C. § 1319(a). The authority to issue this Consent Order has been properly delegated to the undersigned official. This Consent Order is based on the following findings of violation of section 301(a) of the Act, 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 section 404 of the Act, 33 U.S.C. § 1344.

III. PARTIES BOUND

3. This Consent Order will apply to and be binding upon the EPA and upon Respondent and Respondent's agents, successors, and assigns. Each signatory to this Consent Order certifies that he or she is authorized to execute and legally bind the party he or she represents to this Consent Order. No change in ownership of the Site will alter Respondent's responsibilities under this Consent Order unless

the EPA, Respondent, and the transferee agree in writing to allow the transferee to assume such responsibilities. Additionally, no later than 30 calendar days prior to such transfer, Respondent will notify the EPA at the address specified in paragraph 65, below.

IV. STATEMENT OF THE PARTIES

4. The following FINDINGS OF FACT AND VIOLATION are made solely by the EPA. In signing this Consent Order, Respondent neither admits nor denies the FINDINGS OF FACT AND VIOLATION. As such, and without any admission of liability, Respondent consents to the issuance of this Consent Order and agrees to abide by all of its conditions. Respondent waives any and all remedies, claims for relief, and otherwise available rights to judicial or administrative review that Respondent may have with respect to any issue of fact or law set forth in this Consent Order, including any right of judicial review under the Administrative Procedure Act, 5 U.S.C. §§ 701-706. Respondent further agrees not to challenge the jurisdiction of the EPA or the FINDINGS OF FACT AND VIOLATION below in any proceeding to enforce this Consent Order or in any action under this Consent Order.

V. FINDINGS OF FACT AND VIOLATION

5. Respondent is an individual with a mailing address of 2917 Highway 312, Worden, Montana 59088.

6. At all relevant times, Respondent owned, managed, operated on, or otherwise controlled property adjacent to the Yellowstone River at the Site.

7. The Yellowstone River is a navigable, interstate waterway.

8. An unnamed side channel of the Yellowstone River exists on the northeastern portion of the Site (northeastern unnamed side channel).

9. Arrow Creek is a tributary to the Yellowstone River.

10. Prior to 1997, Arrow Creek flowed through the Site to a confluence with the Yellowstone River located at the eastern, downstream boundary of the Site.

11. In 1997, the path of Arrow Creek changed. Arrow Creek's confluence with the Yellowstone moved west to upstream of the Site. The former channel of Arrow Creek located on the Site became a high-water side channel of the Yellowstone River (Arrow Creek side channel).

12. Prior to October 15, 2014, Respondent constructed a barrier made of round hay bales and 2' by 6' concrete blocks on the Site that crossed the Arrow Creek side channel, traversed the Site, and extended into the northeastern unnamed side channel.

13. On October 15, 2014, Respondent submitted a Joint Application for Proposed Work in Montana's Streams, Wetlands, Floodplains, and other Water Bodies (Joint Application) to the Army Corps of Engineers (Corps).

14. Respondent's October 15, 2014 Joint Application indicated "previous work" had occurred on the Site and there were presently "blocks overturned" on the Site.

15. Respondent's October 15, 2014 Joint Application sought Corps authorization for (1) "up to 10 buried bendway weirs"; (2) an "earth dike to 1' above 100 year [floodplain]"; and (3) a "drop structure to limit flows in [the] Arrow Creek" side channel.

16. Respondent's October 15, 2014 Joint Application indicated the activities would have "no impact on the Yellowstone until weirs reached"; the Yellowstone would "not [be] changed"; and the activities would not include placement of fill material below the ordinary high water mark of the Yellowstone River.

17. Respondent's October 15, 2014 Joint Application indicated "50' of Arrow Creek" would be "limited to bankfull flow[.]"

18. On December 23, 2014, the Corps issued Respondent a letter in response to Respondent's October 15, 2014 Joint Application. The Corps letter indicated that Respondent's request to install up to ten buried weirs above the ordinary high water mark did not require a permit from the Corps, but "if the

weirs become exposed to the Yellowstone River, future maintenance activities will require additional authorization" from the Corps.

19. The December 23, 2014 Corps letter also determined that the construction of a grade control structure in the Arrow Creek side channel was authorized under Department of the Army Nationwide Permit 18, found at 76 Fed. Reg. 9174 (Feb. 21, 2012), if Respondent met the General and Regional Conditions attached to the letter, completed the work by March 18, 2017, and signed and returned a Compliance Certification upon completion of the work.

20. The December 23, 2014 Corps letter included a preliminary jurisdictional determination for the Arrow Creek side channel, which found that the side channel "may be" considered waters of the United States. The December 23, 2014 Corps letter stated: "If you believe the preliminary JD is inaccurate, you may request this office complete an approved JD prior to your commencement of any work in a water of the U.S. . . . If you believe the preliminary JD is accurate and do not want the Corps to complete an approved JD, please sign the preliminary JD and return it to the letterhead address within two weeks."

21. Respondent did not contest the Corps' preliminary jurisdictional determination for the Arrow Creek side channel.

22. On approximately September 29, 2015, Respondent sent the Corps a request to amend the project description and scope of the grade control structure impacting the Arrow Creek side channel. Respondent requested to replace the material and dimensions of the grade control feature from a 450 foot long feature constructed with two foot by 2 foot by 6 foot concrete blocks to a 100 foot long, earthen embankment with a 24 inch culvert installed in the bottom of the embankment to provide drainage.

23. On September 30, 2015, the Corps responded to Respondent's September 29, 2015 request to amend the Joint Application. The Corps requested more information regarding Respondent's

planned changes to the design of the grade control structure and its impacts on the Arrow Creek side channel before the Corps would process the request to amend the Joint Application. .

24. Respondent did not submit supplemental information to the Corps.

25. Prior to December 14, 2015, Respondent submitted a Joint Application for authorization to construct a farm crossing of an unnamed tributary of the Yellowstone River.

26. On December 14, 2015, the Corps sent Respondent a letter conveying the Corps' determination that the farm crossing detailed in Respondent's joint application did not require an authorization. The Corps explained that the exemption in 33 C.F.R. § 323.4(a)(6) provides an exemption from authorization for farm roads "constructed and maintained in accordance with best management practices (BMP's) to assure that flow and circulation patterns and chemical and biological characteristics of waters of the United States are not impaired, that the reach of the waters of the United States is not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized."

27. On March 18, 2017, the Corps' December 23, 2014 determination that Respondent's proposed construction of a grade control structure in the Arrow Creek side channel was authorized under Department of the Army Nationwide Permit 18 expired.

28. May 12, 2017 aerial photographs show Respondent constructed a drop structure across the Arrow Creek side channel downstream of where Respondent placed hay bales and concrete blocks in the Arrow Creek side channel. Respondent did not submit a Compliance Certification to the Corps for any work related to a drop structure in the Arrow Creek side channel.

29. May 12, 2017 aerial photographs also show Respondent constructed an earthen dike that extended from the Arrow Creek drop structure, across the site, and crossed the northeastern unnamed side channel of the Yellowstone River. This structure prevented water from entering the northeastern

unnamed side channel, and therefore impaired the flow and circulation patterns and chemical and biological characteristics of the Yellowstone River and reduced the reach of the Yellowstone River.

30. In approximately September 2017, fencing and concrete blocks placed by Respondent on the Site fell into the Yellowstone River. Respondent then used construction equipment to remove the fallen fencing and jersey barriers from the Yellowstone River.

31. On October 12, 2017, the Corps' Billings Regulatory Office, conducted an inspection at the Site.

32. The inspectors found seven concrete bendway weirs that contained rebar, each projecting 20 feet into the river channel, constructed by use of an excavator or loader, below the ordinary high water mark of the Yellowstone River. The inspectors also observed three additional, incomplete bendway weirs under construction by use of an excavator or loader, below the ordinary high water mark of the Yellowstone River. The weirs were spaced over approximately 1,000 linear feet of the Yellowstone River. A dump truck carrying concrete arrived on site during the inspection.

33. Respondent or persons acting on Respondent's behalf had fully or partially constructed ten concrete bendway weirs below the ordinary high water mark of the Yellowstone River by using an excavator or loader without authorization to discharge by a permit from the Corps.

34. Respondent's construction of the weirs filled and blocked the inlet to the northeastern unnamed side channel of the Yellowstone River.

35. On October 19, 2017, after observing unauthorized discharge of fill into the Yellowstone River at the Site during the inspection, the Corps issued a notice of violation and cease and desist letter to Respondent James Hein.

36. On November 6, 2017, Respondent James Hein responded to the cease and desist order by submitting an after-the-fact request for authorization to discharge to the Corps for the seven

completed concrete weirs and a request to install an additional seven concrete weirs for a total of 1,400 linear feet of weirs along the bank of the Yellowstone River.

37. The Corps approved neither the after-the-fact request for authorization to discharge the installed seven concrete weirs nor the request to install seven additional concrete weirs.

38. On July 30, 2018, the Montana Department of Fisheries, Wildlife & Parks, took photos of the Site depicting additional concrete blocks placed by an excavator or loader by Respondent below the ordinary high water mark of the Yellowstone River as part of Respondent's removal of the original bendway weirs.

39. November 11, 2018 aerial photography shows that Respondent constructed seven new bendway weirs in the Yellowstone River on the upstream portion of the Site

40. The November 11, 2018 aerial photography also shows that Respondent's placement of new weirs and construction of an adjacent road filled in and blocked the inlet to the Arrow Creek side channel.

41. In the spring of 2019, Respondent constructed approximately 877 feet of rock revetment that extended below the ordinary high water mark of Yellowstone River in the location of the removed, original bendway weirs.

42. The activities described in paragraphs 12, 29, 30, 33, 34, 38, 39, 40, and 41, above, resulted in discharges of dredged and fill material into and along at least 1,400 linear feet of the Yellowstone River and its side channels, increasing the potential for erosion and sedimentation within the Yellowstone River. The Yellowstone River provides numerous functions and values including aquatic and wildlife habitat, runoff conveyance, groundwater recharge, recreation, and aesthetics.

43. Respondent is a "person" as defined in section 502(5) of the Act, 33 U.S.C. § 1362(5).

44. The material discharged at the Site and described in paragraphs 12, 29, 30, 33, 34, 38, 39, 40, and 41, above, is and was at all relevant times "dredged material" or "fill material" as defined in 33

C.F.R. § 323.2(c) or 33 C.F.R. § 323.2(e), respectively, and "pollutants" as defined in section 502(6) of the Act, 33 U.S.C. § 1362(6).

45. The activities described in paragraphs 12, 29, 30, 33, 34, 38, 39, 40, and 41, above, were performed using common earthmoving vehicles and equipment.

46. The vehicles and equipment used to perform the activities described in paragraphs 12, 29, 30, 33, 34, 38, 39, 40, and 41, above, are and were at all relevant times each a "point source" as defined in section 502(14) of the Act, 33 U.S.C. § 1362(14).

47. The Yellowstone River and its side channels referenced in paragraphs 7, 8, 11, 12, 29, 30, 33, 34, 38, 39, 40, and 41, above, are and were at all relevant times "waters of the United States" as defined in 33 C.F.R. § 328.3(a) and therefore "navigable waters" as defined in section 502(7) of the Act, 33 U.S.C. § 1362(7).

48. The placement of dredged or fill material into the Yellowstone River and its side channels constitutes the "discharge of pollutants" as defined in section 502(12) of the Act, 33 U.S.C. § 1362(12).

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

50. Section 404 of the Act, 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.

51. According to 33 C.F.R. § 323.3(a), a permit issued by the Corps is required for the discharge of dredged or fill material into waters of the United States unless an exemption pursuant to 33 C.F.R. § 323.4 applies.

52. Respondent had prior knowledge of the section 404 permitting program as demonstrated by the submittal of permit applications and receipt of permit authorizations described in paragraphs 13, 22, 25, and 36.

53. Respondent was not authorized by or did not comply with a permit issued pursuant to section 404 of the Act, 33 U.S.C. § 1344, to conduct the activities described in paragraphs 12, 29, 30, 33, 34, 38, 39, 40, and 41, above.

54. The activities conducted by Respondent and/or by persons acting on Respondent's behalf as described in paragraphs 12, 29, 30, 33, 34, 38, 39, 40, and 41, above, violate section 301(a) of the Act, 33 U.S.C. § 1311(a). Each discharge of pollutants from a point source by Respondent into waters of the United States without compliance with a permit issued pursuant to section 404 of the Act, 33 U.S.C. § 1344, constitutes a violation of section 301(a) of the Act, 33 U.S.C. § 1311(a). Each day the discharges remain in place without compliance with a permit constitutes an additional day of violation of section 301(a) of the Act, 33 U.S.C. § 1311(a).

55. Activities to be carried out under this Consent Order are remedial, not punitive, and are necessary to achieve the Act's objective "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters," as specified in section 101(a) of the Act, 33 U.S.C. § 1251(a). Restoration and mitigation are appropriate to address the actual and potential harm to water quality, aquatic habitat and wildlife habitat, as well as other functions and values, caused by Respondent's unpermitted activities.

56. This Consent Order was issued after consultation and coordination with the Corps' Omaha District, Helena Regulatory Office.

VI. ORDER FOR COMPLIANCE

Based upon the foregoing FINDINGS OF FACT AND VIOLATION and pursuant to the authority vested in the Administrator of the EPA pursuant to section 309(a) of the Act, 33 U.S.C. § 1319(a), as properly delegated to the undersigned official, it is hereby ORDERED:

57. Respondent must 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 section 404 of the Act, 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.

58. Within 14 days of receipt of this Consent Order, Respondent must submit to the EPA the name and qualifications, including professional resume, of a consultant experienced in stream and wetlands restoration who must prepare a removal, restoration, mitigation, and monitoring plan (Plan) and directly supervise all work performed pursuant to the Plan, once it is approved by EPA.

59. Within 67 days of receipt of this Consent Order, Respondent must submit to the EPA for review, comment and approval a Plan prepared by the consultant referenced in paragraph 58 for (1) the removal, restoration, and/or mitigation of all dredged and fill material that was discharged into the waters of the United States at the Site and (2) monitoring of impacted areas.

60. The Plan must be prepared in accordance with the "U.S. Environmental Protection Agency, Region 8 Clean Water Act § 404 Enforcement: Removal/Restoration Plans and Habitat Mitigation/Monitoring Proposals" guidelines attached as Exhibit A. The Plan must include:

a. A complete assessment of the impacts to the Yellowstone River and its side channels due to Respondent's unauthorized discharges of dredged and fill material at the Site;

b. A site map at an appropriate scale showing the entire area of unauthorized disturbance. This must include but not be limited to the following activities identified in paragraphs 12, 29, 30, 33, 34, 38, 39, 40, and 41:

   i. The location and extent of the hay bale barrier identified in paragraph 12,

   ii. The location and extent of the drop structures and dikes identified in paragraphs 28 and 29;

   iii. The location and extent of all bendway weirs identified in paragraphs 33, 34, 39, and 40;

   iv. The location and extent of all concrete block identified in paragraphs 30 and 38; and

   v. The location and extent of the rock revetment identified in paragraph 41.

c. The site map must include existing undisturbed natural features that were not impacted and clearly identify all unauthorized man-made disturbances, fills, excavations, road crossings, culverts, structures, and any other work;

d. A detailed description and schedule for all of the work and activities to be accomplished, including the application for any required permits, providing for completion of all aspects of the work no later than 60 days after the EPA approves the Plan;

e. Grading, planting, and monitoring plans; measurable criteria for the success of restoration; and provisions for proper disposal of any excess soils or other material generated during removal and restoration;

f. Detailed professional drawings of the restoration site, including plan and profile drawings with control elevations for current conditions and proposed conditions;

g. Engineered plans addressing long-term sustainability and minimization of the risk of flanking, undercutting, and potential failure of the bank stabilization; and

h. A description of all costs to complete the restoration work, including the costs of all consultations, permits, construction, and monitoring.

i. A description of all credits that will be purchased to mitigate work that is not fully removed and remediated.

61. The EPA will review the Plan and approve it, approve it with modifications, or reject it with comments. If the EPA rejects the Plan, Respondent must, within 30 calendar days of receipt of the EPA's rejection letter, submit a revised Plan that corrects the deficiencies identified by the EPA.

62. Upon receiving the EPA's written approval of the Plan, Respondent must obtain all necessary permits to implement the Plan and then commence all activities in accordance with the approved Plan, including the Plan's timeframes and all granted permits. Respondent must demonstrate that all necessary permits have been granted by providing copies of all such permits and permit amendments to the EPA within seven calendar days of issuance of each permit or amendment.

63. All activities conducted pursuant to this Consent Order and involving the use of heavy construction equipment must be undertaken under the direct, on-site supervision of the consultant retained pursuant to paragraph 58 unless otherwise approved in advance by the EPA.

64. This Consent Order is not a permit or an authorization to place or discharge dredged or fill material in waters of the United States. Respondent must consult with the Corps at the address and telephone number below to determine if any work to be performed pursuant to this Consent Order requires a permit from the Corps under section 404 of the Act. If any such permit is required,

Respondent must obtain such permit(s) and provide a copy or copies to the EPA pursuant to paragraph 62, above, prior to initiating any work that is to be performed pursuant to this Consent Order.

U.S. Army Corps of Engineers
Helena Regulatory Office
10 West 15th Street, Suite 2200
Helena, Montana 59626
Telephone: (406) 441-1375
Facsimile: (406) 441-1380

65. Respondent will submit all notifications under this Consent Order and related correspondence to:

Barbara Conklin, 8ENF-W-NW
U.S. Environmental Protection Agency, Region 8
Email: conklin.barbara@epa.gov

A copy of all notifications and related correspondence also will be provided to:

Matt Castelli, 8ORC-LE-R
U.S. Environmental Protection Agency, Region 8
Email: castelli.matthew@epa.gov

66. In addition to the notification requirements set forth in paragraph 65, after issuance of any Corps authorization for the restoration and mitigation work, Respondent must submit all notifications and correspondence to the Corps in accordance with the terms and conditions in the Corps permit(s).

67. The Plan and any other deliverables, reports, specifications, schedules, permits, and attachments required by this Consent Order are, upon approval by the EPA, incorporated into this Consent Order. Any non-compliance with the Plan, deliverables, reports, specifications, schedules, permits, or attachments will be deemed a failure to comply with this Consent Order and will be subject to EPA enforcement.

68. Until termination of this Consent Order, the EPA, the Corps, and their authorized representatives and contractors will have the authority at all reasonable times to enter the Site to:

a. Inspect and monitor progress of the activities required by this Consent Order;

b. Inspect and monitor compliance with this Consent Order;

c. Inspect and review any records relevant to this Consent Order; and

d. Verify and evaluate data and other information submitted to the EPA or the Corps.

Prior to an announced inspection, the EPA and the Corps will notify Respondent in the manner described in paragraph 71. The EPA and the Corps will endeavor to notify Respondent at least 72 hours prior to an announced inspection, if practicable. This Consent Order will in no way limit or otherwise affect the 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.

69. This Consent Order will be effective upon receipt by Respondent of a fully executed copy.

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

71. The EPA agrees to submit all notifications and correspondence to:

Joseph V. Womack
Womack & Associates, LLC
jwomack@jvwlaw.com

72. Any party hereto may, by notice, change the address to which future notices will be sent or the identities of the persons designated to receive notices hereunder.

73. If an event causes or may cause delay in the achievement of the requirements of this Consent Order, Respondent must notify the EPA orally as soon as possible and in writing within ten working days from the date Respondent first knew of such event or should have known of such event by exercise of due diligence, whichever is earlier. Respondent's written notice must specify the length of

the anticipated delay, the cause(s) of the delay, the measures taken or to be taken by Respondent to minimize the delay, and a timetable by which those measures will be or have been implemented. Notification to the EPA pursuant to this paragraph of any anticipated delay, by itself, will not excuse the delay or the obligation of Respondent to comply with the requirements and deadlines of this Consent Order, unless the EPA grants in writing an extension of the applicable requirement or deadline.

74. If Respondent demonstrates to the EPA's satisfaction that the delay or anticipated delay has been or will be entirely caused by circumstances beyond Respondent's control (or the control of any of Respondent's agents) that Respondent could not have foreseen and prevented despite due diligence, and that Respondent has taken all reasonable measures to prevent or minimize such delay, the EPA may excuse performance or extend the time for performance of such requirement for a period not to exceed the actual delay resulting from such circumstances. The EPA's determination on these matters will be made as soon as possible, and in writing within ten working days, after the receipt of Respondent's written notification of the event. The parties agree that changed economic circumstances will not be considered circumstances beyond the control of Respondent.

75. Each party will bear its own costs and attorneys' fees in connection with this matter.

76. Respondent understands and acknowledges the following:

a. Section 309(d) of the Act, 33 U.S.C. § 1319(d), as adjusted for inflation by 40 C.F.R. § 19.4, authorizes civil penalties of up to $54,833 per day for each violation of an order issued by the Administrator of the EPA under section 309(a) of the Act, 33 U.S.C. § 1319(a).

b. Compliance with the terms and conditions of this Consent Order will not be construed to relieve Respondent of his obligations to comply with any applicable federal, state, or local law or regulation.

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

77. This Consent Order will remain in effect until a written notice of termination is issued by an authorized representative of the EPA following compliance with all requirements of this Consent Order and the Plan. Respondent may petition the EPA to terminate this Consent Order upon completion of the requirements in this Consent Order and the Plan, and also demonstrated compliance with the Act. The EPA, in its sole discretion, will determine whether to grant such a petition from Respondent.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 8

Date: _____

By: COLLEEN RATHBONE Digitally signed by COLLEEN RATHBONE Date: 2020.06.12 06:58:21 -06'00'

Colleen Rathbone, Chief
Water Enforcement Branch
Enforcement and Compliance
Assurance Division

JAMES HEIN

Date: 6-8-2020

By: James Hein

James Hein

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.

1. 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)[1], 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:

[1] 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 (e.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 coss-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 annotated 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.