Florida Keys Reasonable Assurance Documentation Technical Working Group Meeting1 November 17, 2006 Meeting Minutes

This is a summary of the first Technical Working Group (TWG) Meeting held on November 17, 2006 at the Key Colony Beach City Hall Auditorium between the Florida Department of Environmental Protection (FDEP) and representatives of stakeholders that will comprise the TWG. The purpose of the meeting was to give an overview of the Florida Keys Reasonable Assurance Documentation (FKRAD) program to the members of the Technical Working Group, discuss the structure and purpose of the TWG and initiate information requests. The meeting was attended by representatives of City of Key West, Florida Fish and Wildlife Conservation (FWC), Florida Keys Aqueduct Authority (FKAA), Key Largo Wastewater Treatment District (KLWTD), United States Environmental Protection Agency (EPA), Monroe County, South Florida Water Management District (SFWMD), U.S. Navy, Wildlife Ecology and Conservation (WEC), and World Wide Fund for Nature (WWF). A copy of the meeting agenda and sign-in sheet are appended to this memo.

DISCUSSION

FKRAD Overview

- The FKRAD will demonstrate reasonable assurance to avoid TMDL and BMAP development. The development of the FKRAD will be carried out through three action areas: data acquisition, investigation and assessment, and preparation of the document.
- Through the FKRAD, stakeholders commit to continue management activities related to achieving nutrient reductions, while FDEP commits to assist stakeholders in presenting the FKRAD program and stakeholder agreements to their governing board.
- The development process have multiple review stages and will follow the following eight steps: collection of available data and programs, define programs and actions to achieve goals, define programs to monitor program and activities, define potential corrective actions, prepare FKRAD documents, draft and finalize stakeholder agreements, finalize draft and FKRAD document, submit the FDKRAD document.

Technical Working Group

- The TWG will be composed of technical contributors from those stakeholders who will sign the FKRAD.

- The TWG will be a group needed for data gathering and scientific documentation for the FKRAD. Its goals are:
  - Define guiding principles to be adopted by stakeholders for achieving mission.
  - Identify nutrient impaired water bodies and the causes of impairment.
  - Document existing and pending stakeholder programs for reducing anthropogenic impacts in receiving water bodies.
  - Identify local and regional water quality targets and aquatic ecological goals.
  - Describe local and regional management actions being undertaken to achieve nutrient load reductions in the impaired water bodies
  - Identify procedures for monitoring and reporting the results of the management actions.
  - Describe proposed corrective actions.
  - Gather local information and data required to fill key knowledge gaps.
  - Identify necessary education, outreach, and implementation measures for moving the impaired water bodies toward meeting regional goals and achieving FDEP water quality standards.
  - Assist in securing participation of all interested groups, individuals, and agencies and involving the public throughout the process.
- The purpose of the TWG will be to identify impairment causes, water quality causes and aquatic ecological goals, current and future programs and activities, and past monitoring and reporting activities. The TWG will also prepare potential corrective actions and identify specific stakeholder commitments.
- Participation in the TWG by technical contributors is essential to the RAD development process.
- The TWG will focus on nutrient impairment.

Florida Keys Water Quality

- Impairment in the keys can be determined through data collected in past monitoring events and resource based on historical information. Impairment in the Keys will be difficult to determine through the Impaired Water Rule, Chapter 62-303, F.A.C.
- Water quality data was collected by FDEP between May 2004 and May 2005 (see "2004 IWR Raw Data Report" handout). This data has been stored in the Florida STORET, a database that contains all the water quality, biological, and physical data collected in Florida. This data was obtained from limited sources, short time frames.

- The data set reflects near-shore water quality data (within 500 feet from shoreline) and does not consider effects due to tidal conditions.
- FDEP is looking to reduce the size of the upper, middle, and lower Keys WBIDs to approximately 500 feet from the shore. This will allow assessment of water quality in the area where land activity has the most influence on water quality. Areas beyond 500 feet from shore are affected by outside influence, which the islands have little or no control over.
- Quantification of target conditions.
- The main contributors of nutrient loading to near shore water in the Keys are activities related to stormwater and waste water. Other activities, such as vessel discharges, hurricanes and tropical storms, effluent leakance, and mainland discharges are known to contribute to impairment, but are unquantifiable.
    - Due to the unquantifiable contributors to near shore waters, impairment at the keys does not have a constant location or occurrence pattern.
    - Last year's hurricanes caused some redistribution of Florida Bay water, which resulted in an alteration of water quality data – a clear indication that water quality in the Key's is affected by outside influence.
- Gaps in the existing data can be attributed to the frequency of sampling, distribution of sampling locations, gaps in long-term record, consistency in parameter suites, and nutrient speciation.
- The scientific community, local community, and regulatory agencies have reached a consensus that the near shore waters of the Keys are impaired.
- Existing data appears reasonable for Keys to proceed with the FKRAD; however, extensive monitoring and data collection will be required to proceed with the TMDL.
- Historic water quality data has been collected in canals and channels, and these might not reflect near-shore water quality. Since there is little or no recirculation of water in canals, they act as sinks for contaminants, such as heavy metals. One would have to take sediment samples to detect contaminants.

Use of Local Water Quality Data in FKRAD Assessment

- The intent of local water quality data is to demonstrate that local activities are reasonable to achieve goals.
- Available Florida Keys Models:
    - Carrying Capacity Impact Assessment Model (CCIAM), previously known as the Carrying Capacity Analysis Model (CCAM), was developed by the Corps to evaluate the impact of land development on the Key's ecosystem.

  - CCIAM contains several modules that have extensive data requirements, like rainfall, runoff, wind, bathymetry, topography, land use, infiltration rates, wastewater and stormwater practices, and cultural characteristics.
  - The CCIAM, as a dilution model, has confirmed the existence of a halo zone in the near shore waters in which water quality is affected in large part by stakeholder activities.

- A 3-D circulation model for the Keys cannot be developed for the RAD effort due to limited water quality, water circulation, and subsurface data, high model development costs, model run times, and FKRAD schedule constraints.
- The FKRAD should include a simplified model of flows and load and nutrient concentrations in order to reduce the numerical processing requirements and model run times.
- Violent storm circulation conditions caused by tropical storms and hurricanes, component species dynamics of Total Nitrogen and Phosphorus, and nutrient cycling in the water column will not be considered in the FKRAD.
- The FKRAD will assess the benefits of the implemented programs through the use of the simplified model by evaluating the water quality benefit resulting from the load reductions of the management actions the stakeholders will commit to in the stakeholder agreements.
- The FKRAD will assess water quality improvements by focusing on load reductions obtained from monitoring results, studies and designs, and available literature.
- The FKRAD will include information on the management activities like the owner of the project, project description, load reduction resulting from the project, service area associated with the project, and implementation cost and schedule.
- Focus of monitoring will be islands, halo zone, and WBIDs.

Information Requests

- Through the TWG meetings, data acquisition on local programs and issues.
- Keys water quality data.
- Established/pending community management goals and actions.
- Community issues and concerns regarding water quality management.
- Community issues and concerns regarding impacts of pollutants on aquatic resources in impaired water areas.
- Specific issues and concerns that are uniquely important in the context of the community and/or relevant to the KFRAD process.

Schedule

- TWG meeting will be held once a month, with the last meeting tentatively scheduled for March 23, 2007.
- A digital version of the draft FKRAD will be released to stakeholders for their review and comments between January and February 2007. A digital version of the final FKRAD will be released to stakeholders between March and April 2007. The distribution of the final document will be scheduled between April and May 2007.
- Draft stakeholder agreements will be sent to stakeholders for their review and comments between February and March 2007. Distribution of the final agreements will be sent to stakeholders between March and April 2007 and the execution of the final agreements should take place between April and May 2007.

FKRAD Stakeholder Agreements

- Stakeholder agreements will be used to list specific commitments by stakeholders that seek to improve water quality in the Keys. The FKRAD will include only those stakeholders that are providing commitments through their agreements and signatures.
- Stakeholders should not commit activities for which funding is not available for implementation. For example, Monroe County has stormwater and waste water master plans with proposed activities that are not included in its current capital improvement project list and for which funding has not been allocated. Projects without funding should not be included in the agreements as specific commitments.
- FDEP will begin compiling a list of commitments in the second meeting (December 13, 2006) and finalize the list by the third meeting (January 25, 2007).
- These agreements will build a case for the FKRAD process by providing reasonable assurance to EPA that all stakeholders are moving in the right direction towards improving water quality in the keys through specific commitments.
- Stakeholder agreement will include FKRAD background, mission, guiding principles, stakeholder commitments, measures of success, and signature pages. Through their signatures, stakeholders ensure the implementation of individual documented activities and reporting progress. Similarly, regulatory agencies and other parties provide their signatures as a statement of support and assurance that the overall approach can achieve the goals.
- Due to the geography of the Keys, there are several options available for developing a RAD. One could be developed for the Keys as a whole, one for the upper keys, one for the middle keys, and one for the lower keys, one for multiple islands, or for a single island, or some combination thereof. The most practical option would be to develop one RAD for the Keys as a whole, provided EPA concurs with this option.

Action Items

- Missing stakeholders and interested parties.
- Information requests.
- Upcoming TWG meetings:
  - Meeting 2: December 13, 2006
  - Meeting 3: January 25, 2007
  - Meeting 4: February 22, 2007
  - Meeting 5: March 23, 2007

QUESTIONS & ANSWERS

- Municipalities and agencies have been involved in monitoring water quality in the Keys for more than 10 years. Stakeholders do not want development of the FKRAD to oblige them to explain past water quality monitoring decision making.
  - The FKRAD will provide the stakeholders with the ability to demonstrate that the past efforts and programs in place are adequate enough to reach water quality goals.
  - The FKRAD is not for FDEP or its consultant to evaluate past decision making, but to help stakeholders find corrective actions in the event that current programs are not enough to reduce nutrient loading.
  - Water impairment is an unfortunate consequence of geography.
- Monitoring of activities has three purposes: prove implementation of commitments, prove commitments are having an effect on the environment (either good or bad), and to measure the success of the commitments.
- There was concern among those present at the TWG meeting that not all municipalities and stakeholders are aware that there are other programs other than capital improvement projects, such as maintenance and management activities, that can be included as specific commitments in the stakeholder agreements.
  - Mr. Lienhart will provide a laundry list of programs that can be included as specific commitments at the next TWG meeting to facilitate the data collection process.
  - Project with pollution reduction potential qualify as specific commitments, such as stormwater load reduction through purchase of land for conservation.
- There was concern among those present that key stakeholders were not present at the TWG meeting.

- Mr. McClelland stated that stakeholders not present at the meeting have been contacted, will be provided with updates, and will be encouraged to attend the next TWG meetings.
- What grants or other sources of funding can stakeholders look for to implement commitments?
    - Stakeholders should not count on external funding for project they are looking to include in the agreement. External funding does not guarantee implementation of activities because external sources are not regarding as perpetuity. Dependence on external funding sources could be a limitation to the FKRAD approval process.
    - Stakeholders should not commit project for which funding is not available therefore, the agreements should include a realistic set of commitments.
    - The FKRAD process does not include preparation of grant applications, but can include a list of potential grants that stakeholders can use for additional support.
- Include a presentation on the FKRAD development process in the next Water Quality Steering Committee meeting in December to convey the FKRAD process and encourage stakeholder support.
- Remind EPA that it endorsed the FKRAD process a number of years ago.