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I. INTRODUCTION

The vast majority of federal legislation proposed in recent years to address climate change has included a market-based cap-and-trade system to limit emissions of greenhouse gases (GHGs). Examples of cap-and-trade bills proposed or introduced in the 111th Congress include the American Power Act (APA) proposed by Senators John Kerry and Joseph Lieberman,[1] the American Clean Energy and Security Act (ACES), sponsored by Representatives Henry Waxman and Ed Markey and passed by the House of Representatives in 2009,[2] and the Clean Energy Jobs and American Power Act, sponsored by Senators John Kerry and Barbara Boxer and passed by the Senate Environment and Works Committee in December 2009.[3] Each of these bills would

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1. *See* American Power Act, 111th Cong. (2d Sess. 2010). Discussion draft 2010, available at http://kerry.senate.gov/imo/media/doc/APAbill3.pdf (hereinafter APA).

2. *See* H.R. 2454, 111th Cong. (1st Sess. 2009).

3. *See* Clean Energy Jobs and American Power Act, S. 1733, 111th Cong. (2009). Other examples of recent federal cap-and-trade bills include The Clean Energy Partnerships Act, S. 2729, 111th Cong. (2009); The Carbon Limits and Energy for America's Renewal (CLEAR) Act, S. 2877, 111th Cong. (2009), and two bills introduced in the 110th Congress: The Climate Security Act, S. 2191, 110th Cong. (2007); The Low Carbon Security Act, S. 1766, 110th Cong. (2007).

set a limit on the overall amount of GHG emissions allowed in the United States (the "cap"), distribute emission allowances representing the equivalent of one ton of carbon dioxide, and require entities covered by the program to submit allowances at the end of each compliance period for each ton of carbon dioxide equivalent (CO_2e) emitted. The allowances would be fungible and trading among covered entities and other market participants would be permitted.[4]

Under each of these bills, regulated entities can also satisfy compliance obligations by purchasing GHG offset credits—verified GHG emissions reductions made by entities that do not face GHG compliance obligations under a cap-and-trade system, such entities in the agriculture and forestry sectors. Both ACES and the APA, for example, allow regulated entities to use up to 2 billion tons of CO_2e[5] of offsets annually, split between domestic and international offsets projects.[6] Offsets play a key role in reducing the overall cost of GHG regulations and achieving reductions in uncapped sectors.

The cost containment aspects work in two ways. First, offsets projects, especially those involving land use activities, are often less expensive to implement than emissions reductions by regulated entities. Second, in a market-based program with a strict cap on emissions, offset credits from uncapped sectors create an option for increasing the supply of compliance

4. While most recent cap-and-trade bills would allow unrestricted market participation, the CLEAR Act and the APA include limitations on who may trade allowances and related derivative instruments. *See* S. 2877 § 4(b); APA § 2411.

5. The U.S. Environmental Protection Agency recognizes 6 greenhouse gases: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). In order to compare emissions of different greenhouse gases, each of which have a different potential to warm the atmosphere, each gas is given a carbon dioxide equivalent based on its global warming potential. *See* Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, 66,499 n. 4 (Dec. 15, 2009) (to be codified at 40 C.F.R. chap. 1).

6. In ACES, there is an even split between international and domestic offsets; the annual limit on each is 1 billion tons. *See* H.R. 2454 § 722(d)(1). In the APA, regulated entities can use a total of 1.5 billion tons of domestic offsets and 0.5 international offsets each year. *See* APA § 722(d)(1).

instruments.[7] Economic modeling demonstrates the effect of offsets in an economy-wide cap-and-trade system. For example, the U.S. Environmental Protection Agency's modeling results for the APA found that without access to offset credits from international projects, the cost of allowances could more than double.[8] In addition, because eligibility to produce offsets is limited to sectors that are not covered by GHG reduction regulations, offsets can provide opportunities to reduce emissions in unregulated sectors.[9] In order to meet the demand for these credits, an offsets program involving projects in the agriculture and forestry sectors will necessarily rely on participation from many thousands of private landowners and offsets project developers. Allowing unregulated entities to voluntarily participate in the program, and thus earn income by selling credits, could increase political support and spread the economic benefits of the program.

A federal agency would be responsible for creating methodologies for ensuring that an offset credit actually represents the equivalent of one ton of either avoided emissions or sequestration of CO_2.[10] Because offsets can be susceptible to certain environmental integrity issues, these methodologies would have to address such issues as additionality, leakage, and permanence. Additionality means that the offsets project must lead to sequestration or emission reductions that would otherwise not have occurred but for the project. Leakage refers to the possibility that emissions displaced by a project will occur

7. *See, e.g.,* OFFICE OF ATMOSPHERIC PROGRAMS, ENVTL. PROT. AGENCY, SUPPLEMENTAL EPA ANALYSIS OF THE AMERICAN CLEAN ENERGY AND SECURITY ACT OF 2009: H.R. 2454 IN THE 111TH Congress 3 (2009) (which found that disallowing international GHG offsets could increase allowance prices by 89 percent).

8. OFFICE OF ATMOSPHERIC PROGRAMS, ENVTL. PROT. AGENCY, EPA ANALYSIS OF THE AMERICAN POWER ACT IN THE 111TH CONGRESS 53 (2010), available at http://www.epa.gov/climatechange/economics/pdfs/EPA_APA_ Analysis_6-14-10.pdf.

9. For example, the agriculture sector is responsible for 6 percent of US GHG emissions. *See* ENVTL. PROT. AGENCY, INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990-2007 ES-12 (2009). The agriculture sector would not be regulated under ACES. *See* H.R. 2454 § 501(b).

10. *See* H.R. 2454 § 734; APA § 735 (for more information on requirements for methodologies).

elsewhere; for example an offsets project where a forest is spared logging could drive logging elsewhere to satisfy demand for timber products, reducing the environmental benefits of the offsets project. Permanence refers to the fact that some offsets projects, specifically agriculture and forestry sequestration projects, can be vulnerable to an intentional or unintentional release of their carbon, possibly through fire, drought, or pest infestations.[11]

The implementation of an offsets program, however, could be significantly affected by existing environmental laws, most notably, the National Environmental Policy Act (NEPA)[12] and the Endangered Species Act (ESA).[13] Both are longstanding environmental laws that, among other things, establish procedures to assess the environmental impacts of federal actions. In many ways, these statutes are the cornerstones of modern environmental law, providing information about environmental impacts and available alternatives, and allowing citizens to directly challenge federal agencies' compliance with the laws. They have also been the subject of significant criticism over the years, as compliance can be costly, expensive, and can lead to lengthy legal challenges.

If the federal agency managing a carbon offsets program is required to prepare an Environmental Impact Statement (EIS) under NEPA or consult with the U.S. Fish and Wildlife Service or the National Oceanic and Atmospheric Administration under the ESA before implementing the offsets program or before approving individual offsets projects, the program could face lengthy delays. Delays in project approval and increased transaction costs from complying with these laws could potentially discourage private landowners and project developers from participating in the offsets market, reducing the overall supply of offset credits. Policymakers may need to strike a balance that achieves the

11. *See generally* Brian C. Murray, Brent Sohngen, & Martin T. Ross, Economic Consequences of Consideration of Permanence, Leakage, and Additionality for Soil Carbon Sequestration Projects, 80 CLIMATIC CHANGE 127 (2007) (for a more complete explanation of additionality, leakage, and permanence).

12. *See* 42 U.S.C. §§ 4321-4370H (2006).

13. *See* 16 U.S.C. §§ 1531-1544 (2006).

goals of NEPA and the ESA, while also streamlining the regulatory process for developing and approving offsets projects.

Although the 111th Congress did not succeed in passing comprehensive climate change legislation, a carbon offsets program would almost certainly be included in future legislation. The purpose of this article is to examine how compliance with NEPA and the ESA could affect a federal GHG offsets program, both through the establishment of the program itself and through the permitting and approval of individual offsets projects. This information could help policymakers in designing future legislation for carbon offsets and the regulation of GHG emissions.

II. BACKGROUND ON GREENHOUSE GAS OFFSETS

Examples of GHG offsets projects include carbon sequestration in soils through reduced agricultural tillage and in forests through tree planting projects. Because the forestry and agriculture sector are not included under the GHG emissions cap,[14] offsets can provide an opportunity to incentivize GHG emissions reductions in these uncapped sectors. Furthermore, because offsets increase the overall supply of credits regulated entities can use for compliance, offsets can reduce the costs of complying with GHG regulations.

Analysis of the offsets provisions of the GHG regulation bills introduced in the 111th Congress[15] reveals key differences in the legislative language that has implications for how NEPA or the ESA might affect an offsets program. Among the most significant differences in each approach is whether the offsets program is established under the Clean Air Act (CAA).[16] This is only relevant with regard to NEPA, because actions taken under the

14. In ACES, the forestry and agriculture sectors are explicitly excluded from the cap. *See* H.R. 2454 § 501(b). In the APA these sectors are implicitly excluded, because they do not fall within the definition of "covered entity." *See* APA § 700(12).

15. Unless otherwise noted, the GHG regulation bills discussed in this paper from the 111th Congress refer to ACES and the APA.

16. *See* 42 U.S.C. §§ 7401-7671q (2006).

CAA are exempt from complying with NEPA.[17] This distinction is less important for compliance with the ESA, as a similar exemption for actions taken under the CAA does not exist for the ESA. The differences between an approach under the CAA and other approaches are discussed below.

A. Establishment of an offsets program under the Clean Air Act

There are two potential approaches to establishing an offsets program under the CAA. The first is for Congress to amend the CAA to establish an offsets program for GHG emissions. The APA follows this approach, including the entire cap-and-trade program and offsets provisions under a new title in the CAA. In ACES, the language establishing the offsets program is divided into two parts: one part establishes a program for offsets from agricultural and forestry sources, administered by the USDA,[18] and the other sets up a program for offsets from all other sources, administered by the EPA.[19] Importantly, however, the language establishing the USDA offsets program is *not* included under the CAA, and so it would *not* be exempt from NEPA.[20]

Although the APA similarly gives the USDA authority over agricultural and forestry offsets and the EPA authority over all

17. "No action taken under the Clean Act shall be deemed a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act of 1969." 15 U.S.C. § 793(c)(1) (2006).

18. *See* H.R. 2454 §§ 501-511.

19. *See id.* §§ 731-743.

20. In the debate leading up to the passage of ACES, there was some discussion over the role that the USDA would play in the offsets program, particularly concerning offsets from agricultural and forestry projects. In an agreement reached between Rep. Henry Waxman, Chairman of the House Committee on Energy and Commerce, and Rep. Collin Peterson, Chairman of the House Committee on Agriculture, the USDA was given total exclusive responsibility over agricultural and forestry offsets. *See* Letter from Representative Henry Waxman, Chairman of the House Comm. on Energy and Commerce, and Representative Collin Peterson, Chairman of the House Comm. on Agric. to Barack Obama, President of the U.S. (June 24, 2009), available at http://energycommerce.house.gov/ Press_111/20090629/acespresidentletter.pdf. *See also* Allison Winter, Farm Groups Prevail as House Puts USDA in Charge of Ag Offsets, N.Y. TIMES, June 24, 2009.

other offsets, it does not split the legislative language into two parts.[21] Language establishing both offsets programs is amended to the CAA, and in this case both offsets programs would be exempt from NEPA.[22]

The second approach to establishing an offsets program under the CAA is for the EPA to use its existing authority under the CAA as currently written to regulate GHGs. In *Massachusetts v. EPA*,[23] the Supreme Court ruled that the EPA had the authority to regulate GHGs from mobile sources, and the responsibility to do so if it determined that those GHGs endangered public health or welfare. Shortly after that ruling, the EPA issued an "endangerment finding" for GHGs,[24] which is one of the first steps in promulgating new regulations for air pollutants from mobile sources.[25]

Although this process has clarified the EPA's authority to regulate GHGs, it is less evident whether the EPA also has existing authority under the CAA to establish a GHG offsets program. There is some research suggesting that the EPA might not have existing authority under the CAA to allow use of *international* offsets for compliance with GHG regulations, but domestic offsets might be allowed.[26] Indeed, the CAA already includes the concept of offsets for use in meeting existing air quality regulations,[27] so it is possible that similar provisions

21. *See* APA §§ 731-743.

22. ACES has passed the House of Representatives, whereas the APA was not introduced in the Senate in the 111th Congress. If the APA were to pass the Senate, this and other differences between the bills would need to be addressed in conference committee.

23. Massachusetts. v. EPA, 549 U.S. 497, 528 (2007).

24. Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. at 66,496.

25. The endangerment finding issued by the EPA was applicable only to mobile sources. *See* 42 U.S.C. § 7521(a) (2006) (for language on establishing emissions standards for pollutants from mobiles sources expected to endanger public health). Once GHGs have been determined to endanger public health, the Administrator can also establish emissions standards for stationary sources. *See* 42 U.S.C. § 7408(a)(1) (2006).

26. *See generally,* Nathan Richardson, *International Greenhouse Gas Offsets Under the Clean Air Act* (Res. for the Future, Discussion Paper, 2010).

27. *See, e.g.,* 42 U.S.C. § 7503(c) (the New Source Review program of the CAA, which allows new air pollution sources to be constructed in areas already

could be used to allow offsets under new GHG regulations. Regardless, however, the CAA is still exempt from NEPA, so such offsets under CAA regulation would not be affected. Again, the ESA would still apply since actions taken under the CAA are not exempt from its requirements.

B. Establishment of an offsets program outside of the Clean Air Act

Other legislative approaches to regulating GHGs have not involved amendments to the CAA. These include the Clean Energy Partnerships Act,[28] a bill dealing specifically with offsets, as well as climate legislation proposed in previous Congresses, such as the Climate Security Act.[29] These approaches would not automatically exempt by statute an offsets program from the requirements of NEPA (or the ESA).

The following sections assume that a federal GHG offsets program is not exempt by statute from either NEPA or the ESA.[30] Furthermore, because proposals before Congress differ as to which agency would have authority over the offsets program, this paper refers generically to "the implementing agency" or simply "the agency."

III. NATIONAL ENVIRONMENTAL POLICY ACT

NEPA is first and foremost an informational statute, in that it requires federal agencies to assess the impacts of "major Federal actions significantly affecting the quality of the human environment."[31] Adopted in 1969, NEPA provided the foundation for modern environmental laws by requiring federal agencies to assess the environmental impacts of their actions and creating

above established pollution limits only if the new source obtains pollution reductions, or offsets, from existing sources in the area).

28. S. 2729.

29. S. 2191.

30. At the very least, this assumption is valid for the offsets program administered by the USDA under ACES. It could also apply to a future climate bill, if language creating an offsets program by such a bill is not amended to the CAA.

31. 42 U.S.C. § 4332(2)(C).

the Council on Environmental Quality (CEQ) within the White House to guide agencies and promulgate regulations for NEPA implementation.[32] The law has been a model for similar legislation in 25 states[33] and more than 160 countries.[34] As the Supreme Court stated in 1989:

> Simply by focusing the agency's attention on the environmental consequences of a proposed project, NEPA ensures that important effects will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast. . . . Publication of an [Environmental Impact Statement] . . . also serves a larger informational role. It gives the public the assurance that the agency 'has indeed considered environmental concerns in its decisionmaking process,' . . . and, perhaps more significantly, provides a springboard for public comment . . .[35]

Agencies need only to demonstrate that they have considered the potential environmental impacts of proposed actions; they need not necessarily choose the option with the least environmental impact.[36] In addition to the CAA exemption described above, NEPA allows agencies to create categorical exemptions, does not apply where compliance would be inconsistent with statutory requirements, and is not required if another statute serves as the functional equivalent of NEPA.[37]

Nevertheless, complying with NEPA can be a time-consuming process. When an action with potential environmental impacts is proposed, the agency will generally first

32. *Id*. § 4341.

33. *See* COUNCIL ON ENVTL. QUALITY, THE NATIONAL ENVIRONMENTAL POLICY ACT: A STUDY OF ITS EFFECTIVENESS AFTER TWENTY-FIVE YEARS 3 (1997).

34. *See* Nicholas A. Robinson, NEPA at 40: International Dimensions, 39 ENVTL. L. REP. 10674, 10674 (2009).

35. Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349 (1989) (citing Balt. Gas & Elec. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 97 (1983)) (holding that although NEPA imposes procedural duties that force agencies to take a "hard look" at environmental consequences, the statute does not impose substantive requirements).

36. *See id*. at 350 (stating that once procedural rules are followed, the agency can weigh costs/benefits and is not required by NEPA to choose the least environmentally-damaging option).

37. These exemptions are discussed in detail in section III(B) below.

complete an Environmental Assessment (EA),[38] which is intended to be a "concise public document"[39] that allows the agency to determine if it needs to prepare a full Environmental Impact Statement (EIS). If the agency determines that the proposed action will not have enough impact to merit preparing an EIS, it will issue a Finding of No Significant Impact (FONSI).[40] At this point, the agency has fully complied with the NEPA requirements, and it may move forward with its proposed action.

If, however, the agency determines that the environmental impacts of the proposed action are significant, it must prepare an EIS. An EIS is a lengthy technical document, often hundreds of pages long, in which the agency considers the impacts of the proposed action, as well as all relevant alternatives to the action, including the alternative of no action.[41] In the process of preparing an EIS, the agency must first publish a notice in the Federal Register of its intent to prepare an EIS, referred to as "scoping."[42] Then, after gathering technical information on the proposed action and relevant alternatives, the agency issues a draft EIS for public comment.[43] Finally, after responding to all comments received on the draft EIS, the agency issues a final EIS,[44] and a record of decision explaining the agency's rationale for proceeding with its action. The considerable cost and time required to gather and analyze information on the impacts of all relevant policy alternatives can lead to significant delays in agency action.[45]

In the case of complex programs with many individual projects, the agency can choose to prepare a "programmatic EIS,"

38. *See generally* 40 C.F.R. § 1501.3 (2010) (for more information on the preparation of an EA). For projects that have been predetermined to have no significant impact on the environment, and for those projects that belong to predetermined categories that always require an EIS, EAs are not prepared.

39. *Id*. § 1508.9.

40. *See id*. § 1508.13.

41. *See id*. § 1502 (for regulations concerning the preparation of an EIS).

42. *Id*. § 1501.7.

43. *See* 40 C.F.R. § 1502.9(a).

44. *See id*. § 1502.9(b).

45. It can often take a year or more to complete an EIS. *See* NEPA's Forty Most Asked Questions, COUNCIL ON ENVTL. QUALITY, http://ceq.hss.doe.gov/nepa/regs/40/40p3.htm (last visited Jan. 24, 2011).

which analyzes the environmental impacts of an entire program. The agency may then also prepare subsequent EAs or EISs for its individual projects to analyze their site-specific impacts.[46]

Regardless of the agency's decision to prepare an EIS, however, NEPA requirements can expose an agency to litigation by parties claiming either that an EIS was not prepared when it should have been or, if an EIS is prepared, that it is inadequate, omits important alternatives, or misstates potential impacts.

A. Impacts of NEPA on a Federal GHG Offsets Program

As mentioned above, actions taken under the Clean Air Act are not considered major Federal actions significantly affecting the quality of the human environment, and are therefore exempted from NEPA requirements.[47] Although the EPA offsets program in ACES and the entire offsets program in the APA are amended to the CAA, the USDA offsets program in ACES is not, leaving it subject to NEPA. Furthermore, should a comprehensive climate bill fail to pass the 111th Congress, future climate bills may not follow the same template of amendments to the CAA. Therefore this paper assumes that the offsets program is not exempt by statue from NEPA.

The NEPA requirements could potentially affect the implementation an offsets program on multiple levels. First, the implementing agency must establish offsets methodologies, or rules that private parties use to develop offsets projects, including the rate at which projects earn offset credits and information on the monitoring and verification of offsets projects.[48] Once the methodologies have been established and landowners begin developing projects, the agency must issue approval for qualified offsets projects[49] and certify verified offset credits.[50]

46. *See, e.g.,* U.S. ARMY CORPS OF ENG'RS & S. FLA WATER MGMT. DIST., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT: FLORIDA KEYS WATER QUALITY IMPROVEMENTS PROGRAM 10 (2004), *available at* http://www.evergladesplan.org/pm/projects/project_docs/other_projects_fkwqip/fkwq_eis_main_body_cover_figures.pdf (covers the entire program, but subsequent EAs or EISs are required for individual projects).

47. *See* 15 U.S.C. § 793(c)(1).

48. H.R. 2454 § 504(a)(1).

49. *See id.* § 505(c).

Each of these actions by the implementing agency may individually qualify as a major Federal action significantly affecting the quality of the human environment and, therefore, may require the preparation of an EIS before the action could take place unless an exemption applies.[51] Preparing an EIS for the offsets methodologies could lead to delays in initial investment in offsets projects, as project developers must wait until the final rules are issued.[52]

A requirement to prepare an EIS before approving each individual offsets project, however, could lead to considerable delays in the approval of projects and certification of credits, especially considering that thousands of projects would likely be necessary to meet the demand for offset credits. CEQ regulations also allow agencies to require the applicant (in this case the offsets project developer) to pay for the cost of preparing the EIS.[53] These delays and added costs could discourage participation by landowners and project developers, which could reduce the supply of offset credits and diminish their potential to contain the cost of GHG regulation.

To determine whether an EIS is necessary for any of these actions, we explore whether each action in implementing a GHG offsets program qualifies as a major Federal action significantly affecting the quality of the human environment.

50. *See id.* § 507.

51. *See* 42 U.S.C. § 4332(2)(c). *See also* Calverton Cliffs Coordinating Comm. v. U.S. Atomic Energy Comm'n, 449 F.2d 1109, 1129 (D.C. Cir. 1971) (stating that an EIS must be completed before the agency implements the proposed action).

52. *See* LYDIA OLANDER ET AL., NICHOLAS INST. FOR ENVTL. POLICY SOLUTIONS, POLICY OPTIONS FOR TRANSITIONING FROM VOLUNTARY TO FEDERAL OFFSETS MARKETS 3 (2009) (for more information on issues concerning investment uncertainty for initial offsets projects).

53. *See* 40 C.F.R. § 1506.5(c). *See also* NEPA's Forty Most Asked Questions, COUNCIL ON ENVTL. QUALITY, http://ceq.hss.doe.gov/nepa/regs/40/ 40p3.htm (last visited Jan. 24, 2011)(explaining that references to "third party contracts" in CEQ regulations refers to the preparation of an EIS by contractors paid by the applicant).

1. Major Federal action

Regulations concerning NEPA drafted by the CEQ state that "'Major Federal action includes actions with effects that may be major and which are potentially subject to Federal control and responsibility."[54] This includes the "[a]doption of programs, such as a group of concerted actions to implement a specific policy or plan,"[55] and the "[a]pproval of specific projects. . .by permit or other regulatory decision[s] . . . ."[56] A Federal agency developing offsets methodologies would certainly qualify as a major Federal action under this definition.

Although individual offsets projects would be developed by private parties, their approval and the certification of their credits by the implementing agency could also be considered a Federal action. However, the courts have been split concerning situations in which Federal involvement is limited only to the approval or permitting of an otherwise private project. In some cases, the courts have allowed agencies to consider only the impacts of actions over which they exert control, and not the impacts of connected actions by private entities. For example, in *Winnebago Tribe of Nebraska v. Ray*,[57] the Court of Appeals for the Eighth Circuit upheld an EIS prepared by U.S. Army Corps of Engineers (Corps) that considered the environmental impacts from only the portion of an electrical transmission line for which a river-crossing permit was required by the Corps and not the impacts from the rest of the transmission line.

In the Ninth Circuit, however, courts have generally required the agency to include all environmental impacts from the action, including those from private actions that would not have occurred but for Federal agency approval.[58]

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54. 40 C.F.R. § 1508.18.

55. *Id.* § 1508.18(b)(3).

56. *Id.* § 1508.18(b)(4).

57. *See* Winnebago Tribe of Neb. v. Ray, 621 F.2d 269, 274 (8th Cir. 1980). *See also* Save the Bay Inc., v. U.S. Corps of Eng'rs, 610 F.2d 322, 327 (5th Cir. 1980) (the Corps of Engineers needed only to consider the impacts from permitting a pipeline to a DuPont chemical plant and not the impacts of the plant itself).

58. *See, e.g.,* Sierra Club v. Hodel, 544 F.2d 1036, 1044 (9th Cir. 1976) (the court required the Bonneville Power Administration to consider the impacts of a

In the case of an offsets program, individual projects clearly would not be able to move forward without Federal approval. In fact, both ACES and the APA require that projects be considered *additional*, or in other words that they would not have occurred in the absence of the offsets program.[59] Therefore it seems likely that both the development of offsets methodologies and the approval of projects would qualify as Federal actions.

Whether those actions qualify as "major" is more ambiguous. CEQ regulations state that the word "[m]ajor reinforces but does not have a meaning independent of significantly."[60] The courts have generally resisted agency attempts at narrow interpretations of "major" in the context of NEPA, holding that any action with significant impacts should be considered a major action.[61] Therefore, it seems that determination of actions in reference to the implementation and administration of an offsets program as "major actions" will depend on the significance of their impacts.

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privately-constructed Alcoa magnesium plant where the federal agency contracted to construct the transmission line to the plant and supply it with power, "federaliz[ing] the entire project"); Thomas v. Peterson, 753 F.2d 754, 758 (9th Cir. 1985) (the court required the USDA Forest Service to consider both the impacts of a federally-constructed logging road and the impacts of the private logging activities that would result from the construction of the road).

59. *See* H.R. 2454 § 734(a)(1); APA § 735(a)(2) (2010) (for information on additionality requirements for the offsets program).

60. 40 C.F.R. § 1508.18. Federal courts are split on this issue. Some cases differentiate between "significant" and "major," saying that "major" could refer to things like cost, planning and time. *See, e.g.,* Hanly v. Mitchell, 460 F.2d 640, 644 (2d Cir. 1972).

61. *See generally* Minn. Pub. Interest Research Grp v. Butz, 498 F.2d 1314 (8th Cir. 1974) (the USDA Forest Service argued that NEPA establishes two tests: first they must determine if the action is a major federal action, and second they must determine if the impacts of the action are significant. The Court rejected this, saying "[t]o separate the consideration of the magnitude of federal action from its impact on the environment does little to foster the purposes of the Act . . . . By bifurcating the statutory language, it would be possible to speak of a 'minor federal action significantly affecting the quality of the human environment,' and to hold NEPA inapplicable to such an action. Yet if the action has a significant effect, it is the intent of NEPA that it should be the subject of the detailed consideration mandated by NEPA"). *But see* Hanly v. Mitchell, 460 F.2d 640, 644 (2d Cir. 1972) (the Court agreed with the defendants that "major" can refer to the funding and planning involved in a project, and therefore "major actions" may not always have significant impacts).

2. Significantly affecting the quality of the human environment

CEQ regulations require the word "significantly" to be interpreted by agencies both in terms of context and intensity. Because the impacts of the agency actions can differ spatially and temporally, the regulations require the agency to analyze the proposed action "in several contexts such as society as a whole . . . . the affected region, the affected interests, and the locality,"[62] in order to determine the significance of the impact.

In addition to context, agencies must interpret the significance of an action through its intensity. CEQ regulations include ten factors by which the agency may judge the intensity of the action, including the degree to which the action affects public health or safety, the degree to which the impacts are likely to be highly controversial, and the degree to which the action may establish a precedent for future actions.[63]

It could be argued that because a GHG offsets program is mitigating the impacts of GHG emissions from regulated entities, and because in many cases these projects could even bring positive co-benefits,[64] an EIS should not be required. Yet, offsets projects can have negative co-effects in some cases, such as reductions in available water quantity.[65] In addition, a project failure could result in a net increase in atmospheric GHG concentrations. Regardless, CEQ regulations state that impacts "may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the

62. 40 C.F.R. § 1508.27(a).

63. *See id.* § 1508.27(b).

64. *See, e.g.,* Subhrendu K. Pattanayak et al., *Water Quality Co-Effects of Greenhouse Gas Mitigation in US Agriculture*, 71 CLIMATIC CHANGE 341, 357 (2005) (finding that carbon sequestration projects could reduce nitrogen loadings into the Gulf of Mexico). *See also* Rebecca L. Goldman et al., *Field Evidence that Ecosystem Service Projects Support Biodiversity and Diversify Options*, 105 PROC. OF THE NAT'L ACAD. OF SCI. 9445, 9445 (2008) (finding that ecosystem service projects, including carbon sequestration projects, can have positive effects on local biodiversity).

65. *See* Robert B. Jackson et al., *Trading Water for Carbon with Biological Carbon Sequestration*, 310 SCI. 1944, 1944 (2005) (found that planting trees for carbon sequestration can reduce available water quantity, decreasing stream flow in some cases).

effect will be beneficial."[66] There have been very few court cases challenging EISs of agency actions with beneficial impacts. Interestingly, in one such case the court found that CEQ regulations on beneficial impacts notwithstanding, the lack of adverse impacts from an action by the Nuclear Regulatory Commission prevented the plaintiffs from demonstrating injury in fact; therefore, the plaintiffs did not have standing to sue.[67]

Because the establishment of offsets methodologies could enable thousands of new projects and shifts in management to occur on millions of acres of land, it is safe to assume the action of issuing methodologies would result in significant impacts and would require the preparation of an EIS. The impacts of individual projects, however, would clearly differ; some projects would be as small as a few acres with relatively insignificant impacts, and some projects would be much larger with more substantial impacts.

While it is tempting to suggest that smaller projects could avoid preparing an EIS, it should be noted that the agency implementing the offsets program must account for the *cumulative* effects of its actions. Cumulative effects are defined in CEQ regulations as impacts resulting from:

> the incremental impact of the action when added to other past, present, and reasonably foreseeable future action regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.[68]

a. Cumulative Impacts

Because the establishment of offsets methodologies could enable thousands of individual offsets projects, the cumulative effect of which could be significant, the agency must account for those impacts in an EIS. Theoretically, the GHG emissions

66. 40 C.F.R. § 1508.27(b)(1).

67. *See* Nuclear Info. & Res. Serv. v. Nuclear Regulatory Comm'n, 457 F.3d 941, 941 (9th Cir. 2006).

68. 40 C.F.R. § 1508.7.

sequestered or avoided by the project should completely offset any GHG emissions from other entities allowed by the offset credit, so there should be no cumulative impact on the overall GHG balance of the atmosphere. However, individual offsets projects involving land management, such as tree planting or changes in agricultural tillage, can have other—beneficial or adverse—environmental impacts, including changes to water quality and quantity and wildlife habitat, which may be small for individual offsets projects but significant when taken together.

When addressing such cumulative impacts, the agency will not be able to give specific information on projects that have not yet been developed. For these situations, CEQ regulations encourage tiering of EISs "to focus on the actual issues ripe for decision at each level . . ."[69] Therefore, while the agency could issue a larger programmatic EIS for the entire offsets program, it might also be required to include site-specific information in a subsequent EA or EIS for each project.

The courts have been somewhat divided in applying requirements that EISs account for cumulative impacts. Several decisions in the Ninth Circuit have struck down EAs or EISs that omit analysis of site-specific impacts or that improperly tier such information to a non-NEPA document (such as a management plan).[70]

Although many cumulative impact cases have resulted in the agency preparing a subsequent site-specific EIS, the opinion in *Oregon Environmental Council v. Kunzman*[71] suggests that this need not always be the case. Despite striking down the USDA's EIS for a program to spray for gypsy moths due to lack of site-specific information, the court stated: "We do not hold that federal agencies always must prepare a full and detailed site-specific EIS . . . . It may be possible to fulfill the requirements of

69. *Id.* § 1502.20.

70. *See, e.g.,* Muckleshoot Indian Tribe v. U.S. Forest Serv., 177 F.3d 800, 811 (9th Cir. 1999) (a U.S. Forest Service EIS was ruled inadequate because it tiered information on cumulative impacts of a timber sale to a forest management plan, which is a non-NEPA document); Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt., 387 F.3d 989, 997 (9th Cir. 2004) (two EAs were ruled inadequate because they did not contain site-specific information about cumulative impacts of two timber sales).

71. *See* Or. Envtl. Council v. Kunzman, 714 F.2d 901 (9th Cir. 1983).

NEPA with a new [programmatic EIS] that fully discusses the risks, effects, and benefits"[72] of the proposed action. In a similar decision in the Fifth Circuit, the court said that "as long as the agency performs the necessary depth of analysis, the choice between a programmatic and a site-specific Environmental Impact Statement is within the agency's discretion."[73] Supporting these decisions, the U.S. Supreme Court held in *Marsh v. Oregon Natural Resources Council*[74] that although an agency must consider new information that comes to light after it implements its action, a subsequent EIS is not necessarily required.

b. Potential model for programmatic EIS preparation

While the courts have held that a subsequent site-specific EIS may not always be necessary, the question remains as to whether the implementing agency will be able to sufficiently account for the site-specific impacts of many thousands of individual offsets projects in its programmatic EIS. The cases mentioned above centered on the failure of agencies to analyze the cumulative impacts of an action on a relatively limited set of sites. A better analogy, and a potential model for NEPA compliance for a federal offsets program, might be drawn from a larger program with far more individual projects, such as the Conservation Reserve Program (CRP)[75] administered by the Farm Service Agency (FSA) of the USDA. The CRP is a conservation program that offers incentives to farmers and landowners to implement conservation practices on their land to provide soil erosion reduction and water quality benefits. The program has enrolled more than 30 million acres on over 400,000 farms nationwide.[76] While the CRP has completed a

72. *Id.* at 905.

73. *See* United States v. 162.20 Acres Of Land, More Or Less, Situated In Clay County, State Of Miss., 733 F.2d 377, 380-81 (5th Cir. 1984).

74. *See* Marsh v. Or. Natural Res. Council, 490 U.S. 360, 374 (1989).

75. *See* 16 U.S.C. §§ 3831-3835 (2006) (for statutory information establishing the CRP).

76. *See* FARM SERV. AGENCY, U.S. DEP'T OF AGRIC., CONSERVATION RESERVE PROGRAM: SUMMARY AND ENROLLMENT STATISTICS 3 (2008).

programmatic EIS to analyze the impacts of the overall program, it is not necessarily required to complete subsequent EAs or EISs for each project enrolled in the program. FSA regulations state that:

> [i]ndividual farm participation . . . will normally not require any major involvement with the NEPA process. The practices carried out under FSA programs that might have impacts on the quality of the human environment will normally have been discussed in environmental assessments or impact statements on the applicable programs. However, for those practices that might significantly affect the quality of the human environment, the county committee shall make an environmental evaluation before approval. If the environmental evaluation shows that the implementation of a proposed FSA practice on an individual farm will have significant adverse affects on the quality of the human environment, the county committee will not approve the practice implementation until after the completion of the NEPA-EIS process . . .[77]

Although FSA regulations do not *require* an EA or EIS for most individual projects, they do provide for the preparation of a site-specific EA or EIS, if necessary, "for an individually significant action that is included in a program EIS."[78] However, a search for EISs related to the CRP yielded only the programmatic EIS, suggesting that FSA rarely, if ever, prepares subsequent site-specific EISs for CRP projects.

In addition, a report by CEQ on accounting for cumulative impacts states that in cases where few site-specific data are available, the analyst may use qualitative (rather than quantitative) evaluation procedures, because "[e]ven when the analyst cannot quantify cumulative effects, a useful comparison of relative effects can enable a decisionmaker to choose among alternatives."[79]

77. 7 C.F.R. § 799.9(d) (2010).

78. *Id.* § 650.7(d).

79. *See* COUNCIL ON ENVTL. QUALITY, CONSIDERING CUMULATIVE EFFECTS UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT 41 (1997), *available at* http://ceq.hss.doe.gov/nepa/ccenepa/ccenepa.htm.

Therefore, while the implementing agency would likely have to prepare a programmatic EIS for the entire offsets program, it is not clear that it would necessarily have to prepare a subsequent EA or EIS for each offsets project. Although the case law on NEPA suggests that programmatic EISs are insufficient for accounting for cumulative impacts of agency actions,[80] the agency could choose to follow the model of the CRP in preparing a programmatic EIS and then reserving the right to prepare a subsequent site-specific EA or EIS for individual projects with significant impacts, where necessary. This model offers something of a compromise in which the implementing agency could capture most of the benefits of NEPA by formally reviewing the environmental impacts of larger proposed offsets projects, but it could also avoid burdening developers of smaller projects with requirements to prepare an EA or EIS. In doing so, however, the agency would need to establish a clear threshold relating to a project's size or impacts beyond which an EIS would be required.[81]

However, given that the preparation of a programmatic EIS could cause significant delays in the establishment of a GHG offsets program, and given that there is some uncertainty over whether EAs and EISs are necessary for individual projects, the agency may choose to explore exemptions to NEPA. We discuss these exemptions in the next section.

B. Exemptions to NEPA

Although NEPA is meant to include "to the fullest extent possible . . . all agencies of the Federal Government,"[82] many agency actions are exempt from its requirements. The clearest example of this is actions that are exempt from NEPA by statute.

80. *See* Muckleshoot Indian Tribe, 177 F.3d at 810.

81. One potential model the implementing agency could follow is that of the Gold Standard, a nonprofit organization that has developed methodologies for the certification of voluntary and compliance-grade carbon offset credits. The Gold Standard methodologies include a matrix in which environmental, social, and economic aspects of the proposed projects are scored. Projects receiving negative scores must prepare an environmental impact assessment *See* THE GOLD STANDARD, http://www.cdmgoldstandard.org (last visited Jan. 18, 2011).

82. 42 U.S.C. § 4332.

As mentioned above, all actions taken under the CAA are not subject to NEPA,[83] which means that an offsets program implemented under the CAA would be exempt from NEPA. Nevertheless, there are several other exemptions that an implementing agency may be able to employ to avoid NEPA requirements for its offsets program if its program is not specifically exempt pursuant to the CAA or another statute.

Most of these exemptions have evolved from NEPA's long and complex case history, particularly from cases in which agencies have sought to avoid completing an EIS. However, an agency's ability to use these exemptions is generally decided by the courts, which, like the preparation of an EIS itself, could lead to delays in the establishment of an offsets program. Furthermore, it should be noted that the circuits have differed in their interpretations of NEPA's applicability, resulting in differences in the applications of many of these exemptions.

1. Categorical exclusions

CEQ regulations allow agencies to establish procedures to identify categorical exclusions, which are actions that have been pre-determined by the agency to have no significant impact on the quality of the human environment.[84] These exclusions are generally reserved for routine actions, such as administrative functions, budget proposals, and educational or informational activities, and agencies must develop them under consultation with CEQ and publish them for public comment.[85] The categorical exclusions established by both the EPA[86] and USDA[87] do not include any language that would automatically exempt a GHG offsets program from compliance with NEPA. While either agency could establish new categorical exclusions for an offsets program, they would likely be precluded from doing so for an offsets program or offsets projects because of requirements that such exclusions be limited to actions with no individual or

83. *See* 15 U.S.C. § 793(c)(1).
84. *See* 40 C.F.R. § 1508.4.
85. *Id.* § 1507.3(b).
86. *Id.* § 6.204.
87. *See* 7 C.F.R. § 1b.3.

cumulative impacts,[88] and as discussed above, both the issuance of offsets methodologies and the approval of individual projects have significant cumulative impacts.

2. Lack of agency discretion

Another possible exemption from preparing an EIS involves situations in which a statute's requirements are so specific that the agency lacks any discretion over the action. In such a case an EIS would be unnecessary, because the purpose of the EIS is to inform the agency's decision-making process. If the agency has no choice but to perform the action in a specific manner as described by statute, the agency would have no use for the EIS.

An important example of this lack of agency discretion involves the decision by the U.S. Fish and Wildlife Service (FWS) on whether to list a species as threatened or endangered under the Endangered Species Act. In making that decision, the FWS is limited to considering only the five factors laid out in the statute, including the threats to a species' habitat or range and the adequacy of existing regulatory measures.[89] In a case before the Court of Appeals for the Sixth Circuit, [90] FWS argued that the statute leaves no room for it to consider the environmental impacts of their decision to list the species. The court held that because of the resulting statutory conflict between NEPA and the ESA, FWS was not required to prepare an EIS since the analysis presented in the EIS could have no influence on its actions. [91]

Under the bills before the 111th Congress, neither the EPA nor USDA would likely be able to claim exemption from NEPA for its offsets program under the first type of statutory bypass, in

88. *See* 40 C.F.R. § 1508.4 .

89. *See* 16 U.S.C. § 1533(a)(1). The other factors for consideration in listing a species include the overutilization of the species for commercial, recreational, scientific, or educational purposes; disease or predation; and other natural or manmade factors affecting its continued existence.

90. Pac. Legal Found. v. Andrus, 657 F.2d 829, 833 (6th Cir. 1981).

91. A similar decision in Citizens Against Rails-to-Trails v. Surface Transp. Bd., 267 F.3d 1144, 1151 (D.C. Cir. 2001) found that the National Trails System Act (16 U.S.C. §§ 1241-1251 (2006)) directed the actions of the Surface Transportation Board so specifically that an EIS was not required for its decision to authorize a rail right-of-way to be used as a trail, because "the information that NEPA provides can have no affect on the agency's actions."

which the agency lacks sufficient discretion over the proposed action. Although both ACES and the APA give specific instructions to the EPA and USDA concerning the establishment of the offsets program and approval of offsets projects, the instructions are not so rigid as to completely remove the agencies' discretion in promulgating regulations. For example, ACES requires the USDA to establish methodologies for domestic agricultural and forestry practices that are eligible to supply offsets, but only "if the Secretary determines that methodologies can be established for such practices that meet each of the requirements of this section."[92] Because the agency has the discretion to determine whether or not offsets methodologies can even be established, its decision to establish and approve those methodologies could potentially benefit from the information provided in an EIS.

3. Statutory bypass

Somewhat similar to the exemption based on lack of agency discretion, an agency can claim an exemption from NEPA if its requirements under an existing statute conflict with its requirements under NEPA. This includes situations in which the time required to complete an EIS exceeds the time limit for the agency's compliance with its obligations under the other statute. This exemption was determined in *Flint Ridge Development Company v. Scenic Rivers Association of Oklahoma*, [93] which was argued before the Supreme Court in 1976. The case centered around the approval by the Department of Housing and Urban Development (HUD) of a statement of record by a developer with information on the nature of a subdivision development. HUD declined to prepare an EIS to analyze the environmental impacts of this decision because it was required by the Interstate Land Sales Full Disclosure Act to approve the statement of record within 30 days.[94] The Court agreed that this constraint did not give HUD enough time to complete an EIS, and in so doing, they

92. H.R. 2454 § 504.

93. *See generally,* Flint Ridge Dev. Co. v. Scenic Rivers Ass'n of Okla., 426 U.S. 776 (1976).

94. *See,* 15 U.S.C. § 1706 (2006).

set up a broad exemption, holding that "where a clear and unavoidable conflict in statutory authority exists, NEPA must give way."[95]

It is not immediately clear whether the implementing agency could claim exemption from NEPA under this type of statutory bypass. ACES and the APA include a series of strict statutory deadlines for the establishment of the offsets program and the approval of offsets projects, each of which the agency may be unable to meet if they have to prepare an EIS.

ACES requires the EPA to establish an offsets program for domestic sources, including the issuance of offsets project methodologies, within two years of enactment of the bill.[96] It also requires the USDA to establish a program for offsets from domestic agricultural and forestry sources, including the issuance of methodologies, within one year of enactment.[97] The APA combines both the EPA and USDA offsets programs and requires the establishment of the program and issuance of methodologies within 18 months.[98]

The preparation of an EIS—especially a programmatic EIS—can take more than a year to complete, and the preparation of an EA can take several months.[99] Since a final EIS or FONSI must be complete before the agency would be able to establish the offsets program,[100] the agency may be unable to meet the requirements of both the climate regulation statue and NEPA, and therefore, it may be able argue that this provides an exemption from the NEPA process. However, given how narrowly the courts have interpreted statutory bypass exemptions,[101] it is

95. *Flint Ridge*, 426 U.S. at 777 (1976).

96. H.R. 2454 §§ 732(a), 733.

97. *Id.* §§ 502(a), 503(a)(1).

98. APA § 733.

99. NEPA's Forty Most Asked Questions, COUNCIL ON ENVTL. QUALITY, http://ceq.hss.doe.gov/nepa/regs/40/40p3.htm (last visited Jan. 24, 2011).

100. *See* Calverton Cliffs Coordinating Comm, 449 F.2d at 1129 (stating that an EIS must be completed before the agency implements the proposed action).

101. *See e.g.* Forelaws on Bd. v. Johnson, 743 F.2d 677, 683 (9th Cir. 1984) (holding that the Bonneville Power Administration was not allowed to claim a statutory bypass exempting it from preparing an EIS, because the statutory conflict arose only from an "excessively narrow construction of its existing statutory authorizations . . .") (quoting H.R. Rep. 39702-703 (1969) (Conf. Rep.).

not at all clear that such an argument would successfully prevent the agency from having to prepare an EIS before approving offsets methodologies.

The timeline for the approval of individual offsets projects is much shorter as compared to the issuance of methodologies. Under ACES, the EPA or USDA must approve or deny an offsets project within 90 days of receiving an offsets project plan from a project developer,[102] it must certify the project's offset credits within 90 days of receiving a required report about the project from a third-party verifier,[103] and it must issue the credits to the project within 14 days of certification.[104] The length of time provided by these requirements may not even be sufficient to prepare a brief EA, let alone a complete EIS, suggesting that the case may be stronger for statutory bypass of NEPA requirements calling for the approval of individual projects.

4. Functional equivalence exemption

The purpose of NEPA is to require agencies to "take a hard look"[105] at the environmental impacts of their proposed actions by considering all relevant alternatives in an EIS. However, the courts have found that, in some cases, agency requirements under other environmental statutes serve the same function as NEPA, and so the preparation of an EIS is seen as redundant. Such functional equivalence exemptions have most often been applied to actions taken by the EPA.[106] Indeed, one judicial opinion states of the EPA: ". . . we see little need in requiring a NEPA statement from an agency whose raison d'être is the protection of

102. H.R. 2454 § 506(c).

103. *Id.* § 507(a).

104. *Id.* § 507(d).

105. *See* Hughes River Watershed Conservancy v. Glickman, 81 F.3d 437, 443 (4th.Cir. 1996).

106. *See* Maryland v. Train, 415 F. Supp. 116, 122 (D. Md. 1976) (EPA is exempt from NEPA for actions taken under the Ocean Dumping Act); Merrell v. Thomas, 807 F.2d 776, 779 (9th Cir. 1986) (EPA is exempt from NEPA for actions taken under the Federal Insecticide, Fungicide, and Rodenticide Act); Alabama v. EPA, 911 F.2d 499, 504 (11th Cir. 1990) (EPA is exempt from NEPA for actions taken under the Resource Conservation and Recovery Act); and W. Neb. Res. Council v. EPA, 943 F.2d 867, 870 (8th Cir. 1991) (EPA is exempt from NEPA for actions taken under the Safe Drinking Water Act).

the environment."[107] This could suggest that the EPA is completely exempt from NEPA requirements; however, there are still cases in which the EPA must prepare an EIS to comply with NEPA,[108] such as certain actions taken under the Clean Water Act.[109]

A similar exemption has been granted to the FWS in its actions under the ESA in a pair of decisions decided by the Sixth and Ninth Circuits. *Pacific Legal Foundation v. Andrus*[110] and *Douglas County v. Babbitt*[111] both found that the action by the FWS of adding a species to the endangered species list, "furthers the purposes of NEPA even though no impact statement is filed."[112] In *Pacific Legal Foundation* the court stated that because FWS "is working to preserve the environment and prevent the irretrievable loss of a natural resource,"[113] it should be exempt from NEPA requirements.

From these decisions, it may appear that *any* agency action that protects the environment should be exempt from NEPA under the functional equivalence doctrine. However, a decision in the D.C. Circuit made clear that there is no "broad exemption from NEPA for all environmental agencies or even for all environmentally protective regulatory actions of such agencies."[114] Similarly, the exemption for FWS from NEPA in listing a species established by the Sixth and Ninth Circuits was not maintained in a decision in the Tenth Circuit, which found

107. Int'l Harvester Co. v. Ruckelshaus, 478 F.2d 615, 650, (D.C. Cir. 1973).

108. *See* 40 C.F.R. §§ 6.100-6.103 (2010) (for the EPA regulations on complying with NEPA). *See also* Notice of Policy and Procedures for Voluntary Preparation of National Environmental Policy Act (NEPA) Documents, 63 Fed. Reg. 58,045 (Oct. 29, 1998) (for a statement of policy by the EPA concerning the voluntary preparation of EAs and EISs where they are not legally required, but where they would increase public involvement and understanding of the process, and where they would aid in analysis of large-scale ecological impacts, particularly cumulative effects).

109. These include the issuance of National Pollutant Discharge Elimination System (NPDES) permits under CWA § 402 and the award of wastewater treatment construction grants under Title II.

110. Pac. Legal Found., 657 F.2d at 837.

111. Douglas Cnty. v. Babbitt, 48 F.3d 1495, 1507 (9th Cir. 1995).

112. Pac. Legal Found., 657 F.2d at 837.

113. *Id.*

114. Envtl. Def. Fund Inc. v. EPA, 489 F.2d 1247, 1257 (D.C. Cir. 1973).

that "[p]artial fulfillment of NEPA's requirements . . . is not enough" to warrant an exemption from preparing an EIS.[115]

This split among circuits as to the application of functional equivalence exemptions suggests that the implementing agency might have difficulty in successfully arguing that its offsets program is functionally equivalent to NEPA. The functional equivalence exemptions carved out by the courts have been for actions that are environmentally protective and specifically by agencies "solely charged with protecting the environment."[116] However, the actions of implementing an offsets program, issuing methodologies, and approving projects are not necessarily environmentally protective. Although ACES and the APA require certain environmental considerations for forestry and other land management offset practices, including a preference for native species and practices that encourage the conservation of biological diversity,[117] and although there may be some positive co-benefits from certain land use projects in the form of improved water quality and biodiversity habitat,[118] there could also be negative co-effects, such as reduced water supply.[119] Furthermore, beyond the impacts of the projects themselves, offset credits generated by the project allow regulated entities to emit more GHGs. In fact, a properly executed carbon offsets project should have no effect whatsoever on the environment in terms of the atmospheric GHG balance; for each ton of CO_2 sequestered by a project, another ton will be emitted by a regulated entity.

For these reasons, it is not entirely clear whether the action by the USDA of establishing an offsets program or approving offsets projects would be viewed by the courts as sufficiently protective of the environment to be deemed functionally equivalent to NEPA.

115. Catron Cnty. v. U.S. Fish and Wildlife Serv., 75 F.3d 1429, 1437 (10th Cir. 1996).

116. Pac. Legal Found., 657 F.2d at 837.

117. H.R. 2454 § 510; APA § 735(h).

118. *See* PATTANAYAK, ET AL., *supra* note 64.

119. *See* JACKSON ET AL., *supra* note 65.

C. Discussion

The establishment of an offsets program and the approval of individual projects could be considered a major federal action with cumulatively significant impacts to the quality of the human environment. Therefore, NEPA would likely apply to a federal GHG offsets program. However, it could be argued that the requirements to report on the potential impacts of the offsets program could largely be confined to the establishment of the program and the issuance of methodologies.

Although the approval of individual projects would also be considered a federal action, and although the projects would have cumulatively significant impacts, the project approval process would not necessarily be substantially affected by NEPA. In approving projects, the implementing agency could choose to promulgate regulations allowing it to use its discretion in determining which projects are either sufficiently large or would have a significant enough impact as to require an EA or EIS, similar to how the Farm Service Agency administers contracts for the Conservation Reserve Program.

A long history of NEPA litigation has produced several exemptions from its requirements, though none of these exemptions appear to apply to the establishment of an offsets program and issuance of offsets methodologies under the GHG regulation proposals considered by the 111th Congress. However, one of these exemptions may apply to the approval of projects, as the proposed legislation gives a strict 90-day timeline for approval or denial of projects, which is not enough time to complete an EA or EIS.

For these reasons, it appears that the agency implementing the offsets program would likely be required to prepare a programmatic EIS for the entire program, including its methodologies; however, it may not need to prepare subsequent EISs for individual projects, unless it deems the project as having particularly significant environmental impacts. This allows the agency to take advantage of the analysis provided in NEPA documents to determine the environmental effects of larger projects, while avoiding placing onerous reporting requirements on smaller projects.

IV. ENDANGERED SPECIES ACT

The Endangered Species Act of 1973 contains wide-ranging provisions to protect threatened and endangered species, with implications for the actions of both private individuals and federal agencies. Under the ESA, the US Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) (hereinafter, collectively or individually, "the Service" or "the Secretary") must establish a list of species that are threatened or endangered with extinction, as well as habitats that are critical to the survival of such species.[120]

Unlike NEPA, the ESA includes both substantive and procedural requirements. Whereas NEPA requires agencies only to report on and consider the environmental impacts caused by their actions, section 7(a)(2) of the ESA requires that:

> Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species.[121]

This provision establishes two requirements that could potentially affect the implementation of an offsets program. First, an agency must consult with the Secretary of the Interior or the Secretary of Commerce before approving any action that may impact any listed species or its critical habitat. Second, an agency must ensure that its action will not jeopardize the continued existence of such species or its habitat. Each of these requirements is discussed in turn.

A. Requirements of the Endangered Species Act

1. Consultation with the Secretary of the Interior or

120. 16 U.S.C. § 1533 (2006). In general, the US Fish and Wildlife Service (USFWS) has jurisdiction over terrestrial species, and the National Marine Fisheries Service (NMFS) has jurisdiction over marine species.

121. *Id.* § 1536(a)(2).

Secretary of Commerce

Section 7(a)(2) requires federal agencies to consult with either the Secretary of Interior or Commerce before approving, funding, or permitting any action that may impact an endangered or threatened species or its habitat. The agency must complete the consultation before it, or any permit or license applicant, makes "any irreversible or irretrievable commitment of resources with respect to the agency action."[122]

The USFWS and NMFS have established regulations guiding agencies through the process of what has become known as "section 7 consultation."[123] Agencies can choose to initiate an informal consultation, which includes informal discussions between the agency and the Service.[124] If the informal consultation determines that the action is not likely to adversely affect a listed species or its critical habitat, then the agency has fully satisfied its requirements under section 7 of the ESA, and it may implement the action.[125] Approximately 90-95% of section 7 consultations are completed informally, resulting in little or no project delay or modification.[126]

Alternatively, the agency can prepare a biological assessment to evaluate the potential impacts of the action on listed species and critical habitats.[127] A biological assessment includes (1) the results of an on-site inspection of the project area to determine if listed species are present, (2) discussions with experts on the relevant species, (3) a review of the literature, (4) analysis of cumulative effects of the project, and (5) an analysis of any alternate actions considered by the agency.[128] Similar to

122. *Id.* § 1536(d).

123. *See* 50 C.F.R. §§ 402.10-402.16 (2010).

124. *Id.* § 402.13(a).

125. *Id.*

126. *See* U.S. GEN. ACCOUNTING OFFICE, ENDANGERED SPECIES ACT: TYPES AND NUMBER OF IMPLEMENTING ACTIONS 30 (1992). *See also* Oliver A. Houck, *Reflections on the Endangered Species Act*, 25 ENVTL. L. 689, 692 (1995) (citing WORLD WILDLIFE FUND, FOR CONSERVING LISTED SPECIES, TALK IS CHEAPER THAN WE THINK: THE CONSULTATION PROCESS UNDER THE ENDANGERED SPECIES ACT 3-4 (1994)).

127. 50 C.F.R. § 402.12 (requiring biological assessments for major construction activities).

128. *Id.* § 402.12(f).

informal consultation, if the biological assessment indicates that the action is not likely to adversely affect a listed species, then the agency may proceed with the action without a formal consultation.[129]

If, however, informal consultation or the biological assessment indicates that the action is likely to have an impact on a listed species or its habitat, the agency must initiate formal consultation with the Service.[130] The formal consultation requires the agency to provide the Service with the best available scientific and commercial data concerning the action. The Service will then use that data and any other relevant information, which may include an on-site inspection of the action area, to formulate a biological opinion "as to whether the action, taken together with cumulative effects, is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat."[131] The vast majority of the time, formal consultation results in a "no jeopardy" opinion.[132] The Service must include reasonable and prudent alternatives in the biological assessment if there is a jeopardy finding. Even in the absence of a jeopardy finding, the Service may suggest alternatives to the action and conservation recommendations. In general, the formal consultation process will not last more than 90 days.[133]

The Courts have been quite clear on the importance of the consultation requirement, and several cases have resulted in injunctions of agency actions for failure to properly consult with the FWS or NMFS.[134]

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129. *Id.* § 402.12(k).

130. *Id.* § 402.14(a).

131. *Id.* § 402.14(g)(4).

132. U.S. GENERAL ACCOUNTING OFFICE, *supra* note 126, at 15; Houck, *supra* note 126, at 692.

133. 50 C.F.R. § 402.14(e).

134. *See* Lane Cnty. Audubon Soc'y v. Jamison, 958 F.2d 290, 295 (9th Cir. 1992) (enjoining the Bureau of Land Management from completing timber sales under the guidance of a management strategy meant to protect the listed northern spotted owl, because the management strategy was never submitted to the Service for consultation); Pac. Rivers Council v. Thomas, 30 F.3d 1050, 1057 (9th Cir. 1994) (enjoining the U.S. Forest Service from management activities in the Wallowa-Whitman and Umatilla National Forests until its Land and Resource Management Plans were submitted to NMFS for consultation); Wash.

Furthermore, even when an agency properly initiates consultation with the Service, the consultation process itself can be called into question. However, the Courts have generally limited such challenges to the consultation process, holding that the adequacy of the consultation can only be questioned if its conclusions are arbitrary or capricious.[135]

The outcome of the consultation process is used to judge whether the agency has satisfied its other requirement under section 7, which is to ensure that its actions will not jeopardize the continued existence of a listed species or its critical habitat.

2. The obligation to prevent jeopardy to listed species

In addition to requiring agencies to consult with the Service over any proposed action that may affect a listed species, the Act requires the agency to ensure that its actions are not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of its critical habitat.[136] This requirement has been the subject of extensive litigation, especially because it is not immediately clear from the text of the statute who has the responsibility to determine whether or not the agency has satisfied this requirement—the action agency itself or the Service.

In an early case in the Fifth Circuit, which is still often cited in opinions about the ESA, the court held that agencies needed only to consult with the Service and that "once an agency has had meaningful consultation with the Secretary of Interior concerning actions which may affect an endangered species the final decision of whether or not to proceed with the action lies with the agency

Toxics Coal. v. EPA, 413 F.3d 1024, 1036 (9th Cir. 2005) (enjoining the EPA from approving certain pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) because it failed to first consult with NMFS over possible effects on listed salmon).

135. *See* Ctr. for Native Ecosystems v. Cables, 509 F.3d 1310, 1320 (10th Cir. 2007). *See also* Gifford Pinchot Task Force v. U.S. Fish and Wildlife Serv., 378 F.3d 1059, 1070 (9th Cir. 2004) (overturning a biological opinion issued by the FWS because it used an improper definition for adverse habitat modification).

136. 16 U.S.C. § 1536(a)(2).

itself."[137] A similar decision in the Eighth Circuit in the same year found that "[c]onsultation under Section 7 does not require acquiescence. Should a difference of opinion arise as to a given project, the responsibility for decision after consultation is not vested in the Secretary but in the agency involved."[138]

However, two years after these cases, the U.S. Supreme Court decided perhaps the most well known ESA case, *Tennessee Valley Authority v. Hill*.[139] In this case, the Tennessee Valley Authority (TVA) was blocked from closing the dam gates on the all-but-completed Tellico Dam and Reservoir Project, a project on which Congress had already spent more than $100 million, because doing so would almost certainly wipe out the only known population of the snail darter, a three-inch fish and federally listed species. In its opinion, the court stated that section 7 of the ESA "admits of no exception," and that "Congress intended endangered species to be afforded the highest of priorities."[140] Therefore this case strongly suggests that federal agencies' duties go beyond simply having "meaningful consultation" with the Service,[141] and that each agency action must truly be judged on whether or not it will jeopardize the continued existence of a listed species or result in the destruction of its critical habitat.[142]

137. Nat'l Wildlife Fed'n v. Coleman, 529 F.2d 359, 371 (5th Cir. 1976).

138. Sierra Club v. Froehlke, 534 F.2d 1289, 1303 (8th Cir. 1976).

139. Tenn. Valley Auth. v. Hill, 437 U.S. 153 (1978).

140. *Id.* at 173-74.

141. Nat'l Wildlife Fed'n, 529 F.2d at 371.

142. This decision was fiercely criticized by many members of Congress, including supporters of the original ESA in 1973. This resulted in an amendment to the ESA that Congress passed in 1978, establishing the Endangered Species Committee, which had the authority to grant exemptions from the ESA for certain projects. *See generally* Nancy M. Ganong, *Endangered Species Act Amendments of 1978: A Congressional Response to Tennessee Valley Authority v. Hill*, 5 COLUM. J. ENVTL. L. 283 (1979). The Endangered Species Committee grants exemptions from Section 7 requirements only after determining that there are no reasonable and prudent alternatives, the benefits clearly outweigh the costs, the action is of national or regional significance, and reasonable mitigation measures have been established. The committee voted unanimously to deny the Tellico Dam Project an exemption from the ESA. The project was eventually completed, however, after Rep. John Duncan attached a rider to the annual public works appropriation bill in 1979, which exempted the project from the ESA. *See* Zygmunt J.B. Plater, *Reflected in a River: Agency Accountability and the TVA Tellico Dam Case*, 49 TENN. L. REV. 747, 783 (1982).

Subsequent cases have clarified, however, that the action agency, and not the Service, retains the final authority to determine whether it has complied with its responsibility under section 7(a)(2), provided it is using the best available scientific and commercial data.[143] Any challenges to such agency determinations must show that they were arbitrary and capricious.[144] Therefore, although an agency must demonstrate that it has complied with its requirements under section 7, it is generally given deference to make the determination for itself that the requirements have been satisfied.

B. Impacts of the ESA on a Federal GHG Offsets Program

With the ESA, Congress sought to protect threatened and endangered species, and prevent their extinction. The requirements of the statute are wide-ranging and can affect many agency actions, including, potentially, a federal GHG offsets program. In order to comply with the letter and intent of the law, the agency implementing the offsets program will need to balance its critical duty to protect listed species and their habitat with its obligations to establish and administer the offsets program.

143. *See* Roosevelt Campobello Int'l Park Comm'n v. EPA, 684 F.2d 1041, 1049 (1st Cir. 1982) (holding that an agency action that receives a jeopardy opinion can move forward once it has completed all "practicable" scientific studies); Stop H-3 Ass'n v. Dole, 740 F.2d 1442, 1460 (9th Cir. 1984) (stating that the Federal Highway Administration "cannot abrogate its responsibility [to the Service] to decide whether it has taken all possible action" to protect listed species); Pyramid Lake Paiute Tribe v. U.S. Dep't of Navy, 898 F.2d 1410, 1415 (9th Cir. 1990) (citing Stop H-3 Ass'n v. Dole, 740 F.2d 1442) ("A federal agency cannot abrogate its responsibility to ensure that its actions will not jeopardize a listed species; its decision to rely on a FWS biological opinion must not have been arbitrary or capricious . . . Nonetheless, even when the FWS's opinion is based on 'admittedly weak' information, another agency's reliance on that opinion will satisfy its obligations under the Act . . ."). *But see* N. M. ex rel. Bill Richardson v. Bureau of Land Mgmt., 565 F.3d 683, 700 (10th Cir. 2009) ("Despite the name, consultation is more than a mere procedural requirement, as it allows FWS to impose substantive constraints on the other agency's action if necessary to limit the impact upon an endangered species.").

144. *See, e.g.*, Sierra Club v. Marsh, 816 F.2d 1376 (9th Cir. 1987) (enjoining a project by the US Army Corps of Engineers, because its decision not to reinitiate consultation with USFWS after the issuance of a jeopardy opinion was found to be arbitrary and capricious).

Similar to the impacts of NEPA on a federal GHG offsets program, consultations with the Service under the ESA could lead to significant delays in the establishment of the offsets program and the issuance of offsets methodologies. The ESA requires agencies to fully satisfy their obligations under section 7(a)(2) before committing resources to show that their actions are not likely to jeopardize any listed species or destroy their critical habitat.[145] This means that all informal and formal consultations would have to occur before the implementing agency could establish the program, issue methodologies, or approve individual projects.

While such consultations could lead to delays if they are required before the establishment of the offsets program, they could be even more disruptive if they are required before the approval of individual projects. Like NEPA, delays in project approval could increase transaction costs and discourage landowner participation in the market, decreasing overall supply of offset credits and increasing the costs of complying with GHG regulations. However, landowners can also have a much more negative view of the ESA requirements than NEPA requirements. Because the ESA can lead to restrictions of land management on private land, landowners have incentives to discourage listed species from taking residence on their land. [146] Furthermore, studies have found that landowners often do not give permission to government agencies to survey for listed species on their property.[147] For these reasons, a requirement to consult with the Service, which in certain cases may include a visit to the landowner's property to inspect for the presence of a listed

145. *See* 16 U.S.C. § 1536(d). *See also* 50 C.F.R. § 402.09.

146. *See* Dean Lueck & Jeffery A. Michael, *Preemptive Habitat Destruction Under the Endangered Species Act,* 46 J. L. & ECON. 27, 30 (2003) (finding that the closer a property is to known locations of endangered red-cockaded woodpeckers, the more likely the property is to be harvested, often at a younger than optimum age).

147. *See* Amara Brook, Michaela Zint, & Raymond de Young, *Landowners' Responses to an Endangered Species Act Listing and Implications for Encouraging Conservation*, 17 CONSERVATION BIOLOGY 1638, 1643 (2003) (finding that 56% of survey respondents had not given or would not give permission to allow a biological survey for endangered Preble's meadow jumping mice; 14% of respondents said they managed their land to minimize the chance of the species living on it).

species,[148] could discourage landowners from participating in the carbon market.[149]

However, it is not clear whether consultation with the Service would be required before the approval of individual projects. If it were required, it seems likely that in the vast majority of cases, the consultation could be conducted informally, with minimal or no direct involvement by the landowner. Nevertheless, there are several steps an agency can take to streamline compliance with the ESA, in order to minimize disruption to agency actions, while still ensuring protection of listed species. These steps are discussed below.

C. Options for complying with the ESA's consultation requirements in approving offsets projects

1. Internal agency review

The most straightforward option for streamlining the consultation process is for the agency itself to screen out permit applications that are obviously not likely to adversely affect a listed species. The ESA regulations on consultations state that "[e]ach Federal agency shall review its actions . . . to determine whether any action may affect listed species or critical habitat."[150] Therefore, the agency itself would have the discretion to determine whether its proposed action would result in impacts to listed species or critical habitat.

This model is followed by the Corps of Engineers in their approval of wetland mitigation permits under section 404 of the Clean Water Act.[151] Corps regulations state that if the district engineer determines that the mitigation project will not impact a listed species or its habitat, then consultation with the Service is not necessary.[152] If the district engineer determines that the

148. 50 C.F.R. § 402.14(g)(1).

149. However, given sufficiently high payments for GHG offset credits, some landowners may choose to accept risks of ESA regulation of their land.

150. 50 C.F.R. § 402.14(a).

151. 33 U.S.C. §§ 1251–1387 (2006).

152. 33 C.F.R. § 325.2(b)(5) (2010).

project may impact a listed species, then the Corps will initiate formal consultation.[153]

The implementing agency could follow a similar model in approving projects under an offsets program. The agency would need only to consult with the Service on a small minority of projects that may affect listed species.

For some more complex actions, however, the agency may not have the expertise to determine on its own whether the proposed action may affect a listed species. Furthermore, using only its discretion to decide whether consultation is necessary, rather than a formal decision-making framework, could leave the agency vulnerable to lawsuits from citizens second-guessing its decisions. Therefore, there are at least two other options in which a more formal arrangement between the agency and the Service can be arranged to help guide agency actions through the Section 7 consultation requirements. Both are discussed below.

2. Programmatic biological assessments

Although the ESA regulations give agencies the discretion to determine whether or not consultation with the Service is necessary, some agencies go ahead and prepare a biological assessment to cover programs that may have impacts on listed species. Similar to a programmatic EIS under NEPA, a programmatic biological assessment refers to a single document covering a large program, which may have many individual projects. These programmatic biological assessments can be written so that common project types are exempt from consultation.

The Natural Resources Conservation Service (NRCS) administers several conservation incentive programs, including the Environmental Quality Incentives Program (EQIP) and the Wetlands Reserve Program (WRP), each of which can have hundreds or thousands of individual projects. Because section 7 consultation with the Service for each project could be impractical, NRCS, in some cases, prepares a single biological assessment to cover all of its programs within a state.

153. *Id.*

For example, the programmatic biological assessment for the state of Montana establishes a screen in which relatively simple, straightforward projects receive a determination that an action is "not likely to adversely affect" a listed species.[154] More complex projects must still go through standard consultation. Each year, the Service audits a subset of projects to determine if the screen is being applied properly.

The programmatic biological assessment has the advantage of formalizing the agency's process for deciding whether to consult with the Service. If the agency implementing the offsets program determines that a specific offsets project type, such as reduced agricultural tillage, is unlikely to impact listed species, it can make that clear in its biological assessment. Through the biological assessment, the agency can seek preemptive approval of its decision-making process from the Service to avoid later legal action.

3. Counterpart regulations

In an even more formal approach to addressing consultation requirements for large-scale programs, the ESA regulations allow for the establishment of "counterpart regulations" specific to the needs of the program.[155] Thus far, such regulations have been established for only two programs: the National Fire Plan[156] and actions by the EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).[157]

154. *See Programmatic Biological Assessment Overview*, NAT. RESOURCES CONSERVATION SERV., U.S. DEP'T OF AGRIC, http://www.mt.nrcs.usda.gov/technical/ecs/biology/programmatic.html (last visited Feb. 12, 2011).

155. 50 C.F.R. § 402.04 ("The consultation procedures set forth in this part may be superseded for a particular Federal agency by joint counterpart regulations among that agency, the Fish and Wildlife Service, and the National Marine Fisheries Service.").

156. *See* 50 C.F.R. §§ 402.30-402.34 (providing counterpart regulations concerning consultations under the National Fire Plan). *See also* Joint Counterpart Endangered Species Act Section 7 Consultation Regulations, 68 Fed. Reg. 68,254 (Dec. 8, 2003).

157. *See id.* §§ 402.40-402.49 (providing counterpart regulations concerning consultations under FIFRA). *See also* 7 U.S.C. §§ 136-136y (2006) (for the text of FIFRA).

The National Fire Plan is a collection of documents governing federal wildfire policy, including the Healthy Forests Restoration Act (HFRA), passed by Congress in 2003.[158] Part of the Act includes the Healthy Forests Reserve Program, which, among other things, provides incentives to landowners to restore habitats of federally listed species.[159] Because these projects will necessarily affect listed species and their habitats, it follows that they would require consultation with the Service. In order to streamline the review process, however, counterpart regulations were established to "eliminate the need . . . to conduct informal consultation."[160] In these counterpart regulations, staff of various federal land management agencies, including the U.S. Forest Service and Bureau of Land Management, receive training by the Service to make determinations about projects that are not likely to adversely affect listed species.[161]

The agency implementing the offsets program may choose to establish similar counterpart regulations with the Service, if it predicts that the administration of section 7 consultations would be excessively burdensome. Such counterpart regulations are still subject to normal notice-and-comment rulemaking requirements under the Administrative Procedure Act,[162] which could delay the initial establishment of the offsets program, but may also simplify its overall administration by reducing the need to consult authorities outside of the agency on ESA-related issues.

D. Issues concerning jeopardy determinations in offsets projects

Section 7 not only requires that agencies consult with the Service regarding proposed actions, but also requires that agencies ensure that their actions will not jeopardize the continued existence of listed species or their critical habitats. If,

158. *See* Healthy Forests Restoration Act, 16 U.S.C. §§ 6501-6591 (2006).

159. *See id.* § 6574.

160. Joint Counterpart Endangered Species Act Section 7 Consultation Regulations, 68 Fed. Reg. at 68,255.

161. 50 C.F.R. § 402.33.

162. 5 U.S.C. § 553 (2006).

after a consultation, the Service issues a jeopardy determination to an agency for its action, it can be difficult for the agency to justify that action as fully complying with section 7. Therefore, in administering an offsets program, the implementing agency could face (admittedly rare)[163] situations in which a project would have to be denied—not for reasons concerning the regulations of the offsets program—but because the project would run afoul of the jeopardy requirement of the ESA.[164] Nevertheless, notwithstanding Chief Justice Warren Burger's claim that section 7 "admits of no exception,"[165] there are certain exemptions that have evolved over the years that allow agency actions to move forward even under a jeopardy determination.

1. The Endangered Species Committee

In the aftermath of *Tennessee Valley Authority v. Hill*, in which a nearly completed multimillion dollar dam project on the Little Tennessee River was halted to preserve the snail darter, Congress amended the ESA to create the Endangered Species Committee,[166] which has the authority to exempt an agency from section 7 regulation. In effect, the committee has the authority to allow an extinction of a species, earning them the nickname "the God Squad."[167] In practice, however, the committee has only met six times from 1978 through 2007, granting a full exemption in

163. Analysis of nearly 100,000 section 7 consultations over a five-year period in the 1990s found only 54 projects terminated due to jeopardy determinations, or 0.054 percent of all consultations. *See* Houck, *supra* note 126, at 692.

164. However, in issuing a jeopardy opinion, the Service must also provide any reasonable and prudent alternatives. *See* 50 C.F.R. § 402.14(h)(3). It is possible that an offsets project could still move forward employing one of these alternatives.

165. Tenn. Valley Auth., 437 U.S. at 173.

166. The Endangered Species Committee is comprised of the Secretary of Agriculture, the Secretary of the Army, the Chairman of the Council of Economic Advisors, the Administrator of the EPA, the Secretary of the Interior, the Administrator of the National Oceanic and Atmospheric Administration, and one individual appointed by the President from each affected state. *See* 16 U.S.C. § 1536(e)(3).

167. *See generally* Jared des Rosiers, *The Exemption Process Under the Endangered Species Act: How the "God Squad" Works and Why*, 66 NOTRE DAME L. REV. 825 (1991).

one case, and a partial exemption in another case; all other cases were either denied exemptions or withdrawn.[168]

This approach does not seem to be a promising option for offsets projects with the potential to jeopardize listed species or destroy critical habitats. First, applications for exemptions and approvals by the committee are exceedingly rare. Second, the committee must find that "there are no reasonable and prudent alternatives to the agency action."[169]

Offsets are not required by any proposed legislation; they are simply another option for complying with regulations that can reduce the overall cost of compliance. Furthermore, the number of offsets projects that would receive a jeopardy determination is likely to be extremely small. Therefore, there will likely be plenty of alternatives, not only for compliance with GHG regulations, but also for purchasing offsets. This makes it highly unlikely that the committee would grant an exemption from section 7.

2. Incidental take permits

Section 9 of the ESA prohibits any individual from "taking" any listed species,[170] which includes direct harm to or harassment of species,[171] or adverse habitat modification.[172] However, Section 10 of the Act allows the Secretary to grant a permit to an individual to take a listed species, "if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity."[173]

These permits, known as "incidental take permits," require landowners to develop habitat conservation plans, which include steps that the landowner will take to minimize and mitigate

168. M. LYNN CORN, EUGENE H. BUCK, & PAMELA BALDWIN, CONG. RESEARCH SERV., RL 31659, THE ENDANGERED SPECIES ACT: A PRIMER 25-26 (2006).

169. 16 U.S.C. § 1536(h)(A).

170. *Id.* § 1538(a)(1)(B).

171. *Id.* § 1532(19).

172. *See* Babbitt v. Sweet Home Chapter of Cmtys. for a Greater Or., 515 U.S. 687, 698-99 (1995) (finding that the definition of "take" encompasses adverse habitat modification, as long as there is a showing of actual injury to a member of a listed species).

173. 16 U.S.C. § 1539(a)(1)(B).

impacts to listed species.[174] Generally, the Service requires that permittees mitigate impacts by restoring or creating habitat for the listed species that are affected. This requirement has driven the conservation banking market, in which banks restore or create habitats for listed species and sell the credits to developers or other applicants for incidental take permits.[175] However, such credits can be extremely expensive; one study estimated the average credit price at more than $31,000 per acre.[176] It is unlikely that any offsets project would be economical if faced with such prices for conservation banking credits. Therefore, section 10 of the ESA might not offer much help to landowners interested in participating in the carbon market when faced with listed species on their land.

3. Lack of discretion

The ESA also grants an exemption for agency actions that are nondiscretionary.[177] However, as discussed in the section on NEPA, above, the proposals for climate legislation before the 111th Congress give the USDA and EPA plenty of discretion in establishing an offsets program and approving individual projects. Therefore, this exemption would likely not apply to a federal GHG offsets program.

E. Discussion

In general, as with NEPA, the requirements of the ESA would almost certainly apply to a federal GHG offsets program. The impact on the administration of the program would largely be confined to the program's establishment, and not extend to the approval of individual projects.

174. *Id.* § 1539(a)(2)(A).

175. *See* BECCA MADSEN, NATHANIEL CARROLL, & KELLY MOORE BRANDS, ECOSYSTEM MARKETPLACE, STATE OF BIODIVERSITY MARKETS REPORT: OFFSET AND COMPENSATION PROGRAMS WORLDWIDE 15 (2010).

176. *Id* at 17.

177. *See* Nat'l Ass'n of Homebuilders v. Defenders of Wildlife, 551 U.S. 644, 681 (2007) (holding that ESA applies only to discretionary actions). *See also* 50 C.F.R. § 402.03 ("Section 7 and the requirements of this part apply to all actions in which there is *discretionary* Federal involvement or control.") (emphasis added).

Section 7 of the ESA creates two requirements for federal agencies: they must consult with the Service over their planned action, and they must ensure that their action is not likely to jeopardize listed species. In order to comply with Section 7 in establishing an offsets program, the implementing agency would almost certainly need to consult with the Service to ensure that the administration of the program will not result in jeopardy for listed species. Nevertheless, the agency has several options to minimize the impacts of consultations on individual projects. It could use its own discretion over which projects require consultation, similar to how the Corps addresses the issue in approving wetland mitigation permits; it could prepare a programmatic biological assessment that clarifies which projects require consultation; or it could, together with the Service, issue counterpart regulations that allow the agency to perform its own Section 7 consultations.

Once the consultation procedures for the offsets program have been established, the USDA or EPA will also need to demonstrate that the program and its individual projects will not jeopardize listed species or destroy critical habitat. The jeopardy requirement would not, however, affect the vast majority of projects. For the few projects that might receive jeopardy determinations, there are potential exemptions to the requirement, but the exemptions would likely either not apply to offsets projects or would be too expensive to implement.

V. CONCLUSIONS

Both NEPA and the ESA could significantly impact the establishment and administration of a federal GHG offsets program. However, in both cases, the impacts could potentially be limited to the initial establishment of the program and the issuance of offsets project methodologies, but not necessarily to the approval of individual projects. To comply with NEPA, the agency implementing the offsets program will almost certainly need to prepare a programmatic EA or EIS. Most individual projects, however, would not necessarily need to complete a subsequent environmental analysis, unless it is an especially large project with significant impacts.

Similarly, to comply with the ESA, the implementing agency would need to consult, either formally or informally, with the Service, regarding the establishment of the program; individual projects would likely be able to forego subsequent consultation, unless there is a chance that listed species would be affected. ESA regulations offer several options to ensure agency procedures will not conflict with requirements of Section 7, including the establishment of counterpart regulations to streamline the consultation process.

Experience with other national large-scale land use programs, such as the Conservation Reserve Program, the Healthy Forests Reserve Program, and the wetlands mitigation program administered by the U.S. Army Corps of Engineers, suggests that the administration by the federal government of thousands of contracts with individual landowners can proceed smoothly while still fully complying with existing environmental statutes like NEPA and the ESA. Nevertheless, the rich history of litigation surrounding both statutes implies that the administrator of an offsets program could well expect to face legal challenges despite the implementing agency's best efforts to comply with existing environmental law. Yet, the variety of exemptions generated by litigation over NEPA and the ESA also suggests that such challenges would not necessarily endanger the program or its administration.