

A Trickle of Cash for the River of Grass: Federal Funding of Comprehensive Everglades Restoration, a Critique and a Proposal

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I. INTRODUCTION

Drive due west from downtown Miami for thirty minutes and you’ll hit it: Everglades National Park, the natural area Marjory Stoneman Douglas famously described as a “river of grass.”¹ Behind you will be civilization: skyscrapers, highways, suburbs, nightclubs, people. Ahead of you, sawgrass, mangroves, swamp. “Here are no lofty peaks seeking the sky, no mighty glaciers or rushing streams wearing away the uplifted land. Here is land, tranquil in its quiet beauty, serving not as the source of water but as the last receiver of it.”²

The still waters of the sawgrass prairie you’re driving through belie the vibrant ecosystem that is the Florida Everglades, a once-perfectly

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1. MARJORY STONEMAN DOUGLAS, *THE EVERGLADES: RIVER OF GRASS 1* (Ballantine Books 1974) (1947).

2. Harry S. Truman, President of the U.S., Address on Conservation at the Dedication of Everglades National Park (Dec. 6, 1947), *available at* <http://www.presidency.ucsb.edu/ws/index.php?pid=12798>.

choreographed interplay of water, land, plants, and animals that is over 5,000 years old.³ It is the largest subtropical wilderness in the United States and has been designated a World Heritage Site, International Biosphere Reserve, and Wetland of International Importance.⁴ This ecosystem developed over thousands of years of periodic flooding; the life it supports adapted to—and in many cases became dependent upon—the original “sheet flow” of Lake Okeechobee flood waters moving south.

But “[a]s so often happens with natural treasures, people sought to control and manipulate the Everglades for their own ends.”⁵ Over a century’s worth of efforts to “reclaim” this soggy land for human uses—most notably the massive Central and Southern Florida flood control project—has indelibly altered the original hydropatterns, and the “remnants of the original Everglades now compete for vital water with urban and agricultural interests, and contaminated runoff from these two activities impairs their waters.”⁶ The result of these efforts is an ecological mess with dire consequences not only for the plants and animals of the region but for South Florida’s human population as well. Ecosystem conditions are so deteriorated that the United Nations added Everglades National Park to its List of World Heritage in Danger sites.⁷

There is, however, a plan to save⁸ the Everglades. It consists of over two hundred individual projects in a coordinated effort to “get the water right,” “restore, preserve, and protect natural habitats and spe-

3. MICHAEL GRUNWALD, *THE SWAMP: THE EVERGLADES, FLORIDA, AND THE POLITICS OF PARADISE* 18 (2006).

4. National Park Service, Everglades National Park, <http://www.nps.gov/ever/> (last visited Apr. 10, 2010).

5. *Miccosukee Tribe of Indians of Fla. v. United States*, 566 F.3d 1257, 1261 (11th Cir. 2009).

6. COMM. ON INDEP. SCIENTIFIC REVIEW OF EVERGLADES RESTORATION PROGRESS, NAT’L RESEARCH COUNCIL OF THE NAT’L ACADEMIES, *PROGRESS TOWARD RESTORING THE EVERGLADES: THE SECOND BIENNIAL REVIEW—2008*, at 1 (2008) [hereinafter *SECOND BIENNIAL REVIEW*].

7. *South Florida Ecosystem—Some Restoration Progress Has Been Made, but the Effort Faces Significant Delays, Implementation Challenges, and Rising Costs: Hearing Before the S. Subcomm. on Int’l Operations and Organizations, Democracy and Human Rights of the S. Comm. on Foreign Relations*, 110th Cong. 1 (2007) [hereinafter *Hearing*] (testimony of Anu K. Mittal, Director, Natural Resources and Environment).

8. To restore the Everglades to its pre-drainage condition is impossible given the irreversible effects of drainage on the physical conditions of the ecosystem, as well as development within the footprint of the historic wetlands; these effects mean that “[w]e can’t just go back to nature.” Michael Grunwald, *An Environmental Reversal of Fortune: The Kissimmee’s Revival Could Provide Lessons for Restoring the Everglades*, WASH. POST, June 26, 2002, at A01. “Rather, restoration is better viewed as the process of assisting the recovery of a degraded ecosystem to the point where it contains sufficient biotic and abiotic resources to continue its functions without further assistance in the form of energy or other resources from humans.” *Second Biennial Review*, *supra* note 6, at 29–30. In other words, comprehensive restoration seeks to return the ecosystem closer to its natural state, not to revert the area back to the historic, pre-drainage Everglades, by rehabilitating the remaining natural areas.

cies,” and “foster compatibility of the built and natural systems”⁹ throughout South Florida. The centerpiece of the plan is the Comprehensive Everglades Restoration Plan (CERP), an unprecedented program that envisions “the expenditure of billions of dollars in a multi-decadal effort to achieve ecological restoration by restoring the hydrological characteristics of the Everglades, where feasible, and to create a water system that simultaneously serves the needs of the natural and the human systems of South Florida.”¹⁰ Authorized ten years ago by the United States Congress, the CERP contemplates cooperative implementation of sixty restoration projects by both the federal government, acting through the Army Corps of Engineers (Corps), and non-federal sponsors, primarily the state of Florida acting through the South Florida Water Management District (SFWMD). Experts characterize the CERP as “the most fully realized and best funded ecosystem restoration effort ever undertaken by humankind.”¹¹ Indeed, the United Nations Environment Programme has described the CERP as “the world’s most ambitious and extensive wetlands restoration.”¹² In addition to the CERP, there are twenty-eight “CERP-related” projects that lay the foundation for CERP projects, as well as 134 other restoration activities¹³ being implemented by various governmental actors.¹⁴ It is the CERP, however, that is considered the blueprint for comprehensive Everglades restoration.¹⁵

Yet the CERP is currently “bogged down in budgeting, planning, and procedural matters and is making only scant progress toward achieving restoration goals.”¹⁶ As presently structured, federal authorization for CERP projects must come via omnibus water resources acts. These so-called Water Resources Development Acts (WRDAs) are highly contentious and, as such, the legislation is often difficult to pass, making the current mechanism for congressional authorization of restoration projects highly unreliable. This is exceptionally problematic because without WRDA authorization, a CERP project cannot be funded by

9. SECOND BIENNIAL REVIEW, *supra* note 6, at 28–29.

10. *Id.* at 1.

11. Mary Doyle, *Implementing Everglades Restoration*, 17 J. LAND USE & ENVTL. L. 59, 65 (2001).

12. Alfred R. Light, *Spark Plugs of Policy Implementation: Intergovernmental Relations and Public Participation in Florida’s Acceler8 Initiative to Speed Everglades Restoration*, 30 VT. L. REV. 939, 942 (2006).

13. *Hearing*, *supra* note 7, at 1. *See also* SECOND BIENNIAL REVIEW, *supra* note 6, at 31–37 & Box 2-3.

14. *Hearing*, *supra* note 7, at 5 n.4. The governmental actors include the SFWMD, the Corps, the National Park Service, and the U.S. Fish and Wildlife Service. *Id.*

15. SECOND BIENNIAL REVIEW, *supra* note 6, at 31. The CERP is the program that was authorized by Congress as the framework for modifying the C&SF Project. *Id.* at 31–32.

16. *Id.* at 1.

Congress or implemented by the Corps. Moreover, under the current framework there is no guarantee that an authorized CERP project will *ever* receive the federal funds required for implementation. Although CERP planners are in the process of developing a revised project planning and implementation schedule,¹⁷ the fact remains that many of the most critical projects must be authorized and funded by Congress. Thus these “funding limitations will certainly create additional constraints to CERP progress in the years ahead.”¹⁸

The future of comprehensive Everglades restoration is jeopardized by the current federal authorization and funding framework. These constraints have resulted in delay, which in turn has caused the cost of restoration to increase by twenty-eight percent¹⁹ and has allowed ecological decline to continue largely unabated.²⁰ In its 2008 report on the CERP, the National Research Council, the independent scientific review panel charged with evaluating CERP progress,²¹ found that future progress on the restoration was likely to be limited by “an authorization and funding mechanism that was not designed for a project of this magnitude and complexity and seems ill suited for it.”²² The Council recommended that the federal government revisit the current project-by-project review, authorization, and funding framework established by the WRDA that authorized the CERP.²³ The report advised that it “may be far more efficacious—scientifically, managerially, and economically—to design a different approach for comprehensive restoration programs that provides assured funding over a multiple-year period.”²⁴

This Note advocates a new framework by which CERP projects could be authorized and funded: a federal Everglades trust fund. Part II places the Everglades restoration in the context of the historic South Florida ecosystem and documents the human development of the region and its subsequent impact on that ecosystem. Part III chronicles the events leading up to the comprehensive restoration approach and pro-

17. *Id.* at 91.

18. *Id.* at 7.

19. Antonio Gonzalez, *Everglades Restoration Crippled by Costs, Delays*, ORLANDO SENTINEL, July 3, 2007, at B1.

20. SECOND BIENNIAL REVIEW, *supra* note 6, at 69.

21. The National Research Council is the research branch of the National Academy of Sciences; its Committee on Independent Scientific Review of Everglades Restoration Progress was established in 2004 pursuant to a mandate in the WRDA of 2000 requiring the Army Corps of Engineers, the Department of the Interior, and the state of Florida to establish an independent scientific review panel to evaluate the process made toward achieving the CERP’s goals. *Id.* at 1. The Committee’s first report was issued in 2006 and its second in the summer of 2008. *Id.* at 16–18.

22. *Id.* at 227.

23. *Id.* at 8.

24. *Id.*

vides a synopsis of the CERP. Part IV asserts that it is the application of the traditional framework for authorizing and funding Corps projects to a large-scale ecosystem restoration that has caused delay in implementation of the CERP and proposes the creation of a federal Everglades restoration trust fund as a solution to that delay. Part V concludes.

Back to your drive. Perhaps you're impressed that the Everglades is the largest subtropical wilderness in the United States and convinced that in an ideal world we would save the Everglades. But money is tight right now and maybe we as a country simply don't have the financial resources to help out a bunch of endangered grasses, panthers, and crocodiles.

But comprehensive Everglades restoration is about more than saving an endangered ecosystem and the plant and animal life it supports; the fact is that implementation of the CERP is critical to protecting and providing for South Florida's human population. "[E]nvironmental degradation threatens not merely aesthetic concerns vital to [Florida's] economy but also the health, welfare, and safety of substantial numbers of Floridians."²⁵ The CERP will prevent flooding and help protect against devastating damage from hurricanes.²⁶ It will ensure adequate freshwater for South Florida's growing population;²⁷ indeed, "[t]he fate of South Florida's water supply is directly related to the quantity and quality of water in the natural Everglades."²⁸ The restoration is also linked to the creation and maintenance of jobs in tourism, commercial fishing, pharmaceuticals, and agriculture.²⁹ And it is increasingly important as global sea levels rise with climate change since a restored marsh would help abate salt water intrusion.³⁰

In short, "the long-term survival of all species in the region depends

25. Dep't of Cmty. Affairs v. Moorman, 664 So. 2d 930, 932 (Fla. 1995).

26. Water Resources Development Act of 2000, Pub. L. No. 106-541, § 601, 114 Stat. 2680, 2681 (2000). See also *Water, Bird, and Man: The Everglades*, ECONOMIST, Oct. 8, 2005, at 29 ("As in the Everglades, the Louisiana bayou could not absorb the storm surge in part because its natural environment had been degraded by flood-control measures and housing, and could no longer act like a sponge."); cf. Michael Grunwald, *The New Agenda*, TIME, Nov. 17, 2008, at 71 (noting that restored wetlands would help protect New Orleans from another devastating storm).

27. Water Resources Development Act of 2000, Pub. L. No. 106-541, § 601, 114 Stat. 2680, 2681 (2000).

28. Terrence "Rock" Salt, Stuart Langdon & Mary Doyle, *The Challenges of Restoring the Everglades Ecosystem*, in LARGE-SCALE ECOSYSTEM RESTORATION: FIVE CASE STUDIES FROM THE UNITED STATES 5, 6 (Mary Doyle & Cynthia A. Drew eds., 2008).

29. *Water's Journey—Everglades: Currents of Change (Episode 2)* (PBS television broadcast Feb. 7, 2007).

30. *Everglades Restoration Gains Urgency as Climate Warms*, ENVTL. NEWS SERVICE, Jan. 14, 2008, <http://www.ens-newswire.com/ens/jan2008/2008-01-14-02.asp> ("[g]lobal warming means restoration of the Everglades is more important than ever"). See also SECOND BIENNIAL REVIEW, *supra* note 6, at 49–50 ("Under [the topographic conditions of South Florida], even small changes in mean sea level are likely to have far-reaching effects that will alter the general

upon successful Everglades restoration.”³¹ Over sixty years ago, President Harry Truman remarked on this phenomenon of interconnectedness:

Each national park possesses qualities distinctive enough to make its preservation a matter of concern to the whole Nation. . . . Our parks are but one part of the national effort to conserve our natural resources. Upon these resources our life as a nation depends. Our high level of employment and our extraordinary production are being limited by scarcities in some items of our natural wealth. This is the time to develop and replenish our basic resources. Conservation has been practiced for many decades and preached for many more, yet only in recent years has it become plain that we cannot afford to conserve in a haphazard or piecemeal manner. No part of our conservation program can be slighted if we want to make full use of our resources and have full protection against future emergencies.³²

His remarks were on made on the occasion of the dedication of Everglades National Park.

II. THE EVERGLADES: THEN AND NOW

Today’s South Florida is a narrow 600-mile rim of coastline and farmland surrounding several million acres of protected land.³³ Over ninety-eight percent of South Floridians live within this rim, which includes the Florida Keys, the urban east and lower west coasts, and agricultural lands south and west of Lake Okeechobee.³⁴ Everglades National Park sits at the southern tip of the peninsula, bisecting the east and west coasts of South Florida.³⁵ But the Everglades was once a vast expanse of sawgrass and marl prairie that stretched from coast to coast, “the most distinctive link”³⁶ in a one of the most unique ecosystems on the planet.³⁷

character of the environmental context of the Everglades and even the general shape of the lower Florida peninsula.”).

31. Salt, Langdon & Doyle, *supra* note 28, at 6.

32. Truman, *supra* note 2.

33. Salt, Langdon & Doyle, *supra* note 28, at 6.

34. *Id.*

35. Nat’l Park Serv., U.S. World Heritage Sites: Everglades National Park, <http://www.nps.gov/history/worldheritage/ever.htm> (last visited Apr. 10, 2010).

36. GRUNWALD, *supra* note 3, at 12.

37. Throughout this paper, “Everglades” refers to the present wetland areas south of Lake Okeechobee; “pre-drainage Everglades” refers to the wetland areas as they existed prior to the first drainage canals constructed in the late 1800s; and, “South Florida ecosystem” refers to the watershed region that extends from the Kissimmee River chain of lakes in the north, through Lake Okeechobee, and down to Everglades National Park, Florida Bay, and the Florida Keys in the south.

A. *The Pre-Drainage Everglades and the South Florida Ecosystem*

Pre-1800s South Florida was “an extremely flat drainage basin with extremely poor drainage.”³⁸ In its natural state, the South Florida ecosystem stretched from the Kissimmee chain of lakes near modern-day Orlando down to the coral reefs off the Florida Keys.³⁹ It was a “watery labyrinth of lakes and lagoons, creeks and ponds, pine flatwoods and hardwood hammocks,”⁴⁰ as well as the iconic sawgrass prairies.

South Florida’s “two-tone subtropical climate”⁴¹ provided the foundation for this ecosystem. Dry winters are followed by the continent’s wettest summers, which can see a foot of rain in a day.⁴² In the pre-drainage Everglades, depending on seasonal rainfall, water from the Kissimmee chain of lakes either flowed down the Kissimmee River or burst through the river’s banks and flowed through 40,000 acres of marsh to Lake Okeechobee.⁴³ The lake, only twenty feet deep and swollen with river and rain water, then “spilled over its lower lip in a tremendous sheet.”⁴⁴ “That was where the river of grass began, sloshing down the spoon-shaped depression between the Atlantic Coastal Ridge and the Big Cypress Swamp.”⁴⁵

This “sheet flow” of water was the building block for the pre-drainage Everglades. The wetlands were formed 5,000 years ago⁴⁶ by the slow creep of Lake Okeechobee water flowing south at less than one mile per day across land that never rises more than eight feet above sea level.⁴⁷ A raindrop that fell over the Kissimmee headwaters could have taken an entire year to trickle down to the estuaries at the southern tip of the peninsula.⁴⁸ The resulting expanse of sawgrass and marl prairies was “not quite land and not quite water, but a soggy confusion of the two.”⁴⁹ To the east and west, flatwood forests flanked the soggy ridges and sloughs of the historic floodplain.⁵⁰ To the south, the mangrove forests

38. *Id.* at 18.

39. *Id.* at 18–19.

40. *Id.* at 12.

41. *Id.* at 16.

42. *Id.*

43. Nicole T. Carter, *South Florida Ecosystem Restoration and the Comprehensive Everglades Restoration Plan*, in NATIONAL WETLANDS: ISSUES AND DEVELOPMENTS 123, 124–25 (Samuel T. Prescott ed., 2004).

44. GRUNWALD, *supra* note 3, at 19.

45. *Id.*

46. *Id.* at 18.

47. Richard J. Ansson, Jr., *Protecting and Preserving Our National Parks: The Everglades National Park Restoration Project*, 19 VA. ENVTL. L.J. 121, 129 (2000).

48. GRUNWALD, *supra* note 3, at 18.

49. *Id.* at 9.

50. Second Biennial Review, *supra* note 6, at 16 fig.1-1.

of the Ten Thousand Islands buffered the Gulf Coast.⁵¹

The ecosystem's various habitats supported a rich diversity of plant and animal life.⁵² The Florida panther, American alligator, bald eagle, and West Indian manatee thrived, along with 2,000 plant species, hundreds of bird and fish species, and forty-three species of mosquitoes.⁵³ Black bear, barracudas, turkey vultures, wood storks, crocodiles, and bottlenose dolphins also called this home.⁵⁴ Eventually, so too would the American people.

B. *Early Reclamation Efforts*

The South Florida ecosystem remained essentially unaltered by humankind up through the late nineteenth century.⁵⁵ Although the Calusa and other "Glades Indians" inhabited the region, their impact on the environment was modest;⁵⁶ thus, "[t]he Everglades was still the Everglades before white men arrived."⁵⁷ The small number of Americans who lived in South Florida at the turn of the nineteenth century⁵⁸ were confined to the drier high ground near the coastal and central Florida ridges⁵⁹: Because of the pattern of flooding from Lake Okeechobee, the interior land was too soggy to develop.⁶⁰

The principal impediment to developing South Florida was flooding.⁶¹ The low lands west of the coastal ridge could not be settled without first diverting the water and thereby "reclaiming" the land. The late 1800s saw the beginnings of such efforts in South Florida. A private businessman named Hamilton Disston attempted the first drainage

51. U.S. Fish & Wildlife Serv., <http://www.fws.gov/refuges/profiles/index.cfm?id=41555> (last visited Apr. 10, 2010).

52. See Ansson, *supra* note 47, at 130; Comprehensive Everglades Restoration Plan, Why Restore the Everglades, Part I—Understanding the Everglades Ecosystem, Past & Present, http://www.evergladesplan.org/about/why_restore_pt_01.aspx (last visited Apr. 10, 2010).

53. Salt, Langdon & Doyle, *supra* note 28, at 6; Comprehensive Everglades Restoration Plan, Why Restore the Everglades, Part I: Understanding the Everglades Ecosystem, Past & Present, http://www.evergladesplan.org/about/why_restore_pt_01.aspx; Ansson, *supra* note 47, at 130.

54. GRUNWALD, *supra* note 3, at 12.

55. See *id.* at 77.

56. *Id.* at 22.

57. *Id.* at 23.

58. The 1880 the Census reported only 257 White residents of southeast Florida. See *id.* at 73.

59. Comprehensive Everglades Restoration Plan, Everglades: A Brief History, http://www.evergladesplan.org/about/learn_everglades.aspx (last visited Apr. 10, 2010).

60. See *id.*

61. U.S. ARMY CORPS OF ENGINEERS JACKSONVILLE DIST. & S. FLA. WATER MGMT. DIST., CENTRAL & SOUTHERN FLORIDA PROJECT COMPREHENSIVE REVIEW STUDY: FINAL INTEGRATED FEASIBILITY REPORT AND PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT 1-1 (1999) [hereinafter RESTUDY], available at http://www.evergladesplan.org/pub/restudy_eis.aspx#mainreport.

scheme in 1881.⁶² While he successfully drained land around the Kissimmee and Caloosahatchee basins,⁶³ his much larger plan to drain as much as twelve million acres was never realized.⁶⁴ In 1896, Henry Flagler's Florida East Coast Railway line was completed,⁶⁵ populating the cities of West Palm Beach, Ft. Lauderdale, and Miami.⁶⁶ But the incursion into the natural ecosystem was only a couple of miles wide: One visitor to 1890s Miami recalled that "one had to walk scarce a quarter of a mile until one came to such a waste wilderness as can be conceived of only in rare nightmares."⁶⁷ Thus, at the turn of the twentieth century, the Everglades was still essentially the Everglades.⁶⁸

Drainage, development, and the accompanying population juggernaut began in earnest in the early 1900s. Having campaigned on draining the Everglades to open up South Florida to agriculture and development,⁶⁹ newly-elected Florida Governor Napoleon Bonaparte Broward created the Everglades Drainage District in 1907.⁷⁰ Construction of ditches, canals, dikes, and "improved" channels to drain the wetlands ensued.⁷¹ "For a fraction of the cost of a western irrigation scheme, a drainage project was converting the Everglades into a new Nile Valley"⁷² where settlers needed only to invest twenty-five cents per acre to reap lucrative produce harvests.⁷³ Propaganda blitzes advertizing the region as the "Eden of America"⁷⁴ were exceedingly successful: Immigration into South Florida during the land boom exceeded that into California during the Gold Rush.⁷⁵

By the end of the 1930s, more than 500,000 people lived within the Everglades footprint,⁷⁶ and in 1947, Everglades National Park was dedi-

62. See SECOND BIENNIAL REVIEW, *supra* note 6, at xi.

63. The Kissimmee Basin encompasses the cities of Orlando and Sebring, Florida. See Florida Dep't of Environmental Protection, Florida Watershed and River Basins Map, <http://www.protectingourwater.org/watersheds/map/> (last visited Apr. 10, 2010). The Caloosahatchee River connects Lake Okeechobee with the Gulf of Mexico and encompasses the cities of Ft. Meyers, Cape Coral, and Clewiston, Florida. *Id.*

64. GRUNWALD, *supra* note 3, at 82.

65. PBS, People & Events: Henry Flagler, <http://www.pbs.org/wgbh/amex/miami/peopleevents/pande05.html> (last visited Apr. 10, 2010).

66. GRUNWALD, *supra* note 3, at 106.

67. *Id.* at 110.

68. *Id.* at 77.

69. See *id.* at 130–40.

70. SECOND BIENNIAL REVIEW, *supra* note 6, at 23.

71. *Id.*

72. GRUNWALD, *supra* note 3, at 138.

73. *Id.*

74. *Id.*

75. *Id.* at 176.

76. See *id.* at 201. The year 1930 also saw the completion of Tamiami Trail, an east-west road bifurcating South Florida right through the middle of the Everglades, which has plagued

cated by President Truman.⁷⁷ However, continued Okeechobee flooding and the resulting widespread destruction prompted President Herbert Hoover to order the Corps to construct a massive dike south of the lake; the federal government also agreed to fund an expanded system of flood control.⁷⁸

C. *The C&SF Project*

Despite the construction of the “Hoover Dike,” flooding from Lake Okeechobee continued.⁷⁹ Pressure from state officials and the public for increased agricultural land and reliable flood protection prompted the United States Congress to authorize the Central and Southern Florida Project (C&SF Project) in 1949.⁸⁰

In order to “realize the economic potential of the state’s exceptional natural resources,”⁸¹ the Corps began construction of the massive project:

The Kissimmee River was channelized. Lake Okeechobee was diked to prevent uncontrolled overflows from the lake. The region of the Everglades immediately south of Lake Okeechobee, now called the Everglades Agricultural Area, was drained and ground water levels were managed to reduce flood damages to agricultural production. A drainage system was constructed in the lower east coast to allow for urban, suburban and agricultural development. Central portions of the Everglades were diked to create the Water Conservation Areas, serving the dual purposes of storing water for human needs in the lower east coast and for deliveries to Everglades National Park. While some fish and wildlife value was expected to remain in the Water Conservation Areas, *the only area intended for preservation in its natural state was Everglades National Park.*⁸²

The levee along the eastern boundary of the Everglades—constructed to prevent water flow into the southeastern areas—isolated about 100,000 acres of pre-drainage ecosystem from the rest of the watershed.⁸³ Project infrastructure diverted large quantities of water to the coastal areas, interrupting the natural water storage and flow.⁸⁴ Without the massive

restoration by effectively acting as a giant barrier to water flow. Salt, Langdon & Doyle, *supra* note 28, at 9.

77. Nat'l Park Serv., Everglades National Park: Conservation Efforts, <http://www.nps.gov/ever/historyculture/consefforts.htm> (last visited Apr. 10, 2010).

78. *Grunwald*, *supra* note 3, at 197–99.

79. Salt, Langdon & Doyle, *supra* note 28, at 10.

80. See SECOND BIENNIAL REVIEW, *supra* note 6, at 24.

81. RESTUDY, *supra* note 61, at 1-1.

82. *Id.* (emphasis added).

83. SECOND BIENNIAL REVIEW, *supra* note 6, at 24–25.

84. *Id.* at 25.

drainage of the C&SF Project, only a fraction of South Florida would be habitable.⁸⁵ With its completion in 1969,⁸⁶ the C&SF Project converted over half of the pre-drainage Everglades to agricultural, urban, and suburban use.⁸⁷

D. *The Ecological Consequences of Drainage*

Completion of the C&SF Project “marked the demise of the Everglades natural system.”⁸⁸ While the C&SF Project “performed its assigned functions admirably,” the project had profound adverse effects on the natural ecosystem.⁸⁹ Lake Okeechobee, “the liquid heart of the Everglades,” was cut off from the natural rivers, streams, and sloughs that fed the southern wetlands.⁹⁰ Historically, water had flowed south from Lake Okeechobee into the pre-drainage Everglades via two main natural canals, the Shark River Slough and the Taylor Slough.⁹¹ By diking the lake and canalizing the sheet flow, the C&SF Project drastically reduced the quantity of water entering the Everglades.⁹² Because the sawgrass plains south of Okeechobee were no longer swollen with the lake’s overflow, the sloughs south of the plains were no longer soggy conduits and water ceased to flow into the Everglades. And so the Everglades was marooned, parched, at the southern tip of the peninsula.⁹³

The impact of the C&SF Project on the Everglades cannot be overstated. The Everglades ecosystem is fragile;⁹⁴ minor changes in hydrology, chemistry or topography can materially transform the marsh.⁹⁵ The life it supports adapted over thousands of years to—and in many cases became dependent upon—the original patterns of hydration.⁹⁶ For example, the seeds of cypress and sawgrass can germinate only on dry ground, even though the parent plants survive inundation for nine or ten months.⁹⁷ Six species of frog spawn exclusively during the first rains of

85. John J. Fumero, *Everglades Ecosystem Restoration: A Watershed Approach by the Legislature*, 74 FLA. BAR J., Oct. 2000, at 58, 58.

86. See SECOND BIENNIAL REVIEW, *supra* note 6, at 26 Box 2-2.

87. *Id.* at 25.

88. Salt, Langdon & Doyle, *supra* note 28, at 10.

89. Fumero, *supra* note 85, at 58.

90. Grunwald, *supra* note 3, at 202.

91. Salt, Langdon & Doyle, *supra* note 28, at 10. A “slough” is a slow-moving creek. Carter, *supra* note 43, at 124.

92. Salt, Langdon & Doyle, *supra* note 28, at 10.

93. “The endless acres of saw grass, brown as an enormous shadow where rain and lake water had once flowed, rustled dry.” Douglas, *supra* note 1, at 270.

94. Ansson, *supra* note 47, at 129.

95. GRUNWALD, *supra* note 3, at 18.

96. *Id.* at 16–17. “Everglades flora and fauna all adapted to these seesaws between flood and drought.” *Id.*

97. Ansson, *supra* note 47, at 130.

the wet summer season.⁹⁸ Perhaps the most poignant example of this precise evolution is the endangered Cape Sable seaside sparrow. This tiny Everglades native has been dubbed the “Goldilocks bird” because in order to thrive it needs just the right amount of water: not too dry, not too wet.⁹⁹ The C&SF Project toppled the hydrological building blocks of the ecosystem: 1,000 miles of canals, 720 miles of levees, and almost 200 water control structures replaced the 5,000-year-old sheet flow.¹⁰⁰

Subjugation of the natural sheet flow has made “an ecological mess.”¹⁰¹ There has been a ninety percent reduction in wading bird populations, and sixty-eight native plant and animal species are either threatened or endangered.¹⁰² Exotic vegetation thrives, destroying virtually all natural habitats.¹⁰³ Some distinctive Everglades habitats, such as the custard-apple forests and peripheral wet prairie, have disappeared entirely.¹⁰⁴ In dry years, brush fuels enormous wildfires.¹⁰⁵ In flood years, deer stranded on tree islands between too-high pools of water can either drown or starve.¹⁰⁶ The Everglades is “sometimes too wet, sometimes too dry, always obstructed and convoluted by highways, levees, and canals.”¹⁰⁷

There have also been adverse consequences for the human inhabitants of South Florida. While the C&SF Project infrastructure discharges 1.7 billion gallons of water per day out to sea,¹⁰⁸ freshwater shortages plague the region’s agricultural areas and residential communities.¹⁰⁹ The region’s foundation of porous limestone historically served as a natural aquifer; now the water is diverted to the coasts before it can soak into the ground.¹¹⁰ Saltwater intrusion into the freshwater aquifers from which South Floridians draw their water is a chronic problem.¹¹¹ So is soil subsidence.¹¹² Smoke from massive, roiling brush wildfires grounds

98. *Id.*

99. Alfred R. Light, *Tales of the Tamiami Trail: Implementing Adaptive Management in Everglades Restoration*, 22 J. LAND USE & ENVTL. L. 59, 77 (2006).

100. Carter, *supra* note 43, at 125.

101. GRUNWALD, *supra* note 3, at 264.

102. Comprehensive Everglades Restoration Plan, *Why Restore the Everglades?—Part 4: Ecosystem Problems Center on Water*, http://www.evergladesplan.org/about/why_restore_pt_04.aspx (hereinafter *Comprehensive Everglades Restoration Plan*).

103. Fumero, *supra* note 85, at 58.

104. SECOND BIENNIAL REVIEW, *supra* note 6, at 28.

105. C. Ron Allen, *Wildfire Threat High in ‘Glades*, SUN-SENTINEL (Fort Lauderdale), Jan. 27, 2009, at 1B.

106. GRUNWALD, *supra* note 3, at 240.

107. *Id.* at 264.

108. Comprehensive Everglades Restoration Plan, *supra* note 102.

109. Carter, *supra* note 43, at 123–24.

110. Salt, Langdon & Doyle, *supra* note 28, at 6.

111. GRUNWALD, *supra* note 3, at 239.

112. *Id.*

air traffic, blankets cities, and closes interstate highways.¹¹³ Populations of commercially important fish species in the St. Lucie and Caloosahatchee estuaries and the Biscayne and Florida bays are declining.¹¹⁴

III. THE PLAN FOR COMPREHENSIVE EVERGLADES RESTORATION

“The C&SF Project brought civilization to the Everglades—but not everyone agreed that civilization belonged in the Everglades.”¹¹⁵ Beginning in the 1960s, activists and constituents began campaigning to protect what remained of the natural area. Soon it became clear that the sheer size of the South Florida ecosystem and the number of interested stakeholders demanded a coordinated plan for Everglades restoration. With the passage of the Water Resources Development Act of 2000 (WRDA 2000), the CERP became the centerpiece of that restoration.

A. “Americans have decided they want their swamp back.”¹¹⁶

Increasing national focus on environmental and natural resource policy in the 1960s and local reports of saltwater intrusion, soil subsidence, and pesticides in Lake Okeechobee fish sparked the contemporary Everglades restoration movement.¹¹⁷ In 1970, Congress mandated a guaranteed minimum flow of water into Everglades National Park.¹¹⁸ In 1989, Congress expanded Everglades National Park, adding 107,600 acres to the original 1.3 million, and authorized the Corps to modify the C&SF Project to increase water flows into the Park.¹¹⁹ And in response to a lawsuit, the state of Florida agreed to construct stormwater treatment areas to filter phosphorous-laden agricultural runoff before it leached into the natural areas.¹²⁰

113. *Id.* at 240; *Fire Danger Puts Florida in Peril*, SUN SENTINEL (Fort Lauderdale), May 15, 2009, at 1A.

114. Comprehensive Everglades Restoration Plan, *supra* note 102.

115. GRUNWALD, *supra* note 3, at 244.

116. Michael Grunwald, *As Big Sugar Leaves the Scene, Hope at Last for the Everglades*, YALE ENV'T 360, July 7, 2008, <http://e360.yale.edu/content/feature.msp?id=2034>.

117. GRUNWALD, *supra* note 3, at 239–40.

118. Salt, Langdon & Doyle, *supra* note 28, at 11.

119. *Id.*

120. In 1988, the federal government sued the state of Florida and the SFWMD for failing to protect the Everglades from the phosphorous runoff from sugar plantations to the north of the Park. *Id.* at 11–12. Pursuant to the 1987 Surface Water Improvement and Management Act, the water management district was supposed to develop and implement plans to clean up the water bodies within its jurisdiction. *Id.* at 11. The result of the lawsuit was a 1991 settlement agreement whereby the state agreed to construct the treatment areas. *Id.* at 12. Florida's 1994 Everglades Forever Act incorporated the terms of the lawsuit settlement and established a program to improve water quantity and quality in the Everglades by regulating phosphorus, taxing farmers to help cover the cost of the cleanup, and constructing stormwater treatment areas. *Id.*

While the Everglades restoration plans of the 1970s and 1980s were “designed to fix links in the ecosystem,”¹²¹ some planners dreamt of “a megaproject that would fix the whole chain.”¹²² In the 1992 WRDA, Congress directed the Corps to work with the SFWMD to create a blueprint for a comprehensive restoration plan, re-evaluating the C&SF Project and recommending modifications to it with an eye toward restoring what was left of the Everglades as well as guaranteeing the continued supply of freshwater and flood protection for South Floridians.¹²³ In 1994, Governor Lawton Chiles established the Governor’s Commission for a Sustainable South Florida.¹²⁴ Secretary of the Interior Bruce Babbitt proposed collaboration between all of the Everglades stakeholders—including the federal government, state government, local governments, Native American tribes, and other interested parties—and in 1996 the South Florida Ecosystem Restoration Task Force was formally authorized by Congress to coordinate systemic restoration planning.¹²⁵ Together with the Corps, these parties created a conceptual plan for comprehensive restoration.

This conceptual plan was submitted to Congress in August of 1996.¹²⁶ In 1999, the Corps and the SFWMD completed the blueprint for comprehensive restoration, now called the “Restudy.”¹²⁷ The Restudy, as authorized by WRDA 2000, became known as the CERP. With a mandate to “get the water right,” the goal of the CERP was to ensure the right quantity, quality, timing, and distribution of water throughout the region.¹²⁸

B. *The CERP*

The scale of Everglades restoration as envisioned by the CERP is unprecedented. It is the largest investment in ecosystem restoration authorized by Congress to date¹²⁹ and has been described as the “world’s most ambitious and extensive wetlands restoration.”¹³⁰ The

121. GRUNWALD, *supra* note 3, at 277.

122. *Id.*

123. RESTUDY, *supra* note 61, at 1-3. The Water Resources Development Act of 1996 provided further specific direction and guidance for the Restudy. Fumero, *supra* note 85, at 59.

124. John J. Fumero & Keith W. Rizzardi, *The Everglades Ecosystem: From Engineering to Litigation to Consensus-Based Restoration*, 13 ST. THOMAS L. REV. 667, 686 n.104 (2001).

125. Salt, Langdon & Doyle, *supra* note 28, at 13. The authorization came in the 1996 WRDA. *Id.*

126. *Id.*

127. *See generally* RESTUDY, *supra* note 61.

128. Mary Doyle & Donald E. Jodrey, *Everglades Restoration: Forging New Law in Allocating Water for the Environment*, 8 ENVTL. LAW. 255, 262 (2002).

129. PERVAZE A. SHEIKH & NICOLE T. CARTER, CONG. RESEARCH SERV., EVERGLADES RESTORATION: THE FEDERAL ROLE IN FUNDING CRS-2 (Jan. 27, 2006).

130. Light, *supra* note 12, at 942.

CERP covers an 18,000-square-mile area and includes sixteen counties. In addition to Everglades National Park, the plan covers three other national parks and sixteen wildlife refuges.¹³¹ It proposes acquiring 220,141 acres of land, developing over 217,000 acres of surface water storage reservoirs and water preserve areas, increasing the water delivery into the Everglades by 320 billion gallons per year, reusing 220 million gallons per day of urban wastewater, and removing 240 miles of barriers to sheetflow.¹³² While the overall effort to restore the Everglades consists of many projects, the CERP is by far the largest of the initiatives.¹³³ The total project was originally projected to cost \$7.8 billion and take more than three decades to complete.¹³⁴

For the most ambitious wetland restoration project ever conceived, the federal government and the state of Florida would be partners.¹³⁵ The Corps would be the federal actor responsible for CERP planning and implementation; the SFWMD would be its counterpart on the state side.¹³⁶ Per WRDA 2000, the “Federal share of the cost of carrying out a project authorized [by the Act] shall be 50 percent.”¹³⁷ Thus, the federal government and the non-federal sponsors would share equally in the cost of construction, operation, and maintenance of authorized projects.¹³⁸ This was a material departure from traditional ninety-ten or eighty-twenty funding splits of other ecosystem restorations.¹³⁹ According to the Senate committee report recommending the CERP’s passage, “the unique nature of this project and the Federal benefits from the restoration Plan” warranted the untraditional fifty-fifty cost-sharing.¹⁴⁰ “The

131. Carter, *supra* note 43, at 123.

132. Fumero & Rizzardi, *supra* note 123, at 687–88.

133. SECOND BIENNIAL REVIEW, *supra* note 6, at 31. When Congress authorized the CERP in 2000, other government agencies (including the SFWMD, the National Park Service, the U.S. Fish & Wildlife Service) were already implementing restoration projects. *Id.* at 35. The CERP projects were predicated on the completion of many of these projects; where this is the case, the “non-CERP” restoration projects are critical to overall restoration. *Id.*

134. Comprehensive Everglades Restoration Plan, CERP: The Plan in Depth—Part I, http://www.evergladesplan.org/about/rest_plan_pt_01.aspx.

135. Fumero & Rizzardi, *supra* note 124, at 692.

136. Fumero, *supra* note 85, at 59.

137. Water Resources Development Act of 2000, Pub. L. No. 106-541, § 601, 114 Stat. 2680, 2681 (2000).

138. Doyle, *supra* note 11, at 62.

139. Light, *supra* note 12, at 950. The CERP’s funding arrangement has sparked “Everglades envy” among other states facing ecosystem restorations, such as Louisiana and California. *Id.* at 943. *See also* Doyle, *supra* note 11, at 62–63 (“This 50-50 financial arrangement is unique for Army Corps projects; usually the federal government pays substantially less than half the cost of construction and the state partner pays the entire cost of operation and maintenance.”).

140. S. REP. NO. 106-363, at 15 (2000), *available at* http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=106_cong_reports&docid=f:sr363.106.pdf. “Approximately half the lands that comprise the natural system in the South Florida ecosystem are Federally-managed lands, and these Federal lands will realize substantial benefits through the implementation of the CERP.” *Id.*

CERP documents, however, represented only a vision for the Everglades—a vision which had been adopted by the stakeholders, but which also needed to be codified in law, and *funded*.¹⁴¹

Since Congress approved the CERP in 2000, Florida has outspent the federal government by a six-to-one ratio.¹⁴² Restoration advocates have criticized the federal government for its lackadaisical follow-through, bitterly observing that “words were encouraging at first, but money never backed promises.”¹⁴³ One insider has recommended that other states consider proceeding with their restoration projects without seeking federal funds because the Everglades project had experienced “nothing but delay, getting bogged down, and not getting things done” because authorized federal funds have not been forthcoming.¹⁴⁴ As a *New York Times* article observed:

The rescue of the Florida Everglades, the largest and most expensive environmental restoration project on the planet, is faltering. Seven years into what was supposed to be a four-decade, \$8 billion effort to reverse generations of destruction, federal financing has slowed to a trickle. Projects are already years behind schedule.¹⁴⁵

As of November 2007, the state had spent over \$2 billion to the federal government’s \$358 million;¹⁴⁶ thus, the fifty-fifty cost-sharing envisioned by the CERP remains unrealized.

141. Fumero & Rizzardi, *supra* note 124, at 688 (emphasis added).

142. Katherine Boyle, *Everglades: Florida Lawmakers Rally to Get Stimulus Funding for Restoration*, GREENWIRE, Jan. 12, 2009, <http://www.eenews.net/gw/>. In passing WRDA 2000, Congress initially authorized \$1.4 billion in federal funding for CERP projects. This included four pilot projects (\$34.5 million): the Calosahatchee River C-43 Basin Aquifer Storage and Recovery; Lake Belt In-Ground Reservoir Technology; the L-31N Seepage Management; and, Wastewater Reuse Technology. Water Resources Development Act of 2000, Pub. L. No. 106-541, 114 Stat. 2680, § 601(b)(2)(B)(i) – (iv) (2000). This also included three projects conditionally authorized on the completion of the Mod Waters project (\$550.5 million). *Id.* The Modified Water Deliveries Project, or “Mod Waters,” is perhaps the most notorious of the restoration projects. The project was originally authorized by Congress in the 1989 Everglades Expansion Act to restore more natural water flows into Everglades National Park via Shark River Slough. SECOND BIENNIAL REVIEW, *supra* note 6, at 109. In the nearly twenty years since its authorization, Mod Waters “has been plagued by complex and difficult obstacles.” *Id.* at 115. The result has been “significant delays in project design and implementation.” *Id.*

143. Editorial, *Feds’ River of Excuses*, PALM BEACH POST, July 9, 2007, at 10A.

144. KAREN VIGMOSTAD ET AL., NORTHEAST-MIDWEST INST., LARGE-SCALE ECOSYSTEM RESTORATION: LESSONS FOR EXISTING AND EMERGING INITIATIVES 35 (2005).

145. Abby Goodnough, *Vast Effort to Save Everglades Falters as U.S. Funds Dwindle*, N.Y. TIMES, Nov. 2, 2007, at A1.

146. *Id.* When the complete range of restoration-related activities is considered, the state will have spent \$4.8 billion to the federal government’s \$2.3 billion. SECOND BIENNIAL REVIEW, *supra* note 6, at 84. Although the CERP contemplated federal funding of about \$100 million per year, in fiscal year 2008 the Corps received \$131 million for the Kissimmee River restoration and Mod Waters (two critical non-CERP projects) and the CERP combined. *Id.* at 85.

IV. FEDERAL FUNDING OF COMPREHENSIVE EVERGLADES RESTORATION

Restoration experts maintain that the “ultimate success” of the restoration “depends upon receiving continued congressional funding.”¹⁴⁷ In its report, the National Research Council found that future progress on the restoration was “likely to be limited by the availability of funding and an authorization and funding mechanism that was not designed for a project of this magnitude and complexity and seems ill suited for it.”¹⁴⁸ Since WRDA 2000, only *three* CERP projects have been submitted to Congress for authorization.¹⁴⁹ Of those projects, at least one has received woefully inadequate funding for its implementation.¹⁵⁰ It is the application of the traditional framework for authorizing and funding Corps projects to Everglades restoration that has caused serious this delay and its attendant problems of rising costs and continued ecosystem decline.

A. *A Critique of the Framework for Federal Authorization and Funding*

According to government officials, restoration progress was “limited by the availability of less federal funding than expected and a lack of congressional authorization for some of the projects.”¹⁵¹ Financial support from the federal government is critical to comprehensive Everglades restoration because executing the “world’s most ambitious and extensive wetlands restoration”¹⁵² is exceedingly expensive.¹⁵³ Given the large swaths of land involved and the scientific complexities of mimicking the hydrologic results of natural sheet flow, the “only entity in the picture financially capable of sustaining such high costs is the federal government.”¹⁵⁴ The State of Florida cannot fund eighty or ninety percent of total restoration costs.¹⁵⁵

147. See *Introduction to Part V: The Upper Mississippi River*, in *LARGE-SCALE ECOSYSTEM RESTORATION: FIVE CASE STUDIES FROM THE UNITED STATES* 225, 226–27 (Mary Doyle and Cynthia A. Drew eds., 2008).

148. *SECOND BIENNIAL REVIEW*, *supra* note 6, at 228.

149. *Id.* at 89.

150. The authorized Indian River Lagoon–South project was not fully funded. Larry Lipman, *Dike Budget Disappoints Lawmakers*, *PALM BEACH POST*, Feb. 5, 2008, at A.

151. *Hearing*, *supra* note 7, at 9; *accord* *SECOND BIENNIAL REVIEW*, *supra* note 6, at 227–28.

152. Light, *supra* note 12, at 942.

153. Mary Doyle, *Introduction* to *LARGE-SCALE ECOSYSTEM RESTORATION: FIVE CASE STUDIES FROM THE UNITED STATES* ix, xii (Mary Doyle and Cynthia A. Drew eds., 2008).

154. *Id.* The state of Florida does not finance the entire non-federal half; three county governments and two American Indian tribes also serve as non-federal sponsors of the CERP. *Hearing*, *supra* note 7, at 5 n.4.

155. “Florida needs your commitment. . . . Foremost, we need to put Washington’s financial commitment on the table.” *Everglades Restoration: Hearing Before the S. Comm. on the*

Comprehensive restoration demands speedy authorization of projects and promised federal funds to be at the ready once authorization has been obtained because proper sequencing of projects is critical to overall success.¹⁵⁶ Due of the scale of the restoration and the fragile natural features of the ecosystem, project managers must implement “a clear strategy for managing and coordinating restoration efforts”¹⁵⁷ since delays or changes to one project component can jeopardize the entire Plan’s feasibility.¹⁵⁸ In other words, a domino effect occurs when the implementation of one CERP project is delayed. For example,

restoring sheet flow through the [Water Conservation Area 3A Decompartamentalization and Sheet Flow Enhancement Project] requires greater flow of water into the northeast area of Everglades National Park. . . At the same time, additional seepage controls are needed to minimize flooding in the eastern urbanized areas, and Tamiami Trail modifications are needed to protect the road base and to prevent flooding of this hurricane evacuation route.¹⁵⁹

Similarly, “[d]elays have occurred in completing the CERP-related Modified Water Deliveries to Everglades National Park (Mod Waters) project,¹⁶⁰ which is a major building block for CERP. These delays, in turn, have delayed CERP implementation.”¹⁶¹ Testifying in 2007 before the Senate subcommittee overseeing the CERP, the Government Accountability Office’s Director of Natural Resources and Environment concluded that “the 60 CERP projects, which are the most critical to the restoration’s overall success, are among those projects that are currently being designed, planned, or have not yet started. Some of these projects are behind schedule by up to 6 years.”¹⁶²

Delay of CERP implementation has resulted in continued ecological decline. The National Research Council concluded that without “near-term progress,” the Everglades ecosystem is facing “irreversible

Environment and Public Works, 106th Cong. (2000) (testimony of Jeb Bush, Governor of Florida).

156. SECOND BIENNIAL REVIEW, *supra* note 6, at 91.

157. *Id.* at 34.

158. Carter, *supra* note 43, at 129.

159. SECOND BIENNIAL REVIEW, *supra* note 6, at 91.

160. WRDA 2000 contains an explicit provision requiring completion of the Mod Waters project before certain CERP projects can be appropriated. Water Resources Development Act of 2000, Pub. L. No. 106-541, 114 Stat. 2680 (2000). As Mod Waters is stalled, construction of critical CERP components in the eastern Everglades cannot begin.

161. *Hearing*, *supra* note 7, at 9. The Mod Waters project was delayed “because, among other things, Interior did not receive enough funding to complete the construction of this project.” *Id.* at 11.

162. *Id.* at “What GAO Found.” A National Research Council report in 2007 (the first biennial review) found that most of the CERP accomplishments to date were programmatic, such as land acquisition or project implementation studies to lay the foundation for later project construction. SECOND BIENNIAL REVIEW, *supra* note 6, at 71.

losses to its character and function.”¹⁶³ While the restoration effort trips over itself, the Everglades continues to thirst for the very fresh water that is currently pumped out to sea.¹⁶⁴ And, there has been continued development within the footprint of the restoration: In the seven years since its authorization, thousands of acres of wetlands and wildlife habitat have disappeared.¹⁶⁵ Developers and rock miners have devoured the land to feed the (recently) insatiable South Florida construction industry.¹⁶⁶ Suburban communities continue to be developed within the footprint of the restoration, and “once housing is developed, it won’t be taken down.”¹⁶⁷

Moreover, projected costs have risen as a result of the delay. In 2006, the Government Accountability Office concluded that the total cost of the restoration (non-CERP projects included) had ballooned from \$15.4 billion to \$19.7 billion.¹⁶⁸ As delays in construction increase, so do costs, potentially leaving the federal government with an even greater funding burden.¹⁶⁹

Sluggish federal authorization and funding is also threatening the CERP’s revolutionary state-federal partnership.¹⁷⁰ In 2004, the state and SFWMD launched the “Acceler8” program.¹⁷¹ CERP planners selected eight key restoration projects for expedited design, funding, and construction to be implemented by the state of Florida.¹⁷² The creation of Acceler8 may foretell an unraveling of the partnership and a shift in the federal government’s role from implementing restoration alongside the

163. *Id.* at 69. Specifically, recent water management strategies are negatively impacting the endangered snail kite and are frustrating protection of the endangered Cape Sable seaside sparrow; tree islands are undergoing continued decline in both number and surface area; Lake Okeechobee continues to suffer from poor water quality and habitat degradation; and, the number and area of influence of invasive species are increasing, presenting further challenges to restoration efforts. *Id.*

164. Comprehensive Everglades Restoration, *supra* note 102.

165. Goodnough, *supra* note 145.

166. *Id.*

167. VIGMOSTAD ET AL., *supra* note 144, at 31. Pursuant to the CERP the State is responsible for all land acquisition. However, with State resources committed to picking up the slack in funding for other restoration activities, the blame for continued development within the restoration’s footprint can fairly be laid at the federal government’s doorstep.

168. *Hearing*, *supra* note 7, at 3.

169. SECOND BIENNIAL REVIEW, *supra* note 6, at 228. This assumes that the federal government remains committed to comprehensive restoration, rather than crying “Uncle!” and leaving both the Everglades and South Floridians to fend for themselves.

170. Mary Doyle, *Conclusion* to LARGE-SCALE ECOSYSTEM RESTORATION: FIVE CASE STUDIES FROM THE UNITED STATES 291, 294 (Mary Doyle and Cynthia A. Drew eds., 2008).

171. S. Fla. Water Mgmt. Dist., Everglades Expedited Projects!, https://my.sfwmd.gov/portal/page/portal/pg_grp_acceler8_v2/pg_acceler8_overview?navpage=overview (last visited Apr. 10, 2010).

172. *Id.*; see also Light, *supra* note 12, at 940. Pursuant to a negotiated agreement with the Secretary of the Army, Florida will be reimbursed by the federal government for its half of the projects’ expenses. Light, *supra* note 12, at 954–55.

SFWMD to providing oversight and regulating the state's efforts through, for example, Section 404 permitting.¹⁷³ In sum, without a boost in the rate of federal authorization and appropriation, the restoration will be materially limited and it will not be comprehensive.

The CERP delays can be traced to the legislative framework for authorizing and funding Corps civil works projects. Implementation of Corps civil works¹⁷⁴ projects, including the CERP, is a two-step process. Congress first authorizes new water resources studies or projects in an omnibus water resources bill, the WRDA.¹⁷⁵ WRDA legislation provides the Corps with the authority to consider water resources problems, construct projects or make modifications to existing Corps projects;¹⁷⁶ it is during this step when a given project's essential character and goals are established.¹⁷⁷ Federal funding for authorized Corps projects follows in an appropriations bill. Authorized Corps civil works activities are funded via the annual Energy and Water Development Appropriations Act.¹⁷⁸

This framework developed during another era: the "'golden age' of Big Dam construction in the United States."¹⁷⁹ For most of its history, the Corps constructed projects to support commercial navigation, generate hydroelectric power, maintain deep water ports, stabilize beaches, and—as evidenced from its doings in the Everglades—mitigate downstream flood damage and deliver water to urban and agricultural areas.¹⁸⁰ It is only recently that the Corps's civil authority expanded from these traditional activities to include ecosystem restoration.¹⁸¹ The shift in mission can be traced to the 1960s, when increased focus on the environmental consequences of natural resource exploitation contributed

173. Light, *supra* note 12, at 941, 958. Section 404 is the provision of the Clean Water Act of 1977 that requires a property owner to obtain a Corps permit before dredging or filling in the navigable waters of the United States. ANDREW A. DZURIK, WATER RESOURCES PLANNING 48 (2003).

174. The Corps is an agency within the Department of Defense with both military and civilian responsibilities. NICOLE T. CARTER & H. STEVEN HUGHES, CONG. RESEARCH SERV., ARMY CORPS OF ENGINEERS WATER RESOURCES PROJECTS: AUTHORIZATION AND APPROPRIATIONS CRS-1 (Nov. 26, 2008). Naturally, restoration projects fall under its civil works program. *Id.*

175. NICOLE T. CARTER ET AL., CONG. RESEARCH SERV., WATER RESOURCES DEVELOPMENT ACT (WRDA): CORPS OF ENGINEERS AUTHORIZATION ISSUES CRS-1 (Oct. 30, 2007).

176. *Id.* at CRS-3.

177. *Id.* at CRS-4.

178. CARTER & HUGHES, *supra* note 174, at CRS-6.

179. A. Dan Tarlock, *A First Look at a Modern Legal Regime for a "Post-Modern" United States Army Corps of Engineers*, 52 KAN. L. REV. 1285, 1286 (2004).

180. *Id.*; see also U.S. Army Corps of Engineers, Brief History of the Corps, <http://www.usace.army.mil/History/Pages/Brief.aspx> (last visited Apr. 10, 2010).

181. See CARTER ET AL., *supra* note 175, at CRS-3.

to rising opposition to Corps's water projects.¹⁸² With Congress's explicit acknowledgement in the Water Resources Development Act of 1986 that "environmental considerations were intrinsic to water resources planning,"¹⁸³ the Corps became "an agency whose primary mission is river and coastal ecosystem restoration and the management of its existing infrastructure."¹⁸⁴ But the legislative framework for authorizing and funding Corps civil projects has not evolved to account for the shift in mission from navigation and flood control to ecosystem restoration.

Unlike traditional Corps civil works—single, independent projects—Everglades restoration consists of the sixty CERP projects, plus the non-CERP projects, all of which were designed to operate within an integrated system.¹⁸⁵ The restoration proposes to modify an irrigation and flood control system that consists of 1,000 miles of canals, 720 miles of levees, and several hundred water control structures,¹⁸⁶ and calls for the construction of water treatment facilities as well as surface and underground water storage reservoirs, the removal of man-made canals and roads that are barriers to sheet flow, exotic plant eradication, and restoration of native hardwood hammocks.¹⁸⁷ As discussed in the preceding section, proper sequencing of project implementation is critical to overall success¹⁸⁸ and delays to one project component can jeopardize the CERP's overall feasibility.¹⁸⁹

The problem is the application of this ancient legislative framework to the most revolutionary ecosystem restoration ever conceived. First, water resources legislation has not been passed biannually as was contemplated by the CERP planners. The CERP "rested on the assumption that key projects would be steadily and consistently authorized in Water Resources Development acts passed *every 2 years*."¹⁹⁰ Although Congress has historically debated water resources legislation biennially, enactment has not followed suit,¹⁹¹ in large part because the bills are

182. U.S. Army Corps of Engineers, Brief History of the Corps, <http://www.usace.army.mil/History/Pages/Brief.aspx> (last visited Apr. 10, 2010).

183. *Id.*

184. Tarlock, *supra* note 179, at 1287.

185. SECOND BIENNIAL REVIEW, *supra* note 6, at 228.

186. Comprehensive Everglades Restoration Plan, CERP: The Plan in Depth—Part I, http://www.evergladesplan.org/about/rest_plan_pt_01.aspx.

187. See Comprehensive Everglades Restoration Plan: The Journey to Restore America's Everglades, CERP Projects, http://www.evergladesplan.org/pm/projects/project_list.aspx.

188. SECOND BIENNIAL REVIEW, *supra* note 6, at 91.

189. Carter, *supra* note 43, at 129.

190. SECOND BIENNIAL REVIEW, *supra* note 6, at 82 (emphasis added).

191. CARTER ET AL., *supra* note 175, at CRS-4. Consideration and enactment of water resources legislation has followed a quasi-biennial schedule beginning in 1974. *Id.* For example, the Water Resources Development Act of 1986 "marked the end of a decade-long stalemate

widely perceived as vehicles for “piecemeal funding of pet projects.”¹⁹² These bills are particularly vulnerable to “pork”¹⁹³ because once the House Transportation and Infrastructure Committee or the Senate Environment and Public Works Committee decides to consider a water resources bill, any Member of Congress may request the inclusion of a study authorization, project authorization or project modification.¹⁹⁴ The pork thus both hampers passage of these bills as well as results in a deluge of sweetheart projects when the bills are finally passed. For example, the CERP projects authorized in the 2007 Water Resources Development Act were among 900 other projects crammed into the bill.¹⁹⁵ The resulting ever-increasing backlog of Corps projects is also a sticking point, as some legislators refuse to authorize new projects before the Corps has finished what it already has on its plate.¹⁹⁶

The most recent tug-of-war between trimming and adding pork resulted in a seven-year stretch without a water resources bill.¹⁹⁷ After WRDA 2000, seven years elapsed before Congress passed the next one.¹⁹⁸ This was despite consideration of legislation in the 107th, 108th, and 109th Congresses.¹⁹⁹ In fact, the 2007 WRDA was vetoed by President Bush; fortunately for the CERP, Congress successfully overrode the veto.²⁰⁰ Since the restoration plan specifically required authorization of

between Congress and the executive branch regarding authorizations” and disputes over cost-sharing, user fees, and environmental requirements. *Id.* WRDAs were passed in 1974, 1976, 1986, 1988, 1990, 1992, 1996, 1999, 2000, and 2007. *Id.*

192. Christine A. Klein & Sandra B. Zellmer, *Mississippi River Stories: Lessons from a Century of Unnatural Disasters*, 60 SMU L. REV. 1471, 1535 (2007); see also Grunwald, *supra* note 26, at 71 (noting that the water and highway omnibus bills are two of the most popular pieces of legislation on “pork-obsessed Capitol Hill”); see generally *Congress Overrides Bush Veto of Water Resources Development Act*, ENV’T NEWS SERVICE, Nov. 8, 2007, <http://www.ens-newswire.com/ens/nov2007/2007-11-08-02.asp> (surveying Democratic and Republican Senators’ perspectives on WRDA 2007).

193. “Federal water resources development legislation personifies pork barrel politics.” Robert Jerome Glennon & John E. Thorson, *Federal Environmental Restoration Initiatives: An Analysis of Agency Performance and the Capacity for Change*, 42 ARIZ. L. REV. 483, 511 (2000).

194. CARTER & HUGHES, *supra* note 173, at CRS-5.

195. See Grunwald, *supra* note 26.

196. CARTER & HUGHES, *supra* note 174, at CRS-6. In fact, in 2008 then-presidential candidate John McCain attributed his unpopular-in-Florida vote against WRDA 2007 (with its attendant Everglades funding) as an objection to pork and demand for Corps reform. Jonathan Weisman, *In Campaign, One Man’s Pragmatism Is Another’s Flip-Flopping*, WASH. POST, June 28, 2008, at A06.

197. Editorial, *Don’t Pass the Pork*, WASH. POST., July 20, 2007, at A18; see generally *Senate Overrides Bush’s Water Bill Veto*, CNN.COM, Nov. 8, 2007, <http://www.cnn.com/2007/POLITICS/11/08/congress.water/index.html> (surveying partisan views of WRDA 2007).

198. CARTER & HUGHES, *supra* note 174, at CRS-5.

199. *Id.*

200. David Stout, *In First Bush Veto Override, Senate Enacts Water Bill*, N.Y. TIMES, Nov. 7, 2007, <http://www.nytimes.com/2007/11/08/washington/08cnd-spend.html>.

CERP projects in a WRDA,²⁰¹ without a water resources bill, new Corps CERP projects could not be authorized. And without authorization, appropriations could not, and did not, follow.

Second, even should future water resources bills be passed every two years like clockwork, the fact would remain that, under the current framework, such authorization does not guarantee funding.²⁰² For example, in 2008, the Corps was ready to begin the authorized Indian River Lagoon–South project and needed \$17 million for construction of reservoirs and stormwater treatment areas.²⁰³ However, funding came up short in the Bush Administration’s budget.²⁰⁴ This was despite the fact that the Indian River project is critical: without it, “Everglades restoration can’t really begin.”²⁰⁵ Similarly, in 1999, the House Appropriations Committee did not approve the full measure of funding requested.²⁰⁶ The CERP received \$114 million of the \$150 million requested;²⁰⁷ Congress refused to appropriate the funds required to buy land that would filter agricultural runoff.²⁰⁸ Notably, many authorized Corps civil works projects *never* receive appropriations.²⁰⁹ The Corps currently has an estimated \$38 billion to \$60 billion backlog of authorized-but-unfunded projects (depending on the suite of project authorizations considered); more than 500 projects await funding.²¹⁰ “At current funding levels, it would take twenty years just to complete ongoing authorized projects.”²¹¹

With limited money to go around, authorized projects are not necessarily “funded according to need, cost-effectiveness or relation to national priorities”; rather, it is more likely that they are funded according to “congressional clout.”²¹² Therefore, restoration planners must be wary that funds “flow toward projects that satisfy ecological rehabilitation needs, rather than flowing toward projects that appease powerful

201. In 2000, the Senate Committee Report recommending CERP passage explicitly contemplated that remaining projects (those which were not authorized in the WRDA 2000) would be “submitted to Congress for authorization biennially, as part of future WRDAs.” S. REP. NO. 106-363, at 4 (2000), *available at* http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=106_cong_reports&docid=f:sr363.106.pdf.

202. See CARTER ET AL., *supra* note 175, at CRS-4.

203. Lipman, *supra* note 150.

204. *Id.*; cf. Editorial, *Fresh Hope for the Everglades*, N.Y. TIMES, Jan. 10, 2009, at 20A (“Mr. Bush and his team did not champion it. As a result, Congress has contributed only about \$500 million to a project on which Florida, with far fewer resources, has contributed \$2.5 billion.”).

205. Editorial, *Slap at South Florida*, PALM BEACH POST, Feb. 9, 2008, at 10A.

206. Ansson, *supra* note 47, at 147–48.

207. *Id.*

208. *The Admirable Everglades Crusade*, TAMPA TRIBUNE, July 8, 1999, at 10.

209. CARTER ET AL., *supra* note 175, at CRS-4.

210. *Id.*

211. Glennon & Thorson, *supra* note 193, at 512.

212. Grunwald, *supra* note 26.

interest groups.”²¹³ The CERP is particularly vulnerable in this respect, given the plan’s dual goals of Everglades restoration and ensuring an adequate water supply for the growing urban and agricultural communities of South Florida.²¹⁴ In fact, the three Everglades restoration projects authorized in WRDA 2007—Indian River Lagoon, Picayune Strand, and the Site 1 Impoundment—represent projects with strong local stakeholder support (or minimal stakeholder opposition), even though they may not represent the highest-priority projects with the greatest potential for achieving system-wide restoration benefits.²¹⁵

Under the current framework, achieving adequate funding for Everglades restoration will require decades-long sustained political will.²¹⁶ The political will to regularly pass a water resources bill containing the vital authorization for new CERP projects, despite the polarizing nature of these bills. The political will to fund the CERP projects, even as they compete with the hundreds of other authorized Corps projects awaiting federal funding. And the political will to ensure that federal funds flow to restoration projects that might not have easily-identifiable benefits but which are nonetheless vital to comprehensive restoration.²¹⁷

B. *A Proposal for a Federal Everglades Trust Fund*

There is a clear consensus: the CERP needs federal funds, and fast. The National Research Council concluded that another “7-year hiatus until the next WRDA bill would be potentially *devastating* to restoration progress”²¹⁸ and that “funding limitations will certainly create additional constraints to CERP progress in the years ahead, as non-CERP and CERP projects compete for limited state and federal resources.”²¹⁹ The

213. Stephen Polasky, *River of Plans for the River of Grass*, in *LARGE-SCALE ECOSYSTEM RESTORATION: FIVE CASE STUDIES FROM THE UNITED STATES* 44, 52 (Mary Doyle and Cynthia A. Drew eds., 2008).

214. The goal of the CERP, as stated in the WRDA 2000, is “restoration, preservation, and protection of the South Florida Ecosystem while providing for other water-related needs of the region, including water supply and flood protection.” *SECOND BIENNIAL REVIEW*, *supra* note 6, at 29.

215. *Id.* at 91.

216. *See* Polasky, *supra* note 213, at 52 (“The major test for the Everglades will be whether sufficient long-term political agreement can be maintained to make substantial progress toward ecosystem restoration or, at minimum, rehabilitation goals.”). Senator Bob Graham, a key restoration advocate, worried that “if the ecosystem is hemorrhaging on the operating table after 10 years and \$4 billion, Congress will try to pull the plug.” Grunwald, *supra* note 8.

217. *SECOND BIENNIAL REVIEW*, *supra* note 6, at 91.

218. *Id.* at 228 (emphasis added).

219. *Id.* at 89. This was not news: In its first report on CERP progress, issued in 2006, the National Academy of Sciences concluded that a “boost in the rate of federal spending” was required for the restoration to be completed on schedule. Press Release, The Nat’l Academies, *Groundwork Laid for Everglades Restoration, but Projects Experiencing Delays* (Sept. 25, 2006), available at <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=11754>.

Government Accountability Office reported that restoration “[p]rogress was limited by the availability of less federal funding than expected and a lack of congressional authorization for some of the projects.”²²⁰ Years ago Florida Senator Bob Graham called for a “permanent source of state and federal funding” for Everglades restoration.²²¹ The history of the CERP to date compels stakeholders and legislators to rethink the framework for authorization and appropriation in order to achieve restoration goals. In that spirit, this Note proposes the creation of a federal Everglades trust fund.

1. FEDERAL TRUST FUNDS

Trust funds are one accounting mechanism by which a government may guarantee funds for a particular purpose or program.²²² They are common vehicles through which the federal government funds its “long-term” financing commitments, such as social insurance, federal insurance, education benefits, and some environmental cleanup projects.²²³ When Congress creates a trust fund, it designates funding to execute a specific purpose or program or benefit a stated group of individuals.^{224,225}

There are several mechanisms by which such a fund may be financed. Perhaps most commonly, a designated funding source generates “earmarked receipts,” which are collections of revenue that have been legally designated to a specific fund for a specific purpose or program.²²⁶ For example, the Old-Age & Survivors Insurance Fund is financed by payroll tax contributions from employees and employers.²²⁷ Trust fund balances can also stem from a combination of earmarked receipts and appropriated contributions from the general fund.²²⁸ Some

220. *Hearing, supra* note 7, at 9.

221. Light, *supra* note 12, at 954.

222. U.S. GEN. ACCOUNTING OFFICE, FEDERAL TRUST AND OTHER EARMARKED FUNDS: ANSWERS TO FREQUENTLY ASKED QUESTIONS 7 (2001). It is important to note a significant difference between a government trust fund and a private trust fund. Federal trust funds are an accounting mechanism for tracking of all income to and disbursement from the fund. *Id.* In contrast with traditional trusts, assets are not legally segregated for particular classes of beneficiaries nor does the federal government stand as a fiduciary; accordingly, the federal government does not have a legal obligation to protect the interests of the program for which the fund was established, and may raise or lower future trust fund collections and payments, or change the purposes for which the collections are used, by changing existing laws. *See id.* at 7; *see also* Howell E. Jackson, *Accounting for Social Security and Its Reform*, 41 HARV. J. ON LEGIS. 59, 69 (2004).

223. U.S. GEN. ACCOUNTING OFFICE, *supra* note 222, at 24–25.

224. *Id.* at 7.

225. *See id.* at 7 n.1.

226. *Id.*

227. *Id.* at 67.

228. *Id.* at 17.

long-term commitments, such as those related to some pensions and environmental cleanups, are financed through general fund revenues instead of earmarked funds.²²⁹ Designating a funding source and sequestering that money from the general fund of the United States Treasury demonstrates congressional intent to secure funds for a given purpose.²³⁰

2. THE CASE FOR A FEDERAL EVERGLADES TRUST FUND

Dedicating federal funds to Everglades restoration is justified on several grounds. Most compellingly, the creation of a trust fund does not represent anything more than a means to fulfill the federal commitment authorized by Congress back in 2000. It is simply a way of ensuring that speedy project authorization and the funds necessary for implementation are available as restoration project plans are finalized. Because time is money and ecological decline, the faster the federal government authorizes and funds Everglades restoration, the cheaper its price tag. Another reason is that restoring the Everglades is necessary to protect the life of *all* species in South Florida²³¹ Additionally, the CERP is a model for comprehensive environmental restorations throughout the United States.²³² Projects to restore national treasures such as coastal Louisiana, the Great Lakes, and the Chesapeake Bay are among those that look to the CERP for guidance.²³³ Lastly, there are simply “no other Everglades in the world.”²³⁴ “Restoring America’s Everglades builds on the very American ideal that there are unique landscapes that we as a nation believe are worth preserving.”²³⁵

Creating a federal trust fund for Everglades restoration would not be an unprecedented use of the trust fund mechanism; indeed, “trust funds have often been created in response to the public policy concerns of the time.”²³⁶ For example, in response to the widespread joblessness and decrease in per capita personal income during the Great Depression, the Unemployment and Federal Old-Age & Survivors Insurance (Social

229. *Id.* at 25.

230. For example, in 1956 the Highway Trust Fund was established as a means to provide dedicated funding for capital construction of the interstate highway system. *Id.* at 54.

231. Water Resources Development Act of 2000, Pub. L. No. 106-541, 114 Stat. 2680 (2000).

232. “What we do here in managing the application of science, adaptive management, dispute avoidance and resolution, and coalition building is crucial not only for South Florida and our state, but for the future of the ecosystem-wide approach to environmental restoration. We are the pioneers others will look to.” Mary Doyle, Prof. of Law, Univ. of Miami, Speech to the University of Florida College of Law PIEC: Implementing Everglades Restoration (Mar. 23, 2001), in 17 J. LAND USE & ENVTL. L. 59, 62–63 (2001).

233. Grunwald, *supra* note 116.

234. DOUGLAS, *supra* note 1, at 1.

235. *Everglades Restoration: Hearing Before the S. Comm. on the Environment and Public Works*, 106th Cong. (2000) (testimony of Jeb Bush, Governor of Florida).

236. U.S. GEN. ACCOUNTING OFFICE, *supra* note 222, at 15.

Security) trust funds were created.²³⁷ News of leaking underground petroleum tanks in the 1980s led to the creation of the Leaking Underground Storage Tank Trust Fund.²³⁸ The Nuclear Waste Fund was established in 1983 to finance the disposal of spent fuel from nuclear generators.²³⁹ More recently, in response to environmental degradation of the Great Lakes, then-candidate Barack Obama proposed a \$5 billion trust fund for the restoration.²⁴⁰ In fact, the state of Florida has established a trust fund to finance its share of the CERP. The Everglades Restoration Investment Act²⁴¹ authorized several vehicles that generate funds for the Save Our Everglades Trust Fund.²⁴² The fund is operated largely outside the annual appropriations process.²⁴³

A similar federal Everglades trust fund would sever CERP project authorization from the politics and delay that plague WRDAs. With a trust fund, proposed CERP projects could be authorized as they are ready, without having to wait for inclusion in a controversial omnibus bill. After legislative review and authorization,²⁴⁴ an appropriation of trust fund monies would be authorized.²⁴⁵ This is the procedure for distributions from Florida's fund: distributions must be made in accordance with a legislative appropriation.²⁴⁶ The Florida Department of Environmental Protection must first "approve" (or "approve with amendments") the project component.²⁴⁷ Once the project is approved, the SFWMD requests the appropriation of funds needed to implement the project

237. *Id.*

238. *Id.*

239. *Id.* at 16.

240. John Flesher, *Obama Proposes \$5 Billion Trust Fund for Great Lakes*, ASSOCIATED PRESS, Sept. 16, 2008, available at http://www.huffingtonpost.com/2008/09/16/obama-proposes-5-billion_n_126949.html. The fund would be paid for by rolling back tax breaks for oil companies. *Id.*

241. FLA. STAT. § 373.470 (2000).

242. FLA. STAT. § 373.472 (2000). See also Fumero & Rizzardi, *supra* note 124, at 691. The Investment Act is expected to cover the first half of Florida's share of the restoration costs. *Jeb Bush Signs Everglades Bill*, ENG'G NEWS-RECORD, May 29, 2000.

243. Light, *supra* note 12, at 951. In the first year (2000–2001), the fund received \$50 million in general state revenues; \$25 million in accrued interests on the Preservation 2000 fund; and, \$25 million in real estate transaction tax revenue per the Florida Forever Act. Each succeeding year for ten years, the fund will receive \$75 million from general revenue, \$25 million from Florida Forever, \$15–23 million in land acquisition, and interest averaging \$8 million. See Fumero & Rizzardi, *supra* note 124, at 691; accord *Jeb Bush Signs Everglades Bill*, ENG'G NEWS-RECORD, May 29, 2000.

244. Review could be performed by the Senate Subcommittee that oversees Everglades restoration.

245. "Appropriation" means a legal authorization to make expenditures for specific purposes within the amounts authorized by law. See, e.g., FLA. STAT. § 216.011 (2000) (providing definitions).

246. FLA. STAT. § 373.470(6) (2000).

247. FLA. STAT. § 373.026(8)(b) (2000).

component.²⁴⁸

In addition to expediting the authorization process, a federal trust fund would guarantee funds for the CERP. In the context of ecosystem restoration, “[w]here governments have made funding commitments, the question is whether they have fulfilled their promises on schedule.”²⁴⁹ It is quite clear that the federal government has not fulfilled its CERP promises on schedule.²⁵⁰ Establishing a trust fund for Everglades restoration would bring greater accountability and assurance that the federal government will follow through on promised funding. As Governor Bush noted, the Save Our Everglades Trust Fund “codif[ied] [Florida’s] long-term monetary commitment to the Everglades.”²⁵¹ A federal trust fund would likewise manifest a national commitment to comprehensive Everglades restoration, as well as cement the means to achieve it. Additionally, removing the CERP appropriations from the general annual budget appropriations would reduce the competition for funding between the CERP projects and other Corps projects, as well as the competition among the CERP projects themselves, which results in funds “flowing toward projects that appease powerful interest groups”²⁵² rather than the projects most critical to the overall restoration.

3. LOGISTICS

A federal Everglades trust fund would likely be a “nonrevolving” trust fund. There are four categories of earmarked funds within the federal budget: revolving trust funds, nonrevolving trust funds, public enterprise funds, and special funds.²⁵³ While both nonrevolving trust funds and special funds are used to track receipts and spending for programs that have specific taxes or other revenues earmarked for their use,²⁵⁴ there are practical differences between the two. Nonrevolving trust funds predominantly fund long-term commitments, such as the environmental cleanup financed by the Environmental Protection Agency’s Hazardous Substance Superfund.²⁵⁵ Additionally, nonrevolving trust funds are more likely to finance large-dollar programs than are special funds.²⁵⁶

There are several potential limitations for the security and work-

248. *Id.*

249. Doyle, *supra* note 170, at 293.

250. *See supra* section IV.A.

251. *Everglades Restoration: Hearing Before the S. Comm. on the Environment and Public Works*, 106th Cong. (2000) (testimony of Jeb Bush, Governor of Florida).

252. Polasky, *supra* note 213, at 52.

253. U.S. GEN. ACCOUNTING OFFICE, *supra* note 222, at 9–10, 75 Table III.1.

254. *Id.* at 10.

255. *Id.* at 10–11.

256. *Id.* at 11.

bility of a federal Everglades trust fund that should be addressed. First, “surplus” trust fund balances have traditionally been used to finance general government expenses, so there is the risk that the funds may not be there when the CERP needs them.²⁵⁷ This is because the balance of a trust fund is not cash;²⁵⁸ rather, revenue dedicated to a trust fund is deposited into the general fund of the United States Treasury, which credits these collections to the fund’s account.²⁵⁹ When the fund reaches a point where outgoing payments exceed current receipts, the fund may redeem the securities.²⁶⁰ Therefore, “the critical question is not how much a trust fund has in assets but whether the government as a whole has the economic capacity to finance the claims on the trust funds for benefits now and in the future and at the cost of other competing claims for scarce resources.”²⁶¹

To help safeguard its assets, an Everglades trust fund could adopt protections similar to those securing the Social Security fund. One such protective measure is Social Security’s exemption from the Budget Enforcement Act of 1990, legislation which was designed to discourage future tax reductions or spending increases that would adversely impact the federal budget.²⁶² Funds subject to the Act are either discretionary and therefore subject to annual adjustable dollar limits (a cap on annually appropriated spending), or mandatory and subject to a “pay-as-you-go” process for entitlements and taxes (requiring that the aggregated effect of new legislation increasing direct spending or decreasing receipts be neutral).²⁶³ However, Social Security is exempt from these controls.²⁶⁴ Congress, in the organic act creating an Everglades trust fund, could specifically exempt the fund from the discretionary or mandatory controls, as it did with Social Security. Exempting a fund from these budget controls reduces the ability of the President and Congress to make trade-offs across government priorities.²⁶⁵ Congress also adopted “firewall rules” for bills that would threaten Social Security fund balances.²⁶⁶ These rules are procedural hurdles intended to discour-

257. The fact that the surplus Social Security revenue was being used to finance government spending was the genesis of the Social Security “lockbox,” “a political metaphor for a trust fund that cannot be spent for purposes other than specified in the politician’s promise.” William Safire, *Not to Be Small, But Why Be Snippy?*, Hous. Chron., Nov. 26, 2000, at 6.

258. U.S. GEN. ACCOUNTING OFFICE, *supra* note 222, at 16.

259. *Id.* Thus, the deposits into a trust fund are really “bookkeeping credits.” *Id.* at 26.

260. *Id.* at 17.

261. *Id.* at 26.

262. DAVID STUART KOITZ, CONG. RESEARCH SERV., SOCIAL SECURITY AND THE FEDERAL BUDGET: WHAT DOES SOCIAL SECURITY’S BEING “OFF BUDGET” MEAN? CRS-8 (Aug. 29, 2001).

263. U.S. GEN. ACCOUNTING OFFICE, *supra* note 222, at 28, 90.

264. *Id.* at 28–29; *see also* KOITZ, *supra* note 262, at CRS-8.

265. U.S. GEN. ACCOUNTING OFFICE, *supra* note 222, at 30.

266. KOITZ, *supra* note 262, at CRS-8.

age bills that would erode the balance of the fund.²⁶⁷ Similar measures could be designed to discourage proposals that would change Everglades funding.

Second, the laws governing appropriations from an Everglades trust fund must be compatible with the nature of large-scale ecosystem restoration. Over the course of a decades-long restoration program, scientific knowledge will evolve and unforeseen opportunities or obstacles will present.²⁶⁸ In recognition of this phenomenon, the CERP specifically incorporates so-called “adaptive management”²⁶⁹ principles.²⁷⁰ The theory of adaptive management assumes that the framework for restoration planning will be “flexible enough to change course if new scientific knowledge reveals that the previously established plan was misguided, is deficient, or needs to be adjusted.”²⁷¹ The benefit of such a framework is that it avoids delays that could cause critical ecosystem consequences; planners and stakeholders can go back to the drawing board regarding an individual project without having to scrap the entire consensus-built project framework.²⁷² Because preliminary analysis or the results of pilot projects can reveal that the components of a restoration plan are scientifically untenable, the cost and time projections for the original plan may no longer be appropriate. New opportunities or innovations could also arise that might present a compelling case for altering the original

267. *Id.* For example, in the House of Representatives, a point of order may be raised against bills that would increase the average cost or reduce the average income of the program over the long run. *Id.*

268. See SECOND BIENNIAL REVIEW, *supra* note 6, at 30 (noting that ecosystem restoration “is an enterprise with some scientific uncertainty in methods or outcomes that requires continual testing of assumptions and monitoring of progress”).

269. Adaptive management has been widely endorsed by restoration experts because research and study can yield the conclusion that a planned course or activity will be counterproductive or even harmful to the ecosystem. See Doyle, *supra* note 153, at xiii.

270. The WRDA 2000 required that the programmatic regulations establish a process “to ensure that new information resulting from changed or unforeseen circumstances, new scientific or technical information or information that is developed through the principles of adaptive management contained in the Plan, or future authorized changes to the Plan are integrated into the implementation of the Plan.” Water Resources Development Act of 2000, Pub. L. No. 106-541, § 601, 114 Stat. 2680, 2681 (2000).

271. Doyle, *supra* note 153, at xiii.

272. For example, adaptive management principles sustained a multi-party restoration agreement for the Platte River basin after project scientists agreed that planned water releases could be counterproductive to the restoration. David M. Freeman, *Negotiating for Endangered and Threatened Species Habitat in the Platte River Basin*, in LARGE-SCALE ECOSYSTEM RESTORATION: FIVE CASE STUDIES FROM THE UNITED STATES 59, 70–71 (Mary Doyle and Cynthia A. Drew eds., 2008). In 1997, the Secretary of the Interior and the governors of Colorado, Wyoming, and Nebraska entered into a cooperative agreement whereby they agreed to negotiate a program to conserve and protect 10,000 acres of critical bird habitat. *Id.* at 71. In 2000, scientists conducted preliminary analysis which revealed that “[t]he negotiated program, had it been acted upon, would have exacerbated the very problems it was supposed to solve.” *Id.* at 77. “This announcement had the potential to unravel everything.” *Id.*

plan.²⁷³ Thus, in order to successfully implement comprehensive restoration, an Everglades trust fund must be sufficiently flexible to allow for adaptive management and evolution in scientific understanding, project scope, and cost of implementation. The good news is that flexibility has been specifically contemplated—and approved—by Congress in its authorization of the CERP: “[T]he Plan is to be implemented using the principles of adaptive assessment, *recognizing that modifications will be made* in the future based upon new information.”²⁷⁴

A final concern with an Everglades trust fund is that it could operate as a ceiling on federal funding. Earmarked funds can potentially constrain program spending if the spending threatens to outstrip accumulated balances²⁷⁵ because the federal Antideficiency Act prohibits “incurring obligations or making expenditures in excess of amounts available in appropriation or fund accounts, unless specifically authorized by law.”²⁷⁶ In other words, government officials may not commit the federal government to make payments at some future time for goods or services unless there is a sufficient fund balance to cover the cost in full.

Settling on the appropriate balance for an Everglades trust fund would be a challenge. “Implicit in the understanding of ecosystem restoration is the recognition that natural systems are self-designing and dynamic and, therefore, it is not possible to known in advance exactly what can or will be achieved.”²⁷⁷ Therefore, the true cost of comprehen-

273. For example, the restoration is currently facing a significant change in plans. The CERP originally called for the construction of 333 underground water storage wells to capture and later release hundreds of billions of gallons of water each year. Robert P. King, *Costs Erode Water District's Support for Storage Wells*, PALM BEACH POST, Jan. 28, 2008, at 1A. This system of “aquifer storage and recovery” was a largely untested technology in the year 2000, and it remains unclear whether it is feasible in South Florida on such a large scale. *Id.* There are concerns about the pressure fracturing the clay and rock formations that separate the salty Florida Aquifer from the freshwater aquifers, and about the potential for arsenic to leach into the wells. *Id.* As a result of this scientific uncertainty and the project’s high costs, restoration planners appear to be moving away from the aquifer storage and recovery plan. *Id.* Furthermore, Florida Governor Charlie Crist’s June 24, 2008, announcement of a potential \$1.75 billion agreement for the state to buy 187,000 acres of U.S. Sugar farmland may make the aquifer storage and recovery plan obsolete. Grunwald, *supra* note 116. Instead of relying on manmade pumps, the proposed deal “could allow water managers to store rainfall at the top of the watershed and let it flow south,” mimicking the pre-drainage natural sheet flow. *Id.*

274. S. REP. NO. 106-363, at 3 (2000), *available at* http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=106_cong_reports&docid=f:sr363.106.pdf (emphasis added). “Restoration of the Everglades is the goal, not adherence to the modeling on which the April, 1999 Plan was based. Instead, the committee expects that the agencies responsible for project implementation report formulation and Plan implementation will seek continuous improvement of the Plan based upon new information, improved modeling, new technology and changed circumstances.” *Id.* at 8.

275. U.S. GEN. ACCOUNTING OFFICE, *supra* note 222, at 15.

276. *Id.* at 15 n.9.

277. SECOND BIENNIAL REVIEW, *supra* note 6, at 30.

sive restoration is an unknown: costs for some of the projects are not fully known because they are still in the design and planning stage, the full cost of acquiring land for the restoration is unknown, and the cost of using new technologies or taking advantage of new opportunities (like the proposed acquisition of the U.S. Sugar land²⁷⁸) is unknown.²⁷⁹ Thus, the trust fund set-aside would have to be exponentially larger than the total estimated cost of the restoration to avoid an inadequate balance.²⁸⁰ Because Everglades restoration is a multi-decadal project facing significant uncertainty about cost and scope, the cost of the restoration could rise significantly over time.²⁸¹ This has already proven to be the case; the projected cost of comprehensive restoration (non-CERP projects included) has jumped from \$15.4 billion to \$19.7 billion (estimate as of 2006).²⁸² However, despite this potential limitation, a federal Everglades trust fund would certainly be an improvement over the status quo.

V. CONCLUSION

Comprehensive Everglades restoration is at a crossroads. The consensus is that the restoration has experienced “‘nothing but delay, getting bogged down, and not getting things done’ because authorized federal funds have not been forthcoming.”²⁸³ Ecological deterioration and development within the restoration footprint continues practically unabated and costs of the restoration rise while the Corps struggles to get authorization for CERP projects. When projects are finally authorized, the federal funds necessary for the Corps to implement them are not forthcoming. And “‘what was envisioned as a state-federal partnership has become highly unequal.’”²⁸⁴ Accordingly, the National Research Council recommended a departure from “‘an authorization and funding mechanism that was not designed for a project of this magnitude and complexity and seems ill suited for it.’”²⁸⁵ So it would appear that the federal government has a choice: it can either adopt a new framework or watch as one of America’s national treasures²⁸⁶ dies a thirsty death.

278. *See supra* note 273.

279. *See Hearing, supra* note 7, at 14.

280. The Florida trust fund experienced a similar predicament in 2008. The fund did not have the \$100 million required for a project combating invasive species threatening the Everglades. *See* Dara Kam, *Negotiations Salvage Some Everglades Funds*, PALM BEACH POST, Apr. 29, 2008, at 4A. A “hush-hush late-night” deal was required to find \$50 million for the project. *Id.*

281. *Hearing, supra* note 7, at 14.

282. *Id.* at 3.

283. VIGMOSTAD ET AL., *supra* note 144, at 35.

284. SECOND BIENNIAL REVIEW, *supra* note 6, at 228.

285. *Id.* at 227.

286. One advocate characterized the Everglades as “‘the ecological equivalent of motherhood and apple pie.’” GRUNWALD, *supra* note 3, at 3–4.

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A federal Everglades trust fund would address the limitations of the current framework. By severing the authorization for CERP projects from omnibus WRDA legislation and establishing a trust fund to finance authorized projects, the federal government would streamline implementation of its share of the CERP. Trust funds are a common mechanism by which the federal government addresses major public policy issues requiring large sums of money over long periods of time. Everglades restoration should be no exception. Florida has already recognized the importance of guaranteeing speedy funding of the CERP, as evidenced by the creation of the Save Our Everglades Trust Fund. Restoration planners and stakeholders should demand no less from the federal government. For as President Truman counseled over sixty years ago, “[u]pon these resources our life as a nation depends.”²⁸⁷ It is long since time to heed his advice.

287. Truman, *supra* note 2.

