

COMMENTS

Wetland Mitigation Banking: Is the Current System Beyond Repair?

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I. INTRODUCTION

Developer seeks to purchase and develop a 200-acre tract of land in Southeast Louisiana. The land is a marshy area that presently functions as a bottomland hardwood. Developer wants to clear, drain, and fill the marshy area to build a hotel. After Developer applies for a section 404 permit, Developer seeks legal counsel because a condition of the permit requires her to “buy” restored wetlands at a wetland mitigation bank in order to offset the wetland damage caused by the project.

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Given this scenario, the legal issue in this Comment is whether the current wetland trading system adequately mitigates wetland losses. As such, this Comment dissects the shortfalls of wetland mitigation banking in the United States and the current state of wetland valuation assessment in the New Orleans District. Part I of this Comment discusses and critiques the legal origins of wetland mitigation. Part II focuses on the trading market, including the inadequacies in the wetland valuation systems and trading scheme. In particular, Part II narrows in on the shortfalls and possible improvements to the current wetland valuation scheme in the New Orleans District. Part III suggests general review strategies and procedural solutions for resolving the inadequacies in the wetland trading market. Finally, Part IV examines the possible legal enforcement avenues to compel the United States Army Corps of Engineers (Corps) to adopt broadly tailored wetland valuation methods and to hold mitigation banks accountable to monitoring, reevaluation, and performance standards.

II. LAW AND POLICY

What happens when a developer cannot avoid wetland destruction during project development? The developer must compensate for any wetland losses by restoring wetlands elsewhere.¹ How does a developer do this? Today, wetland mitigation banks restore off-site wetlands in advance so developers do not have to create wetland restoration projects themselves.² The developer only has to purchase from a wetland bank an amount of restored wetland equal to the amount of destroyed wetland.³

Wetland mitigation banking has become an extremely popular market-based solution for dealing with wetland destruction. Currently, there are at least 290 wetland mitigation banks in the United States.⁴ Of these 290 banks, 80 banks are located in the New Orleans District alone.⁵ The reason for this banking explosion is the shift in regulatory preference from on-site mitigation to off-site mitigation.⁶ Wetland mitigation banking is based upon the rationale that larger off-site wetland areas

1. See ENVTL. LAW INST., WETLAND MITIGATION BANKING RESEARCH REPORT 1 (1993) [hereinafter ELI REPORT].

2. See *id.*

3. See *id.*

4. Media Advisory, Environmental Law Institute, Preliminary Findings from Wetland Mitigation Banking Study (June 13, 2001), at <http://www.eli.org/whatsnew/olmedia/wmb.htm>.

5. Interview with Martin S. Mayer, Environmental Resource Specialist, U.S. Army Corps of Engineers, New Orleans District, in New Orleans, La. (Oct. 21, 2002).

6. J.B. Ruhl & R. Juge Gregg, *Integrating Ecosystem Services into Environmental Law: A Case Study of Wetlands Mitigation Banking*, 20 STAN. ENVTL. L.J. 365, 369-72 (2001).

provide greater ecological benefits than project-specific mitigation.⁷ However, the downside to this booming market is its failure to achieve no net loss of wetland functions and values.⁸

Procedurally, section 404 of the Clean Water Act (CWA) requires that individuals must secure a permit from the Corps before discharging dredged or fill material into a wetland.⁹ The Corps must then enter into a substantive analysis to decide whether to grant or deny a wetlands permit.¹⁰ Upon completion of the substantive analysis, the Corps may require an individual to perform compensatory mitigation as a condition for the issuance of a permit.¹¹ Federal regulations have endorsed wetland mitigation banking as an acceptable form of compensatory mitigation.¹² However, the federal regulations have only provided a broad framework on how to adequately establish a wetland trading scheme.

A. Section 404

The origin of wetland mitigation banking stems from the CWA. The authority of the CWA comes from the Commerce Clause of the Constitution.¹³ Section 311 of the CWA states that “the discharge of any pollutant [into navigable waters of the United States] by any person shall be unlawful.”¹⁴ “Navigable waters” are defined as “waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce . . . including interstate wetlands.”¹⁵ “Wetlands” are defined as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”¹⁶

7. ELI REPORT, *supra* note 1, at 1.

8. Lisa A. Wainger et al., *Wetland Value Indicators for Scoring Mitigation Trades*, 20 STAN. ENVTL. L.J. 413, 415 (2001).

9. CWA § 404(a), 33 U.S.C. § 1344(a) (2000).

10. *Id.*

11. Mitigation Memorandum of Agreement, 55 Fed. Reg. 9210, 9210-12 (Mar. 12, 1990).

12. *Id.* at 9212.

13. U.S. CONST. art. I, § 8, cl. 3.

14. CWA § 301(a), 33 U.S.C. § 1311(a).

15. 33 C.F.R. § 328.3(a)(1)-(2) (2002); *see also* Solid Waste Agency of N. Cook County v. United States Army Corps of Eng'rs, 531 U.S. 159 (2001) (refusing to extend the Corps' authority to regulate wetlands not adjacent to open water and rejecting the Corps' rule extending the definition of “navigable waters” under the CWA to include intrastate waters used as habitat by migratory birds); *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121 (1985) (holding that the Corps had section 404 jurisdiction over wetlands that actually abutted on a navigable waterway).

16. 33 C.F.R. § 328.3(b).

In addition, section 502(6) of the CWA defines “pollutant” to include dredged spoil, rock, sand, cellar dirt, and agricultural waste discharged into water.¹⁷ Sections 311 and 502(6) have been interpreted to include fill dirt as a pollutant within the framework of the CWA.¹⁸ However, section 404(a) of the CWA permits the Secretary of the Army, acting through the Corps, to issue permits “for the discharge of dredged or fill material into the navigable waters at specified disposal sites.”¹⁹

Pursuant to section 404(b)(1) of the CWA, the Corps must evaluate permitting decisions based on substantive criteria formulated by the Administrator of the Environmental Protection Agency (EPA), known as the section 404(b)(1) Guidelines (Guidelines).²⁰ The Guidelines establish a four-prong test that a proposed activity must survive in order to pass muster.²¹ First, the Corps cannot issue a permit for the discharge of dredged or fill material if the activity causes or contributes to violations of state water quality standards, applicable toxic effluent standards, the Endangered Species Act, or the Marine Protection, Research, and Sanctuaries Act of 1972.²²

Second, the Corps cannot issue a permit for the discharge of dredged or fill material if there exists “a practicable alternative to the proposed discharge which would have a less adverse impact on the aquatic ecosystem.”²³ Under the second prong, if a practicable alternative to the proposed discharge does not involve discharge into an aquatic site, the alternative is presumed to have a less adverse impact on the aquatic ecosystem.²⁴ A “practicable alternative” includes activities that are available and capable of being accomplished after evaluating cost, technology, and overall logistics.²⁵

17. CWA § 502(6), 33 U.S.C. § 1362(6).

18. *See In re Alameda County Assessor's Parcel Nos. 537-801-2-4 and 537-850-9*, 672 F. Supp. 1278, 1284 (N.D. Cal. 1987).

19. CWA § 404(a), 33 U.S.C. § 1344(a); *see also* *Forest Props., Inc. v. United States*, 177 F.3d 1360 (Fed. Cir. 1999). The United States Court of Appeals for the Federal Circuit held that the Corps' denial of a section 404 permit to dredge and fill wetlands as part of a development project did not amount to a regulatory taking under the Fifth Amendment's Taking Clause. The holding centered on two points: (1) denial of the permit did not significantly interfere with investment-backed expectations because the development company knew that the development project would be denied when he purchased the property, and (2) the development company did not introduce credible evidence to show that the denial of the permit decreased the value of the relevant property. *Id.* at 1367.

20. CWA § 404(b)(1), 33 U.S.C. § 1344(b)(1); *see also* 404(b)(1) Guidelines, 40 C.F.R. § 230 (2002).

21. 40 C.F.R. § 230.10.

22. *Id.* § 230.10(b).

23. *Id.* § 230.10(a).

24. *Id.* § 230.10(a)(3).

25. *Id.* § 230.10(a)(2).

Third, the Corps cannot issue a permit for the discharge of dredged or fill material unless “appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem.”²⁶ The Guidelines have suggested some possible ways to minimize the adverse affects of discharging dredged and fill material.²⁷ For example, choosing a site that has been previously used for dredged and fill material discharge,²⁸ adding treatment substances to the discharge material,²⁹ using silt screens,³⁰ and avoiding sites with unique habitat³¹ will reduce the negative effects of discharging dredged and fill material into aquatic ecosystems.

Fourth, the proposed activity cannot cause or contribute to significant degradation of the waters of the United States.³² The significance of the degradation is based upon “factual determinations, evaluations, and tests . . . with special emphasis on the persistence and permanence of the effects.”³³ Effects to be considered include the significant adverse effects of discharged pollutants on human health or welfare, aquatic organisms and other wildlife, aquatic ecosystem viability, and recreational, aesthetic, and economic factors.³⁴

B. Mitigation Memorandum of Agreement

Initially, there was confusion and misunderstanding as to the level of mitigation necessary to comply with the Guidelines.³⁵ Section 404 does not mention a mitigation requirement and the Guidelines provide only minimal direction as to the necessary mitigation level. In response, the Corps and the EPA adopted mitigation procedures in a memorandum of agreement (MOA) in 1990.³⁶ The MOA does not change substantive regulatory requirements, although it provides procedures for considering mitigation whenever the Corps requires a developer to perform compensatory mitigation as a condition of a section 404 permit.³⁷

26. *Id.* § 230.10(d).

27. *Id.* § 230.70-77.

28. *Id.* § 230.70(c).

29. *Id.* § 230.71(c).

30. *Id.* § 230.73(c).

31. *Id.* § 230.75(c).

32. *Id.* § 230.10(c).

33. *Id.*

34. *Id.* § 230.10(c)(1)-(4).

35. *See* Mitigation Memorandum of Agreement, 55 Fed. Reg. 9210, 9210 (Mar. 12, 1990).

36. *See id.*

37. *Id.* at 9210-11.

However, the MOA does not require any particular action, but rather acts only as guidance to the discretionary provisions of the Guidelines.³⁸

The MOA addresses mitigation with a three-part sequencing approach of avoidance, minimization, and compensatory mitigation phases.³⁹ In the avoidance phase, the Corps must make “a determination that potential impacts have been avoided to the maximum extent practicable.”⁴⁰ The avoidance phase focuses on practicable alternatives to the proposed discharge enumerated in section 230.10(a) of the Guidelines.⁴¹

In the minimization phase, “unavoidable impacts will then be mitigated to the extent appropriate and practicable by requiring steps to minimize impacts.”⁴² The minimization phase focuses on project modifications and permit conditions under section 230.10(d) of the Guidelines.⁴³ Subpart H of the Guidelines details numerous techniques for minimizing adverse impacts on wetlands.⁴⁴

In the compensatory mitigation phase, the Corps must “compensate for aquatic resource values.”⁴⁵ This phase is a last resort “for unavoidable adverse impacts which remain after all appropriate and practicable minimization has been required.”⁴⁶ The EPA and the Corps primarily value measures that restore prior wetland areas, followed by enhancement of low quality wetlands, then creation of new wetlands, and least favored of all, preservation of existing wetlands.⁴⁷ The MOA also expresses preferences for on-site mitigation (as opposed to off-site mitigation) and in-kind mitigation (as opposed to out-of-kind mitigation).⁴⁸ Moreover, the MOA requires that “functional values lost by the resource to be impacted must be considered” and specifically endorses mitigation banking as an acceptable form of compensatory mitigation.⁴⁹

38. *See id.* at 9211.

39. *See id.* at 9211-12.

40. *Id.* at 9211.

41. *Id.* at 9212.

42. *Id.*

43. *Id.*

44. *Id.*

45. *Id.*

46. *Id.*

47. *See* ELI REPORT, *supra* note 1, at 53-55.

48. Mitigation Memorandum of Agreement, 55 Fed. Reg. at 9212. In-kind mitigation refers to the mitigation of an adversely affected habitat by restoring, creating, enhancing, or preserving the same habitat type. Out-of-kind mitigation refers to the mitigation of an adversely affected habitat by restoring, creating, enhancing, or preserving another habitat type (i.e., nontidal wetlands used to compensate for destruction of tidal wetlands).

49. *Id.*

Even though the MOA details a strong policy, the means to achieve the end are vague and ill defined. For example, in aiming “to achieve a goal of no overall net loss of values and functions,” the MOA encourages the Corps to utilize measures “identified only through resource assessments tailored to the site performed by qualified professionals because ecological characteristics of each aquatic site are unique.”⁵⁰ In addition, the MOA suggests that the Corps should evaluate functional values “by applying aquatic site assessment techniques generally recognized by experts in the field and/or the best professional judgment of Federal and State agency representatives, provided such assessments fully consider ecological functions included in the Guidelines.”⁵¹ However, the MOA does not define “qualified professionals” or “functions and values” and requires only that ecological functions in the Guidelines be “consider[ed]” in evaluating resource assessments.⁵²

Furthermore, the MOA states that “mitigation should provide, at a minimum, one-for-one functional replacement (i.e., no net loss of values), with an adequate margin of safety to reflect the expected degree of success associated with the mitigation plan, recognizing that this minimum requirement may not be appropriate and practicable, and thus may not be relevant in all cases.”⁵³ On the other hand, the MOA allows, “in the absence of more definitive information on the functions and values of specific wetlands sites, a minimum of 1 to 1 acreage replacement may be used as a reasonable surrogate for no net loss of functions and values.”⁵⁴ This acre-counting method is ambiguous and undermines the importance placed on wetland services. Thus, the MOA focuses on wetland “values and functions,” but never defines these terms.

Finally, the MOA provides minimal guidance on monitoring and enforcement. The MOA suggests that monitoring, reporting, and remedial action are important to achieve the long-term success of the mitigation.⁵⁵ However, the MOA fails to provide any guidance on monitoring procedures, reporting requirements, or the level of remedial action necessary to achieve compliance.⁵⁶ Moreover, the MOA provides that mitigation requirements “shall be conditions of standard Section 404 permits,” but fails to indicate whether the permittee or the bank sponsor

50. *Id.* at 9211-12.

51. *Id.* at 9212.

52. *Id.*

53. *Id.* at 9212-13.

54. *Id.* at 9213.

55. *See id.*

56. *See id.*

is ultimately liable or how such conditions are to be enforced through section 404 permits.⁵⁷

C. Banking Guidance

In 1995, the Corps, the EPA, the National Resources Conservation Service (NRCS), the Fish and Wildlife Service (FWS), and the National Marine Fisheries Service (NMFS) published the Federal Guidance for the Establishment, Use and Operation of Mitigation Banks (Banking Guidance).⁵⁸ The purpose of the Banking Guidance is to “clarify the manner in which mitigation banks may be used to satisfy mitigation requirements of the Clean Water Act (CWA) Section 404 permit program and the wetland conservation provisions of the Food Security Act (FSA) (i.e., ‘Swampbuster’ provisions).”⁵⁹ Furthermore, the Banking Guidance asserts that the “objective of a mitigation bank is to provide for the replacement of the chemical, physical and biological functions of wetlands and other aquatic resources which are lost as a result of authorized impacts.”⁶⁰ Even though most of the responsibility is placed on the bank sponsor, the Banking Guidance qualifies these responsibilities as mere suggestions, casting doubt on the binding effect of these provisions.⁶¹

The Banking Guidance details planning considerations for a mitigation bank. In outlining planning considerations, the Banking Guidance emphasizes the ecological suitability of a site, the technical feasibility of a project, credit for preservation of existing wetlands, credit for inclusion of upland areas, and the importance of site-specific watershed planning.⁶² However, similar to the MOA, the Banking Guidance is vague on certain terms. For example, the Banking Guidance provides minimal insight on the term “function.” In defining the role of wetland preservation, credit is given only when “it is demonstrated that the preservation will augment the functions of the restored, created or enhanced aquatic resource.”⁶³ Furthermore, credit may be given for the inclusion of upland areas “only to the degree that such features increase the overall ecological functioning of the bank.”⁶⁴

57. *Id.*

58. Federal Guidance for the Establishment, Use and Operation of Mitigation Banks, 60 Fed. Reg. 58,605 (Nov. 28, 1995).

59. *Id.*

60. *Id.* at 58,607.

61. *See generally id.*

62. *See id.*

63. *Id.* at 58,608.

64. *Id.* at 58,609.

The Banking Guidance also outlines the procedures for establishing and maintaining a mitigation bank. Initially, bank sponsors are encouraged to submit a prospectus to the Corps or NRCS outlining the objectives of the bank and the operation scheme.⁶⁵ Then, the Mitigation Bank Review Team (MBRT), comprised of representatives from the Corps, the NRCS, the EPA, the FWS, the NMFS, and state and local agencies, will establish a mitigation banking instrument detailing the “physical and legal characteristics of the bank, and how the bank will be established and operated.”⁶⁶ Next, the public has an opportunity to be heard through a notice-and-comment process.⁶⁷ The Corps is then “responsible for authorizing use of a particular mitigation bank on a project-specific basis and determining the number and availability of credits required to compensate for proposed impacts in accordance with the terms of the banking instrument.”⁶⁸ However, “the Corps and NRCS are responsible for making final decisions on a project-specific basis regarding the use of a mitigation bank.”⁶⁹

The Banking Guidance equates credits and debits (currency) with the use of aquatic functions. The “functions are quantified as mitigation ‘credits’ which are available for use by the bank sponsor or by other parties to compensate for adverse impacts (i.e., ‘debits’).”⁷⁰ The Banking Guidance states that “[c]redits represent the accrual or attainment of aquatic functions at a bank; debits represent the loss of aquatic functions at an impact or project site.”⁷¹ Nonetheless, credits may only be used when “adverse impacts are unavoidable” and “on-site compensation is either not practicable or use of a mitigation bank is environmentally preferable to on-site compensation.”⁷² Consistent with the MOA, the Banking Guidance allows “[a]n appropriate functional assessment methodology . . . acceptable to all signatories” to assess and quantify available credits.⁷³ However, the Banking Guidance falters with the MOA by allowing acreage to be used as a substitute for measuring function if a functional assessment methodology is impractical to

65. *See id.*

66. *Id.* at 58,609-10.

67. *Id.* at 58,610.

68. *Id.*

69. *Id.*

70. *Id.* at 58,607.

71. *Id.* at 58,612.

72. *Id.* at 58,607.

73. *Id.* at 58,612.

implement.⁷⁴ Therefore, the Banking Guidance relies heavily on “aquatic functions,” but fails to establish definitive guidance as to its meaning.

As far as overview procedures are concerned, the Banking Guidance seems to require monitoring and reporting of the functional development and financial activity of mitigation banks.⁷⁵ In addition, the overall success of a mitigation bank is defined by both the “ecological and financial stability of the bank.”⁷⁶ Through the terms of the banking instrument, the Banking Guidance encourages bank sponsors to keep a ledger of bank accounts, generate an annual ledger report for all bank accounts, and report each banking transaction to the Corps.⁷⁷ These accounting provisions suggest that the financial performance of a bank is directly attached to the section 404 permitting process and the overall bank certification status.

Furthermore, the monitoring provisions of the Banking Guidance appear to deal exclusively with the ecological success of the mitigation bank. Similar to the accounting provisions, the Banking Guidance encourages the bank sponsor to monitor the mitigation bank through monitoring provisions included in the banking instrument and submit annual monitoring reports to the Corps.⁷⁸ Despite suggesting that a five-year monitoring period is appropriate to assure the stability of a mitigation bank, the Banking Guidance offers no guidance on monitoring intervals, performance standards, or appropriate remedial action, except that these requirements should be stipulated in the banking instrument.⁷⁹ Some examples include: whether the monitoring requirement begins at the inception of the mitigation bank or after the Corps has issued a section 404 permit involving the mitigation bank; whether the monitoring requirement ends once the mitigation bank has reached a stable condition or does annual monitoring continue throughout the life of the bank; and whether the remedial provisions are applicable after the withdrawal of bank credits.

Another ambiguity arises when considering long-term sustainability of the mitigation bank. The Banking Guidance calls for the long-term protection of the bank through financial assurances and real estate arrangements executed in conjunction with the banking instrument.⁸⁰

74. *Id.*

75. *See id.* at 58,612-13.

76. *Id.* at 58,612.

77. *See id.*

78. *See id.* at 58,613.

79. *See id.*

80. *See id.* at 58,612-13. The New Orleans District Corps prefers conservation easements and escrow accounts to satisfy these responsibilities. Interview with Martin S. Mayer,

The financial assurances cover contingency actions, should the bank fail.⁸¹ Banks posing higher risks should have higher financial assurances in place, but the financial assurances can be phased out if the bank is functionally mature or self-sustaining.⁸² However, the financial assurance provisions do not draw the line at what contingencies the secured funds should cover.⁸³

Furthermore, the real estate arrangements are encouraged to restrict incompatible uses, but are not required to restrict all activity in the mitigation bank.⁸⁴ Compatible activities may be allowed under the real estate arrangements.⁸⁵ However, the Banking Guidance does not indicate who makes the compatibility determination or where the compatibility line should be drawn.

Finally, the most important ambiguity arises in the context of credit withdrawal timing. The Banking Guidance states that the “number of credits available for withdrawal (i.e. debiting) should generally be commensurate with the level of aquatic functions attained at a bank at the time of debiting.”⁸⁶ However, a bank will not realize revenues until the bank begins selling credits. Because most capital expenditures will be incurred up-front, the Banking Guidance attempts to correct this lag between expenses incurred and revenues by allowing “limited debiting” prior to bank maturity.⁸⁷ Nonetheless, prior to debiting, three minimum requirements must be satisfied: (1) approval of the banking instrument and mitigation plans; (2) a secured bank site; and (3) obtain financial assurances to cover monitoring, maintenance, and contingency actions in the event of bank failure.⁸⁸ On the other hand, the Banking Guidance does not specify the limits to this early debiting. In fact, the New Orleans District Corps’ practice is to approve banking instruments that allow debiting of one hundred percent of the available credits upon

Environmental Resource Specialist, U.S. Army Corps of Engineers, New Orleans District, in New Orleans, La. (Nov. 4, 2002).

81. Federal Guidance for the Establishment, Use and Operation of Mitigation Banks, 60 Fed. Reg. at 58,613.

82. *Id.*

83. *See id.*

84. *Id.* at 58,612-13.

85. *See id.*

86. *Id.* at 58,611.

87. *See id.* at 58,612.

88. *Id.* Banks that pose a greater risk of failure are encouraged to obtain greater financial sureties. *Id.* at 58,613.

satisfaction of the above requirements plus the execution of a conservation servitude.⁸⁹

D. Regulatory Guidance Letter No. 02-02

On December 24, 2002, the Corps issued Regulatory Guidance Letter No. 02-02 (RGL 02-02).⁹⁰ RGL 02-02 supercedes Regulatory Guidance Letter No. 01-01 and applies to all compensatory mitigation proposals associated with section 404 permit applications submitted after December 24, 2002.⁹¹ The purpose of RGL 02-02 is to maintain the “national policy for ‘no overall net loss’ of wetlands” and to reinforce “the Corps commitment to protect waters of the United States, including wetlands.”⁹² However, similar to the MOA and the Banking Guidance, RGL 02-02 generally pays lip service to any substantial mitigation requirements. Nonetheless, RGL 02-02 does have some interesting provisions.

First, RGL 02-02 places an emphasis on a watershed-based approach to compensatory mitigation.⁹³ While not mandating watershed planning, the RGL 02-02 seems to create a presumption in favor of performing compensatory mitigation in the impacted watershed.⁹⁴ Furthermore, RGL 02-02 encourages compensatory mitigation projects that combine different habitats in order to provide for a greater diversity of functions.⁹⁵

Second, RGL 02-02 places more emphasis on the Corps Districts’ usage of functional assessment methodology rather than acreage replacement.⁹⁶ However, this emphasis on functional assessment methodology does not require broadly tailored methods.⁹⁷ Furthermore, RGL 02-02 falters by allowing for one-to-one acreage replacement to be used as a reasonable surrogate for functional assessment methodology.⁹⁸

89. Interview with Martin S. Mayer, *supra* note 80; *see, e.g.*, Supple’s Wetland Mitigation Bank Interagency Agreement 7 (on file with author).

90. U.S. Army Corps of Eng’rs, Regulatory Guidance Letter No. 02-02, Guidance on Compensatory Mitigation Projects for Aquatic Resource Impacts Under the Corps Regulatory Program Pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 (Dec. 24, 2002), *available at* <http://www.fhwa.dot.gov/environment/wetland/rgl022.htm> [hereinafter RGL 02-02].

91. *See id.*

92. *Id.*

93. *See id.*

94. *See id.*

95. *Id.*

96. *See id.*

97. *See id.*

98. *See id.*

Nonetheless, RGL 02-02 takes a step closer to requiring the exhaustion of all functional assessment methodology options before resorting to weaker acreage replacement methods.

Finally, RGL 02-02 encourages compensatory mitigation plans to describe factors considered in the site-selection process, including watershed conditions, air traffic considerations, and practicability.⁹⁹ However, compensatory mitigation plans are not required before the Corps can release compensatory mitigation proposals for the public notice-and-comment process.¹⁰⁰ Thus, RGL 02-02 practically eliminates compensatory mitigation plans from public review until after the compensatory mitigation project is underway.

III. CURRENCIES AND MARKET CONSTRAINTS

Wetland mitigation banking has evolved from a simple personal banking scheme into a complex trading market. This complexity, however, has led to problems in effectively evaluating wetland functions and values. Furthermore, conflicting interests between the parties involved have overshadowed the goal of no net loss of wetland values. As the framework of the trading market allows market forces to take over, the need for a refined currency and a trade review process becomes integral to wetland preservation.

A. *Trading Market*

Despite the inadequacies of the MOA, Banking Guidance, and RGL 02-02, compensatory mitigation has allowed the section 404 permit program to move forward.¹⁰¹ Compensatory mitigation has immobilized highly valued wetlands for more comprehensive and flexible development.¹⁰² For example, compensatory mitigation has decreased the rigidity of the sequencing approach and decreased the incidents where section 404 permits obstruct development.¹⁰³

However, the on-site compensatory mitigation technique has been regarded as a failure in terms of environmental protection.¹⁰⁴ Many commentators have observed that this piecemeal approach has provided

99. *Id.*

100. *See id.*

101. *See* James Salzman & J.B. Ruhl, *Apples for Oranges: The Role of Currencies in Environmental Trading Markets*, 31 ENVTL. L. REP. 11,438, 11,455 (2001).

102. *See id.*

103. *Id.* at 11,455-56.

104. *See id.* at 11,456.

little success.¹⁰⁵ As a result, the Corps and the EPA shifted compensatory mitigation activities from on-site to off-site mitigation, opening the door for a trading market where entrepreneurial wetland banks sell off-site wetlands as credits to third parties seeking mitigation for section 404 permits.¹⁰⁶

B. Assessment and Valuation

Not all wetland ecosystems are created equal. Thus, in order to ensure equivalent trades of wetlands, the currency must include essential values provided by both the destroyed wetlands and the restored wetlands. But what are the values to be measured and how do we incorporate them into a currency? A wetland's values are based on its production of ecosystem goods and services, the quality and quantity of those goods and services, and the demand for those services.¹⁰⁷ Assessment methodology attempts to formulate a currency that incorporates the nature and extent of various services provided by a wetland.¹⁰⁸

Acre counting and functional assessment methods have dominated the assessment methodology field for the purpose of wetland mitigation bank valuation.¹⁰⁹ The Environmental Law Institute's 1993 Wetland Mitigation Banking Research Report (ELI Report) divides assessment methodology into three categories: (1) simple indices that are derived from easily observable characteristics of a wetland and serve as surrogate gauges for ecological functions; (2) narrowly tailored functional assessment systems that measure only a specific range of wetland functions, such as wildlife habitat; and (3) broadly tailored functional assessment systems that measure a broad range of wetland functions covering various observable characteristics.¹¹⁰ The ELI Report indicates that simple index methods, such as acre counting, make banking easier and less costly, but are the "least sensitive to wetland values and functions" and "do not take into account scale effects."¹¹¹ Similarly, because narrowly tailored methods are generally focused on specific habitats or species, these methods are unlikely to produce a currency that can be used across nonfungible characteristics of assessment.¹¹² As a

105. *See id.*

106. *See id.*

107. Wainger et al., *supra* note 8, at 427.

108. ELI REPORT, *supra* note 1, at 77.

109. Ruhl & Gregg, *supra* note 6, at 381.

110. ELI REPORT, *supra* note 1, at 78.

111. *Id.* at 89.

112. Ruhl & Gregg, *supra* note 6, at 382-83.

result, the ELI Report concludes that a broadly tailored method is the best system “[f]or wetland managers concerned about the spectrum of functions provided by a wetland.”¹¹³ Broadly tailored methods may be expensive, but they take into account wetland services and functions and produce an exchangeable currency.¹¹⁴

In a recent case study of wetland mitigation banking, a survey discovered that assessment methods have not substantially progressed since the establishment of the banking system.¹¹⁵ In addition, the study determined that banks continue to rely heavily on acre-based methods and narrowly tailored functional assessment methods.¹¹⁶ These two systems alone are not flexible enough to facilitate the trades that mitigation banks make among varying types and locations of wetlands.¹¹⁷

A new methodology must be developed that assigns values to ecosystem functions of wetlands, which goes beyond simplistic acre-based methods and narrow function-based approaches. Because wetland mitigation encompasses trades between nonfungible wetlands, the need for a refined currency becomes more important to environmental success.¹¹⁸ The currency must accurately pinpoint the value sought to be measured, such as habitat, flood control, or water filtration.¹¹⁹ Thus, the trading ratio between lost and mitigated wetlands should reflect inconsistencies in population, type, location, and efficiency, with an adequate margin of error.¹²⁰ As the ELI Report concludes:

[I]n order for a wetland mitigation bank credit currency to work, it must be (1) simple to determine and to monitor, and (2) able to represent a sufficient range of values and functions. None of the existing systems do both of these things well. The multivariate systems are quite useful for onsite, or project-specific, mitigation, but they lack the simplicity for use in banking. The simple systems overlook critical functions. The selection of a currency should reasonably be tied to the purpose of the banking system, regional wetland goals, and the ease of determination.¹²¹

Assuming this general observation is accurate, the specific flaws of the wetland value assessment (WVA) adopted by the New Orleans

113. *Id.* at 383 (quoting ELI REPORT, *supra* note 1, at 90). Scale effects are the differences between theory and reality, such as variations in functions and values between habitats of equal acreage, which are overlooked by simple index methods.

114. *Id.*

115. *Id.* at 387.

116. *Id.*

117. *See id.* at 387-88.

118. *See* Salzman & Ruhl, *supra* note 101, at 11,457.

119. *See id.* at 11,458.

120. *See* Ruhl & Gregg, *supra* note 6, at 379.

121. ELI REPORT, *supra* note 1, at 91.

District Corps can be addressed as an example. The Corps in the New Orleans District formulated the WVA through habitat assessment models to quantify net gains and losses in ecological value for use in compensatory mitigation proposals. The models are predicated on Suitability Index Graphs that represent how fish and wildlife habitat quality changes as values of given variables change.¹²² The models were adopted by implementing various models used by the Corps and the FWS, including the FWS' Habitat Evaluation Procedures and the FWS' Habitat Suitability Index Models.¹²³ The selection of variables was based on indicator species such as the wood duck, barred owl, swamp rabbit, mink, downy woodpecker, and gray squirrel.¹²⁴ However, the models do not assess wetland values such as storm-surge protection, water filtration, water quality, nutrient flow, and aesthetics based on the assumption that these values are "positively correlated with fish and wildlife habitat quality."¹²⁵ In general, the habitat assessment models operate under the assumption that optimum habitat conditions result in optimum conditions for fish and wildlife to function.¹²⁶ As a result, the variables used to assess habitat quality are considered the most important in achieving optimum habitat conditions.¹²⁷

The WVA provides an indication of the quality of habitat for the general wetland type under analysis, such as bottomland hardwood, fresh swamp, or brackish marsh.¹²⁸ While the assessment is predicated on optimum habitat quality for certain indicator species, the Corps does not evaluate species on a site-specific basis.¹²⁹ As a result, the WVA assumes that some wetland variables are good for most species, excluding the ecological concept of niche.¹³⁰

The WVA also ignores the variability of wetlands in space, time, and type. First of all, wetland species and functions are diverse and dissimilar from region to region.¹³¹ Although the New Orleans District Corps seeks to mitigate wetland losses from dredged and fill activity at mitigation banks in the same watershed, there is no assurance that such a

122. LA. DEP'T OF NATURAL RES., HABITAT ASSESSMENT MODELS 2 (1994) (on file with author).

123. *Id.* at 1-2.

124. *Id.* at 2.

125. *Id.*

126. *See id.*

127. *See id.* at 1.

128. *See id.*

129. *See* Interview with Martin S. Mayer, *supra* note 80.

130. *See* ELI REPORT, *supra* note 1, at 83. Niche refers to a species' "profession" (i.e., both the habitat area and the functions of a particular species).

131. *See id.* at 25.

result will be achieved.¹³² The Banking Guidance, MOA, and RGL 02-02 do not mandate that mitigation be achieved in the same watershed.¹³³ Moreover, the Corps may resort to mitigation in some remote watershed for the practical reason that no mitigation bank exists in the watershed where the wetland damage occurred.¹³⁴ Despite the existence of the WVA for various wetland types, the variability in functions and values of different types of wetlands in different watersheds practically guarantees a net loss of wetlands.

Second, wetlands are nonfungible in time and in difficulty of restoring, enhancing, or replacing them.¹³⁵ A bottomland hardwood might take one hundred years or more to regenerate to full maturity if cleared and drained today.¹³⁶ However, a restored emergent wet meadow may become fully functional in three months with intensive management.¹³⁷ The WVA is based on the assumption that the wetland will be restored to full maturity if managed properly over only a fifty-year period.¹³⁸ However, the WVA does not take into account, for example, the difficulty in restoring a wetland within fifty years compared to creating a wetland within the same time frame.

In most mitigation situations, a mature wetland is destroyed and compensated with seedling planting in a restoration project.¹³⁹ The WVA does not account for this temporary loss of wetland values. The WVA assumes that this temporary loss will be minimized though proper monitoring and management over the fifty year restoration period. However, adequate monitoring and reevaluation procedures are nonexistent in the New Orleans District.¹⁴⁰ The mitigation banks are required to keep an annual ledger of transactions and monitor changes in the ecosystem over the fifty-year period.¹⁴¹ Despite this requirement, the Corps monitors the mitigation progress only through informal “drive-by” observations.¹⁴²

Furthermore, the Corps does not reevaluate mitigation areas where mitigation techniques have failed or the ecosystem has significantly

132. See Interview with Martin S. Mayer, *supra* note 80.

133. See *id.*

134. See *id.*

135. See ELI REPORT, *supra* note 1, at 30.

136. *Id.*

137. *Id.*

138. See Interview with Martin S. Mayer, *supra* note 80.

139. See *id.*

140. See Interview with Martin S. Mayer, *supra* note 5.

141. See *id.*

142. See *id.*

changed.¹⁴³ Most banking instruments require reassessment if initial success criteria are not met.¹⁴⁴ In practice, however, the Corps leaves remedial action decisions up to the individual mitigation bank.¹⁴⁵ Although a reevaluation procedure is especially critical because no adequate margin of safety is built into the WVA, reevaluation could jeopardize the entire mitigation banking system because the Corps allows a mitigation bank to sell all of its credits up front after the bank has set up an escrow account and executed a conservation easement.¹⁴⁶

Third, the WVA ignores the variability in wetland types. If the goal of wetland mitigation is to achieve no net loss of wetland values, an assessment method must evaluate more than habitat quality.¹⁴⁷ In a vacuum, an optimum nonvegetated pond habitat does not equal an optimum wooded swamp habitat of equal acreage. The wooded swamp is more diverse in functions and values. As such, if the wooded swamp habitat is destroyed, a larger acreage area of nonvegetated pond habitat would have to be mitigated to balance the loss of diverse functions and values. Because the WVA is based on optimum habitat quality, the WVA does not make the appropriate adjustment for such a scenario.

Overall, the entire WVA process is predicated on educated guesses and assumptions about variables as they relate to the optimum conditions for fish and wildlife to function.¹⁴⁸ But to utilize a boilerplate WVA over the entire New Orleans District ignores the diversity between species and regions. The WVA must incorporate the ecological concept of niche by providing for site-specific analysis and comparison of species. Furthermore, the Corps must adopt rules that ensure mitigation in the same watershed. If a mitigation bank is not established in a particular watershed, then the Corps could require on-site mitigation as a condition to permits in that particular watershed.

In addition, the WVA must be adjusted for nonfungibilities in time. Because a fifty year projection is not appropriate in certain circumstances, the timeframe must be adjusted on a case-by-case basis. Moreover, more stringent monitoring and evaluation procedures are imperative to ensure that temporary loss of wetlands through mitigation banking is minimized. To avoid any conflicts of interest, the Corps could withhold a percentage of the banks' credits available for sale until certain

143. *See id.*

144. *See, e.g.,* Supple's Wetland Mitigation Bank Interagency Agreement (on file with author).

145. Interview with Martin S. Mayer, *supra* note 5.

146. *Id.*

147. Ruhl and Gregg, *supra* note 6, at 383.

148. *See* Interview with Martin S. Mayer, *supra* note 80.

project goals have been completed. This would require the Corps to establish objective monitoring criteria and would give the banks an incentive to apply intensive management techniques.

Finally, the WVA must expand to a broader functional assessment methodology. By evaluating variables indicating only habitat quality, the Corps is assuming that all optimum habitat types of equal size are equal in value. Other variables could include fish species, plant species, wildlife species, storm-surge protection, water filtration, water quality, nutrient flow, and aesthetics.

C. *Self-Interested Transactions*

Research suggests that the framework of wetland mitigation banking causes the interests of traders, government, and affected communities to deviate from the interest of the public.¹⁴⁹ Developers will always choose the least expensive mitigation sites because the developer is seeking to maximize profits, not to promote environmental protection.¹⁵⁰ As long as the trade satisfies the requirements for permit approval, private parties have no incentive to mitigate or restore more wetlands than necessary.¹⁵¹ Similarly, to keep cost at a minimum, trading parties will prefer nonfungible trades that exploit variations in location, type, and timing.¹⁵²

The agencies' interests in promoting trades also result in a market that is not environmentally sound.¹⁵³ This conclusion is supported by the EPA's and the Corps' vigor in promoting mitigation banks despite inadequate currencies.¹⁵⁴ For example, property rights groups and environmentalists have caused tremendous public and political pressure on agencies over the years.¹⁵⁵ Thus, the agencies do not want wetland mitigation banking to fail because the system acts as a political pacifier.¹⁵⁶ As a result, these conflicts of interest become detrimental to the environment.

What about the public interest? From an environmental advocacy perspective, the public interest will be preserved only by a thorough review of the trading market.¹⁵⁷ This review process requires an objective

149. See Salzman & Ruhl, *supra* note 101, at 11,465.

150. *Id.*

151. *Id.* at 11,466.

152. *Id.*

153. See *id.*

154. See *id.*

155. See *id.*

156. See *id.*

157. See *id.* at 11,468.

record documenting the agency decision-making process and participation from all affected parties.¹⁵⁸ If all interests are fairly represented, the outcome will result in a trading market that is more reflective of the public interest.

IV. TRADE APPROVAL AND INTERVENTION

Wetland mitigation banking entails a market scheme as a means of allocating environmental resources. Because wetland mitigation banking lacks adequate currency and assessment methods, relying solely on the trade market is counterproductive.¹⁵⁹ Furthermore, the market framework allows parties' self-interests to threaten environmental and social values important to the public.¹⁶⁰ In this setting, reviewing permitting decisions, evaluating trade outcomes, and institutionalizing public intervention may be necessary to ensure equivalent trades.¹⁶¹

A. *Review Strategies*

In a perfect trading market, where currency and assessment methods capture all relevant functions of wetlands and trading restrictions compensate for market shortcomings, only minimal governmental oversight would be required.¹⁶² More realistic, informational, technological, political, and financial limitations have caused the need for constant monitoring of trades.¹⁶³ As such, individual review of each transaction is vital to ensure environmental protection.¹⁶⁴ In this scenario, the government assesses each trade and retains the discretion to reject trades that do not satisfy substantive goals.¹⁶⁵

However, creating a program that effectively reviews and remedies bad trades is a challenge. This type of review mechanism would likely add to transaction costs, create delay and uncertainty in the approval process, and lead to overvaluation.¹⁶⁶ Strategic design, however, can minimize these negative problems.¹⁶⁷

158. *See id.*

159. *See id.* at 11,462.

160. *See id.* at 11,463.

161. *See id.*

162. *See id.*

163. *See id.* at 11,464.

164. *See id.*

165. *See id.*

166. *See id.* at 11,465.

167. *See id.*

B. Other Procedural Solutions

There are other procedural solutions that will diminish the potential for nonfungible trades and promote environmental protection and social welfare. There is no substitute for requiring application of sound currencies and legitimate exchanges. However, as previously discussed, there are practical constraints to this solution.

As a substitute for this optimum, constraining agency discretion could be effective.¹⁶⁸ For example, regulations could impose a more stringent impact analysis.¹⁶⁹ Furthermore, regulations could require that the Corps' decision-making process and rationale be included in proposed compensatory mitigation arrangements. Such approaches would force the agency to scrutinize each trade and give the public the opportunity to respond through notice-and-comment provisions during critical stages of the process.¹⁷⁰

A second solution would be to strengthen judicial accountability in the permitting stage.¹⁷¹ Though the courts generally give great deference to an agency's permitting decision, Congress or the agencies could implement a higher standard of judicial review.¹⁷² For example, the burden of proof could be placed on the permit applicant to demonstrate adequacy of assessment methodology or no net loss of environmental values as a result of the trade.¹⁷³ In addition, legislation or regulations could provide for a private right of action empowering affected individuals to bring suit. These approaches would increase judicial involvement of interested parties.¹⁷⁴

A final solution requires increased public participation in the trade market.¹⁷⁵ From the outset, the public has received minimal access to the permit negotiation table.¹⁷⁶ The public can usually participate through a notice-and-comment process, but only after a draft permit has been negotiated between the permitting agency and the applicant.¹⁷⁷ By this time, the other interested parties involved have invested so much time and money that the permitting decision is set in stone.¹⁷⁸ To make matters

168. *See id.* at 11,468.

169. *See id.*

170. *See id.*

171. *See id.* at 11,469.

172. *See id.*

173. *See id.*

174. *See id.*

175. *See id.*

176. *See id.*

177. *See id.* at 11,470.

178. *See id.*

worse, the traditional permit model was not designed with wetland mitigation value trading in mind.¹⁷⁹ As a result, public environmental values are being traded without substantial input from the public. Therefore, legislation or regulations must institutionalize public participation throughout the permitting process to give citizens leverage at the negotiation table.

V. LEGAL ENFORCEMENT

The lack of enforcement mechanisms has been a major downfall to the wetland mitigation banking scheme. The ambiguous language of statutes, regulations, and interpretive documents has allowed agencies and bank sponsors to control the banking system willy-nilly. However, with recent judicial opinions broadening standing and interpreting guideline documents as binding, injured outsiders have a better chance of challenging the banking scheme. As such, this section analyzes the enforcement provision of the Banking Guidance, discusses the potential use of the citizen suit provision of the CWA, and suggests an avenue to challenge the implementation of provisions of the Banking Guidance under the Administrative Procedure Act (APA).

The Banking Guidance makes clear that the bank sponsor is responsible for the success of the debited portions of the bank.¹⁸⁰ To enforce the mitigation responsibilities against the bank sponsor, the Banking Guidance suggests that the bank sponsor should be a signatory to section 404 permits.¹⁸¹ However, the rationale behind this enforcement scheme is difficult to comprehend. Is this enforcement provision to be interpreted to require the developer to find alternative means of mitigating the wetland damage caused by his project when the mitigation bank falters? If so, the enforcement provisions contradict the rationale behind wetland mitigation banking—to remove the developer from the wetland mitigation business and place the responsibility in more experienced hands. Therefore, cancellation of a section 404 permit because of the bank sponsor's failure to fulfill his responsibilities would only harm the developer, a result that clearly contradicts the Banking Guidance.

Another interpretation is that this enforcement provision provides an incentive for the Corps and the developer to ensure that the bank sponsor complies with enumerated mitigation responsibilities. However,

179. *See id.*

180. *See* Federal Guidance for the Establishment, Use and Operation of Mitigation Banks, 50 Fed. Reg. 58,605, 58,612 (Nov. 28, 1995).

181. *See id.*

if section 404 permits release the developer from further responsibility once a wetland mitigation banking contract has been executed, the developer's incentive to work with the bank sponsor is nullified.¹⁸² In addition, if section 404 permits do not provide for financial sanctions against the bank sponsor, the Corps has no redress through these enforcement provisions.¹⁸³

Another solution could be the application of the citizen suit provision of the CWA.¹⁸⁴ If responsibility for the success of the debited portions of the bank shifts to the bank sponsor under section 404 permits, the question is whether section 505 of the CWA would give an injured citizen the right to sue the bank sponsor for noncompliance with the banking instrument. In other words, by the bank sponsor signing the section 404 permit, the question is whether the section 404 permit incorporates the terms of the banking instrument as to the debited portions of the bank used to mitigate the project. However, a citizen may have difficulty showing injury when violations of the banking instrument occur on private land. Nonetheless, under the United States Supreme Court's holdings in *Sierra Club v. Morton*,¹⁸⁵ *Los Angeles v. Lyons*,¹⁸⁶ and *Lujan v. Defenders of Wildlife*,¹⁸⁷ a citizen may be able to overcome the standing issue.

First, a citizen may be successful in arguing that violations of the terms of the banking instrument create a realistic threat or imminent likelihood of some injury in fact (i.e., a realistic threat of damage caused by improper maintenance of the mitigation bank or a realistic threat of reduction in some aesthetic or environmental interest used or observed by the plaintiff). Second, a plaintiff could argue that mitigation includes

182. For example, the Bayou Sorrel Permit (Mar. 28, 2000) (on file with author), makes clear that "[o]nce a contract [between the permit applicant and bank sponsor for the purchase of mitigation credits] has been executed, the responsibility to complete the compensatory mitigation requirements of this permit become that of [the bank sponsor]."

183. The author assumes that the enforcement provisions of 33 C.F.R. § 326 are only applicable to section 404 violations and are not intended to cover violations of conditions contained within banking instruments.

184. See CWA § 505, 33 U.S.C. § 1365 (2000).

185. 405 U.S. 727, 735 (1972) (holding that plaintiffs allege an injury in fact when they show that they use an affected area and are the persons "for whom the aesthetic and recreational values . . . will be lessened").

186. 461 U.S. 95, 105 (1983) (finding that plaintiff lacked standing to seek an injunction against enforcement of a police chokehold policy because he did not allege that he faced a realistic threat from the police).

187. 504 U.S. 555, 564 (1992) (holding that "some day" intentions to visit animal species are insufficient to show injury in fact). A plaintiff must show: (1) an injury in fact that is (a) concrete and particularized and (b) actual or imminent; (2) the injury is fairly traceable to the defendant's action; and (3) a favorable decision is likely to redress the plaintiff's injury. *Id.* at 560-61.

mitigating the lost use of aesthetic, environmental, and recreational interests so that mitigation banks are required to provide access for these lost interests. Such uses would most definitely be compatible with the purposes of a mitigation bank under the Banking Guidance. Once the right to use a mitigation bank for these purposes is established, a plaintiff should be able to prove that violations of the banking instrument injure his or her aesthetic, environmental, and recreational interests. Furthermore, a plaintiff should be able to overcome speculative “some day” intentions because a mitigation bank should be located in the same watershed as the destroyed wetlands.¹⁸⁸ However, both of these arguments may fail if the bank is functioning in an immature state or does not provide similar aesthetic, environmental, or recreational uses as the destroyed wetland area.

Finally, the APA provides a potential avenue to force the Corps and/or the MBRT to strictly apply the provisions of the MOA, Banking Guidance, and RGL 02-02 in selecting functional assessments, approving banking instruments, and overseeing the activities of mitigation banks.¹⁸⁹ However, the legal enforceability of agency guidance documents remains unclear. First, the MOA makes clear it is only intended to provide guidance.¹⁹⁰ Furthermore, the Banking Guidance explicitly states that its policies are not final agency action and are not intended to establish any legal rights or binding norms.¹⁹¹ Nonetheless, the United States Court of Appeals for the District of Columbia Circuit recently noted that this boilerplate language alone is not determinative of the legal enforceability of such documents.¹⁹²

In *Appalachian Power v. EPA*, chemical and petroleum industry representatives challenged an EPA guidance as improper due to the EPA’s noncompliance with formal rulemaking procedures under the APA.¹⁹³ The D.C. Circuit noted its displeasure with the current agency practice of issuing overly broad and ambiguous regulations and guidance documents to avoid the notice-and-comment process and to immunize its lawmaking

188. See Federal Guidance for the Establishment, Use and Operation of Mitigation Banks, 50 Fed. Reg. 58,605, 58,609, 58,611 (Nov. 28, 1995); see also Interview with Martin S. Mayer, *supra* note 5 (confirming the New Orleans District’s practice of restricting site selection to the cataloging unit within a particular watershed).

189. See generally 5 U.S.C. §§ 701-706 (2000) (providing for judicial review of agency actions).

190. See Mitigation Memorandum of Agreement, 55 Fed. Reg., 9210, 9210 (Mar. 12, 1990).

191. See Federal Guidance for the Establishment, Use and Operation of Mitigation Banks, 50 Fed. Reg. at 58,607-08.

192. See *Appalachian Power Co. v. EPA*, 208 F.3d 1015, 1023 (D.C. Cir. 2000).

193. See *id.* at 1017.

from judicial review.¹⁹⁴ The EPA claimed that the guidance document was intended as a nonbinding policy statement.¹⁹⁵ However, the court concluded that the guidance “reads like a ukase” because “[i]t commands, it requires, it orders, it dictates.”¹⁹⁶ Because of this commanding language and because the guidance reflected the EPA’s settled position—a position that the EPA implemented in the field and required states and local authorities to follow—the court held that the guidance was a binding, final agency action.¹⁹⁷

Despite the holding in *Appalachian Power*, the question remains whether the MOA, Banking Guidance, and RGL 02-02 are binding, final agency actions. The majority of the provisions contained within the Banking Guidance have no teeth and are loosely interpreted by local Corps districts.¹⁹⁸ In addition, even though RGL 02-02 purports to be binding after December 24, 2002, most of its provisions are mere suggestions.¹⁹⁹ To the same extent, while the MOA and RGL 02-02 contain more specific language concerning functional assessments and monitoring, the provisions are still qualified by words such as “should.”²⁰⁰ Most importantly, there are no substantive mandates requiring broad functional assessment methods, monitoring schedules, or specific performance standards in either document. However, there are certain provisions in these documents that reflect settled Corps policy and that are treated as binding by all parties, such as the preference for restoration under the MOA, the minimum requirements for credit withdrawal under the Banking Guidance, and watershed planning under RGL 02-02 and the Banking Guidance.²⁰¹ Nonetheless, a plaintiff will face a major hurdle in arguing that these provisions are legally binding, except for

194. *See id.* at 1020.

195. *See id.* at 1021.

196. *See id.* at 1023.

197. *See id.* at 1021-23.

198. *See* Interview with Martin S. Mayer, *supra* note 80 (stating that the New Orleans District Corps maintains a flexible relationship with bank sponsors for implementing monitoring and management provisions of the Banking Guidance).

199. *See* RGL 02-02, *supra* note 90.

200. *See id.*; *see also* Mitigation Memorandum of Agreement, 55 Fed. Reg. 9210, 9213 (Mar. 12, 1990).

201. *See* Interview with Martin S. Mayer, *supra* note 5. The New Orleans District Corps generally treats the restoration preference similar to the standard of section 4(f) under the Transportation Act in that it requires the exhaustion of all restoration options before other compensatory mitigation techniques are considered. *See id.* As previously noted, the New Orleans District Corps requires that a bank execute a conservation easement and secure an escrow account before credit withdrawal. *See id.* Finally, the New Orleans District Corps requires that mitigation of a project site occur within the same cataloging unit within a watershed. *See id.*

maybe those contained in the Banking Guidance,²⁰² because they were not promulgated in accordance with section 553 of the APA.²⁰³

VI. CONCLUSION

Mitigation banking offers a variety of advantages to project-by-project mitigation. However, given the lack of accountability, Congress and regulatory bodies face a dilemma on how to preserve the integrity of our nation's wetlands through wetland mitigation banking. First, the legal framework for wetland mitigation lacks both specificity and enforceability. Second, currency valuation and assessment methods have poorly addressed the differences in value of wetland services and functions between different locations. Third, self-interested parties have completely ignored environmental preservation and social welfare principles central to the purpose of wetland mitigation banking.

For the wetland mitigation banking scheme to fulfill its goal of no net loss of wetlands, the agencies must take a proactive approach to promote and implement broadly tailored assessment methodology. As a safety net, the regulatory framework must also be redesigned to protect environmental and public interests. Individual review of trades is vital to sustain the legitimacy of wetland mitigation banking. In addition, limiting agency discretion, heightening judicial accountability, and institutionalizing meaningful public participation will mitigate self-interested transactions.

Finally, and most importantly, the regulatory framework must guarantee no net loss of wetlands through legally enforceable mechanisms. Binding regulations must equip citizens with the capacity to force the Corps and other agencies to monitor the activities of mitigation banks through the APA. To the same extent, these regulations must also give standing to citizens injured by the failure of bank sponsors to comply with the provisions of banking agreements, either through section 505 of the CWA or some other mechanism. In light of the expanding wetland mitigation banking system, implementing these necessary changes becomes more crucial every day.

202. See Federal Guidance for the Establishment, Use and Operation of Mitigation Banks, 50 Fed. Reg. 58,605 (Nov. 28, 1995) (suggesting compliance with the notice and comment rulemaking requirements of section 553 of the APA).

203. See 5 U.S.C. § 553 (2000).