TECHNICAL WORKING GROUP MEETING NO. 6

Marathon Government Center
2796 Overseas Highway, Room 104

June 29, 2007 ❖ 9:30 am – 1:30 pm

Agenda

I. Welcome
II. Review of Consensus Items
III. Identified Management Activities and Reductions
IV. Critical Stakeholder Decisions
V. Initial Draft of the Stakeholders Agreement
VI. FKRAD Document Overview
VII. Action Items & Next Meeting

REVIEW OF RECENT CONSENSUS ITEMS

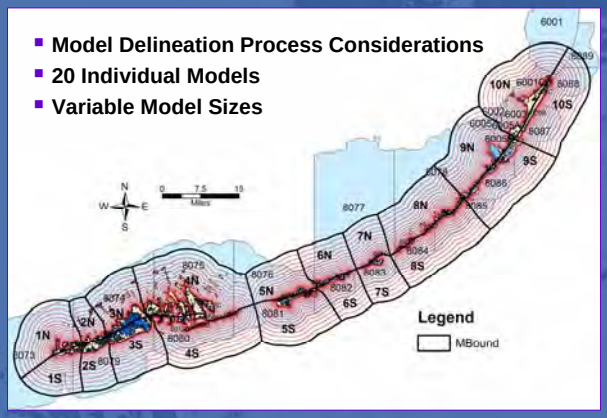
- Modeling Baseline
- Management Activity Milestone Dates

Scott McClelland
CDM

Recent Consensus Items

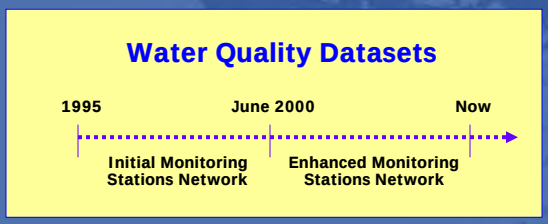
1. WBIDs Model Configuration

- **Model Delineation Process Considerations**
- **20 Individual Models**
- **Variable Model Sizes**



Recent Consensus Items

2. Baseline WQ Dataset Period



Conclusion: **Use the 10-Year Dataset**

Recent Consensus Items

3. Management Action Milestones

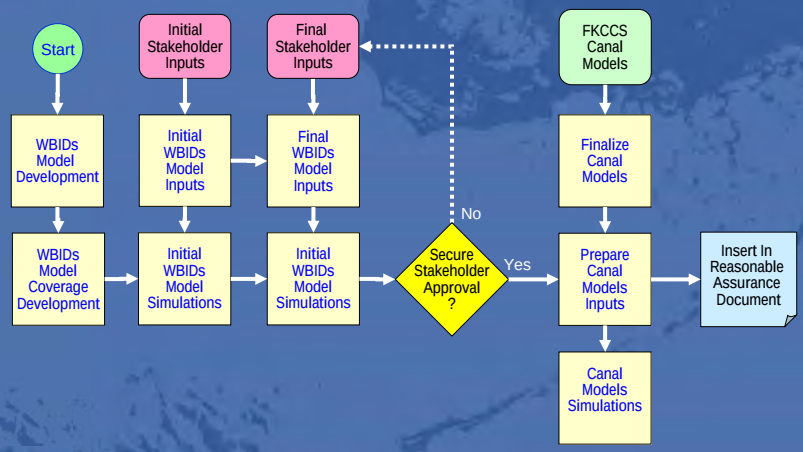
- 1999 – Baseline
- 2007.5 – Current Conditions
- 2010.5 – Ch 99-395 Wastewater Compliance
- 2015 – Additional Stormwater Facilities

IDENTIFIED MANAGEMENT ACTIVITIES AND ESTIMATED NUTRIENT REDUCTIONS

- Wastewater Treatment
- Stormwater Management
- Status of WBID Models

Steve Lienhart
URS Corporation

Modeling Process



Status of Modeling Activities

1. WBID Model Development — Finished
2. WBID Models Coverage — Finished
3. Initial WBID Models Inputs — Finished
4. Boundary Conditions — Finished
5. Initial WBID Model Simulations — Finished
6. Final WBID Model Model Inputs — Waiting on Final Changes
7. Final WBID Model Simulations — Waiting on Final Inputs
8. Canal Model Inputs — Waiting on WBIDs Model Data
9. Canal Model Simulations — Waiting on WBIDs Model Data

Fully Committed for 2010.5

Model Inputs

KEY WEST	TN (lbs)	TP (lbs)
Wastewater Load	175,242	52,573
Stormwater Load	20,852	2,930
Base Load	196,094	55,503
Management Actions	-175,242	-52,573
Net Load	20,852	2,930
Projected Reduction	89%	95%

KEY COLONY BEACH	TN (lbs)	TP (lbs)
Wastewater Load	8,244	2,473
Stormwater Load	1,516	225
Base Load	9,760	2,698
Management Actions	-4,122	-2,061
Net Load	5,638	637
Projected Reduction	42%	76%

LAYTON	TN (lbs)	TP (lbs)
Wastewater Load	1,157	347
Stormwater Load	552	78
Base Load	1,709	425
Management Actions	-578	-289
Net Load	1,131	136
Projected Reduction	34%	68%

KEY LARGO WTD	TN (lbs)	TP (lbs)
Wastewater Load	132,163	38,326
Stormwater Load	0	0
Base Load	132,163	38,326
Management Actions	-132,163	-38,326
Net Load	0	0
Projected Reduction	100%	100%

Less Than Fully Committed To Meet 2010.5 Requirements

Model Inputs

MARATHON	TN (lbs)	TP (lbs)
Wastewater Load	99,658	26,431
Stormwater Load	23,787	3,565
Base Load	123,445	29,996
Management Actions	-18,791	-8,072
Net Load	104,654	21,924
Projected Reduction	15%	27%

ISLAMORADA	TN (lbs)	TP (lbs)
Wastewater Load	89,695	26,217
Stormwater Load	20,914	2,978
Base Load	110,609	29,195
Management Actions		
Net Load	110,609	29,195
Projected Reduction	0%	0%

FDOT	TN (lbs)	TP (lbs)
Wastewater Load	0	0
Stormwater Load	24,014	5,192
Base Load	24,014	5,192
Management Actions		
Net Load	24,014	5,192
Projected Reduction	0%	0%

Florida Keys Reasonable Assurance Documentation

U. S. Navy

Model Inputs

	Facility	Baseline TN (lbs)	Baseline TP (lbs)	Reduction TN (lbs)	Reduction TP (lbs)	Net TN (lbs)	Net TP (lbs)
WW	Key West	5,274	1,582	5,274	1,582	0	0
	Boca Chica	10,384	3,115	0	0	10,384	3,115
	Saddle Bunch					0	0
	Subtotals:	15,658	4,697	5,274	1,582	10,384	3,115
SW	Key West	2,929	506	0	0	2,929	506
	Boca Chica	15,595	3,154	0	0	15,595	3,154
	Saddle Bunch					0	0
	Subtotals:	18,524	3,660	0	0	18,524	3,660
Both	Key West	8,203	2,088	5,274	1,582	2,929	506
	Boca Chica	25,979	6,269	0	0	25,979	6,269
	Saddle Bunch	0	0	0	0	0	0
	TOTALS	34,182	8,357	5,274	1,582	28,908	6,775

Florida Keys Reasonable Assurance Documentation

Florida State Parks

Model Inputs

Park	Baseline TN (lbs)	Baseline TP (lbs)	Reduction TN (lbs)	Reduction TP (lbs)	Net TN (lbs)	Net TP (lbs)
Bahia Honda	800	240	400	200	400	40
Curry Hammock	762	228	14	7	748	221
Dagney Johnson (Key Largo Hammock)	948	271	-	-	948	271
Zachery Taylor	60	18	-	-	60	18
Indian Key	158	47	-	-	158	47
Pennekamp	6,252	1,759	2,134	547	4,118	1,212
San Pedro (Underwater)	-	-	-	-	-	-
Lignumvitae Key	100	29	-	-	100	29
Long	233	70	116	58	117	12
Windley Key	354	106	-	-	354	106
All Parks	9,667	2,768	2,664	812	7,003	1,956
					28%	29%

Florida Keys Reasonable Assurance Documentation

Model Inputs

Monroe County

Composite

KEY LARGO WTD	TN (lbs)	TP (lbs)
Wastewater Load	132,163	38,326
Stormwater Load	0	0
Base Load	132,163	38,326
Management Actions	-132,163	-38,326
Net Load	0	0
Projected Reduction	100%	100%

FKAA/Monroe Co	TN (lbs)	TP (lbs)
Wastewater Load	291,331	87,199
Stormwater Load	153,705	23,934
Base Load	445,036	111,133
Management Actions	-22,714	-2,453
Net Load	422,323	108,680
Projected Reduction	5%	2%

CONSOLIDATED	TN (lbs)	TP (lbs)
Wastewater Load	423,494	125,525
Stormwater Load	153,705	23,934
Base Load	577,199	149,459
Management Actions	-154,877	-40,778
Net Load	422,323	108,680
Projected Reduction	27%	27%

Florida Keys Reasonable Assurance Documentation

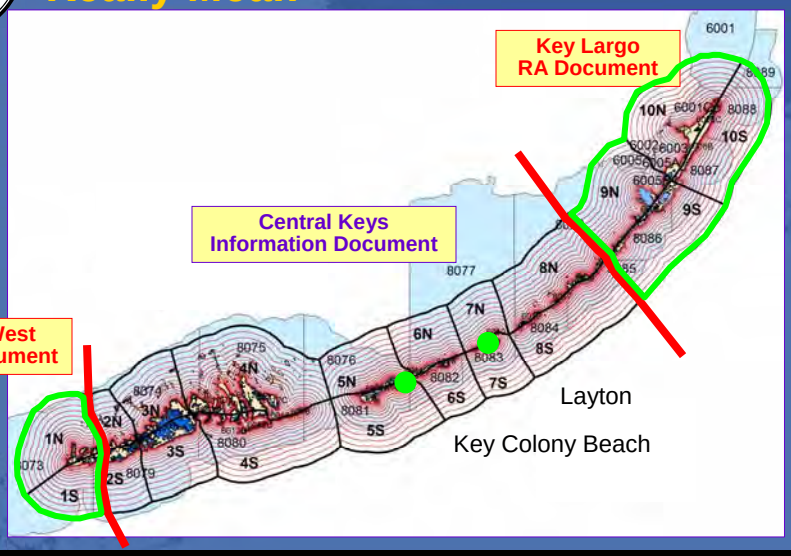
Total Florida Keys

Model Inputs

	TN (lbs)	TP (lbs)
Wastewater Load	822,814	240,732
Stormwater Load	286,315	46,142
Base Load	1,109,129	286,874
Management Actions	-350,999	-103,003
Net Load	758,130	183,870
Projected Reduction	32%	36%

Natural Plus Anthropogenic Loads

What All of These Numbers Really Mean



CRITICAL STAKEHOLDER DECISIONS

- Number of RA Documents
- Agreement Participants
- Other Interest?

Scott McClelland
CDM

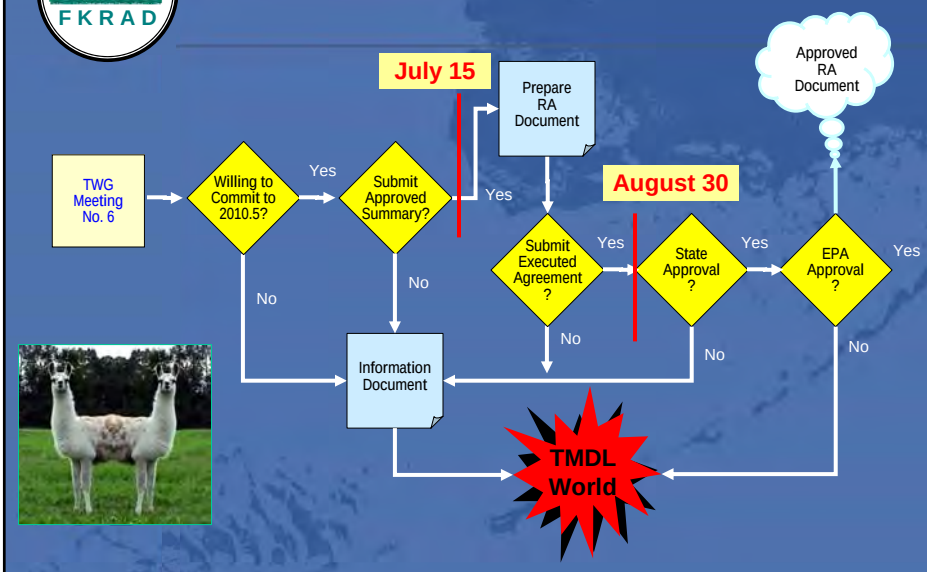
Option A: Produce Only One RA Document

- **Advantages**
  - Cooperative Approach
  - Original Plan
- **Disadvantages**
  - Inconsistent Level of Assurance
    - Some are Further Along Than Others
    - Different Levels of Completion
    - Varying Levels of Commitment
  - Significantly Different WQ Projections
  - No Federal Precedent
- **Will Likely Fail**

Option B:
3 Separate Documents

- **2 Reasonable Assurance Documents**
  - Key West
  - Key Largo
- **1 Information Document**
  - Rest of Stakeholders
- **Advantages**
  - Greatest Success Chance for Completed Communities
  - Limited Documents
  - Can Reference Others
- **Disadvantages**
  - Not All Stakeholders Will Succeed
  - No Guarantees for the Completed Communities

What Do We Do Now?



INITIAL DRAFT OF THE STAKEHOLDER AGREEMENT

- Intent
- Form of the Agreement
- Initial Draft Document

Steve Lienhart
URS Corporation

Intent of the Agreement

- **Identify Participants**
  - Stakeholders/Implementers
  - Regulators, Programs, and Other Interests
- **Define Management Activities**
- **Establish Responsibilities**
  - What You Agree to Do In Your Community
- **Identify Anticipated Benefits**
- **Confirm Participation**

FKRAD Stakeholders Agreement

- Geographic Coverage
  - Likely To Be Geographically Differentiated
  - May Be Multiple Agreements
- No Centralized Management Entity
  - Implementation by Individual Stakeholders
  - Local Progress Reporting by Individual Stakeholders
  - Integration of Progress Reports by FDEP
- Key Details in the Agreement
  - Specific Management Actions
  - Identification of Implementation Responsibilities
  - Quantitative Nutrient Reductions Expected by WBID
  - Comparative Nutrient Concentration Changes
- Allow 3rd Party Endorsements

Geographic Scope

Many Possibilities

- Regional
  - All Keys
  - Upper – Middle – Lower Keys
  - Multiple Islands
  - Single Jurisdiction
  - Single Island
  - Single WBID
- Some Combination

- **Flexibility**
  Can Accommodate Any of the Options
- **EPA**
  - Questioned These Options
  - Ultimately Must Concur With Choice

Conclusion: **Strategy Not Finalized**

Stakeholders Agreement Structure

Background

I. Mission

II. Guiding Principles

III. Organization

IV. Education, Outreach, Implementation

V. Stakeholder Involvement and Commitments

VI. Measures of Success

Signatory Pages

Individual Stakeholder Commitments

- **Specific Management Actions**
- **Specific Service Areas**
- **Investments**
  - Land
  - Construction
  - Operations
- **Schedule**
- **Reporting of Accomplishments**

FKRAD DOCUMENTS

- Table of Contents
- Stakeholder Information
- Review Process and Schedule

Scott McClelland
CDM

FKRAD Preliminary Outline

- Background
- Description of Impaired Water Body
- Description of Water Quality Goals
- Description of Proposes Management Actions
- Procedures for Monitoring and Reporting Results
- Proposed Corrective Actions

Stakeholder Status

	Comp Plan	Wastewater Master Plan	Stormwater Master Plan	Other Plans and Data	Implementation Schedule
FDOT	NA	NA	✓	✓	✓
Islamorada	✓	✓	✓	✓	Waiting
Key Colony Beach	✓	NR	✓	✓	✓
Key West	✓	NR	✓	✓	✓
Layton	✓	✓	None	NA	✓
Marathon	✓	✓	✓	✓	✓
Monroe County	✓	✓	✓	✓	✓
State Parks	NA	✓	✓	✓	✓
U.S. Navy	NA	Waiting	Waiting	Waiting	Waiting
FKAA	NA	✓	NA	NA	✓
KLWTD	NA	✓	NA	NA	✓

✓ = Obtained

ACTION ITEMS

- Draft Stakeholder Summary Review Comments
- Working Schedules
- Draft Stakeholder Agreement Review Comments
- Technical Working Group Meetings

Steve Lienhart
URS Corporation

Working Schedule

- Technical Working Group Meetings
  - Charter Meeting: October 24, 2006
  - Meeting 1: November 17, 2006
  - Meeting 2: December 13, 2006
  - Meeting 3: February 23, 2007
  - Meeting 4: March 23, 2007
  - Meeting 5: April 26, 2007
  - **Meeting 6: June 29, 2007**
  - Meeting 7: July 25, 2007
  - Meeting 8: August 23, 2007

Working Schedule

FKRAD Document

Completion of One-on-One Interviews	February (Done)
Delivery of Draft Stakeholder Summaries	March (Done)
Completion of Initial Stakeholder Reviews	April (Done)
Finalization of Stakeholder Summaries	June (This Meeting)
Digital Release of Draft FKRAD Document	June/July
Digital Release of Interim Document	July/August
Digital Release of Final Document	September
Distribution of Final Printed Document	September/October

Stakeholders Agreement

Release of Initial Draft Agreement	April
Release of Interim Draft Agreement	June (This Meeting)
Distribution of Final Agreement	August
Execution of the Final Agreement	September

Next Meeting

TWG Meeting Number 7

PROJECTED NUTRIENT CHANGES AND FINALIZED STAKEHOLDER SUMMARIES

June 29th ❖ 9:30AM – 1:30PM

Marathon Government Center
2796 Overseas Highway
Conference Room 104
Marathon, Florida

Questions?

Adaptive Management