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The Ramsar Convention on Wetlands: Assessment of International Designations Within the United States

by Royal C. Gardner and Kim Diana Connolly

Editors' Summary: The Convention on Wetlands of International Importance Especially as Waterfowl Habitat, more commonly known as the Ramsar Convention, is one international framework used to protect wetlands. At this time, the United States has designated 22 sites as wetlands of international importance. In this Article, Royal C. Gardner and Kim Diana Connolly analyze survey data collected from each of these 22 sites to determine whether and how Ramsar designation benefits these wetland areas. The authors first provide a brief overview of the Ramsar Convention, including its function within the United States. They then break down the survey data, looking at both benefits and problems of Ramsar designation. Finally, they make several recommendations for strengthening Ramsar within the United States.

I. Introduction

Issues related to wetlands and wetland protection often involve boundaries. Sometimes the lines are drawn on the ground, delineating between so-called jurisdictional wetlands and uplands.¹ Sometimes the boundaries are conceptual: trying to determine the proper relationship between the federal and state governments with respect to wetland permits,² or trying to balance the need to protect the aquatic

environment without inappropriately limiting activities on private property.³ Other times international boundaries are implicated, thus requiring a multilateral approach to wetland issues.

At the international level, the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (often referred to as the Convention on Wetlands or the Ramsar Convention)⁴ provides a useful framework for cooperative efforts to protect wetlands and the benefits that people derive from these areas. More than 150 countries, including the United States, are Parties to this treaty.⁵ As will be explained below, the Ramsar Convention is a cooperative, nonregulatory means of wetland protection. For example, although Parties must designate (and commit to conserve) at least one domestic site as a wetland of international importance, Ramsar designation is entirely voluntary.⁶ Thus, a Party may designate one Ramsar site⁷ or dozens.⁸ As of January 2007, the United States has designated 22 sites as wetlands of international importance.⁹

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1. For background on wetland delineation practices, see NATIONAL RESEARCH COUNCIL, *WETLANDS: CHARACTERISTICS AND BOUNDARIES* 65-89 (1995).
2. *E.g.*, *Rapanos v. United States*, 126 S. Ct. 2208, 36 ELR 20116 (2006) (multiple opinions discussing the meaning of "navigable waters" for purposes of federal jurisdiction under the Clean Water Act (CWA)); *Solid Waste Agency of N. Cook County v. Corps of Eng'rs*, 531 U.S. 159, 31 ELR 20382 (2001) (holding that assertion of federal jurisdiction over certain waters due to use or potential use by migratory birds goes beyond statutory authority, in part due to concerns of infringement on the states' traditional power over land use).

3. *E.g.*, *Palazzolo v. Rhode Island*, 533 U.S. 606, 32 ELR 20516 (2001) (regulatory takings claim based on state wetland regulations).
4. Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Feb. 2, 1971, T.I.A.S. No. 1084, 996 U.N.T.S. 245 (amended 1982 & 1987) [hereinafter Ramsar Convention].
5. Ramsar, *Contracting Parties to the Ramsar Convention on Wetlands*, http://www.ramsar.org/key_cps.htm (last visited Nov. 17, 2006).
6. See Ramsar Convention, *supra* note 4, art. 2.
7. Thirty-six countries have designated only one Ramsar site. See Ramsar, *The Ramsar List of Wetlands of International Importance* (Oct. 4, 2006), http://www.ramsar.org/index_list.htm (last visited Jan. 1, 2007) [hereinafter Ramsar List].
8. For example, the United Kingdom has designated 165 sites and Mexico has designated 65 sites. See *id.*
9. *Id.*

The Ramsar Convention's nonregulatory approach has led some to ask what benefits are associated with Ramsar designation. For example, the United States has a maze of federal, state, and local laws that protect wetlands,¹⁰ so does the international recognition of a site provide any additional returns? To answer this question, we surveyed all 22 U.S. Ramsar sites. Although the results varied from site to site, we found that Ramsar designation adds some value to all sites.

Part II of the Article will discuss the Ramsar Convention, the soft duties it imposes, and how it is implemented. Part III will then report on the survey results, offering examples of the benefits that Ramsar designation can provide. Finally, Part IV makes recommendations on how to strengthen the Ramsar Convention within the United States.

II. A Brief Overview of the Ramsar Convention

The Ramsar Convention was concluded in Ramsar, Iran, in February 1971.¹¹ The convention was the culmination of more than eight years of efforts by nongovernmental organizations (NGOs) and concerned countries.¹² The negotiations included representatives from western Europe and the former Soviet Union, a notable development during the Cold War.¹³ (Indeed, the Soviet invasion of Czechoslovakia in 1968 almost derailed the process.)¹⁴ With seven ratifications, the Ramsar Convention entered into force in 1975.¹⁵ The United States became a Party in 1987 during the second Reagan Administration.¹⁶

A. The Ramsar Convention at the International Level

As a first generation multilateral environmental agreement,¹⁷ the Ramsar Convention is a relatively short frame-

work convention. Not surprisingly, although the Ramsar Convention opens with the sweeping language of its noble purposes,¹⁸ the duties imposed on Ramsar Parties are general and permit a large degree of flexibility in their implementation. The "three pillars," or overarching obligations, are: (1) to designate sites as wetlands of international importance; (2) to apply a "wise use" concept to all wetlands within a Party's territory; and (3) to engage in international cooperation.¹⁹

To accomplish the first obligation, Article 2 of the Ramsar Convention calls on each Party to "designate suitable wetlands within its territory for inclusion in a List of Wetlands of International Importance."²⁰ The Ramsar Convention suggests that a wetland may be listed based on its "international significance in terms of ecology, botany, zoology, limnology or hydrology."²¹ As currently interpreted, a wetland may meet this significance threshold if it satisfies at least one of nine criteria; for example, a site could qualify if it contains a representative, rare, or unique wetland type, or if its biological diversity meets certain requirements.²² While the focus of the convention was initially on wetlands as waterfowl habitat, the listing criteria include provisions related to fish and other non-avian, wetland-dependent species.²³

To list a site, a Party must submit to the Ramsar Secretariat a completed Ramsar Information Sheet (RIS)²⁴ describing the proposed Ramsar site in detail.²⁵ After reviewing the

2004) (describing the Ramsar Convention as "the first of the modern global intergovernmental treaties on the conservation and sustainable use of natural resources"), available at http://www.ramsar.org/lib/lib_manual2004e.htm [hereinafter RAMSAR MANUAL].

18. The Preamble to the Ramsar Convention reads:

RECOGNIZING the interdependence of Man and his environment;
CONSIDERING the fundamental ecological functions of wetlands as regulators of water regimes and as habitats supporting a characteristic flora and fauna, especially waterfowl;
BEING CONVINCED that wetlands constitute a resource of great economic, cultural, scientific, and recreational value, the loss of which would be irreparable;
DESIRING to stem the progressive encroachment on and loss of wetlands now and in the future;
RECOGNIZING that waterfowl in their seasonal migrations may transcend frontiers and so should be regarded as an international resource;
BEING CONFIDENT that the conservation of wetlands and their flora and fauna can be ensured by combining far-sighted national policies with co-ordinated international action . . .

Ramsar Convention, *supra* note 4, pmbl.

19. RAMSAR MANUAL, *supra* note 17, at 13.

20. Ramsar Convention, *supra* note 4, art. 2.1.

21. *Id.* art. 2.2.

22. Ramsar, *Resolution IX.1 Annex B: Revised Strategic Framework and Guidelines for the Future Development of the List of Wetlands of International Importance*, http://www.ramsar.org/res/key_res_ix_01_annexb_e.htm (last visited Nov. 17, 2006).

23. *See id.*

24. To view the current Ramsar Information Sheet, see Ramsar, *The Ramsar Information Sheet on Wetlands of International Importance*, http://www.ramsar.org/ris/key_ris_index.htm (last visited Nov. 17, 2006).

25. The RIS should cover the following information:

factual data on surface area, altitude, wetland types, location, legal jurisdiction, etc.; justifications for the Criteria cited for determining international importance; and an array of additional data on, inter alia, hydrological values, flora and fauna,

10. *See generally* KIM DIANA CONNOLLY ET AL., WETLANDS LAW AND POLICY: UNDERSTANDING SECTION 404 (2005).

11. Accordingly, the convention's short form is derived from the name of the town. Ramsar is not an acronym.

12. G.V.T. MATTHEWS, THE RAMSAR CONVENTION ON WETLANDS: ITS HISTORY AND DEVELOPMENT (1993) (recounting that "[i]t took just over eight years of conferences, technical meetings and behind the scenes discussions to develop a convention text"), available at http://www.ramsar.org/lib/lib_hist_index.htm.

13. *Id.* ch. 3 (discussing Second European Meeting on Wildfowl Conservation).

14. *Id.* (discussing Third International Regional Meeting on the Conservation of Wildfowl Resources in Leningrad one month after the invasion).

15. By its terms, the Ramsar Convention would enter into force four months after seven Parties had ratified it. Ramsar Convention, *supra* note 4, art. 10. The initial seven Parties were Australia, Finland, Greece, Iran, Norway, South Africa, and Sweden. *See* Ramsar, *Contracting Parties in Order of Their Accession*, http://www.ramsar.org/key_cps_order.htm (last visited Nov. 17, 2006).

16. Larry Mason, former head of the Office of International Affairs, U.S. Fish and Wildlife Service (FWS), recalls that the United States became a Ramsar Party because it was felt that the association would be mutually beneficial: "Ramsar was an institution that would benefit from our experiences and one that would give us a valuable tool for raising public and government awareness regarding matters which we were having trouble getting elevated to front page attention." E-mail from Larry Mason, to Royal C. Gardner (Oct. 16, 2006) (on file with author). Although the U.S. nongovernmental organization community was supportive of U.S. participation in the Ramsar Convention, it was decided that it would be more politically palatable if state agencies took the lead in promoting a U.S. role. *Id.*

17. RAMSAR CONVENTION SECRETARIAT, THE RAMSAR CONVENTION MANUAL: A GUIDE TO THE CONVENTION ON WETLANDS 6 (3d ed.

submission, the Ramsar Secretariat will include an appropriate site on the List of Wetlands of International Importance.²⁶ A Party is then under the obligation “to promote the conservation of the site.”²⁷ Note that the duty is conservation, rather than preservation. The Ramsar Convention does not require that Ramsar sites be placed off-limits to human activity. Instead, the treaty recognizes the interdependence of people and wetlands and the benefits and services that wetlands provide.²⁸ Moreover, the Ramsar Convention makes clear that listing a site “does not prejudice [a Party’s] exclusive sovereign rights.”²⁹

Once a site is listed as a wetland of international importance, several other duties are created. If the ecological character of a Ramsar site “has changed, is changing or is likely to change as the result of technological developments, pollution or other human interference,” a Party must inform the Ramsar Secretariat.³⁰ Furthermore, if a party removes a site from the Ramsar List or reduces the site’s boundaries, the Ramsar Convention states that the Party “should” compensate for that action, perhaps by creating other “nature reserves.”³¹ A Party must also take steps to ensure that the RIS for each site in its territory is updated every six years.³²

As of January 2007, the Ramsar Parties have designated over 1,625 sites, from the Okavango Delta in Botswana (6.864 million hectares) to Hosnie’s Spring in Australia (1 hectare).³³ Yet the 2003-2008 Strategic Plan³⁴ laments that “over 500 (40% of the total) of [Ramsar] sites are in only 24 Contracting Parties.”³⁵ The plan goes on to conclude that “[m]uch greater effort is required to promote the listing of sites by many countries.”³⁶

land uses, socio-cultural factors, conservation measures, and potential threats . . .

RAMSAR MANUAL, *supra* note 17, at 35.

26. *Id.*

27. Ramsar Convention, *supra* note 4, art. 3.1.

28. *See id.* pmbl. (recognizing wetlands as “a resource of great economic, cultural, scientific, and recreational value”).

29. *Id.* art. 2.3.

30. *Id.* art. 3.2. Sites where the ecological character has changed, is changing, or is likely to change are listed in the Montreux Record. RAMSAR MANUAL, *supra* note 17, at 36. The Montreux Record is used “to identify priority sites for positive national and international conservation attention.” *Id.* The United States has submitted the Everglades for the Montreux Record. *See* Ramsar, *List of Wetlands of International Importance Included in the Montreux Record*, http://www.ramsar.org/key_montreux_record.htm (last visited Nov. 16, 2006).

31. Ramsar Convention, *supra* note 4, art. 4.2. A Party may remove a Ramsar site from the list or modify the site’s boundaries in “its urgent national interest.” In addition to creating other nature reserves, a Party may be able to satisfy the compensation requirement through restoration activities. *See* Royal C. Gardner, *Rehabilitating Nature: A Comparative Review of Legal Mechanisms That Encourage Wetland Restoration Efforts*, 52 CATH. U. L. REV. 573, 579 (2003).

32. *See* Resolutions of the Brisbane Conference, *Resolution VI.13, Submission of Information on Sites Designated for the Ramsar List of Wetlands of International Importance*, http://www.ramsar.org/res/key_res_vi.13.htm (last visited Dec. 10, 2006).

33. *See* Ramsar List, *supra* note 7. Hosnie’s Spring is “thought to have been established 120,000 years ago [and contains] some of the largest and oldest mangroves.” Ramsar, *The Annotated Ramsar List: Australia*, http://www.ramsar.org/profile/profiles_australia.htm (last visited Dec. 10, 2006).

34. Ramsar, *The Ramsar Strategic Plan 2003-2008*, http://www.ramsar.org/key_strat_plan_2003_e.htm.

35. *Id.* ¶ 32.

36. *Id.*

Beyond an obligation to designate at least one site as a wetland of international importance, the second primary obligation required of each Party by the Ramsar Convention is to “formulate and implement . . . planning so as to promote . . . as far as possible the wise use of wetlands in their territory.”³⁷ The “wise use” concept has been viewed a forerunner of, and compatible with, the notion of sustainable use or development.³⁸ A Party can satisfy the obligation of “wise use” by adopting national wetland legislation or policies, by implementing programs on wetland inventories, monitoring, research, and education, and by developing plans to “take action” at individual wetland sites.³⁹ The wise use concept applies to all wetlands in a Party’s territory, not just Ramsar sites.⁴⁰

The third pillar of the Ramsar Convention is international cooperation. Article 5 requires Parties to consult with each other over transboundary wetlands or shared water basins, codifying a principle that is now typically viewed as part of customary international law.⁴¹ International cooperation in the Ramsar context also contemplates: the sharing of experiences and data; providing financial assistance (by some countries) to assist with wetland conservation efforts; and promoting the sustainable harvest of wetland-related products in international trade.⁴² Another component of Ramsar’s international cooperation obligation is that Parties should participate in Ramsar organizations.

The Ramsar Parties meet every three years at a Conference of the Parties (COP) to exchange information, assess the convention’s implementation, and review the status of wetlands worldwide.⁴³ At each COP, the Parties will consider recommendations and resolutions that provide guidance to the Parties on a variety of wetland-related issues.

For example, at 2005 COP9 in Kampala, Uganda,⁴⁴ the Parties discussed a number of resolutions,⁴⁵ such as whether cultural values should be considered in the Ramsar designation process (the conclusion was yes, but a site must otherwise meet the ecological criteria to be listed),⁴⁶ the threat of

37. Ramsar Convention, *supra* note 4, art. 3.1.

38. *See* RAMSAR MANUAL, *supra* note 17, at 38 (stating that through the “wise use” concept, Ramsar “continues to emphasize that human use on a sustainable basis is entirely compatible with Ramsar principles and wetland conservation in general”); *see also* Ramsar, *Resolution IX.1 Annex A: A Conceptual Framework for the Wise Use of Wetlands and the Maintenance of Their Ecological Character*, available at http://www.ramsar.org/res/key_res_ix_01_annexa_e.htm (comparing Ramsar and Millennium Ecosystem Assessment terminology).

39. *See* RAMSAR MANUAL, *supra* note 17, at 38.

40. Interestingly, the Ramsar Convention contains a broad definition of wetlands: “[A]reas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres.” Ramsar Convention, *supra* note 4, art. 1.1.

41. *See* DAVID HUNTER ET AL., INTERNATIONAL ENVIRONMENTAL LAW AND POLICY 776-94 (2d ed. 2002).

42. *See* RAMSAR MANUAL, *supra* note 17, at 44-45.

43. *Id.* at 23.

44. *See generally* Ramsar, *The 9th Meeting of the Conference of the Contracting Parties*, http://www.ramsar.org/index_cop9_e.htm (last visited Nov. 17, 2006).

45. *See* Ramsar, *Resolutions of the 9th Conference of the Contracting Parties*, http://www.ramsar.org/res/key_res_ix_index_e.htm (last visited Nov. 20, 2006).

46. Ramsar, *Resolution IX.21: Taking Into Account the Cultural Value of Wetlands*, http://www.ramsar.org/res/key_res_ix_21_e.htm (last visited Nov. 17, 2006).

highly pathogenic avian influenza (the Parties agreed with the conclusion of other international organizations that the killing of migratory waterfowl is not an appropriate or effective response),⁴⁷ and whether Ramsar designation for Antarctic wetlands should be explored (the conclusion was no).⁴⁸

By tradition, the Ramsar COP operates by consensus.⁴⁹ Matters may be put to a vote in theory, but no Party has ever formally blocked consensus such that a vote on the merits of a resolution was triggered. (The closest that the COP came to such a vote involved the question as to in which regional meeting should Israel participate.)⁵⁰ Ramsar COP resolutions are largely aspirational and do not, by themselves, create binding international law.⁵¹ Nevertheless, the Parties take them very seriously.⁵² Occasionally, a Party that is not wholly in agreement with a resolution will insert a reservation or statement for the record, but as indicated above, no Party has formally objected to block consensus.⁵³

The Ramsar Secretariat, with a small staff located in Gland, Switzerland,⁵⁴ oversees the day-to-day administration of the convention. The Secretariat maintains an excellent website and keeps Parties (and other interested organizations and persons) informed about wetland developments throughout the world.⁵⁵ Although the Ramsar Secretariat works with the agencies of the United Nations, it is independent and not part of the United Nations.⁵⁶ It also has no regulatory authority. The Ramsar Secretariat's power lies in its ability to inform and persuade.

The Scientific and Technical Review Panel (STRP) is a subsidiary body that provides guidance to the Ramsar Secretariat, Ramsar Parties, and the Standing Committee (an executive committee that represents the Parties between

COPs).⁵⁷ The STRP is composed of wetland experts in particular areas, regional representatives, and representatives from the Ramsar Convention's International Organization Partners.⁵⁸ Representatives of other multilateral environmental agreements and NGOs are also invited to work with the STRP.⁵⁹ STRP members are appointed by an oversight committee and serve in their individual capacities.⁶⁰

Through approved regional initiatives, the Ramsar Convention also has a presence beyond the Secretariat's headquarters in Switzerland. For example, the Ramsar Regional Center for Training and Research on Wetlands in the Western Hemisphere (known by its Spanish acronym, CREHO) is located in Panama.⁶¹ In keeping with its mission to strengthen wetland management in this region, CREHO's activities include conducting training sessions for wetland managers and publishing a bimonthly newsletter.⁶²

At the country level, Recommendation 5.7 encourages the Parties to create national Ramsar Committees.⁶³ The composition and role of such domestic committees vary from country to country.⁶⁴ The committees may consist entirely of government representatives, entirely of NGO representatives, or some combination thereof. The Ramsar Secretariat suggests that the committees "should include as many sectors of government and representatives of stakeholders as possible."⁶⁵ The committees may be expected to provide advice on wetland policies, manage Ramsar sites, support Ramsar initiatives within the country, and review the national reports that each Party must submit prior to a COP.⁶⁶ The national committees can be a vehicle to foster stakeholder involvement at the local level, helping establish a link between wetland managers on the ground and the larger Ramsar community.

47. Ramsar, *Resolution IX.23: Highly Pathogenic Avian Influenza and Its Consequences for Wetland and Waterbird Conservation and Wise Use*, http://www.ramsar.org/res/key_res_ix_23_e.htm (last visited Nov. 17, 2006).

48. See *International Legal Developments in Review: 2005*, 40 INT'L LAW. 143, 203 (2006) (discussing draft resolution on synergies between the Ramsar Convention and the Antarctic Treaty).

49. See RAMSAR MANUAL, *supra* note 17, at 23.

50. Several Middle Eastern countries objected to Israel's membership in the Asian region. After a procedural vote (which was defeated), Israel remained part of the Asian region; however, Israel has decided to participate in the European region. See Royal C. Gardner, *Perspectives on Wetlands and Biodiversity: International Law, Iraqi Marshlands, and Incentives for Restoration*, COLO. J. INT'L ENVTL. L. & POL'Y 1, 3 n.12 (2003).

51. See *id.* at 2-3. Cf. *Natural Resources Defense Council v. EPA*, 464 F.3d 1, 36 ELR 20181 (D.C. Cir. 2006) (holding that decisions by the Parties to the Montreal Protocol on Substances That Deplete the Ozone Layer are not "law" under the Clean Air Act and are not enforceable in federal court).

52. See Gardner, *supra* note 50, at 7-9, for a discussion of the legal implications of consensus on nonbinding resolutions.

53. See, e.g., RAMSAR, CONFERENCE REPORT OF RAMSAR COP9, Annex IV (2005), http://www.ramsar.org/cop9/cop9_conf_rpt_e.htm (statement of Turkey's reservations regarding three resolutions); RAMSAR, CONFERENCE REPORT OF RAMSAR COP8, ¶ 89 (2002), available at http://www.ramsar.org/cop8/cop8_conf_rpt_e.htm (U.S. statement for the record expressing concern about climate change resolution).

54. See Ramsar, *The Staff of the Ramsar Secretariat*, http://www.ramsar.org/about/about_bureau.htm (last visited Nov. 17, 2006).

55. Visit Ramsar, <http://www.ramsar.org> (last visited Nov. 17, 2006), to view the website.

56. See RAMSAR MANUAL, *supra* note 17, at 6.

57. See Ramsar, *The Scientific and Technical Review Panel (STRP), Ramsar's Scientific Subsidiary Body*, http://www.ramsar.org/about/about_strp.htm (last visited Nov. 17, 2006).

58. The International Organization Partners are BirdLife International, International Water Management Institute, IUCN—The World Conservation Union, Wetlands International, and World Wide Fund for Nature International. See Ramsar, *Memoranda of Understanding and Cooperation With Other Conventions and International Organizations*, http://www.ramsar.org/index_mou.htm (last visited Nov. 17, 2006). See also Dave Pritchard, *Ramsar's Unique "Partners" System Keeps Pace With the Times*, http://www.ramsar.org/features/features_iops.htm (discussing role and value of Ramsar International Organization Partners).

59. See Ramsar, *Resolution IX.11: Revised Modus Operandi of the Scientific and Technical Review Panel (STRP)*, http://www.ramsar.org/res/key_res_ix_11_e.htm (last visited Nov. 17, 2006).

60. *Id.* The committee consists of the Chair and Vice Chair of the Standing Committee, the Chair and Vice Chair of the STRP, and (ex officio) the Ramsar Secretary General and Deputy Secretary General.

61. For a progress report on CREHO's activities from January to September 2006, see CREHO, *MAIN ACTIVITIES CARRIED OUT WITHIN THE FRAMEWORK OF CAPABILITIES STRENGTHENING FOR WETLANDS MANAGEMENT IN THE WESTERN HEMISPHERE* (2006), available at http://www.ramsar.org/creho/creho_report_2006_e.pdf.

62. For the inaugural issue of INFOWETLAND, visit http://www.ramsar.org/creho/creho_infol_e.pdf.

63. See Ramsar, *Resolution 5.6: The Wise Use of Wetlands, Annex A*, http://www.ramsar.org/key_guide_wiseuse_add_e.htm (last visited Nov. 17, 2006) (suggesting that establishment of national wetland committees can assist with meeting "wise use" obligations).

64. See Ramsar, *Ramsar Information Paper No. 9: Administrative Authorities & National Ramsar Committees*, http://www.ramsar.org/about/about_infopack_9e.htm (last visited Nov. 17, 2006).

65. RAMSAR MANUAL, *supra* note 17, at 29.

66. *Id.*

B. The Ramsar Convention Within the United States

The United States is an active member of the Ramsar Convention. It supports the convention financially through a voluntary contribution⁶⁷ and participates in regional meetings and COPs,⁶⁸ thus helping fulfill in part its duty of international cooperation. With respect to meeting its “wise use” obligation, the United States pointed in its most recent national report to the mosaic of federal, state, and local regulatory regimes, as well as various nonregulatory wetland restoration programs.⁶⁹ While many federal agencies cooperate on Ramsar issues in the United States, the U.S. Fish and Wildlife Service (FWS)⁷⁰ takes the lead with respect to technical and scientific issues, including overseeing the process for nominating a site to be designated as a wetland of international importance.⁷¹

The nomination process in the United States has both a scientific and a political component. A potential site first must satisfy at least one of the nine criteria identified by the Ramsar Parties.⁷² But the designation must also have political support. The FWS requires a letter in favor of designation from the local or state wildlife or natural resources agency, as well as a member of the U.S. Congress from the state where the site is located.⁷³ In addition, all property

owners must consent to the designation.⁷⁴ Anyone may nominate a site, but it is up to the federal government to decide whether it wishes for the designation to go forward to the Ramsar Secretariat.⁷⁵

The United States currently has 22 Ramsar sites in 17 different states, covering more than 1.3 million hectares (approximately 3.2 million acres).⁷⁶ The sites include what might be called the crown jewels in terms of wetlands: Everglades National Park,⁷⁷ the Okefenokee National Wildlife Refuge (NWR),⁷⁸ and the Cache-Lower White Rivers site⁷⁹ (where the ivory-billed woodpecker has reportedly been rediscovered).⁸⁰ Yet smaller sites, such as Bolinas Lagoon⁸¹ in California (445 hectares) and the Kawaiinui and Hamakua Marsh Complex⁸² in Hawaii (414 hectares), are also listed. Many U.S. Ramsar sites are part of the national wildlife refuge system or are otherwise federally protected lands, but some sites are a combination of state and federal, and even privately owned, property. A common thread, however, is that each of the sites is a remarkably special wetland system.

67. The United States characterizes its payments as a voluntary contribution, which covers 22% of Ramsar's core budget. See Ramsar, *Resolution IX.12: Financial and Budgetary Matters*, available at http://www.ramsar.org/res/key_res_ix_12_e.htm (last visited Dec. 10, 2006).

68. The U.S. delegation to the most recent COP in Uganda included representatives from the FWS, the U.S. Department of State, the U.S. Forest Service, and the U.S. Environmental Protection Agency (EPA). The delegation also included a representative from the International Association of Fish and Wildlife Agencies and the Chair of the U.S. National Ramsar Committee (USNRC), who served as the NGO liaison. See 9th Meeting of the Conference of the Parties to the Convention of Wetlands, *List of Participants* 40-41, http://www.ramsar.org/cop9/cop9_participants.pdf (last visited Nov. 17, 2006).

69. See generally Ramsar, *The 9th Meeting of the Conference of the Contracting Parties*, http://www.ramsar.org/cop9/cop9_natlrpts_index.htm (last visited Nov. 17, 2006).

70. In addition to its Ramsar duties, the FWS has duties pertaining to domestic wetlands including maintaining the National Wetlands Inventory. See FWS, *National Wetlands Inventory*, <http://www.fws.gov/nwi/> (last visited Nov. 17, 2006).

71. See FWS, *International Affairs: International Wetlands Program*, <http://www.fws.gov/international/ramsar/ramsar.htm> (last visited Nov. 17, 2006).

72. See Ramsar, *Criteria for Identifying Wetlands of International Importance*, http://www.ramsar.org/key_criteria.htm (last visited Nov. 17, 2006), for the nine criteria.

73. See RAMSAR CONVENTION ON WETLANDS, HOW TO GET A SITE DESIGNATED A WETLAND OF INTERNATIONAL IMPORTANCE (2005), available at <http://www.ramsarcommittee.us/documents/DesignationProcess.pdf>.

74. *Id.*

75. See U.S. Dep't of the Interior (DOI), *Policy on Wetlands of International Importance*, 55 Fed. Reg. 13856 (Apr. 12, 1990).

76. See Ramsar List, *supra* note 7.

77. National Park Service, U.S. DOI, *Everglades National Park*, <http://www.nps.gov/ever/> (last visited Nov. 17, 2006). See National Park Service, U.S. DOI, *International Designations*, <http://www.nps.gov/ever/parknews/internationaldesignations.htm> (last visited Nov. 17, 2006) (noting that the Everglades was designated a Wetland of International Importance on June 4, 1987).

78. FWS, *Okefenokee National Wildlife Refuge*, <http://www.fws.gov/okefenokee/> (last visited Nov. 17, 2006).

79. See A Directory of Wetlands of International Importance, Cache-Lower White Rivers, <http://www.wetlands.org/RSIS/COP9Directory/Directory/4US008.html> (last visited Nov. 17, 2006) (including the White River NWR, <http://www.fws.gov/whiteriver/>, and the Cache River NWR, <http://www.fws.gov/cacheriver/>, as well as three Wildlife Management Areas (WMAs): the Rex Hancock/Black Swamp WMA, Dagmar WMA, and Trusten Holder WMA).

80. Press Release, Audubon Arkansas, *Audubon Arkansas Board Takes First Step to Secure Global Status for the Cache-Lower White Rivers Important Bird Area* (June 10, 2005), available at <http://www.fws.gov/ivorybill/Cache-White-Global-PR-6-10-05.pdf>.

81. See generally Bolinas Lagoon Ecosystem Restoration, <http://www.bolinaslagoon.org/> (last visited Nov. 17, 2006); see also Bolinas Lagoon Ecosystem Restoration, *Background on Restoration Plans*, http://www.bolinaslagoon.org/plans_background/background.html (last visited Nov. 17, 2006) (noting that Bolinas Lagoon has been designated a Wetland of International Importance).

82. See FWS, *Profile 22 of United States Ramsar Sites*, <http://www.fws.gov/international/ramsar/rampro22.html> (last visited Nov. 17, 2006).



- | | |
|-------------------------------------|---|
| 1. Izembek NWR | 12. Pelican Island NWR |
| 2. Forsythe NWR | 13. Caddo Lake |
| 3. Okefenokee NWR | 14. Connecticut River Estuary |
| 4. Ash Meadows NWR | 15. Cache River-Cypress Creek Wetlands |
| 5. Everglades National Park | 16. Sand Lake NWR |
| 6. Chesapeake Bay Estuarine Complex | 17. Bolinas Lagoon |
| 7. Cheyenne Bottoms | 18. Quivira NWR |
| 8. Cache-Lower White Rivers | 19. Tomales Bay |
| 9. Horicon Marsh | 20. Tijuana River National Estuarine Research Reserve |
| 10. Catahoula Lake | 21. Grassland Ecological Area |
| 11. Delaware Bay Estuary | 22. Kawainui and Hamakua Marsh Complex |

Source: FWS

The U.S. National Ramsar Committee (USNRC) supports Ramsar-related initiatives within the United States and internationally.⁸³ The USNRC is composed of voting members (organizations that have an interest in wetland conservation) and observers (federal agencies such as the FWS, the U.S. Department of State, the U.S. Environmental Protection Agency (EPA), the U.S. Geological Survey, the U.S. Forest Service, and the National Oceanic and Atmospheric Administration).⁸⁴ Meetings are held several times per year, at various locations across the United States.⁸⁵

For several years, a frequent topic of discussion at USNRC meetings had become whether Ramsar designation

has provided any value to the various sites. We decided to get some concrete answers by conducting a detailed survey of people who work with U.S. Ramsar sites.⁸⁶

III. Results of the Benefits Survey of U.S. Ramsar Sites

Each Ramsar site in the United States was surveyed using an instrument developed in conjunction with survey experts.⁸⁷ The survey instrument contained three main sections. The first section focused on how, if at all, the site was identified with the Ramsar Convention or as a wetland of international importance. The second section inquired about the effects of

83. See generally U.S. National Ramsar Committee (USNRC), <http://www.ramsarcommittee.us> (last visited Nov. 20, 2006).

84. A complete list of USNRC members can be found at USNRC, *Members and Observers*, <http://www.ramsarcommittee.us/members.asp> (last visited Nov. 20, 2006).

85. See the calendar at USNRC, *Calendar of Events*, <http://www.ramsarcommittee.us/calendar.asp> (last visited Nov. 20, 2006), for a list of relevant events, including committee meetings.

86. A copy of the survey is reproduced in Appendix A.

87. Robert Oldendick, the Director of the Survey Research Lab at the University of South Carolina (USC) Institute for Public Service and Policy Research, and Professor, Department of Government and International Studies, and his staff provided significant assistance as we designed the survey instrument in fall 2005. See USC, *Survey Research Laboratory*, <http://www.ipspr.sc.edu/srl/default.asp> (last visited Nov. 20, 2006).

designation, asking about specific possible benefits, but also asking whether Ramsar designation had created any problems. Finally, the survey's third section sought information about how the USNRC could assist the sites. The surveys were mailed (with addressed, stamped return envelopes) and/or e-mailed to Ramsar site managers and other people affiliated with the sites.⁸⁸ Several responses were obtained through telephone interviews. In the end, we collected data from all 22 U.S. Ramsar sites.⁸⁹

As is detailed below, sites vary in their approaches to the issues raised by the survey. These variances are not surprising, given the distinctive nature of each site, as well as the nonregulatory nature of the Ramsar Convention. The responses demonstrate, however, that Ramsar designation does provide value to sites within the United States.

A. Public Identification With Ramsar

The first section of the survey explored each site's public identification with Ramsar. We recognize that there are many potential ways that particular sites can identify their affiliation with the Ramsar Convention, including signs, brochures and other documents, and websites. Almost all the sites report that they publicly identify their affiliation with the Ramsar Convention or their designation as a wetland of international importance in some way, but they do so by different means.⁹⁰

In terms of signs, some sites display in a visitors center or office the certificate or plaque that the site received upon designation.⁹¹ Some sites have signage noting the designation.⁹² There is no uniform design or size for the signage, however. Some, like Ash Meadows, have plans to incorporate Ramsar designation in future interpretive signage. At least two sites (Everglades National Park and Cache River-Cypress Creek in Illinois) have large wall panels about the Ramsar Convention at their visitors centers.

Some respondents called attention to the challenge of displaying signage at their particular sites. Sometimes there may not be a central location for an appropriate sign. Grassland Ecological Area in California, for example, is spread out over approximately ten square miles, with hundreds of different landowners. In Louisiana, Catahoula Lake has no facilities on the site.

Other sites have encouraged signage about the Ramsar connection beyond the site's borders. The state highway leading toward Sand Lake in South Dakota has two display panels that note the designation. Near Caddo Lake, Texas, local businesses have information boards about the site.

Likewise, in terms of brochures and other documents, many sites (but not all) have brochures that identify the area as a Ramsar site or wetland of international importance.⁹³ Several sites, such as the Edwin B. Forsythe NWR (Forsythe NWR) in New Jersey, reported that they included Ramsar designation in their comprehensive conservation plans or other management documents. Other sites have decided to reinforce the notion of the international designation by including a standard reference in press releases (Quivira NWR), by using the Ramsar logo on a quarterly newsletter (Cheyenne Bottoms), or by using the Ramsar logo on the site's letterhead (Tijuana River National Estuarine Research Reserve).

Finally, a number of sites include a Ramsar reference on their websites.⁹⁴ These references vary from a mention of Ramsar within a larger discussion of the site, to a focus on the Ramsar designation and a discussion about its significance.

B. Effects of Ramsar Designation

The second section of the survey explored each respondent's view of the effects of Ramsar designation on the particular site. Some of the benefits of Ramsar designation are difficult to quantify. Nevertheless, it is clear from the responses to the survey and in our follow-up discussions that there is a great deal of pride in being associated with a wetland of international importance. As one refuge manager stated: "I feel this designation is the highest honor a wetland area can receive and it reinforces the feeling of pride in the site, by the staff and supporters."⁹⁵

Does Ramsar designation contribute to more than pride and staff morale? In some countries, the Ramsar Convention is used to expand the authority of the national government over environmental matters,⁹⁶ and in others, Ramsar guidance has prompted the development of comprehensive national wetland policies and strategic plans.⁹⁷ Neither is the case in the United States. Yet we found that Ramsar designation can and does provide discrete benefits within the United States, particularly in the area of grants and

88. The survey was conducted over the course of 13 months, beginning with the initial requests in September 2005. All participants in the survey were provided an opportunity to comment on a draft of this Article.

89. Because survey responses are compiled and provided in Appendix B, footnote citations are not provided in this section for many statements attributed to survey responses.

90. Three sites reportedly lack any public identification with the Ramsar Convention: Catahoula Lake (which has no public facilities); Tomales Bay (which is generally adverse to signage out of concern about clutter, but is developing a signage plan for the watershed that will include Ramsar references); and the Kawainui and Hamakua Marsh Complex (which is the most recent designation).

91. These sites include Horicon Marsh, Izembeck NWR, Quivira NWR, and Sand Lake NWR.

92. These sites include Caddo Lake, Cheyenne Bottoms, Connecticut River Estuary, and Izembeck NWR.

93. Sites with brochures, bulletins, leaflets, or other publications mentioning the Ramsar designation include Ash Meadows NWR, Bolinas Lagoon, Cache-Lower White Rivers, Cache River-Cypress Creek Wetlands, Connecticut River Estuary, Delaware Bay Estuary, Everglades National Park, Grassland Ecological Area, Izembeck NWR, Okefenokee NWR, Quivira NWR, and Sand Lake NWR.

94. For example, websites for NWRs that are wetlands of international importance typically note the Ramsar designation. See, e.g., FWS, *America's National Wildlife Refuge System: Wetlands of International Importance*, <http://www.fws.gov/Refuges/habitats/ramsar.html> (last visited Dec. 10, 2006).

95. This comment came from the respondent for Quivira NWR. See also ROBERT L. FISCHMAN, *THE NATIONAL WILDLIFE REFUGES: COORDINATING A CONSERVATION SYSTEM THROUGH LAW* 29-30 (2003) (discussing international recognition of refuge sites, including under the Ramsar Convention).

96. See J. Finlay-Jones, *Aspects of Wetland Law and Policy in Australia*, 5 *WETLANDS ECOLOGY & MGMT.* 37, 38-42 (1997) (discussing how the national government of Australia expands its authority over domestic environmental matters through international agreements).

97. See Michael Bowman, *The Ramsar Convention on Wetlands: Has It Made a Difference?*, in *YEARBOOK OF INTERNATIONAL CO-OPERATION ON ENVIRONMENT AND DEVELOPMENT* 2002/2003, at 64-65 (Olav Schram Stokke & Oystein B. Thommessen eds., 2002), available at http://www.ramsar.org/key_law_bowman2.htm. For a list of national wetland policies and strategic plans, visit Ramsar, *The Wise Use Resource Library*, http://www.ramsar.org/wurc/wurc_library.htm#nwps (last visited Nov. 20, 2006).

land acquisition, support for protection of the site and surrounding areas, and to a lesser extent, scientific research and ecotourism.

1. Increased Funding Opportunities

The most commonly identified benefit related to funding opportunities. Many of the sites require active management and protection; sometimes the sites need restoration projects. In a time of heavy competition for public and private monies, the ability to emphasize that the site is a wetland of international importance has assisted, or is perceived to assist, with funding. Eighteen of the sites reported that Ramsar designation had helped with grant applications or other funding requests.⁹⁸

Indeed, one respondent for Horicon Marsh characterized the funding aspect as “perhaps the biggest benefit,” noting that the designation is “commonly cited” in grant applications. Forsythe NWR “always mention[s] the refuge’s Ramsar status” when making land acquisition requests through the U.S. Department of the Interior’s (DOI’s) Land and Water Conservation Fund.⁹⁹ Similarly, Everglades National Park uses the designation, along with others, to reinforce the site’s ecological significance when applying for grants.

Although several of the respondents assumed that the designation helped with funding, they noted that it is sometimes difficult to measure. Other respondents, however, were able to identify specific projects. For example, at Cheyenne Bottoms, one respondent stated that Ramsar designation, although not the lead reason, helped secure \$6 million from a state general fund to renovate the site and visitors center, along with matching funds from North American Wetlands Conservation Act grants.¹⁰⁰ The respondent for the Connecticut River Estuary reported that Ramsar designation assisted with locating funding from several different sources, including the Long Island Sound Futures Fund, which the National Fish and Wildlife Foundation administers.¹⁰¹

Two respondents noted that Ramsar designation played an important role in obtaining funding for restoration projects. Ramsar status helped convince the U.S. Army Corps of Engineers (the Corps) to proceed with a restoration project at Blackwater NWR,¹⁰² which is part of the Chesapeake Bay Ramsar site. At Catahoula Lake, the Corps conducted a restoration project that focused on woody vegeta-

tion control and improved drainage patterns during annual summer drawdowns.¹⁰³

Ramsar status can also be helpful in terms of grants sought by groups that support particular sites. Quivira NWR reported that Ramsar designation helped a “Friends” group receive financial support from companies and local communities. Likewise, Delaware Bay stated that conservation organizations such as The Nature Conservancy and Delaware Wildlands used the Ramsar designation successfully to obtain North American Wetlands Conservation Act grants.

2. Support for Protection of the Site and Surrounding Areas

Unlike many wetlands, U.S. Ramsar sites currently are not under threat of imminent development. (Historically, of course, many Ramsar sites were developed to the detriment of their ecological resources; consider, for example, the plight of the Everglades.)¹⁰⁴ Nevertheless, Ramsar sites are similar to other wetlands in at least one regard. They can be adversely affected by development activities that take place off-site. Ramsar designation has been identified as assisting in blunting these off-site threats in three ways.

One way to protect a site from off-site threats is to expand the site itself or to increase the buffer area between the site and development activities. Accordingly, a helpful benefit of Ramsar designation (related to the benefit of increased funding opportunities) is that it can make acquisition of surrounding lands easier. A respondent from Cheyenne Bottoms noted that the international designation helped create interest in the area that led to The Nature Conservancy acquiring 7,300 acres, which is now part of the site.¹⁰⁵ Forsythe NWR reported that Ramsar designation contributed to the state of New Jersey and Ocean County purchasing properties within an area approved for refuge acquisition when the FWS lacked funds.¹⁰⁶ Similarly, Delaware Bay stated that Ramsar designation led in part to acquisitions by conservation organizations in the Milford Neck area along the Delaware Bay shore, as well as helping Cape May NWR secure properties by assigning wetland parcels in Cape May a higher rank within the FWS’ Land Acquisition Priority System.¹⁰⁷ Ramsar designation can even encourage the transfer of property from one governmental agency to another agency that will likely be a more devoted steward, as Caddo Lake illustrates. There, an unused military installation near the Ramsar site was

98. The four negative responses on this point were from: Izembeck NWR (unknown); Okefenokee NWR (no); Pelican Island (not aware of any grants it helped with, but may be of secondary value); and Tijuana River National Estuarine Research Reserve (not yet).

99. *Cf.* U.S. FWS, FY 2007 LAND AND WATER CONSERVATION FUND, LAND ACQUISITION PRIORITY SYSTEM COMPONENT SCORES (2005) (listing Forsythe NWR at number 28 out of 128) [hereinafter 2007 LAPS SCORES]. See *infra* notes 147-53 and accompanying text.

100. For a discussion of the North American Wetlands Conservation Act, see *infra* notes 137-46 and accompanying text.

101. For general information about the Long Island Sound Futures Fund, see National Fish & Wildlife Foundation, <http://www.nfwf.org/programs/longisland/index.cfm> (last visited Dec. 10, 2006).

102. See National Aquarium in Baltimore, *Restoration Efforts at Blackwater National Wildlife Refuge Declared a Success*, http://www.aqua.org/news_pr_blackwater.html (last visited Dec. 10, 2006).

103. The respondent stated that the project was a Water Resources Development Act §1135 project. See *infra* notes 160-64 and accompanying text, for a further discussion and recommendations.

104. See, e.g., MICHAEL GRUNWALD, *THE SWAMP: THE EVERGLADES, FLORIDA, AND THE POLITICS OF PARADISE* (2006).

105. See Cheyenne Bottoms, *About The Nature Conservancy Preserve at Cheyenne Bottoms*, http://www.cheyennebottoms.net/about_tnc.html (last visited Nov. 16, 2006).

106. The properties were purchased under New Jersey Department of Environmental Protection’s (NJDEP’s) Green Acres Program (see NJDEP, *Green Acres Program*, <http://www.state.nj.us/dep/greenacres/> (last visited Nov. 20, 2006)) and Ocean County’s Open Space Program.

107. The Land Acquisition Priority System establishes the rankings within the Land and Water Conservation Fund. See Richard J. Fink, *The National Wildlife Refuges: Theory, Practice, and Prospect*, 18 HARV. ENVTL. L. REV. 1, 85 (1994). See *infra* notes 147-53 and accompanying text, for a further discussion and recommendations.

transferred to the FWS and is now the site of the Caddo Lake NWR.¹⁰⁸

In terms of site protection, a second way Ramsar designation can help reduce off-site threats is by encouraging partnerships that focus on watershed conservation efforts. The Cache River Wetlands Joint Venture Partnership (JVP) illustrates this point. The JVP, which “was formed in 1991 in recognition of the international significance of the Cache River Wetlands,”¹⁰⁹ includes federal and state agencies, as well as Ducks Unlimited and The Nature Conservancy. The JVP applied for Ramsar designation for the Cache River and Cypress Creek Wetlands Area,¹¹⁰ which was granted in January 1994, and is now emphasized in its publications.¹¹¹ The JVP’s primary objective is “protecting and restoring a 60,000-acre wetland corridor along 50 miles of the Cache River.”¹¹² Working with local organizations on research and planning, restoration, the reduction of sediments, and education and outreach efforts, the JVP has assisted in raising more than \$50 million and protecting almost 36,000 acres.¹¹³

The third way that Ramsar designation can be useful in dealing with off-site threats is its invocation during planned development. Keeping in mind that Ramsar is not regulatory, it has nevertheless been employed to defeat (or influence) proposed projects that threatened a Ramsar site’s ecological integrity. For example, when DuPont announced its plan to strip mine for titanium near the Okefenokee Swamp, the Ramsar designation helped bolster public opposition (both domestically and abroad). DuPont eventually abandoned its mining project and donated 16,000 acres to the Conservation Fund.¹¹⁴ Opponents to a proposed ethanol plant in Horicon invoked Horicon Marsh’s status as a wetland of international importance to convince the town council to reject the plan.¹¹⁵ A respondent from Tomales Bay indicated that the Ramsar designation is relied on in local zoning meetings to remind decisionmakers that off-site actions can have consequences within the site.

Sometimes it is even necessary to invoke the Ramsar designation to protect the site from within. For example, site managers of White River NWR and Cache River NWR—part of the Cache-Lower White Rivers Ramsar site—effectively used the designation to help hold at bay a proposed 120-mile navigation project within the ref-

uges on the White River.¹¹⁶ At each public meeting or speaking opportunity, they pointed out that the area was a wetland of international importance, explained why it was deserving of this recognition, and noted the likely impacts of the navigation project. It has thus far not been funded.

Of course, Ramsar designation is not intended to restrict all projects within a certain radius, and projects that can negatively affect a site do move forward. Residential development near Blackwater NWR¹¹⁷ and a wind farm near Horicon Marsh¹¹⁸ are but two examples. The Ramsar designation, however, should be viewed as an additional tool in educating the public and decisionmakers about the risks associated with nearby projects. Sometimes it tips the balance against a project or activity, but sometimes it does not.

3. Science and Tourism

Ramsar designation typically leads to increased attention to a site, which can lead to scientific activity and/or increased tourism. Both of these can benefit the sites and their surrounding communities.

Sometimes attention can be translated into increased interest by the scientific community. Izembeck NWR in Alaska noted that Ramsar designation contributed to eel grass studies, waterfowl disturbance studies, and Brant studies. In Connecticut, the state Department of Environmental Protection and the federal EPA have allocated funds for research and monitoring of the Connecticut River Estuary Ramsar site. Catahoula Lake reported that the U.S. Geological Survey has been conducting vegetation and lakebed elevation studies, and Ducks Unlimited used satellite imagery to produce vegetation maps. Ramsar designation was credited, in part, as the impetus for these projects.

The data provided by the studies of Ramsar sites should likely reinforce the other benefits offered by Ramsar designation. Increased knowledge should help educate the public and decisionmakers about the importance of a site, thus leading to increased support for its protection. The scientific efforts, along with public outreach, at Caddo Lake clearly illustrate this potential. The Caddo Lake Institute has been studying the site for 10 years, examining water quality and bald cypress growth, survival, and productivity. It is also conducting a comprehensive study of environmental flows of the three major streams that replenish Caddo Lake.¹¹⁹ The Caddo Lake Institute is using this information to attempt to secure through the Texas Legislature water rights for the site.¹²⁰

108. See FWS, DOI, Establishment of Caddo Lake National Wildlife Refuge, 65 Fed. Reg. 62748 (Oct. 19, 2000).

109. The Cache River Wetlands Joint Venture, *A Watershed Scale Restoration Project*, at 1, <http://www.fws.gov/midwest/CypressCreek/PDFS/cachereport2005.pdf> (last visited Jan. 9, 2007) [hereinafter Cache River JVP].

110. Wetlands International, *Ramsar Sites Information Service*, <http://www.wetlands.org/rsis/> (last visited Jan. 9, 2007).

111. E.g., Cache River Symposium, *Advancing the Restoration of an Internationally Significant Wetland Ecosystem* (2006) (program for two-day conference held at John A. Logan College in Carterville, Illinois).

112. Cache River JVP, *supra* note 109, at 2.

113. *Id.* at 2-3 (stating that “this restoration effort had received more than \$30 million in public and private funding for land acquisition and \$10 million for habitat restoration, research projects, and environmental education in the watershed,” along with another \$10 million matching funds and in-kind contributions).

114. See Editorial, *Environment Has a Friend in DuPont*, ATLANTA J. & CONST., Aug. 28, 2003, at A18.

115. See GarveyBlog by Ed Garvey, *Citizens of Horicon Win!* (Aug. 28, 2003), <http://www.fightingbob.com/weblog.cfm?PostID=213> (last visited Nov. 20, 2006).

116. See *Arkansas’s Liquid Gold: People, Thirsty Fields, Delicate Environment All Compete for Water*, ARK. TIMES, Nov. 2, 2001, at 12.

117. See Dan Rodricks, *More Is Not Necessarily Better for the Shore*, BALTIMORE SUN, July 6, 2006, at 1B (discussing residential development near Blackwater NWR). But cf. Jen DeGregorio, *Blackwater Developer Vows to Build Despite State Ruling*, DAILY RECORD, Oct. 6, 2006, available at http://www.findarticles.com/p/articles/mi_qn4183/is_20061006/ai_n16773961.

118. See Thomas Content, *FAA Green-Lights Wind Power Plans*, MILWAUKEE J. SENTINEL, Sept. 16, 2006, at D1.

119. The Ramsar STRP is also studying the issue of environmental flows at the request of the Parties. See Ramsar, *13th Meeting of the Scientific and Technical Review Panel—Report*, ¶ 106, http://www.ramsar.org/strp/strp13_report.htm (last visited Dec. 10, 2006).

120. See Rick Lowerre, *The Promise of a Brighter Future Is Here for Caddo Lake, Wetlands*, <http://caddodefense.org/pdf/CLeditorial6171>.

The survey also asked Ramsar sites whether the designation contributed to an increase in tourism. Most noted that the vast majority of visitors were unaware of a particular site's international status and that it was difficult to quantify Ramsar's impact. Some, such as Izembeck NWR, stated that Ramsar was responsible for a limited number of visitors. The most positive report came from Caddo Lake, which credited Ramsar designation with the creation of new tourism-related businesses. Other countries that are Parties to the Ramsar Convention have focused on ecotourism for Ramsar sites,¹²¹ and tourism has been a focus of the Ramsar Secretariat in recent years.¹²²

4. Problems Associated With Ramsar Designation

The survey expressly asked whether Ramsar designation had caused any problems for the sites. The responses almost uniformly indicated that affiliation with the Ramsar Convention did not create any difficulties for sites. A few respondents did note the burden of having to update the RIS and other paperwork requirements¹²³ (one assumes that the survey underlying this Article was included in these comments). One respondent also observed that the only negative comment he had heard was from a couple who asked whether the United Nations was involved in the management of the site.¹²⁴ The answer is, of course, no. The Ramsar Convention is not a U.N. treaty, and the Parties retain complete sovereignty over the Ramsar sites within their respective territories.

In sum, our review of the survey results confirmed that the respondents are very proud of their Ramsar sites and the sites' international status. Moreover, the surveys confirmed that Ramsar designation had yielded some identifiable benefits. While the benefits may vary from site to site, it is clear that Ramsar designation is more than a mere award or prize. Convinced of the utility of Ramsar designation and its potential, we would like to offer in the last section several recommendations that could help strengthen implementation of the Ramsar Convention within the United States.

IV. Recommendations to Strengthen Ramsar Within the United States

Making the Ramsar Convention more relevant and effective within the United States will require action on a number of different levels, from the federal government to the site managers and local communities. Our recommendations are relatively simple and do not call for a significant increase in spending; rather, they suggest a reordering of priorities within existing programs. Moreover, many of the recommendations are mutually reinforcing. As detailed below, we have six suggestions, set forth below in no particular order

of importance. They are: (1) continue engagement at the international level; (2) promote the Ramsar designation; (3) maintain, establish, or increase preferences for grants for environmental projects in or associated with Ramsar sites; (4) establish preferences for restoration work within Ramsar sites; (5) update nomination procedures; and (6) celebrate and support World Wetlands Day.

A. Continue Engagement at the International Level

The United States should remain an active participant in the Ramsar Convention at the international level. It is important for many reasons, both environmental and strategic,¹²⁵ for the United States to maintain multilateral relationships, especially in light of the U.S. absence from other multilateral environmental agreements, such as the U.N. Convention on the Law of the Sea,¹²⁶ the Convention on Biological Diversity,¹²⁷ the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal,¹²⁸ and the Kyoto Protocol.¹²⁹ In a world that requires alliances to battle many global challenges, it would be shortsighted to retreat from this forum.

Yet the United States is not represented solely by the U.S. government in Ramsar bodies. U.S.-based NGOs, such as Ducks Unlimited, The Nature Conservancy, and the Society of Wetland Scientists, have signed memoranda of cooperation with the Ramsar Secretariat.¹³⁰ These organizations have observer status at Ramsar meetings and should continue to participate in the development of Ramsar policies and programs.¹³¹

125. Cf. Royal C. Gardner, *International Assistance, Sustainable Development, and the War on Terrorism*, 32 ELR 10681 (June 2002) (reprinted as *Official Development Assistance*, in STUMBLING TOWARD SUSTAINABILITY 149 (John Dernbach ed., Env'tl. L. Inst. 2002)).

126. United Nations Convention on the Law of the Sea, Dec. 10, 1982, 33 I.L.M. 1309.

127. Convention on Biological Diversity, June 5, 1992, 1760 U.N.T.S. 143.

128. Basel Convention on Transboundary Movements of Hazardous Wastes and Their Disposal, Mar. 22, 1989, 28 I.L.M. 649.

129. Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, U.N. Doc. FCCC/CP/1997/7/Add.2, available at http://unfccc.int/kyoto_protocol/items/2830.php.

130. Memorandum of Cooperation Between The Bureau of the Convention on Wetlands (Ramsar, Iran, 1971) and Ducks Unlimited (July 21, 2001), http://www.ramsar.org/moc/key_du_moc.htm (last visited Nov. 20, 2006); Memorandum of Cooperation Between The Bureau of the Convention on Wetlands (Ramsar, Iran, 1971) and The Nature Conservancy (Sept. 26, 2000), available at http://www.ramsar.org/moc/key_natureconservancy_moc.htm (last visited Nov. 20, 2006); Memorandum of Cooperation Between The Convention on Wetlands (Ramsar, Iran, 1971) and the Society of Wetland Scientists (Oct. 4, 2004), http://www.ramsar.org/moc/key_sws_moc_2004.htm (last visited Nov. 20, 2006).

Even individuals can make Ramsar connections at the international level, whether or not they are affiliated with a particular Ramsar site. For example, a site manager from the Tijuana River Estuary site recently traveled to Panama to take part in a wetland training session sponsored by CREHO. Francisco Abarca, the International Projects Coordinator of the Arizona Fish and Game Department, provides another example, even though there are no Ramsar sites in his state. He organizes an annual wetland training course in Mexico and ensures that Ramsar issues are covered from a Mexican and U.S. perspective. See Environmental Law Institute, *National Wetlands Awards*, <http://www2.eli.org/nwa/nwaprogram.htm> (last visited Nov. 20, 2006).

131. Representatives from all three organizations attended the most recent STRP meeting. See Ramsar, *13th Meeting of the Scientific and*

pdf (last visited Dec. 10, 2006) (reprint of editorial that appeared in the *Marshall News Messenger*).

121. See, e.g., Ministry of the Environment, Government of Japan, *Launch of Ecotourism Project at Ramsar Sites*, <http://www.env.go.jp/en/headline/headline.php?serial=83> (last visited Jan. 9, 2007).

122. Ramsar, *Wetlands and Tourism—Special Focus*, http://www.ramsar.org/about/about_sustainabletourism.htm (last visited Nov. 20, 2006).

123. The respondents from Ash Meadows NWR and Okefenokee NWR noted this point.

124. A respondent from Horicon Marsh recounted this conversation.

B. Promote the Ramsar Designation

Although there is great pride among those who work at or live near a Ramsar site and who are aware of its designation, frequently the international status of the site is not well known. Ramsar designation can be better promoted in several ways. As the survey results indicated, signage at Ramsar sites is an area that needs improvement.

The decision to designate a site rests with the federal government, but the award does not come with a guarantee of money, nor should it, necessarily. In recognition of the award, however, the federal government should consider funding uniform Ramsar signage.¹³² While signage would not be a large expense, it has the potential to send a big message. Signs tell the world that a particular site has been deemed internationally valuable and that it is part of a coordinated network. Uniform signs would underscore that message.

Even in those situations where on-site signage is not practicable, the Ramsar designation can be emphasized in other ways. At the Ramsar site, guides and educators can incorporate a discussion of the designation in brochures and tours. Or, like the Tijuana River Estuary, site managers can include the Ramsar logo on their letterhead and publications. It would be a small but persistent reminder of the site's status and value.¹³³

Furthermore, there are opportunities to highlight Ramsar designation off-site. The highways or roads leading to a site can note the Ramsar designation. In Kansas, for example, Barton County has received a federal grant for "interpretive signs along the National Wetlands and Scenic Byway,"¹³⁴ which is an excellent opportunity to call attention to the international status of the area's two Ramsar sites, Cheyenne Bottoms and Quivira NWR. Moreover, local chambers of commerce and tourism centers can be educated about the significance of Ramsar designation and then encouraged to pass this information on to the public. As Caddo Lake has demonstrated, even businesses can be shown that it is in their interest to highlight the Ramsar site within their communities.

Site managers should not be expected to bear the burden of promoting the Ramsar designation alone. There should be readily available wells of support from which to draw, if certain obligations are pointed out. A site could not have been designated without local and state support; the FWS re-

quires it.¹³⁵ The turnover in local and state agencies may call for new personnel to be periodically reminded of their agency's prior commitment and support. Furthermore, the local chapters of major NGOs such as Ducks Unlimited, The Nature Conservancy, and Society of Wetland Scientists should be enlisted in promoting Ramsar sites. Indeed, these organizations have already committed to do so in their agreements with the Ramsar Secretariat.¹³⁶ Some local chapters do take an active role in promoting and protecting Ramsar sites (as we have seen with Ducks Unlimited and The Nature Conservancy in the Cache River JVP and The Nature Conservancy in Cheyenne Bottoms), but others should be encouraged as well.

The promotion of the Ramsar designation is not an end in itself, of course. As the Pelican Island survey noted: "Education and outreach can help bridge the gap to publicize Ramsar and what the designation means and what's being done to protect the site." Thus, promotion is a means to educate and remind the local community and decisionmakers about the value of the site in particular and wetlands in general—and the need to protect both.

C. Maintain, Establish, or Increase Preferences for Grants for Environmental Projects in or Associated With Ramsar Sites

Many respondents reported that Ramsar designation assisted with obtaining grants, and some even offered examples. Yet our review of several current grant and assistance programs found that they do not always give credit to Ramsar sites because of the international designation. This is not to say that the Ramsar designation did not influence the award of the grants, but its utility in quantitative scoring is not always clear. Accordingly, we recommend that Ramsar sites and associated areas receive a quantifiable preference when scoring is used in funding decisions.

Consider, for example, the North American Wetlands Conservation Act (NAWCA).¹³⁷ NAWCA specifically refers to the Ramsar Convention, suggesting that NAWCA helps satisfy U.S. obligations under the treaty.¹³⁸ To further wetlands conservation in North America, NAWCA establishes a grant program to fund wetland-related projects.¹³⁹ Grants are based on a combination of a proposal's score and ranking. A proposal's score is the average (from 0 to 100) of the scores given by 11 evaluators who review the answers to 7 technical questions. The ranking is a regional priority list determined by the board of a "Joint Venture" (which can consist of representatives from the four major North American migratory bird initiatives, government agencies, land trusts, and even corporations).¹⁴⁰ Until recently, the technical questions included a specific reference to "specially recognized sites," including Ramsar

Technical Review Panel—Participants, http://www.ramsar.org/strp/strp13_participants_list.htm (last visited Dec. 10, 2006).

132. If there was concern about adequate local support, a requirement for some level of matching funds might be added.

133. The Connecticut Department of Environmental Protection (DEP) is considering an innovative way to promote its Ramsar connections by creating several Earthcache sites within its Ramsar complex. The Geological Society of America describes an Earthcache as:

[A] special place that people can visit to learn about a unique geoscience feature or aspect of our Earth. Earthcaches include a set of educational notes and the details about where to find the location (latitude and longitude). Visitors to Earthcaches can see how our planet has been shaped by geological processes, how we manage the resources and how scientists gather evidence to learn about the Earth.

Earthcache, *GSA Earthcaching*, <http://www.earthcache.org/> (last visited Nov. 20, 2006). The Connecticut DEP is also exploring the minting of the first commemorative Ramsar geocoin.

134. *Better Signage for Wetlands Area*, KANSAS CITY STAR, Sept. 25, 2006, at B3.

135. See *supra* notes 72-75, for a discussion of the designation process.

136. See *supra* note 130.

137. 16 U.S.C. §§4401-4414.

138. *Id.* §4401(a)(15).

139. *Id.* §4404 (listing criteria for approval of wetland conservation projects).

140. The Ramsar designation can also come into play in the Joint Venture's ranking, and the justification for a ranking should elaborate on a proposal's connection with a Ramsar site.

sites; accordingly, Ramsar designation provided a quantitative benefit in the scoring.¹⁴¹

Beginning in 2006, however, the North American Wetlands Conservation Council eliminated the reference to Ramsar sites.¹⁴² While Ramsar designation still can be a positive factor in the grant awards, the current scoring criteria do not expressly give points for Ramsar sites as Ramsar sites. For example, 15 points may be given in the category of “North American Geographic Priority Wetlands as Recognized by Major Migratory Bird Conservation Plans.”¹⁴³ Within that category, up to nine points can be assessed if the project will be within “national priority wetland areas.”¹⁴⁴ Another six points can be given if the project is within “regionally important wetland areas.”¹⁴⁵ Ramsar site information is typically highlighted in the submitted proposals, and NAWCA evaluators are aware of the significance of these sites. While a proposal in or near a Ramsar site could earn the maximum points in this category, much is left up to the discretion of the individual evaluators as to whether a Ramsar designation matters at all. Thus, we recommend that the instructions should be clarified to note that Ramsar sites are “national priority wetland areas” and “regionally important wetland areas.”¹⁴⁶ Such an approach would be entirely consistent with NAWCA and the U.S. government’s international obligation to promote the conservation of its Ramsar sites.

In contrast, the scoring for the Land and Water Conservation Fund has retained a provision giving points to Ramsar sites.¹⁴⁷ The fund is used by the FWS, other federal agencies, and state and local governments to acquire recreational lands.¹⁴⁸ To establish internal priorities, the FWS develops a Land Acquisition Priority List based on the criteria of the Land Acquisition Priority System (LAPS). The LAPS criteria focus on lands related to fisheries and aquatic resources, endangered and threatened species, bird conservation, and ecosystem conservation.¹⁴⁹ Ramsar designation can come into play in two sections of the LAPS application: in the nar-

rative describing the project¹⁵⁰; and in the quantitative scoring.¹⁵¹ Within the ecosystem conservation criterion, proposals can receive up to 20 points for “national designations.” Each designation is worth 5 points, and Ramsar designation is included on the list.¹⁵² In the 2007 LAPS Component Scores at least five acquisition projects in the top 35 (out of a total of 128) had connections with Ramsar sites.¹⁵³

The Wetlands Reserve Program (WRP)¹⁵⁴ provides another opportunity to enhance and protect areas near Ramsar sites. The Natural Resources Conservation Service (NRCS) of the U.S. Department of Agriculture administers the WRP,¹⁵⁵ which pays farmers to restore wetlands and place conservation easements on them.¹⁵⁶ Some NRCS offices have already used the WRP to benefit Ramsar sites and nearby wetlands. For example, the Illinois NRCS states on its website that its efforts focus on “areas that were of historical wetlands importance,” such as the Cache River, and notes the site’s Ramsar designation.¹⁵⁷

Yet the focus of WRP can vary from state to state, as do the ranking criteria, and proposed projects near Ramsar sites generally do not seem to be accorded additional points, at least due to the Ramsar designation. The Georgia WRP ranking system gives points for proximity to federally protected lands and wetland mitigation banks, but not specifically for an internationally important site, such as the Okefenokee.¹⁵⁸ Similarly, in Kansas, the WRP ranking worksheet gives points for benefits to threatened and endan-

141. See, e.g., 2003 Technical Assessment Question 3 (listing specially recognized sites) (on file with author).

142. See North American Wetlands Conservation Act, *United States Standard Grant, 2006 Proposal Instructions*, at 3, <http://www.fws.gov/birdhabitat/Grants/NAWCA/Standard/US/files/ProposalInstructions.pdf> (last visited Jan. 9, 2007) (noting that Technical Assessment Question had been modified).

143. *Id.* at 17, 19.

144. *Id.* The proposal must describe how it will address “national and/or continental geographic priorities for wetland habitat conservation as outlined in the four major migratory bird conservation plans (Partners in Flight (songbirds), U.S. Shorebird Conservation Plan, North American Waterbird Conservation Plan and the North American Waterfowl Management Plan).” *Id.* at 19.

145. *Id.* at 17, 19.

146. Thus, a proposal would be requested to describe how it would address priorities for wetland habitat conservation as outlined in the four major migratory bird conservation plans or as related to a U.S. Ramsar site.

147. See U.S. FWS, STRATEGIC GROWTH, LAND ACQUISITION PRIORITY SYSTEM, FISCAL YEAR 2006—BUDGET CYCLE (2004) [hereinafter LAPS FY 2006].

148. See generally Jeffrey A. Zinn, Land and Water Conservation Fund: Current Status and Issues (CRS Report, June 10, 2005), available at <http://www.nationalaglawcenter.org/assets/crs/RS21503.pdf>.

149. See generally LAPS FY 2006, *supra* note 147; 2007 LAPS SCORES, *supra* note 99.

150. LAPS FY 2006, *supra* note 147, at viii: (“List documents or authorities that identify the resource’s national significance. For example: Important Bird Area, North American Waterfowl Management Plan, RAMSAR site.”). The project summary is worth a maximum of 50 points. Each of the four criteria (fisheries and aquatic resources, endangered and threatened species, bird conservation, and ecosystem conservation) is worth 200 points. Thus, the highest possible LAPS component score is 850 points.

151. *Id.* at 74.

152. *Id.* at 77 (also listing Wilderness Area, Western Hemisphere Shorebird Reserve Network site, North American Waterfowl Management Plan Joint Venture Focus Area, Wild and Scenic River, National Seashore, National Estuarine Reserve, National Marine Sanctuary, National Park, National Monument, Biosphere Reserve, Essential Fish Habitat, and Important Bird Area).

153. 2007 LAPS SCORES, *supra* note 99 (listing Cache River (#11), Prime Hook NWR, Delaware Bay (#21), Cypress Creek NWR (#22), Edwin B. Forsythe NWR (#28), and Blackwater NWR, Chesapeake Bay (#35)).

154. Basic information about the WRP can be found at Natural Resources Conservation Service (NRCS), *Wetlands Reserve Program*, <http://www.nrcs.usda.gov/PROGRAMS/wrp/> (last visited Nov. 20, 2006).

155. WRP information can be obtained through U.S. Department of Agriculture (USDA) local Service Centers. See USDA, *Service Center Locator*, <http://offices.sc.egov.usda.gov/locator/app> (last visited Nov. 20, 2006).

156. See NRCS, *Key Points—Farm Bill 2002: Wetlands Reserve Program*, <http://www.nrcs.usda.gov/PROGRAMS/farmbill/2002/pdf/WRPKyPts.pdf> (last visited Jan. 9, 2007).

157. See NRCS, *Wetlands Reserve Program: Overview*, http://www.il.nrcs.usda.gov/programs/wrp_ewp/wrp_index.html (last visited Nov. 20, 2006). NRCS reports that more than 10,000 acres have been acquired and restored in the Cache River watershed. As a side note, the website incorrectly refers to Ramsar as a UNESCO treaty.

158. NRCS—Georgia, *Wetland Reserve Program Ranking Sheet*, at I.C. (Dec. 2004), available at ftp://ftp-fc.sc.egov.usda.gov/GA/tst/2005_WRP/2005_WRP_ranking_worksheet.pdf; see also NRCS, Wisconsin Wetlands Reserve Program (WRP), at 5, available at <http://www.wi.nrcs.usda.gov/programs/wrp.html> (assigning up to five points for location).

gered wildlife, but not necessarily for proposed projects near the Cheyenne Bottoms or Quivira Ramsar sites.¹⁵⁹ While a project near a Ramsar site may garner the maximum points in an environmental benefits category, we believe that such projects should receive an additional bump in the ranking. A slight tweak to the WRP ranking criteria would encourage and reward farmers near Ramsar sites to restore and protect their wetlands, and such actions would in many cases further protect designated Ramsar sites from off-site impacts.

D. Establish Preferences for Restoration Work Within Ramsar Sites

The Corps has several authorities to conduct environmental restoration work, which can be relevant to Ramsar sites. Section 1135 of the 1986 Water Resources Development Act (WRDA)¹⁶⁰ permits the Corps to modify its existing projects to improve fish and wildlife habitat, including wetland restoration.¹⁶¹ Section 206 of the 1996 WRDA¹⁶² allows the Corps to restore fish and wildlife habitat even when the activity is not related to an existing Corps project.¹⁶³ Local sponsors must agree to cost share the restoration project; they are responsible for 25% of §1135 projects, and 35% of §206 projects. Under either authority, Congress and/or the Corps should establish a preference for environmental restoration projects related to Ramsar sites.¹⁶⁴

In cases where the Corps or the Ramsar site is not able to fund needed restoration projects, there may be another option to consider: creating a wetland mitigation bank. A wetland mitigation banker restores or enhances a degraded wetland site, thereby generating credits that may be sold to a developer to satisfy wetland permit conditions¹⁶⁵ for permits pursuant to §404 of the Clean Water Act.¹⁶⁶ While somewhat controversial,¹⁶⁷ mitigation is an accepted part of cur-

rent wetland regulation in the United States.¹⁶⁸ A mitigation bank site is generally subject to more oversight than other mitigation sites, and the bank's establishment and operation are governed largely by federal guidance and in some areas by state laws and regulations.¹⁶⁹ The Corps and EPA have issued a proposed regulation on compensatory mitigation for impacts to aquatic resources, which seeks to promote mitigation banking in the context of watershed planning.¹⁷⁰ Under current federal guidance and the proposed regulations, a mitigation bank may be established on public lands; in practice, however, regulatory agencies have generally disfavored private companies operating mitigation banks on public lands such as parks and refuges.¹⁷¹ One objection is that a private company should not reap a profit from an activity that the government has the responsibility to do or is planning to do.

Yet, if a Ramsar site requires restoration work (to remove exotic and/or invasive species and replant native vegetation, for example), and government budgets cannot fund the needed project, it is worth considering other alternatives. In some ways, allowing a mitigation bank on protected public land is analogous to the management of other public lands, only here the public receives an environmental benefit. If we allow companies such as mining and timber companies to extract public resources from public lands for private gain, perhaps we should encourage private companies to do restoration work for private and public gain. While such a notion is controversial, it should be examined as an option for Ramsar site managers to draw upon in limited circumstances.¹⁷²

E. Update Nomination Procedures

To encourage additional Ramsar designations within the United States, the FWS should (with the assistance of the USNRC) update and clarify the nomination procedures for several reasons. First, the last time the FWS published the

159. Kansas WRP Ranking Worksheet, at 2 (form date Dec. 11, 2002) (on file with author).

160. Water Resources Development Act of 1986, 33 U.S.C. §§2201 et seq.; Pub. L. No. 99-662, Nov. 17, 1986, 100 Stat. 4082, available at <http://epw.senate.gov/wrda86.pdf>.

161. See U.S. Army Corps of Eng'rs, *Section 1135—Authority for: Project Modifications to Improve the Environment*, <http://www.nww.usace.army.mil/html/pub/ap/facts/sec1135.pdf> (last visited Jan. 9, 2007).

162. Water Resources Development Act of 1996, 33 U.S.C. §2330. See <http://epw.senate.gov/wrda96.pdf>, for a full copy of the 1996 WRDA.

163. See U.S. Army Corps of Eng'rs, *Section 206—Authority for: Aquatic Ecosystem Restoration*, <http://www.nww.usace.army.mil/html/pub/ap/facts/sec206.pdf> (last visited Jan. 9, 2007).

164. This is not to suggest that a particular restoration project is always appropriate for a Ramsar site. For a discussion of opposition to a proposed restoration project at Bolinas Lagoon, see The Environmental Action Committee of West Marin, *Bolinas Lagoon*, http://www.eacmarin.org/campaigns/bolinas_lagoon.php (last visited Dec. 10, 2006).

165. See NATIONAL RESEARCH COUNCIL, *COMPENSATING FOR WETLAND LOSSES UNDER THE CLEAN WATER ACT* 67-69 (2001).

166. 33 U.S.C. §1344, ELR STAT. FWPCA §404.

167. See, e.g., National Wildlife Federation, Sierra Club, American Rivers, Earthjustice, Citizens to Complete the Refuge, Waterkeeper Alliance, Vermont Law School, Environmental and Natural Resources Laws Clinic, Audubon Washington, Washington Wetlands Network, Natural Resources Defense Council, Gulf Restoration Network, Appalachian Center for the Economy and the Environment, *Comments on the Proposed Rule on "Compensatory Miti-*

gation for Losses of Aquatic Resources" Docket Number EPA-HQ-OW-2006-0020, [http://www.cwn.org/cwn/files/Mitigation_Rulemaking_Group_Comments_Final_06-30-06%20\(corrected\).doc](http://www.cwn.org/cwn/files/Mitigation_Rulemaking_Group_Comments_Final_06-30-06%20(corrected).doc) (last visited Jan. 9, 2007).

168. See generally U.S. EPA, *Compensatory Mitigation*, <http://www.epa.gov/wetlandsmitigation> (last visited Jan. 9, 2007); National Wetland Mitigation Action Plan Homepage, <http://www.mitigationactionplan.gov> (last visited Jan. 9, 2007).

169. See NATIONAL RESEARCH COUNCIL, *supra* note 165, at 91 (discussing interagency Mitigation Bank Review Team); ENVIRONMENTAL LAW INSTITUTE, *BANKS AND FEES: THE STATUS OF OFF-SITE MITIGATION IN THE UNITED STATES* 165-68 (2002) (listing state mitigation banking laws, regulations, and policies).

170. See generally U.S. Army Corps of Eng'rs & U.S. EPA, *Compensatory Mitigation for Losses of Aquatic Resources*, 71 Fed. Reg. 15520 (Mar. 28, 2006).

171. A major disincentive is the amount of credit that a mitigation banker may receive for work on public lands. The credit must be for activities that are beyond those provided by existing or planned public programs. *Id.* at 15540 (proposed 33 C.F.R. §332.8(a)). Because many restoration programs are "planned" or "in place," it is likely that a private mitigation banker will receive fewer credits for work on public land than on private land.

172. Public comment should be sought before this concept goes forward at a particular site. Additional limitations we would suggest include requiring the bank to be created only in the context of a formal watershed plan. See Ramsar, *Resolution VIII.16, Principles and Guidelines for Wetland Restoration*, http://www.ramsar.org/res/key_res_viii_16_e.htm (last visited Nov. 20, 2006) (discussing importance of stakeholder involvement and catchment (watershed) considerations in restoration projects).

procedures in the *Federal Register* was 1990,¹⁷³ and the Ramsar Parties have modified the criteria for designation. The FWS has since issued an update,¹⁷⁴ but even that needs to be revised in light of Ramsar COP9 adding a ninth criterion.¹⁷⁵ A more formal notice in the *Federal Register* would serve to provide the definitive source for the designation process within the United States.

The updated procedures should also note the responsibilities of Ramsar site managers, the most important of which is the long-term protection of the site. A lesser obligation is to provide an updated RIS every six years. Fourteen of the 22 sites currently are overdue in revising their RIS,¹⁷⁶ an exercise which several survey respondents noted as a small burden. While the United States is not alone in its tardy submissions,¹⁷⁷ it is something that should be remedied. Indeed, most sites are working with the FWS (and in some cases the USNRC) to submit the appropriate documents.

Looking to the future, however, any new Ramsar site should include in its nomination packet a point of contact (and alternate) responsible for updating the RIS. In this regard, Ramsar sites should also consider establishing relationships with nearby universities. These partners may have less turnover than in some agencies, and may be willing to assist with some of the paperwork burdens, especially if they are using the site for research or educational purposes.

F. Celebrate and Support World Wetlands Day

In the United States, February 2 often invokes images of Punxsutawney Phil and Groundhog Day.¹⁷⁸ It is also, however, World Wetlands Day, commemorating the conclusion of the Ramsar Convention in 1971.¹⁷⁹ The Ramsar Secretariat announces a theme for each year and makes posters and other materials available. The 2007 theme is "Fish for tomorrow?" which seeks to bring attention to the link between healthy wetlands and productive fisheries.¹⁸⁰

World Wetlands Day is yet another opportunity to educate people about the Ramsar Convention and the value of wetlands. On this day, Ramsar sites sponsor

programs,¹⁸¹ environmental organizations hold wetland-related events,¹⁸² universities host speakers,¹⁸³ and newspapers publish editorials.¹⁸⁴ Ideally, these activities will help us reach across boundaries to work together to make progress in wetland conservation efforts.

V. Conclusion

Since its 1987 ratification of the Ramsar Convention, the United States has designated 22 sites as wetlands of international importance. At the outset of 2007, several more sites are in the application process.¹⁸⁵ This Article discussed the impact that Ramsar designation has had on sites throughout the country.

All currently designated U.S. Ramsar sites participated in a survey exploring their experience as designated wetlands of international importance. As the survey results make clear, designation provides varied but important benefits.¹⁸⁶ Sites identified benefits beyond pride and boosted morale, including increased funding opportunities; increased support for protection of the site and its surrounds; and increased science and tourism opportunities.

As part of the process of gathering and compiling these survey results and performing related research, we also developed some recommendations concerning the implementation of the Ramsar Convention within the United States. To this end, we recommend: (1) continued international engagement; (2) promotion of the Ramsar designation; (3) support for grant funding for environmental projects in or associated with Ramsar sites; (4) creation of preferences for restoration work within Ramsar sites; (5) updated nomination procedures; and (6) celebration of and support for World Wetlands Day.¹⁸⁷

In closing, we hope that readers take from this Article the sense of pride and honor experienced by most sites in association with their Ramsar designation. In this age of uncertainty about the future of U.S. wetland policy, it is helpful to celebrate the wonders of some of our nation's most important wetland resources, from the Everglades to the Okefenokee. It is also important to encourage the designation of other wetlands across the nation and around the world to celebrate their functions, values, and uniqueness.

173. See U.S. DOI, *supra* note 75.

174. FWS, International Affairs, *Ramsar Convention on Wetlands Fact Sheet*, <http://www.fws.gov/international/ramsar/factsheet.htm> (last visited Nov. 20, 2006).

175. The ninth criterion provides that "[a] wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of wetland-dependent non-avian animal species." See Ramsar, *The Criteria for Identifying Wetlands of International Importance*, http://www.ramsar.org/key_criteria.htm (last visited Nov. 20, 2006).

176. Key Documents of the Ramsar Convention, *Status of RIS Information and Maps*, http://www.ramsar.org/ris/key_ris_status.htm (last visited Nov. 20, 2006).

177. More than one-half of Ramsar sites worldwide have missing or outdated information in their RIS. See *id.*

178. For information about this U.S. tradition, see <http://www.groundhog.org/>.

179. Ramsar, *World Wetlands Day, February 2*, http://www.ramsar.org/wwd/wwd_index.htm (last visited Dec. 10, 2006).

180. Ramsar, *World Wetlands Day 2007—Index Page*, http://www.ramsar.org/wwd/7/wwd2007_index.htm (last visited Nov. 20, 2006).

181. For example, the Tijuana River National Estuarine Research Reserve plans to hold a bi-national event in 2007.

182. For example, in 2006, the Wisconsin Wetlands Association held its 11th annual Wetlands Science Forum. See Ramsar, *World Wetlands Day 2006—Reports Page*, http://www.ramsar.org/wwd/6/wwd2006_reports.htm (last visited Nov. 20, 2006).

183. In 2005, Stetson University College of Law had a live presentation from Iraq on the restoration efforts in the Mesopotamian marshlands. See Ramsar, *World Wetlands Day 2005—Activities Reported From Around the World*, http://www.ramsar.org/wwd/5/wwd2005_reports.htm (last visited Nov. 20, 2006).

184. Kim Diana Connolly, Op-Ed., *Protect Wetlands to Sustain Life*, THE STATE, Feb. 2, 2006, at 1.

185. The sites in the process of applying for Ramsar designation in the United States include Congaree National Park and Four Holes Swamp in South Carolina, and Corkscrew Swamp Sanctuary and Panther Island Mitigation Bank in Florida.

186. See *supra* Part III.

187. See *supra* Part IV.

Appendix A
Questions From the Survey Instrument Completed by All U.S. Sites Listed as Wetlands of International Importance Performed by the U.S. National Ramsar Committee¹⁸⁸

Identification With Ramsar

1. With which Ramsar site are you affiliated?
2. Are there any signs or displays at the site noting its designation as a Ramsar site or a wetland of international importance?
3. If so, please describe:
4. Are there any publications available at the site (e.g., brochures) noting its Ramsar status?
5. If so, please describe (or attach):
6. Is the site identified with Ramsar in any other way?
7. If so, please describe:
8. Are there wetland educational materials in use at the site?
9. If so, please describe (and note whether the materials are site-specific, region-specific, or general in scope):
10. Are there trained outreach/educational personnel at the site?
11. If so, please describe any active outreach and educational activities that take place on a regular basis:

Effects of Ramsar Designation

12. Does the site benefit any group or individual in a particular way?
13. If so, please identify the beneficiary (or beneficiaries):
14. Has Ramsar designation changed or shifted the type of management or land-use practices?
15. If so, please describe:
16. Does the site benefit from another type of conservation status (e.g., National Wildlife Refuge)?
17. If so, has Ramsar designation provided any additional benefits?
18. Has Ramsar designation contributed to increased tourism or visits to the site?
19. If so, please describe:
20. Has Ramsar designation contributed to increased interest by the local community in site?
21. If so, please describe:
22. Has Ramsar designation contributed to support for the protection of the site and surrounding areas?
23. If so, please describe:
24. Has Ramsar designation contributed to increased scientific studies of the site?
25. If so, please describe:
26. Has Ramsar designation assisted with grant applications or other funding requests?
27. If so, please describe:
28. Please identify and describe any other benefits associated with Ramsar designation:
29. Has Ramsar designation caused the site any problems?
30. If so, please describe:

Role of the U.S. National Ramsar Committee

31. Please identify how you think the U.S. National Ramsar Committee can assist your Ramsar site.
 For each of the possible activities of the U.S. National Ramsar Committee, please rate how valuable you think it would be in assisting your site:

| | very valuable | somewhat valuable | not too valuable | not at all valuable |
|--|------------------|----------------------|---------------------|------------------------|
| By linking U.S. Ramsar sites through bimonthly emails/newslinks (e.g., exchanging information about activities, challenges, successes) | | | | |
| By linking U.S. Ramsar sites with international sites | | | | |
| By publicizing threats to the sites and successes associated with the sites | | | | |
| By providing assistance with education, outreach and public awareness (e.g., providing speakers for events at the sites) | | | | |
| By holding U.S. National Ramsar Committee meetings/conferences at the sites | | | | |
| By other means (please describe) | | | | |

188. A copy of the original survey instrument can be found at USNRC, *Survey of U.S. Ramsar Sites*, <http://www.ramsarcommittee.us/survey.asp> (last visited Nov. 20, 2006).

Role of the U.S. National Ramsar Committee (cont.)

- 32. Please identify any local organizations that may be interested in learning more about Ramsar:
- 33. Please provide us with any additional comments that you would like to make concerning your Ramsar site.
- 34. May we contact you again if we have any follow-up questions concerning the information provided in this survey?
- 35. If so, what is the best way to reach you:
- 36. Is there anyone else associated with this site that you would suggest we contact about this study? If yes, please provide contact information for this person.

Your Name:

Your Organization/Agency:

Your Position:

How long have you been affiliated with this site?

Please describe the nature of your affiliation with this site:

Date Survey Completed:

Appendix B
Selected Results from Survey of U.S. Sites Listed as Wetlands of International Importance
Performed by the U.S. National Ramsar Committee, 2005-2006

| | Ramsar Sites | Signs/displays noting designation | On-site publications noting designation |
|----|---|---|--|
| 1 | Ash Meadows NWR | Poster in visitor contact station. | Yes. |
| 2 | Bolinas Lagoon | None reported. | Yes. |
| 3 | Cache-Lower White Rivers | None reported. | Yes. |
| 4 | Cache River-Cypress Creek Wetlands | Wall panel in visitor center. | Yes. |
| 5 | Caddo Lake | Information boards at Caddo Lake State Park and local businesses. | None reported. |
| 6 | Catahoula Lake | None reported. | None reported. |
| 7 | Chesapeake Bay Estuarine Complex | None reported. | None reported. |
| 8 | Cheyenne Bottoms | Two self-made signs and poster in visitor center. | None reported. |
| 9 | Connecticut River Estuary and Tidal Wetlands Complex | Educational signage at two locations. | Yes. |
| 10 | Delaware Bay Estuary | None reported. | Yes. |
| 11 | Edwin B. Forsythe NWR | None reported. | None reported. |
| 12 | Everglades National Park | Exhibit in visitor center focusing on Ramsar and other international designations that apply to the site. | Yes. |
| 13 | Grassland Ecological Area | None reported. | Yes. |
| 14 | Horicon Marsh | Plaque in visitor center. | None reported. |
| 15 | Izembek Lagoon NWR | Sign at observation building and framed diploma in office. | Yes. |
| 16 | Kawainui and Hamakua Marsh Complex | None reported. | None reported. |
| 17 | Okefenokee NWR | None reported. | Yes. |
| 18 | Pelican Island NWR | None reported. | None reported. |
| 19 | Quivira NWR | Plaque and certificate in visitor center. | Yes. |
| 20 | Sand Lake NWR | Plaque and certificate in visitor center; two display panels along state highway. | Yes. |
| 21 | Tijuana River National Estuarine Research Reserve | Certificate in visitor center. | None reported. |
| 22 | Tomaes Bay | None reported. | None reported. |

| | Ramsar Sites | Other identification with Ramsar |
|----|---|---|
| 1 | Ash Meadows NWR | Site will soon be incorporating Ramsar designation into interpretive and sign plan. Designation noted on web at http://www.nevadaaudubon.org/Iba/Ash%20Meadows%20NWR%20IBA.htm . |
| 2 | Bolinas Lagoon | Designation (with Ramsar logo) noted on web at http://www.co.marin.ca.us/depts/PK/main/MCOSA/os_park_05.asp . |
| 3 | Cache-Lower White Rivers | Designation noted on web at http://www.fws.gov/cacheriver/ . |
| 4 | Cache River-Cypress Creek Wetlands | Designation noted on web at http://dnr.state.il.us/lands/landmgt/parks/r5/cachervr.htm . |
| 5 | Caddo Lake | Designation noted on web at http://www.caddolakeinstitute.us/ . |
| 6 | Catahoula Lake | Designation noted on web at http://www.stateparks.com/catahoula_la_salle.html . |
| 7 | Chesapeake Bay Estuarine Complex | Designation noted on web at http://www.friendsofblackwater.org/ and included in PowerPoint presentations at Blackwater NWR. |
| 8 | Cheyenne Bottoms | Ramsar logo included on quarterly newsletter. Designation noted on web at http://www.cheyennebottoms.net/about_tnc.html . |
| 9 | Connecticut River Estuary and Tidal Wetlands Complex | Grant provided to Connecticut Arboretum at Connecticut College to produce a bulletin about Ramsar area, entitled "Living Resources and Habitats of the Lower Connecticut River," which is being web-enabled. Nomination report available at http://dep.state.ct.us/olisp/ramsar/Connrivr.htm . |
| 10 | Delaware Bay Estuary | Designation noted on web at http://www.fws.gov/northeast/capemay/GeneralInformation.html . |
| 11 | Edwin B. Forsythe NWR | Designation noted in Comprehensive Conservation Plan, available at http://library.fws.gov/CCPs/ebf_final04.pdf . |
| 12 | Everglades National Park | Numerous management documents highlight the unique international significance of the park. Designation noted on web at http://www.everglades.national-park.com/info.htm . |
| 13 | Grassland Ecological Area | Unknown. |
| 14 | Horicon Marsh | Designation noted on web at http://www.dnr.state.wi.us/org/land/wildlife/reclands/horicon/edcntr/center/ . |
| 15 | Izembek Lagoon NWR | Designation noted on web at http://www.fws.gov/refuges/profiles/index.cfm?id=74520 . |
| 16 | Kawainui and Hamakua Marsh Complex | Unknown. |
| 17 | Okefenokee NWR | Designation noted on web at http://www.fws.gov/refuges/profiles/index.cfm?id=41590 . |
| 18 | Pelican Island NWR | Designation noted on web at http://www.fws.gov/pelicanisland/ . |
| 19 | Quivira NWR | Designation is mentioned in most newspaper/TV releases. |
| 20 | Sand Lake NWR | Designation noted on web at http://sandlake.fws.gov . |
| 21 | Tijuana River National Estuarine Research Reserve | Reserve letterhead now includes the Ramsar logo. Designation noted on web at http://www.tijuanaestuary.com/visitors_center.asp . |
| 22 | Tomales Bay | Designation noted on web at http://www.eacmarin.org/about/achievements.php . |

| | Ramsar Sites: Other Conservation Status | NWR | NERR (or NMS) | NWA | WHSRN | IBA | State protected land | Other |
|-----------|---|------------|------------------------------|------------|--------------|------------|--|--|
| 1 | Ash Meadows NWR | X | | | | X | | |
| 2 | Bolinas Lagoon | | | | | X | | Marin County Nature Preserve |
| 3 | Cache-Lower White Rivers | X | | | | X | WMA | |
| 4 | Cache River- Cypress Creek Wetlands | X | | | | | State Natural Area; WMA | National Natural Landmark |
| 5 | Caddo Lake | | | | | | Park; WMA | |
| 6 | Catahoula Lake | X | | | | | | |
| 7 | Chesapeake Bay Estuarine Complex | X | | | | X | Natural Environment Area; Natural Resources Management Area; Park; WMA | |
| 8 | Cheyenne Bottoms | | | | X | X | Wildlife Area | |
| 9 | Connecticut River Estuary and Tidal Wetlands Complex | X | | | | | Park; WMA | American Heritage River |
| 10 | Delaware Bay Estuary | X | X | | X | X | Fish and Wildlife Management Area; Park; WMA | |
| 11 | Edwin B. Forsythe NWR | X | X | X | X | | | |
| 12 | Everglades National Park | | | X | | X | | Biosphere Reserve; National Park; Outstanding Florida Water; World Heritage Site |
| 13 | Grassland Ecological Area | X | | | X | X | Park; WMA | |

| | Ramsar Sites: Other Conservation Status | NWR | NERR (or NMS) | NWA | WHSRN | IBA | State protected land | Other |
|-----------|--|------------|----------------------|------------|--------------|------------|-----------------------------|--|
| 13 | Grassland Ecological Area | X | | | X | X | Park; WMA | |
| 14 | Horicon Marsh | X | | | X | X | Wildlife Area | Ice Age National Scientific Reserve |
| 15 | Izembek Lagoon NWR | X | | X | | | Game Refuge | |
| 16 | Kawainui and Hamakua Marsh Complex | | | | | | Wildlife Sanctuary | |
| 17 | Okefenokee NWR | X | | X | | X | | National Natural Landmark; National Trail |
| 18 | Pelican Island NWR | X | | X | | X | | Indian River Lagoon Aquatic Preserve; National Historic Landmark; Save America's Treasures |
| 19 | Quivira NWR | X | | | X | X | | State and Federal Scenic Byway |
| 20 | Sand Lake NWR | X | | | | | | |
| 21 | Tijuana River National Estuarine Research Reserve | X | X | | | | | |
| 22 | Tomaes Bay | | X (NMS) | | | | | |

Key: NWR = National Wildlife Refuge; NERR = National Estuarine Research Reserve; NMS = National Marine Sanctuary; NWA = National Wilderness Area; WHSRN = Western Hemisphere Shorebird Reserve Network; IBA = Important Bird Area; WMA = Wildlife Management Area.

| | Ramsar Sites | Has designation increased local community interest? |
|-----------|---|---|
| 1 | Ash Meadows NWR | No. |
| 2 | Bolinas Lagoon | Yes, observing that the local community is proud of the designation and very protective of the site. |
| 3 | Cache-Lower White Rivers | Yes, a little but insignificant amount. |
| 4 | Cache River-Cypress Creek Wetlands | Yes. |
| 5 | Caddo Lake | Yes, reporting that the Caddo Lake Clearinghouse was established to keep the local community informed of events and research. |
| 6 | Catahoula Lake | Yes, although limited due to lack of publicity. |
| 7 | Chesapeake Bay Estuarine Complex | Yes, noting interest related to proposed development along the Little Blackwater River. |
| 8 | Cheyenne Bottoms | Unknown. |
| 9 | Connecticut River Estuary and Tidal Wetlands Complex | Yes, reporting that some municipal conservation groups are interested in furthering management efforts to conserve the site. |
| 10 | Delaware Bay Estuary | Yes, the initial publicity about the designation increased public awareness within local communities. |
| 11 | Edwin B. Forsythe NWR | Yes. |
| 12 | Everglades National Park | Yes, the designation is used (and generally understood) by the diverse community of greater Miami as an indication of the significance of the park on a global scale. |
| 13 | Grassland Ecological Area | Yes, noting that designation is widely recognized as extremely special. |
| 14 | Horicon Marsh | Yes, noting that members of local community have used the designation to fight controversial land use proposals. |
| 15 | Izembek Lagoon NWR | No. |
| 16 | Kawainui and Hamakua Marsh Complex | No. |
| 17 | Okefenokee NWR | No. |
| 18 | Pelican Island NWR | Yes, noting that the designation contributes to the recognition that the site is not just a nationally important area – it's recognized as an internationally important area. |
| 19 | Quivira NWR | Yes, noting that the designation has brought pride to the local community and is a major point of honor for our refuge support group, the Friends of Quivira. |
| 20 | Sand Lake NWR | Yes, reporting that the designation initially brought local media attention to the site. |
| 21 | Tijuana River National Estuarine Research Reserve | Yes, reporting a heightened public awareness and an opportunity to work more closely with Mexico to set up other Ramsar sites. |
| 22 | Tomales Bay | No. |

| | Ramsar Sites | Has designation contributed to support for protection of site and surrounding areas? |
|----|---|---|
| 1 | Ash Meadows NWR | No. |
| 2 | Bolinas Lagoon | No, reporting that the site is already well protected as an open-space preserve. |
| 3 | Cache-Lower White Rivers | Yes, noting that the designation has been used to forestall a proposed navigation project on the White River. |
| 4 | Cache River-Cypress Creek Wetlands | Yes, through the Joint Venture Partnership. |
| 5 | Caddo Lake | Yes, reporting that designation helped with establishment of the Caddo Lake NWR. |
| 6 | Catahoula Lake | Yes, noting that the designation is emphasized during discussions of water management plans and that the designation affords an extra layer of conservation protection. |
| 7 | Chesapeake Bay Estuarine Complex | Yes, noting that the Chesapeake Bay Foundation is working to protect the site. |
| 8 | Cheyenne Bottoms | Yes, reporting that the designation adds to the site's resume. |
| 9 | Connecticut River Estuary and Tidal Wetlands Complex | Unknown. |
| 10 | Delaware Bay Estuary | Yes, noting that designation helped with land acquisitions by agencies and conservation organizations. |
| 11 | Edwin B. Forsythe NWR | Yes, noting that the State Green Acres Program and Ocean County Open Space Program purchased properties within the approved refuge acquisition boundary when the FWS did not have land acquisition funding. |
| 12 | Everglades National Park | Yes, reporting that the designation is used, along with others, in various management documents to support policy and budget decisions affecting the park's long-term interests. |
| 13 | Grassland Ecological Area | Yes, noting that the designation adds weight to protective actions, such as protecting site from encroachment by non-resource minded interests. |
| 14 | Horicon Marsh | While designation is used to strengthen arguments for protective measures, it is difficult to evaluate its impact. |
| 15 | Izembek Lagoon NWR | Yes, noting that the designation is used for support in management plans. |
| 16 | Kawainui and Hamakua Marsh Complex | No. |
| 17 | Okefenokee NWR | Yes, noting that the designation focuses international interest and concern for the conservation and protection of the site. |
| 18 | Pelican Island NWR | Yes, perhaps indirectly. |
| 19 | Quivira NWR | Yes, noting that the designation is important in fostering support to prevent conflicts with other uses. |
| 20 | Sand Lake NWR | No. |
| 21 | Tijuana River National Estuarine Research Reserve | No, not yet, although the potential exists. |
| 22 | Tomales Bay | Yes, noting that the designation is used to influence local land use decisions and zoning enforcement. |

| | Ramsar Sites | Has designation assisted with grants/funding requests? |
|-----------|---|---|
| 1 | Ash Meadows NWR | Yes, with respect to grants. |
| 2 | Bolinas Lagoon | Yes, designation is used with federal funding requests and grant applications. |
| 3 | Cache-Lower White Rivers | Yes, designation has helped in some grant applications. |
| 4 | Cache River-Cypress Creek Wetlands | Yes, designation has helped, but is hard to measure. |
| 5 | Caddo Lake | Yes. |
| 6 | Catahoula Lake | Yes, designation has helped with research, surveys, and restoration project. |
| 7 | Chesapeake Bay Estuarine Complex | Yes, designation adds credibility to restoration and protection requests. |
| 8 | Cheyenne Bottoms | Yes, with respect to NAWCA grants. |
| 9 | Connecticut River Estuary and Tidal Wetlands Complex | Yes, with respect to NAWCA grants and restoration projects; designation is used in applications for grants from Long Island Sound Futures Fund. |
| 10 | Delaware Bay Estuary | Yes, with respect to grants and land acquisition programs. |
| 11 | Edwin B. Forsythe NWR | Yes, designation is used with land acquisition funding requests. |
| 12 | Everglades National Park | Yes, designation is used with others in grant applications. |
| 13 | Grassland Ecological Area | Yes, designation is routinely cited when garnering funding. |
| 14 | Horicon Marsh | Yes, designation is commonly cited in grant applications. |
| 15 | Izembek Lagoon NWR | Unknown. |
| 16 | Kawainui and Hamakua Marsh Complex | Yes, with respect to grants. |
| 17 | Okefenokee NWR | No. |
| 18 | Pelican Island NWR | No, not aware of designation helping with grants, although it may be of secondary benefit. |
| 19 | Quivira NWR | Yes, designation helps Friends group with financial support. |
| 20 | Sand Lake NWR | Yes, designation is used in all grant applications. |
| 21 | Tijuana River National Estuarine Research Reserve | No. |
| 22 | Tomales Bay | Yes, designation has helped in past and will now be emphasized more. |

| | Ramsar Sites | Has designation contributed to increased scientific studies? |
|----|---|--|
| 1 | Ash Meadows NWR | No. |
| 2 | Bolinas Lagoon | Unknown. |
| 3 | Cache-Lower White Rivers | There is a lot of research at site, but probably unconnected to designation. |
| 4 | Cache River-Cypress Creek Wetlands | Yes, noting example of Cache River Symposium, a two-and-a-half day event with an emphasis on restoration research. |
| 5 | Caddo Lake | Yes, noting that the Caddo Lake Institute has been the leader in research at the site, including studies of water quality and bald cypress, invasive species, and environmental flows. |
| 6 | Catahoula Lake | Yes, noting studies by USGS (vegetation and lakebed elevation) and Ducks Unlimited (vegetation maps) were advanced in part due to designation. |
| 7 | Chesapeake Bay Estuarine Complex | Yes, reporting that Blackwater NWR receives many research inquiries due to international significance of the site. |
| 8 | Cheyenne Bottoms | No. |
| 9 | Connecticut River Estuary and Tidal Wetlands Complex | Yes, reporting that state and federal research and monitoring funds have been directed toward study of the site. |
| 10 | Delaware Bay Estuary | Unknown. |
| 11 | Edwin B. Forsythe NWR | Yes, perhaps indirectly; designation may have contributed to the creation of the Jacques Cousteau National Estuarine Research Reserve. |
| 12 | Everglades National Park | No. |
| 13 | Grassland Ecological Area | No. |
| 14 | Horicon Marsh | No, noting that although studies have been conducted at site, it is difficult to say the designation influenced their research decisions. |
| 15 | Izembek Lagoon NWR | Yes, noting eel grass studies, disturbance studies (migratory bird, especially waterfowl), and Brant studies. |
| 16 | Kawainui and Hamakua Marsh Complex | No. |
| 17 | Okefenokee NWR | No. |
| 18 | Pelican Island NWR | No. |
| 19 | Quivira NWR | Yes (probably), but it is difficult to measure. |
| 20 | Sand Lake NWR | No. |
| 21 | Tijuana River National Estuarine Research Reserve | No, not yet. |
| 22 | Tomales Bay | No. |

| | Ramsar Sites | Has designation increased tourism? |
|----|---|--|
| 1 | Ash Meadows NWR | No, most people are not aware of Ramsar. |
| 2 | Bolinas Lagoon | Unknown. |
| 3 | Cache-Lower White Rivers | No. |
| 4 | Cache River-Cypress Creek Wetlands | Yes, but it is hard to measure. |
| 5 | Caddo Lake | Yes, designation has created new tourism-related businesses. |
| 6 | Catahoula Lake | Yes, increased tourism due to designation is likely, but not measurable. |
| 7 | Chesapeake Bay Estuarine Complex | Yes, Blackwater NWR receives some visitors due to designation. |
| 8 | Cheyenne Bottoms | One respondent said designation likely increased tourism, but another stated it did not. |
| 9 | Connecticut River Estuary and Tidal Wetlands Complex | Yes, but absent a survey, it is hard to gauge the effect of designation. |
| 10 | Delaware Bay Estuary | Unknown. |
| 11 | Edwin B. Forsythe NWR | No. |
| 12 | Everglades National Park | It is not possible to draw direct ties based on available information. International tourism is a significant part of park visitation, ranging from approximately 10-33% of the total. |
| 13 | Grassland Ecological Area | No, the designation is too recent. |
| 14 | Horicon Marsh | No; the site receives 400,000 to 500,000 visitors annually, but the vast majority are not aware of designation. |
| 15 | Izembek Lagoon NWR | Yes, a limited number of tourists come to see both the Ramsar site and the Important Bird Area site. |
| 16 | Kawainui and Hamakua Marsh Complex | No. |
| 17 | Okefenokee NWR | Yes, interpretive staff have had conversations with numerous international visitors who learned about the site through its Ramsar designation. |
| 18 | Pelican Island NWR | No. Most people are unfamiliar with Ramsar. |
| 19 | Quivira NWR | Yes, people like visiting a wetlands of international importance. |
| 20 | Sand Lake NWR | Unknown. |
| 21 | Tijuana River National Estuarine Research Reserve | Unknown. |
| 22 | Tomales Bay | No. |