

Throughout the 1980s and early 1990s, Florida politicians lobbied Congress and the president of the United States for federal help in Everglades restoration. Governor Bob Graham appealed to President Ronald Reagan for federal assistance in support of the state's Save Our Everglades program. Congressman Dante Fascell pushed enactment of the law initiating experimental water deliveries to Everglades National Park – a federal incursion into state water rights that he and other Florida lawmakers regarded as a practical necessity. Graham, both as governor and as a U.S. senator, fought for a congressional directive for the Corps to restore the Kissimmee River. All of these initiatives required federal appropriations. The threshold question for these politicians was always whether or not there was a national interest. But the problems of ecological decline stemmed fundamentally from Florida's burgeoning population growth, critics contended, and it was the responsibility of the state to manage growth. Therefore, why should the federal government invest in Everglades restoration if the state ultimately controlled the outcome?

With that counterargument in view, Florida's entire congressional delegation vigorously pursued more federal protections for South Florida wild lands: establishment of Biscayne National Park in 1980, additions to Big Cypress National Preserve in 1988 and Everglades National Park in 1989, creation of Florida Keys National Marine Sanctuary in 1990, and designation of Dry Tortugas National Park in 1992. By the early 1990s, the federal interest in South Florida was manifestly huge, and Florida politicians pointed to the federal lands whenever they angled for more federal involvement in South Florida's water management. "We are right now on the edge of a severe water crisis," Congressman Clay Shaw, Jr., a Republican from Miami, declared to his fellow members of the House. "The Federal Government, as the largest landowner . . . has the responsibility . . . of seeing to it that its investment is preserved and the water flow is preserved."

As the complexity, scale, and cost of ecosystem restoration in South Florida grew, the threshold question for federal involvement subtly changed. The national politics of saving the Everglades turned a corner. Instead of "is this a federal interest?" the question became "is this a national priority?" The problem was not *if* the government should develop and implement a comprehensive plan for saving the Everglades from ecological collapse, but *how*. And the politicians speaking out for Everglades restoration were no longer just Florida politicians. Increasingly, political leaders from across the nation saw Everglades restoration as a test case for efforts to restore and protect other ecosystems at risk throughout the United States. They adopted the dire rhetoric that Graham, other Florida politicians, and environmentalists had used for more than a decade: Everglades National Park, one of the crown jewels in the national park system, was dying. As Representative George Miller, a Democrat from California, ominously observed at a field hearing in the Florida Keys in July 1993, "We are not prepared to de-

designate, if you will, the Everglades, Yellowstone, or Yosemite" as areas needing federal protection.<sup>2</sup>

This new political framework began to take shape following the election of William J. Clinton to the United States presidency in November 1992. Despite Clinton's mixed record on the environment as governor of Arkansas, many environmentalists saw him as the "great green hope."<sup>3</sup> During the presidential campaign, Clinton made numerous pledges of increased federal support for environmental programs, such as enactment of a new Clean Water Act that would regulate nonpoint sources of pollution and real commitment to "no net loss" of wetlands (two



President Bill Clinton at a joint session of Florida's legislature. (Source: The Florida Memory Project, State Library and Archives of Florida.)

matters of importance to South Florida). Clinton also rejected the Bush administration's position that environmental protection was adverse to economic growth. Rather, Clinton maintained, environmental cleanup efforts would create jobs and lead to a stronger economy based on sustainable development.<sup>4</sup> Florida lawmakers who wanted the federal government to get more involved in cleaning up the Everglades were encouraged by this rhetoric.

Clinton boosted his environmental credentials by selecting Albert Gore, Jr., as his vice-presidential running mate. Gore, a senator from Tennessee, was recognized as one of the leading thinkers on environmental

policy in Congress; his book *Earth in the Balance* came out during the election year. In that work, Gore argued that environmental problems were the most urgent global challenge of the

post-Cold War era, that the United States had a responsibility to lead the world community on environmental issues, and that President George H. W. Bush had failed to provide that leadership.<sup>5</sup> When Clinton was elected president, members of Congress who supported environmental issues expected presidential leadership in areas where it had been lacking over the past 12 years.

Floridians who desired a larger federal role in saving the Everglades had reason to be pleased, too, as President Clinton formed his administration. His nominee for attorney general was Janet Reno, a Florida native, who soon began overseeing the job of preparing a new settlement in Dexter Lehtinen's lawsuit. His choice for EPA administrator was Carol Browner, another Floridian, who had served under Governor Bob Martinez and Governor Lawton Chiles as chief of the state's Department of Environmental Protection.<sup>6</sup> Clinton's selection for secretary of the interior, Bruce Babbitt, a former governor of Arizona, was not as



Vice President Albert Gore, Jr. (Source: The Florida Memory Project, State Library and Archives of Florida.)

familiar to Floridians. Babbitt, however, was eager to dispel any concerns that he would focus inordinate attention on the West, and he quickly dove into the Everglades issues, making Everglades restoration his leading cause in the eastern United States.<sup>7</sup>

As the Jacksonville District of the Corps, the SFWMD, and other agencies in South Florida took measure of the new administration, they noted events occurring in the opposite corner of the country. Clinton and Gore, delivering on a campaign promise, convened a "forest summit" to break the deadlock over old-growth logging and protection of the northern spotted owl on national forests in Oregon and Washington state. The president and vice-president met with environmentalists and the timber industry in Portland, Oregon, in April 1993, and announced a forest plan the following July. Emblematic of Clinton's compromise approach to controversial issues, the plan allowed for a resumption of logging at set harvest levels for 10 years, designation of certain areas for habitat conservation, and federal assistance for retraining displaced timber industry workers in other jobs. While the forest plan was fundamentally a political compromise, it charted a course for the future by employing a rigorous and revolutionary new method called "ecosystem management."<sup>8</sup> The Clinton administration's early commitment to ecosystem management in such a highly charged atmosphere as that surrounding the northern spotted owl sent a powerful signal all the way from the Pacific Northwest to South Florida.

South Florida's resource managers had long practiced elements of ecosystem management before the term became fashionable in the late 1980s and early 1990s. Members of the Corps of Engineers applied principles of ecosystem management when they worked with Everglades National Park staff in restoring sheet flow to Shark River Slough for the purpose of protecting the park's flora and fauna. So, too, did NPS specialists who developed a fire management plan for Everglades National Park, scientists in the SFWMD who collected and analyzed water samples from Lake Okeechobee, and members of the Miccosukee Tribe who hunted, fished, and trapped in their usual and accustomed places within the Big Cypress National Preserve. What was new in the 1990s was that resource management agencies began to adopt ecosystem management as an organizing principle for many of their disparate activities. With the advent of the Clinton administration in 1993, ecosystem management was elevated to national policy.

Amid a deluge of scientific papers examining ecosystem management as a concept, an essay by ecologist R. Edward Grumbine, published in the journal *Conservation Biology* in 1994, offered the most round and succinct appraisal of what it entailed.<sup>9</sup> Grumbine recognized ten dominant themes of ecosystem management, beginning with a "hierarchical context," or "systems perspective," for addressing environmental problems. A systems perspective meant that managers working on a problem at any one level or scale in the biosphere – whether they were focused on genes, species, populations, ecosystems, or landscapes – needed to seek connections between all levels in the system. A corollary or second theme of ecosystem management involved the need to define ecological boundaries at appropriate scales. In other words, managers had to recognize when it was necessary to seek environmental solutions across jurisdictional lines. In the case of South Florida, resource managers had long understood – but with growing clarity – that the ecological boundaries of concern to them encompassed the entire Kissimmee River-Lake Okeechobee-Everglades watershed, even extending to Florida Bay and the Florida Keys. Third, ecosystem management aimed to preserve "ecological integrity."

populations of native species and maintaining natural disturbance regimes. For example, in South Florida, a state game warden and a NPS scientist might have different objectives for maintaining ecological integrity, but they would agree that restoring the natural hydropattern and allowing for extremes of high water and drought were key elements in their work. Additional themes were associated with the scientific method – data collection, monitoring, adaptive management – and with institutional processes, such as interagency cooperation and organizational change. Finally, Grumbine emphasized that ecosystem management was a social construct: it recognized that "humans are fundamental influences on ecological patterns" and that "human values play a dominant role in ecosystem management goals."<sup>10</sup>

Many viewed ecosystem management as essentially a change of focus from the protection of single species to the conservation of whole systems, but Grumbine noted that this did not capture the full scope of the "seismic shift" in thinking that the new approach required. At base, ecosystem management was "an early stage in a fundamental reframing of how humans value nature." It was an alternative to "resourcism" - the premise long held by modern industrial societies that nature was a storehouse of raw materials awaiting exploitation by humankind. Ecosystem management recognized biodiversity as something with intrinsic value, or as one set of authors included in Grumbine's survey explained, it assumed that "living systems have importance beyond their traditional commodity and amenity uses."<sup>11</sup> Other authors whom Grumbine cited argued that ecosystem management required an ethical reorientation to nature, even a "rejection of humanism or anthropocentrism" in favor of "a biocentric embrace of all life," although not all proponents would accept this philosophy.<sup>12</sup> One of the central challenges of ecosystem management, Grumbine suggested, was to pursue the goal of ecological integrity within a sociopolitical framework still governed by values that supported resourcism. Distilling all of these factors into a working definition, Grumbine declared that "ecosystem management integrates scientific knowledge of ecological relationships within a complex sociopolitical and values framework toward the general goal of protecting native ecosystem integrity over the long term."<sup>13</sup>

When President Clinton came into office, the best example of ecosystem management in South Florida was what the Corps and the SFWMD were undertaking in the Kissimmee River restoration project. But the scale was limited; some resource managers had begun thinking more grandly. One reason for this was because major problems with Florida Bay had surfaced, and many believed that the water management regime in South Florida under the C&SF Project was to blame.

Florida Bay, a shallow triangular coastal lagoon located south of the southern Florida peninsula, extended south and east to the Florida Keys and west to the Gulf of Mexico. The unusual geography of the bay made it especially susceptible to changes in salinity. Exceedingly shallow (generally three to ten feet deep over most of its expanse), the bay's rate of evaporation relative to the volume of water was very high. In addition, mud banks covered considerable parts of the bay floor, moving like underwater sand dunes. Resting just below the surface of the water, the banks reduced the force of lunar tides and restricted the circulation of seawater into the bay. Fresh water flowed to the bay mainly through Taylor Slough (and, to a lesser degree, Shark River Slough), and this water mingled with gulf currents in the outer portion of the bay. The brackish waters supported rich communities of seagrasses, molluscs, crustaceans, and fish,



Mud Banks in Florida Bay. (Source: South Florida Water Management District.)

and, in general, the seagrasses were more prolific where the waters of the bay mixed more freely with gulf waters.<sup>14</sup>

Scientists and environmentalists had been concerned about the bay for years. In the 1960s, a dearth of fresh water in Everglades National Park caused many to worry that Florida Bay's salinity would rise to dangerous levels, killing the shrimp and fish. This, in turn, harmed the shrimp and commercial fishing industries that depended on the bay for their livelihood. Additional concerns

arose in the 1970s, and resident fishermen, such as Michael Collins, were the first to call attention to ecological changes in Florida Bay. A resident of the island community of Islamarada in the Florida Keys, Collins made a living taking wealthy clients out on his charter fishing boat around the Everglades, the Bahamas, and the bay. With other fishermen, Collins began observing changes in seagrass communities in Florida Bay, and in 1976 the Islamarada Fishing Guide Association sent him to Everglades National Park to consult with research scientists about possible causes. Not satisfied that the park was giving the problem adequate attention, Collins began to research the history of the C&SF Project on the theory that water diversions from the Everglades – particularly the construction of the C-111 canal – had reduced freshwater flows into Florida Bay, thereby altering the bay's estuarine characteristics.<sup>15</sup>

During the 1980s, Collins took his concerns to the SFWMD, and at the end of the decade Governor Bob Martinez appointed him chairman of the Resource Planning and Management Committee for the Keys Areas of Critical State Concern. According to Collins, that group's activity "was one of the first efforts I saw to get a number of government entities from different branches of government together to discuss resource management." The interagency cooperation was at the state and county level, rather than the federal level, and participants tried to define the ecological boundaries of the problem.<sup>16</sup>

Turtle grass, or *Thalassia testinum*, the most abundant species of seagrass in Florida Bay, proved to be the canary in the coalmine. Fishing guides first observed that the turtle grass was spreading, colonizing the inner part of the bay, an indication that conditions were becoming more saline. In 1987, they began to see huge patches of turtle grass looking sick or dead. During the next four years, the seagrass die-offs spread over several hundred thousand acres. Floating mats of the decomposing matter blocked out sunlight, lowered the oxygen content in the water, and led to massive algal blooms. The normally crystal clear waters of Florida Bay became more turbid. As Collins told one journalist, "You should be able to read a newspaper lying on the

bottom in 10 feet of water."<sup>17</sup> In southwestern portions of the bay, increased turbidity and phytoplankton growth led to massive die-offs of sponges.<sup>18</sup>

By 1991, these conditions had reduced shrimp and fish harvests to record lows. Then, in November 1991, a huge algal bloom erupted in Florida Bay, spreading until, by the summer of 1992, it covered miles and miles of the bay, choking out sunlight, devastating sponge, shrimp, and fish populations, and creating a "dead zone" along the bay's western edge.<sup>19</sup> Observers, including commercial fishermen, Everglades National Park officials, and environmentalists, were horrified by the developments. "Florida Bay is falling apart like a rotting piece of cloth," Jay Zieman, a



Turtlegrass in Florida Bay. (Source: South Florida Water Management District.)

marine scientist with the University of Virginia, asserted. "This is a disaster on the same scale as the Yellowstone fires" (which, ironically, turned out *not* to be a disaster after all).<sup>20</sup> The bay was "becoming a huge dead zone," an editorial in *The Miami Herald*, declared. "Slime and algae cloud its once clear waters, where sea grass waved gently in the current."<sup>21</sup> The condition of the bay, Mike Robblee, chief of Everglades National Park's marine science section, related, showed that either the bay was "very sick" or it was "changing drastically." Whatever the situation, Robblee continued, "we need to sit up and take notice."<sup>22</sup>

Collins, who would later become a member of the SFWMD governing board, continued to assert that the cause of the devastation lay in the management of water in South Florida. "It was the drainage system that had been put in that was the problem," he averred.<sup>23</sup> Some environmentalists agreed. George Barley, an Orlando developer who was also an avid sports fisherman, part time summer resident of Islamorada in the Florida Keys, and chairman of the Florida Keys National Marine Sanctuary Advisory Council (created in 1990 by the Florida Keys National Marine Sanctuary and Protection Act, in part to deal with Florida Bay issues), became convinced that "the basic problem in Florida Bay is its fresh water has been taken away by a variety of means upstream."<sup>24</sup> Barley and others claimed that development in South Florida and the C&SF Project had drastically reduced how much fresh water flowed into the bay, creating an imbalance between the amounts of salt and fresh water that characterized a healthy estuary and making it more like the sea. Others, however, insisted that the problem came from an overabundance of nutrients resulting from runoff from the EAA and South Florida's urban areas.<sup>25</sup>

But the real dilemma was that no one could say with certainty what had caused the dramatic seagrass dieoff. Were the seagrass communities responding to nutrient loading similar to that occurring in Lake Okeechobee? Was Florida Bay receiving nitrogen and phosphorus coming all the way from the sugar cane fields? Or was it a problem of water supply and increased salinity?

Was the sharp reduction of freshwater input from the C-111 basin causing more seawater to infiltrate and mix with the shallow waters in Florida Bay?<sup>26</sup> No one seemed to know. As Everglades National Park Superintendent Richard Ring explained, park scientists had largely ignored Florida Bay since the 1960s in order to concentrate on mainland water issues. "Basic research that should have been done in the 1970s has not been done," Ring stated, noting that the park's research center did not have the funding to study the problem adequately.<sup>27</sup>

Realizing the severity of the situation, and hoping to prevent the bay's impending collapse, Barley used his position with the Florida Keys National Marine Sanctuary – and his friendship with President George H. Bush, an avid fisherman of Florida Bay waters – to warn public officials of the problems. He recruited a wealthy friend with a seaplane to give flight tours of the bay to any public official who was interested in having a look. At first county commissioners accepted the offer, then elected officials who came from outside the area. This sounded an alarm that was soon heard in Washington; in the words of Billy Causey, director of the Florida Keys National Marine Sanctuary, "the noise level started getting so loud that [Congress] couldn't help but . . . hear it."<sup>28</sup>

Even before Barley began publicizing the Florida Bay issue, the Corps of Engineers had recognized the need for increased coordination in South Florida between water management agencies in order to promote the overall environmental health of the region. Colonel Terrence "Rock" Salt, District Engineer of the Jacksonville District, for example, had proposed a review of the whole C&SF Project in 1991 with a view to developing a comprehensive framework for interagency coordination on water management issues in South Florida. He took Lieutenant General Arthur Williams, director of the Corps' civil works program, and Nancy Dorn, Assistant Secretary of the Army, on a helicopter tour of the Kissimmee River system, receiving their support to put the review study into the annual appropriation bill for the Corps' civil works program. Although the Water Resources Development Act of 1992 (WRDA-92) authorized the review study, it got lost in the frenzy of the Corps' emergency response to Hurricane Andrew, which struck South Florida in August 1992, and, as a result, the Bush administration did not allocate funds for a review. When Clinton came into office in January 1993, then, the idea of a comprehensive ecosystem restoration plan was embryonic and without a federal funding source.<sup>29</sup>

Florida environmentalists knew of the proposed study and wanted to see it funded through the Corps. After Colonel Salt became absorbed in the Hurricane Andrew disaster relief efforts, James "Jim" Webb of the Wilderness Society took the matter into his own hands and drafted the language for a congressional authorization.<sup>30</sup> Meanwhile, the Everglades Coalition produced its own restoration plan for the "Greater Everglades Ecosystem," influenced in part by the condition of Florida Bay. Not surprisingly, the coalition's plan called for restoration of "the essential features of the natural hydrology – the volume, depth, timing and distribution of water that once flowed through the system." It also sought a return of pristine water quality and enhancement of urban and agricultural water supplies. Drawing upon ecosystem management concepts then in development for the "Greater Yellowstone Ecosystem," the plan further called for restored connectivity among wetland communities and use of biological indicator species to monitor the health of the ecosystem.<sup>31</sup>

After the 1992 presidential election, Florida environmentalists scrambled to reposition themselves and to establish links to the Clinton administration, even though some took a dim view of Clinton. According to Joseph Browder of the Audubon Society, those who considered themselves close to Clinton advised that the way to get his attention was to recast the Everglades restoration plan as a way to create jobs. "I had been getting reports by people who were supposedly in the know that we needed to turn this into a pork barrel program," Browder remembered in an interview. Browder himself heard the president-elect make an off-the-cuff remark at a gathering in Hilton Head, South Carolina, during the winter of 1992-1993, that the only people that mattered were those who invested money and created jobs. "It reinforced the



Secretary of the Interior Bruce Babbitt. (Source: U.S. Department of the Interior.)

feeling that this was going to be a tough slog," Browder recalled.<sup>32</sup>

Jim Webb of the Wilderness Society had other ideas. Webb knew Bruce Babbitt from his years in Arizona and he correctly recognized the new secretary of the interior as the key figure on Clinton's environmental team. Webb got Babbitt to come to Tallahassee, Florida, in January 1993 and give the keynote address to the annual conference of the Everglades Coalition. This was Babbitt's first public appearance after his confirmation. At the podium, Babbitt referred warmly to his two dinner companions, Colonel Salt and Richard Ring, superintendent of Everglades National Park, and promptly launched into a visionary speech about a Corps restudy of the whole ecosystem based on consultation with other federal agencies, input by a team of scientists, and political support from the highest levels. The audience cheered, applauding this bold new course.<sup>33</sup>

Babbit's resolve stiffened after paying a visit to Everglades National Park. His examination of the park left him "absolutely appalled," and Webb convinced him that drastic measures were needed, including the purchase of more private land to protect the park's boundaries. "We can't defend the Everglades – or Yellowstone – just at their boundaries," Webb noted. "We have to deal with the whole ecosystem."<sup>34</sup> Back in Washington, Babbitt put this plan into motion. Just as he had outlined in Tallahassee, the restoration effort would go forward simultaneously at three levels in the federal government: at the cabinet level in Washington, at the agency level with the coordination of key managers like Colonel Salt and Superintendent Ring, and at the field level with scientists in each agency participating on an interagency team. Cooperation would start at the cabinet level with a new interagency task force and flow down to the field level. Whatever emerged from this effort would be science-driven.

In attempting to implement this plan, Babbitt had other examples of interagency efforts providing advice on water resource management. In the 1960s, for example, the St. Paul District of the Corps initiated the Upper Mississippi River Comprehensive Basin Study, an interagency

examination of the river that morphed into the Upper Mississippi River Basin Coordinating Committee in the 1970s. Consisting of representatives from the Corps and the Departments of Agriculture, Commerce, Health, Education and Welfare, Housing and Urban Development, Interior, and Transportation, as well as individuals from the EPA and the Federal Power Commission, this committee was specifically tasked with developing a plan to solve water and land resource problems on the Upper Mississippi River. For additional management of the Upper Mississippi, the Great River Environmental Action Team was formed in the late 1970s, made up of representatives from the Corps, the USGS, the EPA, the Soil Conservation Service, the Bureau of Outdoor Recreation, and the Department of Transportation. The team, also known as GREAT, had the responsibility of coordinating navigation and dredging on the Upper Mississippi River with other river uses, especially recreation and fish and wildlife management. Studies initiated by GREAT eventually led to congressional authorization of the Upper Mississippi River System Environmental Management Program in 1986, which, under the leadership of the Corps, specifically focused on enhancing and preserving environmental values on the Upper Mississippi River.<sup>35</sup>

In a similar way to these Upper Mississippi management committees, Babbitt established a cabinet-level task force for South Florida, composed of five assistant or under secretaries representing the Departments of Interior, Defense, Commerce, Agriculture, and Justice, and an assistant administrator representing the Environmental Protection Agency.<sup>36</sup> It would meet semi-annually. Although task force members would delegate most of the effort to the Interagency Working Group, such attention to an ecosystem by so many senior officers in the executive branch of government was unprecedented.

In the early 1990s, observers had begun making references to the "federal family" in South Florida, meaning the constellation of federal agencies involved in resource management. In welding this federal family into an interagency team, Babbitt's first task was to get together the several agencies in the Department of the Interior. These included the NPS, the FWS, the Bureau of Indian Affairs (BIA), and the USGS. Babbitt arranged a meeting of the Interior agencies in South Florida in April 1993 so that they could begin to develop a united vision for Everglades restoration. He sent his own science advisor, Thomas E. Lovejoy, as his representative. Lovejoy, a renowned conservation biologist, had recently gone to work for Babbitt to head up a new National Biological Survey, and on top of that effort Lovejoy plunged headlong into Everglades issues. At the April meeting Lovejoy encountered a general mood of optimism, although the representative from Everglades National Park sounded a discordant note when he insisted that the park did not want the USGS to conduct a hydrological survey in the park, preferring to have its own science staff do it.<sup>37</sup>

The focal point of this meeting was a composite satellite view of South Florida in which human development showed up in red and natural vegetation appeared in green. The satellite view was a remarkably clear expression of the extent of human manipulation of the natural environment and the hydrological pattern of flow from the headwaters of the Kissimmee River through Lake Okeechobee and the Everglades to Florida Bay. "You could see where the agricultural interests had encroached, and the way the water didn't flow unless somebody turned a valve somewhere," Lovejoy remembered in an interview. "You could see all the manmade structures, ditches, and dikes."<sup>38</sup> The satellite image was a fitting point of departure for the new



A satellite map of South Florida. (Source: U.S. Army Corps of Engineers, Jacksonville District.)

interagency planning effort. Jurisdictional lines did not appear in the image, though the location of certain boundaries could be inferred from various hard edges separating red and green areas. More importantly, the image stimulated a holistic view or ecosystem perspective.

In June, Babbitt called the first meeting of the Interagency Working Group in Key Largo. Billy Causey, director of the Florida Keys National Marine Sanctuary, described this conference as "pivotal." The group's initial task was to define the extent of the ecosystem and agree upon some restoration objectives. "Never in my wildest imagination," Causey said, "did I expect all the people in that room to define the ecosystem as starting in the Kissimmee headwaters and coming all the way down to the Florida Keys."<sup>39</sup> However, since Florida Bay's condition was not improving, and, in many ways, was worsening, the group's definition was not surprising. As a panel of scientists later concluded, South Florida ecosystems had been "managed as if they were in isolation from one another," in many ways causing the freshwater problems that Florida Bay now faced. In their estimation, "it is clear that what is now needed is a broader perspective."<sup>40</sup> Accordingly, the group began coordinating several different Everglades project already underway, such as the C-111 Project (replumbing the East Everglades for better water flow to Everglades National Park) and the investigation of Florida Bay's problems, with the goal of improving the Everglades ecosystem as a whole.<sup>41</sup>

The Key Largo meeting also saw the emergence of some interesting group dynamics. Babbitt had insisted that each department send two – and only two – representatives to this initial meeting because he did not want an influx of Interior personnel. Moreover, he asked Assistant Secretary of the Interior George Frampton to co-chair the meeting with Deputy Under Secretary of Commerce Doug Hall - a clear signal that the Commerce Department's National Oceanic and Atmospheric Administration (NOAA) had a role in Everglades restoration as the managing agency of South Florida's coastal waters. Frampton and Hall effectively led the group, displaying a new confidence that national park interests would get their due. Representatives of the Miccosukee and Seminole tribes and some state officials attended the meeting as well, but were not invited to sit at the table. Instead, they sat mutely against the back wall. This peculiar seating arrangement struck some participants as imperious on the part of the federal government. Colonel Salt showed up with Jimmy Bates, the senior civilian in the civil works directorate of the Corps' headquarters division, plus four others, all in Army uniform. This military escort was contrary to Babbitt's instruction that exactly two people attend for each department. "We all kind of bristled," Causey remembered. "We started counting heads." However, Salt, a large, square-shouldered man whom everyone knew as "Rock," quickly put everyone at ease with his disarming and enthusiastic manner, and he began to act as the group facilitator. "We could see it was a new era for the Corps," Causey recalled. "We had had some good colonels but Rock was here to get the work done."<sup>42</sup>

Colonel Salt was undoubtedly the right man in the right place at the right time, another one of the many fortunate circumstances that propelled Everglades restoration to a national priority status during the Clinton administration. Salt's consensus-based leadership style was atypical of a commanding officer.<sup>43</sup> He was deeply interested in ecosystem restoration. Earlier in his career he had been assigned to the Corps' Walla Walla District in the Pacific Northwest where he worked on mitigating the impacts of Columbia-Snake River dams on anadromous fish runs, and on other efforts to restore habitat for endangered salmon. He also had the backing of leaders in

the Corps who wanted to move the organization in a "greener" direction, notably Lieutenant General Henry Hatch, Chief of Engineers from 1988 to 1992. When Salt was selected for the Jacksonville District command, he went to G. Edward "Ed" Dickey, the Acting Secretary of the Army for Civil Works who had contributed to the development of the "Principles and Guidelines" in 1983, by which the Corps evaluated the federal interest in proposed environmental projects. Salt asked Dickey bluntly if the Corps was serious about Kissimmee River restoration and Everglades modified waters projects. "Oh, yes," Dickey replied, but the colonel must do two things: demonstrate that the project was in the federal interest, and show that it was deserving of high priority in the nation. Salt focused on those problems when he represented the Corps in the Interagency Working Group and when he initiated the restudy of the C&SF Project. Ultimately, he had to prove to his superiors in Washington that the federal interest in ecosystem restoration in South Florida was more compelling than competing initiatives contemplated in regions such as California or the Mississippi Valley.<sup>44</sup>

Salt understood the need to follow and respect the internal process of the Corps even as that process began to get short-circuited by Washington politics. One significant consequence of Babbitt's initiative in creating a federal task force was that the Jacksonville commander communicated directly with the Army's task force representative, Acting Assistant Secretary Dickey. The normal chain of command in the Corps of Engineers ran from the Secretary of Defense, the Secretary of the Army, and the Assistant Secretary of the Army to the Chief of Engineers at Corps headquarters, then to the Division Engineer, and then to the District Engineer. Direct communications between Dickey and Salt, which grew increasingly frequent, bypassed headquarters and the division. During Salt's command the task force's impact on the Corps' organizational structure did not produce significant tensions or repercussions, but by the end of the Clinton administration it would.<sup>45</sup>



Colonel Terrence "Rock" Salt, District Engineer of the Jacksonville District.

At the same time that Babbitt initiated the creation of a federal task force on ecosystem restoration in South Florida, he pushed the Corps to commence an immediate comprehensive review of the C&SF Project. If the seeds of this restudy were already sown before Babbitt came into office, it was undoubtedly Babbitt's energy that caused the project to germinate. As Salt remembers, he received a "frantic call from Ed Dickey" in April 1993. Did Salt know anything about a restudy, Dickey inquired. The next day Dickey called him again, this time relating that the administration wanted the Corps to begin a restudy immediately using existing funds. Next, General Roger F. Yankoupe, Division Engineer of the South Atlantic Division, phoned Salt, telling him to bring his chief planner to Atlanta to get the restudy started. With the help of John Rushing, Chief of Planning in the South Atlanta Division, Salt moved the project expeditiously "through the stovepipes in the Corps." Initially, Salt and others thought the study would be funded out of the Corps' general investigations account, but Rushing had another idea. "By

calling it a review study [we] could use construction dollars, which were an order of magnitude greater than [general investigations] dollars," Salt later explained. "By putting it into that account we were able to initiate a \$2 million reconnaissance study that was unprecedented in terms of size."<sup>46</sup>

By June 1993, the "Restudy" (as it was now officially called) had assumed national importance. Jimmy Bates, Deputy Director of Civil Works, instructed Salt to select his planning team carefully and assemble the best talent the Corps had. With such strong backing at the highest Corps level, it was no wonder that Salt exuded confidence at the initial gathering of the Interagency Working Group.<sup>47</sup>

Salt tapped Stuart Appelbaum, chief of the Jacksonville District's Flood Control and Floodplain Management Planning Group, to head the Restudy. Appelbaum, who had worked on the Kissimmee River restoration plan, had contemplated how he would run the C&SF Project review study since its first discussion in 1992, influenced by the mentoring of Mann Davis, who had headed the District's 1980 water supply study. Because that examination had been less than a stellar success, Davis had determined that the Corps needed to improve the way it conducted the study, and he transmitted some of these ideas to Appelbaum. Appelbaum therefore decided that the Restudy would have to involve the public and be interdisciplinary and interagency. Most importantly, people had to perceive it as something new and different. In order to accomplish these purposes, Appelbaum co-located all of the team – all disciplines, all agencies – in one room. His organizational model was the Skunkworks operation in the Lockheed Corporation. As Appelbaum explained, "You give them their own status off on the side; they are no longer working for the same organization, but they're kind of a unique, standalone organization; you let them go solve tough problems." By late summer Appelbaum had a team of 12 people and a room in the basement of the Jacksonville District affectionately known as "the cave." His oftrepeated instruction to his team members was that they leave their agency hats at the door. One wag brought in 12 hats with a generic "agency" logo printed on each one. The team began to form a group identity.<sup>48</sup>

By the end of summer it was clear that the Restudy would serve as the vehicle for developing a comprehensive Everglades restoration plan. The Task Force and the Interagency Working Group would provide oversight. In September 1993, the second meeting of the Interagency Working Group occurred in Orlando. Ed Dickey attended with Salt. Talking about the Restudy, Dickey told the group that the other agencies must decide what they wanted restored, and then the Corps would draw up the engineering plans. This was a familiar refrain, but never in history had such an invitation involved so many agencies and so much area. Indeed, it was now evident that the scope of the Restudy would exceed the geographic limits of the C&SF Project.<sup>49</sup>

The Orlando meeting produced an interagency agreement on South Florida ecosystem restoration, which formally established the South Florida Ecosystem Restoration Task Force. The agreement declared that the South Florida ecosystem encompassed the Kissimmee watershed, Lake Okeechobee, the Big Cypress Basin, the Everglades, Florida Bay, and the Florida Keys. It listed the many federal interests in the area. These were not limited to federal lands, but also included the C&SF Project and the enforcement of environmental laws such as the Clean Water Act, the Clean Air Act, the Endangered Species Act, and others. The purpose of the Task Force was "to coordinate the development of consistent policies, strategies, plans,

programs, and priorities for addressing the environmental concerns of the South Florida Ecosystem." The agreement acknowledged the need for coordination with state, local, and tribal governments, as well as with member agencies. Specific goals of the task force were to agree on federal objectives for ecosystem restoration; to promote an ecosystem-based science program; to support the development of "appropriate multi-species recovery plans for threatened and endangered species" (a careful effort to move from single-species management to the conservation of whole systems); and to help expedite projects aimed at ecosystem restoration.<sup>50</sup>

The interagency agreement also formally established the Interagency Working Group. It was to be composed of Florida-based representatives of the following federal agencies: NPS, FWS, USGS, BIA, National Biological Survey (Department of the Interior); NOAA (Department of Commerce); Soil Conservation Service (Department of Agriculture); U.S. Attorney for the Southern District of Florida (Department of Justice); EPA; and U.S. Army Corps of Engineers (Department of the Army). The Working Group was to prepare recommendations in the form of an integrated plan one year from the first meeting of the Task Force, and update this document annually thereafter. Other responsibilities included developing an integrated financial plan, an ecosystem-based science program, and public outreach efforts. The Working Group was also charged with identifying and resolving interagency differences concerning ecosystem restoration, and it was empowered to establish subgroups.<sup>51</sup>

Yet some groups - most notably the Miccosukee Indians - believed that they had been intentionally excluded from both the South Florida Ecosystem Restoration Task Force and the Interagency Working Group, despite their obvious interests in Everglades restoration. Indeed, both the Seminole and the Miccosukee were intensely interested in water quality and restoration issues, especially since the quality of water entering Conservation Area No. 3 directly affected their lands, and had developed water rights compacts in the 1980s and 1990s to protect their interests. Having expressed this concern in the past, both the Seminole and the Miccosukee expected at least some kind of a role in ecosystem restoration efforts. When no formal position was offered, the Miccosukee protested, spurred on by Dexter Lehtinen, who they had hired as their attorney. In 1994, for example, the tribe sued the federal government, charging that it had been unfairly excluded from a meeting where SFWMD and Florida Department of Environmental Protection scientists had met with federal scientists. Although Truman E. "Gene" Duncan, Jr., head of the Miccosukee water management division, attended the meeting, he alleged officials ejected him from the gathering. Jay Ziegler, spokesman for the Interior Department, did not dispute the charge, but said that the reason for the action was so that federal authorities could discuss President Clinton's upcoming budget. The Miccosukee disagreed; Angel Cortinas, one of their attorneys, insisted that the Indians were "being excluded from the discussions that affect the tribe's interest."52

Yet the Task Force and the Working Group did not maliciously prevent the inclusion of the Miccosukee; instead, the Federal Advisory Committee Act, which authorized the creation of organizations such as the Task Force, precluded non-federal interests from actively sitting on federal committees. Non-federal groups could attend meetings, but could not participate in any decision-making. As explained in Chapter 18, not until 1995 would Congress remedy this situation by amending the Federal Advisory Committee Act. Until then, Task Force and Working Group officials believed there was nothing they could do.



A field of sawgrass, one of the dominant plants of the pre-drainage Everglades. (Source: The Florida Memory Project, State Library and Archives of Florida.)

The Miccosukee action indicated that the consensus approach that Secretary Babbitt was trying to produce with the working groups was not entirely successful, but the Task Force and Working Group continued their operation. In order to carry out Babbitt's vision of science lying at the heart of the restoration efforts. the Working Group established a Science Subgroup, and in November 1993, this subgroup completed its initial report, "Federal Objectives for South Florida Restoration." This document foresaw the outcome of ecosystem restoration as follows:

The idealized goal for the natural areas of South Florida is to restore to predrainage conditions the landscape-scale hydrologic and ecologic structure and function in order to reinstate ecological integrity and sustainable biodiversity. The goal is an ecosystem that is resilient to both chronic stresses and catastrophic events with as little human intervention as possible.<sup>53</sup>

The report also presented more specific restoration objectives and measurable success criteria for the entire region and nine subregions. In each case, it described three levels of protection based on the amount of developed area that would be restored to wetlands. The Science Subgroup termed the levels of protection at either end of this continuum as "constrained" and "unconstrained" options, while the level of protection in the middle was termed the "incremental" choice. The point of this presentation was to show that for each increment of developed area restored to wetlands, the social and economic costs rose while the environmental risk fell. Put another way, if ecosystem restoration did not go far enough, it would entail a high risk of failure.

When the Working Group released this report, controversy ensued. The "unconstrained" option of complete restoration of all wetlands, which the Science Subgroup described only for purposes of framing the "incremental" option, inflamed certain stakeholders – and with good reason. Under this option, the report graphically showed one swath of restored wetlands obliterating a small city north of Tampa Bay, while also displaying an immense area of restored wetlands completely engulfing the EAA. As if these visual images were not provoking enough, the Science Subgroup's choice of terminology seemed strangely aggressive: to say that the presence of communities and farms was "constraining" sent the wrong public message. The Task Force, the Working Group, and the Science Subgroup were all chastened by the public reaction, which served as a healthy reminder to them that ecosystem management was fundamentally a social endeavor.<sup>54</sup> As Grumbine would write less than a year later in his timely

synopsis of ecosystem management, "human values play a dominant role in ecosystem management goals.<sup>55</sup>

Thus far, Secretary Babbitt's initiative had produced much organizational change but little else. Yet it was a necessary first step toward implementing an ecosystem management approach to Everglades restoration. In the new organizations that had been created – the South Florida Ecosystem Restoration Task Force, the Interagency Working Group, the Science Subgroup, and the Restudy team – the seeds of ecosystem management had been planted. Many of the attributes of ecosystem management were already visible and at play. The resource managers were adopting a systems perspective, formulating goals that would define success in the effort to restore ecological integrity, developing a science-based approach to decision making, and fostering interagency coordination. Although the South Florida Ecosystem Restoration Task Force was thus far a federal initiative, it would, once it received authorizing legislation, evolve to include representatives of state, local, and tribal governments. The organizational change provided a new institutional environment in which the idea of ecosystem restoration could grow and flourish.<sup>56</sup>

## **Chapter Thirteen Endnotes**

<sup>1</sup> House Committee on Interior and Insular Affairs Subcommittee on National Parks and Recreation, Additions to the National Park System in the State of Florida: Hearings Before the Subcommittee on National Parks and Recreation of the Committee on Interior and Insular Affairs, House of Representatives, 99th Cong., 1st and 2d sess., 1986, 140.

<sup>2</sup> Miller quoted in House Committee on Natural Resources Subcommittee on Oversight and Investigations and Subcommittee on National Parks, Forests and Public Lands and House Committee on Merchant Marine and Fisheries Subcommittee on Environment and Natural Resources, *Florida Everglades Ecosystem*, 103rd Cong., 1st sess., 1993, 14. On Everglades restoration as a test case for ecosystem management, see Congressional Research Service, "The Florida Everglades: An Ecosystem in Danger," as published in the hearing, 201.

<sup>3</sup> Byron Daynes, "Bill Clinton: Environmental President," in *The Environmental Presidency*, Dennis L. Soden, ed. (Albany: State University of New York, 1999), 259.

<sup>4</sup> Norman J. Vig, "Presidential Leadership and the Environment: From Reagan to Clinton," in Norman J. Vig and Michael E. Kraft, eds., *Environmental Policy in the 1990s*, 3rd ed. (Washington, D.C.: Congressional Quarterly, 1997), 104-105.

<sup>5</sup> Albert Gore, *Earth in the Balance: Ecology and the Human Spirit* (New York: Houghton Mifflin Company, 1992), 295-360.

<sup>6</sup> Browner had earlier served as a Senate environmental aide of Gore. Another one of Gore's environmental aides, Kathleen McGinty, was appointed head of the new Office of Environmental Policy. McGinty would become highly instrumental in Everglades restoration in Clinton's second term.

<sup>7</sup> Vig, "Presidential Leadership and the Environment: From Reagan to Clinton," 106; William Leary interview by Theodore Catton, 24 November 2004, Washington, D.C., 5; Stuart Stahl interview by Julian Pleasants, 22 February 2001, 25, Everglades Interview No. 3, Samuel Proctor Oral History Program, University of Florida, Gainesville, Florida [hereafter referred to as Stahl interview].

<sup>8</sup> Lettie McSpadden, "Environmental Policy in the Courts," in *Environmental Policy in the 1990s*, 176-177; Theodore Catton and Lisa Mighetto, *The Fish and Wildlife Job on the National Forests: A Century of Game and Fish Conservation, Habitat Protection, and Ecosystem Management* (Washington, D.C.: USDA Forest Service, 1998), 263-273.

<sup>9</sup> R. Edward Grumbine, "What is Ecosystem Management?" Conservation Biology 8 (March 1994): 27-38.

<sup>10</sup> Grumbine, "What is Ecosystem Management?" 31.

<sup>11</sup> W.B. Kessler, H. Salwasser, C. Cartwright, Jr., and J. Caplan as quoted in Grumbine, "What is Ecosystem Management?" 34.

<sup>12</sup> R.F. Noss and A. Cooperrider as quoted in Grumbine, "What is Ecosystem Management?" 34.

<sup>13</sup> Grumbine, "What is Ecosystem Management?" 31. In a follow-up article, Grumbine reported that many managers and academics found the ten themes to form a useful framework for understanding ecosystem management. See R. Edward Grumbine, "Reflections on 'What is Ecosystem Management?" *Conservation* Biology 11 (February 1997): 41-47.

<sup>14</sup> James W. Fourqurean and Michael B. Robblee, "Florida Bay: A History of Recent Ecological Changes," *Estuaries* 22 (June 1999): 349-350.

<sup>15</sup> Michael Collins interview by Theodore Catton, 13 July 2004, West Palm Beach, Florida, 1-2 [hereafter referred to as Collins interview].

<sup>16</sup> Collins interview, 1.

<sup>17</sup> Ben Iannotta, "Mystery of the Everglades," New Scientist (9 November 1996): 3535.

## Chapter Thirteen Endnotes (continued)

<sup>18</sup> Fourqurean and Robblee, "Florida Bay," 345.

<sup>19</sup> See Billy Causey interview by Theodore Catton, 20 January 2005, Marathon, Florida, 3-5 [hereafter referred to as Causey interview]; Collins interview, 2; Fourqurean and Robblee, "Florida Bay," 345; "Panel Blasts Florida Bay Neglect," *The Miami Herald*, 21 September 1993; "If Florida Bay Dies, An Industry Will, Too," *Tallahassee Democrat*, 17 February 1993.

<sup>20</sup> As quoted in "Ailing Florida Bay Endangers Coral," *The Miami Herald*, 11 August 1992.

<sup>21</sup> "Florida Bay: Catastrophe," *The Miami Herald*, 12 August 1992.

<sup>22</sup> As quoted in "Ailing Florida Bay Endangers Coral," *The Miami Herald*, 11 August 1992.

<sup>23</sup> Collins interview, 3.

<sup>24</sup> George M. Barley, Jr., Chairman, Advisory Council, to Honorable Jim Smith, Secretary of State, 27 August 1992, File Florida Bay, Box 157406, SFWMDAR.

<sup>25</sup> See "Ailing Florida Bay Endangers Coral," *The Miami Herald*, 11 August 1992.

<sup>26</sup> Collins interview, 1.

<sup>27</sup> As quoted in "Ailing Florida Bay Endangers Coral," *The Miami Herald*, 11 August 1992.

<sup>28</sup> Causey interview, 5-6.

<sup>29</sup> House Committee on Natural Resources Subcommittee on Oversight and Investigations, Committee on Agriculture Subcommittee on Specialty Crops and Natural Resources, and the Committee on Merchant and Marine Fisheries Subcommittee on Environment and Natural Resources, *Ecosystem Management: Joint Oversight Hearing on Ecosystem Management and a Report by the General Accounting Office, "Ecosystem Management—Additional Actions Needed to Adequately Test a Promising Approach,"* 103rd Cong., 2d sess., 1995, 99; Colonel Terrence C. "Rock" Salt interview by Theodore Catton, 19 January 2005, Miami, Florida, 5 [hereafter referred to as Salt interview – Catton].

<sup>30</sup> Richard Bonner interview by Theodore Catton, 13 May 2005, Jacksonville, Florida, 13.

<sup>31</sup> According to Joseph Browder, the plan was first published in 1992 and republished in 1993. Browder interview, 6. The 1993 document is in House Subcommittee on Oversight and Investigations et al., *Florida Everglades Ecosystem*, 309-347.

<sup>32</sup> Browder interview, 6.

<sup>33</sup> Everglades Coalition, "Past Conferences" < http://www.evergladescoalition.org/site/pastconference.html> (26 May 2005); Salt interview – Catton, 5.

<sup>34</sup> All quotations in Philip Elmer-Dewitt, "Facing a Deadline to Save the Everglades," *Time* 141 (21 June 1993):
57.

<sup>35</sup> George W. Griebenow, "A Team Called GREAT," *Water Spectrum* 9 (Winter 1976-1977): 19-20; U.S. Army Corps of Engineers, North Central Division, *Upper Mississippi River System Environmental Management Program, Sixth Annual Addendum* (Chicago: U.S. Army Corps of Engineers, North Central Division, 1991), 2-4; Upper Mississippi River Basin Coordinating Committee, *Upper Mississippi River Comprehensive Basin Study Main Report* (Chicago: Upper Mississippi River Basin Coordinating Committee, 1972), 1-3.

<sup>36</sup> Clinton had requested that EPA Administrator Carol Browner join his cabinet, as he wanted Congress to confer cabinet-level status on the agency.

<sup>37</sup> Thomas E. Lovejoy interview by Theodore Catton, 9 December 2004, Missoula, Montana [by telephone], 1 [hereafter referred to as Lovejoy interview].

<sup>38</sup> Lovejoy interview, 1.

Chapter Thirteen Endnotes (continued)

<sup>39</sup> Causey interview, 7.

<sup>40</sup> As quoted in "Panel Blasts Florida Bay Neglect," *The Miami Herald*, 21 September 1993.

<sup>41</sup> "Testimony of George T. Frampton, Jr., Assistant Secretary for Fish and Wildlife and Parks," in House Committee on Natural Resources, et al., Subcommittee on Oversight and Investigations, *Ecosystem Management*, 100.

<sup>42</sup> Causey interview, 6-8; Salt interview – Catton, 6.

<sup>43</sup> Colonel Terry Rice interview by Brian Gridley, 8 March 2001, 29, Everglades Interview No. 4, Samuel Proctor Oral History Program, University of Florida, Gainesville, Florida [hereafter referred to as Rice interview].

<sup>44</sup> Salt interview – Catton, 1-2.

<sup>45</sup> Leary interview, 12; General Joe Ballard interview by Theodore Catton, 18 November 2004, Missoula, Montana [by telephone], 7-8.

<sup>46</sup> Salt interview – Catton, 5-6.

<sup>47</sup> Salt interview – Catton, 5-6.

<sup>48</sup> Quotations in Stuart Appelbaum interview by Brian Gridley, 22 February 2002, 18-19, Everglades Interview No. 11, Samuel Proctor Oral History Program, University of Florida, Gainesville, Florida [hereafter referred to as Appelbaum interview]; see also James Vearil, personal communication with the authors, 18 April 2006.

<sup>49</sup> Salt interview – Catton, 6. One year later, Colonel Terry Rice would make the same pitch to the Governor's Commission on a Sustainable South Florida. See Rice interview, 18.

<sup>50</sup> "Interagency Agreement on South Florida Ecosystem Restoration," 23 September 1993, Billy Causey's Task Force Files, Florida Keys National Marine Sanctuary administrative records [hereafter referred to as FKNMSAR].

<sup>51</sup> "Interagency Agreement on South Florida Ecosystem Restoration."

<sup>52</sup> Quotations in "Indians Sue U.S. Government," *Sun-Sentinel*, undated newspaper clipping in File Everglades Mediation Miccosukee, Box 19706, SFWMDAR; see also "Miccosukee Tribe Sues U.S. Agency Over Glades Plan," *The Herald*, 4 November 1994. The Miccosukee's accusation was nothing new; they had complained about being left out of financial discussions in 1993 as well. See Woodie Van Voorhees, Government & Public Affairs, to Til Creel, Irene Quincey, Steve Lamb, and Vince Katilus, 20 July 1993, File Everglades Mediation Miccosukee, Box 19706, SFWMDAR.

<sup>53</sup> Quoted in House Committee on Natural Resources, et al., Subcommittee on Oversight and Investigations, *Ecosystem Management*, 294.

<sup>54</sup> Richard G. Ring, Chairman, South Florida Ecosystem Restoration Working Group, to George Frampton, Chairman, South Florida Ecosystem Restoration Task Force, n.d., Billy Causey's Task Force Files, FKNMSAR; Stuart Appelbaum interview by Theodore Catton, 7 July 2004, Jacksonville, Florida, 1 [hereafter referred to as Appelbaum interview – Catton]; Salt interview – Catton, 6.

<sup>55</sup> Grumbine, "What is Ecosystem Management?" 31.

<sup>56</sup> Whitfield interview, 40; Water Resources Development Act of 12 October 1996 (110 Stat. 3658, 3771).