

**FLORIDA KEYS NATIONAL MARINE SANCTUARY
WATER QUALITY PROTECTION PROGRAM**

STEERING COMMITTEE MEETING

**April 3, 2003
Marathon Garden Club**

DRAFT MINUTES

Steering Committee Members in Attendance: Bill Botten, Clyde Burnett, Rick Cantrell, Greg DiDomenico, Jim Duck, Jim Giattina, Dale Holton, George Neugent, Bill Perry, Jim Quinn, David Rice, Jack Teague, Jody Thomas, Sandy Walters, Cecelia Weaver, Michael Weiss, Zully Williams, Pete Worthington.

I. Opening Remarks: Mr. Rick Cantrell B Director, Fort Myers District, Florida Department of Environmental Protection and Mr. Jim Giattina B Director, Water Management Division, U.S. Environmental Protection Agency, Region 4.

Chair Cantrell welcomed those present and introduced Jim Giattina, representing Jimmy Palmer. Mr. Giattina thanked the meeting organizers and observed that for the past 11 of his 18 years with EPA he has been involved in consensus-based programs bringing a diversity of stakeholders together over common goals for an ecological system. Chair Cantrell recognized Dr. Bill Kruczynski.

Dr. Kruczynski honored the contributions and memories of three Keys residents who recently passed away: Mary Stuker for her work on water quality in canals; Dagme Johnson for her work on preserving hardwood hammocks and Helen Talge for her work on the effects of touching corals. A moment of silence was observed for reflection and thanks. Chair Cantrell recognized Bill Botten.

Mr. Botten said goodbye to the Steering Committee which he is leaving for health reasons. He thanked the Committee for years of collegiality, and particularly thanked the Commission of the City of Key Colony Beach for completing the Comprehensive Plan on time and implementing wastewater and storm water treatment facilities to the highest standard. He introduced Mayor Clyde Burnett who will represent the City of Key Colony Beach on the Steering Committee. Mayor Burnett thanked Mr. Botten for his most valuable contributions to the community of Key Colony beach. Chair Cantrell noted that the Steering Committee will miss Mr. Botten=s insights and knowledge.

Commissioner Neugent thanked him for all that he has done. Committee members introduced themselves.

A. Discussion and Approval of Minutes: Mr. Rick Cantrell

The Minutes were approved upon motion as presented, without discussion.

B. Discussion Regarding Vacant Seat on the Steering Committee
and

Consideration of Adding Additional Representatives: Mr. Rick Cantrell

Chair Cantrell said that co-chairs Alan Bedwell and Jimmy Palmer thought it would be appropriate to add two new members to the Committee at the same time that a vacant seat is being filled. This requires two-thirds vote of the Committee. Upon motion, the Committee voted unanimously to seat Greg DiDomenico, Jody Thomas and Sandy Walters.

C. Review Agenda: Mr. Rick Cantrell

The Agenda was amended to move Item X to after Item XVII; item A under Item XVIII was dropped from the Agenda.

II. Annual Reports on the Comprehensive Monitoring Projects for the Florida Keys National Marine Sanctuary: Mr. Fred McManus, - U.S. EPA, Region 4

Fred McManus said that it has been an honor and a privilege to work with Bill Botten on the Steering Committee since 1991.

Mr. McManus said that although there are four interrelated components (corrective actions, monitoring, special studies, and public education/outreach) of the Water Quality Protection Program, the level of funding committed to monitoring and data management (almost \$10 million since 1995) indicates its importance within the overall program. He introduced

Dr. Joe Boyer, the Principal Investigator of the Water Quality Monitoring Project.

Water Quality Monitoring Projects: Dr. Joe Boyer B Florida International University

Dr. Boyer reviewed the funding structure and the main objective of the program which is a long-term study of status and trends of water quality in the Sanctuary. Sampling is

conducted on a quarterly basis and is not designed to pick up episodic events, although the "Blackwater" event of the previous year was captured. He gave a PowerPoint presentation based on data available at the website <http://serc.flu.edu/wqmnetwork/> which he distributed to Committee members on a CD. He said that the water quality monitoring group is working with the seagrass monitoring group, the coral reef monitoring group and Dr. Steven Miller's group looking at hard bottom habitat and publishing manuscripts on the results. Trend analyses on specific nutrients have demonstrated increases in variability through the study period, although spatial trends such as increased DIN along the coastline, decreasing offshore are more standardized. Dr. Boyer described the sampling program at the Little Venice monitoring project.

Questions from members concerned comparisons between Little Venice and Key Colony Beach, spatial scales of monitoring, and the uniqueness of individual canals.

Seagrass Monitoring Project: Dr. Jim Fourqurean @ Florida International University

Dr. Fourqurean observed that South Florida is home to the largest seagrass bed in the world and acknowledged his laboratory manager, Susie Scorce, in the audience. He said that as well as status and trends, the seagrass monitoring project is looking at primary production and inter-relationships with the water quality monitoring project. He reported that in the Middle and Lower Keys long-term trends are being seen in nearshore sites that are consistent with models of eutrophication of seagrass beds in a tropical environment. He noted the importance of program design and modeling in providing managers with information in a timely manner before there are catastrophic changes in the ecosystem. Dr. Fourqurean gave a PowerPoint presentation showing the effects of changing nutrient levels on community composition over time throughout the Sanctuary, using sampling protocols that control for intra-annual variability, inter-annual variability and spatial variability, as well as providing data on the impacts of natural occurrences such as hurricanes. He discussed manipulative field experiments testing different nutrient ratios and implications for the reef tract as well as soft bottom communities. All the current data is available at www.fiu.edu/~seagrass. Dr. Fourqurean concluded that increases in fast growing macroalgae in the Middle and Lower Keys due to an increase in nutrient availability are consistent with the longer term response to loading from the Mississippi River. It is too early to say unequivocally that these changes can be driven by local anthropogenic causes.

Questions from members concerned exchange of water between the Gulf of Mexico and Florida Bay, seagrass successions, the presence of *Caulerpa brachypus* not *taxifolia* in the Keys and the effects of "Blackwater" on community composition. Mr. McManus observed that to his knowledge, except perhaps the Great Barrier Reef in Australia, there is nowhere in the world to match the scope and level of effort of these three

comprehensive monitoring projects in the Sanctuary.

Coral Reef Evaluation and Monitoring Project: Mr. Walt Jaap B Florida Marine Research Institute

Mr. Jaap introduced Dr. Carl Beaver who has extensive experience working on reefs in the western Gulf of Mexico. Mr. Jaap gave a PowerPoint presentation in which he reviewed site selection, survey methods, including video, and spatial distribution of sites throughout the Sanctuary. He said that coral cover declined throughout the study sites between 1996-9 and appears to have stabilized until 2002, with slightly lower overall coral cover in the Lower Keys than the Middle or Upper Keys. The project evaluates multiple stressors such as hurricanes, boring sponges, disease and bleaching on both inshore and offshore sites, as well as diversity, size and density. Two sites within the Blackwater algal bloom showed significant reduction in coral cover and species diversity. He outlined future work in the region that is separately funded. All data is available at www.floridamarine.org.

Questions from members concerned the incidence of disease in brain corals in the Tortugas, global coral reef declines, recovery rates of stressed corals close to populated areas and recruitment rates. The suggestion was made that presenting scientists include more implications and recommendations for planners. Discussion concerned the role of certainty in science and decision making.

III. Report on the Florida Keys National Marine Sanctuary Zone Monitoring Program: Mr. Billy Causey B NOAA/Florida Keys National Marine Sanctuary

Mr. Causey observed that the interface between science and management can occur at local, regional and global levels, and that recovery from a bleaching event, for example, is more rapid the further from human population concentration that event occurs. Mr. Causey described the network of zones implemented in the Sanctuary since 1997, and their different functions. He gave a PowerPoint presentation depicting currents and gyres along the reef tract and the significant positioning of the Tortugas Ecological Reserve with respect to water circulation. He said that the reserve has been set aside to measure and detect changes in the benthic and fish communities throughout the area, inside and outside the no-take zones, to evaluate the success of no-take management for protecting marine biodiversity. Another goal is to determine socioeconomic effects on user-advocates. Mr. Causey presented size and abundance data on reef fishes from Dr. Jim Bohnsack and Dr. Jerry Ault from 1997 to 2002 which indicate that exploited species are benefiting greatly from no-take protection throughout the Sanctuary. The smaller benthic species are showing less recovery. Links to all these data sets are available at www.fknms.nos.noaa.gov. He said that the success of zoning is dependent on public outreach and education as well as enforcement, and that

there are no indications of a negative socioeconomic impact of no-take zones.

Questions from members concerned whether trends in the marine protected areas reflect trends in the general fishery.

IV. Report on Florida Keys Watch Program: Mr. Brad Rosov B The Nature Conservancy

Mr. Rosov reviewed a new canal water quality monitoring program called the Florida Keys Watch which is to determine water quality in canals and sources of contamination in canals throughout the Keys. He described sampling protocols, including looking at viral pathogens as indicators of a human origin for contamination, sampling methodology and discussed some preliminary results. Indications are that rain events lead to higher enterococcal levels in water samples.

Questions from members concerned the exclusion of Key West from the study, canal depths, and nutrient sampling.

V. Update on the FY 2003-2004 Round of Special Studies Associated with the Water Quality Protection Program for the Florida Keys National Marine Sanctuary: Dr. Bill Kruczynski B U.S. EPA, Region 4

Dr. Kruczynski observed that while inspecting the Little Venice project with Jim Giattina, the group was informed by the engineer that the water table is about two feet below the surface, and that as ditches are dug for pipes raw sewage is encountered.

Dr. Kruczynski said that the Special Studies project examines cause and effect relationships through manipulative experiments. These relationships are indicated as needing further study by the monitoring projects. He summarized some past projects, including the proof that wastewater injected 90 feet into the ground can make it to surface waters. The third round of Special Studies projects is at the review stage for Requests for Proposal, with funding for the current year from EPA, NOAA and Sanctuary Friends of the Florida Keys at \$590,000. Florida DEP has contributed \$100,000 for a project being separately reviewed. He said that research plans were prioritized under four topics following recommendations from the Technical Advisory Committee review and that 18 full proposals of 48 pre-proposals are in the process of peer review.

VI. Update on the Florida Keys Carrying Capacity Study: Dr. Bill Kruczynski B U.S. EPA, Region 4, Professor Mal Rivkin B University of Maryland and Mr. Jim Duck B U.S. Army Corps of Engineers

Dr. Kruczynski gave the history of the establishment of the Carrying Capacity Study culminating in the Corps and Department of Community Affairs sponsored Florida Keys Carrying Capacity Model in November 2001. The National Research Council peer review panel requested by the Corps and DCA found significant problems, particularly with the marine module. After the contracting company, URS, addressed many of these problems, a public/private partnership convened a panel consisting of the same scientists on the NRC panel to review the revised product. He introduced Professor Mal Rivkin to explain the review panel's conclusions on the report.

Professor Rivkin said that it was a year since the panel, under the auspices of the NRC, reported to the Committee and citizens of Monroe County. The report was basically critical on the grounds that science is only an aid to public policy and cannot be expected to shape complex decisions about environmental conservation and development management for 20 years ahead in the real world. He said that the Carrying Capacity Study has some solid achievements that can be incorporated in the Monroe County Comprehensive Plan as a base for a development control system. He detailed the strengths of the GIS-based model and high-lighted some of the lessons learned, particularly once the results of the year 2000 census were incorporated.

Professor Rivkin characterized the various development scenarios as all requesting modest population growth, concentrated development, redevelopment of scarified lands and only minor absorption of vacant land into the development mix. All options involved major wastewater and storm water improvements and major acquisition of undeveloped lands and improvements to U.S. Route 1. He observed that the terrestrial module will inform the revised comprehensive plan and it should be possible to craft a realistic financing plan using all levels of government and the private sector, with an emphasis on increasing efforts to manage resources.

Jim Duck reported that the final public meeting was held on January 7th, with positive reviews. The contracting company URS submitted the project to a competition held by the Florida Institute of Consulting Engineers, where it won one of seven grand awards. It was then submitted to national competition with the American Council of Engineering Companies and of 160 entrants it was again awarded one of seven grand awards. Mr. Duck recognized Debbie Peterson of the U.S. Army Corps of Engineers.

Debbie Peterson thanked Mr. Duck and said that the whole process of reviews including the peer review of the Scope of Work is on the website, along with the final report of the Carrying Capacity Impact Assessment Tool. She added that that completes all the legal requirements in partnership with the Department of Community Affairs and the Corps looks forward to all this put into vision.

Mr. Duck thanked the National Academy and recognized Jim Quinn of the Department of Community Affairs.

Jim Quinn thanked all of the participants in the process. He said that the model is being curated by the South Florida Regional Planning Council. He mentioned the working group that is putting together recommendations on the Carrying Capacity Model that can be used by agencies and local governments.

VII. Public Comment Period

Captain Montgomery Chitty, a retired flats guide from an old Keys family, introduced 13 buoys from the water behind Sugarloaf Key into the record. He said that they had been used to mark a race course for over two dozen power boats running at speeds estimated at between 70 and 80 miles an hour in the Florida Keys Great White Heron National Wildlife Refuge. He expressed strong concern that resources are not being protected sufficiently.

Terry Boyd, representing Trailer Edge by the Sea, a 10 acre resident-owned mobile home park by the water in Marathon, said that the park is working on upgrading from 12 septic systems to a wastewater system mandated by the Department of Health. She requested financial assistance and guidance in assuring that the project will be compatible with the future central system.

A request was made to discuss this issue later in the meeting.

Debbie Harrison of the World Wildlife Fund said, regarding the Carrying Capacity Implementation Working Group, that the group supported the idea of local governments putting in place a temporary moratorium on development in important habitat, while regulations are formulated to implement the carrying capacity findings. She expressed strong support, as an affected homeowner, for all components of the Little Venice Project. Ms. Harrison congratulated new appointees to the Committee and asked for a statement concerning possible conflict of interest in the case of one of the new members.

Nancy Klingener of The Ocean Conservancy thanked all participants in the Carrying Capacity Study and the independent scientific review. She commented on Dr. Rivkin=s remarks concerning population growth, that while the resident population has grown only a little over the past decade, the tourist population has grown tremendously and that besides Dr. Leeworthy=s studies, there is not much documentary information about the impacts of this growth.

Ms. Thomas moved that the South Florida Regional Planning Council be invited to present at the next meeting on how the study will be managed. Seconded by Pete Worthington, the motion passed unanimously upon voice vote.

Discussion among members concerned parallels between the Steering Committee and the Carrying Capacity Implementation Group.

VIII. Lunch Break.

IX. Review the Proposed FY 2004 Budget for the Water Quality Protection

Program: Mr. Fred McManus B U.S. EPA, Region 4, Steering Committee Vote

Mr. McManus presented the existing FY 03 budget, including monitoring, special studies and outreach/education and the proposed budget for next fiscal year, FY 2004, which is funded in part with EPA=s FY 03 money.

Discussion concerned whether DEP and NOAA will be able to contribute at past levels and whether the South Florida Geographic Initiative will be fully funded. The need to support long-term monitoring projects raised the question of moving funds from one area to another. Further discussion concerned the feasibility of establishing an emergency fund to deal with extraordinary events like Ablackwater@. Agency budget planning was also discussed.

Commissioner Rice moved that the Committee approve the budget proposal. Seconded by Commissioner Neugent, the motion passed unanimously upon voice vote.

X. Report on Activities of the Florida Keys Water Quality Improvements

Program Delivery Team: Ms. Cecelia Weaver B South Florida Water Management District

Cecelia Weaver gave the history and composition of the Water Quality Improvements Program Delivery Team (PDT). The PDT has adopted a Goals and Objectives using existing Master Plans and will review and improve the Program Management Plan developed by the Corps and contractors. She said that the PDT is going to prioritize proposed wastewater and storm water treatment projects and allocate funding, although no monies were appropriated in FY03. The program is currently operating on the FY02 budget.

XI. Report on Establishment of a Florida Keys Wastewater/Storm Water

Workgroup: Mr. Fred McManus B U.S. EPA, Region 4

Mr. McManus referred to a suggestion made by Dan Basta at the last meeting for creating an information matrix to deal with some of the impediments to implementing the Final Wastewater Master Plan. The matrix would form part of an integrated process to track projects in the Keys. Mr. McManus recommended that a new group be formed to establish this process led by George Garrett from Monroe County and Jack Teague from the Florida Keys Aqueduct Authority, and that information be presented in the form of an executive summary.

Discussion followed concerning priorities, funding, availability of existing information and the need for further discussion of funding in the deferred Item X on the original agenda.

XII. Status of Implementation of the Monroe County Wastewater Master Plan:

Mr. George Garrett B Director, Monroe County Department of Marine Resources

George Garrett distributed a spread sheet to members of the Committee, detailing ongoing projects in Monroe County and the municipalities. He noted that Monroe County is transferring some responsibilities for wastewater management to the Florida Keys Aqueduct Authority and the Key Largo Wastewater District.

Discussion followed concerning the compilation of one spreadsheet containing project information and financial information.

XIII. Update on the Little Venice Wastewater Management System/EPA Title II Construction Grant: Mr. Jack Teague B Florida Keys Aqueduct Authority

Jack Teague gave a status report on the project which is being undertaken by United Engineering Company. The treatment site at the airport is underway and it will be a year before individual households are connected to it, due to construction and financial constraints. The original service area has been slightly expanded.

XIV. Status of Request for Proposals (RFP) for a Wastewater Management System for the City of Marathon: Mr. Jack Teague B Florida Keys Aqueduct Authority and

Mr. Scott Janke B City Manager, City of Marathon.

Scott Janke said that the project has moved from a two-phase project to a seven-phase project to facilitate construction management and funding acquisition. He said that even with full funding it would not be possible to have a central wastewater treatment system for the whole of Marathon by 2010.

Discussion returned to the issue of residents paying twice to replace cess pits and septic systems, landowners using the Department of Health as a tool to close trailer parks, 2004 Interim Standards and possible sources of low interest loans.

Mr. Teague discussed State law 99-395 and the legal issues surrounding it. He observed that a bond system could finance the wastewater system for the City of Marathon which might cost \$450 million.

Discussion concerned double payment in order to meet environmental needs in the present as well as future hook-up to a central system, and methods of payment and sources of relief.

XV. Report on Islamorada=s Wastewater and Storm Water Activities:
Mr. Greg Tindel and Ms. Zully Williams

Greg Tindel reported that Islamorada is in the process of implementing the Storm Water Management Plan. The Wastewater Management Plan is being implemented incrementally.

Discussion followed concerning trailer parks and the cost per EDU.

XV.Status of the Key Largo Sewer Board and Associated Activities:
Mr. Robert Sheets B Key Largo Wastewater District

Robert Sheets said that Key Largo Sewer Board is evaluating two bids and proposals even though it was created with no funding source. The County has been very cooperative.

XVI. Current Status of Deutsch Legislation, HR 673 (\$100 Million to Support Upgrades to Wastewater and Storm Water Infrastructure) and Section 109 of Public Law 106-554 (Florida Keys Water Quality Improvements Program): Ms. Shelley Trulock B U.S. Army Corps of Engineers

Shelley Trulock gave a PowerPoint presentation describing the status of the project which is jointly administered with the South Florida Water Management District and is in pre-construction stages. There are no monies appropriated for construction. Once appropriations are received projects will be implemented as prioritized.

A. Status of State Funding for Wastewater Upgrades in the Florida

Keys:

Mr. Dick Smith B Florida Department of Environmental Protection

Dick Smith described the appropriation and allocation of \$11.8 million in State funding as a match for the \$100 million federal appropriation.

Discussion concerned a pre-construction loan to the City of Marathon.

B. Status of EPA Grant (\$3.8 Million) to Monroe County for

Innovative

Decentralized Wastewater Demonstration Project: Mr. Bob Freeman B EPA, Region 4

Bob Freeman said that as part of a nation-wide initiative in the 1999 EPA appropriation to encourage the use of onsite and decentralized wastewater systems, Monroe County was awarded \$3.8 million. This was intended to support the centralized management of decentralized systems. He said that the Aqueduct Authority has the infrastructure to maintain these systems which require routine maintenance in order to be effective. Mr. Freeman noted that the money needs to be spent and this could go towards trying some newer technologies than the pilot project on Big Pine and evaluating operation, maintenance and cost characteristics. He said that there are conditions on the grant, including that decentralized systems are to be permanent solutions and consistent with the County's Wastewater Master Plan.

Discussion concerned why the money has not yet been used and the cost of maintaining these systems. Mr. Freeman noted that Florida statutes impose very high standards for treatment and that the grant includes provisions for replacement parts. He said that the project could be a public/private effort.

XVII. Status of Key West Storm Water Plan: Mr. Gus Rios B Florida Department Of Environmental Protection and Mr. David Fernandez B City of Key West

Gus Rios said that Mayor Jimmy Weekly had requested that the Steering Committee form a panel to review the City of Key West's Storm Water Utility Plan. He distributed a copy of the review subsequently compiled by the panel and a copy of the Draft Resolution.

David Fernandez described the recently completed sewer construction and deep-well injection project that included Advanced Wastewater Treatment for the City. He said

that the City is now addressing the aged storm water infrastructure through equipment upgrades, maintenance, education and enforcement of environmental codes. The situation is complicated by low elevation in a tidal zone and lack of land to employ biological removal of nutrients.

Discussion concerned compliance, homeowner costs, nutrient removal and best management practices.

Mr. Rios discussed the panel formed at Mayor Weekly=s request to review the plan for improved drainage in Key West. The panel recognized the difficulties facing the City and proposed solutions like pollution prevention measures, retro-fitting outflows, pre-treatment and injection wells. It also recommended that NPDES requirements are implemented as soon as possible.

Discussion concerned the wording of a resolution from the Steering Committee in support of the City of Key West=s plan and in acceptance of the panel=s recommendations which have been accepted by the City.

Ms. Walters moved to put the resolution on the table. Mr. Cantrell seconded the motion. Discussion concerned whether NPDES requirements covered all the panel=s concerns, and, an amendment to compliment the City of Key West on its leadership role in implementing wastewater and storm water projects in Monroe County. The motion passed unanimously upon voice vote.

XVI. Other Business.

Ms. Thomas mentioned legislation that Representative Sorensen has introduced asking that the State allows the County to vote on applying a fee on residential acquisitions that would be utilized 70% for wastewater or storm water facilities, 10% for land acquisition, 10% for acquisition of environmentally sensitive land and 10% for implementing the program. Some property values would be exempt from the fee.

Ms. Walters expressed appreciation for the environmental and water quality monitoring and data collection that is now being undertaken in the Keys. She expressed concern that lower income residents of Monroe County may be charged unaffordable monthly rates and hook-up charges as wastewater projects are implemented.

Mr. Causey read from a resolution introduced by Bob Ballard of the State of Florida to the U.S. Coral Reef Task Force at the meeting in the U.S. Virgin Islands. He said that the Task Force supported wastewater treatment in the Florida Keys and also supported implementation of the Comprehensive Everglades Plan.

XVII. Adjourn