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Headline	Date	Outlet	Reporter
Everglades restoration effort moving at sluggish pace, report says	09/24/2010	News-Press	BART JANSEN
Report: Everglades restoration progressing slowly	09/24/2010	Bloomberg BusinessWeek	TAMARA LUSH
Everglades Restoration's Momentum Challenged by Growing Costs -- Scientists	09/24/2010	New York Times	
Everglades restoration remains 'slow,' according to federal review	09/24/2010	Sun Sentinel	Reid, Andy
Scientists: little to show for Everglades efforts, but pace of planning improves	09/24/2010	Palm Beach Post	Stapleton, Christine
Report: Progress on Everglades restoration slow	09/24/2010	Miami Herald, The	Morgan, Curtis
Report: Everglades restoration progressing slowly	09/24/2010	Associated Press (AP)	Tamara Lush
NEWS RELEASE: Everglades restoration program making tangible progress after 10 years; challenges ahead to meet both water quality and quantity goals	09/23/2010	National Research Council	
EVERGLADES: Restoration's momentum challenged by growing costs -- scientists	09/23/2010	Greenwire	Quinlan, Paul

Everglades restoration effort moving at sluggish pace, report says

Return to Top

09/24/2010
News-Press
BART JANSEN

11:02 A.M. — WASHINGTON — The multi-billion-dollar effort to restore the Everglades has made tangible but slow progress in its first decade, according to a new report.

The National Research Council report says more restoration projects are needed to bring substantial benefits. Scientists are studying which of two problems to address first —improving water quality or increasing water flow.

"One of the main objectives in restoring the Everglades is 'getting the water right,' which calls for increasing the amount of freshwater that flows through the system while meeting water quality goals," said Frank Davis, who headed the committee that wrote the Progress Toward Restoring the Everglades report requested by Congress. "But getting enough water to the right places at the right time and attaining water quality goals throughout the entire ecosystem is proving to be more difficult and expensive than originally anticipated."

Everglades species such as wading birds, Cape Sable seaside sparrows, and panthers appear to be increasing or stabilizing, according to the 278-page report. But others, such as the snail kite, have declined, along with tree-island habitats.

Davis, an environmental science professor at the University of California in Santa Barbara, said it will likely take several decades to meet goals for dealing with pollution and water quality. The estimated time for completing the restoration effort has doubled, from 30 years to up to 60 years.

The Everglades spans 18,000 square miles of southern Florida, which is half its historic range. Encroachment by farms and urban development have overtaken the rest. Canals, levees and pumping stations serve competing needs for fresh water, flood control, recreation and conservation.

The report is the third biennial evaluation of progress by the Comprehensive Everglades Restoration Plan, a federal and state program to meet demands for clean water and flood control.

Launched in 2000 by the U.S. Army Corps of Engineers and the South Florida Water Management District, the restoration program ultimately will comprise about 50 major projects.

Increasing water storage and improving water treatment are major priorities, but the smaller natural storage capacity of the modern Everglades makes restoration difficult.

Conditions may worsen in some areas to achieve desired outcomes in others, warned the report, which was sponsored by the Corps, the water district and the Interior Department.

"Given the slower-than-anticipated pace of implementation and unreliable funding schedule, projects should be scheduled with the aim of achieving substantial restoration benefits as soon as possible," the report said.

Improvements made so far include plugging a canal in Picayune Strand in Collier County, which raised water tables on 13,000 acres of wetlands. That's about one-fourth of the area the project is anticipated to cover after plugging more canals, removing roads and installing pumping stations to recover wetlands that had been drained for a housing development.

State construction also has begun on the C-111 spreader canal and the Biscayne Bay coastal wetlands in Miami-Dade County, and on Lakeside Ranch wetlands in western Martin County.

"Continued federal commitment is especially important at this time," the report said.

Compromises have repeatedly kept the restoration effort from pursuing more ambitious plans.

Construction of a one-mile bridge along the Tamiami Trail in Everglades National Park began in December 2009, a significant reduction from initial plans to raise the road and improve water flow into the park.

The Southwest Florida Water Management District recently approved the purchase of 27,000 acres from U.S. Sugar Corp. for water storage and treatment. But the land is far less than the 187,000 acres proposed in 2008.

Report: Everglades restoration progressing slowly

Return to Top

09/24/2010
Bloomberg BusinessWeek
TAMARA LUSH

ST. PETERSBURG, Fla.

A multibillion-dollar effort to restore Florida's Everglades has produced slow progress that is improving but likely to be spread unevenly across the vital wetlands, a congressionally mandated report said Thursday.

A 276-page document by the National Research Council said the pace of restoration has improved over the last two years.

"However, the importance of several challenges related to water quantity and quality have become clear, highlighting the difficulty in achieving restoration goals for all ecosystem components in all portions of the Everglades," the report said.

Approved by Congress in 2000, the Comprehensive Everglades Restoration Plan, or CERP, was originally estimated to take 30 years and cost about $7.8 billion - a tab that has risen due to rising costs.

The intent is to help restore some natural water flow after decades of diversions for development and agriculture, which have shrunk the Everglades to half its historical 4 million acres.

In August, a historic effort to restore the Everglades was scaled back.

The state had planned to pay $1.75 billion to buy all of U.S. Sugar Corp.'s 180,000 acres.

A modified contract between the state and U.S. Sugar called for an initial land purchase of 26,791 acres for about $197.4 million, a fraction of the deal announced by Gov. Charlie Crist in 2008. Under the revised deal, the state would still maintain the option to purchase the remainder of the plan.

Kirk Fordham, the CEO of the Everglades Foundation, said Thursday's report underscores the importance of acquiring U.S. Sugar Corp. lands to address water quality.

"It's no secret that Florida's water quality problems have been choking the life blood out of the Everglades for some time now." wrote Fordham, in a statement. "In addition to Florida's recent legal developments on Everglades water quality issues, this report should emphasize the need for the state to move forward aggressively on curtailing water pollution in the Everglades. At the same time, the report documents progress made on current Everglades restoration projects and should provide us with additional proof to convince lawmakers that their support for funding restoration is making headway."

The report listed several areas where the restoration effort has made progress, including the ongoing construction of a 1-mile bridge under the Tamiami Trail to improve water flow. Also, water levels rose in 13,000 acres of the Picayune Strand in Southwest Florida.

But the report also said that conditions may worsen in some parts of the Everglades in order to achieve success in other areas.

"At the heart of Everglades restoration is the goal of "getting the water right" by re-establishing the quality, quantity, timing, flow, and distribution of water to support the biological characteristics that defined the Florida Everglades before the construction of canals and levees," the report said. "Increasing the amount of water stored in the Everglades is a major near-term priority for the Restoration Plan. However, the reduced area and water storage capacity of the ecosystem mean that restoration benefits will be distributed unevenly across the Everglades landscape. Nearly all Everglades restoration projects carry trade-offs."

Mimi Drew, secretary of the Florida Department of Environmental Protection, and Carol Ann Wehle, executive director of the South Florida Water Management District, said they agreed with the overall report.

The Everglades have been dying for decades from the intrusion of farms and development, cut by dikes, dams and canals, effectively draining much of the swamp and polluting it with fertilizers and urban runoff. The state and federal governments' efforts to restore the wetlands have been stymied for years by funding shortfalls, legal challenges and political bickering.

Everglades Restoration's Momentum Challenged by Growing Costs -- Scientists

Return to Top

09/24/2010
New York Times
By PAUL QUINLAN of Greenwire

The multibillion-dollar effort to restore the Everglades has made slow but tangible progress in recent years, but scientists today warned that sustaining momentum will be among the top challenges as costs continue to rise.

The National Research Council, in its third biennial report to Congress on the progress of the world's largest environmental restoration effort, today struck a brighter note than in its last report in 2008.

Progress at the time was "scant," the council said then, and the overall effort "bogged down" in procedural matters.

"They're beginning to pick up momentum," said Frank Davis, the report's committee chairman and professor at University of California, Santa Barbara. "At the same time, the Everglades continues to decline, so it's really more important than ever to maintain and build momentum."

Construction has begun on four of the 68 projects called for in a massive, now-$13 billion restoration plan Congress approved in 2000, the report says. The federal government, which agreed at the time to split the cost 50-50 with the state of Florida, has increased spending, offsetting declines in state spending as the economy has tumbled. State-federal cooperation has also improved, resulting in better headway and less bureaucratic bickering, according to the report.

"They've been able to come together," said William Graf, who chaired the report committee in 2008 and leads the geography department at the University of South Carolina. "Maintaining that coalition, I think, is the big challenge in the face of changing costs, reduced funding and an acrimonious political environment. We need to hold it together."

To date, Florida has invested more than $2.4 billion in the state-federal restoration, outspending its federal partners. That includes $1.8 billion dollars for water quality projects like artificial, pollution-filtering marshes that scientists say will need to be expanded -- echoing recent orders from U.S. EPA -- in order to meet pollution cleanup goals that continue to elude.

Florida officials concurred with the findings and said the state "remains committed to continue the important restoration work," in a joint statement issued this morning by the Florida Department of Environmental Protection and the South Florida Water Management District, the local agency overseeing restoration for Florida.

The report spotlights certain successes in the effort to replumb the River of Grass. The Everglades once covered 6,000 square miles but have been reduced to half that size over the past 60 years by the 1,700 miles of canals and levees installed to make room for farms and urban development.

One success highlighted is the Picayune Strand, a 55,000-acre failed housing development where canals were back-filled to restore the natural wetlands.

The report also cheered the groundbreaking on what the committee in 2008 called "one of the most discouraging stories in Everglades restoration," a 20-year-long effort stopped up in court to bridge the Tamiami Trail. The trail runs east-west across the Everglades from Tampa to Miami, acting like a giant dam. Work is now under way to bridge a 1-mile segment.

After eight years of planning, "in the last couple years we're starting to see some projects hit the ground," said Davis. "We can now look forward to some restoration that's in the near term."

Areas in need of improvement include the scientific modeling efforts that drive restoration decisions involving the unavoidable trade-offs in building new reservoirs, buying new restoration lands and back-filling canals, the report said. The report also calls for stepping up involvement of the various environmental groups, farmers, developers and other interests that tend to go to war over Everglades policy.

The scientists also noted the potential benefits of a controversial, 27,000-acre restoration land deal that the state has brokered with U.S. Sugar Corp.

"I haven't seen a great deal of research on the implications of buying that land," Graf said. "That's why you're seeing the committee not making strong statements about it. We just don't know."

Graf compared the overall effort to steering an aircraft carrier, saying that sustaining political will and spending while improving science and modeling is critical to a full turnaround.

"I feel the aircraft carrier was headed for a reef two years ago," Graf said. "We're beginning to turn the ship at this point. It think we're going to avoid cracking up. It's just a process that's going to take some time."

Everglades restoration remains 'slow,' according to federal review

Return to Top

09/24/2010
Sun Sentinel
Reid, Andy

Everglades restoration remains "slow" and requires a rethinking of state and federal efforts to get more clean water flowing to Florida's River of Grass, according to a report to Congress released Thursday.

Researchers for the National Research Council acknowledged tangible but slow progress during the past two years in efforts to restore the Everglades — suffering from decades of draining and pollution as the result of farms and development spreading across former wetlands.

The progress included long-overdue federal funding coming through to help with construction of four projects, including work beginning to raise a one-mile section of the Tamiami Trail to allow more water to flow south to Everglades National Park.

The report also voiced support for the South Florida Water Management District's pending $197 million deal to buy 26,800 acres from U.S. Sugar Corp. for Everglades restoration. The land would be used to help expand stormwater storage and treatment areas.

But much more work is needed to store and treat stormwater in order to see substantial environmental benefits, according to the report. Researchers found that only "sparse" natural system restoration has occurred so far from current construction projects.

In addition, cleaning up water pollution while also providing the amount of water the Everglades needs is a growing challenge that still must be addressed, federal reviewers found.

Improving water quality to meet restoration targets by reducing phosphorus levels "will be enormously costly and will take decades to achieve," according to the report.

Researchers found that with growing economic pressures, some "tradeoffs are inevitable" to balance water quality and water quantity needs in Everglades restoration.

"New momentum should be viewed only as a beginning; all early [restoration] projects are behind the original schedule, some of them by more than a decade," according to the report.

"The restoration plan still has decades before completion, even without additional delays, and it will need political commitment to long-term funding."

According to the state's response to the federal report, "significant and tangible progress" has been made in Everglades restoration, but "slow recovery of the natural system makes accelerated progress in Everglades restoration critical."

State officials point out that Florida has so far invested $2.4 billion in Everglades restoration, along with nearly $2 billion aimed at cleaning up water pollution. Continued federal funding remains "essential" to maintaining restoration

progress, according to a joint letter Thursday from Mimi Drew, secretary of the Florida Department of Environmental Protection, and Carol Ann Wehle, executive director of the South Florida Water Management district.

Since 2000, state and federal officials have been following a restoration plan aimed at protecting what remains of the Everglades while also attempting to address South Florida's long-term water supply and flood-control needs. The Comprehensive Everglades Restoration Plan calls for the state and federal government to share in the cost of building a variety of reservoirs, stormwater treatment areas and other projects over 30 years.

A lack of federal funding during President George W. Bush's administration left many restoration projects stalled. That money has picked up under President Obama, thanks in part to federal stimulus spending.

Every two years, the National Research Council issues a report intended to be an independent review gauging the progress of Everglades restoration.

The report calls for a "rigorous scientific analysis" to weigh the potential "tradeoffs" help prioritize what to pay for first, according to the report.

Andy Reid can be reached at abreid@SunSentinel.com or 561-228-5504.

Scientists: little to show for Everglades efforts, but pace of planning improves

Return to Top

09/24/2010
Palm Beach Post
Stapleton, Christine

In 2008, when a team of scientists released its Congressionally mandated report on Everglades Restoration, not a single project had been completed.

In 2010, when a team of scientists released its Congressionally mandated report on Everglades Restoration, not a single project has been completed.

Unlike the 2008 report, which sharply criticized the slow progress of the restoration, the 2010 report by the National Council of Sciences praises the South Florida Water Management District and the U.S. Army Corps of Engineers for picking up the pace of the 10-year-old project and finally moving from planning to building.

Money, politics and lawsuits are the latest obstacles in restoration efforts. The "fiercely contested" plans and deadlines proposed to finish projects and lower phosphorus levels are "unattainable," according to the report. "Getting the water right" will take longer and cost more than anticipated. The restoration's price tag, pegged at $7.8 billion when the project was announced in 1998, is up to $13 billion.

To date, the district has spent $2.4 billion on restoration projects and another $1.8 billion for water quality projects, according to a letter from Carol Ann Wehle, executive director of the district, to the National Resource Council.

"Undeniably, sustained funding at the national level... is essential to maintaining the benefits and progress documented to date," Wehle wrote.

But with the project so far behind schedule and the ecosystem declining, the scientists urged water managers to study quantity versus quality. Which is worse for the Everglades, they asked: providing too little but much cleaner water to the Everglades or sufficient but more polluted water?

While most of the report focuses on cleaning phosphorus-laden water coming out of Lake Okeechobee, the scientists recommend water managers put more effort into regulating the source of the phosphorus -- much of it farms and ranches.

That could be accomplished, if water managers would impose tougher "best management practices" on growers, the report said. Those measures could include sediment and erosion controls in canals, fencing cattle out of waterways and retaining more water in wetlands and ditches.

Environmental groups have urged the district for years to reopen the discussion on best management requirements,

said Charles Lee, director of advocacy for Florida Audubon.

The special attention given to management practices and the timing of the report -- just two weeks before a court hearing to evaluate the district's compliance with the federal Clean Water Act -- could grab the attention of two federal judges who have ordered the water managers to draft plans and set deadlines to reduce phosphorus levels to legal limits.

"These recommendations are squarely focused on improving source controls...," Lee said. "Having this report judge a few weeks before the hearings provides and independent body of science that can be used to frame a decision."

Unchanged from the 2008 report is the need for more land to store and clean water. Even with the 26,800 acres the district plans to buy next month from U.S. Sugar, the restoration will require another 54,000 acres of storm water treatment areas, costing about $1.1 billion to construct, $27 million per year to operate and maintain, and approximately $1.1 billion to refurbish every 20 to 25 years, according to the report.

As for the U.S. Sugar land, the scientists could not determine the benefits of that purchase, because there are no specific plans, designs or financing for the land yet.

Keeping the project moving is the solution, said William L. Graf, a hydrologist at the University of South Carolina, who chaired the committee in 2008 and was a member for the current team.

"You have an incredibly diverse set of special interests and they squabble, but when they go to Washington to present their case, they pull together," Graf said. "That is the single most important thing Florida can do. That's the key to all the money that flows into the project."

Report: Progress on Everglades restoration slow

Return to Top

09/24/2010
Miami Herald, The
Morgan, Curtis

Over the past two years, the multibillion-dollar effort to restore the Everglades has finally begun showing some results on the ground.

The work has been slow and, given the ambitious goals and big money already spent, hasn't restored much of anything yet, aside from 13,000 acres of the Picayune Strand in Southwest Florida where water levels have been raised.

But the Strand and a handful of other projects are actually being built. Congress at long last opened its wallet. The state and federal partners managing the work are no longer squabbling.

A National Research Council progress report on the Everglades released Thursday points to all those things as signs of marked improvement at the end of a decade that had previously produced stacks of science and engineering studies, countless meetings and endless red tape.

Still, the 276-page report makes clear that the challenges have only grown more difficult -- particularly from water pollution -- and the need to accelerate projects more pressing.

``The overriding message is this restoration is going to take longer and be more expensive than originally planned,'' said Frank Davis, an environmental science professor at the University of California and chairman of the committee of 13 scientists who wrote the congressionally mandated analysis. ``It's critical to start showing real ecological improvement to convince policymakers and the public that you're efficiently managing these projects.''

The key hurdle, Davis said, remains the project's original goal: ``Getting the water right'' will demand new approaches and projects to supply enough clean water to mimic historic flow in the River of Grass before it was reduced to half its original size by development and bottled up by roads and flood-control levees.

With the state falling short in meeting the pristine standards required to protect native plants in the Glades, the council report calls for a massive 54,000-acre expansion of a network of marshes used to scrub phosphorus flowing into the Glades from farms, ranches and suburbs.

The concerns echo recent filings from the U.S. Environmental Protection Agency and a court-appointed special master in two federal lawsuits over Everglades pollution. It has become clear, Davis said, that the original Everglades restoration plan approved by Congress in 200O ``underestimated the water quality challenges.''

With pollution cleanup a state responsibility, that could mean an estimated $1.1 billion expense for water managers already cutting budgets with a chain saw.

The council report also echoed the EPA and special master in supporting Gov. Charlie Crist's controversial $197 million land deal with U.S. Sugar Corp., which has been approved by water managers but not yet finalized. Plans call for eventually converting the 27,000 acres to water storage and treatment areas.

The report from the council, part of the nonprofit National Academy of Sciences, was the third in a series of biennial independent assessments ordered by Congress and it comes at the 10-year mark of an effort jointly managed by the U. S. Army Corps of Engineers and the South Florida Water Management District.

It struck a decidely gentler tone than a blistering review issued in 2008, which bemoaned state-federal interagency turf battles, waffling political support, excessive red tape and lengthy construction delays -- all compounded by ballooning cost estimates that still will likely double or triple the original $8 billion price tag.

This time, the council found a long-delayed boost in federal funding had helped fill a drop in state funds by kickstarting four construction projects and other smaller pilot projects. Most of them are in Miami-Dade, including a one-mile bridge across the Tamiami Trail intended to improve water flows to the parched eastern side of Everglades National Park and two others to improve fresh water flow to Biscayne Bay and Florida Bay.

And at least one part of the environment has dramatically improved. Water managers and the Corps finally agreed on a complex, contentious cost-sharing agreement and, the report noted, ``there have been noteworthy improvements in the pace of implementation and in the relationship between the federal and state partners.''

But the report also found many problems remain unresolved -- most notably, water management conflicts that periodically flood Miccosukee Tribe lands -- and that much of the great marsh and its wildlife remains in decline. While the endangered Florida Panther and Cape Sable seaside sparrow populations have stabilized, the Everglades snail kite has largely vanished from its namesake home.

Water managers didn't quibble with the report.

In a joint letter sent Thursday to the research committee, Mimi Drew, secretary of the Florida Department of Environmental Protection, and Carol Ann Wehle, executive director of the South Florida Water Management District, said they concurred with the ``overall evaluation'' and said the state's commitment to the work remained strong.

Report: Everglades restoration progressing slowly

Return to Top

09/24/2010
Associated Press (AP)
Tamara Lush

A multibillion-dollar effort to restore Florida's Everglades has produced slow progress that is improving but likely to be spread unevenly across the vital wetlands, a congressionally mandated report said Thursday.

A 276-page document by the National Research Council said the pace of restoration has improved over the last two years.

"However, the importance of several challenges related to water quantity and quality have become clear, highlighting the difficulty in achieving restoration goals for all ecosystem components in all portions of the Everglades," the report said.

Approved by Congress in 2000, the Comprehensive Everglades Restoration Plan, or CERP, was originally estimated to take 30 years and cost about $7.8 billion - a tab that has risen due to rising costs.

The intent is to help restore some natural water flow after decades of diversions for development and agriculture, which have shrunk the Everglades to half its historical 4 million acres.

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Kirk Fordham, the CEO of the Everglades Foundation, said Thursday's report underscores the importance of acquiring U.S. Sugar Corp. lands to address water quality.

"It's no secret that Florida's water quality problems have been choking the life blood out of the Everglades for some time now." wrote Fordham, in a statement. "In addition to Florida's recent legal developments on Everglades water quality issues, this report should emphasize the need for the state to move forward aggressively on curtailing water pollution in the Everglades. At the same time, the report documents progress made on current Everglades restoration projects and should provide us with additional proof to convince lawmakers that their support for funding restoration is making headway."

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But the report also said that conditions may worsen in some parts of the Everglades in order to achieve success in other areas.

"At the heart of Everglades restoration is the goal of "getting the water right" by re-establishing the quality, quantity, timing, flow, and distribution of water to support the biological characteristics that defined the Florida Everglades before the construction of canals and levees," the report said. "Increasing the amount of water stored in the Everglades is a major near-term priority for the Restoration Plan. However, the reduced area and water storage capacity of the ecosystem mean that restoration benefits will be distributed unevenly across the Everglades landscape. Nearly all Everglades restoration projects carry trade-offs."

Mimi Drew, secretary of the Florida Department of Environmental Protection, and Carol Ann Wehle, executive director of the South Florida Water Management District, said they agreed with the overall report.

The Everglades have been dying for decades from the intrusion of farms and development, cut by dikes, dams and canals, effectively draining much of the swamp and polluting it with fertilizers and urban runoff. The state and federal governments' efforts to restore the wetlands have been stymied for years by funding shortfalls, legal challenges and political bickering.

NEWS RELEASE: Everglades restoration program making tangible progress after 10 years; challenges ahead to meet both water quality and quantity goals

Return to Top

09/23/2010

National Research Council

WASHINGTON -- A decade-long, multibillion dollar effort to restore the Florida Everglades has made tangible albeit slow progress, but additional projects need completion before substantial benefits are seen, says a new congressionally mandated report from the National Research Council. Challenges in achieving targets for both water quality and water flow have become more apparent, requiring further scientific analysis to determine the repercussions of trading off one for the other. Although important scientific advances have been made, continued decline of some aspects of the ecosystem, such as water quality and endangered snail kite populations, make it critical to accelerate ecological improvements.

The report is the third biennial evaluation of progress made by the Comprehensive Everglades Restoration Plan (CERP), a joint federal and state project that aims to reverse the ecosystem's decline while continuing to meet growing demands for clean water and flood control. Launched in 2000 by the U.S. Army Corps of Engineers and the South Florida Water Management District, CERP is a multiorganization planning process that comprises approximately 50 major projects to be completed over the next several decades.

"One of the main objectives in restoring the Everglades is 'getting the water right,' which calls for increasing the amount of freshwater that flows through the system while meeting water quality goals," said Frank Davis, chair of the committee that wrote the report and a professor at the Bren School of Environmental Science and Management at the University of California, Santa Barbara. "But, getting enough water to the right places at the right time and attaining water quality goals throughout the entire ecosystem is proving to be more difficult and expensive than originally anticipated. It will likely take several decades and a continued commitment to systemwide pollution management, storage, and water quality treatment."

After assessing the overall CERP and non-CERP efforts to restore the southern Florida ecosystem, the committee concluded that although progress has been slow over the past two years, improvements have been made in the pace of implementation, the relationship between federal and state partners, and research efforts. Four CERP projects are under construction, and pilot projects are addressing important design uncertainties. Several projects that serve as foundations to the plan are also under way, most notably the 1-mile Tamiami Trail bridge that is part of the Mod Waters project. However, only sparse natural system restoration benefits have resulted to date from the current construction.

The committee also found challenges for CERP in improving water flow and restoring water quality in the ecosystem. Although increasing water storage and associated water treatment is a major near-term priority, the reduced area and natural water storage capacity of the modern Everglades make evenly distributed restoration infeasible. Conditions may even worsen in some areas to achieve the desired outcomes in others.

The current extent of stormwater treatment areas (STAs) that remove phosphorus from the water is insufficient to treat existing water flow in the Everglades Protection Area, the report says. With increased volumes of water planned to enter the ecosystem as part of CERP, an estimated 54,000 additional acres of STAs would be required -- costing approximately $1.1 billion to construct and $27 million per year to operate and maintain. Therefore, the committee recommended a comprehensive cost-effectiveness analysis to optimize restoration outcomes given state and federal financial constraints. The committee also suggested research to assess STA sustainability and performance and improve practices that help control phosphorus and other nutrients. In addition, the River of Grass initiative, which includes the purchase of nearly 27,000 acres from U.S. Sugar, could provide additional land for water storage and treatment.

To help officials weigh the effects of simultaneous restoration projects on multiple ecosystem components, the report calls for research on the associated trade-offs from a whole ecosystem perspective, in particular the consequences of reducing water quantities while maintaining sufficient water quality and, conversely, reducing the quality of water in the ecosystem while maintaining sufficient flow. Furthermore, research should explore the degree to which negative consequences of these actions are reversible and on what time frames. Improved tools to help officials analyze decisions are needed to weigh the effects of restoration projects on multiple ecosystem components, including habitat conditions, threatened species, and features such as tree islands.

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The report was sponsored by the U.S. Army Corps of Engineers, South Florida Water Management District, and U.S.

Department of the Interior. The National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council make up the National Academies. They are independent, nonprofit institutions that provide science, technology, and health policy advice under an 1863 congressional charter. Committee members, who serve pro bono as volunteers, are chosen by the Academies for each study based on their expertise and experience and must satisfy the Academies' conflict-of-interest standards. The resulting consensus reports undergo external peer review before completion. For more information, visit http://national-academies.org/studycommitteprocess.pdf. A committee roster follows.

Copies of PROGRESS TOWARD RESTORING THE EVERGLADES - THE THIRD BIENNIAL REVIEW, 2010 are available from the National Academies Press; tel. 202-334-3313 or 1-800-624-6242 or on the Internet at HTTP://WWW.NAP.EDU. Reporters may obtain a copy from the Office of News and Public Information (contacts listed below).

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[This news release and report are available at HTTP://NATIONAL-ACADEMIES.ORG]

NATIONAL RESEARCH COUNCIL
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EVERGLADES: Restoration's momentum challenged by growing costs -- scientists

Return to Top

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The multibillion-dollar effort to restore the Everglades has made slow but tangible progress in recent years, but scientists today warned that sustaining momentum will be among the top challenges as costs continue to rise.

The National Research Council, in its third biennial report to Congress on the progress of the world's largest environmental restoration effort, today struck a brighter note than in its last report in 2008.

Progress at the time was "scant," the council said then, and the overall effort "bogged down" in procedural matters.

"They're beginning to pick up momentum," said Frank Davis, the report's committee chairman and professor at University of California, Santa Barbara. "At the same time, the Everglades continues to decline, so it's really more important than ever to maintain and build momentum."

Construction has begun on four of the 68 projects called for in a massive, now-$13 billion restoration plan Congress approved in 2000, the report says. The federal government, which agreed at the time to split the cost 50-50 with the state of Florida, has increased spending, offsetting declines in state spending as the economy has tumbled. State-federal cooperation has also improved, resulting in better headway and less bureaucratic bickering, according to the report.

"They've been able to come together," said William Graf, who chaired the report committee in 2008 and leads the geography department at the University of South Carolina. "Maintaining that coalition, I think, is the big challenge in the face of changing costs, reduced funding and an acrimonious political environment. We need to hold it together."

To date, Florida has invested more than $2.4 billion in the state-federal restoration, outspending its federal partners. That includes $1.8 billion dollars for water quality projects like artificial, pollution-filtering marshes that scientists say will need to be expanded -- echoing recent orders from U.S. EPA -- in order to meet pollution cleanup goals that continue to elude.

Florida officials concurred with the findings and said the state "remains committed to continue the important restoration work," in a joint statement issued this morning by the Florida Department of Environmental Protection and the South Florida Water Management District, the local agency overseeing restoration for Florida.

The report spotlights certain successes in the effort to replumb the River of Grass. The Everglades once covered 6,000 square miles but have been reduced to half that size over the past 60 years by the 1,700 miles of canals and levees installed to make room for farms and urban development.

One success highlighted is the Picayune Strand, a 55,000-acre failed housing development where canals were back-filled to restore the natural wetlands.

The report also cheered the groundbreaking on what the committee in 2008 called "one of the most discouraging stories in Everglades restoration," a 20-year-long effort stopped up in court to bridge the Tamiami Trail. The trail runs east-west across the Everglades from Tampa to Miami, acting like a giant dam. Work is now under way to bridge a 1-mile segment.

After eight years of planning, "in the last couple years we're starting to see some projects hit the ground," said Davis. "We can now look forward to some restoration that's in the near term."

Areas in need of improvement include the scientific modeling efforts that drive restoration decisions involving the unavoidable trade-offs in building new reservoirs, buying new restoration lands and back-filling canals, the report said. The report also calls for stepping up involvement of the various environmental groups, farmers, developers and other interests that tend to go to war over Everglades policy.

The scientists also noted the potential benefits of a controversial, 27,000-acre restoration land deal that the state has brokered with U.S. Sugar Corp.

"I haven't seen a great deal of research on the implications of buying that land," Graf said. "That's why you're seeing the committee not making strong statements about it. We just don't know."

Graf compared the overall effort to steering an aircraft carrier, saying that sustaining political will and spending while improving science and modeling is critical to a full turnaround.

"I feel the aircraft carrier was headed for a reef two years ago," Graf said. "We're beginning to turn the ship at this point. It think we're going to avoid cracking up. It's just a process that's going to take some time."