

EVERGLADES NATIONAL PARK

“Not often in these demanding days are we able to lay aside the problems of the time, and turn to a project whose great value lies in the enrichment of the human spirit. Today we make the achievement of another great conservation victory. We have permanently safeguarded an irreplaceable primitive area. We have assembled to dedicate to the use of all people for all time, the Everglades National Park.”

President Harry S Truman, Address at the Dedication of Everglades National Park, December 6, 1947



2009

DRY TORTUGAS NATIONAL PARK

The Tortugas were first discovered by Ponce de Leon in 1513. Abundant sea turtles or "tortugas" provisioned his ships with fresh meat, but there was no fresh water-the tortugas were dry. Since the days of Spanish exploration, the reefs and shoals of the Dry Tortugas have been a serious hazard to navigation and the site of hundreds of shipwrecks.

SUPERINTENDENT'S ANNUAL REPORT

FISCAL YEAR 2009 (October 1, 2008 – September 30, 2009)

Superintendent Dan Kimball

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BACKGROUND

Everglades A Biologic Park

Practically without exception, areas that have been turned over to the National Park Service (Service) as national parks have been of superlative value with existing features so outstanding that if the Service were able to merely retain the status quo, the job was a success. This will not be true of the Everglades National Park (EVER). The reasons for even considering the lower tip of Florida as a national park are 90 percent biological ones, and hence highly perishable. Primitive conditions have been changed by the hand of man, abundant wildlife resources exploited, woodland and prairie burned and reburned, water levels altered, and the attendant, less obvious ecological conditions disturbed. (Daniel B. Beard Wildlife Reconnaissance: Everglades National Park Project, 1938)

There are no other Everglades in the world. They are, they have always been, one of the unique regions of the earth, remote and wholly known. Nothing anywhere else is like them; their vast glittering openness, wider than the enormous visible round of the horizon, the racing free saltiness and sweetness of their massive winds, under the dazzling blue heights of space. They are unique also in the simplicity, the diversity, the related harmony of the forms of life they enclose. The miracle of the light pours over the green and brown expanse of saw grass and of water, shining and slow-moving below, the grass and water that is the meaning and the central fact of the Everglades of Florida. It is a river of grass. -- -- Marjory Stoneman Douglas, The Everglades-River of Grass 1947

EVER is a public Park for the benefit of the people. It is set aside as a permanent wilderness, preserving essential primitive conditions including the natural abundance, diversity, behavior, and ecological integrity of the unique flora and fauna. It is the first national park dedicated for its biologic diversity as opposed to its scenic vistas.

Dry Tortugas a Unique Marine and Cultural Resource

Dry Tortugas National Park (DRTO) is managed by a Site Manager but park operations are overseen by the Superintendent of Everglades National Park. The management team at Everglades NP assists the staff at Dry Tortugas in all areas of park management. Concessions, contracting & procurement, budget, personnel, safety, public relations, interpretation, visitor & resource (cultural and natural) management and maintenance planning and design are all areas where assistance is provided. The staffing and operation of the Motor Vessel Fort Jefferson, the supply boat for Dry Tortugas NP, is funded by Everglades National Park. Since the accomplishments of Everglades and Dry Tortugas National Parks are so intertwined, the Annual Reports of both parks are combined into one.

The Tortugas were first discovered by Ponce de Leon in 1513. Abundant sea turtles or "tortugas" provided De Leon's ships with fresh meat, but there was a struggle for survival as there was no fresh water in the area, the tortugas were and continue to be dry. Since the days of Spanish exploration, the reefs and shoals of the Dry Tortugas have been a serious hazard to navigation and the site of hundreds of shipwrecks.

U.S. military attention was drawn to the keys in the early 1800's due to their strategic location in the Florida Straits. Plans were made for a massive fortress and construction began in 1846, but the fort was never completed as the invention of the rifled cannon made it obsolete. As the military value of Fort Jefferson waned, its pristine reefs, abundant sea life and impressive numbers of birds grew in value. In 1935, President Franklin Roosevelt set aside Fort Jefferson and the surrounding waters as a national monument. The area was redesignated as Dry Tortugas National Park in 1992 to protect both the historical and natural features.

2009 Superintendent's Office - Major issues faced by park management

Weather Events The location of DRTO and EVER bring the staff of both parks into the Incident Command System planning mode each May. The 2009 Atlantic hurricane season was a below-average year in which nine tropical storms formed, the fewest since the 1997 season. Though this was a quiet weather year both parks continue to work through planning and funding questions for repair of severe damages delivered in 2005 from Hurricanes Katrina and Wilma that hit both Everglades and Dry Tortugas.

Planning efforts Staff continued to make progress on the EVER General Management Plan (GMP) in 2009, including incorporating all of the public comments submitted on the draft plan provided for review and presented to the public in a number of public forums during 2008. Public input generated the need to complete two important studies to provide science based information on the extent of seagrass damage to the sea bottom of Florida Bay and the actual boat usage in this area of the park to better inform the planning effort.

In light of the hurricane damage to the Flamingo district in 2005 and the tremendous public interest in this part of the park, the Flamingo Commercial Services Plan was completed and funding was acquired to move the planning forward on designing the proposed facilities at Flamingo. Work continues to identify funding streams or potential innovative partnerships that could help implement this plan.

Personnel Staffing DRTO positions posed a continuous challenge to management at this remote park. Everglades Resource and Visitor protection has struggled to keep positions filled due to a number of transfers this year. Visitor services overall are somewhat reduced due to budget constraints that have left the park with a number of positions on the organizational chart left vacant for years. Centennial resources have improved the ability of Interpretation, Resource Protection, and Maintenance to improve visitor services through centennial seasonal staff, but these are a temporary fix.

Invasive Exotics Species in the park Public interest in invasive exotic species in the park continued to escalate in 2009, primarily due to continued media coverage of the Burmese population in the park. A number of articles and interviews were published or broadcast on various local, national, and international venues. Congressional attention increased on a number of snake/reptile species to be covered under the Lacey Act and increased the intense interest from reporters around the world. The park implemented an authorized agent program as a pilot to remove some of these invasive pests.

The PIO fielded requests for interviews and tours related to pythons from many international as well as national reporters, along with those in the local area. Science staff developed a myriad of partnerships with other jurisdictional governments faced with the same challenge to address this increasingly difficult problem.

Safety The Safety Officer duties continue to be a collateral duty of staff who also works on concession contracts. 28 accidents were documented in SMIS, all involving either boats, poison wood or maintenance equipment, 2 were at DRTO or 26 were at EVER. There were no incidents involving serious injury or fatality that were reported during the year.

Congressional The Superintendent hosted a number of congressional and agency VIP visits to both Dry Tortugas and Everglades including Senators Nelson and Martinez, Congressional Representatives Mario Diaz Balart, DOI Assist Secretary Will Shafroth, DOI Secretary Salazar, Regional Director David Vela, NPS Director Jarvis and others throughout the year, cooperating with the south Florida Water Management district and other public agencies on transportation logistics such as helicopters and airboats to provide an overview of both parks that are difficult to access or view without this type of access. The PIO continued to maintain and develop relationships with the Florida delegation and local elected officials' staffs.

Dignitary and International Visitors Everglades and Dry Tortugas garner a great deal of attention from high level national and international leaders, both elected and appointed, due to the complex restoration program along with its unique biologic properties and management challenges that go along with a park the size of Everglades and as remote and rich with pristine cultural and natural resources as the Dry Tortugas. The park PIO is charged with responding to these regular requests and organized a number of congressional and senior agency leadership visits to view the Everglades Ecosystem and to the Dry Tortugas. In addition to U. S. leaders the PIO organized special briefings and tours for international dignitaries through the State Department and local international liaison organizations. Generally these are international leaders in environment, natural resource protection, park management, and other natural area management agencies interested in NPS policies and programs in Florida. A special multinational visit from the UN trilateral Commission in May over a two day period was a particularly large and challenging event that included representatives of over 20 countries. In addition, there were visits from the Ramsar Secretary General, representatives from Denmark, the United Kingdom, Brazil, Camaroon, Korea, Southeast Asia, and a multinational group looking into global biodiversity.

The park worked with the Greater Miami Beach and South Dade Tourist Development council on providing park experiences to a group of international journalists from the 2009 International Tourism POW WOW conference held in Miami this year. The largest annual tourism event in the United States bringing hundreds of international travel journalists to various locations around the country in hopes they will write about these locations.

Adjacent Land use concerns continued to take up park staff time and effort; the SFNRC adjacent lands staff person hired last year left toward the end of this fiscal year and this position is not yet filled. It is an important one as this staff person tracks the many development pressures experienced by the park. The park staff commented on various developments proposed in the area, particularly those proposing to move the Urban Development Boundary further west and closer to the park. Everglades and Biscayne National park are following the potential impacts of proposed changes to nuclear capacity at Turkey Point, very near the park.

Commercial Filming in both parks has become part of the Special Use Permit coordinators responsibility to manage. These regular requests to use the park as backdrop for everything from five star movies to documentaries to student research efforts can take up a good bit of staff time. New guidelines on fees charged by national parks for this effort posed a number of dilemmas through the year as different parks in the Service implemented new rules differently. In response to the news organizations expanding their coverage to the internet Everglades and Dry Tortugas are developing a more up to date and focused protocol having all news organizations film requests funneled through the PIO and others to the Special Use Permit Manager.

Media coverage There are hundreds of requests each year from media outlets in the U.S. and around the world for interviews, images, story suggestions, and staff tours that are managed by the Public Information Office. This office handles both DRTO and EVER inquiries. This fiscal year there was a great deal of interest in the general management plan and restoration of the resources. Media coverage of the park included stories run on all local networks, PBS, National Geographic TV, Animal Planet, Univision, Miami Herald, Sun Sentinel, Keys publications, Southern Living Magazine, Airline Travel Magazines, FODOR and other Travel guides and a host of other magazine from the

U.S. and around the world. Stories ranged from resource information, to highlighting volunteers in the park and new family camping program.

Social Media This is a relatively new communication technique for parks that has been emphasized as important by the new administration. These two parks ventured into the new communication venues of social media by setting up twitter accounts and installing webcams to provide virtual access to these unique locations. The Environmental and Interpretive divisions developed a series of podcasts made available on park websites as part of this new communication effort.

Climate Change Climate change and how it relates to the management of public lands continues to be a significant topic of interest to the general public and to the media as more and more studies and documents are published related to this issue. The impact of potential sea rise to the state of Florida, particularly the southern tip has been the subject of many magazine and newspaper articles. The Superintendent continues to be a member of the Florida Climate Change Task Force as they meet and discuss strategies that should be put in place now to reduce potential impacts of sea level rise in the future.

International Designations There was a great deal of media and community focus on EVER when at an international meeting the park was taken off the endangered list of World Heritage sites. There is currently discussion of this decision being modified and the park being placed back on the endangered list. Generally the park is supportive of this and continues to develop documentation to inform this decision making process. The concern was that this would not help in the work to gain support for restoration, as the park has not yet recovered in the three areas identified as problematic when it was put on the endangered list.

CERP and Science Everglades ecosystem restoration continues to take up a significant amount of the Superintendent and the South Florida Natural Resource Center's time, and at times that of other staff throughout the park. The Superintendent was elected to fill the federal co-chair position for the South Florida Ecosystem Restoration (SFERTF) Working Group and the Director of the SFNRC regularly participates in the SFERTF Science Group. The restoration program is evolving and coordination with the many federal and state partners requires a significant commitment of resources.

DRTO Research Natural Area - The Research Natural Area, or RNA, added a new layer of protection for the marine resources of Dry Tortugas National Park. The RNA is a 46 square-mile no-take ecological preserve that provides a sanctuary for species affected by fishing and loss of habitat in this region of the Gulf. The RNA also provides opportunities for boaters, divers, snorkelers, and researchers to explore and study the significant marine environment protected within Dry Tortugas National Park. Park staff is working towards implementing a science plan completed in 2007 that will provide an assessment of how the RNA has helped the resources in this area that will inform the state review of this arrangement due in 2011.

Migrant Landings at DRTO and Everglades Not too many National Parks are so significantly impacted by a federal immigration policy. Due to the large Cuban population in Florida and many years of migration issues the federal government passed a wet foot/dry foot policy some years back that became an issue for DRTO and Everglades when enforcement of border patrols around Key West escalated after the 9-11 attacks on the United States. The very limited park staff available at DRTO has to respond to multiple migrant landings in "chugs" (handmade boats of all types) during the year. As this type of activity is not normally the responsibility of park service staff, meeting the needs of multiple groups of immigrants that would land on the remote island or along the remote coastal areas of Everglades continues to stress already limited resources.

Communications and housing at DRTO The remote island park is a beautiful and unique resource that requires a staff presence to perform protective, facilities management, and interpretive park service duties. Due to the remoteness communication with staff on the island, coordination of visitor access,

and housing of staff needed on the island pose numerous fiscal and logistical challenges. In addition, the escalating land costs in south Florida exacerbate housing at Key West for staff when off island. All of these factors affect the ability of the park to recruit staff. Communications and housing are a significant challenge for park management and staff.

2009.1 Planning & General Management Plan - Planning and Compliance Branch

The Planning and Compliance branch is responsible for providing planning and environmental compliance services for EVER and DRTO National Parks. These responsibilities are accomplished through the planning and compliance programs. The branch is also responsible for providing planning and environmental compliance services for EVER and DRTO. These responsibilities are accomplished through the planning and compliance programs. An overview and selected FY09 accomplishments for each program follow.



FY2009 1.1 Planning Program

Overview The planning program focuses on activities to support park legislative and policy requirements, mission goals, and long-term goals, and is designed to provide the framework for management actions and decision-making. The principles that guide park planning activities are:

- prepare high quality work products for all tasks that would satisfy all audiences, both internal (within NPS) and external (stakeholders and other agencies)
- foster teamwork in all aspects of work by encouraging broad involvement and seeking consensus
- provide strong customer service so that products and services are responsive to each audience engaged in the process
- apply sound project management skills so that tasks and products developed by the GMP team can be delivered timely and with desired results
- provide effective communication on all project elements whether focused towards NPS staff or managers, the public, or project stakeholders/partners
- accomplish work in a manner consistent with applicable laws and policies including NPS Management Policies and Director’s Orders 2 and 12

In FY09 the park planning program was involved in a wide-range of short and long-term planning efforts that enhanced park resource management and visitor use goals, and strived to improve relationships between the park and neighboring communities on issues of mutual interest. Highest priority project work this year included:

- advancing the EVER General Management Plan/East Everglades Wilderness Study/EIS to development of Draft Preliminary Preferred Alternative

- initiating implementation of the Selected Alternative from the 2008 Flamingo Commercial Services Plan/EA and FONSI
- assisting/advising the Branch Chief in reviewing and analyzing complex, controversial park and other agency planning and decision documents (such as the potential NPS-FPL Land Exchange/EA, Pilot Spreader Swales/EA, Cape Sable Canals/EA)
- assisting in finalizing the Flamingo CSP Technical Assistance Plan, a two-day workshop involving the Urban Land Institute, National Parks Conservation Association, South Florida National Parks Trust, and park stakeholders
- working with the NPS Air Resources Division/Soundscape Management Program to conduct field work and assessments in Everglades and Dry Tortugas National Parks to understand soundscape issues and opportunities to enhance natural sounds conditions
- provided input on the Tamiami Trail Modifications: Next Steps project and its relationship to the GMP
- assisting in the application process for The Nature Conservancy (TNC) to apply for/receive approval of USACE, Keys Environmental Restoration Fund funds to acquire the Tarpon Basin site
- researching and preparing memorandum to the Regional Solicitor's Office on commercial airboat issues and questions requiring legal opinion and resolution in the East Everglades Expansion Area
- participating as an IDT member of the Florida Bay Pole and Troll Zone project

1.1.1 Everglades General Management Plan/East Everglades Wilderness Study

Additional tasks completed June through September 2009

- Developed GMP Outreach Plan that focused on two aspects of civic engagement:
 - Role of natural resource and social science studies to support/inform revised GMP marine resource alternatives in January
 - Application of these studies to inform a new range of GMP marine resource alternatives presented in March 2009 based on sound, peer-reviewed science
 - Completed the *Florida Bay Propeller Scarring of Seagrass and Everglades National Park Marine Waters Boating Study*, developed park website links, issued press release, conducted media briefings and on-the-water tours for local, state and national media, and published full studies and factsheets regarding these projects that were distributed to about 3000 individuals and organizations
- Developed 16 page newsletter that presented four preliminary alternatives for managing the park's marine resources
- Conducted 16 stakeholder meetings, involving about 250 participants, in five south Florida counties to involve key constituency groups in in-depth discussions on marine resources management

- Conducted 7 public meetings, involving about 630 participants, in four south Florida counties to involve the general public and stakeholders in the consideration of alternative approaches to managing park marine resources
- Received more than 600 comment forms via mail and NPS PEPC system regarding the revised marine alternatives
- Analyzed FY 2009 public input and prepared summary report that was posted on park website and distributed to GMP mailing list
- Prepared position paper with analysis of, and recommendations for, manatee protection strategies for the park was prepared, so that the information could be considered as part of GMP process or as a separate planning effort integrating resource and visitor use information
- Assisted in conducting a park-wide *User Capacity* workshop to support GMP EIS and adaptive management process
- Revised draft preliminary alternatives by integrating the marine and non-marine alternatives together into a single-set of alternatives to be carried forward in the Draft GMP/EIS
- Coordinated two-day interdisciplinary GMP team workshop to develop draft preliminary preferred alternative
- Identified potential revision to alternatives based on FY 2009 public involvement process
- revised project budget, workplan and schedule to reflect additional funding received to complete the project and have Draft GMP out for public review in January 2011
- Prepared documents to support GMP Impact Analysis and Preliminary Preferred Alternative workshops



2009 1.1.2 Flamingo CSP Implementation and Master Plan Development

- Coordinated Flamingo CSP implementation projects including Section 7 consultation with NOAA NMFS on developing two new chickees in Florida Bay

- Provided input on fee demonstration funding projects that were part of the Flamingo CSP: solar hot water/showers at Flamingo campgrounds, electric hook-up installation in T Loop campground, participation in scoping and document review of Flamingo Mission 66 Cultural Landscape Inventory project
- Conducted three briefings/tours of Flamingo with key stakeholder organizations involving Congressional representatives, local/county government and business organization representatives, and a national organization focused on funding conservation and sustainable development projects, in order to discuss the scope and importance of the decisions reached in the Flamingo CSP planning process
- Coordinated park participation developing the Flamingo Master Plan (a more detailed plan building on the principles described in the CSP)

FY09 General Management Plan Objectives Status

- Sea grass scarring and boating studies: completed
- Finalize preliminary alternatives (integrate marine and non-marine alternatives together): completed
- Select the preferred alternative: developed preliminary preferred alternative; CBA workshop to select preferred alternative scheduled for 11/17 to 19, 2009
- Refine Draft GMP Chapters 1 and 2: partially completed; work ongoing in FY 2010 with project consultants Parsons and SD Economics taking on larger role to meet revised project schedule approved in FY 2009
- Develop cost estimates for the alternatives: partially completed; work ongoing in FY 2010 to reflect preferred alternative being developed in November 2009 – January 2010
- Conduct EVER GMP user capacity workshop: completed

FY10 General Management Plan Priorities

FY10 will be a critical year in the planning process. In FY 10 the Draft GMP/EEWS/EIS will be completed and this will set the stage for conducting the public review process in early FY11. Principal FY10 activities include:

- Conduct the *Choosing By Advantages* workshop in November in order to develop and select the draft preferred alternative
- Hold briefings on the draft preferred alternative with NPS and DOI leadership at the regional and national levels in February and March
- Complete writing the Draft GMP/EEWS/EIS for the balance of FY10. (the project schedule anticipates the draft document being released for public review and comment in early 2011)

Program Capacity and Consequences

Staffing for the park planning program in 2009 largely fell to three employees, only one of which is dedicated to park planning on a full-time basis. The increasing workload coupled with continued budget constraints and reductions of FTEs throughout the park results in a constant challenge of meeting high park priorities without adequate resources, and often leads to performing work reactively instead of proactively. In some cases, limited resources

have created situations where certain work could not be initiated or accomplished, even though it was deemed important.

As the park planning program relies on substantial involvement of staff from across all other divisions and programs, the competition for gaining the necessary staff involvement in a timely manner is a constant challenge. The current OFS request identifies a need for two additional park planning positions (1 park planner, 1 community planner) to meet the needs in upcoming years for projects at EVER and DRTO General Management Planning implementation activities, and for gateway/park-community partnership projects.

2009 1.2 Environmental Compliance Program

Overview The compliance program is responsible for ensuring that requirements of environmental laws and regulations are completed prior to implementing actions that may impact park resources and visitor use. Activities include leading interdisciplinary teams; determining NEPA pathway; coordinating public involvement; consulting with agencies and tribes; analyzing project impacts; preparing categorical exclusions, environmental assessments and environmental impact statements; maintaining administrative records and reviewing actions proposed by others that may affect the two parks. Results include better coordination between the parks, the public and elected representatives; better-informed decisions; and implementation of programs needed to protect resources, enhance visitor services and benefit surrounding communities.

In FY 09, branch staff contributed significantly to completion of the Tamiami Trail Spreader Swales EA and the Cape Sable Canals Dam Repairs EA. Progress was made on the Exotic Vegetation Management Plan EIS and two other EA's. Staff also completed documented categorical exclusions for 26 projects, coordinated National Historic Preservation Act compliance for 33 projects and participated in 13 wilderness minimum tool determinations. Thirty-four active projects rolled over into FY 2010

Program Capacity and Consequences

The parks' ability to complete compliance and thus accomplish projects is limited by current funding and staffing levels. FY09 compliance staffing consisted of one full-time compliance specialist supplemented by and 70% of the branch chief's time. The existing and anticipated compliance workload far exceeds staff capacity to accomplish in a timely manner. This has resulted in a backlog of compliance projects and implementation of some programs without fulfilling compliance requirements. The branch OFS request identifies a need to base-fund 2 additional compliance specialist positions and an administrative assistant. Failure to meet planning and compliance requirements risks potential resource damage, project delays and costly litigation. The branch budget request to enhance planning and compliance capacity is currently the parks' #2 OFS priority.

2009 1.2.1 Compliance Projects

Tamiami Trail Spreader Swales / Environmental Assessment In 2007, The U.S Army Corps of Engineers and the South Florida Water Management District proposed



the construction of spreader swales in the park south of Tamiami Trail to enhance the flow of water under the Trail into NE Shark River Slough. Due to disagreements over the potential benefits of swales, the NPS initiated an environmental assessment in April 2008 to analyze the potential environmental effects of the proposed swales. The Park worked closely with US Army Corps of Engineers to complete the Spreader Swales EA on an aggressive schedule. Acting NPS regional director Art Frederick signed a Finding of No Significant Impact (FONSI) on March 23, 2009.

The branch chief participated in all aspects of the project. Specific 2009 accomplishments include: Reviewed and wrote portions of the EA, analyzed and responded to public comments, coauthored the FONSI and coordinated media, public involvement and PEPC postings at each stage.

Cape Sable Canals Dam Repairs / Environmental Assessment

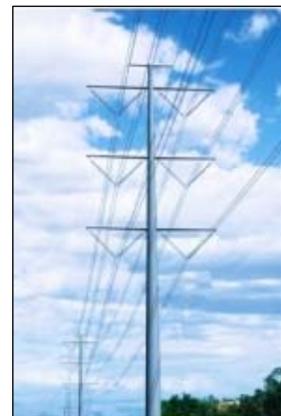


In 2008, the Park initiated an environmental assessment of options for repairing or replacing the failed dams on the East Cape and Homestead Canals. The EA for this ARRA project was completed on an aggressive schedule and Regional Director David Vela signed a Finding of No Significant Impact (FONSI) in August 2009. The branch chief participated in all aspects of the project. Specific 2009 accomplishments include:

Reviewed and wrote portions of the EA, analyzed and responded to public comments, coauthored the FONSI and coordinated media, public involvement and PEPC postings at each stage.

Florida Power and Light Potential Land Exchange / Environmental Assessment

The NPS and Florida Power and Light Co. (FPL) began discussing a potential exchange and relocation of a corridor of FPL property in the Everglades National Park Expansion Area in 2007. FPL acquired this corridor in the 1960s and early 1970s in anticipation of future needs for electrical facilities to serve growth in southeast Florida. The seven-mile-long, 330 - 370 foot wide corridor, through lands that became part of the ENP Expansion Area in 1989, is a portion of a contiguous forty mile corridor connecting FPL's Turkey Point generating stations and the Levee Substation. FPL has identified potential corridors for expanding its electrical transmission facilities in conjunction with the proposed addition of two nuclear generating units at Turkey Point. The NPS and FPL have identified NPS property at the



edge of the park that may have substantially less impact on park resources, if utilized for an electrical transmission corridor. FPL is willing to relocate its corridor to this alternative alignment. The Omnibus Public Lands Act of 2009 (Sec 7107) authorized, but does not mandate, the Secretary of the Interior to exchange lands with FPL subject to terms and conditions the Secretary may require. Before exchanging lands, the NPS must complete appraisals of the federal and non-federal lands and conduct an evaluation in accordance with the National Environmental Policy Act.

In June 2009, the Park initiated the environmental assessment process. The goal is to have the EA completed and ready to release to the public by April 2010. FPL desires to complete an exchange and obtain permits for transmission lines as soon as possible. FPL is awaiting the outcome of the EA process; however, it is possible that FPL may pursue permits to build transmission lines on its existing corridor within the park in order to keep its expansion schedule for the Turkey Point generating station. FPL's proposal to build additional nuclear units at Turkey Point has drawn concerns from the public, non-governmental organizations (NGOs) and government agencies including Biscayne National Park.

In addition to the controversy about the nuclear plant, the land exchange itself has drawn substantial public opposition. During public scoping for the project in July 2009, the overwhelming majority of comments received were opposed to the proposed exchange. Reasons for opposition to the potential land exchange include:

- The loss of 260 acres of NPS land recognized as wilderness eligible and a UNESCO World Heritage Site
- Potential adverse impacts to threatened and endangered species and the Everglades viewshed if transmission towers and lines are constructed
- Opposition to development in the park, including construction of transmission lines in both the current FPL corridor and the proposed land exchange corridor
- Concern that the proposed land exchange would violate the intent and directive of the Everglades National Park Protection and Expansion Act of 1989 and the 1991 East Everglades Addition Land Protection Plan to acquire and manage the addition lands to restore and protect the Everglades ecosystem.
- Concern that an NPS decision to exchange lands with FPL would affect not only Everglades National Park, but would set a damaging precedent for how to address landholding inside a national park.

The Park is committed to following the NEPA process and does not know yet if the outcome of the EA process will result in a Finding of No Significant Impact or a decision to file a Notice of Intent to prepare an Environmental Impact Statement.

Flamingo Seawalls Rehabilitation/Environmental Assessment

The Park initiated an Environmental Assessment for the rehabilitation of deteriorating seawalls at Flamingo in 2008. Internal scoping was completed in November 2008, but the project was put on hold pending resolution of funding issues. Work on the EA resumed in late 2009 and a FONSI is anticipated by December, 2010.



South Florida and Caribbean Parks Exotic Plant Management Plan / Environmental Impact Statement



Park resource management and compliance staff played a key role in the development of this multi-park exotic vegetation management plan and EIS. The project was put on hold after completion of the draft EIS in 1996. The park is working with the WASO Environmental Quality Division to complete the final plan and EIS and a record of decision by the spring of 2010.

Fire Management Plan/Environmental Assessment

Funding was obtained and contracting completed to resume work on the FMP/EA. Internal scoping was complete in October 2008 and a FONSI is anticipated in late 2010.



Manatee Area of Inadequate Protection (AIP)

Branch staff worked with the South Florida Natural Resources Center, Park Management Team and Gulf Coast District Management Team to complete planning and compliance for lifting the AIP. Implementation steps required for the US Fish and Wildlife Service to lift the AIP designation are underway.



2009 1.2.2 NEPA Categorical Exclusion Projects

Compliance staff led interdisciplinary teams to determine the appropriate level of compliance with the National Environmental Policy Act (NEPA), National Historic Preservation Act (NHPA), Endangered Species Act, Wilderness Act and other legal standards; and to complete compliance requirements prior to project implementation. In FY 2009, 26 projects completed NEPA compliance as Categorical Exclusions with documentation, 5 were completed as Categorical Exclusions without documentation, and 7 were completed at the Memo-to-File level. Each project was screened by an interdisciplinary team and many required a site visit and consultation with regulatory agencies. The diversity of these projects is reflected in the table below. Thirty-four active projects rolled over into FY 2010.



2009 1.2.3 Wilderness Projects

EVER has 1,296,500 acres of designated wilderness, out of 1,509,000 total acres within the park. In compliance with the Wilderness Act and Director's Order 41, the park's Wilderness Committee screens proposals to install structures or use motorized vehicles or mechanized equipment in designated or potential wilderness areas to determine the minimum tools to accomplish the project. Compliance staff participated in Minimum Tool Determinations for 13 projects in FY 2009.



2009 1.2.4. National Historic Preservation Act Projects

Compliance staff coordinated NHPA review with the Chief of Cultural Resources within the context of the NEPA process. In FY 2009, 33 projects completed compliance with Section 106 of the NHPA (see table below). Three projects required consultation with the State Historic Preservation Office.

EVERGLADES NATIONAL PARK | 2009

COMPLETED NHPA & NEPA CATEGORICAL EXCLUSION / MEMO TO FILE PROJECTS - FY 2009

Project #	Project Name	NEPA Completion Date	NHPA Completion Date
Categorical Exclusions with documentation			
1	FY09-002 Install Webcam on Anhinga Trail	10/27/08	PE 10/27/08
2	FY08-034 Replace Daniel Beard Center Museum Doors	10/27/08	PE 10/27/08
3	FY08-048 Lygodium Biological Control Research Permit Amendment	11/05/08	PE 11/05/08
4	FY08-051 Mark Zucker Research Permit	11/20/08	PE 11/20/08
5	FY08-036 Sharon Ewe Research Permit	11/25/08	PE 11/25/08
6	FY08-049 Install Electricity to the Native Plant Nursery	12/18/08	PE 12/18/08
7	FY08-014 Open Jewell Key Campsite	12/18/08	SC 10/06/08
8	FY08-050 Subsurface Exploration Plan for Future Paving	01/26/09	PE 01/26/09
9	FY09-014 Install South Florida Water Management District Aerial Photography Control Points	02/25/09	SR 02/25/09
10	FY09-016 Cape Sable Canals Marl Ridge Elevation Survey	02/25/09	NE 02/25/09
11	FY08-021 Reopen Coastal Prairie Trail	03/04/09	SR 03/04/09
12	FY09-011 Archaeology Month Excavations in Fort Jefferson	03/11/09	SC 02/19/09
13	FY06-030 Restore Damaged Shoreline at Everglades City	04/15/09	SR 04/15/09
14	FY08-042 Install Bird Stakes on Upper Cross Bank	04/20/09	SR 04/20/09
15	FY09-017 Replace Ceiling Tiles, Lighting, and Kitchen Flooring at Daniel Beard Center	05/14/09	SR 05/14/09
16	FY09-028 Flamingo Campground Fee Booth Wayside Accessibility	05/19/09	SR 05/19/09
17	FY09-027 Replace Deteriorated Sections of West Lake Boardwalk	05/29/09	SR 05/29/09
18	FY09-032 Engineer's Quarters Termite Treatment	07/01/09	SR 07/01/09
19	FY09-029 Florida Power and Light Land Exchange Archeological Survey	07/07/09	NE 07/07/09
20	FY09-033 Cape Sable Canals Topographic/Bathymetric Survey	07/10/09	SR 07/10/09
21	FY08-001 Implement Boat Speed Zones in Chokoloskee Bay Manatee Area of Inadequate Protection	07/30/09	SR 07/30/09
22	FY09-034 Navy Sonic Boom Study at Fort Jefferson	08/11/09	SR 08/11/09
23	FY09-042 Lorenz Research Permit 2009	08/11/09	SR 08/11/09
24	FY09-045 Cape Sable Canals Benthic and Geotechnical Survey	08/31/09	SR 08/31/09
25	FY09-037 Repair and Resurface Historic Guy Bradley Trail	09/11/09	SR 09/11/09
26	FY08-041 FY09 Aerial Spray Projects	09/11/09	SR 09/11/09

Categorical Exclusions without documentation

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27	FY09-009	Replace Rebar Markers on Loggerhead Key	02/25/09	SR 02/25/09
28	FY09-022	Yuncong Li Research Permit 2009	03/19/09	SR 03/19/09
29	FY09-023	Patrick Inglett Research Permit 2009	03/19/09	SR 03/19/09
30	FY09-043	Patrick Inglett Research Permit 2009 - Tasks 2 & 3	08/21/09	SR 08/21/09
31	FY09-046	Replace Museum Exhibit Cases	09/21/09	NE 09/21/09
Memos to File				
32	FY08-047	FY09 Exotic Vegetation Management Program	10/27/08	N/A
33	FY09-024	Lygodium Biological Control Research Permit Location Amendment	05/07/09	N/A
34	FY09-004	Construct Shark Point and Johnson Key Chickees	06/17/09	N/A
35	FY08-024	Tamiami Trail Exotic Vegetation Removal	06/26/09	N/A
36	FY09-020	Install Electric Service at Flamingo T Loop Campground	07/01/09	SC 04/07/09
37	FY09-041	Flamingo Wastewater Treatment Plant Modifications 2009	08/04/09	N/A
38	FY09-035	Install Solar Water Heaters in Campgrounds	09/11/09	SR 09/11/09

Completed without compliance*				
1	FY09-048	Flight Following Communication Support	(Decision made 06/09/09)	
2	FY09-049	Install Pneumatic Doors at Ernest Coe Visitor Center	(Decision made 06/09/09)	
3	FY09-050	Install Goliath Grouper Underwater Camera	(Decision made 06/09/09)	

*** Due to the high volume of projects and limited compliance staff, Deputy Superintendent Keith Whisenant determined that these projects may proceed without compliance.**

Acronyms:

PE	Programmatic Exclusion
SC	Standard Consultation
SR	Streamlined Review
NE	No Potential to Cause Effects

2009.2 Cultural Resource Stewardship

2009 2.1 Cultural Resource Stewardship

Fiscal year 2009 marked the third year of the integrated Cultural Resource program for Everglades and Dry Tortugas National Parks. Cultural Resources worked closely with all other divisions to incorporate cultural resources and museum collections into park operations and interpretation, including such highlights as assisting numerous researchers, having museum open houses and tours, assisting with records management, providing an overview of cultural resources to seasonal interpretive staff and law enforcement, and providing an overview of the new Section 106 Programmatic Agreement to EVER Park Management Team and Dry Tortugas Staff.

While the South Florida Collections Management Center is also a critical part of the Cultural Resource Division, their organization and accomplishments will be covered in a separate chapter.

Staff for FY 2009 included Chief of Cultural Resources Melissa Memory, Seasonal STEP Archeologist Mance Buttram, a two month detail from Prince William Forest, Colette Carmouche, and NAGPRA Interns Christine Labriola and Katherine Morales. While permanent staff did not increase for the program, project funds, interns and student temporary employees, Cooperative Ecological Study Unit (CESU) Partners, volunteers, contractors and Southeast Regional Office personnel contributed greatly to make significant progress in all areas of the Cultural Resource program. The South Florida Collections Management Center (SFCMC) did receive additional permanent positions that allowed for planning a more comprehensive collections management program to complement the numerous other significant achievements that the program accomplished.

2009 2.2 Archeological Resource

EVER

Everglades secured funding to hire the Southeast Archeological Center to complete current condition assessments of all documented archeological sites listed in the Archeological Site Management Information System (ASMIS). A total of 68 sites were visited, many in the most remote areas of the Park, and all but one was in "Good" condition. Four were not relocated, but attempts will be made again in FY2010 to relocate them per ASMIS guidelines. The recording of one new site in 2009, a historic plane crash site, brings the total number of documented archeological sites in the park to 222.

Four archeological surveys were conducted in EVER pursuant to Section 106 obligations. A comprehensive survey conducted by Cultural Resource Staff of the developed area at the Key Largo Interagency Science Center/Ranger station resulted in no archeological discoveries. Surveys by consultants New South Associates of the eastern edge of the park subject to a proposed land exchange with Florida Power and Light (FPL), of the Cape Sable Canal Plugs site, and the Airboat Association also resulted in no archeological discoveries, but did add to our understanding of site locations and Section 110 inventories.

DRTO

Cultural Resource staff partnered with the NPS Submerged Resources Center to conduct current condition assessments on known submerged cultural resources in the Park. Most sites had not been monitored since their discovery in the 1970's and 1980's, and implementation of the DRTO Research and Natural Area (RNA) Submerged Cultural Resource Strategy called for baseline documentation and monitoring. The goals of the project were to gather baseline data on all sites and implement a subsequent monitoring program. The NPS Submerged Resource Center led the condition assessments as well as provided training to park divers to develop internal capacity to continue site monitoring. In addition to the primary project goals, additional funding allowed additional investigation of magnetic anomalies discovered during magnetometer surveys by the SRC in the 1990's.

The project achieved its primary goals by completing condition assessments or ascribed a "not relocated" status to 43 of 50 sites listed in the NPS Archeological Sites Management Information System (ASMIS) including verifying or correcting location data. In addition, 10 previously undocumented sites were added to the ASMIS data base. Other project

accomplishments included capturing numerous high quality digital and video images of RNA cultural and natural resources, as well as Park operations that will be available for publications and outreach efforts. The project also served as a training opportunity for the DRTO/EVER dive team on dive operations, conducting condition assessments and underwater mapping techniques that can be used for cultural resource documentation, groundings, etc.

In conjunction with the Submerged Cultural Resource Condition Assessment project, three maritime archaeologists from South Africa were trained in underwater field methodology. With their U.S. sponsor from George Washington University, this international exchange laid the groundwork for future collaborations to research the history of the international slave trade, as well as heritage tourism and resource management.

In celebration of Florida Archaeology Month, Dry Tortugas National Park featured a public archaeology excavation in the parade ground at historic Fort Jefferson March 13-16, 2009. The project, sponsored by Dry Tortugas National Park, the National Park Service's Southeast Archeological Center, the Southeast Regional Center of the Florida Public Archaeology Network, and the South Florida National Parks Trust, focused on what is believed to be a circa 1850's storehouse from the early construction era of the Fort. The project proved to be a success in better understanding the history of the Fort, and building partnerships with the Florida Public Archeology Network, the Archaeological Society of South Florida, and Florida Atlantic University to foster understanding and appreciation of the archeological and historic resources of Dry Tortugas. The project was a resounding hit with the public as well! Approximately 35 Park visitors assisted with the excavation over the four day period, with six spending the entire time assisting with the project. Several of these volunteers travelled to the Fort specifically to participate in the excavation, having heard about it from the extensive media coverage that the project received from US1 Radio, and other local travel/tourist bulletins, the Florida Division of Historical Resources Archeology Month website, the Park website and other venues. A Site Bulletin was created for the project which provided information to the public and the Miami Herald did a feature article on the project on March 22, 2008.

Subsequent to the fieldwork, eight students from Florida Atlantic University assisted in washing and sorting artifacts. A public talk on the project will be presented at the Deering Estate at the Archeological Society of South Florida meeting January 14, 2009 (which has also been heavily publicized in the Miami Herald and other venues), and a presentation will be presented at the Florida Anthropological Society meeting in Ft. Myers in May, 2010, which is an organization for both professional and avocational archaeologists in the State of Florida.

A third archeological investigation was conducted by Cultural Resource to provide additional, site-specific information regarding the temporary platforms built on the bastions to support the centre-pintle carriages for the Rodman cannon. The goals of the project were: to find evidence to illuminate the dimensions and design elements of these platforms to enable one of the Rodman to be mounted onto a reproduction carriage; and to provide Section 106 archeological clearance for the proposed location of the reproduction platform and carriage. This project supported both the preservation of the cannon, which are museum objects, and interpretation of the site.

2009 2.3 Cultural Landscapes

EVER

A draft Cultural Landscape Inventory was completed by contractors Wiss, Janney, Elstner Associates of the Flamingo Mission 66 Cultural Landscape. EVER began reporting to the Cultural Landscape performance measure as a result of this survey.

Volunteer Laura Marquardt conducted extensive research on Royal Palm, designed by pioneer tropical landscape architect William Lyman Phillips which was a former State Park and CCC development. This research will inform a National Register evaluation of the site, as well as tours of the area.

DRTO

Cultural Resource and SFCMC staff continued to support the Cultural Landscape Report for Garden Key research and report revisions being conducted by Susan Hitchcock, Historic Landscape Architect in the Southeast Regional Office.

2009 2.4 Ethnographic Resources

EVER

Working with the Cooperative Ecological Study Unit, EVER began an Ethnographic Overview and Assessment with Dr. Laura A. Ogden from Florida International University.

The Cultural Resource division cooperated with New South Associates contracted by the USACE in completing an Ethnographic Study and Evaluation of Traditional Cultural Properties of the Gladesmen Culture which identified some potential TCPs within the Park.

An assessment of Osceola Camp and the Airboat Association of Florida was conducted by New South Associates as part of a Cultural Resource Assessment of the project area associated with the Tamiami Trail Next Steps project. However, the Miccosukee Tribe officially stated that they did not consider the Osceola Camp a Traditional Cultural Property.

2009 2.5 Historic Structures

EVER

An Overview and Assessment of the Old Ingraham Highway and Associated Canals was completed and submitted to the Florida State Historic Preservation Office (SHPO). These significant linear resources had already been determined potentially eligible to the National Register.

An Overview and Assessment of the Key Largo Interagency Science Center/Ranger Station Cultural Resources was conducted. After consultation with the SHPO, the Ranger Station (ca.1940) (8MO3661) form was updated, and historic structure forms were completed for the Reefcomber Motel (ca. 1961) (8MO1932), and the vernacular Key Largo Limestone Seawall and Boat Ramp (ca. 1975) (8MO1934). However, none of these structures were considered eligible for listing on the *National Register*.

A cultural resource survey by New South Associates as part of an EIS for the Tamiami Trail Next Steps projects conducted additional documentation of Coopertown, Airboat Association of Florida and the Tamiami Trail and Canal. These resources are not in the Park, but

adjacent at the northern boundary and are within the Area of Potential Effect for the proposed project.

Cultural Resources worked closely with interpretation and facility management to clean up and develop an interpretive plan for the Nike Missile Site to offer the first regular tours of the National Register listed site (HM-69) during the 2009 season. The tours proved to be extremely popular and were packed throughout the season. Many local and national media covered the opening of the site. The site was also vandalized with graffiti in the winter of 2009.

Cultural Resources worked closely with the Southeastern Regional Office to plan scopes of work and obligate contracts to complete Historic Structure Reports for Flamingo Mission 66 structures and the Nike Missile Site. This work is to be completed in FY2010.

DRTO

Cultural Resource staff assisted with the ongoing consultation with the SHPO and SERO on the Phase II of Ft. Jefferson Stabilization project.

Consultants Lord, Aeck and Sargent completed the draft Historic Structures Report for the Loggerhead Lighthouse and Oil House, the Keeper’s Residence, and Ancillary Structures. In addition, the roof of the light, which had been badly damaged from recent storms, was also replaced in kind. These projects were done with funds provided by the Coast Guard with the understanding that the Lighthouse will officially be transferred to the National Park Service.

The shutters and doors of the Garden Key Harbor Light were replaced with salvaged historic lumber and designs based on historic plans and photographs as well as physical investigation by Exhibit Specialist Kelly Clark.

Preserve Fort Jefferson Phase 2 Work on the fort is conducted in non-hurricane season – demobilizing in late June and then remobilizing in November 2009. This contract, awarded to Enola Contracting Inc. of Chipley, FL, has been underway since November 2007.

In mid-December 2008 an unforeseen condition behind the scarp wall on the interior areas of Front 4 showed that many of the infill arches had completely separated from the substructure. This condition called for a contract modification in order to maintain the structural integrity of the fort. After seeking a modification from the contractors the park applied and was approved for \$2.2 million dollars in American Recovery and Reinvestment Act (ARRA) funding to help offset these additional costs.

The current total contract amount for Preserve Fort Jefferson Phase II is \$6,170,314.00, (not including ARRA funding as this is tracked separately). Towards the end of June 2009 an Inspector General (IG) inquiry was initiated as DRTO was one of the first parks in the NPS to receive and obligate funds under the ARRA. The IG’s office praised the park and the extended management team at DSC for their diligence and thoroughness in management and oversight of these additional funds. At the end of June 2009 all contract items for Bastion 3 and 4, Front 4, and the north face of Bastion 5 had been completed. In FY 10 work goals will be to complete the remainder of Bastion 5 and 6 and Front 6, completing Phase II of Preserve Fort Jefferson, significantly improving the structural integrity of the fort, one of the NPS’s most unique structures.

The counterscarp wall on Front 3 sustained damage during Hurricane Ike and has continued to deteriorate. Currently, there is no updated scope of work for these repairs and DRTO has requested engineering and planning assistance from EVER to try to develop a comprehensive plan for these repairs.

A porch roof on the Engineering Officers' Quarters was removed after a partial collapse to mitigate visitor and employee safety concerns. Additionally, a second porch on the same structure was temporarily stabilized until project funds can be identified. Currently, a Preservation Plan is being revised for submission to the Florida State Historic Preservation Office (SHPO) so that the park can move forward with treatment plans for these buildings.

The contracted employees continue to live within the fort walls and have been very easy to work with and cooperative incorporating into the small, close community on site at DRTO.

Garden Key Harbor Light A contract was awarded for \$43,148.00 to fabricate 10 historically accurate casement shutters and two sets of double doors for the Garden Key Harbor Light. Fabrication of shutters and doors was completed in June and installed by the Historic Preservation Projects group from the NPS Intermountain Region in July 2009. This project improved the overall condition of the lighthouse doors and shutters and restored some key historically accurate features. The shutters and doors now function properly on the lighthouse and will help protect the interior of the lighthouse during the tropical storm season. This project was successfully completed in a very timely manner that coincided with the release of a United States Postal Service stamp that featured the Garden Key Harbor Light. The Harbor Light was part of a series of stamps that highlighted the gulf coast lighthouses. DRTO Exhibits Specialist was on hand with Dan Kimball, EVER-Superintendent for a ceremony held at the Key West Post Office.

Loggerhead Lighthouse A contract was awarded in October of 2008 to replace the roof on the Loggerhead Lighthouse, clean, prime, paint and reinstall all metal framing and window components, and install new hurricane glass on all windows in the lens room. Work on this project was successfully completed in March of 2009 at a cost of \$332,081.00. DRTO is currently working with the EVER contracting office to award a contract to install the historically accurate finial and rod back onto the new roof of the lighthouse so that it will be protected from lightning strikes.

Additionally, a Historical Structure Report is being completed for the Loggerhead Light Station and associated structures. Once this report is complete the park should have updated histories for those structures as well as an analysis of current conditions and treatment recommendations that can then be entered into FMSS and bridged to PMIS for funding to carry out treatments.

2009.3 Administration - Major budget and personnel issues, concessions, contracting, and volunteer program

This section summarizes the major budget and personnel issues that came up over 2009, in addition to a discussion of concession, contracting, and volunteer program activities.

2009 3.1 Personnel

EVER

Recruitment and Placement:

- 17 vacancy announcements prepared by EVER Servicing Personnel
- 10 vacancy announcements prepared by the National Park Service (NPS) Denver Franchise Office
- 28 vacancy announcements prepared by the Office of Personnel Management (OPM)

Total: 55 vacancy announcements prepared

Hires:

- Permanent – 45
- Temporary (appointment between 1 day to a year) – 28
- Term (appointment between 13 months to 4 years) - 7
- Seasonal (appointment limited to 1039 hours) – 55

Total hires FY 2009 = 135

Awards:

- 59 employees received monetary awards to total \$62,014
- 3 employees received a Quality Step Increase (QSI).
- 40 employees received time-off awards to total 1046 hours.

DRTO

Recruitment and Placement:

- 2 vacancy announcements prepared by the EVER Servicing Personnel

Hires:

- Permanent – 2
- Temporary (appointment between 1 day to a year) – 7
- Term (appointment between 13 months to 4 years): 0
- Seasonal (appointment limited to 1039 hours) – 3

Total = 12

Awards:

None

2009 3.2 Budget

EVER FINANCIAL SUMMARY FY 2009

ONPS BUDGET	
Park Management	1,822,449
Administration	2,247,511
Interpretation	2,021,855
Visitor Protection	3,311,905
Maintenance	5,221,841
Research	2,819,167
Initial Allotment	17,444,728
Other Funding:	
CESI	3,849,000
CERP	4,587,100
Task Force	1,303,000
VIP	17,000
Training	71,699
Cyclic	36,502
Haz Mat	217
Air Quality	10,500
Collections Management	293,615
Donations	578,810
Emerg/Storm Damage ERFO	2,618,750
Misc Program Centennial	258,918
LIC Contingency	4,287,156
Total ONPS Other	17,912,267

Fees Collected in Fiscal Year 2009	
CUA	49,375
Commercial Film	15,446
Campground Fees	158,206
Daily Admission	1,108,338
Commercial Tours	25,385
Interagency Senior Pass	49,220
Boat Launching	44,253
Backcountry Fees	36,981
Contractor Campground Sales	91,609
Park Interagency Annual Pass	34,581
Location Fee	11,400
Park Annual Pass	58,210
Concession Fees	297,455
Total Fees Collected	1,980,459

FTE Actual	
Park Management	20.28
Administration	20.84
Interpretation	34.97
SF Task Force	6.63
Visitor Protection	46.37
Maintenance	55.99
Research	70.01
Total FTE Usage	255.09

DRTO FINANCIAL SUMMARY FY 2008

Park Management	161,429
Interpretation	73,940
Centennial Seasonal Interp	33,619
Rangers	234,739
Maintenance – Bldg	5,955
FOJE Stabilization1	197,526
Maintenance OPN Support	49,989
Maintenance OPN Utilities	121,421
Maintenance OPN Waterways	56,004
Operations – Bldg	50,286
Operations – Grounds	5,955
OPNS Centennial Seasonal	14,551
Operations – Support	34,214
Operations – Sanitization	4,382
Operations – Utilities	19,966
Operations – Waterways	4,435
Operations – Admin & Support	121,015
NR Mgmt – Healthy Ecosystem	396,720
Administration	50,239
Change of Stations	9,777
Cultural Resources	14,259
Initial Allotment	1,660,421
Other Funding:	
Special Use Permit	337,468
Cyclic	232,283
VIP	11,900
Partial WASO Assessment	29,900
Equip Replacement	24,800
LIC Cont	540,278
Total Other Funding	1,176,629

Fee Collected in Fiscal Year 2009:	
CUA	250
Commercial Film	1,400
Campground Fees	12,682
Daily Admissions	168,229
Interagency Annual Pass	380
Location Fee	650
Total Fees Collected	183,591

FTE Actual	
Administration	2
Interpretation	1.36
Rangers	3.63
Maintenance	3.28
Research	1
Total Usage	11.27

2009 3.3 Contracting

- Total Quantity of Awards (includes: Contracts, Purchase Orders, Delivery Orders & Task Orders): 460
- Total Dollars of Awards (includes: Contracts, Purchase Orders, Delivery Orders & Task Orders): \$11,949,901
- Total Quantity of Assistance Agreements: 52
- Total Dollars of Assistance Agreements: \$93,091,270.62
- Total Quantity of all awards (including agreements): 512
- Total Dollars of all awards (including agreements): \$105,041,171.62

2009 3.4 Information Management

Promoted the Implementation and Enhanced Information Technology Management System within EVER & DRTO.

- Act on NPS Director’s Order to convert the entire organization to the newly assigned IP Schema. Review conducted in FY 09.
- Support information technology initiatives to increase information access by implementing the organizational review conducted in FY 08 – FY 09.
- Seek opportunities to improve the information technology infrastructure which will lead to faster and more informal decisions and reduce costs.

Improve Information Infrastructure for EVER and DRTO. Over the past year, significant strides have been made in improving the information technology infrastructure for EVER and DRTO National Parks. The most important development was the IP Conversion from Fish & Wildlife’s address space to EVER’s newly assigned range. Moreover, the implementation of the Voice over IP (VoIP) infrastructure was a major under-taking throughout both parks. This was accomplished throughout the wide area network and all offices were connected with

4-digit dialing capability. These integrated infrastructures will enable more efficient work processes throughout the dispersed organization. Additionally, an upgraded video teleconferencing system implemented will enable timely and effective communication with DOI/NPS in Washington and our partners in the CERP effort, while reducing travel costs.

In order to distribute data and information to agencies involved in the CERP effort, scientists involved in CESI, and the public, an NPS FTP web site was initiated this year. Development of this site continued during the past year with the addition of more information. To help enhance communication within Everglades and Dry Tortugas, a SER SharePoint Extranet web site was implemented. This site provides useful and timely information to the employees of both parks.

Another great achievement was utilizing Xerox DocuShare document management system for storing documents related to CERP, CESI, and other restoration-related projects. This year DocuShare was upgraded to a new server where thirty-six thousand documents are being stored in order to provide an electronic repository of this information. This repository provides a secure and centralized location for storage, as well as an efficient means for document searching and retrieval.

Additional milestones:

- Moving Telecommunications Under IT in accordance with NPS organizational structure
- Align all IT Equipment and services under IT's property control
- Successfully passed Certification & Accreditation
- Fully staffed IT Branch with well qualified supervisors & technicians
- Upgraded circuit between HQ's and Krome from a 45 Mbs to 200 full duplex Tsunami System
- Replaced 95% of Park's Automated Information Systems
- Replaced 10% of Cisco Networking Equipment
- Decommissioned 20 % of legacy Information Systems, such as SUN 260R's, and Oracle Database MS
- Upgraded Storage Capacity by 400%

2009.4 Facility Management, and Professional Services

2009 4.1 Facility Management, Operations and Engineering

The Division of Facility Management is responsible for the condition and operation of the built environment of the park. These include: 82 miles of surfaced roads, 156 miles of trails (including canoe trails), 5 miles of surface trails, and 3 miles of elevated boardwalk trails; responsibilities also include 2 campgrounds (Long Pine Key, 108 sites and Flamingo, 235 drive-in and 60 walk-in tent sites); 48 designated backcountry campsites (accessible by boat); 280 buildings (4 visitor centers, park headquarters, maintenance and utility buildings, research facilities, and two environmental education centers). The division operates two central wastewater treatment plants, 14 water treatment systems; maintains a four-park radio communications network and over 180 vehicles, boats and special purpose equipment. Also included are fee collection stations and 3 areas of concessions assigned assets (at Flamingo, Shark Valley and Everglades City). In addition, the Division provides architectural and engineering design services for new construction and rehabilitation of

existing facilities for both EVER and DRTO. This branch is supported by two facility management systems analysts who develop asset documentation to assist in determining work priorities and to support funding requests. Selected examples of the Division's significant accomplishments during FY 2009 include the following:

2009 4.2 Facility Management

This office provided oversight for park operations, maintenance and engineering with a combined annual budget of \$5,332,154.

Requested and received additional project funding through SER program managers or other sources

- M/V Fort Jefferson Cyclic Maintenance-\$93,313
- Modify Flamingo Wastewater Treatment Plant- \$1,318,375
- Connect NPS Sewer System to Municipal Plant-Key Largo-\$113,425
- Replace Flamingo Campground Fee Booth-\$10,560
- Stabilize Fort Jefferson-\$2,200,000
- Construct Two Duplex Houses/Flamingo-\$23,198

Budget and Finance

- Established and maintained a operating budget
- Maintained a network database to track all expenditures/ procurement logs, fuel charges, payroll reporting/work order tracking and other shared documents
- Expended non personal services funds within budgetary requirements and directed resources to core activities
- Returned unexpended lapsed personal service funding for reprogramming
- Committed special funding for all programs, returning less than \$11,000 to SER which was excess to our needs.

Housing Management

- Received approval for the March 2009 DRTO Housing Management Plan
- Contracted seasonal housing cleaning resulting in improved employee relations
- Completed the annual update of QMIS data and CPI adjustments
- Provided friendly, results oriented administrative services for housing
- Expended \$160,000 in carry over accounts for housing rehabilitation in Key West

Motor Vessel Fort Jefferson

- Continued to provide operational support to DRTO making a maximum of 26 NPS funded trips per year
- Provided support for research trips (four) on a cost reimbursement basis
- Provided oversight for park dive plan and operations
- Completed annual haul out and cyclic maintenance of critical systems (\$232,000)
- Supported two major stabilization contracts by providing transportation to contract personnel and cargo

- Conducted all operations safely with no damage or injury to crew, passengers or cargo

Telecommunications

- Provided on-going training to DRTO/EVER staff in the use of digital radio equipment and encryption
- Installed fiber optic cable at Shark Valley between VC, entrance station and Interpretation offices
- Completed programming 95 percent of LE radios to implement encryption in December
- Prepared contract requirements to replace fire monitoring systems at DBC, BRC, HQ and Coe VC buildings, \$100,000
- Engineered and installed AV system in Flamingo amphitheater, \$18,000
- Installed mobile radios in new marine and vehicle fleet equipment
- Disposed of all remaining analog radio equipment through federal reutilization procedures
- Fort Jefferson communication project-Installed new Hughes Net satellite for the underwater camera
- Established access to high speed internet at Fort Jefferson for staff
- Upgraded software and hardware for dispatch office to provide compatibility between Motorola radios and Windows XP
- Arranged for relocation of Tachyon satellite antenna to support new marine shop in Flamingo
- Established flight following facilities and repeater station for Fire Dispatch
- Continued discussions with wireless providers for placement of towers in the park

Human Capital related issues:

- Hired new Construction Representative, Flamingo Maintenance Supervisor, eight seasonal positions, two maintenance workers, two Utility Systems Operators, and three special projects positions and converted five temporary positions to term appointments.
- Initiated time off awards for special achievements and cash awards for acting assignments
- Counseled individual staff on performance and conduct issues including two work suspensions, and one termination during the probationary period.
- Conducted monthly safety meetings for all districts and offices
- On the job accidents/injuries were reported to HR/OWCP and park safety officer, supervisors followed up with investigations and mitigation action items to prevent reoccurrence

- Provided mandatory training for all required staff and developmental training related to FMSS, PMIS, equipment operation, computer/software use, COR, and professional licensing
- Supported alternative work schedules and telecommute to the mutual benefit of the government and employee

Partnerships

- Coordinating use of marine contract services with NPCA to install sign posts and chickee piles in Florida Bay
- Continued to use single source and multiple large groups of volunteers to support park operations, maintenance and individual projects
- Provided radio frequency technical support to staff at Loxahatchee, Biscayne NP, Big Cypress and WASO
- Submitted grant application in conjunction with the Rochester Institute of Technology for a fuel cell feasibility study
- Received funds from USGS to rehabilitate offices at DBC
- Maintenance staff participated on multiple regional and service-wide work groups
 - Facility Management Leadership Program
 - SER EMS Audit Team
 - SER Maintenance Advisory Group
 - Service-Wide Maintenance Advisory Committee
 - Service-Wide Radio Frequency Management Working Group
 - Participated in FMSS project bridge tool testing
 - FMSS special asset working group

Safety

- Each supervisor or office conducted weekly or monthly safety meetings
- Scheduled training for communications staff to maintain certification in tower climbing
- All water and wastewater treatment staff maintained CEU's and attained new licenses for Class C water and wastewater treatment, distribution and back flow certification
- All park facilities have received walk through inspections for potential health and safety issues, i.e.; rodents/insects, mold, electrical, mechanical and structural
- Completed numerous repairs to buildings, equipment, energized systems, boardwalks, chickees, navigational aids, lightening and surge protection to mitigate hazards

2009 4.3 Professional Services

The professional services branch provided architectural and engineering and construction management support for new construction and rehabilitation projects for both EVER and DRTO. Contract documents were generated for more than thirty major projects. Total value of the engineering projects when constructed is \$3,600,000. The staff met the 2009 SCC deadline for project funding requests, documenting millions of dollars in deferred and cyclic maintenance needs which are supported in the FMSS.

Facility Management Software System Branch Accomplishments

- Created routine standing, inspection, and operating work orders for both EVER and DRTO.
- Created work orders and estimates as needed in support of FY09 SCC. (1000 EVER WOs, 200 DRTO WOs)
- Created nearly 100 new PMIS projects during the FY09 SCC.
- Performed comprehensive review of DRTO and EVER assets to bring hierarchy, description, and existence into alignment with NPS business practices.
- Began process of creating new work orders in support of replacing legacy PMIS projects with new projects that will pass through the PST.
- Guided EVER and DRTO FMSS data through upgrade in Maximo software.
- With staff, created 735 WOs in response to reported deficiencies. 425 of these have been reported closed.
- Created work order and PMIS submission for the Marjory Stoneman Douglas Visitor Center, Fort Jefferson Stabilization and the East Everglades Operations Center totaling \$30,000,000

Professional Services Branch Accomplishments

- Organized the electronic Professional Services Office filing system, standardizing and centralizing files on the Maintenance Division network drive resulting in improved office and division efficiency, and permitting easy access by all maintenance staff.
- Primary folders contain auto CADD drawings, photographs and project files, arranged geographically for all facilities and recent and ongoing projects at EVER & DRTO.
- Secondary folders contain EVER/DRTO files including:
 - Hazmat Surveys
 - Geotechnical/Soil Surveys
 - Land Surveys
 - Fuel Storage Systems
 - FMSS
 - NEPA/Permitting Records
 - Historic Contractor History/Listing

Maintenance Division Accomplishments

- **191C Pine Island Wastewater Treatment Plant** – Completed plant modification work to accommodate low flows.
- **Flamingo Marina Store Contaminated Groundwater Monitoring** Scoped and continue to manage the ongoing quarterly monitoring of contaminated groundwater at the Marina Store site. (2009 cost: \$10,800)
- **Overlay Paving Main Park Road, Flamingo Parking & VC Area, and Royal Palm Road** Coordinating/facilitating SERO & FHWA ongoing efforts to investigate, design and construct pavement resurfacing of identified roads and Buttonwood Canal

Bridge. (Funded \$7,951,300 + \$447,000 + \$541,843 = \$8,940,986; total current construction estimate = \$27,600,000)

- **Cape Sable Canal Plug Repairs** Continue to participate in the ongoing EA, and contracted A/E schematic design.
- **Rehabilitate Two Employee Housing Units at Poinciana-Key West** \$160,000
- **DRTO Loggerhead Key Lighthouse Repair** Completed replacement of copper roof, glazing and metal restoration, \$334,000
- **DRTO Loggerhead Historic Structures Report** Provided review and edits for initial draft HSR for lighthouse prepared by Lord Aeck Sargent
- **Flamingo Marina Store UST Removal & AST Relocation** Completed project, \$180,000
- **DRTO Removal of Sand Accumulations** Completed project, \$480,570
- **Flamingo Lift station Rehabilitation** Contract awarded 2009, \$209,000
- **Repair West Lake Boardwalk** Contract awarded \$115,000
- **Shark Valley Comfort Stations, shade structures and entrance kiosk** Contract awarded, \$610,000
- **Gulf Coast VC Exterior repairs** Contract awarded, \$63,811
- **DBC restroom renovations** Completed, \$50,446
- **DBC kitchen rehabilitation** Contract awarded, \$13,858
- **Demolish South Reef Comber building** Contract awarded, \$49,988
- **Museum and Library HVAC improvements** Completed, \$401,551
- **Prepared contract requirements for all ARRA projects** (house replacement, trail resurface, solar hot water system) - \$704,000
- **Completed construction of two chickees in Florida Bay**, \$125,000
- **Rehabilitated walk-in freezer in marina store, replaced water lines in concessions dormitories and rehabilitated concession laundry house**, \$20,000

District Maintenance Accomplishments

- Operations accomplished efficiently (mission based prioritization) Standardized W/O system throughout park – tracks, prioritizes, and assigns responsibility
- General condition of grounds, restrooms, signs, trails and other visitor facilities have improved resulting in fewer complaints during FY 2009
- Reduced mowing cycles along the main park road to promote vegetation and insect populations and reallocation of resources to other activities
- Installation and replacement of all park signs is 99 percent complete
- Completed installation of energy efficient light fixtures in the DBC and partial replacement at Headquarters
- Installed touch less lavatory fixtures in Pine Island, Gulf Coast and Flamingo public restrooms
- Completed inspection of all NW district facilities in conjunction with district maintenance supervisor and developed work order priorities
- Initiated repairs to backcountry docks and chickees which will continue in 2010 and 2011

District Maintenance Work In Progress

The completion of district assigned special projects and deferred maintenance remains an overwhelming challenge

- Trail/Vista clearing
- General building maintenance
- Effective custodial operations
- Heavy equipment preventive maintenance
- HVAC preventive maintenance
- Marine fleet management
- Capturing complete costs in asset management program
- Monthly invoicing to GSA for shop repairs and fuel reimbursement
- Minimal accomplishment in EMS program
- Need more emphasis on development of JHA's for all operations

Hurricane Repairs

Numerous contracts were completed to repair assets throughout both parks. Park staff continued to complete repairs on visitor and administrative facilities in Flamingo and Gulf Coast districts. Large projects were accomplished through contracts.

- Rehabilitate former Xanterra warehouse into marine/maintenance shop
- Completed repair and painting concessions warehouse
- Paint exterior of Flamingo housing units
- Completed demolition of former maintenance office and shop
- Completed clearing of Flamingo hiking trails
- Completed construction of the Flamingo amphitheater
- Flamingo Lodge Demolition –Completed demolition work – \$643,840
- Flamingo Trailer Replacement,–Completed construction of two elevated dormitories-\$1,394,706
- 191A, Flamingo Wastewater Treatment Plant –Participated in development of work description and selection of contractor to modify the plant to accommodate lower flows
- DRTO Finger Pier Repair – Completed construction, \$123,000
- Whitewater Bay Dock Replacement –Completed construction, \$771,00

2009.5 Natural Resource Management

2009 5.1 Everglades National Park

2009 5.1.1 South Florida Natural Resources Center

The South Florida Natural Resources Center (SFNRC) is the natural resources management division at Everglades (EVER) and Dry Tortugas (DRTO) National Parks. In

addition to traditional inventory and monitoring and natural resources management activities, the SFNRC is responsible for National Park Service scientific and technical participation in Everglades restoration activities. The SFNRC, while administratively located at EVER, provides support to Biscayne National Park and to Big Cypress National Preserve on Everglades restoration projects.

The SFNRC has a total staff of 75, including biological scientists and physical scientists in a wide variety of fields, GIS specialists, project managers and administrative support staff. Offices are located inside EVER (mostly field staff), Key Largo (Florida Bay and DRTO biologists), city of Homestead (Everglades restoration staff), and Loxahatchee National Wildlife Refuge (water quality staff).

SFNRC technical activities are organized into four program areas. Our Inventory and Monitoring Program tracks the status and trends of key natural resources: hydrology and climate, vegetation, aquatic resources, and important indicator species of wildlife (e.g., wading birds, alligators, Florida panther, Bald Eagle). The Natural Resources Management Program includes activities to control exotic species and to restore areas that were altered by development prior to park establishment (e.g., Hole in the Donut project – see additional briefing). The Applied Science Program includes both in-house and external funded-science activities to address information gaps for Everglades restoration, and is funded primarily via the Critical Ecosystems Studies Initiative (see additional briefing). Our Restoration Assessments program includes participation on interagency restoration project design teams, and scientific and technical contributions to restoration projects and programs. Technical activities include development and use of hydrologic and ecological models and development of numeric hydrologic and ecological performance measures to quantify the effects of alternative restoration designs.

Funding for SFNRC science and restoration activities comes from the Everglades Restoration and Research budget line. Further description of SFNRC activities, as well as technical reports and other publications, is available at www.nps.gov/ever/naturescience/

Challenges Ahead for South Florida Natural Resources Center

- Inventory and Monitoring: The number of base funded (ONPS) staff to carry out standard physical and biological monitoring activities is too low. The data obtained by the I&M program are the foundation of all work in Natural Resources Management and Restoration.
- Natural Resources Management: The proximity of EVER to the large urban area of Miami produces numerous and changing natural resources management issues, the most pressing of which is invasive exotic plants and animals.
- DRTO faces challenges in the implementation of a recently completed Science Plan, which addresses the science needs of the recently authorized DRTO Research Natural Area (RNA).
- Continued funding of the Everglades Restoration and Research budget at current levels is essential for the SFNRC to carry out the NPS mission within the context of Everglades restoration.
- Science projects carried out by cooperators face challenges due to delays in the NPS contracting process.

2009 5.1.2 Exotic Burmese Pythons & Other Invasive Wildlife in South Florida

The Burmese python (*Python molurus bivittatus*), an invasive snake that reaches 15-20 feet in length, has become established in the Everglades. This non-venomous species, native to Asia, is common in the exotic pet trade. Burmese pythons subdue prey by biting followed by constriction. While attacks on humans are rare in the native range, most fatal attacks on snake keepers by giant constrictors in the United States are by Burmese pythons.

Until 2000, only about a dozen pythons had been documented in Everglades National Park. From 2003 to mid-November 2009, more than 1,290 pythons were removed from the park and adjacent lands. Animals in excess of 17 ft (5.2 m) have been captured in the Southern Everglades. Only a small fraction (0.1-5%) of pythons present in the park is detected: though little more than an informed guess estimate of population size range from 5,400 to 140,000. Breeding in the natural Everglades has been established conclusively. Pythons eat a wide variety of prey and pose a risk to many resources, including threatened and endangered species. A recently published USGS large constrictor snake risk assessment suggests the range of pythons could notably increase in Florida and the southern United States, posing additional threats in the future. This same document concludes that there is a high risk of establishment for five species of giant constrictor snakes and a medium risk for four other species of giant snakes.

The U.S. Fish and Wildlife Service (FWS), National Park Service (NPS), and U.S. Geological Survey (USGS) are working with many state partners and NGO's to address this concern; however, available funding is limited. FWS and NPS have cost shared an agreement with USGS to complete a biological synopsis and risk assessment to help define the nature of the threat. The recently published risk assessment contains information that has broad application for the control of pythons and other large exotic constrictors in the United States.

Outreach and research to understand the habits of these species in its new environment is critical to develop effective management/eradication strategies. Current research is underfunded but includes trap development, trap deployment at the entrance to the Florida Keys, and research on python behavior and ecology in the Everglades. Outreach activities include a reporting hotline, educational programs with the pet industry and potential owners, signage (release is a crime), and public and school education campaigns.

The State of Florida recently enacted regulations that require python owners to pay an annual \$100 fee, and that pythons >2 inches in diameter be microchipped. The State has also hosted several Pet Amnesty Days, during which exotic pet owners can turn in unwanted pets, no questions asked. Recently it has become apparent that another large constrictor snake, the Northern African Python, may be established in a checkerboard of private and public lands immediately adjacent to the northeast corner of Everglades National Park. While Federal, State and local resources are working to coordinate a response, it is apparent that the State lacks the funds necessary to coordinate early detection and rapidly assess and respond to incipient exotic animal invasions.

The FWS received a request in June 2006 from the South Florida Water Management District to list pythons as an injurious species under the Lacey Act. Such listing would prohibit importation and interstate transport. The Lacey Act designation has not yet been

completed, though progress is being made by the FWS, and both the House and the Senate have introduced legislation that would ban the importation of large constrictor snakes. Lacey Act designation does not prohibit intrastate transport or possession of the snakes within states, and would not help with the eradication, control, or management of already established populations. As a result, addressing the threat posed by pythons will require a host of different strategies.

The DOI lands of South Florida are threatened by a number of exotic animal species that are present on adjacent lands and in adjacent waters. To address these threats, and especially prevent new invasions, will require broad partnerships and substantial resources.

Challenges Ahead for Exotic Burmese Pythons & Other Invasive Wildlife in South Florida

There has been considerable news coverage and education regarding the Burmese python, which has served to bring the issue of invasive exotic animals to the attention of both the general public and decision-makers. However, dedicated effort and funding is needed in the following areas, if the threat of pythons is to be controlled and the potential for invasion of additional exotic species is to be reduced:

- Legislative arena: Legislation is pending that could change the Federal role in preventing invasive species, providing the FWS with authorization and resources to screen wildlife imports for invasive species.
- Coordinated actions with the State of Florida: Facilitate and support state-wide responsible pet ownership and disposal (hotlines/website); support statewide early detection network and rapid response teams. Eradicate incipient populations of animal invaders (such as Northern African Pythons, Sacred Ibis, Nile Monitors, and Black and White Tegus).
- Coordination with the pet industry: NPS has recently signed an MOU to fully implement Habitattitude, a program for responsible pet ownership and disposal. However, the NPS needs funding to fully implement the program in parks.
- Investments in research: conduct risk assessments for species; study invasive species ecology to find weaknesses and exploit them for control; support research, development, and implementation of control programs for priority species (Burmese pythons, Nile monitors, and Purple Swamp Hens).

2009 5.1.3 Invasive Exotic Fishes in Everglades National Park

The introduction of exotic fish species into EVER is a significant resources management challenge. A recent increase in the number of exotic fishes violates the mandates of and indicates adverse conditions for the restoration of EVER.

EVER was established to preserve “intact...the unique flora and fauna...in this area” (1934 Everglades Establishment Act) and to “maintain natural abundance, diversity, and ecological integrity of native plants and animals” (1989 Everglades National Park Protection and Expansion Act). The introduction, deliberate or accidental, of exotic species into the park ecosystem is in direct conflict with these mandates.

Prior to 2000, a total of nine exotic fish species were found in EVER. Since 2000, seven new exotic fish species have been collected within EVER. The canal systems of south Florida are the likely source for most of these species: 15 of the 16 exotic fish species in EVER were known to have been established in the canal system adjacent to park boundaries prior to their collection inside the park. Several of the species found since 2000 have established reproductive populations, and continue to expand their range and increase in abundance within EVER. Natural Everglades' marshes in close proximity to canals are often found to have higher populations of exotic fish than do natural marshes in the interior of the park.

Challenges Ahead Invasive Exotic Fishes in Everglades National Park

- *Modifications to the Park's Water Delivery System:* Everglades restoration projects are engaged in modification of the water management system adjacent to the park, with the goal of restoring natural hydrologic characteristics to the area. Some proposed water management actions, particularly those which may cause a direct connection of surface waters from canals to EVER marshes, pose the threat of additional introductions of exotic fish. Park staff is engaged in the restoration process to ensure that restoration project designs consider potential impacts on the spread of exotic species into Everglades marshes.
- *Gaining Consensus among State and Federal Agencies regarding management actions is a challenge.* The State of Florida manages a state-wide fishery that includes exotic species. State mandates and objectives regarding exotic fishes contrast with those of the National Park Service for management of wilderness in Everglades National Park. Management of exotic fishes in the more confined artificial water bodies outside of EVER (canals, borrow pits) is more feasible than attempting control efforts within the natural marshes of the park; however, these areas do form part of the Florida freshwater fishery. Increased cooperation and consensus is needed to meet the management goals of EVER.
- *ECISMA - A New Partnership of State and Federal Agencies Formed to Coordinate Management Actions for Invasive Exotic Species in Florida:* the Everglades Cooperative Invasive Species Management Area (ECISMA) is a formal partnership of State and Federal agencies that coordinate management actions, science, and funding for control of invasive exotic species. Although still in its infancy (formed in 2007), this group may provide the needed forum for reaching consensus among management agencies.
- *Investments in research:* Research support needs to be directed at identifying ways to prevent future invasions, control priority species, and to assess the potential impacts of established exotic fish populations.

2009 5.1.4 Tamiami Trail Exotic Plant and Vista Management Project

EVER plans to remove exotic vegetation and improve the vista along approximately 10 miles of the eastern half of Tamiami Trail. Funding is not available for the project, so EVER resource managers are working with the USACE, the South Florida Water Management District (SFWMD), and the Florida Department of Transportation (FDOT) to explore funding options.

The northern boundary of EVER abuts a highway called the Tamiami Trail (U.S. 41). The eastern half of Tamiami Trail (U.S. 41) stretches 10.7 miles from EVER's eastern boundary to the L-67 extension canal. Invasive exotic plants, primarily Brazilian pepper, are found just south of the Tamiami Trail, all along EVER's northern boundary. Higher densities of plants are concentrated around 19 sets of culverts that are distributed along the roadway. Both native and invasive exotic vegetation block the public's view of EVER from the Tamiami Trail.

In an effort to control invasive exotic vegetation and improve the vista into EVER's natural wetlands, EVER proposed a project to remove exotic vegetation at Tamiami Trail culverts and to remove vegetation that blocks the vista.

Removal of exotic vegetation within 150 acres near culverts and removal of 70 acres of vegetation along the road for vista improvements is expected to cost \$800,000.

The project will benefit EVER and the public by removing exotic vegetation and enhancing wetland quality and opening a vista for the public to see and enjoy EVER. There is broad endorsement of the project by EVER's partners, including the USACE, the SFWMD, the Miccosukee Tribe, and the FDOT.

Challenges Ahead Tamiami Trail Exotic Plant and Vista Management Project

- The project is currently not funded. Obtaining funding for the project will require identification of funding sources and willing partners.
- The FDOT is interested in partially funding the project as mitigation for impacts associated with a nearby roadway construction project. However, proposed methods are not consistent with NPS management policies, so additional negotiations are necessary.
- The USACE has provided a tentative commitment to partially fund the project using Stimulus funding. A firm commitment is pending a site visit and additional discussion.

2009 5.1.5 Everglades Restoration and Supporting Science Foundation Projects

A series of restoration projects that predate the Comprehensive Everglades Restoration Plan (CERP) have been underway since the early 1990s. The restoration benefits of the later CERP projects are dependent on the successful completion of these foundation projects. Three of these pre-CERP projects are most critical to NPS managed resources in south Florida: (1) the Everglades Construction Project - improving the quality of water flows entering the northern Everglades, through the construction of Stormwater Treatment Areas (STAs), (2) the Modified Water Deliveries Project - restoring more natural water flows through the central Everglades and Shark Slough watershed of EVER, and (3) the C-111 South Dade Project - restoring water flows to the Taylor Slough and eastern Florida Bay regions of EVER.

Everglades Water Quality: Consent Decree Compliance

The 1992 Consent Decree resulting from the Everglades water quality lawsuit established interim and long-term (December 31, 2006) total phosphorus levels and limits for the A.R.M. Loxahatchee National Wildlife Refuge and EVER. Interim and long-term levels for the refuge

have not been met several times since 1999, with the most recent exceedance occurring in June, 2009. Long-term limits for the park have been met according to the State, although presently there is a disagreement between the State and Federal parties over the compliance calculations for Water Year 2008; the Federal parties believe that the long-term limits were not met.

Settlement of the Everglades water quality lawsuit in 1991 resulted in a Consent Decree issued in 1992. The Department of Justice represents the United States, and a Federal judge and special master oversee this Consent Decree. The Decree required implementation of agricultural best management practices, phosphorus load reductions for the refuge and entire Everglades, and the creation of more than 45,000 acres of constructed wetlands called Stormwater Treatment Areas (STAs) to remove nutrients from agricultural runoff before discharge into the Everglades. The Decree established interim and long-term phosphorus requirements for the refuge and park.

For the park, water samples are collected monthly at structures and/or pumps that discharge into the park. Mean total phosphorus concentrations are calculated from these samples and are compared to a long-term limit which varies depending on hydrology. Although tracked monthly, the Consent Decree requires that only the rolling average total phosphorus concentrations for a twelve-month period ending September 30th are evaluated for Consent Decree compliance.

According to the State of Florida for the water year ending September 30, 2008, the calculated mean equaled the long-term limit, which did not constitute an exceedance. However, there is a disagreement between the Federal and State parties regarding this calculation. This disagreement remains under discussion in the Technical Oversight Committee. Regardless of the outcome of this discussion, there is a concern that concentrations entering the park are higher than anticipated under the Consent Decree, given that a number of phosphorus removal projects have been completed and are in operation. Results for the most recent water year ending September 30, 2009 are expected soon.

In addition to total phosphorus levels and limits, the Consent Decree also established phosphorus load reduction targets for the refuge and the entire Everglades Protection Area (the refuge, Water Conservation Areas 2 and 3, and the park). In the most recent water year, these targets were met in the Everglades Protection Area, most likely because of the drought and decreased amounts of water entering the Everglades. In recent years, these phosphorus loading targets were not met for the refuge.

Challenges Ahead for Everglades Water Quality: Consent Decree Compliance

- Improving agricultural best management practices to reduce the inflow nutrient loads to STAs, thereby increasing their nutrient-removal performance.
- Optimizing and/or increasing the treatment area in STAs to insure that their waters discharged to the Everglades are in compliance with the Consent Decree without decreasing the amount of water flowing into the Everglades.

Water Quality Status in the Everglades Protection Area

Notable progress has been made in reducing total phosphorus and other nutrient inputs into the Everglades Protection Area. Despite this progress, additional work is needed to provide

water of sufficient quality to prevent harm to Everglades plants and animals. In particular, it is likely that additional Stormwater Treatment Area acreage and improved agricultural best management practices are needed.

The Everglades ecosystem developed as an oligotrophic (nutrient-poor) ecosystem with surface waters low in nutrients and other substances. Today, the Everglades ecosystem is about one-half of its original size, but is the most ecologically important subtropical wetland in the United States. Pre-development Everglades plants and animals were adapted to extremely low concentrations of soil and water phosphorus -- an essential nutrient. The ecosystem changes dramatically with very small increases in this and other nutrients. Years of scientific research and regulatory consideration has concluded that water containing more than 10 parts-per-billion (ppb) total phosphorus in the Everglades has been associated with altered ecosystem structure and function, including conversion of sawgrass stands to dense cattail.

The State of Florida classifies the Everglades Protection Area (A.R.M. Loxahatchee National Wildlife Refuge, Water Conservations Areas 2 and 3, and EVER) as Class III waters with water quality standards established to protect recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife. These standards include a total phosphorus concentration criterion of 10 ppb. The refuge and park also are classified as Outstanding Florida Waters. In addition to the requirements of Class III water quality standards for these areas, no degradation of water quality beyond what existed during a base period from 1978-1979 is allowed.

To improve the quality of water discharged into the Everglades, the State of Florida built five constructed wetlands called Stormwater Treatment Areas (STAs), and the USACE constructed one. To date, the STAs have removed a significant amount of nutrients from surface water discharges into the Everglades. During a drought throughout the 2008 Florida water year (WY2008, May 1, 2007 - April 30, 2008), less water and phosphorus were delivered to the Everglades Protection Area than during previous years. As a consequence, STA discharges to the refuge were lower in WY2008 than in previous years. The total phosphorus outflow concentration during WY2008 of all STAs (26.0 ppb) was lower than the period-of-record performance (43.0 ppb). However, the outflows from three STAs (STA-1W, STA-5, and STA-6) did not achieve the Everglades Forever Act Technology-Based Effluent Limit (TBEL) permit criterion, and STA-5 and STA-6 did not achieve the more stringent National Pollutant Discharge Elimination System TBEL permit criterion.

The State also promulgated a regulatory rule that established best management practices by farmers in the Everglades Agricultural Area. To date, this program has removed a significant amount of nutrients, thereby decreasing the amount of phosphorous that must be removed by STAs. However, the combination of best management practices and nutrient removal in STAs has not reduced phosphorus concentrations low enough to prevent downstream impacts to Everglades plants and animals.

Two other water quality compliance requirements include compliance with the Class III total phosphorus standard in the Everglades Protection Area, and compliance with the Federal Consent Decree resulting from the Everglades water quality litigation. In WY2008 -- the first year of compliance -- all unimpacted areas of the Everglades were in compliance with the four-part test. The Class III criterion for dissolved oxygen was not met in several areas of the

Everglades, possibly reflecting nutrient enrichment. Compliance with the Consent Decree is covered separately.

Challenges Ahead for Water Quality Status in the Everglades Protection Area

- Optimizing and/or increasing the treatment area in STAs to insure that their waters discharged to the Everglades meet the 10 ppb criterion needed to protect Everglades plants and animals.
- Improving agricultural best management practices to reduce the inflow nutrient loads to STAs, thereby increasing their nutrient-removal performance.

Modified Water Deliveries to Everglades National Park Project

The USACE was directed by Congress in the 1989 Everglades National Park Protection and Expansion Act to modify the Central and Southern Florida (C&SF) Project to improve water deliveries to EVER and, to the extent practicable, take steps to restore the Park's natural hydrologic conditions. The Project consists of three major structural components: (a) 8.5 Square Mile Area (SMA) Flood Mitigation component, (b) Conveyance and Seepage Control (C&SC) component, and (3) Tamiami Trail (TT) Component.

The current status of each component is described below:

1. The purpose of the 8.5 SMA component is to provide flood mitigation to an agricultural and urban area adjacent to EVER due to higher water levels in the area expected to result from construction of the project restoration features. This component includes a perimeter levee, an internal canal and levee system, a pump station and storm water treatment area and the acquisition of lands adjacent to the EVER boundary and west of the perimeter levee. In FY 2010, the focus will be on completing the construction of the structural features and initiation of an interim operational plan.
2. The purpose of the C&SC component is to convey water through reservoirs upstream of EVER into the Shark Slough drainage basin of EVER to be more consistent with historic hydrologic conditions. In addition, these project features will return project-induced increased seepage from the project area in order to maintain flood mitigation to adjacent areas. Some of the features of this project component have been completed: the S-356 pump station, back-filling of the lower 4 miles of the L-67 extension canal, and construction of the S-355 structures in the L-29 levee. FY 2010 activities will focus on completing the necessary NEPA documents for the L-67 A/C structural features as well as the remainder of the construction needed to back-fill the L-67 extension canal.
3. The purpose of the TT component is to modify the existing highway in a manner consistent with increased water flows and levels resulting from conveyance components of the project. In addition, these modifications must be designed to be consistent with Florida Department of Transportation road safety requirements. The Army Corps of Engineers, in conjunction with EVER, completed the 2008 Limited Reevaluation Report and Environmental Assessment (LRR/EA), which specified implementation of a 1-mile bridge within the affected 10.7 mile highway corridor and raising the remainder of the highway section. EVER is also in the process of investigating the efficacy of improved getaway channels from culverts under the existing highway as well as additional bridging under the highway. These two projects are detailed later in, the Spreader Swale Pilot Project and Tamiami Trail Modifications: Next Steps Project.

Challenges Ahead for Modified Water Deliveries to Everglades National Park Project

8.5 SMA Component

- The major obstacles to the implementation of the 8.5 SMA component have been overcome but resulted in a significant increase in project cost due to land acquisition requirements associated with the selected plan. Total project costs for the component are now approximately \$170 million.
- The only significant challenge ahead is to develop the final operating criteria for the 8.5 SMA features when the remainder of the MWD features are identified and implemented.

Conveyance and Seepage Control Component

- The C&SC component features are scheduled for alternative evaluations beginning in 2009. The selected plan should include the required modifications to the internal canal and levee systems, including the L-67A/C, L-67 extension.
- Implementation of these features is likely to be delayed by litigation. The Miccosukee Tribe has indicated their intention to litigate operation of the S356 pump, due to concerns with the effects of pump operation on tribal and natural resources in Water Conservation Area 3A.

Tamiami Trail Component

- The TT component presents the most significant obstacle to implementation. In 2003 and again in 2005, the Corps of Engineers (COE) completed reports identifying modifications to TT. Recommendations included in both of these reports were rejected for either being insufficient in their design (2003) or too costly (2005).
- The 2008 LRR/EA was delivered to Congress in October 2008. Implementation of the selected plan was scheduled to begin in December 2008 but has been stalled due to a legal injunction imposed by the courts following suit by the Miccosukee Tribe of Indians for alleged National Environmental Policy Act (NEPA) deficiencies with the EA.
- The 2009 Omnibus Appropriations Act directed the USACOE to immediately implement the LRR/EA selected plan. The contract award was made in October 2009 and a groundbreaking scheduled for December 2009.

Modified Water Deliveries to Everglades National Park Project: Spreader Swale Pilot Project

The USACE was directed by Congress in the 1989 Everglades National Park Protection and Expansion Act to modify the Central and Southern Florida (C&SF) Project to improve water deliveries to EVER and, to the extent practicable, take steps to restore the park's natural hydrologic conditions. The Modified Water Deliveries (MWD) Project consists of three major structural components: (a) 8.5 Square Mile Area (SMA) Flood Mitigation component, (b) Conveyance and Seepage Control (C&SC) component, and (3) Tamiami Trail (TT) Component. The Spreader Swale Pilot Project is being implemented as part of the TT component of the MWD Project with the purpose of assessing the efficacy of spreader channels immediately downstream of the existing culverts under Tamiami Trail to improve conveyance of water into the Northeast Shark Slough expansion area.

The USACE proposed a pilot project to construct spreader swales immediately south of two culverts found along a 10.7 mile stretch of the Tamiami Trail at the northeastern boundary of EVER as part of broader proposed modifications for the Tamiami Trail documented in the 2008 Limited Reevaluation Report and Environmental Assessment. The purpose of this project is to determine if pilot spreader swales would increase flow into EVER and if so, determine the percent increase in flow. These data will provide decision-makers with sufficient information to decide whether construction of additional swales on EVER land is worth the financial cost and potential environmental effects. The Swale Pilot Environmental Assessment (EA) was completed with the issuance of a Finding of No Significant Impact (FONSI) in March 2009. The selected plan identified in the FONSI consists of a collaborative hydrologic modeling effort by the EVER, USACE, and the South Florida Water Management District followed by implementation of two pilot swales should the modeling results indicate flow improvements.

Challenges Ahead for Modified Water Deliveries to Everglades National Park Project: Spreader Swale Pilot Project

- There are considerable differences of opinion on the best solution to improving flows beneath the Tamiami Trail, which range from merely adding spreader swales to each culvert set to construction of a 10.7-mile bridge. The environmental community is adamantly opposed to the implementation of the spreader swales, while the USACE, state agencies, and the Miccosukee Tribe of Indians support the concept.
- Currently, technical opinions differ on the degree of improved hydrologic conveyance provided by the spreader swales when compared to the conveyance capacity of the existing features.
 1. Opinion supporting installation of spreader swales assumes they would replace lost overland flow and partially compensate for the reduction in groundwater seepage by redistributing available surface water entering the area.
 2. Conversely, there is the potential for backwater flooding (reverse flow), concern about water quality effects, and the potential for swale benefits to be overwhelmed by other conditions such as locally or regionally altered drainage patterns. These conditions could combine to make the spreader swales ineffective.
- As part of the EA/FONSI, the NPS identified four reasons to proceed with the selected plan (hydrologic modeling followed by construction of two pilot swales):
 1. Resolving the divergence of opinions concerning the effectiveness of spreader swales in enhancing flows in Northeast Shark River Slough.
 2. Testing the ability of spreader swales to contribute to the overall restoration goals of the MWD project.
 3. Analyzing the potential environmental costs and benefits to support sound decision-making.
 4. Investigating the effectiveness of small-scale, incremental water deliveries.
- The modeling will be completed in January 2010 and construction, if warranted, will be initiated in May 2010. Evaluations of swale efficacy will be conducted through the evaluation of data from hydrologic and ecologic monitoring.

Tamiami Trail – 2009 Omnibus Appropriations Act Evaluations

A Limited Reevaluation Report and Environmental Assessment (LRR/EA) was completed in October 2008 for the Tamiami Trail component of the Modified Water Deliveries (MWD) Project. The selected plan includes the construction of a 1-mile bridge within the 10.7 mile highway corridor and the raising of the remainder of the highway to allow water levels within the adjacent L-29 canal to increase from the current 7.5 feet to 8.5 feet. The report also acknowledged that other alternatives would provide higher levels of benefit but at costs beyond the capability of the MWD Project. In December 2008, the Department of the Interior elected to transfer \$1 million to the USACE for the completion of a feasibility report addressing the need for additional modifications to the Tamiami Trail needed to accommodate water levels and flows associated with full restoration.

The 2009 Omnibus Appropriations Act directed the Secretary of the Interior, acting through the National Park Service, to immediately evaluate the feasibility of additional bridge length, beyond that to be constructed pursuant to the Modified Water Deliveries (MWD) to Everglades National Park Project, including a continuous bridge, or additional bridges or some combination thereof, for the Tamiami Trail to restore more natural water flow to EVER and Florida Bay and for the purpose of restoring habitat within the park and the ecological connectivity between the park and the Water Conservation Areas. The language of the 2009 Omnibus Appropriations Act also specified the completion of a “feasibility report” with one year of enactment.

Challenges Ahead for Tamiami Trail – 2009 Omnibus Appropriations Act Evaluations

- Consultation with Department of the Interior (DOI) leadership resulted in the need for the report to be a decision document. Subsequent to this decision, the NPS was identified as the lead agency for completion of the an Environmental Impact Statement (EIS), with the Corps of Engineers and the Federal Highway Administration, and by delegation, the Florida Department of Transportation as cooperating agencies.
- The initial scope of work assumed that the level of effort would be confined to updating a 2005 EIS prepared by the COE, which specified a design high water elevation of the restored condition as 9.7 feet. DOI leadership consultation also indicated that the final bridge design should correspond to “unconstrained flow,” including more recent information that the restored condition could result in water levels appreciably higher than also previous the 9.7 feet assumed in the 2005 study.
- Implementation of the LRR alternative associated with the MWD Project could result in the implementation of roadway improvements that may need to be subsequently modified by the plan selected through the analysis authorized by the 2009 Omnibus Appropriations Act. Construction contracts associated with the LRR alternative should be closely administered to sequence implementation of features to ensure compatibility with the plan selected through this analysis.
- The NPS and the USACE completed and executed a project management plan (PMP) in April 2009 with. The USACE is currently in the process of finalizing reports specified in the PMP and a consultant to the NPS is integrating this information into the Preliminary Draft EIS, scheduled for completion in December 2009. The NPS will

complete a Project Status Report to Congress by March 2010, the Draft EIS by May 2010 and the Final EIS and Record of Decision by December 2010.

- Six alternatives, in addition to the No Action Alternative, will be evaluated in the EIS. These alternatives provide an increase in bridging ranging from 1.01 miles to 4.39 miles above the 1-mile bridge to be built as part of the MWD Project. The amount and the length of the bridging associated with these alternatives was constrained due to DOI guidance to the project team to allow for access to the existing facilities within the corridor as well as comply with a 0.5-mile buffer requested by the Miccosukee Tribe.

Rock Mining Seepage Management Pilot Project (Miami-Dade County Lake Belt Plan)

Limestone rock mining is an important economic activity in south Florida. However, rock mining in the Everglades has adverse environmental impacts that include increased seepage from adjacent natural areas and potential water contamination problems. EVER is participating on a technical committee with the industry and other stakeholders to develop seepage management techniques that the industry could employ as mitigation for their rock mining activities.

In the early 1990s a consortium of limestone mining companies formulated the “Lake Belt Plan.” The focus of the plan was to obtain a long-term permit for their mining activities, to ensure that the supply of raw materials would be available to justify expansion of their processing infrastructure. The State of Florida agreed with this concept and formed a planning committee consisting of the industry and various government and non-government stakeholder groups. The initial phase of the Plan allows for expansion of mining activities and environmental studies to address issues such as increases in groundwater flow out of the natural system due to the removal of the aquifer material and the effect of this loss on listed species as well as potential effects on the County’s largest water supply well field. The initial phase also established a mitigation fee for wetland impacts and a separate fee for impacts directly related to seepage from EVER. In recent years the situation has been complicated by litigation that has remanded the Clean Water Act section 404 permitting back to the USACE to complete a new Environmental Impact Statement (EIS) that addresses concerns raised by the Federal Judge.

One of those concerns was the mitigation plan for increases in seepage losses of water from EVER. It is estimated that the rock mining adjacent to EVER is responsible for approximately 10 percent of the seepage loss from this area of the park. EVER technical staff has been involved in a process to develop a viable seepage mitigation plan that is acceptable to all parties involved. The current plan put forth by the mining industry is to install a sub-surface barrier to groundwater flow in the uppermost layer of the Biscayne Aquifer. This would be a 10–15 foot deep concrete wall that would reduce the ability for groundwater to flow out of EVER. EVER technical staff feels that the concept has merit and have been involved in developing a pilot project to test the concept. The pilot project is expected to be completed by the end of August 2009.

The current plan put forth by the industry represents the first viable approach to seepage management since the Lake Belt process began in 1992. If the seepage management pilot project is successful, EVER has an opportunity to reduce seepage losses from the rock mining excavations as well as from the canals of the Central and Southern Florida Project in

return for mitigation credits to the industry. Meetings are ongoing with industry representatives.

Challenges Ahead for Rock Mining Seepage Management Pilot Project (Miami-Dade County Lake Belt Plan)

- The data from the seepage management pilot project are important to the design of full mitigation plans. However, the current EIS process is expected to be complete before these data are available. Given the litigation environment and other factors, the USACE will face challenges in issuing a permit before a proven method for seepage mitigation is developed.
- The industry has expressed a willingness to mitigate for their fair share of the seepage caused by their activities. However, an additional challenge is how to determine the share of seepage that is attributable to the rock mining excavations and then equate that to the amount of seepage stopped by the proposed seepage barrier. This will be done at the technical level by using hydrologic simulation models and ultimately will evolve into a negotiation.
- The final challenge will be applying the seepage management concept to mitigation for wetland habitat impacts. If the seepage management pilot project is successful, the industry is willing to install the seepage barrier over a much longer length than would be required simply to stop their fair share, if they could receive wetland mitigation credit for this activity. This concept has potential benefits for EVER because seepage could be reduced from both the rock mining areas as well as the canal system that borders the park.

Comprehensive Everglades Restoration Plan and the National Academy of Sciences Review (CISRERP)

The Water Resources Development Act of 2000 authorized the Comprehensive Everglades Restoration Plan (CERP) and included a provision for independent scientific oversight on progress in restoring the natural system. The National Academy of Sciences has been charged with this review. The most recent NAS committee to review the CERP is the Committee on Independent Scientific Review of Everglades Restoration Progress (CISRERP) which produced reports in 2006 and 2008.

In 2006, the Committee’s report concluded that the interagency scientific program accompanying the restoration efforts “has been of high quality and comprehensive.” Important scientific questions still remain to be addressed; however, the Committee concluded that scientific understanding was sufficiently advanced so that “no significant scientific uncertainty should stand in the way of restoration progress.” Positive comments in the 2006 report centered on progress shown by the State of Florida in the Kissimmee River restoration, in reducing phosphorus loads by constructing water treatment wetlands and in moving forward a subset of the CERP projects, termed Acceler8.

The Committee was concerned about lack of progress and serious schedule delays on projects that are central to restoring the fundamental characteristics of the ecosystem (sheetflow), such as Modified Water Deliveries and the WCA Decompartmentalization Project. The Committee called for the attention of senior managers and policy makers to problems with the level of federal funding and issues with the planning process. They noted

that restrictions in federal funding mean that federal interests are unlikely to be addressed in a timely way, and that the restoration planning process is easily stalled by unresolved scientific uncertainties. Also noted was the fragile nature of the stakeholder consensus holding the CERP plan together.

The conclusions of the 2008 report are best presented by the following quote from the report, pages 12-13:

“If the sweeping vision of environmental restoration of the Everglades is to be realized, demonstrable progress needs to come soon. Even though the science and engineering that support the restoration program have been of high quality, to date, the CERP has not been effective in halting the decline of the South Florida ecosystem. Instead, the CERP is currently mired in a complex federal planning and approval process, while project costs continue to rise and development threatens to foreclose some restoration options, and funding limitations are likely to add further delays in the years ahead. To do nothing is to do harm. If the CERP continues on its present course, at its current pace, the system will continue to lose some of its vital parts, and more importantly, the restoration effort will lose the support of the public at large. Clear funding priorities, modifications to project planning, authorization, and funding process, and strong political leadership are needed to support system-wide restoration and to begin to reverse the decades of decline.”

Challenges Ahead for Comprehensive Everglades Restoration Plan and the National Academy of Sciences Review (CISRERP)

The CISRERP Committee is in the process of planning and information acquisition for their 2010 report. The implementing agencies (USACE and the SFWMD) and the DOI are participating in the committee meetings to answer questions and provide the technical and planning information requested by the committee.

Critical Ecosystems Studies Initiative (CESI)

The Critical Ecosystem Studies Initiative (CESI) was established in 1997 as the primary investment by DOI to provide scientific information to advise restoration decision making, and to guide its own land management responsibilities for south Florida Ecosystem restoration. CESI funding has focused on: (1) understanding how the original natural system functioned, (2) identifying ways it is now impaired, and (3) defining viable options for ecosystem restoration.

In 2003, the National Research Council (NRC) reviewed the CESI program and concluded that “The CESI program has been an important resource to help address the immense science information needs of the Everglades restoration.” In particular, the NRC concluded that:

- CESI research on the linkage between ecological and hydrological processes provides a strong scientific foundation for future decision making so that scientists and planners can respond to new and emerging concerns.
- CESI’s gap-filling approach represents an effective strategy to meet complex and changing science needs.
- The fundamental purposes and objectives of the CESI research program should remain intact (emphasis on ecosystem research, model development, and environmental assessments).

Within the interagency restoration process, the Army Corps of Engineers and the South Florida Water Management District are relying on DOI to track restoration success on DOI lands. The Monitoring Plan for the Comprehensive Everglades Restoration Plan specifically incorporates CESI-sponsored monitoring of DOI lands and resources. Additionally, the Corps and South Florida Water Management District are relying on DOI (CESI funding) to monitor restoration benefits related to ongoing restoration projects such as the Modified Water Deliveries and the C-111 Projects.

CESI is also a primary source of funding for water quality research and monitoring activities related to compliance with the federal Consent Degree entered in *United States vs. South Florida Water Management District* (see water quality briefings). The CESI program supports work related to setting of water quality standards and determining compliance within EVER and the A.R.M. Loxahatchee National Wildlife Refuge.

CESI funding also supports multiple ecosystem restoration and coordination activities in support of the South Florida Ecosystem Restoration Task Force (Office of the Executive Director). These program funds include work on comprehensive exotics control strategies, restoration planning, National Academy of Sciences peer review, and support for south Florida science symposia and workshops.

The largest portion of CESI funds have been used to support research through universities and external contractors, to bring outside expertise into the restoration process. In addition, the USGS has received over 1/3 of all CESI funding, through cooperative research projects that are funded jointly with their \$8.5 million Place-Based Initiative in south Florida.

The NPS, as the principal manager of Federal lands in south Florida, has worked in close cooperation with other Federal and State agencies to focus CESI funds on the most important monitoring, assessment, and research projects that are directly related to ongoing restoration needs. The NPS role in managing CESI funding is tied to our responsibility as the manager of approximately 2.5 million acres of federal-interest lands in south Florida, as well as a primary recipient of the environmental benefits provided by CERP and related restoration projects.

Challenges Ahead for Critical Ecosystems Studies Initiative (CESI)

- Continued funding of the CESI within the Everglades Restoration and Research budget at current levels is essential for DOI to acquire the science needed to guide the restoration process.
- Thus far the CESI program has been very successful in coordinating funding with other agencies to acquire needed science for restoration. Anticipated funding cuts for science and monitoring at other State and Federal agencies in south Florida will have an effect on this strategy.

Cape Sable Canals Dam Restoration Project

EVER plans to repair or replace two failed sheet-pile dams on the East Cape Extension and Homestead Canals, Cape Sable. These two canals were dug in the 1920s and first plugged about 1960 but the dams have failed and now transport marine water into formally fresh to brackish marshes and flush freshwater to the sea. Canal banks are eroding rapidly, the remnant dams are a safety hazard for boaters, and the open canals allow motor-boaters to illegally enter a wilderness area.

Several canals were constructed in the Cape Sable area between 1900 and the 1930s, prior to the establishment of the park. The purpose of these canals was to drain water and make the area useful for agriculture and commerce. Saltwater intrusions through these canals and sea level rise have hastened the conversion of freshwater marshes north of Lake Ingraham to shallow marine habitat. Tidal flushing has eroded the canals and deposited significant amounts of sediment in Lake Ingraham. The smaller interior Homestead and East Cape Extension Canals were plugged with earthen dams to minimize these impacts and restrict access to the non-motorized wilderness area. However, these dams failed during the early 1990s and were replaced by sheet-piling dams in 1997. The sheet-pile plugs in turn failed within a few years.

The canals and the failed dams appear to have influenced general ecological conditions, including critical wildlife populations such as American crocodiles, a federally listed endangered species, and wading birds. Collapse of freshwater marshes in the Cape Sable area was observed by University of Miami and EVER staff in 2005, a change which is likely related to salt water intrusion from the Cape Sable canals and sea level rise. Drainage of freshwater through the canals has accelerated the change from freshwater wetlands to a marine ecosystem. The breach of the sheet-pile dams has also allowed illegal access to designated wilderness in EVER by fishers and others using motorized watercraft. The failed sheet-pile dams have also created conditions that are unsafe for canoeists and other boaters, especially during periods of high tide.

The project has been funded by the American Recovery and Reinvestment Act (ARRA) of 2009 and is being managed by the Denver Service Center (DSC). An Environmental Assessment for the project has been completed and the FONSI signed by the Regional Director on August 14, 2009. A contract for project design (DD/CD) and permitting was signed by URS Corporation on August 7, 2009. Design documents and drawings suitable for permit request will be delivered by late November 2009 and permits will be requested in early December 2009.

Challenges Ahead for Cape Sable Canals Dam Restoration Project

- Complete construction drawings and specifications by late February 2009.
- Secure permits from the USACE and SFWMD by late June 2010. The USACE will coordinate with NOAA, USFWS, and other agencies responsible for Section 7 compliance. The project area has recently been designated critical habitat for juvenile small tooth sawfish.
- Award construction contract in July 2010.
- Complete construction by March 2011.

2009 5.2 Dry Tortugas Natural Resource Management

2009 5.2.1 Research Natural Area Science Plan

Developed in 2007 by the NPS and the Florida Fish and Wildlife Conservation Commission (FFWC), the goal of the DRTO Research Natural Area (RNA) Science Plan is to assess the conservation efficacy of the RNA

(<http://www.nps.gov/ever/naturescience/technicalreports.htm>). The plan is organized into six topic areas:

1. Quantify changes in the abundance and size-structure of game fish species within the RNA relative to adjacent areas.
2. Monitor the immigration and emigration of targeted game fish species in the RNA.
3. Monitor changes in species composition and catch rates of reef fishery species throughout the surrounding region.
4. Evaluate the effects of RNA implementation on marine benthic biological communities.
5. Assess reproductive potential of reef game fish species by evaluating egg production and larval dispersal.
6. Incorporate social sciences into the research and monitoring program.

A variety of science projects are underway by NPS units and other agencies and universities. As established in the Memorandum of Understanding between the NPS and the FWC, a three year report on these projects will be completed in February 2010 and will summarize the progress of implementation of the essential activities whether funded or not. It will also include an update on the supplemental activities.

2009 5.2.2 Natural Resource Projects

DRTO National Park provides vital habitat to a variety aquatic and terrestrial organisms. The park is a critical resting area for both migratory and nesting birds. These seven keys serve as the only significant nesting sites for Brown Noddies, Sooty Terns, Magnificent Frigatebirds, and Masked Boobies in the contiguous United States. The federally threatened Roseate Tern also nests within the park. In addition, the Dry Tortugas National Park contains over 2,100 acres of coral cover and over 17,000 acres of seagrass beds. These reefs, seagrass beds, hard bottom areas, and sand bottoms are all home to an abundance of marine life.

As a result of the park's plentiful natural resources, a wide variety of natural resource projects are conducted. The park's biological technician assisted with many of these projects including: bird banding and nest observation, sea turtle nest surveys, sea urchin assessments, coral health and damage studies, and sea grass assessments.

The federally threatened Roseate Tern (*Sterna dougallii*) nested historically in the park, though nesting was undocumented for several decades. Therefore, five years ago, the park implemented a plan to use decoys and a sound recording of the species to socially attract the birds and reestablish nesting. The program has been successful with 30-40 nesting pairs annually in recent summers. During June and July of 2009, Roseate Terns were monitored weekly to assess nesting activity. An estimated 60 eggs were laid throughout the season and three chicks were banded. Unfortunately, unknown events caused the terns to abandon their nests in late July before any of the chicks likely reached maturity.

The islands are also a hot-spot for sea turtle nesting. Beaches were walked regularly to monitor nesting activity throughout the nesting season, with surveyors documenting a total of 218 turtle nests. Of these nests, 127 (58.3%) were identified as being Loggerhead Sea Turtle nests (*Caretta caretta*) and 91 (41.74%) were identified as Green Sea Turtle nests (*Chelonia mydas*). This is the largest number of green turtle nests recorded by researchers in the Tortugas to date, markedly surpassing the former record set in 1998. From nest

excavations, an estimated 15,234 hatchlings entered the Gulf of Mexico this season from the Dry Tortugas.

Many of the aquatic projects assess the effectiveness of the Research Natural Area (RNA) which was established in 2007. This no-take marine reserve was designed to restore ecological integrity by minimizing human impact. Anchoring will not be permitted within the RNA after the establishment of mooring buoys, therefore, after buoy establishment, coral damage is expected to decrease. Studies to assess current visitor damage on corals were conducted to serve as a baseline. Coral cover was also monitored for signs of recovery following the 2004-2005 storm seasons. The long-spine sea urchin, *Diadema antillarum*, is often considered the most important herbivore on coral reefs in the western Atlantic and Caribbean basin, keeping algae from overgrowing the reef. However in 1983, a massive die-off of these urchins changed reef ecosystems throughout the Caribbean. *Diadema* have recovered slowly since, with widespread monitoring projects conducted throughout the keys, including at the Dry Tortugas.

These research projects and others, including nurse-shark mating behavior studies, sea turtle tagging, and fish stock assessments, aid in the understanding of this important ecosystem.

2009.6 Resource protection, law enforcement, visitor safety and security, fire and aviation management, fee collection

2009 6.1 EVER - Resource and Visitor Protection

OVERVIEW

The Division of Resource & Visitor Protection (R&VP) is responsible for the protection of the park's visitors, employees and resources. These responsibilities are divided among 4 different programmatic areas within the division. These programs are; law enforcement (Including dispatch), fire and aviation management, fee management, and special park uses.

Although the primary objective of the law enforcement program is the detection, apprehension and deterrence of criminal violators and activity, park rangers at EVER are trained in and respond to medical emergencies, search and rescues, visitor assists and resource management incidents. The law enforcement program is also responsible for the operation of the Communication's Center which supports 24/7 dispatch services for the areas 4 national park service units. In FY 2009, 25 of the authorized 33 permanent full-time law enforcement ranger positions were filled. The remaining positions continue to be unfunded/vacant. Five of the 6 permanent full-time dispatcher positions were filled and 8 seasonal law enforcement rangers were hired from December 2008 through April 2009; 6 of these positions were funded through the centennial initiative program. Two positions were funded through a donation made to enhance protection of Florida Bay.

The park's fire and aviation management program is one of the largest and most active in the service. The program supports a proactive prescribed fire program as well as a qualified, response-ready suppression staff. The staff actively supports the national fire plan by providing human resources at all levels of incident management. In addition to fire management, the aviation branch provided year-round support to parkwide programs including; research and resources management projects, VIP tours, search and rescue

efforts and law enforcement patrols. In FY 2009, there were approximately 31 permanent employees in the fire and aviation branch.

The fee program consists of a permanent full-time fee program manager, who supervises 7 permanent VUA's (entrance station fee collectors) and approximately 8 seasonal VUA campground fee collectors. The campgrounds are staffed from November through March.

The special park uses program consists of one full-time Special Park Uses Program Manager and a part-time permit examiner. This position oversees the issuance of film and special use permits and commercial use authorizations.

The R&VP staff supports other divisional and park-wide projects including resource management's control and removal of invasive & exotic species, backcountry waterway and trail maintenance, coordinating and chairing the park's wilderness committee, and critical assignments on the park's hurricane incident team.

ACCOMPLISHMENTS

Fee Management Visitation through fee revenue increased in FY 2009 with the revenue totaling \$1,606,785. This was a \$142,743 increase over FY 2008. Cost of collection decreased from 42% to 36%. This was due to a continuation of a reduction in operating hours of the park's main entrance station from a 24/7 operation to 16 hours per day. The 16 hour schedule was established to receive fees from the recreational and guide fishermen who usually enter the park around 5 a.m. and regular visitation until sunset.

The park participated in 8 fee free days; including Veteran's Day, Lands Day and 6 other days identified by the NPS to promote visitation during the economic hardship.

Park passes sold in 2009	2008
Senior	5600
Access	500
Interagency	900
EVER annual	2840
Boat	225
	4700
	400
	1150
	3000
	200

Law Enforcement Despite the continued challenges of being short-staffed, the Division continued to support other law enforcement and fire management jurisdictions by participating in numerous out-of-park fire assignments and several law enforcement details. The park's Communications Center continued to provide 24 hour/7day-a-week dispatch services for, DRTO, BICY and BISC.

Significant Incidents/Activities On March 13, 2009, while the Southeast Regional Director David Vela was speaking to the park staff at an all employees meeting, a group of 26 Cuban migrants landed on East Cape Sable. All of the migrants were found to be in good condition. The park worked cooperatively with the Border Patrol to secure and transport them to their facilities. This was the 4th consecutive migrant landing in that location in the last 4 years.



In March 2009, the Nike Missile Base located in EVER was vandalized when individuals illegally entered the gated compound and spray-painted graffiti on all of the major structures. The site became very popular during the winter of 2008-2009.

On March 15, 2009, the park had its only visitor fatality. A female was riding her bicycle behind her companion on the Shark Valley tram road. The female lost control of her bicycle and ran into another bicyclist riding towards her. The injured bicyclist was treated by park EMT's and transported to the local trauma center by the Miami-Dade Air Rescue unit. She died two days later of brain injuries. She was not wearing a helmet.

On April 11, 2009, a small plane crashed in the coastal prairie area of Flamingo. Two individuals were onboard and uninjured. Because the plane crash occurred in wilderness, the plane was sling-loaded out of the area under the conditions identified in a special use permit.



Through funding and assistance from NPCA 111 regulatory signs and buoys were installed in Florida Bay. These markers are intended to provide obvious notification of closed areas, no wake zones and park information to the boating public.



Training The Law Enforcement staff hosted 2 law enforcement in-service training courses assuring all LE rangers met annual refresher qualifications. Semi-annual firearms qualifications were also met by the entire staff. Several park rangers completed their basic LE training at FLETC during this time.

The Division also coordinated and hosted one Emergency Medical Technician refresher, one Motorboat Operators Certification Course (MOCC) and one Motorboat Operator Instructor Certification Course (MOICC).

Special Park Uses In FY 09 the Special Park Used program coordinated the issuance of film and special use permits and commercial use authorizations (CUA's) for EVER and DRTO. The program manager revised the fee schedule for CUA's which will be implemented in CY 2010.

Special Park Uses permits issued in EVER

	FY 09	FY08
Film	38	34
SUP	46	45
CUA (guide fishing)	336	332
CUA (other)	35	42

The special use permits included a variety of activities, including; non-profit educational activities, land use/right-of-ways, first amendment, aircraft recovery, fishing tournaments, Easter sunrise service, and bike events. Other CUA activities included: Outward Bound, canoe and kayak tours, Elderhostel and bird watching tours.

For DRTO, 27 CUA's were issued in FY 08. This was in accordance with the general management plan, which identified a maximum of 30 total CUA's to be awarded through a competitive process. The CUA's were awarded for 2 years and included: 14 CUA's for guide fishing, 9 for wildlife viewing, 2 for sailing, 4 for diving/snorkeling and 1 reserved for a one-time use. This one-time use permit was utilized 4 times in FY09; 2 for bird watching tours and 2 for sailing trips. The CUA's are valid for 2 years and will be renewed for 2010. The application and review process will take place in early FY10 for new CUA's to be in place by January 01, 2010.

Twelve special use permits and 6 film permits were issued in FY 09 for DRTO. Compared to 5 SUP's and 4 film permits in FY 08. SUP included: private seaplane landings, non-profit educational visits, anchoring of large vessels and 1 sonic boom testing.

2009 6.2 Fire and Aviation Management

In 2009, a total of 6,332 acres burned inside the park boundary, consisting of 1 human caused and 6 lightning caused unplanned ignitions. Everglades Fire Management personnel responded to an additional 12 fires within the Mutual Response Zone adjacent to the Park boundary totaling 544 acres and made 12 assists on prescribed fires conducted by local agencies. Nineteen planned ignitions were conducted within the park totaling 30,777 acres. Fire personnel were mobilized to 24 incidents over the course of the year.

<u>Fire Type</u>	<u>Number of Incidents</u>	<u>ACRES</u>
Unplanned Ignitions	7	6,332
Planned Ignitions	19	30,777
Mutual Aid	12	544
False Alarms	3	
Smoke Checks	104	
RX assists	12	
Mobilizations	24	
Totals		37,653

Interagency Assists In 2009 EVER Fire personnel assisted local agencies on Prescribed fires at Key Deer NWR, Loxahatchee NWR, BICY, Panther NWR, Timucuan Preserve, South Florida Water Management District and Florida Division of Forestry.

Severity During the 2009 Wildfire Season/Severity Everglades requested outside resources in order to adequately maintain staffing requirements during high fire danger. The resources that were ordered and filled were, 1 Aircraft Dispatcher, 1 Crew Boss, 10 Helicopter Crewmembers, 3 Incident Commander Type 3's, 4 Engine Boss's and 3 Initial Attack Dispatchers. These resources traveled from all over the United States from, Alaska, Utah, Montana, Illinois, California, Kentucky, Oregon, Arizona, Arkansas, Wyoming, and Tennessee. These resources were from all types of Agencies, United States Forest, State Agencies, Fish and Wildlife, and other National Parks. Severity went from March 5 thru May 25, with a total of 79 days.

2009 Hells Bay Fire and Roadside Prescribed Burn On May 25, 2009, lightning ignited a wildfire in the western coastal prairies of Everglades National Park. The fire was burning in grass and shrub fuel types within Everglades Fire Management Unit 1 when it was discovered during an aerial reconnaissance flight. EVER fire management personnel initially placed the fire in monitor status in order to provide for firefighter safety due to the poor terrain and accessibility to the fire's location. Natural resources were not at risk and Main Park Road, the main thoroughfare for park visitors to Everglades, was not threatened at that time.

During the second operational period of the fire, wind shifts caused the fire activity to increase and change direction. An aerial reconnaissance of the fire indicated that the increase in fire activity had a high potential for impact on the Everglades Main Park Road. As the fire's growth and direction of spread now through continuous fuels, blow down and litter remnants of the Hurricanes Wilma and Katrina in 2005, it met predetermined trigger

points established by Everglades Fire Management. As a result, Everglades Fire personnel proceeded with a preplanned burnout operation in order to secure Main Park Road and prevent the intense head fire from spotting across the road. Burnout operations were conducted via aerial ignitions from a Type 3 helicopter equipped with a Plastic Sphere Dispenser machine while two Type 6 engines held fire from crossing the road. Burning operations were successful according to Everglades Hells Bay Fire Incident Commander, Robert Trincado. Trincado said, "The recent Roadside Prescribed Burn conducted this March 2009 facilitated our burnout operation. The reduced fuel levels from the prescribed burn decreased fire personnel and visitor exposure to the wildfire as it progressed towards the road and the fire burned in the expected area with minimal smoke impacts on the road". 6,175 total acres were consumed in the fire.



Hell's Bay fire

Photo by NPS

Training In 2009 EVER Fire personnel completed a total of 10 task books which included Incident Commander Type 3 (ICT3), Incident Commander Type 4 (ICT4), Incident Commander Type 5 (ICT5), Prescribed Fire Burn Boss Type 2 (RXB2), Firing Boss (FIRB), Engine Operator (ENOP), Helicopter Manager (HMGR), Faller B (FALB), and Faller A (FALA). In 2009 EVER staff facilitated a total of 12 trainings with a total of 252 participants, 53 of which were from different agencies, including the first ever S130/190 class in Spanish to an interagency group at San Juan NHP in Puerto Rico. This class was held at the request of the SERO. The class was so successful that it sparked an interagency agreement between USFWS and EVER to conduct advance fire classes in the PR. EVER is scheduled to facilitate or host a total of 13 classes in 2010.

Aviation In 2009, a dedicated flight following dispatcher was hired. This came as a result of several aviation reviews. This position removed the flight following responsibilities from the main park dispatch operation and resulting in a professional, dedicated aviation operation.

There were 211 fixed wing flights totaling 428.4 hours and 358 rotary flights totaling 427.8 hours.

Fire Effects Monitoring and Fire Ecology Fire effects staff provided assistance for a variety of research projects related to fire in Everglades. Staff reviewed grant proposals, wrote letters of support and were co-investigators on several scientific research proposals as well as assisted with long term research projects. Research projects included the relationship between climate change and fire events; effects of fire on mangrove ecotones in coastal Everglades; the relationship between fire history and soil sediment composition and the effects of fire and hurricanes on long-term pine census in Everglades Pine rocklands. Additionally the Fire effects staff presented at a number of scientific and professional conferences and meetings this year.

The Fire effects staff also collaborated with the Environmental Education division and Miami-Dade College to develop a learning project entitled “Role of Fire in the Pinelands”. Through field experiences and workshop trainings local community pre-service teachers gained an awareness of fire management and National Park resources.



Maya Vaidya collecting soil cores with USGS staff in Everglades mixed prairies Monitoring cone production in long-term pine census research plots

2009 6.3 DRTO Resource and Visitor Protection

Rangers documented 92 case incidents. 36 of these were for emergency medical services, which included no fatalities. All cases were conducted at the basic life support level of care (BLS) by emergency medical technician basic (EMT-B). Several patients would have benefitted from a higher level of care especially considering the long helicopter response time needed to get a patient to definitive care. Several of the cases were for marine injuries including cuts, falls, and stings from jellyfish, and sea urchin spines.

DRTO responded to 3 Type I offenses and 23 Type II offenses. Many of the Type II offenses were for resource violations such as entering closed special protection zones, overboard discharge, wildlife violations, and groundings. Other Part II offenses involved disorderly

conduct, possession of controlled substances, the discharge of a firearm (multiple rounds) in the harbor and vandalism. There were 3 Type One offenses that all involved illegal immigration and human smuggling. Rangers performed 2 marine search and rescue missions. DRTO has strong currents that take a victim out to sea. A turned over sea kayak or even a disabled motor boat poses a grave risk without ranger intervention.

DRTO Research Natural Area Theft

Rangers received information from a confidential informant through our partnership with an EVER research biologist. The informant stated that Rob Hammer, one of DRTO’s CUA holders was taking many species such as red grouper over the catch limit and selling the fish in Miami. Surveillance was conducted at DRTO and from Key West to Miami over a period of several months by the USFWS where it was determined that Hammer was involved in several illegal fishing activities including the selling of his catch from the park commercially. Hammer has pled guilty to Lacey Act charges for his activities. It was determined Hammer sold more than \$60,000 worth of fish, many taken from DRTO.

Congressional Visits

PIO Friar coordinated DRTO congressional visits from Florida Senators, Bill Nelson and Mel Martinez. Superintendent Dan Kimball, Site Manager Walton and staff presented briefings about Preserve Fort Jefferson Phase 2, illegal immigration and the significance of the Research Natural Area.

Migrant Landings at DRTO

Rangers worked closely with the United States Coast Guard, Customs and Boarder Protection (C&BP), and Immigration and Customs Enforcement to resolve the illegal landings. Currently, DRTO has an agreement with the Department of Homeland Security C&BP for reimbursement costs relating to transportation and security. Unfortunately, this does not cover the other inherent costs such as chug disposal (handmade boats), medical supplies, food, clothing, garbage disposal, and fuel cleanup which are a part of every landing.

DRTO is significantly impacted by federal immigration policy. Due to the large Cuban population in Florida and many years of immigration issues the federal government passed a wet foot/dry foot policy. The very limited park staff available at DRTO has to respond to multiple migrant landings in chugs during the year. As this type of activity is not normally the responsibility of park service staff but meeting the needs of multiple groups of immigrants landing at DRTO continues to stress already limited resources.

DRTO rangers and staff detained, transported, provided emergency medical care, as well as basic humanitarian aid to 54 illegal, primarily Cuban immigrants in fiscal year 2009 to date. The illegal immigrants made 3 separate landings. DRTO expended 153.95 man hours on the landings and expended \$8,814.37.

The number of illegal migration incidents has dropped over the past 6 months. The reason is unknown but there is speculation that it could be due to the changing political situation in Cuba, or the disruption of smuggling organization by the aggressive arrest and convictions of fast boat smugglers by the AUSA, or hurricanes depleting the materials needed for chugs or improved interdiction techniques employed by the USCG.

The pattern and frequency of landings over the years is unpredictable and is difficult to program. Tomorrow the landing frequency could significantly increase and overwhelm

DRTO's limited law enforcement resources. It is anticipated that diplomatic positions with Cuba will soften. This realistically would lead to the elimination of the wet foot/ dry foot policy. The mechanism to naturalize Cuban migrants would disappear, and as a result the law enforcement profile for these incidents would need to significantly increase.

While some illegal immigrants used homemade boats, many were transported by human smugglers using fast boats. Fast boat smuggling is becoming more prevalent. This method of smuggling has more inherent dangers as these vessels travel at high rates of speed, during the night, without lights or electronic navigation. Often times they are significantly overloaded and tend to dump their passengers in the water rather than coming into shore. Refugees typically arrive under cover of darkness. Protection rangers provided many hours of overnight supervision in addition to regular duty hours. This resulted in hundreds of hours of overtime and often exceeded daily hour work caps. This placed a strain on daily operations.

Transportation of refugees was made by U.S. Coast Guard cutter when available. This resource is frequently unavailable requiring rangers to escort the refugees to Key West aboard the commercial ferry or seaplane service for transfer to USBP. These escort details strip the park of emergency service providers for 20 hours leaving visitors with no emergency medical services and no law enforcement protection.

DRTO staff makes every effort to remove refugee boats from Loggerhead Key and other sensitive areas as soon as possible to decrease natural resource destruction within the park. Typical damage resulting from illegal immigration incidents included: vessel grounding, vessel sinking, discharge of fuels into park waters, discharge of human waste into park waters, littering of beaches, human waste on beaches, medical waste on beaches, illegal campfires, destruction of endangered plants, wildlife disturbance and damage to government property.

Abandoned refugee vessels were relocated to Garden Key for disposal by salvage ship. Each vessel costs the park over \$600 for disposal. Efforts are made to cordon off refugee vessels to protect the visiting public from the hazards of these vessels. Hazards include spilled fuel, blood and other biohazards, sharp metal, unknown liquids in unmarked bottles, drugs and needles.

Communications

The remote island park is a beautiful and unique resource that requires a staff presence to perform protective, facilities management, and interpretive park service functions. Due to the remote location communication is limited between Everglades, park cooperators as well as the coordination of visitor access. Voice communications are achieved using a satellite serviced voice over IP phone (VOIP), a radio phone and a satellite phone. The VOIP competes with data from the South East Region and is often garbled. There is also a long delay between speakers further exacerbating communication. Data transmission has been reliable and is DRTO's main link.

The radio phone is dependent on multiple relays, one of which is situated on an abandoned Air Force Tower between Key West and DRTO. This is the clearest and most used system. Maintaining the system among other things requires a quarterly 60 mile round trip by boat where the 60 foot tower is then climbed and fresh water is replaced in the batteries.

The satellite phone is expensive. The Iridium system of satellites is also on its eighth year of a projected seven year functional life. Consequently there is a high call drop rate as well as a high call failure rate. However, it serves its function as a backup system for short conversations.

Housing

This year DRTO was slated to replace two permanent housing units at Fort Jefferson. These would be free standing within the casemates and not physically attached to the historic structure. This significantly reduces impacts to the historic structure and is part of the agreement with the SHPO. DRTO submitted their updated housing plan that identifies all units presently occupied and needed to house staff. The number exceeds the 1998 housing assessment. As a result the housing plan was not approved and the substandard housing was not replaced.

Providing enough housing at DRTO for park personnel, volunteers, contractors, special project crews and other agency personnel continues to be a challenge. New programs, initiatives, base increases and ongoing programs compound the need for additional housing. Funded positions have been lapsed due to the lack of an available housing unit. The park has relied upon filling as many positions as possible through dual career opportunities. Historically, there have always been more positions than number of housing units. Presently, there are 12 units to accommodate 19 positions which includes Centennial and other seasonal staff. Two are slated to be demolished to meet the 1998 ceiling. There are 14 permanent positions.

Employees also require housing on shore for days off as well as to conduct park business. Employees duty stationed at Key West include the crew of the Vessel Fort Jefferson, The Exhibit Specialist and the three people assigned to the Interagency Discovery Center through an agreement with NOAA. Housing in Key West is prohibitively expensive where a two bedroom condo rents for \$2300 a month not including utilities. Units 1644 C and D that were lost due to storm damage were rehabilitated this year. In order to meet the ever increasing needs of the park and improve the living conditions for staff, the park must build two new apartments and replace five existing substandard apartments at Dry Tortugas.

Ranger Staffing

DRTO protection division was minimally staffed throughout the year and was dependent on critical hires, centennial seasonal and seasonal ranger staff for backfill in order to provide emergency services. This was the result of several circumstances including:

- Three permanent rangers transferred in fiscal year 2009.
- One of the permanent protection rangers was away at the Field Training and Evaluation Program (FTEP) for approximately 4 months.
- One ranger position was lapsed due to budget limitations.

The net staffing level for much of the fiscal year was one protection ranger on each day. The Site Manager often filled this need. There was inadequate ranger staffing again for fiscal year 2009. Four rangers are needed to provide the minimum emergency services staffing of two rangers a day. There are currently as of this report no permanent GS-0025-09

Protection (Law Enforcement) Rangers as well as no supervisory Ranger. The Site Manager presently is the only Type I law enforcement commissioned employee.

Protection rangers at Dry Tortugas National Park are the sole source of assistance and emergency services in this remote location in the Gulf of Mexico. Protection staff must provide a full range of all-risk services, broadly including law enforcement, emergency medical services, as well as search and rescue in both terrestrial and marine environments. Protection staff ensures the safety of park visitors and protects the cultural and natural resources within the park.

Ranger staff was able to put 7 employees through MOCC at DRTO saving the park approximately \$7,000.

Maintenance

Despite a continuing struggle with staffing during FY09, the maintenance division operated and maintained critical utility, building, mechanical, and marine systems to support day to day business operations for 10 NPS employees and other cooperators from multiple outside agencies, and contractors who performed project work within the park throughout the year.

The division was constrained for most of the year as staff shortages shrunk an already slim field staff. The WG-07 position was filled with a new hire but the new employee lasted less than one month on Garden Key, and it remained vacant through the rest of the year due to a small, unqualified applicant pool. The lead mechanic was on sick leave for most of the 1st half of the year from a non work injury the previous year.

The division's organizational chart also provides for a non-skilled WG-05 Maintenance Worker that works as a helper with the journeyman tradesman but, as in 2008, the position remained vacant for lack of funding. The most senior field positions were backfilled intermittently with emergency hires but gaps occurred and frequently only one person was available to cover maintenance operations daily. Staff often multi-tasked daily throughout the year when unexpected breakdowns interfered with planned activities, and due to staff shortages in other divisions, division staff also aided law enforcement and interpretive positions when a need to serve the public was necessary.

Added to the division workload was the added strain on infrastructure components by the 14 contractor employees living for approx eight months on Garden key in Q-1 and Q-4 for the cultural resources stabilization project. Contract labor for this project more than doubled the amount of people living on Garden Key during the duration of this year's Phase 2 work. Time on housing repairs increased from the previous year and division employees had to keep a more watchful eye on potable water production and potable / non-potable distribution and waste water system (R O plants, pressure pumps, lift station pumps, waste water discharge) operations and waster consumption. In anticipation of this added demand on utilities, two new reverse osmosis water makers, capable of producing 100 gallons of potable water an hour were entered into service and each was used on alternate schedules for a minimum of 10 hours daily in order to meet potable water demand. Due to a lack of rainfall DRTO had less than 14 days of water reserves during parts of the year.

DRTO provided 4,219 overnight accommodations during 2009 for contractors, VIP's and others doing work in the park.

Maintenance Projects

NPS Vessel Finger Piers An outside contractor completed the rebuild of the NPS vessel finger piers south of the main dock that were damaged during the '04, '05 hurricane seasons. EVER Professional Services staff specked out a new deck material for the piers and a fiberglass reinforced plastic (frp) composite decking was used instead of the typical wood planks found traditionally on boat piers. At year's end the fuel dock had not been replaced and vessel fueling was shifted to the main dock before and after ferry arrivals.

Dredging The dredging of the moat and boat slips occurred during the summer and the beach was replaced along the Front Six side of the fort.

Termite Treatment After the porch on the engineers quarters collapsed, the remaining structure was treated for termites.

New Heavy Equipment Two new mechanized heavy equipment machines arrived early in the year. The old Garden Key fork lift was replaced with a new unit with a telescoping lift, which now allows palette material to be lifted to second tier casemates and housing units easily and quickly. A new skid steer loader with various attachments was received shortly thereafter. Both pieces of equipment not only perform various tasks as designed, but on Garden Key they also greatly improved our ability to remove and deploy our boat fleet during storms and for engine/ hull maintenance more efficiently and safely.

2009.7 Interpretation, education, outreach and partnerships

2009 7.1 Everglades

The Division of Interpretation and Visitor Services is responsible for creating opportunities for people to make intellectual and emotional connections to park resources, enhance understanding of the park, and foster an ethic of stewardship. The division operates five visitor centers and has the primary responsibility of developing and presenting informational and educational materials, publications, exhibits and interpretive programs for park visitors, surrounding communities, area schools, local and national media. Division staff also provides support and direction for Interpretive services at Dry Tortugas National Park

In 2009, the division of interpretation contacted 7,025,3303 people including 468,837 visitors at the five visitor centers; 66,824 visitors attended 3,997 interpretive programs; 10,178 students participated in 376 curriculum based education programs; 21,611 people were contacted through 132 community outreach programs; and 812,041 publications were distributed.

The division of Interpretation is proud to report that there were no lost time injuries for the entire year—another indicator of the resilience and professionalism of the permanent and temporary staff alike.

Personnel In 2009, 6.00 FTE in the Division of Interpretation and Visitor Services remained vacant due to budgetary constraints. Two GS-11 Supervisory Park Rangers, three GS-9 Park Rangers, and one GS-5 Bilingual Park Guide positions were partially backfilled by temporary staff. 25 temporary employees were hired, trained, coached, and evaluated. GS-

5 and GS-6 Administrative positions were filled by using SCEP authority. Two permanent GS-11 District Interpreter positions were recruited and filled. An additional 5.1 FTE of the Division's 25.6 FTE was funded from non-ONPS sources. These FTE supported 80% of the curriculum-based education program, 16% of visitor center staffing, 3% formal interpretation programming, 10% informal interpretive programs, and 63% of community outreach programs. In addition, 48% of non-personal services, publications and media, were supported by alternate funding sources. The curriculum-based education program reached 10,178 students, parents, and chaperons with only 20% of program funding coming from ONPS funds.

Centennial Seasonals As a result of Centennial funding the park offered an additional 1,146 ranger-guided programs contacting an additional 22,630 visitors. Centennial seasonals contacted an additional 287,000 visitors through roving and visitor center interpretation. For the second year Centennial Initiative funding enabled the Park to hire a GS-5 podcast producer. A series of podcasts are now on the park website focusing on four areas; "Plan Your Visit" orientation, "Glades Glimpse" interpretive videos, "Waterways" natural and cultural heritage, and a self-guided Park Audio Tour". Hola Everglades, a Spanish language podcast is in production.

Volunteer Support The EVER volunteer program grew 15% over FY08 to 57,934 hours (27.3 FTE) and 1125 volunteers. Volunteers contributed 13,676 hours to interpretation. The volunteer program's capacity to enhance the park mission increased exponentially with the creation of six volunteer-run program areas: Volunteer Python Patrol, Swamp Apes (trail maintenance), Native Plant Nursery, Nike Missile Base Site Stewards, Lichen Indicator Student Research, and AIRIE (Artists in Residence in Everglades) who incorporated forming the non-profit friends group, AIRIE, Inc. Volunteers assisted in staffing 4 visitor centers, orienting visitors to park resources, roving trails, leading guided walks and talks, presenting community outreach programs, assisting in developing a library and video collection. Four volunteers at the two environmental education camps provided assistance to students, teachers and park staff throughout the school year. Ten volunteers were Artists in Residents.

Education Program In 2009, the Park's Environmental Education Program successfully continued its core programming of day and camping programs, teacher workshops, and the Miccosukee program. Education staff conducted a total of 378 day programs for 10,178 participants and 32 camps for 913 participants. 53,605 students and educators were reached through alternative programming such as loan materials and online or broadcasted programs. We also certified 170 teachers at the in-park teacher workshops for participating in our programs. This program was supported by a total of 18 staff members, 15 of those were supported by a Toyota USA Foundation grant, and three were paid for with ONPS funds. The total cost of the grant funded project was \$ \$222,401. The South Florida National Parks Trust, compliments of Toyota USA, donated five new Toyota vehicles to support the Park's Environmental Education program.

EVER in partnership with Toyota hosted two orientation meetings for the Toyota International Teachers Program. Sixty teachers from around the country joined Everglades Education staff for a taste of the Everglades and a few lessons in watershed and exotic species management before heading to the Galapagos Islands and Costa Rica.

The Everglades Environmental Education Program hosted a Teacher Appreciation Ceremony at Fairchild Tropical Botanic Garden in Miami. The purpose of the event was to acknowledge our partnership with teachers and recognize them for their dedication to their students, the environment, and Everglades National Park. We invited over 250 educators. The teachers in attendance ranged from 2 years to 34 years of participation in the program, including several teachers in the 25-30 year bracket. The mutual appreciation and gratitude between the teachers and the park was tangible at this successful event.

Education staff worked with local PBS affiliate, WPBT-2, to film students in the Everglades for a piece about untold stories in national parks, related to the September 2009 release of the Ken Burns documentary, National Parks: America's Best Idea. Staff worked closely with WPBT to film three different schools as well as interviews with teachers, students, and park rangers. The final DVD program is being used to promote our program through the park's website and our media loan library for classrooms.

Community outreach through our special request ranger-led programs continues to be popular. 41 programs reached 1323 participants from local public and private elementary and middle school students, university students, and even an environmental studies class from Princeton University in NJ. With these programs we also served groups from economically disadvantaged communities including migrant farm worker families and after-school organizations. Another notable group was one of international professionals in tourism and development, organized through the Urban Land Institute.

Diversity Participants in the Everglades Education program reflect the full diversity of the multi-cultural South Florida community: Hispanic 68 %, White 14 %, African American 13 %, Haitian American 3 %, Other 1 %, and Native American <1 %.

Podcasting Program For the second year Centennial Initiative funding enabled EVER to hire a GS-5 podcast producer. A student employee working on her master's degree in nature film production was hired to produce high quality podcast videos. The overall podcast program became more defined. Four new podcasts were posted on iTunes and the park website: "Plan Your Visit" orientation videos about visitor facilities, trails and services in different areas around the Everglades National Park., "Glades Glimpse" video episodes tell some of the special stories of humans and nature in the Everglades, "Waterways" mini-documentaries funded and created by park partners that highlight the natural and cultural heritage of south Florida's public lands, and "Everglades National Park Audio Tour" allows visitors to enjoy a self-paced narration as you drive or walk some of the park's main features.

Outreach to Underserved Communities The community outreach team contacted 75,216 local citizens. Local community members from underrepresented audiences were introduced to the four south Florida national parks by a grant funded Community Outreach Specialist. Between October 2008 and May 2009, the community outreach ranger successfully reached 21,611 people through 132 scheduled activities. National Park Service banners and vehicle mounted logos were also seen by more than 100,000 people, and nearly one million people were reached through 11 media outlets. Outreach to Spanish and Haitian communities was presented in those languages.

Outreach activities included library lectures, school programs, community organization meetings, boat shows, festivals, parades, career fairs, celebrations and teacher workshops. Media outlets included radio, television and newspaper interviews, magazine articles, exhibit

displays, and publications distribution to 27 local businesses. The Outreach Ranger also facilitated two in-park events; the March for Parks at Biscayne National Park, and the Retired Peace Corp Volunteers Annual Everglades Outing in Everglades National Park.

The Florida Bay Outreach Specialist, supported by a grant from NPCA, coordinated the development of a successful Eco-Mariner online boater education program and produced six radio PSA's on Florida Bay protection issues. The annual March for Parks event, coordinated in partnership with the South Florida Community Partners, bussed in over 600 participants for a day of exploration and festivities and food in the Park. On-site special request ranger-led programs served school groups and groups from economically disadvantaged communities including migrant farm worker families and after-school organizations.

PBS Television Shows In conjunction with the release of America's Best Idea, EVER and local PBS Station WPBT-2 received funding from the National Park Foundation to produce "Into the Wild", a ½ hour reality TV show featuring a local African American family on an overnight camping trip to help dispel misconceptions about the Everglades. Into the Wild aired nine times in fall 2009 on PBS channel 2 in south Florida and had an average Nelson's rating of 1.6. In this market that means approximately 15,000 viewers per show, or 135,000 viewers total.

125 people attended the preview event for Into the Wild at the University of Miami. The event was attended by the major partners in the production as well as friends of the Roberts family featured in project. The Roberts brought nearly 100 people from their community, including their church and entire classes from their kids' schools. Most of the participants had never even considered visiting EVER until this event. Into the Wild was featured at the Breaking the Color Barrier in the Great American Outdoors conference in Atlanta, GA, to a national audience of 600 people. As a result of this exposure we received nearly one hundred requests for copies of the Into the Wild DVD.

WPBT-2 filmed students in the Everglades for inclusion in the documentary "Untold Stories". Local PBS station, WLRN, filmed a ½ hour TV show featuring park volunteers called "Nature's Helping Hands". All three films aired numerous times and are great tools for outreach, promoting the park, and volunteer recruitment.

Partnerships A new partnership with Fairchild Tropical Botanical Garden substantially increased outreach to the local community through six onsite programs for Garden members, a lecture series at the Garden, and the first ever Everglades Day at the Garden. The park entered into an agreement with the World Heritage Alliance to cooperate on outreach and education programs. The Alliance led to a partnership with Miami's Mandarin Oriental Hotel, a member of the World Heritage Alliance Together we launched a pilot voluntourism program for hotel guests to tour the Everglades and give something back by volunteering. The Park also worked with partners such as the Florida Keys National Marine Sanctuary, Fish and Wildlife Service, and the South Florida Water Management District to operate the Florida Keys Eco-Discovery Center in Key West.

GPRA Goals In March 2009, four hundred Visitor Survey Cards were distributed to a random sample of visitors; Goal IIa1: Visitor Satisfaction = 91%, the park met its internal goal. Goal IIb1: Visitor Understanding of Park Significance = 96%, the park exceeded its goal by 2%.

2009.7.2 Partnership programs, community involvement, cooperative activities

2009 7.2.1 Partnership Programs

Cooperating Association .The Florida National Parks & Monuments Association (aka Everglades Association) is a National Park Service Cooperating Association working in cooperation with the four south Florida national park areas to assist visitors and increase public understanding of the natural and historical values of the parks. At park visitor centers, the Association sells high quality publications and educational materials to the public. Net proceeds from sales can be donated to the parks to support scientific, educational, historical, and visitor service programs of the National Park Service. The Association is a private, non-profit organization incorporated in the State of Florida. Due to poor business management the Association provided at total of \$500 in cash aid to the four south Florida parks in 2009. However orientation and information assistance provided by Association staff at park visitor centers was valued at \$72,471 for the four south Florida parks.

An Operations Review of the Association was completed in June 2009 by a team led by the Servicewide Cooperating Association Coordinator and the SER Regional Chief of Interpretation. The report describes 100 suggested actions to improve Association operations and serves as gridline to rebuild it. The report specifically suggested the Association: transition to new leadership, provide financial aid to the parks, produce park specific publications, increased level of collaboration with the parks, provide fair and equal treatment to the parks, and follow park "scope of sales" guidelines.

South Florida National Parks Trust The mission of the Trust is to advance, through private and non-profit sectors, the interests and missions of the parks and, in securing financial and other resources, to support and enhance the park's efforts. In 2009, the Trust awarded four new grants to EVER totaling \$55,542 to fund a community outreach specialist, a web design intern, circle hook education initiative, and bus transportation for Everglades Education programs.

The Trust also serves as a fiscal agent holding other funds donated to the park. In 2009 the Trust also served as a fiscal agent for an \$18,500 grant from the National Park Foundation in support of the Into the Wild television program production. In 2005, through the Trust the National Parks Conservation Association gave a \$580,200 donation to the park to support enhanced law enforcement, research, and visitor outreach and education for Florida Bay. . Working with the Trust, the Park received a \$639,550 grant from the Toyota USA Foundation for the Everglades Education program, FY08-10. In FY08 this was increased by \$375,000, bringing the total grant to \$1,014,550. These funds continued to support the parks efforts in 2009.

2009 7.2.2 Volunteers in Parks

The EVER volunteer program grew 15% over FY08 to 57,934 hours (27.3 FTE) and 1125 volunteers. Volunteers provided critical supported for park operations including; 4 visitor centers, 2 developed campgrounds, 48 backcountry sites and a curriculum based environmental education program. Their accomplishments go a very long way in increasing visitor enjoyment of park resources. Volunteers helped reduce resource impacts by assisting

in the maintenance of 82 miles of surfaced roads, 156 miles of trails and 7 miles of interpretive trails and 6 creeks and channels in Florida Bay. Volunteers assisted in research projects pertaining to park hydrology, aquatic biology, fire management and the monitoring and reintroduction of threatened and endangered animal and plant species. Individual volunteers and volunteer groups participated in a large scale pineland and wetland prairie restoration projects; assisted in efforts to eradicate invasive plant species, worked in the recycling center, and completed a variety of facility and trail maintenance projects.

In 2009 long-term volunteers Jean and Rick Seavey were awarded the national George B. Hartzog Jr. Award for Outstanding Volunteer Service for their extensive research pertaining to botany and wildlife biology, their long-term work in the restoration of endangered ecosystems and for their consistent efforts in recruiting and engaging volunteers to assist in all aspects of their projects. Local PBS station WLRN created a ½ hour special highlighting Everglades volunteers, which was shown on local PBS television stations in conjunction with the Americas Best Idea series. Continuing efforts to expand the size and scope of the Volunteer Program and forge stronger bonds with community members, groups and educational institutions resulted in the establishment of the Python Patrol, to help control the invasive python species population, the Swamp Apes, a newly established trail maintenance crew, Nike Missile Base Site Stewards, who will lead tours and help maintain the Nike Missile Base, a Volunteer Native Plant Nursery Program and a volunteer-led Lichen Research team that will engage student interns and volunteers in lichen identification and research. In addition, the Miami based Mandarin Oriental hotel partnered with EVER to create a pilot Voluntourism program to engage guests in ½ day volunteer projects and park tours. The Artist in Residence in Everglades (AIRIE) program hosted ten artists. The AIRIE program also achieved tax-exempt status as AIRIE, Inc and had their first fundraiser to raise funds for future program enhancing projects, gallery shows and publications. In Florida Bay a team of volunteers constructed and installed markers in highly used boat channels to prevent continued loss of resources.

2009 7.2 Dry Tortugas

The Division of Visitor Services and Interpretation is responsible for creating opportunities for people to make intellectual and emotional connections to park resources, enhance understanding of the park, and foster an ethic of stewardship. The program oversees two visitor centers, two cooperating association bookstores; the interpretive effort provided by the CUA ferries, a thriving VIP program, serves as liaison to several partners, cooperating associations, and assists in maintaining the diverse IT infrastructure.

The Division of Interpretation at Dry Tortugas reached 214,139 in FY09, an increase from a recorded 130,000 in FY08. This figure reflects 114,692 visitors at the two visitor centers, 32,074 visitors attending formal programs and demonstrations, 54,252 visitors reached through informal interpretation, and 350 participants in the Junior Ranger program. 41,909 visitors viewed the park film, and more than 20,000 people were reached through the park webpage and new online underwater webcam that went online in August of 09.

In 2009, the Lead Interpretive Ranger position was filled for its entirety. The interpretive focus for FY 09 was two-fold; 1) provide personal services increasing visitor satisfaction and experience at the park through increased interactions, 2) explore new technologies and techniques to carry the story of the remote Dry Tortugas to a broader audience.

Personal services were addressed with increased day to day activities and NPS presence with cooperating associations' personnel and daily ferry visitors. This has resulted in a dramatic increase in Ranger contacts and formal and informal interpretive talks. This has also resulted in a marked improvement in the quality and accuracy of tours provided by ferry personnel.

Another significant accomplishment of the interpretive division in FY 09 was a partnership with the non-profit Save-A-Turtle organization for a new visitor center exhibit. The new exhibit is a freestanding scale model of a sea turtle nesting scene complete with a subterranean cutaway section displaying the hatching process. This is the first such model in the Visitor Center and the first new display at the fort in several years.

As proposed last year, two new technology based applications for the proliferation of the amazing cultural and natural resources of the Dry Tortugas was fielded and made successful at DRTO. Both projects rely upon using the wireless internet service utilized and paid for by park personnel for private use. The first is a partnership with a non-for-profit academic group, Teens-4-Oceans. The partnership is based around the operation of a wireless underwater camera, furnished by Teens-4-Oceans. In August of 2009, bandwidth upgrades in the Hughes Net satellite system and a general upgrade in the employees' internet infrastructure permitted students from Teens-4-Oceans to travel to the Dry Tortugas and install a custom built underwater web cam under the main dock of Fort Jefferson. This camera streams live video footage to the internet that can be viewed by visitors at home that are connected to the Internet. The project is designed to allow the students associated with Teens-4-Oceans to study the markings Goliath Grouper in an attempt to determine if they are unique to a particular member of that species. The beneficial by-product of this research is the ability for visitors at home to view the camera for recreational purposes. To date the camera is on average receiving 40,000 hits a month and has been a great success.

Working with Susan Teal of the Mediterranean Area, in conjuncture with the technological upgrades for the underwater webcam, is a wireless interactive Roving Ranger capability. In November of 2009 the Lead Interpreter at the Dry Tortugas participated in the annual national conference of the National Association of Interpreters via this interactive web based technology. Dry Tortugas was one of the hallmark presenters in the feasibility of this technology as it its remoteness accents the technology's ability to spread the mission of the parks far beyond that of their traditional mediums. As testing continues, this project could eventually connect the Interpretation of the Dry Tortugas to schools and partners all around the globe.

The Lead Interpreter functioned as a member of the NPS Submerged Resources Team that conducted underwater archeological condition assessments in July of 2009. This familiarity with such an underappreciated, yet significant resource of the park, will find voice of advocacy in future interpretive and educational programs

Other Significant projects: -

- Served as the NPS liaison with the Florida Keys Eco-Discovery Center and supervisor to NPS staff employed there. This major visitor facility now provides the only mainland based visitor contact station for Dry Tortugas National Park. Park staff worked with the Florida Keys National Marine Sanctuary, Fish & Wildlife Service, and

the South Florida Water Management District to open and operate facility. The role at this facility has increased with it reliance upon NPS staff for daily operations. Strategic scoping is currently underway to help continue development of this valuable resource.

- Improve park publications.
- Begin planning for creation of new interpretive division slated for funding in 2012.

DRTO GPRA Goals In April 2009 Visitor Survey Cards were distributed to a random sample of visitors to the park. All park facilities were open and accessible at the time of the survey. This survey was conducted to measure the park's performance related to NPS GPRA Goals IIa1 (visitor satisfaction) and IIb1 (visitor understanding and appreciation).

Goal IIa1: Visitor Satisfaction = 80%

This year 80% of park visitors were satisfied with park facilities, services, and recreational opportunities. Dry Tortugas fell short of GPRA Goal IIa1 by 15%. Many complaints stemmed from logistical issues such as the lack of public restrooms, noise from the park's diesel generators, and lack of commercial seaplane shuttle service. Park Service interpretive programs are available at best 30% of the year as there is only one position so there is not everyday coverage for the 7 day a week operation of the park. Additionally, the majority of visitors who arrived on the commercial CUA ferries, and received interpretive programs hosted by those cooperating associations. Significant improvement in Interpretive led programs is not anticipated until staffing is improved and a concessions contract is awarded. Non-personal interpretive media is slowly improving with new Visitor Center displays being emplaced after the survey period, improved and expanded multimedia, and a new park wide Interpretive Wayside plan is in development for upcoming years.

Goal IIb1: Visitor Understanding of Park Significance = 91%

This year 91% of park visitors understand and appreciate the significance of Dry Tortugas National Park. Dry Tortugas National Park has exceeded GPRA Goal IIb1 by 6%. A compilation of written responses from the Visitor Survey Card's is available. You can find specific comments in this document about the condition of park facilities, staff, and concession operations. The response rate for this survey was 21%.

DRTO Volunteer in Park Program The VIP program at the Dry Tortugas National Park saw marked improvement in FY 09 over years past. Hours of service jumped from 5,859 in FY 08 to 9,703 in FY 09. This increase occurred despite the closure of the remote Loggerhead Key VIP position for 3 months due to lack of water and electricity. The Loggerhead Key position is one of two standard recurring positions that are filled only with groups of two or more and for a standard month long rotation. These positions are critical to keep park operations running as staffing is extremely limited and demand for skilled workers to keep the complex infrastructure running is in high demand.

Other significant improvements include the appointment of two Assistant VIP Coordinators to assist in the screening and logistics of getting VIP's to the most remote National Park in the contiguous 48 states. The park's program was also fortunate to receive special onetime regional VIP funding through PMIS in the amount of \$9,600. These funds allowed for the purchase of a new \$7,000 John Deer Gator work vehicle to replace one that was lost to fire the previous year on Loggerhead Key. The remaining funds were used to purchase new furniture, cookware, uniform jackets and long sleeve shirts, flashlights, and a new park

service radio to improve communications and safety for VIP's as they work about the remote park.

VIP recruitment for the Dry Tortugas has been so efficient that all standard positions are filled until 2011 and a significant reservoir of qualified candidates has been created. Response has been so overwhelming that VIP recruitment for the Dry Tortugas has currently been stopped due to paperwork backlog.

2009 7.3 Partnership programs, community involvement, cooperative activities

2009.8 Concessions Management and Visitor Services

2009 8.1 Everglades Commercial Visitor Services

A new concessioner, Everglades National Park Boat Tours, Inc., was awarded the combined contract for Flamingo and Gulf Coast. The term of the contract for Flamingo is five years; and the term of the contract for Gulf Coast is 10 years. Most of the required services at Flamingo were available, with the notable exception of a mobile food service trailer.

TRF continued to provide commercial visitor services at Shark Valley through a contract continuation.

2009 8.2 Dry Tortugas Commercial Visitor Services

Offers on the ferry service contract between Key West and Dry Tortugas National Park were evaluated by a NPS panel in October 2008. The contract award process continued through 2009 at the Regional level.

Since the 30 Commercial Use Authorizations issued in 2008 had two year terms, no competitive selection process was necessary in 2009.

The Park determined that a concessions contract for seaplane services between Key West and Dry Tortugas National Park was not financially viable. Accordingly, an application package for a single CUA for seaplane services was released to the public.

Staffing for commercial visitor services at DRTO continues to be provided by EVER staff.

2009.9 Collections Management

The South Florida Collections Management Center is the central museum service provider for five south Florida NPS units (Big Cypress, Biscayne, DeSoto Dry Tortugas, and Everglades), functioning as an integral part of each park's and preserve's operations and programs. It provides high-quality, professional museum collection management services, ensuring preservation and accessibility in the most responsive, efficient and cost-effective manner possible. It is located in Everglades National Park, and all museum staff are Everglades employees, so achievements for all units served by the Center are described in this report.

FY2009 was a watershed year in the administration and management of the SFCMC. For the first time in the center's history, it received an ONPS base increase to support the multi-park museum program. This successful request had been submitted via De Soto National Memorial (DESO). DESO and the SFCMC were made aware that the base increase had

been received in April 2009. Given the late budget approval, Washington decided to split the \$377,000 base increase into FY2009 and FY2010 allotments. As a result, \$271,000 was received in FY2009, with \$77,000 of that amount staying at DESO to fund an education position. The remaining \$194,000 was permanently transferred to EVER for the SFCMC operating budget (less the Southeast Region's assessment of \$3,000). The remaining \$106,000 of the base increase will be received in FY2010.

2009 9.1 SFCMC Charter

Given the acquisition of the ONPS base increase described above, the SFCMC curator prepared amendment 2 to the SFCMC charter. This amendment outlines the history of the OFS request, financial management of the center, and responsibilities of the various SFCMC parks. The amendment was approved by the SFCMC board of directors and the NPS regional director.

2009 9.2 Budget & Fiscal Planning

SFCMC Base Funding

Prior to notification of the OFS base increase, the SFCMC parks had agreed to contribute toward the multi-park museum technician position at the center. However, this funding was no longer needed for FY2009 once the base increase was received. As such, it was "returned" to the parks for their use. Per the charter, the SFCMC curator's salary continued to be paid from EVER base funds. However, funds for archival supplies and other recurring costs received from EVER were "returned" to that park as well as the OFS request included funding for these expenses.

The SFCMC base budget in FY2009 totaled \$295,200, including the curator's salary and benefits (which remains funded via EVER ONPS base funds) and the SFCMC base increase. This figure represents over a 100% increase over the FY2008 base budget of \$145,800. This is a significant increase.

Given that the base increase was not received until over half of the fiscal year was over and it would take time to hire permanent positions, the SFCMC curator established a strategy for spending the lapse salary money for FY2009. To this end, she developed a strategy which would 1) improve infrastructure and the SFCMC's ability to meet programmatic challenges; 2) address unfunded conservation needs for museum collections; and 3) improve access to collections, particularly the archives.

These priorities resulted in several "big ticket" purchases or unfunded projects which would not have been possible without the base increase but which vastly improves the SFCMC's ability to care for its collections over the long-term. Examples of projects funded by these lapsed salaries are provided below:

Priority #1—Infrastructure

- New museum server, with 4 TB of memory and the ability to add an additional 6 TB over time (\$10,173.72);
- New tape backup system for the museum server (\$4,287.00);
- Commercial freezer for cold storage of acetate negatives (\$2,412.43);
- Digital video recorder (\$2,735.00);
- Upgrading environmental monitoring equipment to newest technology (\$3,611);

- Museum cabinets for objects, maps, and accession files at SFCMC and art storage racks for BICY (\$9,804.45); and
- Mobile shelving for the new “overflow” archives storage area at the Beard Center (\$6,879.78).

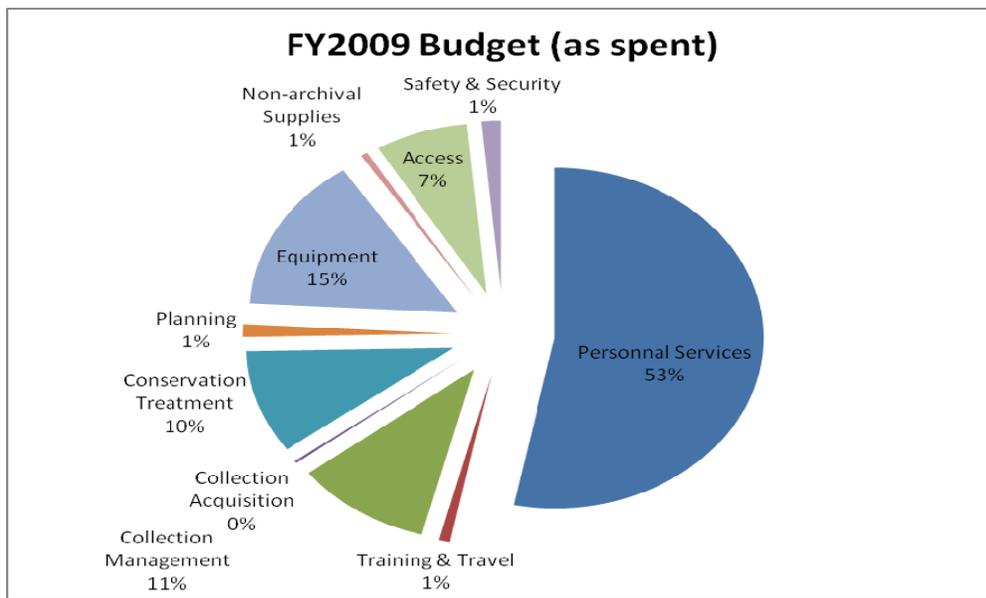
Priority #2—Conservation of Collections

- Preventive conservation of SFCMC wet specimens at Florida Museum of Natural History (\$7,475.00);
- Conservation assessment of BICY swamp buggy and logging generator (\$3,436.00);
- Conservation assessment of DESO mural (\$2,800.00);
- Conservation treatment of BISC Congressman Saylor photo album (\$3,495.00);
- Conservation treatment of SFCMC archival documents (\$12,695.00); and
- Conservation treatment of DRTO and BICY metal objects (\$2,980.00);

Priority #3—Improved Access

- Transcripts for oral history interviews from BICY, BISC, DESO, DRTO and EVER (\$6,392.00);
- 9-track tape data evaluation and conversion for EVER (\$2,500.00); and
- Large format color scanner for oversized maps, plans and drawings (\$11,359.00).

The listing above give some sense of the types of special projects or equipment which the SFCMC was able to purchase in FY2009 as a direct result of the OFS base increase received. In addition, funding was also spent on salary, supplies, and other equipment, among other categories. The chart below provides an approximate breakdown as to how the SFCMC’s \$295,200 base budget was spent by category in FY 2009.



NPS Project Funding

The projects below are those funded for the SFCMC parks in FY2009 through the PMIS process. These are project-specific accounts and the funds were expended towards accomplishing the specific projects only.

EVERGLADES NATIONAL PARK | 2009

Park	Amount	Purpose	Comments
BISC	\$20,000	Archives Backlog Cataloging	Salary for GS-7 museum technician (Ann Roos), plus supplies
DESO	\$23,000	Conserve 16 th Suit of Armor	ARRA Project
DRTO	\$19,500	Archives Backlog Cataloging	Salary for term GS-11 archivist (Bonnie Ciolino), plus supplies
DRTO	\$18,000	Conserve Military Artifacts	Obligated under conservation CA to conserve objects on exhibit
DRTO	\$75,000	Conserve 2 Rodman Cannon	Obligated under conservation CA
DRTO	\$324,260	Mount Rodman Cannon on Repro Carriage	Contracted for March 2010 installation
DRTO	\$51,000	Develop Alternative Cannon Mounting System	Obligated under IDIQ and conservation CA
DRTO	\$28,000	Replace Exhibit Cases	ARRA Project
EVER	\$35,000	Archives Backlog Cataloging	Salary for term GS-11 archivist (Bonnie Ciolino), plus supplies
EVER	\$30,000	Archives Backlog Cataloging	Salary for GS-7 museum technician (Siobhan Millar) and GS-11 archivist (Bonnie Ciolino), plus supplies
EVER/SFCMC	\$8,000	Conserve Photographs	Obligated under IDIQ via HFC
EVER/SFCMC	\$8,725	Duplicate Acetate Negatives	Contracted
TOTAL	\$640,485		

In addition, the SFCMC curator's PMIS project to install fire suppression in the museum and archives storage area was approved for \$282,385. This project is two-year repair/rehab funding and EVER maintenance staff has the lead for this project.

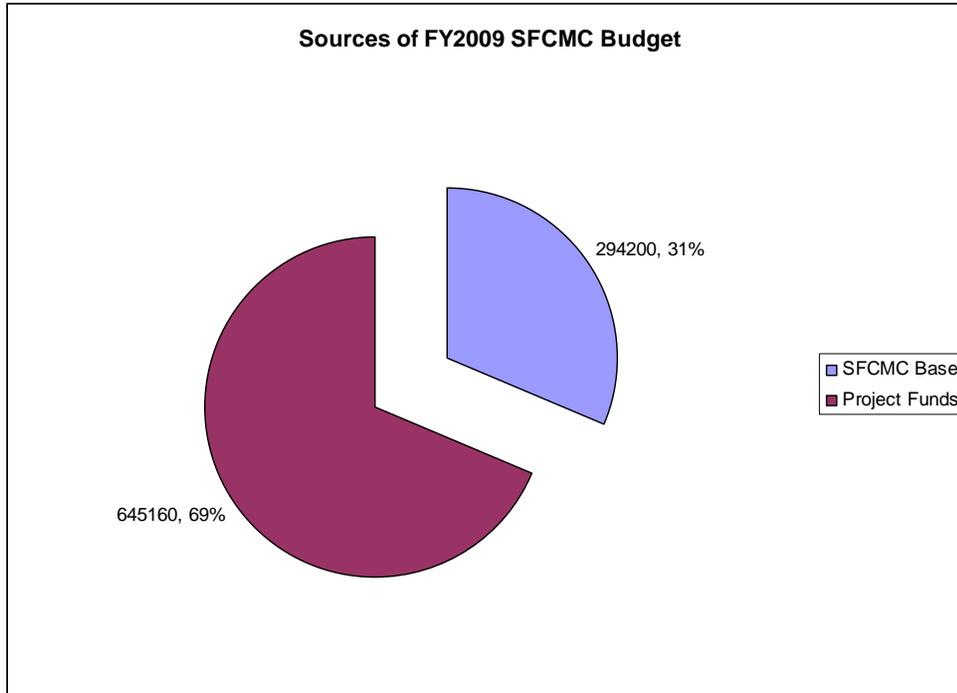
Other Fund Sources

In addition to the ONPS and PMIS project funding described above, the SFCMC received a grant from the South Florida National Parks Trust. This grant totaled \$4,675 and is for a conservation assessment and exhibit recommendations for a Cuban chug at DRTO.

Total FY2009 Funding

The total new funding utilized by the SFCMC in FY2009 from all sources was \$940,360. The funding for the fire suppression systems is not included here because that money was not expended in FY2009. This figure represents the highest budget for the SFCMC in any given year since its inception. It is a 90% increase in funding above the total funding utilized from all sources in FY2008 (\$496,155).

As the chart below indicates, even with the ONPS base increase, the SFCMC base funds accounted for only 31% of expended funds in FY2009; 69% of available funding was received through the PMIS process and grants. This figure does not fully reflect the added benefit of the OFS base increase due to the fact that the SFCMC curator was very successful in acquiring additional funding. As this chart illustrates, however, the ONPS base increase does not negate the need to continue to actively seek additional project funding to benefit the SFCMC museum program and parks' collections.



PMIS Project Revisions (Objectives 5.1 & 5.2): The SFCMC curator and archivist prepared and/or revised existing project statements in the Project Management Information System (PMIS) for the Service-wide Combined Call for BICY, BISC, DESO, DRTO and EVER. In particular, the SFCMC curator invested considerable effort in revising the line-item construction project statement for a new museum storage and exhibition facility.

2009 9.3 SFCMC Staff

As noted above, FY2009 was an important year for the SFCMC. The ONPS base increase received in FY09-FY10 will enable the museum program to be fully funded for the first time in its history.

The SFCMC curator dedicated a great deal of thought to the staffing plan and how to make the most effective use of these funds while ensuring the greatest programmatic flexibility. The intention was always to use these funds to hire the four positions identified as needs in the South Florida Parks Collections Management Plan (2007)—a permanent GS-11 archivist, permanent GS-9 registrar, permanent GS-7 museum technician and permanent GS-7 archives technician. Each of these positions is desperately needed. However the curator was acutely aware of the fact that permanent positions become increasingly more expensive over time, as cost of living and mandatory step increases take effect. This is of particular concern given that the four new positions would be hired through EVER, meaning that EVER would eventually have to absorb these costs.

To ensure that the SFCMC is as self-sufficient as possible and to retain management and budget flexibility, the SFCMC curator decided to hire the GS-7 archives technician position as one which is subject to furlough (furlough up to six months). This is not to say that the SFCMC does not need this position in a full-time capacity. However, the SFCMC continues to obtain significant sums in archives backlog cataloging and that is likely to continue into the future. In addition, the Southeast Region implements archives backlog cataloging projects which can pay salary as well as travel and per diem. It made the most logical sense, therefore, to make the archives technician position subject to furlough because other

sources of funding would enable the SFCMC to limit the furlough period for the smallest period of time in any given year.

Meanwhile, the ability to use the subject to furlough position for projects provides three important benefits. First, it provides the SFCMC curator with the budgetary flexibility to meet other program needs and to absorb cost of living and step increases for at least the next five years. Second, utilizing the SFCMC archives technician for these projects eliminates the need to hire and train new staff for small and/or short-term projects, which greatly reduces administrative overhead and project start up time. Finally, with ongoing space constraints within existing facilities, work space is critical and this strategy eliminates the need to hire some (although not all) seasonal staff, which then must have adequate work space.

By the end of FY2009, only the permanent archivist and archives technician positions had been hired. It will be critical that the registrar and museum technician positions are filled quickly in FY2010. Given that these individuals will likely be new to the SFCMC, the curator expects that considerable efforts will be needed in FY2010 to familiarize them with the collections, center, and policies. The SFCMC staffing for FY2009 consisted of the following:

GS-12 Museum Curator: Nancy Russell continued to serve as the multi-park curator. August 2009 marked her 7th year in that position.

Term GS-11 Archivist This GS-11 term position was held by Bonnie Ciolino (nee Grysko) and funded through backlog cataloging program funds. FY2009 marked the second full year that the SFCMC benefitted from Ms. Ciolino's role as the archivist. Ms. Ciolino was hired as the permanent GS-11 archivist in FY2009 but she did not begin in that role until September 27, 2009. Therefore, she served as the term archivist for almost all of FY2009.



SFCMC GS-7 Museum Technician This GS-7 temporary position was funded through the ONPS base funds and the backlog cataloging program. The position was held by Siobhan Millar, and worked as the multi-park technician. Ms. Millar has worked as a museum technician at the SFCMC since May 2007.

BISC Temporary GS-7 Museum Technician This GS-7 temporary position was funded through the backlog cataloging program. The position was held by Ann Roos, from October 1, 2008-February 27, 2009. Ms. Roos had worked at the SFCMC since May 2008.

2009 9.4 Volunteers and Interns

A total of 2,543.5 volunteer hours were contributed to the SFCMC by seven interns and volunteers in FY2009. This figure represents 63.6 weeks of time and is a 37.9% increase over the 1,844.5 volunteer hours received in FY2008.

The SFCMC's 2009 volunteers and interns are detailed below.

Internships

Four paid internship positions were filled in FY2009. These internships were advertised through the National Center for Preservation Education (NCPE) and through direct advertising to archives programs at universities around the country.

During the fall semester, one internship position was filled by Isabel Villarnovo. Ms. Villarnovo had previously served two internships with the SFCMC and had been converted to a STEP position until she graduated in August 2008. Following two 30-day emergency hire positions which ended in mid-October 2008, Ms. Villarnovo completed another internship, the last for which she was eligible under the NCPE program. Unfortunately, at the time Ms. Villarnovo's internship ended in December 2008, the SFCMC was not in a financial position to advertise another temporary or any of the permanent positions for which she may have qualified. As a result, the SFCMC lost an excellent worker and valuable member of the team.

Ms. Villarnovo's contributed 150.25 hours to the SFCMC in FY2009. The primary focus was to complete the museum move and inventory, following the FY2008 rehabilitation of the museum storage area. She also conducted museum registration functions, coordinated with research permittees, and completed museum housekeeping, environmental monitoring and IPM activities.

A winter internship was completed by Diane Petro, a graduate student in the distance learning program at the University of South Florida, working towards an MLS degree with a concentration in archives and records management. Ms. Petro contributed 483.25 hours in FY2009. The internship focused on backlog cataloging of EVER archival collections. In twelve weeks, Ms. Petro processed, arranged, described and cataloged EVER alligator records totaling 1.25 LF while also inventorying an additional 24 LF and processing 7.5 LF of material from the DRTO tern research project records. She also assisted with environmental monitoring, housekeeping, and integrated pest management at the archives.

Two summer internships were completed as well. Kathryn Brooks and Tiffany Shropshire were both students seeking MS degrees in information science, with an archives concentration, at the University of Texas at Austin. Each contributed 480 hours in FY2009. Together, Ms. Brooks and Ms. Shropshire processed, arranged, described, and cataloged c. 23 LF of archives from the EVER public affairs office. They also assisted with environmental monitoring, housekeeping, and integrated pest management at the archives.

Volunteers

Jean Schardt continued to serve as the museum's lead volunteer, working consistently throughout the year. August marked Ms. Schardt's four-year anniversary with the SFCMC. She contributed 444.75 hours or over 2.7 months in 2009. Her projects included scanning the Biscayne archeology slides, making mounts for objects, and helping with the museum move project.

Davina Wong, a graduate student at Florida International University, began volunteering at the SFCMC in April 2009. Ms. Wong received course credit towards her graduate certificate in museum studies for her volunteer internship. She worked 10



hours per week at the SFCMC, contributing 250.5 hours in FY2009. Ms. Wong worked on a variety of projects, including creating accession records, researching and cataloging artwork, annual inventory of museum property, rehousing tree snails, and creating mounts for bottle collections. Ms. Wong extended her internship and we are pleased to continue working with her into FY2010.

Meg Kaplan, a graduate student at Florida International University, began volunteering at the SFCMC in May 2009. Ms. Kaplan received course credit towards her graduate certificate in museum studies for her volunteer internship. She contributed 171.75 hours in FY2009. The focus of Ms. Kaplan's internship was to prepare a new draft scope of collection statement for DESO. The draft SOCS has been reviewed by the SFCMC curator and edited. It was sent to DESO staff for review and comment and it will be completed in FY2010.

Returning volunteer Andrew Nevel contributed 64 hours volunteering in the research library before other commitments prevented him from volunteering additional time.

Salvatore Ciolino, the SFCMC archivist's husband, volunteered for the archives during Ms. Ciolino's recuperation from a car accident. Mr. Ciolino contributed 19 hours to the program and his efforts focused primarily on assisting the archivist with moving and lifting boxes in archives storage.

2009 9.5 Training & Professional Development

Training continued to be offered at the SFCMC, as time, resources, and project funding allowed. SFCMC staff participated in the following training during FY2009:

- **Contracting Officer's Representative Refresher**_The 24-hour training was attended by Nancy Russell and Bonnie Ciolino in January 2009.
- **Agreements Representative Refresher**_This 8-hour training was completed by Nancy Russell in January 2009.
- **Hurricane Preparedness & Archives Salvage Training**_Nancy Russell provided on-site training for museum staff in SFCMC hurricane preparedness. This 3-hour training consisted of discussion, lecture and hands-on salvage of water damaged archival materials. It was attended by Bonnie Ciolino, Siobhan Millar, Kathryn Brooks, Tiffany Shropshire, Davina Wong, Meg Kaplan, and Jean Schardt in June 2009.
- **Fire Extinguisher Training**
Fire extinguisher training on a live fire was conducted in July 2009 by EVER Ranger Bruce Gantt. It was completed by Nancy Russell, Bonnie Ciolino, Siobhan Millar, Jean Schardt, Davina Wong, Kathryn Brooks, and Tiffany Shropshire.



- **IDEAS Training:** This 16-hour training was completed by Nancy Russell in July 2009.
- **Archives Hierarchies** This informal 3-day training/discussion was held between NPS chief archivist John Roberts and SFCMC staff Bonnie Ciolino and Nancy Russell in September 2009. Although Mr. Roberts did present Powerpoint® presentations about archives methodology, the main focus of the visit was a practical review of existing SFCMC archives cataloging and establishing collection hierarchies to move the archives program forward now that a permanent archivist has been hired.
- **Exhibit Mount Making Workshop** This 6-hour course was presented by John Maseman, private conservator, in Orlando, FL. It was attended by Nancy Russell in September 2009.
- **Incident Command Training** The online training course IS-100 Introduction to Incident Command was completed by Davina Wong, Meg Kaplan, Kathryn Brooks, and Tiffany Shropshire.
- **Required NPS Training** All museum staff completed the required 2009 *IT Security Awareness, Computer User Responsibilities, Records Management and Privacy Act* on-line training courses.
- **SFCMC Archives Processing Manual** This manual was updated by Bonnie Ciolino and Nancy Russell and serves as a reference guide for SFCMC procedures and practices.

JICA CMP Development The SFCMC curator participated on the collection management plan (CMP) team for Jimmy Carter National Historic Site in March 2009. Involvement included evaluation of the parks' planning, programming and staffing needs and writing the corresponding chapter and related appendices for the CMP.

GRSM CMP Development: The SFCMC curator participated on the collection management plan (CMP) team for Great Smoky Mountains National Park in April 2009. Involvement included evaluation of the parks' planning, programming and staffing needs and writing the corresponding chapter and related appendices for the CMP.

A Continued Resource for other NPS units and the Southeast Regional Office, when requested. Some of the parks that requested technical assistance, advice, or sample documents from the SFCMC in 2009 included Virgin Islands National Park, Canaveral National Seashore, Andersonville National Historic Site, Shenandoah National Park, Glacier National Park, Big Southfork National Recreation Area, and Grant-Kohrs Ranch National Historic Site, among others.

2009 9.6 Partnerships

FLMNH Cooperative Agreement The cooperative relationship between the SFCMC and the Florida Museum of Natural History (FLMNH) at the University of Florida continued in FY2009. SFCMC staff supported implementation of this 25-year cooperative agreement by providing access to collections, programmatic support, additional funding, data, and other information requests. The details of this project are discussed elsewhere in this report.

Tuckerbrook Conservation Cooperative Agreement The SFCMC developed a new 5-year cooperative agreement with Tuckerbrook Conservation, LLC in FY2009. The CA provides for conservation assistance, particularly relating to metals conservation. Although the focus of the cooperative relationship is the cannon work being conducted at DRTO, the CA was written to provide conservation assistance to all SFCMC parks, if funding is available.

2009 9.7 Planning Efforts

Effective short- and long-term planning continues to be a priority for the SFCMC. Efforts in FY2009 focused on completing outstanding planning efforts, as well as creating additional plans. These are described below.

Continued Planning Efforts

Museum Emergency Operations Plan The MEOP for the SFCMC parks is still in preparation by Carol Ash, museum curator with the SERO Museum Services Program. Additional efforts devoted to this plan in FY2009 included a site visit by Ms. Ash, who worked closely with the SFCMC curator to update information and develop a preliminary draft of the plan. The SFCMC curator also completed risk assessments and developed lists of objects for salvage priorities. It is expected that this EOP will be completed in FY2010.

SFCMC Archives Processing Manual The SFCMC archivist and curator completed revisions to the processing manual during FY2009. This manual is used extensively in seasonal training.

SFCMC Integrated Pest Management Plan Funding was received in FY2008 to contract for preparation of an Integrated Pest Management Plan. Barbara Cumberland, a conservator with Harpers Ferry Center conducted a site visit in July 2008. SFCMC staff reviewed and commented on the draft plan and the final plan was completed in summer 2009.

New Planning Efforts for FY 2009

SFCMC Preventive Conservation Plan The SFCMC curator completed a major revision to the 2007 Preventive Conservation Plan. These revisions were necessitated by the museum storage rehab, installation of desiccant systems, acquisition of different environmental monitoring equipment, and other changes which had occurred since the original plan was completed. The revised Preventive Conservation Plan was completed in September 2009.

DESO Scope of Collections Statement Museum volunteer Meg Kaplan and SFCMC curator Nancy Russell worked together to complete a draft SOCS for DESO, which is the last SFCMC park which needed to have its SOCS updated. The draft

was submitted to DESO staff in September 2009 for review and comment. It is anticipated that it will be approved in FY2010.

DRTO Alternative Cannon Mounting Plan The SFCMC curator received funding to complete an alternative mounting plan for the DRTO cannon which will not be mounted on full reproduction carriages. A contract was awarded for this project and former SER Chief of Museum Services (now retired), Allen Bohnert, will complete this planning document in FY2010.

2009 9.8 SFCMC Collection Growth, Management and Use

Collection Growth & Development

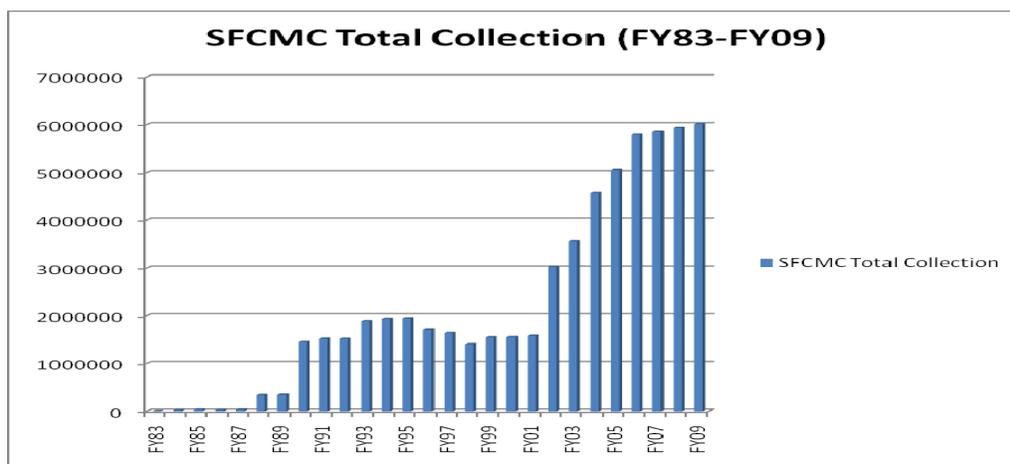
Museum Accessions SFCMC park museum collections continued to increase in FY2009. The total multi-park collection size as managed by the SFCMC is 6,011,866. The following table provides information regarding the total size and the collection growth rates for each park unit.

Park Unit	FY08 Total	FY09 Total	FY09 Increase	% Increase
BICY	2,307,143	2,308,545	1,402	0.001
BISC	851,413	855,409	3,996	0.005
DESO	96,381	98,792	2,411	0.025
DRTO	312,970	319,285	6,315	0.020
EVER	2,420,886	2,429,835	9,095	0.004

As the figures above indicate, the SFCMC parks are reaching a more sustainable level of growth, compared to that large increase seen between FY2002-FY2006. The SFCMC staff has made considerable effort over the past seven years to gain accountability of the large backlog of museum collections generated by the SFCMC parks. This work is by no means over.

Managers at each park should continue to expect collection growth. DESO has yet to have a park-wide archives survey but, when funded, the archives will increase dramatically for that unit. Although archives identified during the park-wide archives surveys for BICY, BISC and DRTO have already been accessioned, those collection estimates will be refined as the collections are processed and cataloged in the coming years. Only a portion of the archives identified in the EVER park-wide archives assessment is actually reflected in that park's total collection size. Moreover, additional collections will continue to be generated, increasing the collection size for all five park units serviced by the SFCMC. Future efforts to capture additional archives (resource management records) and natural science specimens which already exist will increase collections sizes in those disciplines for each park as well.

The graph below illustrates the trend in SFCMC collection growth from FY1983 through FY2009. Collections sizes first begin to increase in FY1988, which coincides with the hiring of Jonathan Bayless as the first curator. The decrease in collection size from FY1995-FY2000 is likely a reflection of reporting problems (including failure to enter accession records and item counts into ANCS) created during Walter Meshaka's tenure as curator. The rapid increase from FY2002-FY2006 is the result of correction of those previous reporting problems, as well as significant accessioning of archival collections.



Museum Collection Accountability & Cataloging

Museum Accessions The museum collections from the SFCMC park units continued to grow in FY2009. The park units are required to prepare museum accession documentation, which documents legal title to museum collections. The SFCMC conducts all museum accessioning for the five parks. The table below illustrates the increase in accessions in FY2009.

Research Permit Reporting System (Objective 1.1) The SFCMC has developed procedures to integrate with the Research Permit Reporting System (RPRS) to ensure that every research permit issued in a park is assigned a museum accession number. This system has been in place for EVER and DRTO since 2003. BICY fully implemented these procedures in 2005. BISC fully implemented these procedures in 2007. Currently, DESO does not have a very active research permitting system but the few projects that it does permit should be accessioned as part of the permitting process.

Backlog Cataloging

BICY, BISC, DRTO and EVER received backlog cataloging funding in FY2009 to catalog the backlog of collections for each park unit. In the remaining three cases—BISC, DRTO, and EVER—funding was dedicated for cataloging archival collections.

Due to the national requirement that the NPS reduce its backlog of uncataloged objects, each region is now required to increase the percentage of museum collections that are cataloged by 2.5% annually. This 2.5% figure does not take into account the fact that not all parks have staff to devote to cataloging and do not receive backlog cataloging funds.

As such, the local FY2009 backlog cataloging goals for the SFCMC were established based on the anticipated backlog cataloging funds and complexity of the collections to be cataloged, using Southeast Region cataloging costs for archives. The hope was to exceed the cataloging goals to ensure that the SFCMC parks, as a group, met the backlog cataloging goals. Since the results are reported at the regional level, the emphasis can be less on individual parks and include results for the SFCMC as a unit. The FY2009 results are presented in the table below.

Park	Backlog Funding	WASO Annual Goal	SFCMC Annual Plan Goal	FY09 Result	Comment
BICY	\$15,000 ¹	36,896	0	13,230	Most FY09 cataloging completed by SEAC
BISC	\$20,000	16,417	18,018	19,744	Mostly archives but includes 163 biology and 59 archeology specimens
DESO	\$0	307	0	31	Archives cataloging
DRTO	\$19,500	3,391	17,568	95,467	Includes archives, archeology, history and biology
EVER	\$65,000	32,003	58,559	125,166	Includes archives, art and biology cataloging at SFCMC and archeology at SEAC
TOTAL	\$119,500	89,014	94,145	253,638	

These funds were provided directly to SEAC. It was anticipated that SEAC would conduct cataloging with the funds that they receive for BICY so the SFCMC goal was zero.

The requirement from WASO is that the parks reduce the backlog by 2.5% and catalog all new acquisitions. Although it is not possible for the SFCMC to catalog all new acquisitions due to staffing issues, it is possible to exceed the backlog cataloging goals to ensure that the totals for new acquisitions are also addressed. In FY2009, the SFCMC accessioned an additional 23,059 items. When added to the 89,014 items to meet the 2.5% goal, the total which needed to be cataloged was 112,073. Due to the efforts by SFCMC and SEAC staff, the 253,638 items cataloged in FY2009 vastly exceeded both the new acquisitions and 2.5% backlog combined.

Inventory Projects

In addition to the required Annual Inventory of Museum Property, SFCMC staff inventoried the remainder of the museum collection following the museum rehabilitation and move. Object locations were updated in ANCS+ to reflect the new storage furniture and numbering system. Inventory was conducted and object locations were also updated as a result of ongoing collection management projects, such as rehousing the tree snail and bottle collections.

Collection Research & Use

Outgoing Loans SFCMC collections continue to be utilized for research and exhibition. In addition, the SFCMC continues to place collections on loan to the Southeast Archeological Center and the Florida Museum of Natural History for storage purposes. A summary of the active outgoing loans in FY2009 is presented in the table below.

Park Unit	FY08 Loans Prepared (new and backlog)	Other Continuing Loans	Total Documented Active Loans ¹
BICY	0	18	18
BISC	3	31	34
DESO	0	15	15
DRTO	2	24	26
EVER	6	24	30
SFCMC	11	112	123

Summary of Active Loans in FY2009

¹ This figure does not include the backlog of undocumented loans. This backlog includes some loans to SEAC, plus the natural history specimens collected under permit and taken to other institutions for all five units.

Researcher Access The number of research requests received from each park unit is detailed below. There was a 19% increase in the number of researcher access requests for SFCMC collections over the FY 2008.

Park Unit	Park Requests	External Requests	Total Requests
BICY	5	17	22
BISC	9	14	23
DESO	8	1	9
DRTO	16	27	43
EVER	225	86	311
SFCMC Total	263	145	408

FY2009 Research Requests

2009 9.9 Annual Reporting

The SFCMC continued to complete the required NPS annual reporting for the five center park units. All reports were completed by the required deadlines.

Annual Inventory of Museum Property SFCMC staff completed and submitted the Annual Inventory for BICY, BISC, DESO, DRTO and EVER.

Museum Collection Protection and Preservation Program (MCP) Checklists The SFCMC curator completed and submitted the FY09 MCP Checklists by the reporting deadline. The FY09 progress and improvements are discussed in the "Preventive Conservation" section below.

Collection Management Reports The SFCMC curator prepared and submitted the FY09 Collection Management Reports (CMRs) for BICY, BISC, DESO, DRTO and EVER by the September 15, 2009 reporting deadline. The FY09 collection growth and cataloging progress are discussed in the "Collection Growth and Development" and the "Museum Collection Accountability and Cataloging" sections above.

National Catalog Record Submission The SFCMC curator prepared and submitted the National Catalog submission for BICY, BISC, DESO, DRTO and EVER for the September 15, 2009 deadline.

Service-wide Combined Call The SFCMC curator and archivist responded to the Service-wide Combined Call (SCC) for BICY, BISC, DESO, DRTO and EVER, preparing and/or revising PMIS projects for the five parks.

Other Reporting Requirements The SFCMC curator completed the appropriate completion reports for funded projects in the Project Management Information System (PMIS).

2009 9.10 Preventive Conservation

Efforts were made in FY2009 to improve the number of professional standards met on each park unit’s Museum Collection Protection and Preservation (MCPPP) Checklist. Work in FY2009 focused on completing the storage upgrades at the Beard Center, following the FY2008 rehabilitation project, which improved collection storage and preservation for the collections from all five parks. In addition, an Integrated Pest Management Plan was completed and the Preventive Conservation Plan updated. Additional details of project-funded activities are presented below. A summary of the GPRA Goal 1a6 results, recorded as the percentage of professional museum standards met, are presented in the table below. When viewed as a complete unit, the SFCMC currently averages 63.17% of museum standards met across all five parks.

Park Unit	FY2008 Baseline	FY2009 Goal	FY2009 Result	FY2008 Goal Result
BICY	61.64%	63.01%	64.38%	Exceeded
BISC	61.76%	61.76%	70.59%	Exceeded
DESO	60.00%			Achieved
DRTO	57.31%	59.76%	60.98%	Exceeded
EVER	71.65%	74.87%	76.47%	Exceeded

Summary of FY2009 MCPPP Checklist Standards Met

Environmental Monitoring SFCMC staff continued the environmental monitoring program in FY09. Monitoring of temperature and relative humidity continued at the Beard Center and Robertson Building, EVER Flamingo Museum, EVER Headquarters, DRTO Visitor Center, DESO Visitor Center, BICY Oasis Visitor Center, and the BICY archives processing room. New PEM2 dataloggers were purchased to replace the ACR dataloggers. Additional PEM2 loggers were purchased to provide for environmental monitoring at BICY and BISC Headquarters as well.

Light monitoring was conducted when staff was available. Specific locations included the EVER archives storage areas, EVER Flamingo Museum, and the visitor centers at DESO and DRTO.

Integrated Pest Management (IPM) activities and museum housekeeping continued at the Beard Center and Robertson Building storage areas. An increase in base funding for staffing enabled Museum Technician Siobhan Millar to begin conducting monthly housekeeping, environmental monitoring, and IPM at the Flamingo Museum beginning in May 2009. Due to lack of staffing, however, IPM and weekly housekeeping did not occur at the BICY Archives Processing Room. Lack of staffing prevented regular IPM and museum

housekeeping activities on the appropriate monthly or weekly schedule at most of the other remote locations.

2009 9.11 Storage Improvements

Facility Issues & Space Constraints

The renovation of the museum storage space at the Daniel Beard Center in FY2008 has been a huge step forward for the preservation of the collections and for improved staff working environments. The renovation provides an additional 5-7 years of storage space for the object and specimen collections. The archives storage space at the Robertson Building, however, continues to be too small to accommodate the rapidly growing archival collections. In addition, it lacks enough staff work space to appropriately work with the collections and for researchers to utilize the collections. Without additional storage space, the archival collection storage space will likely run out of shelf space for boxed archives in FY2009. Although the long-term solution is a purpose-built new museum facility, the short term situation is critical. Additional space is desperately needed for archives storage and staff work space in the interim. This will require additional support from park managers as reallocating space is a contentious issue everywhere.

Installation of Beard Center Compactor Storage Unit #2 Funding was received in FY2008 to install a second compactor storage unit in Room A at the Beard Center storage area. This project was designed to be completed in conjunction with the rehabilitation of the museum storage area. The contract was awarded to Professional Filing Systems, Inc. and the system was designed by the SFCMC curator to house oversized and heavy artifacts, as well as the tree snail collection, bottle collection, and miscellaneous other artifacts. A cantilever rack was utilized for the heavy and long artifacts such as DRTO structural pieces and the EVER and BISC canoes. This system was installed in November 2008 following completion of the museum storage area renovation.

Development of Archives “Overflow” Storage Area. As noted in previous SFCMC annual reports, the program was reaching a critical juncture in terms of available archives storage. To alleviate this situation until a new museum storage facility can be constructed the SFCMC curator negotiated with the South Florida Natural Resources Center (SFNRC) to obtain additional space at the Beard Center. In the end, it was decided that the SFNRC would provide an additional office, into which the curator would move. This would make her previous office, located adjacent to the existing storage area, available for archives storage. The curator designed the storage area to utilize Metro QuikTrak® moveable storage shelves, enabling storage for an additional 277 boxes of archives. The storage furniture was purchased in FY2009 with the SFCMC’s ONPS base increase. The curator moved from this office in September 2009 and its full utilization as the archives “overflow” (also called DBC, ROOM C) storage will occur in FY2010.

Acquisition of New Storage Furniture Additional map cabinets were purchased in FY2009 for installation on the new compactor storage unit. These units provided an additional 30 drawers of flat storage space. Other cabinets purchased include two half-height cabinets to replace older ones at the Beard Center. These cabinets were all purchased with SFCMC ONPS base funds.

Tree Snail Storage Project Siobhan Millar and Davina Wong completed a new storage area for the Florida tree snail collections, which begun as part of the museum move. Prior to

the move, the tree snails had been inappropriately housed in insect drawers, were overcrowded, and often contained in non-archival bags. Ms. Millar and Ms. Wong moved the tree snails into new polypropylene boxes with interior dividers to prevent shifting and overcrowding. The collection continues to be housed by collector with the exception of the type specimens which were brought together in a single box to facilitate emergency evacuation and/or salvage.

BISC, DRTO and EVER Bottle Storage Project Siobhan Millar, Davina Wong, and Jean Schardt completed new storage areas for the bottles from BISC, DRTO and EVER. These bottles have been inappropriately stored since the late 1980s. The new mounts and storage containers ensure that these artifacts will be protected against damage while making the most of available storage space. This storage project will continue into FY2010.

2009 9.12 Conservation Treatment Projects

BICY Swamp Buggy & Logging Generator Assessments Using SFCMC ONPS base funds, the SFCMC curator contracted for preparation of condition surveys and treatment proposals for the swamp buggy and logging generator at Big Cypress National Preserve. The contract was awarded to Brian Howard & Associated in September 2009. The site visit is scheduled for October 2009.

BICY Logging Saw Conservation Using SFCMC ONPS base funds, the SFCMC curator contracted with the Maryland Archeological Lab for conservation treatment of the logging saw from the BICY museum collection. This object has been requested for use in the new welcome center exhibits and required treatment before exhibition. The contract was awarded in September 2009. The object will be shipped to the lab in October 2009 for treatment in FY2010.

BISC Congressman Saylor Photo Album Using SFCMC ONPS base funds, the SFCMC curator contracted with the Northeast Documents and Conservation Center to conserve the photo album documenting Congressman Saylor’s visit to Biscayne Bay in advance of the legislation to establish the monument. The album was shipped to the NEDCC in FY2009 but treatment will not be completed until FY2010.

DESO Armor Conservation Using funding received from the American Recovery Act (ARRA), the SFCMC curator utilized an existing IDIQ contract to hire conservator Ted Monnich to conduct conservation treatment of the DESO armor and mail shirt. This treatment includes making a new mannequin for the armor to facilitate hurricane evacuation. The armor was shipped to the conservator in September 2009 for treatment in FY2010.

DESO Mural Conservation Assessment Using SFCMC ONPS base funds, the SFCMC curator contracted with George Schwartz of ConservArt, Inc. to conduct a conservation assessment and treatment proposal for the 1969 Dan Feaser mural of De Soto and his men, which is on exhibit at the park’s visitor center. This survey occurred in



September 2009. The treatment proposals will be received in FY2010.

DRTO Cannon Conservation

Tuckerbrook Conservation, LLC and the SFCMC curator spent 23 days at DRTO in February 2009, conducting conservation treatment of two 25-ton Rodman cannon. Re-treatment (i.e. coating touch ups) of the cannon on Bastion 4 (treated in 2007) also occurred. This trip represented the 2008 work which had to be cancelled due to a lack of housing and the museum rehab project. In addition, FY2009 cultural cyclic funding to conduct conservation treatment of two more Rodman cannon was obligated under the new cooperative agreement with Tuckerbrook Conservation. This work will be completed in February 2010.



DRTO Military Artifact Conservation FY2009 cultural cyclic funding was received to treat the military artifacts on exhibit at Fort Jefferson. These include the 3 original slide carriages, 3 cannon balls, and 2 projectiles. This funding was obligated under the cooperative agreement with Tuckerbrook Conservation LLC and the work will be conducted in FY2010.

DRTO Metal Artifacts Conservation In FY2008, funding was received to catalog the only surviving piece of a top carriage for a Parrott gun carriage from Fort Jefferson. A contract was awarded to the Maryland Archeological and Conservation Center to treat the object. Additional funding was available and used to treat a catwalk brace from Fort Jefferson and a rudder from a Cuban chug. These three artifacts were crated and sent to the lab in December 2008 and treatment will occur throughout FY2009. The objects will be returned in FY2010.

DRTO Cannon Retreatment: During the museum move for the renovation project, the movers dropped one of the small cannon/swivel guns from DRTO. The damage to the object included both structural damage and disruptions to the conservation coatings. The move company's insurance policy paid the park for conservation treatment. The object was sent to the Maryland Archeological and Conservation Lab in December 2008. Treatment will occur throughout FY2009 and the object will be returned in FY2010. The conservator at the lab reports that the swivel gun is much smaller than it appears to be because of the heavy coatings applied during previous treatment at the Florida State Lab. She also reports that because of this deep coating, there was no structural damage to the swivel gun once they were able to get beneath the coatings.



DRTO 16th Century Cannon Treatment Using SFCMC ONPS base funding, the SFCMC curator contracted with the Maryland Archeological Lab to retreat the cannon, which is believed to be one of the earliest ever found in Florida waters. The cannon exhibit active spalling and corrosion, indicating that not enough chloride was removed during initial electrolysis by the Florida State Lab. The contract was awarded in September 2009 and it will be shipped to the lab for treatment in early FY2010.

EVER Slide Conservation Funding was received in FY2008 for conservation treatment of mold-stained and water damaged slides from the fire ecology slide collection. A contract was awarded to Tram Vo Art Conservation and the slides were sent for treatment late in FY2008. The slides were treated in early FY2009. They were returned in March 2009.

SFCMC Photograph Conservation FY2009 cultural cyclic funding was received to provide for conservation treatment of photographs in the SFCMC's collection, as recommended in the 2005 Photograph Collection Condition Survey. The SFCMC curator utilized an existing IDIQ contract which Harpers Ferry Center has for photo conservation and the contract was awarded in FY2009. The photographs will be sent for treatment in October 2009.

SFCMC Acetate Duplication Project FY2009 cultural cyclic funding was received to begin making polyester duplicate negatives for deteriorating acetate negatives in the SFCMC collections. The SFCMC curator contracted with Chicago Albumen Works to complete this project and sent 440 negatives to them in August 2009 for duplication. This work will be completed by November 2009; however, additional funding to continue duplicating acetate negatives is expected in FY2010.

SFCMC Paper Conservation Using SFCMC ONPS base funds, the SFCMC curator contracted with the Northeast Documents and Conservation Center to conduct the conservation treatments of individual archival documents recommended in the 2007 Archives Collection Condition Survey. The contract was awarded in FY2009 and the objects will be sent to NEDCC for treatment in November 2009.

2009 9.13 Miscellaneous Projects

BISC Archeology Image scanning Volunteer Jean Schardt continued to make project on the image scanning project in FY2009. The major focus of her efforts was to scan slides and other images in the BISC archeological site monitoring records. Scanning will continue in FY2010 to complete this project.

EVER Oral Histories SFCMC staff continued to collect oral histories from individuals associated with the parks and their resources. Examples include current and former park staff (e.g. Sonny Bass, Tom Schmidt, Bob Panko, Sue Perry, etc.) and former soldiers stationed at the Nike missile base.

SFCMC Oral History Transcription Project Using SFCMC ONPS base funding, the SFCMC curator was able to contract with Nina Weldon to transcribe oral histories in the parks' collections. The funding was used to get transcripts made for older BICY and BISC oral history interviews which were never transcribed, as well as more recent BICY, DESO, DRTO, and EVER oral histories collected in the past few years. Although some transcripts were received in FY2009, this work continues into FY2010. The transcripts will make these interviews more accessible and also ensure informational preservation.

EVER 9-Track Data Migration Project Using project funds for data migration, curator Nancy Russell contracted for the transfer of older audiocassettes in the museum collection to archival gold CDs. Tapes were enhanced for sound where possible. Examples of audiocassettes that were converted include oral histories conducted in the 1980s and a large series of tapes of park staff giving lectures on a wide variety of topics at seasonal trainings over the years.

2009 9.14 Emergency Preparedness

The 2009 hurricane season was initially fairly active but none of the storms threatened Florida. At the end of FY2009, in fact, the SFCMC had yet to have to implement its hurricane procedures. Preparations for the summer 2009 hurricane season included reviewing the 3 hurricane caches for missing supplies and providing SFCMC staff with training regarding museum collection preparations. This training included reviewing written step-by-step instructions as well a question and answer session with SFCMC staff. Additional hands-on training was provided regarding salvage of water-damaged archives. All staff completed the online Incident Command training.

2009.10.0 Conclusions

As outlined in the reports of each park division at Everglades and Dry Tortugas National Parks and the SFCMC, that have been synthesized into one report, both parks and the museum continue to grapple with a myriad of diverse and challenging issues and building on opportunities to manage these significant and unique natural resources.

Everglades strives to coordinate and cooperate with the significant intergovernmental program for overall ecosystem restoration that they are a significant part of while also addressing the day to day demands of managing a park of this size and working to meet visitor expectations.

The management team and park staff has been creative in acquiring outside resources to enhance the visitor service, cultural resource, and natural resource programs in the park. Various grants, the Centennial program and park partners support this past year has made a significant difference in the ability for the park to improve these program areas.

The limited resources dedicated to Dry Tortugas have this park relying on additional support from Everglades. DRTO staff strives to make the visitor experience to this unique park one to remember, while at the same time protecting cultural and historic assets. Given the remoteness of this island park along with staff and communication challenges outlined in this report there are a number of areas posing unique and significant management challenges for this park.