REVISED
AGENDA

MONROE COUNTY BOARD OF COUNTY COMMISSIONERS

Any person who wishes to be heard shall provide the Clerk with his or her name and residence and the agenda item on which he or she wishes to be heard. Such information shall be on a card provided by the County. Once public input begins, there will be no further speaker cards allowed to be submitted to the Clerk for that subject. An individual has three minutes and a person representing an organization has five minutes to address the Board (except that individuals wishing to speak during public hearings pertaining to land use issues will have five minutes). The first person representing the organization will be allowed the five minutes. Subsequently, all other speakers on behalf of that organization have three minutes to address the Board. Once an individual has addressed the Board, he or she will not be permitted to return to the podium for follow-up comments, unless the issue involved is quasi judicial in nature. In that case, the applicant may return to the podium to conclude his or her position at the end of the public hearing.

ADA ASSISTANCE: If you are a person with a disability who needs special accommodations in order to participate in this proceeding, please contact the County Administrator's Office, by phoning (305) 292-4441, between the hours of 8:30 a.m. - 5:00 p.m., no later than five (5) calendar days prior to the scheduled meeting; if you are hearing or voice impaired, call "711".

Pleas note that all time approximate items are listed in bold.

Wednesday, April 13, 2016
Marathon Government Center
2798 Overseas Highway
MM 47.5 (Gulf)
Marathon, Florida

TIME APPROXIMATE **SPECIAL MEETING**

10:00 A.M. **CALL TO ORDER**
SALUTE TO FLAG

A. ADDITIONS,CORRECTIONS, DELETIONS

1. Approval Of Agenda.

B. 10:00 A.M. PUBLIC HEARINGS

1. The Second Of Two Public Hearings To Consider Adopting An Ordinance Of The Monroe County Board Of County Commissioners Amending The Monroe County Year 2010 Comprehensive Plan To Be Consistent With The Results Of

The Technical Document Update (Data And Analysis), The Adopted 2012 Evaluation And Appraisal Report And The 2014 Evaluation And Appraisal Notification Letter And Adopting The Monroe County Year 2030 Comprehensive Plan, Attached As Exhibit 1; Providing For Severability, Providing For The Repeal Of Conflicting Provisions, Providing For Transmittal To The State Land Planning Agency And The Secretary Of State; Providing For Inclusion In The Monroe County Comprehensive Plan, Providing For An Effective Date. (Legislative Proceeding)

Comprehensive Plan Amendment files can be accessed here: HTTP://KEYSCOMPPLAN.COM/FACTS-INFORMATION-RESOURCES/COMPREHENSIVE-PLAN-DOCUMENTS/

Documents: B1.PDF

2. The Second Of Two Public Hearings To Consider Adoption Of An Ordinance Of The Monroe County Board Of County Commissioners Amending The Monroe County Land Development Code (LDC) To Be Consistent With The Proposed Monroe County Year 2030 Comprehensive Plan, The Results Of The Comprehensive Plan Technical Document Update (Data And Analysis), The Adopted 2012 Evaluation And Appraisal Report And The 2014 Evaluation And Appraisal Notification Letter, LDC Attached As Exhibit 1, Providing For Severability; Providing For The Repeal Of Conflicting Provisions; Providing For Transmittal To The State Land Planning Agency And The Secretary Of State; Providing For Inclusion In The Monroe County Code; Providing For An Effective Date. (Legislative Proceeding)

Land Development Code Amendment files can be accessed here: HTTP://KEYSCOMPPLAN.COM/FACTS-INFORMATION-RESOURCES/LAND-DEVELOPMENT-CODE-DOCUMENTS/

Documents: B2.PDF

3. A Public Hearing To Consider Adoption Of An Ordinance By The Monroe County Board Of County Commissioners Amending The Monroe County Comprehensive Plan, Adopting The 10-Year Water Supply Plan Update To Be Consistent With The South Florida Water Management District Lower East Coast Water Supply Plan Update Of 2013. (Legislative Proceedi

Documents: B3.PDF

BOARD OF COUNTY COMMISSIONERS
AGENDA ITEM SUMMARY

Meeting Date: April 13, 2016 | Department: Planning & Environmental Resources
Bulk Item: Yes ____ No X | Staff Contact Person/Phone #: Mayté Santamaria 289-2562
Emily Schemper 289-2506

AGENDA ITEM WORDING: THE SECOND OF TWO PUBLIC HEARINGS TO CONSIDER ADOPTING AN ORDINANCE OF THE MONROE COUNTY BOARD OF COUNTY COMMISSIONERS AMENDING THE MONROE COUNTY YEAR 2010 COMPREHENSIVE PLAN TO BE CONSISTENT WITH THE RESULTS OF THE TECHNICAL DOCUMENT UPDATE (DATA AND ANALYSIS), THE ADOPTED 2012 EVALUATION AND APPRAISAL REPORT AND THE 2014 EVALUATION AND APPRAISAL NOTIFICATION LETTER AND ADOPTING THE MONROE COUNTY YEAR 2030 COMPREHENSIVE PLAN, ATTACHED AS EXHIBIT 1; PROVIDING FOR SEVERABILITY; PROVIDING FOR THE REPEAL OF CONFLICTING PROVISIONS; PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY AND THE SECRETARY OF STATE; PROVIDING FOR INCLUSION IN THE MONROE COUNTY COMPREHENSIVE PLAN; PROVIDING FOR AN EFFECTIVE DATE. (Legislative Proceeding)

ITEM BACKGROUND: County staff, working with Keith and Schnars, P.A., is finalizing Phase 3 (updated Comprehensive Plan) of the four-phased Comprehensive Plan update process. The Comprehensive Plan (Plan) update process started with the updating and revising of the Technical Document (the Data and Analysis to the Plan), which was completed in May 2011. The Monroe County 2010 Comprehensive Plan Evaluation and Appraisal Report (EAR) was completed and adopted by the BOCC on May 22, 2012. The EAR yielded 127 recommendations to update the Plan relating to issues such as county-wide visioning and planning, economic sustainability, redevelopment, water dependent/water related uses, natural resource protection, climate change, affordable housing, public involvement/information and intergovernmental coordination. Additionally, the EAR identified outdated or no longer applicable objectives and policies.

Draft amendments to the Comprehensive Plan have been prepared to implement the EAR strategies, to reflect the updated Technical Document and to comply with requirements established by state and federal law. Comprehensive Plan amendments also reflect the results of the "Analysis of Coastal Barrier Resources System Policies and Regulations in Monroe County, Florida," data and analysis, prepared by Keith and Schnars, P.A., and the "Monroe County Marina Siting Plan," data and analysis, prepared by the South Florida Regional Planning Council. All proposed amendments to the Monroe County Year 2010 Comprehensive Plan and associated data and analysis can be reviewed on the project website at www.keyscompplan.com.

On February 13, 2013, February 14, 2013, February 15, 2013, and March 26, 2013, the Monroe County Development Review Committee held four special public meetings to review and discuss the proposed amendments to the Comprehensive Plan based upon the results of the Technical Document Update, EAR and public comment.

On September 23, 2013, October 1, 2013, and October 10, 2013, the Planning Commission held three special public meetings to review and discuss the proposed amendments to the Comprehensive Plan based upon the results of the Technical Document Update, EAR and public comment.

On November 15, 2013, the Planning Commission held a special public hearing and by Resolution No. P28-13 recommended approval to the BOCC of proposed amendments to the Comprehensive Plan

based upon the results of the Technical Document Update, EAR, staff and Consultant input and reports, and comments by the public.

The BOCC held special public meetings on March 21, 2014, April 23, 2014 and May 22, 2014, to review proposed amendments to the Comprehensive Plan. A special BOCC public hearing was held on July 23, 2014, to consider the transmittal of the proposed amendments (the Monroe County 2030 Comprehensive Plan) to the Florida Department of Economic Opportunity (DEO) and the hearing was continued to October 7, 2014.

A special BOCC public hearing was held on October 7, 2014, to consider the transmittal of the proposed amendments (the Monroe County 2030 Comprehensive Plan) to the Florida Department of Economic Opportunity (DEO) and the hearing was continued to December 10, 2014, to discuss the following:

- Policies 101.5.31 and 101.5.32: BOCC directed staff to work on height policies for addressing the replacement of existing buildings which exceed the 35ft height limit, architectural features, flood protection purposes and affordable housing. Staff to present drafts during the regular December BOCC meeting.
- BOCC directed staff to work on an inventory/data of privately-owned offshore islands. Staff to present draft during the regular December BOCC meeting.

During the regular December 10, 2014 BOCC meeting, a public hearing was held to discuss proposed height and offshore island policies and to consider the transmittal of the proposed amendments (the Monroe County 2030 Comprehensive Plan) to the Florida Department of Economic Opportunity (DEO). The BOCC directed staff to maintain the existing adopted height and offshore island policies and to process separate amendments to address these topics. A transmittal hearing was scheduled for January 14, 2015.

On January 14, 2015, the BOCC held a special public hearing to consider the transmittal of the proposed amendments (the Monroe County 2030 Comprehensive Plan) to the Florida Department of Economic Opportunity (DEO) and the BOCC voted to transmit the proposed comprehensive plan amendments to the State Land Planning Agency.

The State Land Planning Agency issued it Objections, Recommendations and Comments (ORC) report on April 28, 2015. The State Land Planning Agency identified 7 objections and 4 comments in the ORC report. The County must address the 7 identified objections and determine whether to adopt the amendments, adopt the amendments with changes or not adopt the amendments. The County is not required to make modifications relative to the 4 comments. County staff working with Keith and Schnars, P.A., reviewed and developed a draft response to the State Land Planning Agency's ORC report, which was reviewed by the BOCC at a special public meeting on September 2, 2015. The BOCC directed staff to prepare the amendments for adoption with the changes discussed.

Upon receipt of the ORC report, the BOCC would normally have 180 days to adopt the amendments, adopt the amendments with changes or not adopt the amendments. The BOCC requested an extension from DEO of an additional 180 days to allow the County to address the ORC report and adopt the 2030 Comprehensive Plan and updated Land Development Code at the same time to ensure consistent effective dates (and avoid inconsistencies between a new comprehensive plan and the existing land development code). The extension request was granted, and the new deadline for adoption is April 22, 2016.

This is the second public hearing to consider adoption of the proposed EAR-related and EA-related comprehensive plan amendments.

Two special BOCC public hearings to consider adoption of the proposed amendments to the Land Development Code are also scheduled for March 1, 2016 and April 13, 2016.

PREVIOUS RELEVANT BOCC ACTION:

On January 19, 2011, and on June 20, 2011, Keith and Schnars provided a presentation to the BOCC on the Technical Document Update (data and analysis) of the Monroe County 2010 Comprehensive Plan

On November 16, 2011, Keith and Schnars provided a presentation to the BOCC on the first portion of the draft Evaluation and Appraisal Report.

On March 19, 2012, Keith and Schnars provided a presentation to the BOCC on the second portion of the draft Evaluation and Appraisal Report.

On May 22, 2012, the BOCC adopted, by Resolution 150-2012, the 2012 EAR for the Monroe County Comprehensive Plan.

On March 21, 2014, the BOCC held a special public meeting and reviewed, discussed and provided direction on the Introduction and Background; Mass Transit Element; Traffic Circulation Element; Capital Improvements Element; and the Conservation and Coastal Management Element.

On April 23, 2014, the BOCC held a special public meeting and reviewed, discussed and provided direction on the Energy and Climate Element; Cultural Resources Element; and Future Land Use Element.

On May 22, 2014, the BOCC held a special public meeting and reviewed, discussed and provided direction on the Sanitary Sewer Element; Drainage Element; Solid Waste Element; Potable Water Element; Intergovernmental Coordination Element; Ports, Aviation and Related Facilities Element; Housing Element; Recreation and Open Space Element; Natural Groundwater Aquifer Recharge Element; Public Participation section; Monitoring and Evaluation section and the Glossary.

On July 23, 2014, the BOCC held a special public hearing (transmittal hearing) and reviewed, discussed and provided direction on all the proposed elements of the 2030 Comprehensive Plan. The BOCC continued to hearing to October 7, 2014, to consider the transmittal of the proposed amendments (the Monroe County 2030 Comprehensive Plan) to the State Land Planning Agency.

On October 7, 2014, the BOCC held a special public hearing (transmittal hearing) and reviewed, discussed and provided direction on all the proposed elements of the 2030 Comprehensive Plan. The BOCC continued to hearing to December 10, 2014, to consider the transmittal of the proposed amendments (the Monroe County 2030 Comprehensive Plan) to the State Land Planning Agency.

On December 10, 2014, the BOCC held a public hearing (transmittal hearing) and reviewed, discussed and provided direction on proposed elements of the 2030 Comprehensive Plan related to height and offshore islands. The BOCC continued the transmittal hearing to January, 14, 2015, to consider the transmittal of the proposed amendments (the Monroe County 2030 Comprehensive Plan) to the State Land Planning Agency.

On January 14, 2015, the BOCC held a public hearing (transmittal hearing) and reviewed, discussed and provided direction on proposed elements of the 2030 Comprehensive Plan and voted to transmit the proposed 2030 Comprehensive Plan to the State Land Planning Agency for review.

On September 2, 2015, at a special public meeting, the BOCC discussed and provided direction on the proposed, draft response to the State Land Planning Agency's Objections, Recommendations and Comments report on the transmitted Monroe County 2030 Comprehensive Plan.

On March 1, 2016, at a special public meeting, the BOCC held the first of two public hearings to consider adoption of the Monroe County 2030 Comprehensive Plan.

CONTRACT/AGREEMENT CHANGES: N/A

STAFF RECOMMENDATIONS: APPROVAL and ADOPTION.

TOTAL COST:_____ **INDIRECT COST:** _____ **BUDGETED:** Yes ___ No __

DIFFERENTIAL OF LOCAL PREFERENCE: _____

COST TO COUNTY:_____ **SOURCE OF FUNDS:**_____

REVENUE PRODUCING: Yes __ No ____ **AMOUNT PER MONTH**___ **Year** ___

APPROVED BY: County Atty STW 3/28/16 OMB/Purchasing ____ Risk Management _____

DOCUMENTATION: Included __X__ Not Required___

DISPOSITION:_____ **AGENDA ITEM #**_____

MONROE COUNTY, FLORIDA
MONROE COUNTY BOARD OF COUNTY COMMISSIONERS
ORDINANCE NO. ____ - 2016

AN ORDINANCE OF THE MONROE COUNTY BOARD OF COUNTY COMMISSIONERS AMENDING THE MONROE COUNTY YEAR 2010 COMPREHENSIVE PLAN TO BE CONSISTENT WITH THE RESULTS OF THE TECHNICAL DOCUMENT UPDATE (DATA AND ANALYSIS), THE ADOPTED 2012 EVALUATION AND APPRAISAL REPORT AND THE 2014 EVALUATION AND APPRAISAL NOTIFICATION LETTER AND ADOPTING THE MONROE COUNTY YEAR 2030 COMPREHENSIVE PLAN, ATTACHED AS EXHIBIT 1; PROVIDING FOR SEVERABILITY; PROVIDING FOR THE REPEAL OF CONFLICTING PROVISIONS; PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY AND THE SECRETARY OF STATE; PROVIDING FOR INCLUSION IN THE MONROE COUNTY COMPREHENSIVE PLAN; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Monroe County Board of County Commissioners adopted the Monroe County Comprehensive Plan on April 15, 1993; as amended pursuant to DCA Rule 9J-14.022, Florida Administrative Code on January 4, 1996, and adopted by Florida Administrative Code Rule 28-20.100 Part I, January 2, 1996 and Part II, July 14, 1997; and

WHEREAS, the Florida Legislature intends that local planning be a continuous process, and the Florida Statutes encourage local governments to comprehensively evaluate and, as necessary, update comprehensive plans to reflect changes in local conditions; and

WHEREAS, the Monroe County Board of County Commissioners adopted an Evaluation and Appraisal Report (EAR), pursuant to Section 163.3191, Florida Statutes, for the Monroe County Year 2010 Comprehensive Plan on August 18, 2004, and subsequently adopted Comprehensive Plan amendments in accordance with the 2004 EAR; and

WHEREAS, Monroe County commenced a new EAR process in 2010 with active public participation provided; and

WHEREAS, the Monroe County Planning Commission, acting as the designated Local Planning Agency, reviewed the 2012 EAR, held advertised special public meetings on November

2, 2011, and February 6, 2012, and provided for participation by the public in the process, and rendered its recommendations to the Board of County Commissioners; and;

WHEREAS, the Board of County Commissioners reviewed the EAR, held an advertised public meeting on November 16, 2011, and an advertised special public meeting on March 19, 2012, provided for comments and public participation in the process in accordance with the requirements of state law and the procedures adopted for public participation in the planning process; and

WHEREAS, the Board of County Commissioners held a special public meeting on May 22, 2012, and adopted Resolution No. 150-2012 adopting the 2012 Evaluation and Appraisal Report (EAR) for the Monroe County Year 2010 Comprehensive Plan; and

WHEREAS, the Monroe County Planning Commission, acting as the Local Planning Agency (LPA), held advertised special public meetings on September 23, 2013, October 1, 2013 and October 10, 2013 to review the proposed EAR-related comprehensive plan amendments, and provided for comments and public participation in accordance with the requirements of state law and the procedures adopted for public participation in the planning process; and

WHEREAS, the Monroe County Planning Commission, acting as the Local Planning Agency (LPA), held an advertised special public hearing on November 15, 2013, provided for comments and public participation in accordance with the requirements of state law and the procedures adopted for public participation in the planning process, and recommended proposed EAR-related comprehensive plan amendments to the BOCC; and

WHEREAS, the Board of County Commissioners held advertised special public hearings on March 21, 2014, April 23, 2014, and May 22, 2014, to review proposed EAR-related comprehensive plan amendments and provided for comments and public participation in accordance with the requirements of state law and the procedures adopted for public participation in the planning process; and

WHEREAS, in 2011, Section 163.3191(1), Florida Statutes, was amended; it directed local governments to evaluate their comprehensive plans at least once every seven years to determine if plan amendments are necessary to reflect changes in state requirements since the last update of the comprehensive plan, and to submit an Evaluation and Appraisal (EA) Notification Letter to the State Land Planning Agency; and

WHEREAS, the State Land Planning Agency revised the Monroe County EA deadline to May 1, 2014, in Rule 73C-49, F.A.C.; and

WHEREAS, the Board of County Commissioners held a public hearing on April 23, 2014, and approved the EA Notification Letter to the State Land Planning Agency which specified the necessary plan amendments required to reflect changes in requirements in State Statutes; and

WHEREAS, the Board of County Commissioners held an advertised special public hearing on July 23, 2014, provided for public comment and public participation in accordance with the requirements of state law and the procedures adopted for public participation in the planning process, to transmit EAR-related and EA-related comprehensive plan amendments to the State Land Planning Agency and Reviewing Agencies as defined in Section 163.3184(1)(c), Florida Statutes for review and comment; and

WHEREAS, the Board of County Commissioners continued the public hearing to consider transmittal to October 7, 2014; and

WHEREAS, the Board of County Commissioners held an advertised special public hearing on October 7, 2014, provided for public comment and public participation in accordance with the requirements of state law and the procedures adopted for public participation in the planning process, to transmit EAR-related and EA-related comprehensive plan amendments to the State Land Planning Agency and Reviewing Agencies as defined in Section 163.3184(1)(c), Florida Statutes for review and comment; and

WHEREAS, the Board of County Commissioners continued the public hearing to consider transmittal to December 10, 2014, to further discuss height policies for addressing the replacement of existing buildings which exceed the 35ft height limit, non-habitable architectural decorative features, flood protection purposes and affordable housing as well as review of an inventory of privately-owned offshore islands in unincorporated Monroe County; and

WHEREAS, the Board of County Commissioners held an advertised public hearing on December 10, 2014, provided for public comment and public participation in accordance with the requirements of state law and the procedures adopted for public participation in the planning process, to transmit EAR-related and EA-related comprehensive plan amendments to the State Land Planning Agency and Reviewing Agencies as defined in Section 163.3184(1)(c), Florida Statutes for review and comment; and

WHEREAS, the Board of County Commissioners directed staff to maintain the existing adopted height and offshore island policies and to process separate amendments to address these topics; and

WHEREAS, the Board of County Commissioners continued the public hearing to consider transmittal to January 14, 2015; and

WHEREAS, the Board of County Commissioners held an advertised special public hearing on January 14, 2015, provided for public comment and public participation in accordance with the requirements of state law and the procedures adopted for public participation in the planning process, to transmit EAR-related and EA-related comprehensive plan amendments to the State Land Planning Agency and Reviewing Agencies as defined in Section 163.3184(1)(c), Florida Statutes for review and comment; and

WHEREAS, the Board of County Commissioners adopted a resolution transmitting the proposed amendments to the to the State Land Planning Agency and Reviewing Agencies as defined in Section 163.3184(1)(c), Florida Statutes for review and comment; and

WHEREAS, on April 28, 2015, the State Land Planning Agency issued its Objections, Recommendations, and Comments (ORC) report. The ORC report identified seven (7) objections and four (4) comments on the proposed comprehensive plan amendments; and

WHEREAS, the County must address the seven (7) identified objections and determine whether to adopt the amendments, adopt the amendments with changes or not adopt the amendments; and

WHEREAS, the County is not required to make modifications relative to the four (4) comments; and

WHEREAS, in response to the ORC Report, Monroe County has made changes to the proposed amendments to address five (5) objections identified by the State Land Planning Agency and provided additional detail and a response to the other ORC objections; and

WHEREAS, the Board of County Commissioners held two (2) advertised special public hearings on March 1, 2016, and April 13, 2016, to consider adoption of the proposed EAR-related and EA-related comprehensive plan amendments, and provided for comments and public participation in accordance with the requirements of state law and the procedures adopted for public participation in the planning process.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF MONROE COUNTY, FLORIDA, THAT:

Section 1. The Monroe County 2010 Comprehensive Plan is amended as shown in Exhibit 1, attached hereto. (Deletions are ~~stricken through~~ and additions are underlined.)

Section 2. The Monroe County 2030 Comprehensive Plan is hereby created and adopted with the amendments identified within Exhibit 1, which is attached hereto and incorporated herein.

Section 3. Severability. If any section, subsection, sentence, clause, item, change, or provision of this ordinance is held invalid, the remainder of this ordinance shall not be affected by such validity.

Section 4. Repeal of Inconsistent Provisions. All ordinances or parts of ordinances in conflict with this ordinance are hereby repealed to the extent of said conflict.

Section 5. Transmittal. This ordinance shall be transmitted by the Planning Department to the Florida State Land Planning Agency pursuant to Chapter 163 and 380, Florida Statutes.

Section 6. Filing and Effective Date. This ordinance shall be filed in the Office of the Secretary of State of Florida, but shall not become effective until a notice is issued by the Florida

State Land Planning Agency or Administration Commission finding the amendment in compliance, and if challenged until such challenge is resolved pursuant to Chapter 120, F.S.

PASSED AND ADOPTED by the Board of County Commissioners of Monroe County, Florida, at a regular meeting held on the _____ day of _____, 2016.

Mayor Heather Carruthers _____
Mayor *Pro Tem* George Neugent _____
Commissioner Danny Kolhage _____
Commissioner David Rice _____
Commissioner Sylvia Murphy _____

BOARD OF COUNTY COMMISSIONERS
OF MONROE COUNTY, FLORIDA

BY _____
Mayor Heather Carruthers

(SEAL)

ATTEST: AMY HEAVILIN, CLERK

_____
DEPUTY CLERK

MONROE COUNTY ATTORNEY
APPROVED AS TO FORM:
Steven T. Williams
STEVEN T. WILLIAMS
ASSISTANT COUNTY ATTORNEY
Date 3/28/16

BOARD OF COUNTY COMMISSIONERS
AGENDA ITEM SUMMARY

Meeting Date: April 13, 2016
Bulk Item: Yes ____ No X

Department: Planning & Environmental Resources
Staff Contact Person/Phone #: Mayté Santamaria 289-2562
Emily Schemper 289-2506

AGENDA ITEM WORDING: THE SECOND OF TWO PUBLIC HEARINGS TO CONSIDER ADOPTION OF AN ORDINANCE OF THE MONROE COUNTY BOARD OF COUNTY COMMISSIONERS AMENDING THE MONROE COUNTY LAND DEVELOPMENT CODE (LDC) TO BE CONSISTENT WITH THE PROPOSED MONROE COUNTY YEAR 2030 COMPREHENSIVE PLAN, THE RESULTS OF THE COMPREHENSIVE PLAN TECHNICAL DOCUMENT UPDATE (DATA AND ANALYSIS), THE ADOPTED 2012 EVALUATION AND APPRAISAL REPORT AND THE 2014 EVALUATION AND APPRAISAL NOTIFICATION LETTER, LDC ATTACHED AS EXHIBIT 1; PROVIDING FOR SEVERABILITY; PROVIDING FOR THE REPEAL OF CONFLICTING PROVISIONS; PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY AND THE SECRETARY OF STATE; PROVIDING FOR INCLUSION IN THE MONROE COUNTY CODE; PROVIDING FOR AN EFFECTIVE DATE. (Legislative Proceeding)

ITEM BACKGROUND: Sections 163.3194, 163.3201, 163.3202, Florida Statutes, require a local government to adopt or amend and enforce land development regulations that are consistent with and implement their adopted comprehensive plan.

County staff, working with Keith and Schnars, P.A., is finalizing Phase 4 (updated Land Development Code) of the four-phased Comprehensive Plan update process. The Comprehensive Plan (Plan) update process started with the updating and revising of the Technical Document (the Data and Analysis to the Plan), which was completed in May 2011. The Monroe County 2010 Comprehensive Plan Evaluation and Appraisal Report (EAR) was completed and adopted by the BOCC on May 22, 2012. The proposed Monroe County 2030 Comprehensive Plan was transmitted to the State Land Planning Agency, as approved by the BOCC on January 14, 2015.

The State Land Planning Agency issued it Objections, Recommendations and Comments (ORC) report on April 28, 2015. County staff working with Keith and Schnars, P.A., reviewed and developed a draft response to the State Land Planning Agency's ORC report, which was reviewed by the BOCC at a special public meeting on September 2, 2015. The BOCC directed staff to prepare the amendments for adoption with the changes discussed related to the ORC report.

The proposed Monroe County 2030 Comprehensive Plan is also scheduled to be considered for adoption at two public hearings on March 1, 2016 and April 13, 2016.

All proposed amendments to the Monroe County Land Development Code, proposed Monroe County 2030 Comprehensive Plan and associated data and analysis can be reviewed on the project website at www.keyscompplan.com.

On October 16, 2014, October 21, 2014, and October 27, 2014, the Monroe County Development Review Committee held special public meetings to review proposed amendments to the Land Development Code to be consistent with the transmitted Monroe County Year 2030 Comprehensive Plan, the results of the Technical Document Update, EAR, and public comment.

On March 19, 2015, April 9, 2015, and April 23, 2015, the Planning Commission (PC) held special public meetings to review proposed amendments to the Land Development Code to be consistent with

the transmitted Monroe County Year 2030 Comprehensive Plan, the results of the Technical Document Update, EAR, and public comment.

On June 17, 2015, the PC (Local Planning Agency) held a special public hearing and recommended approval to the BOCC the proposed amendments to the Land Development Code to be consistent with the transmitted Monroe County Year 2030 Comprehensive Plan, the results of the Technical Document Update, EAR, and public comment.

On September 2, 2015 and October 1, 2015, the BOCC held two special public hearings to review the proposed amendments to the Monroe County Land Development Code. The amendments currently proposed for adoption reflect BOCC direction given at those hearings.

A second public hearing to consider adoption of the proposed EAR-related and EA-related land development code amendments is scheduled for April 13, 2016.

PREVIOUS RELEVANT BOCC ACTION:
On January 19, 2011, and on June 20, 2011, Keith and Schnars provided a presentation to the BOCC on the Technical Document Update (data and analysis) of the Monroe County 2010 Comprehensive Plan

On November 16, 2011, Keith and Schnars provided a presentation to the BOCC on the first portion of the draft Evaluation and Appraisal Report.

On March 19, 2012, Keith and Schnars provided a presentation to the BOCC on the second portion of the draft Evaluation and Appraisal Report.

On May 22, 2012, the BOCC adopted, by Resolution 150-2012, the 2012 EAR for the Monroe County Comprehensive Plan.

On March 21, 2014, the BOCC held a special public meeting and reviewed, discussed and provided direction on the Introduction and Background; Mass Transit Element; Traffic Circulation Element; Capital Improvements Element; and the Conservation and Coastal Management Element.

On April 23, 2014, the BOCC held a special public meeting and reviewed, discussed and provided direction on the Energy and Climate Element; Cultural Resources Element; and Future Land Use Element.

On May 22, 2014, the BOCC held a special public meeting and reviewed, discussed and provided direction on the Sanitary Sewer Element; Drainage Element; Solid Waste Element; Potable Water Element; Intergovernmental Coordination Element; Ports, Aviation and Related Facilities Element; Housing Element; Recreation and Open Space Element; Natural Groundwater Aquifer Recharge Element; Public Participation section; Monitoring and Evaluation section and the Glossary.

On July 23, 2014, the BOCC held a special public hearing (transmittal hearing) and reviewed, discussed and provided direction on all the proposed elements of the 2030 Comprehensive Plan. The BOCC continued to hearing to October 7, 2014, to consider the transmittal of the proposed amendments (the Monroe County 2030 Comprehensive Plan) to the State Land Planning Agency.

On October 7, 2014, the BOCC held a special public hearing (transmittal hearing) and reviewed, discussed and provided direction on all the proposed elements of the 2030 Comprehensive Plan. The BOCC continued to hearing to December 10, 2014, to consider the transmittal of the proposed amendments (the Monroe County 2030 Comprehensive Plan) to the State Land Planning Agency.

On December 10, 2014, the BOCC held a public hearing (transmittal hearing) and reviewed, discussed and provided direction on proposed elements of the 2030 Comprehensive Plan related to height and offshore islands. The BOCC continued the transmittal hearing to January, 14, 2015, to consider the transmittal of the proposed amendments (the Monroe County 2030 Comprehensive Plan) to the State Land Planning Agency.

On January 14, 2015, the BOCC held a public hearing (transmittal hearing) and reviewed, discussed and provided direction on proposed elements of the 2030 Comprehensive Plan and voted to transmit the proposed 2030 Comprehensive Plan to the State Land Planning Agency for review.

On September 2, 2015 and October 1, 2015, the BOCC held public hearings to review and discuss proposed amendments to the Land Development Code to be consistent with the transmitted Monroe County Year 2030 Comprehensive Plan, the results of the Comprehensive Plan Technical Document update, the adopted 2012 Evaluation and Appraisal Report and the 2014 Evaluation and Appraisal Notification Letter. Chapters reviewed at the September hearing included: 101 Definitions; 102 Administration; 103 Temporary Housing; 106 Areas of Critical County Concern; 110 Development Review; 114 Development Standards; and 118 Environmental Protection. Chapters reviewed at the October hearing included: 122 Floodplain Management; 126 Impact Fees; 130 Land Use Districts; 131 Bulk Regulations; 134 Miscellaneous Restrictions; 135 Historic and Cultural Resources; 138 Rate of Growth Restrictions; 139 Affordable and Employee Housing; 142 Signs; and 146 Wireless Communication Facilities.

On March 1, 2016, at a special public meeting, the BOCC held the first of two public hearings to consider adoption of the Monroe County 2030 Comprehensive Plan and the proposed amendments to the Land Development Code to be consistent with the Monroe County Year 2030 Comprehensive Plan.

CONTRACT/AGREEMENT CHANGES: N/A

STAFF RECOMMENDATIONS: APPROVAL and ADOPTION at the April 13, 2016 Special BOCC Public Hearing.

TOTAL COST:_____ **INDIRECT COST:** _____ **BUDGETED:** Yes ___ No ___

DIFFERENTIAL OF LOCAL PREFERENCE: _____

COST TO COUNTY:_____ **SOURCE OF FUNDS:**_____

REVENUE PRODUCING: Yes ___ No ____ **AMOUNT PER MONTH**____ **Year** ____

APPROVED BY: County Atty STW 3/29 OMB/Purchasing ____ Risk Management _____

DOCUMENTATION: Included __X__ Not Required___

DISPOSITION:_____ **AGENDA ITEM #**_____

MONROE COUNTY, FLORIDA
MONROE COUNTY BOARD OF COUNTY COMMISSIONERS
ORDINANCE NO. __ - 2016

AN ORDINANCE OF THE MONROE COUNTY BOARD OF COUNTY COMMISSIONERS AMENDING THE MONROE COUNTY LAND DEVELOPMENT CODE (LDC) TO BE CONSISTENT WITH THE PROPOSED MONROE COUNTY YEAR 2030 COMPREHENSIVE PLAN, THE RESULTS OF THE COMPREHENSIVE PLAN TECHNICAL DOCUMENT UPDATE (DATA AND ANALYSIS), THE ADOPTED 2012 EVALUATION AND APPRAISAL REPORT AND THE 2014 EVALUATION AND APPRAISAL NOTIFICATION LETTER, LDC ATTACHED AS EXHIBIT 1; PROVIDING FOR SEVERABILITY; PROVIDING FOR THE REPEAL OF CONFLICTING PROVISIONS; PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY AND THE SECRETARY OF STATE; PROVIDING FOR INCLUSION IN THE MONROE COUNTY CODE; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, at a special meeting held on April 13, 2016, the Monroe County Board of County Commissioners adopted Ordinance No. ____-2016, amending the Monroe County Year 2010 Comprehensive Plan to be consistent with the results of the Technical Document Update (data and analysis), the adopted 2012 Evaluation and Appraisal Report and the 2014 Evaluation and Appraisal Notification Letter and adopting the Monroe County Year 2030 Comprehensive Plan; and

WHEREAS, in order to be consistent with the adopted Monroe County Year 2030 Comprehensive Plan, amendments to the Land Development Code are necessary; and

WHEREAS, the proposed Land Development Code amendments implement the Comprehensive Plan Goals, Objectives and Policies;address internal inconsistencies; and provide greater clarity for staff and public utilization; and

WHEREAS, the Monroe County Planning Commission, acting as the Local Planning Agency, held advertised special public meetings on March 19, 2015, April 9, 2015, and April 23, 2015 to review the proposed Land Development Code amendments, and provided for comments and public participation in accordance with the requirements of state law and the procedures adopted for public participation in the planning process; and

WHEREAS, the Monroe County Planning Commission, acting as the Local Planning Agency, held an advertised special public hearing on June 17, 2015, provided for comments and public participation in accordance with the requirements of state law and the procedures adopted for public participation in the planning process, and adopted Resolution No. P14-15, recommending approval of the proposed Land Development Code amendments to the Board of County Commissioners; and

WHEREAS, the Board of County Commissioners held advertised special public meetings on September 2, 2015, and October 1, 2015, to review proposed Land Development Code amendments and provided for comments and public participation in accordance with the requirements of state law and the procedures adopted for public participation in the planning process; and

WHEREAS, the Board of County Commissioners held advertised special public hearings on March 1, 2016 at 10:00 am, and April 13, 2016, at 10:00 am to consider adoption of proposed Land Development Code amendments, provided for public comment and public participation in accordance with the requirements of state law and the procedures adopted for public participation in the planning process.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF MONROE COUNTY, FLORIDA, THAT:

Section 1. The Monroe County Land Development Code is amended as shown in Exhibit 1, which is attached hereto and incorporated herein. (Deletions are ~~stricken through~~ and additions are underlined.)

Section 2. Severability. If any section, paragraph, subdivision, clause, sentence or provision of this ordinance shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair, invalidate, or nullify the remainder of this ordinance, but the effect thereof shall be confined to the section, paragraph, subdivision, clause, sentence, or provision immediately involved in the controversy in which such judgment or decree shall be rendered.

Section 3. Conflicting Provisions. In the case of direct conflict between any provision of this ordinance and a portion or provision of any appropriate federal, state, or County law, rule code or regulation, the more restrictive shall apply.

Section 4. Transmittal. This ordinance shall be transmitted to the Florida State Land Planning Agency as required by F.S. 380.05(11) and F.S. 380.0552(9).

Section 5. Filing. This ordinance shall be filed in the Office of the Secretary of the State of Florida but shall not become effective until a notice of Final Order is issued by the Florida State Land Planning Agency or Administration Commission approving the ordinance and any challenge to the order is resolved.

Section 6. Inclusion in the Monroe County Code. The provisions of this Ordinance shall be included and incorporated in the Code of Ordinances of the County of Monroe, Florida, as an addition to amendment thereto, and shall be appropriately renumbered to conform to the uniform marking system of the Code.

Section 7. Effective Date. This ordinance shall become effective as provided by law and stated above. This ordinance applies to any permit, and or other development approval application submitted after the effective date.

PASSED AND ADOPTED by the Board of County Commissioners of Monroe County, Florida, at a special meeting held on the _____ day of _____, 2016.

Mayor Heather Carruthers _____
Mayor *Pro Tem* George Neugent _____
Commissioner Danny Kolhage _____
Commissioner David Rice _____
Commissioner Sylvia Murphy _____

BOARD OF COUNTY COMMISSIONERS
OF MONROE COUNTY, FLORIDA

BY _____
Mayor Heather Carruthers

(SEAL)

ATTEST: AMY HEAVILIN, CLERK

_____
DEPUTY CLERK

MONROE COUNTY ATTORNEY
APPROVED AS TO FORM:
_____
STEVEN T. WILLIAMS
ASSISTANT COUNTY ATTORNEY
Date 3/29/16

BOARD OF COUNTY COMMISSIONERS
AGENDA ITEM SUMMARY

Meeting Date: April 13, 2016 Department: Planning & Environmental Resources
Bulk Item: Yes __ No X Staff Contact Person/Phone #: Mayté Santamaria 289-2500
Emily Schemper 289-2506

AGENDA ITEM WORDING: A public hearing to consider adoption of an ordinance by the Monroe County Board of County Commissioners amending the Monroe County Comprehensive Plan, adopting the 10-Year Water Supply Plan Update to be consistent with the South Florida Water Management District Lower East Coast Water Supply Plan Update of 2013. (Legislative Proceeding)

ITEM BACKGROUND: The Planning & Environmental Resources Department is requesting to amend the Monroe County Comprehensive Plan to adopt a 10-year Water Supply Facilities Work Plan update, pursuant to Section 163.3177(6)(c), F.S., which requires local governments that are subject to a regional water supply plan to update their adopted 10-year water supply facilities work plan within 18 months of the adoption of the regional water supply plan update. The South Florida Water Management District (SFWMD) updated its Lower East Coast Water Supply Plan on September 12, 2013, which identifies areas where water supply, demand, and shortages are projected to occur within the next 20 years.

The Monroe County Water Supply Facilities Work Plan (Work Plan) references the initiatives already identified in FKAA's 20-year Water System Capital Improvement Master Plan. According to state guidelines, the Work Plan and associated comprehensive plan amendments must address the development of traditional and alternative water supplies, bulk sales agreements and conservation and reuse programs that are necessary to serve existing and new development for at least a 10-year planning period. The Monroe County Water Supply Facilities Work Plan will have the same planning time schedule consistent with the Comprehensive Plan and the Lower East Coast Water Supply Plan Update.

The adopted and presently effective Monroe County Year 2010 Comprehensive Plan includes several Goals, Objectives and Policies (GOPs) that implement water supply concurrency and conservation. Proposed amendments to these GOPs have been included in the Monroe County 2030 Comprehensive Plan, which the BOCC transmitted to the State of Florida Department of Economic Opportunity (DEO) at their January 14, 2015 special meeting. On April 28, 2015, DEO issued its Objections, Recommendations, and Comments (ORC) Report on the proposed amendments. The ORC report contained no objections to the proposed changes within these GOPs, and they are anticipated to be adopted by the BOCC at their April 13, 2016 special meeting.

On July 15, 2015, the BOCC adopted a resolution transmitting the proposed ordinance amending the Monroe County Comprehensive Plan, adopting the 10-year Water Supply Facilities Work Plan update, to DEO.

On October 19, 2015, the County received DEO's ORC report regarding the proposed amendment. The ORC report identified two objections and two comments. The County must address the two identified objections and determine whether to adopt the amendment, adopt the amendment with changes or not adopt the amendment. The County is not required to make modifications relative to the two comments.

The ORC report's first objection relates to Goals, Objectives, and Policies (GOPs) proposed under the County's Evaluation and Appraisal Review (EAR) that were not yet adopted. DEO's recommendation states: *Remove the Goals, Objectives, and Policies referenced in Section 5.0 of the Water Supply Facilities Work Plan. Alternatively, include these policies within the Ordinance for explicit adoption and include them within their respective elements within the Comprehensive Plan. However, if the Evaluation and Appraisal Review-based amendments are adopted prior to this amendment's adoption, and includes these policies verbatim, they may remain within the Water Supply Facilities Work Plan*. Staff is proposing to leave the GOPs within the Work Plan, since they will be adopted at the April 13, 2016 public hearing as part of the EAR-based amendments to the Comprehensive Plan (prior to this item).

The ORC report's second objection relates to Policies regarding a five year timeframe for considering the vulnerability of public infrastructure to sea level rise. DEO's recommendation states: *Use the available data and analysis to identify points along a sea level rise continuum that threaten public infrastructure. The County can then identify approximate planning time frames for addressing those risks*. The County's response to the second objection is that the County does not currently have data available regarding the elevations of water supply

facilities; the data or mapping capabilities to analyze the projected 3" to 7" rise; or a specific timeline of estimated future sea level rise. Additional time is necessary to allow the county to obtain additional data on both the water supply facilities and LIDAR or comparable elevation data. Further, the referenced policies are proposed as part of the new Energy and Climate Element in the EAR-based amendments to the Comprehensive Plan. These policies have been transmitted to the State, and the County received DEO's ORC report on April 28, 2015, which identified no objections or comments regarding the policies. As specified in the EAR-based amendments to the Comprehensive Plan, the County will complete this analysis within 5 years of the adoption of the 2030 Comprehensive Plan.

The County has 180 days from receipt of the ORC report to adopt, adopt with changes, or not adopt the proposed amendment. The deadline for adoption is April 16, 2016. Staff has prepared a response to the ORC report's objections (included in staff report) and is recommending that the BOCC adopt the amendments.

PREVIOUS RELEVANT BOCC ACTION:
On June 2, 2009, the BOCC adopted Ordinance 021-2009, amending the Monroe County 2010 Comprehensive Plan to revise sections of the Potable Water Element and the Intergovernmental Coordination Element regarding water supply concurrency, and adopting a 10-Year Water Supply Plan.

On July 15, 2015, the BOCC adopted a resolution transmitting the proposed ordinance amending the Monroe County Comprehensive Plan, adopting the 10-year Water Supply Facilities Work Plan update, to the State for review.

CONTRACT/AGREEMENT CHANGES: N/A

STAFF RECOMMENDATIONS: Approval

TOTAL COST: N/A **INDIRECT COST:** ___ **BUDGETED:** Yes ___ No _____

DIFFERENTIAL OF LOCAL PREFERENCE: _____

COST TO COUNTY: _____ **SOURCE OF FUNDS:** _____

REVENUE PRODUCING: Yes ___ No ____ **AMOUNT PER MONTH** ____ **Year** ____

APPROVED BY: County Atty STW 3/29 OMB/Purchasing ____ Risk Management _

DOCUMENTATION: Included X Not Required ___

DISPOSITION: _____ **AGENDA ITEM #** _____

ORDINANCE NO._____-2016

AN ORDINANCE BY THE MONROE COUNTY BOARD OF COUNTY COMMISSIONERS AMENDING THE MONROE COUNTY COMPREHENSIVE PLAN; ADOPTING THE 10-YEAR WATER SUPPLY PLAN UPDATE TO BE CONSISTENT WITH THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT LOWER EAST COAST WATER SUPPLY PLAN UPDATE OF 2013; PROVIDING FOR SEVERABILITY; PROVIDING FOR REPEAL OF CONFLICTING PROVISIONS; PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY AND THE SECRETARY OF STATE; PROVIDING FOR INCLUSION IN THE MONROE COUNTY COMPREHENSIVE PLAN; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Section 163.3180(2)(a). F.S. requires local governments to consult with water suppliers to ensure that adequate water supplies will be in place and available to serve new development no later than when the local government issues a certificate of occupancy. Local Governments should update their comprehensive plans and land development regulations to address this concurrency requirement; and

WHEREAS, the Monroe County Comprehensive Plan and Land Development Code already have adopted policies and regulations requiring concurrency; and

WHEREAS, pursuant to Section 163.3177(6)(c), F.S., local governments that are subject to a regional water supply plan must update their adopted 10-year water supply facilities work plan within 18-months of the adoption of the regional water supply plan update; and

WHEREAS, the South Florida Water Management District (SFWMD) updated its Lower East Coast Water Supply Plan on September 12, 2013, which identifies areas where water supply, demand, and shortages are projected to occur within the next 20 years; and

WHEREAS, the service provider for potable water in Monroe County is the Florida Keys Aqueduct Authority (FKAA) and the FKAA has coordinated with Monroe County staff to ensure that the current potable water supply and projected demands are incorporated within the Monroe County 10-year Water Supply Facilities Work Plan Update; and

WHEREAS, the FKAA 20-year Water System Capital Improvement Master Plan serves as the Monroe County water supply plan; and

WHEREAS, the FKAA demand and supply data project adequate water supply; and

WHEREAS, at a regularly scheduled meeting held on the 23rd day of September, 2014, the Monroe County Development Review Committee considered the proposed amendment; and

WHEREAS, at a regularly scheduled meeting held on the 28th day of January, 2015, the Monroe County Planning Commission held a public hearing for the purpose of considering the proposed amendment and recommended approval to the Board of County Commissioners, contingent on revisions to sections 2.2 and 3.9 of the 10-year Water Supply Facilities Work Plan Update to reconcile conflicting information regarding potential saltwater intrusion into the FKAA wellfield due to sea level rise, memorialized by Resolution No. P02-15; and

WHEREAS, staff made revisions to sections 2.2 and 3.9 of the 10-year Water Supply Facilities Work Plan Update, as requested by the Planning Commission; and

WHEREAS, the Board of County Commissioners held a public hearing on the 15th day of July, 2015, for the purpose of considering the transmittal of the proposed amendment to the State Land Planning Agency for review and comment; and

WHEREAS, the Board of County Commissioners voted to transmit the amendment and made the following Conclusions of Law: 1) the ordinance is consistent with the Principles for Guiding Development in the Florida Keys Area of Critical State Concern; 2) the ordinance is consistent with the provisions and intent of the Monroe County Comprehensive Plan; and 3) the ordinance is consistent with the provisions and intent of the Monroe County Code; and

WHEREAS, on October 19, 2015, the State Land Planning Agency issued its Objections, Recommendations, and Comments (ORC) report, which identified two objections and two comments; and

WHEREAS, the County must address the two identified objections and determine whether to adopt the amendment, adopt the amendment with changes or not adopt the amendment; and

WHEREAS, the County is not required to make modifications relative to the two comments; and

WHEREAS, the ORC report's first objection relates to Goals, Objectives, and Policies (GOPs) proposed under the County's Evaluation and Appraisal Review (EAR) that were not yet adopted; and

WHEREAS, the ORC report's recommendation states: *Remove the Goals, Objectives, and Policies referenced in Section 5.0 of the Water Supply Facilities Work Plan. Alternatively, include these policies within the Ordinance for explicit adoption and include them within their respective elements within the Comprehensive Plan. However, if the Evaluation and Appraisal Review-based amendments are adopted prior to this amendment's adoption, and includes these policies verbatim, they may remain within the Water Supply Facilities Work Plan;* and

WHEREAS, the County's response to the first objection is that the GOPs referenced in Section 5.0 of the Work Plan are included in the proposed EAR-based amendments to the Comprehensive Plan, which are anticipated to be adopted at the April 13, 2016 special meeting of the BOCC. Based on guidance received from the South Florida Water Management District regarding preparation of the Work Plan, the relevant GOPs from the County's Comprehensive Plan should be included in the Work Plan; and

WHEREAS, in response to DEO's first objection, staff is proposing to leave the GOPs within the Work Plan, assuming they are adopted at the April 13, 2016 public hearing as part of the EAR-based amendments to the Comprehensive Plan; and

WHEREAS, the referenced EAR-based amendments were adopted by the BOCC on April 13, 2016; and

WHEREAS, the ORC report's second objection relates to Policies regarding a five year timeframe for considering the vulnerability of public infrastructure to sea level rise; and

WHEREAS, the ORC report's recommendation states: *Use the available data and analysis to identify points along a sea level rise continuum that threaten public infrastructure. The County can then identify approximate planning time frames for addressing those risks;* and

WHEREAS, the County's response to the second objection is that the County does not currently have data available regarding the elevations of water supply facilities; the data or mapping capabilities to analyze the projected 3" to 7" rise; or a specific timeline of estimated future sea level rise. Additional time is necessary to allow the county to obtain additional data on both the water supply facilities and LIDAR or comparable elevation data. Further, the referenced policies are proposed as part of the new Energy and Climate Element in the EAR-based amendments to the Comprehensive Plan. These policies have been transmitted to the State, and the County received DEO's ORC report on April 28, 2015, which identified no objections or comments regarding the policies. They are anticipated to be adopted at the April 13, 2016 special meeting of the BOCC as part of the proposed EAR-based amendments to the Comprehensive Plan; and

WHEREAS, in response to the second objection in the ORC report, the County is proposing to leave reference to Policies 1502.1.5, 1502.1.6 and 1502.1.7 within the Work Plan, assuming they are adopted at the April 13, 2016 public hearing as part of the EAR-based amendments to the Comprehensive Plan; and

WHEREAS, Policies 1502.1.5, 1502.1.6 and 1502.1.7 were adopted by the BOCC on April 13, 2016, as part of the EAR-based amendments to the Comprehensive Plan;

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF MONROE COUNTY, FLORIDA:

Section 1. The Monroe County Comprehensive Plan is amended as follows (deletions are ~~stricken through~~ and additions are underlined):

Policy 701.1.~~8~~6

Monroe County adopts the Monroe County 10-Year Water Supply Facilities Work Plan update, dated March, 2016, by reference, into the Comprehensive Plan. Monroe County shall update the 10-year Water Supply Work Plan every 5 years or within 18 months after the governing board of the South Florida Water Management District approves an updated regional water supply plan.

Section 2. The Monroe County 10-Year Water Supply Facilities Work Plan update, adopted by reference into the Comprehensive Plan, is attached to this ordinance as Exhibit A.

Section 3. Severability. If any section, subsection, sentence, clause, item, change, or provision of this ordinance is held invalid, the remainder of this ordinance shall not be affected by such validity.

Section 4. Repeal of Inconsistent Provisions. All ordinances or parts of ordinances in conflict with this ordinance are hereby repealed to the extent of said conflict.

Section 5. Transmittal. This ordinance shall be transmitted by the Planning and Environmental Resources Department to the State Land Planning Agency pursuant to Chapter 163 and 380, Florida Statutes.

Section 6. Filing and Effective Date. This ordinance shall be filed in the Office of the Secretary of State of Florida, but shall not become effective until a notice is issued by the State Land Planning Agency or Administration Commission finding the amendment in compliance, and if challenged until such challenge is resolved pursuant to Chapter 120, F.S.

PASSED AND ADOPTED by the Board of County Commissioners of Monroe County, Florida, at a special meeting held on the 13th day of April, 2016.

Mayor Heather Carruthers	_____
Mayor *pro tem* George Neugent	_____
Commissioner Danny Kolhage	_____
Commissioner David Rice	_____
Commissioner Sylvia Murphy	_____

BOARD OF COUNTY COMMISSIONERS
OF MONROE COUNTY, FLORIDA

BY: _____
Mayor Heather Carruthers

(SEAL)
ATTEST: AMY HEAVILIN, CLERK

_____
Deputy Clerk

MONROE COUNTY ATTORNEY
APPROVED AS TO FORM:
_____
STEVEN T. WILLIAMS
ASSISTANT COUNTY ATTORNEY
Date 3/29/16

Exhibit A to Ord ___-2016

MONROE COUNTY, FLORIDA

10-YEAR WATER SUPPLY FACILITIES WORK PLAN UPDATE

Prepared By:

Monroe County Planning & Environmental Resources Department

March, 2016

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1.0 INTRODUCTION

The purpose of the Monroe County Water Supply Facilities Work Plan (Work Plan) is to identify and plan for the water supply sources and facilities needed to serve existing and new development within the local government's jurisdiction. Chapter 163, Part II, F.S., requires local governments to prepare and adopt Work Plans into their comprehensive plans within 18 months after the water management district approves a regional water supply plan or its update. The *Lower East Coast Water Supply Plan Update* was approved by the South Florida Water Management District (SFWMD) on September 12, 2013.

Residents of Monroe County obtain their water directly from the Florida Keys Aqueduct Authority (FKAA), which is responsible for ensuring that enough capacity is available for existing and future customers.

The Monroe County Water Supply Facilities Work Plan (Work Plan) will reference the initiatives already identified in FKAA's 20-year Water System Capital Improvement Master Plan. According to state guidelines, the Work Plan and associated comprehensive plan amendments must address the development of traditional and alternative water supplies, bulk sales agreements and conservation and reuse programs that are necessary to serve existing and new development for at least a 10-year planning period. The Monroe County Work Plan will have the same planning time schedule consistent with the comprehensive plan and the *Lower East Coast Water Supply Plan Update*,

The County's Work Plan is divided into five sections:

Section 1 – Introduction
Section 2 – Background Information
Section 3 – Data and Analysis
Section 4 – Work Plan Projects/Capital Improvement Element/Schedule
Section 5 – Goals, Objectives, Policies

1.1 Statutory History

The Florida Legislature has enacted bills in the 2002, 2004, 2005, and 2011 sessions to address the state's water supply needs. These bills, particularly Senate Bills 360 and 444 (2005 legislative session), significantly changed Chapter 163 and 373 Florida Statutes (F.S.) by strengthening the statutory links between the regional water supply plans prepared by the water management districts and the comprehensive plans prepared by local governments. In addition, these bills established the basis for improving coordination between local land use planning and water supply planning.

1.2 Statutory Requirements

Monroe County has considered the following statutory provisions when updating the Water

Supply Facilities Work Plan (Work Plan):

1. Coordinate appropriate aspects of its comprehensive plan with the appropriate water management district's regional water supply plan, [163.3177(4)(a), F.S.]

2. Ensure that its future land use plan is based upon availability of adequate water supplies and public facilities and services [s.163.3177(6)(a), F.S. Data and analysis demonstrating that adequate water supplies and associated public facilities will be available to meet projected growth demands must accompany all proposed Future Land Use Map amendments submitted to the Department for review.

3. Ensure that adequate water supplies and facilities area available to serve new development no later than the date on which the local government anticipates issuing a certificate of occupancy and consult with the applicable water supplier prior to approving a building permit, to determine whether adequate water supplies will be available to serve the development by the anticipated issuance date of the certificate of occupancy [s.163.3180(2)(a), F.S., effective July 1, 2005].

4. For local governments subject to a regional water supply plan, revise the General Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge Element (the "Infrastructure Element"), within 18 months after the water management district approves an updated regional water supply plan, to:

    a. Identify and incorporate the alternative water supply project(s) selected by the local government from projects identified in the updated Lower East Coast Regional Water Supply Plan, or the alternative project(s) proposed by the local government under s. 373.709(8)(b), F.S. [s. 163.3177(6)(c), F.S.];

    b. Identify the traditional and alternative water supply projects and the conservation and reuse programs necessary to meet current and future water use demands within the Lower East Coast Regional Water Supply Plan [s. 163.3177(6)(c), F.S.]; and

    c. Update the Work Plan for at least a 10-year planning period for constructing the public, private, and regional water supply facilities identified in the element as necessary to serve existing and new development. [s. 163.3177(6)(c), F.S.]

5. Revise the Five-Year Schedule of Capital Improvements to include any water supply, reuse, and conservation projects and programs to be implemented during the five-year period [s. 163.3177(3)(a)4, F.S.].

6. To the extent necessary to maintain internal consistency after making changes described in Paragraph 1 through 5 above, revise the Conservation Element to assess projected water needs and sources for at least a 10-year planning period, considering the Lower East Coast Regional Water Supply Plan, as well as applicable consumptive use permit(s). [s.163.3177 (6)(d), F.S.]

   The plan must address the water supply sources necessary to meet and achieve the existing and projected water use demand for established planning period, considering the appropriate regional water supply plan. [s.163.3167 (9), F.S.]

7. To the extent necessary to maintain internal consistency after making changes described in Paragraphs 1 through 5 above, revise the Intergovernmental Coordination Element to ensure coordination of the comprehensive plan with the Lower East Coast Regional Water Supply Plan. [s.163.3177(6)(h)1., F.S.]
8. While an Evaluation and Appraisal Report is not required, local governments are encouraged to comprehensively evaluate, and, as necessary, update comprehensive plans to reflect changes in local conditions. The evaluation could address the extent to which the local government has implemented the need to update their Work Plan, including the development of alternative water supplies, and determine whether the identified alternative water supply projects, traditional water supply projects, bulk sales agreements, and conservation and reuse programs are meeting local water use demands. [s.163.3191 (3) F.S.]

2.0 BACKGROUND INFORMATION

2.1 Overview

Monroe County was incorporated in 1824, making it one of the first counties established in the State of Florida. Monroe County includes an approximately 112-mile long string of islands served by Highway US 1, an area of approximately 1,200,344 acres bounded by the Atlantic Ocean to the east and south, the Gulf of Mexico and Florida Bay to the west, and Miami-Dade County to the north. Incorporated municipalities within Monroe County encompass 12,678 acres, which include Key West, Marathon, Key Colony Beach, Layton, and Islamorada. A non-contiguous uninhabited mainland portion of Monroe County totaling 944,275 acres is located within Everglades National Park with another 126,437 acres located within Big Cypress National Park. Fort Jefferson/Dry Tortugas National Parks total almost 64,379 acres. The remaining unincorporated area totals 51,747 acres or approximately 81 square miles.

Monroe County has limited or restricted growth potential. Future development potential and population growth is limited by linear geography, the amount of land already in public ownership, and the scarcity of vacant and developable land, together with growth restrictions dictated by the County's Residential Rate of Growth Ordinance (ROGO) and Non-Residential Rate of Growth Ordinance (NROGO). These growth ordinances were developed following designation of the Florida Keys Area of Critical State Concern and the completion of the Florida Keys Carrying Capacity Study. The unincorporated County's total ROGO annual allocation for new residential building permits is 197 dwelling units per year, and the County allocates 47,083 square feet of new floor area for nonresidential uses. This provides the FKAA with a firm basis for predicting future water supply allocation needs.

Existing land use data in the 2011 Technical Document of the Monroe County Comprehensive Plan reveals that 4,988 acres or 6.8% of the total gross acreage in the unincorporated County (outside the mainland portion) is dedicated to residential uses. The remaining gross acreages are allocated to nonresidential uses such as commercial (1.2%); industrial (0.6%); institutional (0.2%); recreational (1.8%); military (5.5%); conservation (75.9%); and vacant or undeveloped (3.2%). The County does not anticipate substantial

increases in land area in the near future, unless there is policy decision from the municipalities for dissolution. In the meantime, the residential and nonresidential growth rate is anticipated to be minimal for the next 10 to 20 years due to ROGO and NROGO.

2.2 Relevant Regional Issues

As the state agency responsible for water supply in the Lower East Coast planning area, the SFWMD plays a pivotal role in resource protection, through criteria used for Consumptive Use Permitting. As pressure increased on the Everglades ecosystem resource, the Governing Board initiated rule-making to limit increased allocations dependent on the Everglades system. As a result, the Regional Water Availability Rule was adopted by the Governing Board on February 15, 2007 as part of the SFWMD's water use permit program. This reduced reliance on the regional system for future water supply needs, and mandates the development of alternative water supplies and an increase in the use of conservation and reuse techniques.

The regional issues identified for 2030 in the *Lower East Coast Water Supply Plan Update* (adopted September 12, 2013) include:

1. Increased withdrawals from both the Surficial Aquifer System (SAS) and surface water from Lake Okeechobee are limited;
2. Conservation continues to be relied upon to reduce per capita use and as a means to potentially delay or perhaps avoid adding capacity;
3. Use of reclaimed water continues to be an important alternative source in the region and helps to meet requirements of the 2008 Leah G. Schad Ocean Outfall Program; and
4. The FKAA wellfield in Florida City is indicated as a Utility at Risk from saltwater intrusion.

The sole source provider of potable water to Monroe County is FKAA, whose wellfield is located in Florida City. As stated above, the *Lower East Coast Water Supply Plan Update* indicates the FKAA wellfield as a Utility at Risk relative to saltwater intrusion based on SFWMD's updated analysis of utilities facing saltwater intrusion in 2007 following an extended period of dry weather and concerns for accelerated saltwater intrusion. SFWMD anticipates reformulating its analysis of utilities at risk and utilities of concern prior to the next update of the LEC plan. This, along with the limited availability of SAS withdrawals, presents a potential risk to the water supply for all of Monroe County. FKAA is a permitted Floridan Aquifer User, which should offset any anticipated drought-driven salt water intrusion event. FKAA also operates reverse osmosis facilities in Marathon and Stock Island.

Other regional water issues have been identified by the Southeast Florida Regional Climate Change Compact, which includes Palm Beach, Broward, Miami-Dade and Monroe Counties. The Compact communities have agreed to use a sea level rise prediction of between 3 and 7 inches by 2030, and between 9 and 24 inches by the year 2060 for planning purposes in the Southeast Florida region until more definitive information on future sea level rise is available (the Compact's *A Unified Sea Level Rise Projection for Southeast Florida*, April, 2011). The potential landward movement of the salt water intrusion line resulting from the impact of sea

level rise may affect future decisions regarding the implementation of capital improvements, requiring adaptation mitigation strategies to preserve the potable water supply. Monroe County's climate change and sustainability consultants have recently summarized hydrologic modeling by the United States Geological Survey that suggests relatively low risk to the FKAA wellfields in Florida City under even the worst-case 2060 sea level rise scenarios. However, FKAA continues to monitor the most current data and analysis regarding this issue.

To address these issues, FKAA's strategic goals include encouragement of water conservation and reuse through their grant and rebate incentive programs for customers and continued development of their reclaimed water program. Additionally, as shown in Figure 30 of the *Lower East Coast Water Supply Plan Update*, FKAA is a permitted Floridan Aquifer User, which should offset any anticipated drought-driven salt water intrusion event. Further, FKAA also operates RO facilities in Marathon and Stock Island, with a combined supply capacity of 3 MGD, as an alternative water source for the county during emergencies and extreme peaks in demand.

3.0 DATA AND ANALYSIS

3.1 Population Information

The County's existing and future population figures are derived from the projections prepared by Fishkind and Associates for the Monroe County 2030 Comprehensive Plan Update (March 15, 2011). The methodology for the preparation of these projections was approved by the Florida Department of Economic Opportunity (formerly known as the Department of Community Affairs (DCA). Table 9 of this report identifies unincorporated functional population (permanent and seasonal) projections from 2000 – 2030. In 2000, the unincorporated functional population was 69,277. This increased to 70,808 in 2010 and is projected to be 71,763 in 2015; 72,494 in 2020; 73,225 in 2025; and 73,956 in 2030, The projection reflects a total increase of 4,679 in population with a predicted decrease in permanent population and increase in seasonal population.

The relatively minor increase in population growth is reflective of the fact that County development is substantially constrained, with future development potential and population growth limited by the amount of land in public ownership and the scarcity of vacant developable land, together with growth restrictions dictated by the County's Residential Rate of Growth Ordinance (ROGO) and Non-Residential Rate of Growth Ordinance (NROGO). These growth ordinances were developed following designation of the Florida Keys Area of State Critical Concern and the completion of the Florida Keys Carrying Capacity Study. The County's total ROGO annual allocation for new residential building permits is 197 dwelling units per year. This provides a firm basis for predicting future water supply allocation needs.

3.2 Maps of Current and Future Areas Served

A map depicting current and future County boundaries served by the FKAA is included as Figure 1 on page 8 of this document.

3.3 Potable Water Level of Service (LOS) Standard

Pursuant to the 2010 Comprehensive Plan, Monroe County has an adopted Potable Water LOS of 132 gallons/capita/day. The FKAA has recommended an overall LOS for Monroe County of 100 gallons/capita/day, and this adjustment has been included in the Monroe County 2030 Comprehensive Plan update (to be adopted in 2016). The unincorporated Monroe County 2015 Functional population projection was 71,763, therefore 7.2 MGD or more of water supply capacity is required to meet the adopted concurrency standard for residential potable water. In 2014, the overall Monroe County water consumption was 94 gal/capita/day (see Figure 3). Therefore the County is meeting the FKAA LOS of 100 gal/capita/day.

3.4 Population and Potable Water Demand Projections

The population estimates and projections and the potable water demand projections for unincorporated Monroe County are presented below in Table 1. The projections are through the year 2030. The population projections are consistent with the other elements of the comprehensive plan. The water demands are for finished water.

Table 1. Population & Potable Water Demand Projections

Year	2010	2015	2020	2025	2030
Functional Population Projection*	70,080	71,763	72,494	73,225	73,956
Water Supply Demand (MGD)	7.0	7.2	7.2	7.3	7.4

*Functional Population means total population: permanent plus seasonal residents.
(Source: Table 9 - Monroe County 2010-2030 Population Projections March 15, 2011, Keith and Schnars, P.A.; Fishkind and Associates)

The FKAA Projected Finished Water Demand compares projected population and potable water demand for the entire FKAA service area. In summary, FKAA's average daily water demand for the entire service area is expected to increase from 16.22 MGD in 2010 to 17.76 MGD in 2015 and 21.48 MGD in 2030.

3.5 Water Supply Provided by Local Government

Monroe County does not supply potable water to Unincorporated Monroe County and its municipalities.

3.6 Water Supply Provided by Other Entities

The Florida Keys Aqueduct Authority (FKAA) is the sole provider of potable water in the Florida Keys, established by Special Legislation, Chapter 76-441, L.O.F. (as amended). FKAA's primary water supply is the Biscayne Aquifer, a shallow groundwater source. The FKAA's wellfield is located within an environmentally protected pine rockland forest west of Florida City. The location of the wellfield near Everglades National Park, along with

restrictions enforced by state and local regulatory agencies, contributes to the unusually high water quality. These wells contain some of the highest quality groundwater in the state, meeting all regulatory standards prior to treatment. Additionally, the FKAA is continually monitoring, assessing, and working to eliminate potential hazards to our water source, including inappropriate aquifer utilization, unsuitable land uses, and the potential for saltwater intrusion.

The groundwater from the wellfield is treated at the FKAA's Water Treatment Facility in Florida City, which currently has a maximum water treatment design capacity of 29.8 million gallons per day (MGD). The primary water treatment process is a conventional lime softening/filtration water treatment plant and is capable of treating up to 23.8 MGD from the Biscayne Aquifer. The secondary water treatment process is the newly constructed reverse osmosis (RO) water treatment plant which is capable of producing 6 MGD from the brackish Floridan Aquifer. The product water from these treatment processes is then disinfected and fluoridated. The FKAA treated water is pumped 130 miles from Florida City to Key West supplying water to the entire Florida Keys.

The FKAA maintains storage tank facilities which provide an overall storage capacity of 45.2 million gallons system wide. The sizes of tanks vary from 0.2 to 5.0 million gallons. These tanks are utilized during periods of peak water demand and serve as an emergency water supply. Since the existing transmission line serves the entire Florida Keys (including Key West), and storage capacity is an integral part of the system, the capacity of the entire system must be considered together, rather than in separate service districts.

Additionally, two saltwater RO plants, located on Stock Island and Marathon, are available to produce potable water under emergency conditions. The RO desalination plants have design capacities of 2.0 and 1.0 MGD, respectively.

At present, Key West and Ocean Reef are the only areas of the County served by a flow of potable water sufficient to fight fires. Outside of Key West, firefighters rely on a variety of water sources, including tankers, swimming pools, and salt water either from drafting sites on the open water or from specially constructed fire wells. Although sufficient flow to fight fires is not guaranteed, new hydrants are being installed as water lines are replaced to make water available for fire-fighting purposes, and pump station/tank facilities are being upgraded to provide additional fire flow and pressure. A map of the key FKAA transmission and distribution facilities is shown in Figure 1 on the following page.

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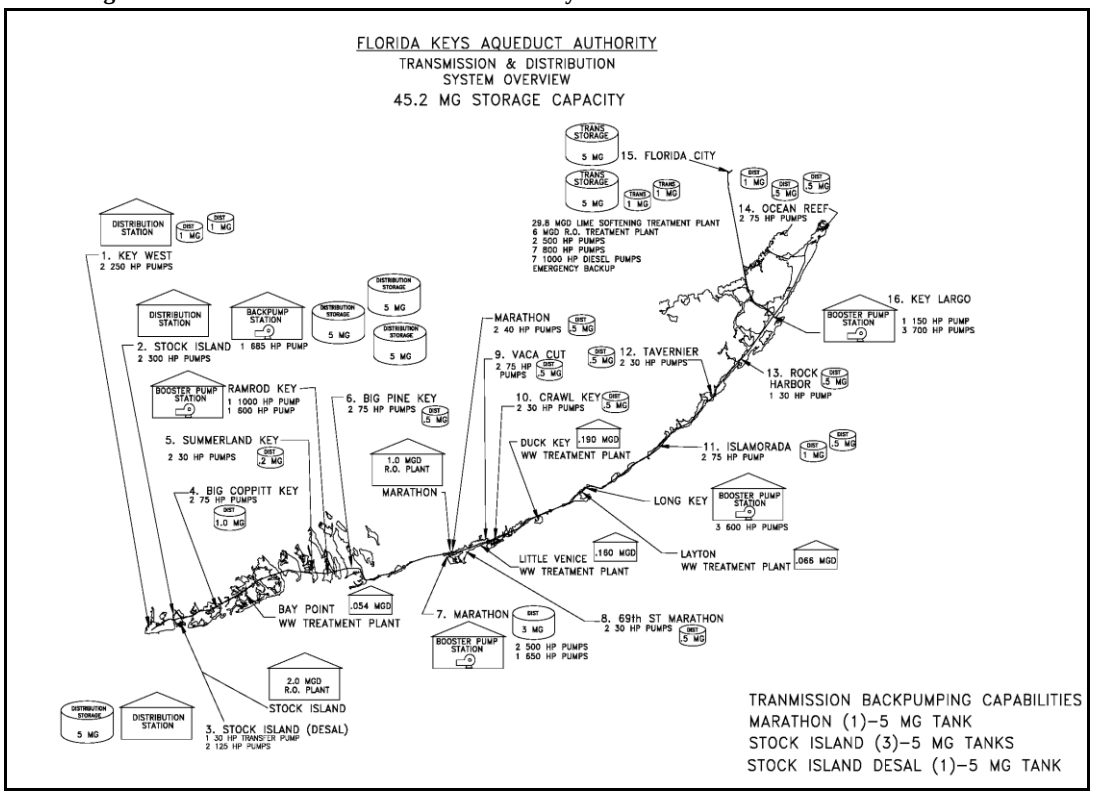
Figure 1. FKAA Transmission & Distribution System Overview



Demand for Potable Water

Figures 2 and 3 provide a historical overview of the water demands in the FKAA service area including Water Use Permit (WUP) allocation limits, yearly percent changes, and remaining water allocations. In March 2008, South Florida Water Management District (SFWMD) approved the FKAA's modification of WUP 13-00005-5-W for a 20-year allocation from the Biscayne and Floridan Aquifers. This modified WUP provides an annual allocation of 8,751 Million Gallons (MG) or 23.98 MGD and a maximum monthly allocation of 809 MG with a limited annual withdrawal from the Biscayne Aquifer of 6,492 MG or 17.79 MGD and an average dry season (December 1st-April 30th) of 17.0 MGD.

In order to meet the requirements of this limitation, the FKAA constructed a new Floridan Aquifer Reverse Osmosis (RO) water treatment system. This RO water treatment system is designed to withdraw brackish water from the Floridan Aquifer, an alternative water source approximately 1,000 feet below the ground surface, and treat the water to drinking water standards. The RO water treatment plant provides added capability to limit Biscayne aquifer withdrawals and is designed to meet current and future water demands. The RO water treatment system provides an additional 6.0 MGD of potable water.

Along with the new reverse osmosis water treatment plant, compliance with withdrawal limits can also be accomplished by using other alternative water sources (blending of the Floridan Aquifer, reclaimed water and operation of the RO desalination plants), pressure reduction, public outreach, and assistance from municipal agencies in enforcing water conservation ordinances.

Figure 2 - Annual Water Withdrawals 2002 to 2014

Year	Annual Withdrawal (MG)	% Change	WUP Limit (MG)	WUP +/- Annual Allocation (MG)
2002	6,191	10.03%	7,274	1083
2003	6,288	1.57%	7,274	986
2004	6,383	2.74%	7,274	813
2005	6,477	0.16%	7,274	803
2006	6,283	-2.49%	7,274	964
2007	5,850	-7.35%	7,274	1428
2008	5,960	1.89%	8,751	2791
2009	5,966	0.09%	8,751	2785
2010	5,919	-0.79%	8,751	2832
2011	6,327	6.89%	8,751	2424
2012	6,042	-4.50%	8,751	2709
2013	6105	1.04%	8,751	2646
2014	6377	4.46%	8,751	2374

Source: Florida Keys Aqueduct Authority, 2015

Figure 3. 2014 Potable Water Demand Summary

FLORIDA KEYS AQUEDUCT AUTHORITY

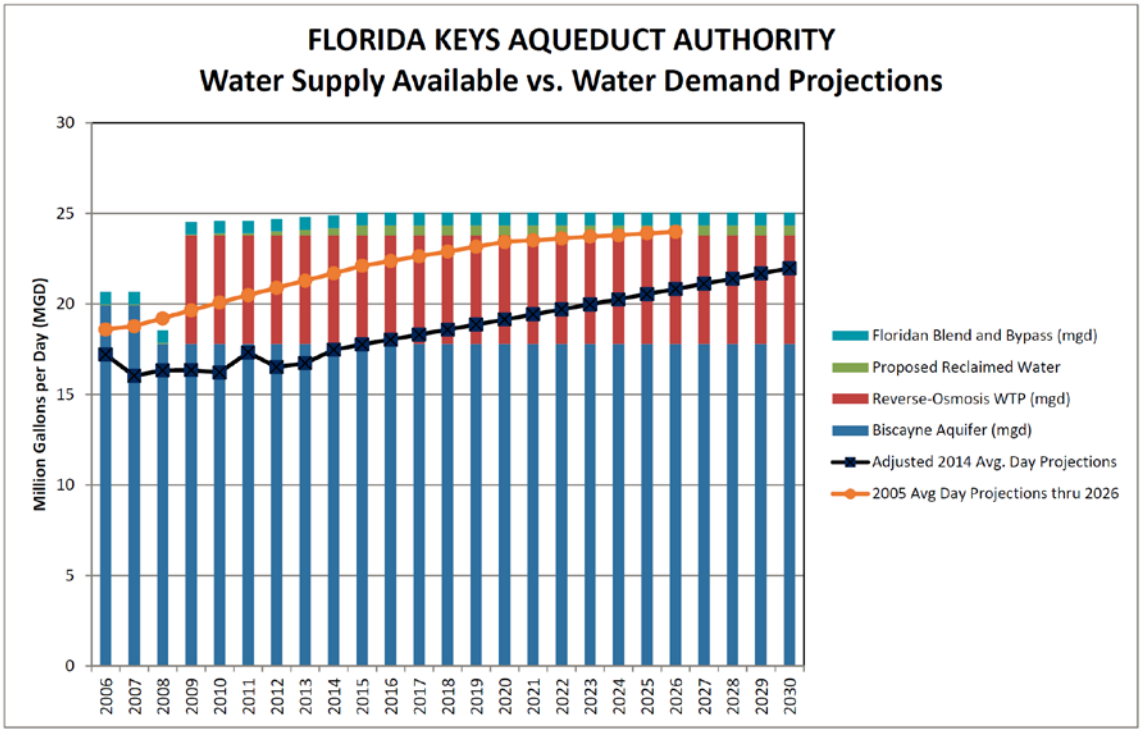
Potable Water Demand Summary - New Water Demand, Actual Water Demand, and Expected Water Demand

	Year - 2014		Year - 2014	Year 2015
Municipality	**New Water Service - Gallons/Year**	**Metered Water - Gallons/Year**	**Actual Water Demand - Gallons/Year***	**Expected Water Demand - Gallons/Year**
Unincorporated Monroe County	15,679,200	1,903,099,800	2,479,931,978	2,495,611,178
City of Key West	3,631,200	1,766,546,300	2,301,988,924	2,305,620,124
City of Marathon	8,314,800	495,760,700	646,026,453	654,341,253
City of Key Colony	0	95,524,800	124,478,499	124,478,499
City of Layton	0	10,950,400	14,269,481	14,269,481
City of Islamorada	7,273,200	622,144,200	810,716,966	817,990,166
Entire Florida Keys	**34,898,400**	**4,894,026,200**	**6,377,412,301**	**6,412,310,701**
SFWMD WUP Annual Allocation			**8,751,000,000**	**8,751,000,000**

*metered + unmetered water demand (ie. flushing, leaks, etc.)

Figure 4 illustrates projected water supply availability vs projected water demand. Demand for potable water is influenced by many factors, including the number of permanent residents, seasonal populations and day visitors, the demand for commercial water use, landscaping practices, conservation measures, and the weather.

Figure 4. FKAA Water Supply Available vs. Water Demand Projections



As shown in Figure 5 on the following page, in 2014, the FKAA distributed an annual average of 16.83 MGD from the Biscayne Aquifer plus 0.64 MGD from Floridan RO Production. This table also provides the water treatment capacities of the emergency RO plants. Since the emergency RO plants utilize seawater, a WUP is not required for these facilities.

The 2014 figures and projections for 2015 indicate a slight increase in annual average daily demand from 17.47 to 17.76 MGD and an increase in maximum monthly demand from 546.94 MGD to 596.29 MG.

Figure 5 - Projected Water Demand in 2015 (in MG)			
	FKAA Permit Thresholds	**2014 Water Demand**	**2015 Water Demand Projected**
Annual Allocation			
Average Daily Demand	23.98	17.47	17.76
Maximum Monthly Demand	809.01	546.94	596.29
Annual Demand	8,751	6,377	6,481
Biscayne Aquifer Annual Allocation/Limitations			
Average Daily Demand	17.79	16.83	17.11
Average Dry Season Demand*	17.00	16.67	16.85
Annual Demand	6,492	6,143	6,245
Floridan RO Production			
Average Daily Demand	6.00	0.64	0.65
Emergency RO WTP Facilities			
Kermit L. Lewin Design Capacity	2.00 (MGD)	0.00 (MGY)	0.00
Marathon RO Design Capacity	1.00 (MGD)	0.00 (MGY)	0.00
All figures are in millions of gallons			
**Dry Season is defined as December thru April*			
Source: Florida Keys Aqueduct Authority, 2015			

Figure 6 provides the amount of water used on a per capita basis. Based on Functional Population and average daily demand, the average water consumption for 2014 was approximately 111 gallons per capita (person), which reflects the entire FKAA service area, including unincorporated Monroe County, Key West, Marathon, Islamorada, Key Colony Beach, and Layton.

Figure 6. Per Capita Water Use (Entire FKAA Service Area)			
Year	**Functional Population[1]**	**Daily Demand (gallons)[2]**	**Average Per Capita Water Consumption (gallons)[2]**
2000	153,080	17,016,393	111
2001	153,552	15,415,616	100
2002	154,023	16,962,082	110
2003	154,495	17,228,192	112
2004	154,924	17,652,596	114
2005	156,150	17,730,000	114
2006	155,738	17,287,671	111
2007	155,440	16,017,315	103
2008	154,728	16,285,383	105
2009	155,441	16,345,205	105
2010	155,288	16,210,959	104
2011	156,054	17,334,247	111
2012	156,391	16,508,197	106
2013	156,727	16,836,164	107
2014	157,063	17,472,362	111
Source: 1. Monroe County Population Projections - Monroe County Planning Department, 2011 2. Florida Keys Aqueduct Authority, 2015			

Improvements to Potable Water Facilities

FKAA has a 20-year Water System Capital Improvement Master Plan for water supply, water treatment, transmission mains and booster pump stations, distribution mains, facilities and structures, information technology, reclaimed water systems, and Navy water systems.

In 1989, FKAA embarked on the Distribution System Upgrade Program to replace approximately 190 miles of galvanized lines throughout the Keys. FKAA continues to replace and upgrade its distribution system throughout the Florida Keys and the schedule for these upgrades is reflected in their long-range capital improvement plan. The FKAA's Water Distribution System Upgrade Plan included the upgrade or replacement of approximately 58,000 feet of water main during fiscal year 2014.

The master plan was revised in 2013 to include the critical projects, as summarized in Figure 7. Figure 7 also provides the schedule and costs projected for the capital improvements to the potable/alternative water systems planned by the FKAA. The total cost of the scheduled improvements is approximately $34 million over the next 5 years. These projects are to be funded by the water rate structure, long-term bank loans, and grants.

Figure 7 - FKAA Projected 5 Year Capital Improvement Plan

	2014	2015	2016	2017	2018	Total
Water Supply	$0	$0	$1,000,000	$1,000,000	$0	$2,000,000
Water Treatment	$0	$0	$2,600,000	$2,600,000	$0	$5,200,000
Transmission Mains & Booster Pump Stations	$200,000	$500,000	$500,000	$500,000	$1,250,000	$2,950,000
Distribution Mains	$4,300,000	$3,700,000	$2,250,000	$7,700,000	$3,600,000	$21,550,000
Facilities & Structures	$0	$0	$100,000	$500,000	$0	$600,000
Information Technology	$0	$0	$0	$0	$0	$0
Reclaimed Water Systems	$0	$0	$0	$0	$0	$0
Navy Water Systems	$500,000	$400,000	$510,000	$585,000	$100,000	$2,095,000
Totals	**$5,000,000**	**$4,600,000**	**$6,960,000**	**$12,885,000**	**$4,950,000**	**$34,395,000**

Source: Florida Keys Aqueduct Authority, 2013

In summary, based on current conditions and projects, an adequate supply of water to meet current and future demands is provided by the following: The Biscayne permitted water supply of 17.79 MGD, the 6.0 MGD RO water treatment plant, the new reclaimed water systems, and the ability to operate the 3.0 MGD RO desalination plants during emergency situations. The FKAA continues to monitor and track conditions and events that could negatively impact the existing water supply. Any such impacts will be evaluated to determine future changes necessary to continue servicing Monroe County with adequate water supply.

3.7 Conservation

One method of reducing water use and increasing the availability potable water is the implementation of Best Management Practices for water use. Mandatory outdoor water

restrictions, water rate pricing and xeriscape landscaping that utilizes native flora can all assist in reducing potable water demand and the impacts of future growth.

3.7.1 County-Wide Issues

Water conservation is one method available to promote the reduction of use and increase of availability of potable water. FKAA implements a high base water rate for water use, which effectively deters wasteful water use. Implementation of mandatory year-round watering restrictions also aid in conserving water.

3.7.2 Local Government Specific Actions, Programs, Regulations, or Opportunities

Monroe County will coordinate future water conservation efforts with the FKAA and the SFWMD to ensure that proper techniques are applied. In addition, the County will continue to support and existing goals, objectives and policies in the comprehensive plan that promote water conservation in a cost-effective and environmentally sound manner. The County will also continue to actively support the SFWMD and FKAA in the implementation of new regulations or programs that are structured to conserve water during the dry season.

Monroe County has also adopted an Interlocal Agreement between FKAA and Monroe County that will ensure the availability of potable water prior to the issuance of a building permit. This agreement is to be referenced in the Goals, Objectives and Policies of the Monroe County 2030 Comprehensive Plan Update as Policy 1301.1.16, which states:

> *Monroe County shall maintain an interlocal agreement with the FKAA which establishes a mechanism whereby the FKAA and the County identify the availability of water supply needed to serve existing and new development within the Unincorporated Area, monitor the utilization of water supply, and implement such alternative water supply projects, traditional water supply projects, conservation projects, and reuse necessary to meet Monroe County's water supply needs.*

3.8 Reuse

Water reuse is a method for supplementing water availability. Desalination at the source through reverse osmosis is presently incorporated within the design of new water treatment facilities that tap into the Floridan Aquifer. Some local communities, such as Key Colony Beach, use recycled water to irrigate its municipal golf course. However, the cost of developing a centralized collection, treatment, and distribution system for recycled water in a county such as Monroe that is less than 5 miles wide and 112 miles long creates significant feasibility challenges.

Monroe County, together with FKAA and the Key Largo Sanitary Sewer District, has implemented a public infrastructure program to construct and operate central sewer collection and treatment systems. Sewage treatment facilities will have the capability to make available gray water for non-potable water applications, such as irrigation for County parks and landscaped rights-of-way. However, the lack of possible users has inhibited the necessary investment to create and maintain a viable reuse water distribution system.

3.8.1 Regional and County-wide Issues

State law supports reuse efforts. For the past years, Florida's utilities, local governments, and water management districts have led the nation in implementing water reuse programs that increase the quantity of reclaimed water used and public acceptance of reuse programs. Section 373.250(1) F.S. provides that "water reuse programs designed and operated in compliance with Florida's rules governing reuse are deemed protective of public health and environmental quality." In addition, Section 403.064(1), F.S., provides that, "reuse is a critical component of meeting the State's existing and future water supply needs while sustaining natural systems."

3.8.2 Local Government Specific Actions, Programs, Regulations, or Opportunities

The County will support the SFWMD and FKAA water reuse projects and implementation of new regulations or programs designed to increase the volume of reclaimed water used and public acceptance of reclaimed water.

The County has established regulations limiting the clearing of native habitat and requiring landscaping consisting of native plants, which are more drought tolerant and demand less irrigation than most non-native species. Incentives for the installation of cistern rain collection systems are also encouraged, such as the granting of positive points in the Rate of Growth Ordinance permit allocation system.

3.9 Climate Change and Sea Level Rise

Southeast Florida is widely considered one of the most vulnerable regions to the impacts of climate change and sea level rise. This is especially true of the Florida Keys, a 110 mile string of offshore islands connected by US 1 to Miami-Dade County. As discussed earlier, potential landward movement of the salt water intrusion line resulting from the impact of sea level rise may affect future decisions regarding the implementation of capital improvements, requiring adaptation mitigation strategies to preserve the potable water supply. Monroe County's climate change and sustainability consultants have recently summarized hydrologic modeling by the United States Geological Survey that suggests relatively low risk to the FKAA wellfields in Florida City under even the worst-case 2060 sea level rise scenarios. However, FKAA continues to monitor the most current data and analysis regarding this issue.

3.10 Local Government Specific Actions, Programs, Regulations, or Opportunities

FKAA presently operates two reverse osmosis (RO) plants within Monroe County, in Marathon and Stock Island, which have a combined production capacity of 3 MGD. A Floridan wellfield and RO water treatment facility were constructed by FKAA in Florida City and have been operational since the fall of 2009. This RO water treatment plant treats the brackish water of the Floridan Aquifer and has a production capacity of 6 MGD. Storage facilities maintained by the FKAA have a total storage capacity of 45.2 MG; of this amount, there is 12 MG of storage available in above ground storage reservoirs at Florida City. The remaining capacity is obtained from tanks located throughout the transmission and distribution system that provide an additional 33.2 MG of storage capacity. It is therefore

anticipated that FKAA will be well positioned to accommodate Monroe County's future water demands as sea level rise impacts South Florida's regional water supply.

4.0 CAPITAL IMPROVEMENTS

4.1 Work Plan Projects

The FKAA 20-Year Water System Capital Improvement Master Plan identifies all proposed work projects within Monroe County (See Exhibit A: Section 7.2 of the master plan).

4.2 Capital Improvements Element/Schedule

Monroe County presently has a proposed LOS of 100 gallons/capita/day (2030 Comprehensive Plan Update). The County will continue to work with FKAA to ensure that the adopted LOS is maintained. Adoption by reference of Section 7.2 of the FKAA 20-Year Water System Capital Improvement Master Plan (see Exhibit A) will link water availability and programmed improvements with the County's Concurrency Management System through the establishment of a permit review and approval process that requires evidence of water supply availability prior to the issuance of a building permit and certificate of occupancy.

Exhibit 7-2 of the FKAA 20-Year Water System Capital Improvement Master Plan will serve as Monroe County's 10-year Water Supply Plan and CIE for potable water (see Exhibit A).

5.0 GOALS, OBJECTIVES AND POLICIES

The adopted and presently effective Monroe County Year 2010 Comprehensive Plan includes several Goals, Objectives and Policies (GOPs) that implement water supply concurrency and conservation. These GOPs are located within the Potable Water Element, Intergovernmental Coordination Element, Conservation and Coastal Management Element, Future Land Use Element and Capital Improvements Element. The following proposed amendments have been included in the Monroe County 2030 Comprehensive Plan, which the BOCC approved for transmittal to the State of Florida Department of Economic Opportunity (DEO) at their January 14, 2015 special meeting. On April 28, 2015, DEO issued its Objections, Recommendations, and Comments Report (ORC) on the proposed amendments. The ORC contained no objections to the proposed changes below. The Monroe County 2030 Comprehensive Plan is anticipated to be adopted on April 13, 2016.

5.1 Potable Water Element

GOAL 701

Monroe County shall support FKAA in the fulfillment of their statutory obligation and authority to provide for a safe, high quality and adequate supply, treatment, distribution, and

conservation of potable water to meet the needs of present and future residents. ~~[9J-5.011(2)(a)]~~[§163.3177(6)(c), F.S., §163.3177(6)(c)2., F.S.]

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Objective 701.1

Monroe County shall ensure that at the time a ~~development permit~~certificate of occupancy or its functional equivalent is issued, adequate potable water supply, treatment, and distribution facilities are available to support the development at the adopted level of service standards~~ concurrent with the impacts of such development~~. ~~[9J-5.011(2)(b)2]~~ [§163.3177(6)(c), F.S.,]

Policy 701.1.1

Monroe County hereby adopts the following level of service standards to achieve Objective 701.1 and shall use these standards as the basis for determining facility capacity and the demand generated by a development. ~~[9J-5.011(2)(c)2d]~~
[§163.3180(1)(b)., F.S., §163.3180(2)., F.S., §163.3177(3)(a)3., F.S.]

Level of Service Standards

1. Quantity:
   100 gal./capita/day*
   *Note: Based on historical data through December 2011; provided by FKAA, December 2012.
   ~~Residential LOS 66.50 gal./capita/day~~
   ~~Non-Residential LOS 0.35 gal./sq. ft./day~~
   ~~Overall LOS 132.(Ord. 021-2009)~~
   ~~Equivalent Residential Unit 149.00 gallons per day~~
   ~~(2.24 average persons per household x 66.5 gallons/capita/day)~~

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2. Minimum Pressure:
   20 PSI at customer service

3. Minimum Potable Water Quality:
   Shall be as defined by ~~the U.S. Environmental Protection Agency. (Part 143 National Secondary Drinking Standards, 40 CFR 143, 44FR 42198)~~Chapter 62-550 F.A.C.

~~**Policy 701.1.2**~~

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~~Monroe County will encourage FKAA to pursue a goal of decreasing unaccounted for water to 13 percent or lower by replacing deficient transmission and distribution lines and implementing meter improvements by the year 2005. Obtaining this goal will result in the following projected potable water consumption: [9J-5.011(2)(c)3; 9J-5.013(2)(c)4]~~

~~Residential Consumption 57.00 gal./capita/day~~
~~Non-Residential Consumption 0.29 gallons/sq ft/day~~

~~Overall Consumption 86.00 gal./capita/day~~

Policy 701.1.~~3~~2
~~By January 4, 1997,~~ Monroe County shall ~~adopt Land Development Regulations~~maintain land development regulations which provide a Concurrency Management System (See Capital Improvements Policy 1401.4.5). The Concurrency Management System shall ensure that no ~~permits~~ certificate of occupancy or its functional equivalent will be issued for new development unless adequate potable water supply, treatment, and distribution facilities needed to support the development at the adopted level of service standards are available~~ are available concurrent with the impacts of development~~. ~~[9J-5.011(2)(c)1]~~ [§163.3180(1)(b)., F.S., §163.3180(2)., F.S., §163.3177(3)(a)3., F.S., §163.3177(6)(c)., F.S.]

Policy 701.1.~~4~~3
The Concurrency Management System adopted in accordance with Policy 701.1.2~~3~~ shall specify procedures for updating facility demand and capacity information, utilizing data provided by the FKAA as potable water facilities are installed or upgraded. ~~[9J-5.011(2)(c)1]~~[§163.3180(2)., F.S.]

~~**Policy 701.1.5**~~
~~Monroe County shall amend the potable water quantity level of service upon attainment of the goal level of service as indicated in Policy 701.1.2.~~

Policy 701.1.~~6~~4
Monroe County shall implement a concurrency management system that is consistent with the South Florida Water Management District *Lower East Coast Regional Water Supply Plan* and Florida Keys Aqueduct Authority *20-year Water System Capital Improvement Master Plan*. (Ord. 022-2009)

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Policy 701.1.~~7~~5
Monroe County shall prepare and maintain a 10-year Water Supply Work Plan that identifies alternative water supply projects, traditional water supply projects, conservation, and reuse necessary to meet the Monroe County Unincorporated Area water supply needs, consistent with the South Florida Water Management District *Lower East Coast Regional Water Supply Plan* and the Florida Keys Aqueduct Authority *20-year Water System Capital Improvement Master Plan*. (Ord. 022-2009) [§163.3177(6)(c)3., F.S.]

Policy 701.1.~~8~~6
Monroe County shall update the 10-year Water Supply Work Plan every 5 years or within 18 months after the governing board of the South Florida Water Management District approves an updated regional water supply plan. (Ord. 022-2009) [§163.3177(6)(c)3., F.S.]

~~Objective 701.2~~
~~In coordination with Monroe County, the FKAA shall:~~

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~~maintain a five-year schedule of capital improvement needs for potable water supply, treatment and distribution, as identified through and in accordance with Policy 701.2.2;~~

~~identify responsible parties and agencies; and~~

~~identify time frames for completion.~~

~~The schedule will be updated annually consistent with Capital Improvements Policy 1401.1.2, and in accordance with the FKAA's annual budget process. [9J-5.011(2)(b)1 and 2]~~

~~Policy 701.2.1~~
~~The Florida Keys Aqueduct Authority (FKAA) shall continue to address the future needs of potable water supply, treatment and distribution facilities and evaluate options to satisfy these needs. FKAA and Monroe County shall evaluate and rank proposed capital improvement projects, on the basis of delivery cost and other factors, considered for inclusion in the five-year schedule of capital improvement needs in accordance with the criteria contained in Policy 701.2.2 as well as the Goals, Objectives, and Policies of the Comprehensive Plan. [9J-5.011(2)(c)1 and 2]~~

~~Policy 701.2.2~~
~~Proposed capital improvement projects shall be evaluated and ranked according to the following priority level guidelines: [9J-5.011(2)(c)1 and 2]~~

~~Level One~~ ~~- Whether the project is consistent with the FKAA's enabling legislation.~~

~~Level Two~~ ~~- Whether the project is needed to protect public health and safety, provide facilities and services, or to preserve or achieve full use of existing facilities.~~

~~Level Three~~ ~~- Whether the project increases efficiency of use of existing facilities, prevents or reduces future improvement costs, provides service to developed areas lacking full service, or promotes in-fill development.~~

~~Level Four~~ ~~- Whether the project represents a logical extension of facilities and services within a designated service area.~~

Objective 701.~~3~~2

Monroe County~~ and the FKAA~~ shall work cooperatively with the FKAA, South Florida Water Management District (SFWMD), Miami-Dade County, and the Cities of Layton, Key Colony Beach~~ and~~, Marathon, Key West and the Village of Islamorada to ensure the protection and availability of an adequate raw water supply at the Florida City Wellfield to meet the needs of Monroe County through the year 20~~1~~30. [§163.3177(6)(h)1., F.S.]

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Policy 701.~~3~~2.1

~~In coordination with~~ Monroe County~~, the~~ shall work closely with FKAA ~~shall, as necessary, renew~~in their renewal of the Florida City Wellfield consumptive use permit issued by SFWMD. ~~Alternative~~

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Policy 701.2.2

Monroe County shall encourage the use of alternative water sources such as reverse osmosis, cisterns and water re-use, and ~~-~~shall ~~be~~ evaluate the feasibility of using such alternative sources ~~d and the most feasible solution implemented~~ in the event that the necessary withdrawals from the Biscayne Aquifer are limited. ~~[9J-5.011(2)(c)1; 9J-5.013(2)(c)4]~~

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Policy 701.~~3~~2.~~2~~3

~~The~~ Monroe County ~~Growth Management Division shall provide technical assistance to~~shall coordinate with the FKAA for the consumptive use permitting process. This ~~technical assistance~~coordination shall include providing information regarding future land use growth patterns, population trends, growth management policies and demand projections to ensure consistency between the FKAA permitting process and the Monroe County Comprehensive Plan.~~ [9J-5.011(2)(c)1; 9J-5.013(2)(c)4]~~

Policy 701.~~3~~2.~~3~~4

~~The~~ Monroe County~~ Growth Management Division~~ shall annually supply FKAA and SFWMD with the ~~Concurrency Management~~ Public Facilities Capacity Report prepared in accordance with Capital Improvements Policy 1401.4.9. These annual reports shall include the latest information on land use, population trends, and growth management policies as well as facility capacity analyses using data supplied by service providers. ~~[9J-5.011(2)(c)1; 9J-5.013(2)(c)4]~~

Policy 701.~~3~~2.~~4~~5

Monroe County shall ~~continue to reserve the right to review~~coordinate and ~~comment~~provide comments on the SFWMD plans, such as water supply, cost, needs and sources, and water conservation plans, as they are developed.

Policy 701.~~3~~2.~~5~~6

Monroe County shall continue to coordinate with the Cities of Layton, Key Colony Beach~~ and~~, Marathon, Key West, the Village of Islamorada, and

FKAA as necessary to facilitate ~~systemwide~~system-wide compatibility on such potable water-related issues as potable water levels of service, consumption projections, water conservation programs, and emergency management.

Objective 701.43

Monroe County shall work cooperatively with Miami-Dade County to encourage land use planning and development controls which shall protect the recharge area of the Florida City Wellfield from potential sources of groundwater contamination, saltwater intrusion and overextraction. ~~[9J-5.011(2)(b)5; 9J-5.013(2)(b)2]~~ [§163.3177(6)(c)., F.S., §163.3177(6)(h)1., F.S.]

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Policy 701.43.1

Protection of the Florida City Wellfield shall be accomplished through ~~continued implementation of~~ the Miami-Dade County Wellfield Protection Ordinance and the SFWMD Water Supply Policy Document. ~~[9J-5.011(3)(c)1 and 4; 9J-5.013(2)(c)9]~~

Policy 701.43.2

~~By January 4, 1998,~~ Monroe County shall ~~seek~~maintain an interlocal agreement with FKAA and Miami-Dade County. This agreement shall provide Monroe County with an opportunity to comment on land use and regulatory issues related to the Florida City Wellfield, aquifer and aquifer recharge area. It shall set forth procedures for review of land use and regulatory activities identified as having potentially significant impacts on the aquifer recharge and water supply systems especially concerning hazardous waste generation. Criteria for determination of significant impacts shall be included in the interlocal agreement. ~~[9J-5.011(3)(c)1 and 4; 9J-5.013(2)(c)9]~~

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~~**Objective 701.5**~~

~~FKAA shall supply adequate operating pressures in the transmission and distribution system to meet the adopted level of service standard specified in Policy 701.1.1(2) for the customer service connection. [9J-5.011(2)(b)1]~~

~~**Policy 701.5.1**~~

~~FKAA shall continue to maintain the transmission network and construct improvements to continue to provide a minimum operating pressure of 20 PSI at customer service. [9J-5.011(2)(c)2]~~

~~**Objective 701.6**~~

~~The FKAA shall continue to implement provisions to increase potable water storage through the Aquifer Storage Recovery System. [9J-5.011(2)(b)2]~~

~~**Policy 701.6.1**~~

~~By January 4, 1997, Monroe County shall, by resolution, support the development by FKAA of a total system storage capacity equal to 10 days of~~

treated water flow at 50% of the annual average daily flow by the year 2005. [9J-5.011(2)(c)2d]

Policy 701.6.2
By January 4, 1997 Monroe County shall, by resolution, support the FKAA in their efforts to continue to develop an Aquifer Storage Recovery System, to aid in the provision of adequate storage capacity for emergency purposes. [9J-5.011(2)(c)1 and 2]

Objective 701.7
The FKAA shall continue to provide emergency service during electric power outages to the greatest extent feasible. [9J-5.011(2)(b)1]

Policy 701.7.1
In the event of a power outage, the emergency diesel pumps will deliver 15.6 MGD at 125 PSI during emergency conditions while the treatment plant will be operated by a 1,000 KVA diesel generator. [9J-5.011(2)(c)(2)d]

Objective 701.84
FKAA shall improve its capacity. Monroe County shall continue to coordinate with FKAA to ensure adequate capacity is available to provide for fire flows in the areas outlined in Policy 701.8.1 to ensure thefor protection of the public health, welfare and safety. [9J-5.011(2)(b)1][§163.3177(3)(a)3., F.S.]

Policy 701.84.1
By the year 2000,Monroe County shall coordinate with the FKAA, in accordance with its Capital Improvements Program, shallto continue to upgradeupgrading the distribution system toward the goal of providing fire flow capabilities in the following areasthroughout Florida Keys as funds and land are available:. Fire flows shall meet the provisions of the Florida Fire Prevention Code.

1. Proposed Fire Flow Areas:
2. Key West and Stock Island (current fire flow areas)
3. Everywhere on US 1, except non-developable areas
4. Ocean Reef
5. Key Colony Beach
6. Layton
7. Marathon
8. Duck Key
9. Tavernier
10. Proposed Fire Flow Requirements by Land Use Zone:
11. Suburban Residential 750 GPM
12. Mobile Home, Recreational Vehicle 1,500 GPM
13. Urban Commercial, Suburban Commercial, and Commercial 2,000 GPM

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All commercial facilities not along ~~US~~U.S. 1 shall provide "on site" fire abatement, ~~as currently required~~unless identified in the *Agreement Between Monroe County and the Florida Keys Aqueduct Authority for Installation and Maintenance of Fire Hydrants in Unincorporated Monroe County*. ~~In all other areas the FKAA aqueduct system shall not be considered even as a future primary fire abatement source. However, all line upgrades shall be designed and constructed so as to provide approximately 250 GPM to extreme locations. [9J-5.011(2)(c)1 and 2]~~

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~~**Policy 701.8.2**~~

~~By January 4, 1997, the Monroe County Office of the Fire Marshall, in accordance with the FKAA, shall develop fire districts for subsequent implementation if feasible. [9J-5.011(2)(c)1]~~

Policy 701.4.2

Monroe County shall require that at the time a construction permit is issued, adequate fire flow is supplied to the site in accordance with the Florida Fire Prevention Code.

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~~**Policy 701.8.3**~~

~~Since fire flow improvements in the areas identified by Policies 701.8.1 and 701.8.2 will result in significant fire insurance premium reductions for affected areas, charges for fire flow improvements in these areas shall be charged to these areas only, as opposed to general system absorption of such charges. [9J-5.011(2)(c)1]~~

Objective 701.~~9~~5

Monroe County shall continue to assist the FKAA with water conservation efforts and assist in implementing the FKAA's *Water Conservation Plan* consistent with SFWMD's *Water Shortage Plan* and Comprehensive Water Conservation Program. The County shall implement Policies 701.~~9~~5.1 to further conserve potable water use. ~~[9J-5.011(2)(b)4; 9J-5.013(2)(b)2]~~

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Policy 701.~~9~~5.1

~~By January 4, 1997, the Monroe County Growth Management Division, with input from the FKAA and SFWMD, and other affected organizations shall adopt Land Development Regulations, which implement a xeriscape landscape ordinance, a permanent irrigation ordinance, and plumbing fixture efficiency standards consistent with the mandatory elements of the FKAA Water Conservation Plan and the SFWMD Model Landscape Code for South Florida. Prior to the adoption of the xeriscape landscape ordinance, permanent irrigation ordinance and plumbing efficiency standards, drafts of these ordinances and standards will be submitted to the SFWMD for review and comment, and when applicable the recommendations will be incorporated in the water conservation measures. [9J-5.011(2)(c)3; 9J-5.013(2)(c)4]~~ Within one (1) year of the adoption of the 2030 Comprehensive Plan, Monroe

County shall implement a landscape ordinance consisting of water conservation measures which may include Florida Friendly provisions.

Policy 701.~~9~~5.2
During the development of updated ~~Land Development Regulations~~land development regulations~~ in accordance with Policy 701.9.1~~, ~~the~~ Monroe County ~~Growth Management Division and~~ shall coordinate with the FKAA ~~shall~~to evaluate building codes, utility regulations, landscaping ordinances, and public education programs for implementation of water conservation measures. ~~[9J-5.011(2~~[§163.3177(6)(c)~~3; 9J-5.013(2)(c)4]~~), F.S.]

Policy 701.~~9~~5.3
~~In~~Monroe County shall coordinate with the FKAA in accordance with ~~its~~their *Water Conservation Plan*~~, the FKAA shall, with input from Monroe County, continue~~ to implement a leak detection program and a conservation rate structure. Monroe County ~~and~~ shall coordinate with the FKAA, ~~with input from~~the SFWMD, and other affected organizations, ~~shall~~to formulate and initiate implementation of a joint public education program for water conservation. ~~[9J-5.011(2)(c)3; 9J-5.013(2)(c)4]~~

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Policy 701.~~9~~5.4
Monroe County~~ and the FKAA~~ shall continue to comply with SFWMD water use restrictions including all Phase I and Phase I (modified) water use restrictions when water shortages are declared by the SFWMD.~~ [9J-5.011(2)(c)3; 9J-5.013(2)(c)4]~~

Policy 701.~~9~~5.5
Monroe County shall coordinate with the Florida Department of Health ~~and Rehabilitative Services (HRS~~(DOH) to permit utilization of ~~grey~~reclaimed water storage systems and utilization for all exterior irrigation and flushing purposes. Upon receipt of authorization~~ from HRS~~, policies shall be developed to implement the use of ~~grey~~reclaimed water storage systems where economically feasible.~~ [9J-5.011(2)(c)3; 9J-5.013(2)(c)4]~~

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Policy 701.~~9~~5.6
Monroe County shall permit and encourage rainwater ~~storage facilities for all household uses such as irrigation, car, patio, and boat washing, at a minimum~~capture for all non-potable uses and for safe household potable uses. ~~[9J-5.011(2)(c)3; 9J-5.013(2)(c)4]~~[§163.3177(6)(c)., F.S.]

Policy 701.~~9~~5.7
~~By January 4, 1997, Monroe County shall adopt Land Development Regulations which establish a Permit Allocation and Point System for new residential and non-residential development (See Future Land Use Objectives 101.2, 101.3, and 101.5 and supporting policies). In developing the Point System, Monroe County shall~~Within one (1) year of adoption of the 2030

Comprehensive Plan, Monroe County shall evaluate the permit allocation and point system to consider assigning a positive point rating to developments utilizing alternative water collection systems such as cisterns, grey water reuse systems and wastewater treatment plant effluent reuse which conserve potable water supply. [9J-5.011(2)(c)3; 9J-5.013(2)(c)4]

Policy 701.95.8

As the water conservation measures set forth in Policies 701.95.1 through 701.95.7 are implemented, Monroe County shall re-evaluate the adopted potable water levels of service through the evaluation and appraisal report process as set forth in Chapter 163.3191 F.S..

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Objective 701.106

In coordination with the FKAA, Monroe County shall continue to maximize the use of existing facilities and discourage urban sprawl through implementation of Potable Water Policies 701.10.1 through 701.10.5. [9J-5.011(2)(b)3][§163.3177(6)(c)2., F.S.]

Policy 701.6.1

Monroe County shall annually evaluate proposed FKAA capital improvements for inclusion in the annual update of the County's CIE Schedule.

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Policy 701.6.2

Existing facilities shall be maximized by encouraging capital developments in already developed areas and discouraging extension of facilities to undeveloped areas.

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Policy 701.10.1

By January 4, 1998, Monroe County shall evaluate existing FKAA policies related to identification and adoption of capital improvements. Improvements consistent with achieving Objective 701.10 shall be incorporated into Monroe County's annual Concurrency Management Report prepared in accordance with Capital Improvements Policy 1401.4.9. [9J-5.011(2)(c)1]

Policy 701.10.2

All FKAA facility expansions shall be consistent with the Future Land Use Map, the Goals, Objectives, and Policies of the Comprehensive Plan, and adopted levels of service. [9J-5.011(2)(c)1]

Policy 701.10.3

Monroe County shall review and comment on the FKAA Capital Improvements Plan for Comprehensive Plan consistency prior to inclusion in the annual Concurrency Management Report prepared in accordance with Capital Improvements Policy 1401.4.9. [9J-5.011(2)(c)1]

~~Policy 701.10.4~~
~~The FKAA, through its fee schedule, shall continue to assess charges for new units for meter fees, tapping fees, service charges and water main extension costs in order to promote maximizing the use of existing facilities and discouraging urban sprawl. [9J-5.011(2)(c)1]~~

~~Policy 701.10.5~~
~~The FKAA shall continue its policy of not providing for water connection services in National Wildlife Refuge areas or hardwood hammock areas within its jurisdiction as specified in FKAA's enabling legislation and the FKAA Policy and Procedure Handbook, Chapter 48-7. [9J-5.011(2)(c)1]~~

5.2 Natural Groundwater and Aquifer Recharge Element

GOAL 1101

Monroe County shall protect the quality and quantity of water in the potable water aquifer and in the freshwater lens systems so as to ensure public health, conserve the public water supply, and preserve ecosystems dependent upon freshwater. ~~[9J-5.011(2)a]~~ [§163.3177(6)(c), F.S.],

Objective 1101.1

Monroe County shall work cooperatively with Miami-Dade County to encourage land use planning and development controls which shall protect the recharge area of the Florida City Wellfield from potential sources of groundwater contamination, saltwater intrusion and over-extraction. (See Potable Water Objective 701.4 and related policies.) ~~[9J-5.011(2)(b)5]~~ [§163.3177(6)(d), F.S.]

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Objective 1101.2

~~By January 4, 1998, Monroe County shall map the freshwater lens systems and associated recharge areas in the Florida Keys and shall adopt regulations which protect the lenses from loss of recharge potential and from threats of groundwater contamination. [9J-5.011(2)(b)5; 9J-5.013(2)(b)2]~~

Monroe County shall provide for the protection of groundwater within the unincorporated areas.

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~~Policy 1101.2.1~~

~~By January 4, 1997, Monroe County shall adopt a Stormwater Management Ordinance. This ordinance shall establish level of service standards for the quality and quantity of stormwater discharges. The ordinance shall encourage use of site specific natural drainage features to the maximum extent possible before utilizing structural stormwater control. The protection of freshwater lens recharge areas, and associated freshwater wetlands where identified, shall be of primary concern in design of a development project. [9J-5.011(2)(c)4; 9J-5.013(2)(b)1 and 9]~~

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Policy 1101.2.~~2~~1
Monroe County shall undertake activities which shall reduce pollutant entry into groundwater, summarized as follows:

1. Monroe County shall develop and implement permitting, inspection and enforcement procedures designed to reduce pollutant discharges into groundwater from:

   a) on-site disposal systems (See Sanitary Sewer Goal 901 and related objectives and policies);

   b) secondary sewage treatment plants and injection wells (See Sanitary Sewer Goal 901 and related objectives and policies); ~~and~~

   c) stormwater runoff (See Drainage Element Objective 1001.~~3~~ 1 and related policies);

   d) pesticides used for mosquito control – Monroe County shall ~~immediately take actions~~coordinate with the Florida Keys Mosquito Control District to promote mosquito control techniques which will reduce the entry of pollutants from aerial pesticide applications into groundwater ~~(See Conservation and Coastal Management Objective 202.11 and related policies~~);

   e) fuel storage tanks – Monroe County ~~HRS Unit~~ shall coordinate with the Department of Health (DOH) to continue ~~to undertake~~undertaking activities designed to reduce pollutant discharges into ground and surface waters from aboveground and underground fuel storage tanks (See Conservation and Coastal Management Objective 202.12 and related policies); and

   f) hazardous wastes – Monroe County shall continue to undertake activities which support existing state and federal laws pertaining to the handling, transportation and disposal of hazardous wastes (See Solid Waste Objective 801.5 and related policies.) ~~[9J-5.011(2)(c)4; 9J-5.012(3)(b)2; 9J-5.013(2)(b)1,2,9 and 10)~~

~~**Policy 1101.2.3**~~
~~By January 4, 1997, Monroe County shall initiate an interlocal agreement with the USFWS and SFWMD to map and evaluate the freshwater lenses of the Florida Keys and their associated recharge areas. Previously conducted studies by the National Audubon Society Research Department, Southern Illinois University, and the SFWMD will be utilized to the greatest extent possible. An analysis of the condition of the lenses shall also be completed.~~

~~Mapped data shall be entered into the County's Geographic Information System. [9J-5.011(2)(c)4; 9J-5.013(2)(b)1 and 9]~~

Policy 1101.2.~~4~~2

~~Pending completion of the freshwater lens study,~~ Monroe County shall continue to restrict the percentage of impervious surfaces on development sites through application of the Open Space Requirements in the Land Development ~~Regulations~~Code. These regulations shall be met or exceeded in order to minimize impervious areas and to protect freshwater lens recharge areas. ~~[9J-5.011(2)(c)4; 9J-5.013(2)(b)1 and 9]~~[§163.3177(6)(c), F.S.]

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Policy 1101.2.~~5~~3

~~Upon completion of the freshwater lens and recharge area mapping and evaluation, the~~Monroe County shall consider altering the minimum required open space ratios, and other development regulations, to protect the quantity and quality of groundwater in the freshwater lens systems. ~~The County shall also assign a negative point rating in the Point System for developments proposed in freshwater lens recharge areas. [9J-5.011(2)(c)4; 9J-5.012(3)(b)2; 9J-5.013(2)(b)1,2,9 and 10]~~ [§163.3177(6)(c), F.S.]

Policy 1101.2.4

Monroe County shall maintain land development regulations that prevent groundwater contamination during resource extraction operations. Such regulations shall require onsite retention, and point source pollution controls meeting FDEP and ACOE requirements.

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~~**Objective 1101.3**~~

~~By the year 2000, the use of well water in the Florida Keys for public consumption and commercial use shall be phased out in order to ensure the health and safety of the public and to ensure the preservation of the existing freshwater lens system. [9J-5.011(2)(b)5; 9J-5.013(2)(b)2]~~

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~~**Policy 1101.3.1**~~

~~By January 4, 1997, Monroe County shall adopt Land Development Regulations which prohibit new wells for drawing water from the freshwater lens systems for private residential and private commercial purposes in the Florida Keys. Exceptions shall be allowed for wells for approved periodic water testing. [9J-5.011(2)(c)4; 9J-5.013(2)(b)1 and 9)~~

~~**Policy 1101.3.2**~~

~~By January 4, 1998, in conjunction with the development of the Sanitary Wastewater Master Plan, Monroe County shall identify existing wells used for drawing water for private residential and private commercial purposes. [9J-5.011(2)(c)4; 9J-5.013(2)(b)1 and 9]~~

~~**Policy 1101.3.3**~~
~~The use of existing wells shall be phased out in accordance with the availability of adequate, affordable, alternative potable water sources.~~

5.4 Conservation and Coastal Management Element

GOAL 211
Monroe County shall conserve and protect potable water resources and cooperate with regional efforts to ensure the continued availability of high quality potable water. ~~[9J-5.011(~~ [§163.3177(6)d.2~~)(a); 9J-5.013(~~.b., F.S.; §163.3177(6)d.2~~)(a)]~~.c., F.S.]

Objective 211.1
Monroe County shall encourage the use of water conservation strategies, including, but not limited to cisterns, on-site stormwater collection systems used for irrigation and bio-swales, and work cooperatively with FKAA and Miami-Dade County to encourage water conservation efforts and assure that land use planning and development controls are maintained which ~~shall protect~~protects the recharge area of the Florida City Wellfield from potential sources of groundwater contamination and saltwater intrusion. (See Potable Water Objective 701.~~4~~ 3 and related policies). ~~[9J-5.013(2)(b)2]~~ [§163.3177(6)d.2.b., F.S.; §163.3177(6)d.2.c., F.S.]

~~**Objective 211.2**~~
Policy 211.1.1
Monroe County shall continue to assist the FKAA with water conservation efforts~~ and to assist in~~, including implementing the FKAA's Water Conservation Plan, consistent with SFWMD's Water Shortage Plan and Water Consumption Guidelines, and shall implement measures to further conserve potable water. (See Potable Water Objective 701.~~9~~ 5 and related policies). ~~[9J-5.013(2)(b)2]~~ [§163.3177(6)d.2.b., F.S.; §163.3177(6)d.2.c., F.S.]

~~**Objective 211.3**~~
Policy 211.1.2
~~By January 4, 1998,~~ Monroe County ~~shall identify~~has identified the freshwater lens system and associated recharge areas of the Florida Keys ~~and shall implement programs regulating~~as noted within *Water Resources of Big Pine Key, Florida*, (Hanson, 1980). Within one (1) year after the adoption of the 2030 Comprehensive Plan, the County shall adopt land development regulations that regulate the storage and use of hazardous materials in recharge areas, prohibiting new water withdrawals, and phasing out existing water withdrawals to protect ~~against saltwater intrusion.~~freshwater lenses. ~~(See Natural Groundwater Aquifer Recharge Objectives 1101.2 and 1101.3 and related policies). [9J-5.013(~~ [§163.3177(6)d.2~~)(~~.b~~)~~., F.S.; §163.3177(6)d.2~~]~~.i., F.S.]

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5.4 Future Land Use Element

GOAL 101

Monroe County shall manage future growth to enhance the quality of life, ensure the safety of County residents and visitors, and protect valuable natural resources. ~~[9J-5.006(3)a]~~ [§163.3177(1), F.S.]

Objective 101.1

Monroe County shall ensure that all development and redevelopment taking place within its boundaries does not result in a reduction of the level-of-service requirements established and adopted by this comprehensive plan. ~~Monroe County shall ensure that at the time a development permit is issued, adequate public facilities are available to serve the development at the adopted level of service standards concurrent with the impacts of such development.~~ ~~[9J-5.006(3)(b)1]~~ Further, Monroe County shall ensure that comprehensive plan amendments include an analysis of the availability of facilities and services or demonstrate that the adopted levels of service can be reasonably met. [§163.3177 & 163.3180, F. S.]

Policy 101.1.1

Monroe County shall ~~adopt~~maintain level of service (LOS) standards for the following public facility types required by Chapter ~~9J-5~~163, F.~~A.C: roads,~~S.: sanitary sewer, solid waste, drainage, and potable water~~,~~. Additionally the County shall maintain LOS for roads, and parks and recreation~~, and paratransit~~. The LOS standards are established in the following sections of the Comprehensive Plan:

* * *

2. The LOS for potable water is established in Potable Water Policy 701.1.1;

* * *

Policy 101.1.3

Facilities for potable water, sanitary sewer, solid waste and drainage shall be in place and available to serve new development no later than the issuance of the certificate of occupancy or its functional equivalent. If facility improvements are needed to ensure that the adopted level-of-service standards are achieved and maintained, prior to commencement of construction, a developer is required to enter into a binding and legally enforceable commitment to the County to assure construction or improvement of the facility. [163.3180, F. S.]

5.5 Capital Improvements Element

Objective 1401.4

Monroe County shall coordinate land use decisions and fiscal resources with a schedule of capital improvements in order to maintain the adopted level of service

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(LOS) standards for both ~~previously~~ issued development orders and future development. ~~[9J-5.016~~[§163.3177(3)(~~b~~a)3~~ and 5]~~., F.S.]

Policy 1401.4.1
Monroe County shall adopt and maintain level of service (LOS) standards for the following public facility types: roads, sanitary sewer, solid waste, drainage, potable water, and parks and recreation. The LOS standards are established in the following sections of the Comprehensive Plan:

* * *

2. The LOS for potable water is established in Potable Water Policy 701.1.1;

* * *

Policy 1401.4.4
Public facilities and services needed to support development shall be available ~~concurrent with the impacts of development,~~ in accordance with the adopted levels of service referenced in Policy 1401.4.1~~ and Chapter 9J-5.0055, F.A.C.~~. Development approval may be phased to allow the provision of public facilities and services necessary to maintain the adopted levels of service. ~~[9J-5.016(3)(c)6]~~

Policy 1401.4.5
Monroe County hereby adopts a Concurrency Management System to ensure that facilities and services needed to support development are available concurrent with the impact of development. The Concurrency Management System shall ensure that the County shall issue no development order or permit which results in a reduction in the level of service (LOS) below the adopted LOS standards referenced in Policy 1401.4.1 for those public facilities that are subject to the system. The guidelines established in Policies 1401.4.6, 1401.4.7, 1401.4.8, 1401.4.9, and 1401.4.10 shall ensure that concurrency is successfully implemented.

Policy 1401.4.6
The following guidelines identify the stages in the development review process when the test for concurrency must be met.

1. Preliminary Development Order Stage - A preliminary development order is a development order that precedes the issuance of a building permit, such as a subdivision plat, development plan, certificate of compliance, conditional use permit, or development of regional impact development order. A proposed development must receive a conditional concurrency determination prior to receiving a preliminary development order.

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2. Final Development Order Stage - A final development order is a building permit or any other development permit authorizing the construction or expansion of a structure~~building~~, an increase in development intensity, or a change of use requiring a new certificate of occupancy. A proposed development must receive a final concurrency determination prior to receiving a final development order.

Policy 1401.4.8

The following guidelines identify the minimum criteria necessary to meet the concurrency requirements of each public facility type.

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1. The concurrency requirements for ~~roads,~~ potable water, solid waste, sanitary sewer, and drainage facilities and services shall be satisfied if one or more of the following conditions are met:

   a) the necessary facilities and services are in place at the time a development permit is issued; or

   b) the necessary facilities and services are in place at the time a certificate of occupancy, or its functional equivalent is issued.

   ~~b) the development permit is issued subject to the condition that the necessary facilities and services will be in place when the impacts of the development occur or~~

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   ~~c) the necessary facilities are under construction at the time a permit is issued; or~~

   ~~d) an enforceable development agreement guarantees that the necessary facilities and services will be in place when the impacts of the development occur. An enforceable development agreement may include, but is not limited to, development agreements pursuant to section 163.3220, F.S., or an agreement or development order issued pursuant to Chapter 380, F.S.~~

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2. The concurrency requirements for recreational facilities shall be satisfied if one or more of the following conditions are met:

   a) conditions 1(a)~~,~~ or 1(b)~~, or 1(c)~~ listed above or, in the case of acreage for parks and recreational facilities, which shall be dedicated to or acquired by the County prior to issuance of a building permit, or funds in the amount of the developer's fair share are committed no later than the approval to commence construction; or

~~b) a binding executed contract is in place at the time the development permit is issued which provides for the commencement of the actual construction of the required facilities or provision of services within one year of permit issuance; or~~

~~c)~~b) an enforceable development agreement guarantees that the necessary facilities and services will be in place ~~within one year of~~ with the issuance of the applicable development permit. An enforceable development agreement may include, but is not limited to, development agreements pursuant to section 163.3220, F.S., or an agreement or development order issued pursuant to Chapter 380, F.S.

3. The concurrency requirements for roads shall be satisfied if one or more of the following conditions are met:

a) conditions 1(a) or 1(b) listed above; or

b) a binding executed contract is in place at the time the development permit is issued which provides for the commencement of the actual construction of the required facilities or provision of services; or

c) an enforceable development agreement guarantees that the necessary facilities and services will be in place with the issuance of the applicable development permit. An enforceable development agreement may include, but is not limited to, development agreements pursuant to section 163.3220, F.S., or an agreement or development order issued pursuant to Chapter 380, F.S.

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Policy 1401.4.10

Monroe County shall use the following guidelines for interpreting and applying level of service standards to development order applications. For the purposes of this policy, reserve capacity refers to the capacity of existing public facilities plus the capacity of public facilities which do not exist but which meet the applicable requirements of Policy 1401.4.7, less the existing demand for those facilities and the demand expected to be created for those facilities by approved but unbuilt development as determined by the databases in Policy 1401.4.9.

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1. Potable Water- The County shall not render a final concurrency determination unless the quantity of water available under the FKAA Consumptive Use Permit meets or exceeds the estimated water

demand of the proposed development together with the estimated water demand of all existing and committed development.

5.6 Energy and Climate Element

Policy 1502.1.5
Within five (5) years after the adoption of the 2030 Comprehensive Plan, Monroe County shall initiate an inventory of existing and planned infrastructure up to the 2030 horizon, based upon the vulnerability mapping identified in Policy 1502.1.4, for capacity to accommodate projected sea-level rise over the life expectancy of that infrastructure. Monroe County shall identify the infrastructure within those areas, its useful life and any retrofits or capital projects necessary to address the impacts of sea level rise. These strategies may include defense, accommodation, or and retreat projects, or not building planned infrastructure in vulnerable locations, to address the impacts of sea level rise. Monroe County will consider developing design criteria, in conjunction with a broader asset management planning process.

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Policy 1502.1.6
Within five (5) years after the adoption of the 2030 Comprehensive Plan, Monroe County shall consider incorporating a planning, design and permitting standard for infrastructure and public facilities that may include a sea level rise assumption of 3”-7” by 2030 as developed by the Southeast Regional Climate Compact. The County shall review and update sea level rise projections when new and pertinent data is available. (The 3”-7” by 2030 is based on a 2010 baseline -- if adjusted to a 1992 baseline it would result in 6” to 10” by 2030 above the 1992 mean sea level)

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Policy 1502.1.7
Monroe County shall ensure that new, renovated and replacement public facilities and infrastructure, such as streets and bridges, water and wastewater treatment plants, police stations and fire stations, and any other public facilities that the County has authority over, are designed in a manner which considers the useful life of public facilities and infrastructure. The County shall also consider the potential impacts from climate change, including rising sea levels and shoreline stabilization needs, on its infrastructure and public facilities.

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Policy 1503.1.5
Consistent with the Lower East Coast Regional Water Supply Plan, Monroe County shall encourage FKAA to continue expanding water auditing programs to increase the scope of the audits and identify opportunities to reduce system leaks and promote water conservation retrofitting.

Policy 1503.1.6
Within one (1) year after the adoption of the 2030 Comprehensive Plan, Monroe County shall develop policies to increase water conservation, which may include the adoption of a recognized standard such as the South Florida Water Management District's "Water Star" or EPA's "Water Sense" programs.

Policy 1503.1.7
Within five (5) years after the adoption of the 2030 Comprehensive Plan, Monroe County shall determine the appropriate climate change considerations (including but not limited to, emergency management, flood risk, storm surge, threats to potable water supply, the potential for changing habitat and landscapes, the need for shoreline stabilization and the potential impacts to infrastructure necessary to serve proposed uses) to evaluate when reviewing land use amendments.

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6.0 REGIONAL ISSUES IDENTIFIED IN REGIONAL WATER SUPPLY PLANS

6.1 Lower East Coast Water Supply Plan Update, September 12, 2013

The sole source provider of potable water to Monroe County is FKAA, whose wellfield is located in Florida City. The Lower East Coast Water Supply Plan Update indicates that the FKAA wellfield as a Utility At Risk from saltwater intrusion, but also states that the FKAA is a permitted Floridan Aquifer User, which should offset any anticipated drought-driven salt water intrusion event. FKAA also operates RO facilities in Marathon and Stock Island.

6.2 Integrating Climate Change & Water Supply Planning In Southeast Florida, Southeast Florida Regional Climate Change Compact, June 10, 2014

The Southeast Florida Regional Climate Change Compact, which includes Palm Beach, Broward, Miami-Dade and Monroe Counties, predicts that the sea level will rise between 9 and 24 inches by 2100 (the Compact's *A Unified Sea Level Rise Projection for Southeast Florida* [April, 2011] predicts that the sea level will rise between 3 and 7 inches by 2030). This may have implications regarding the ability of the local utility to provide fresh potable water from the Biscayne Aquifer to Monroe County as the salt water intrusion line shifts westward towards the FKAA wellfield. Monroe County's climate change and sustainability consultants have recently summarized hydrologic modeling by the United States Geological Survey that suggests relatively low risk to the FKAA wellfields in Florida City under even the worst-case 2060 sea level rise scenarios. However, FKAA continues to monitor the most current data and analysis regarding this issue.

7.0 REFERENCES

- Florida Keys Aqueduct Authority, 20-Year Water System Capital Improvement Master Plan, December 2006
- Florida Keys Aqueduct Authority, Annual Water Demand Update Through 2030
- Florida Keys Aqueduct Authority, Annual Water Demand Update by Municipal Boundary
- Florida Keys Aqueduct Authority Projected 5-Year Capital Improvement Plan
- Keith and Schnars, P.A.and Fishkind and Associates, Monroe County 2010-2030 Population Projections, March 15, 2011
- Monroe County Growth Management, Monroe County 2010 Comprehensive Plan
- Monroe County Growth Management, Monroe County 2030 Comprehensive Plan Update
- South Florida Water Management District, Lower East Coast Water Supply Plan Update, September 12, 2013
- Southeast Florida Regional Climate Change Compact, A Unified Sea Level Rise Projection for Southeast Florida, April, 2011
- Southeast Florida Regional Climate Change Compact, Integrating Climate Change & Water Supply Planning In Southeast Florida, June 10, 2014

8.0 EXHIBITS

Exhibit A: Section 7.2 of the Florida Keys Aqueduct Authority 20-Year Water System Capital Improvement Master Plan, December 2006.

7.2 Water Infrastructure System

7.2.1 Major System Upgrades

The CIP identifies many short- and long-term improvements to the water transmission, distribution, water storage, raw water supply, and the water treatment plants. Upgrades to the Water Infrastructure System will increase water treatment and storage capacities, and improve flows and pressures to meet anticipated water demands. Significant upgrades and proposed new facilities to the water treatment plants are planned to improve the reliability and quality of FKAA's drinking water. A specific goal is to provide high quality water that will meet future regulatory standards and will be able to meet projected water demands.

Major improvements to the water system include a new Floridan aquifer wellfield that will serve a new LPRO treatment facility at the J Robert Dean WTP in Florida City, multiple rehabilitation or upgrade projects at both the Kermit H. Lewin Desalination WTP and the Marathon Desalination WTP facility to increase reliability and capacity to meet emergency and peak day flows, and various transmission/distribution line replacements, distribution pump station upgrades, and improved water storage tanks to improve delivery capacity of the system.

Exhibit 7-2 shows all planned project improvements from 2006 through 2025 and associated order of magnitude cost estimates. The total estimated cost (in 2006 dollars) of these improvements is $208,606,402 during the next 20 years.

EXHIBIT 7-1
20-Year Water Infrastructure Capital Improvement - Order of Magnitude Cost Summary

Item	Amount	Including an Annual 3% Inflation
Water Supply Wells	$11,575,000	$12,695,000
Water Treatment Plants	$41,886,368	$45,224,000
Transmission Mains and Booster Pump Stations	$58,899,034	$72,725,000
Distribution Mains	$47,500,000	$64,676,000
Distribution Pump Stations and Ground Storage	$33,546,000	$43,949,000
Facilities and Structure[1]	$15,200,000	$16,223,000
20 Year Water Infrastructure Capital Improvement Program - GRAND TOTAL	**$208,606,402**	**$255,492,000**

Note:
[1]Facilities and Structures are not included in the detailed discussions in previous sections of this Master Plan document. Only order of magnitude costs included in Section 7 (per FKAA).

7.2.2 Basis of Project Cost Estimates

For master planning purposes, planning level cost estimates are order-of-magnitude estimates. As defined by the American Association of Cost Engineers, order-of-magnitude cost estimates are believed to be accurate within a range of 30 percent below, to 50 percent above, actual costs.

Exhibit 7-2

20-Year Capital Improvement Plan

Project Name	Project		1 2007	2 2008	3 2009	4 2010	5 2011	**Immediate** **TOTAL**	6 2012	7 2013	8 2014	9 2015	10 2016	**Mid-term** **Subtotal**	11 2017	12 2018	13 2019	14 2020	15 2021	16 2022	17 2023	18 2024	19 2025	**Long-term** **Subtotal**	**Total**
Water Supply								**$ -**						**$ -**										**$ -**	
J. Robert Dean WTP Phase 1 RO Facility	For a 4.5 MGD WTP-three 2- mgd wells and ASR mod. to supply		$ 1,700,000	$ 3,600,000	$ 2,860,000			**$ 8,160,000**						**$ -**										**$ -**	$ 8,160,000
J. Robert Dean WTP Phase 2 RO Facility	For an additional 1.5 MGD WTP-One 2 mgd well							**$ -**		$ 2,415,000				**$ 2,415,000**										**$ -**	$ 2,415,000
Ocean Reef WTP 4.5 MGD RO Facility	***Ocean Reef supply wells are included in the water treatment section.*							**$ -**						**$ -**										**$ -**	$ -
Aquifer Storage and Recovery (ASR)	1073		$ 1,000,000					**$ 1,000,000**						**$ -**										**$ -**	$ 1,000,000
Total Project Costs		**$ -**	**$ 2,700,000**	**$ 3,600,000**	**$ 2,860,000**	**$ -**	**$ -**	**$ 9,160,000**	**$ -**	**$ 2,415,000**	**$ -**	**$ -**	**$ -**	**$ 2,415,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 11,575,000**
Water Treatment								**$ -**						**$ -**										**$ -**	
J. Robert Dean WTP Phase 1 RO	4.5 MGD RO		$ 400,000	$ 8,961,700	$ 8,961,699			**$ 18,323,399**						**$ -**										**$ -**	$ 18,323,399
J. Robert Dean WTP Phase 1 RO	1 DIW for Concentrate Disposal			$ 3,450,000	$ 3,450,000			**$ 6,900,000**																	$ 6,900,000
J. Robert Dean WTP Phase 2 RO	An additional 1.5 MGD RO							**$ -**		$ 1,836,400				**$ 1,836,400**										**$ -**	$ 1,836,400
Kermit H. Lewin RO Desalination WTP Membrane Replacement	Stock island Construction 1082		$ 1,908,783	$ 1,908,783				**$ 3,817,566**						**$ -**										**$ -**	$ 3,817,566
Marathon Ro Desalination WTP Membrane replacement and Plant Upgrades	Marathon Construction Cost			$ 1,329,502	$ 1,329,501			**$ 2,659,003**						**$ -**										**$ -**	$ 2,659,003
Ocean Reef 4.5 MGD RO Desalination WTP Membrane Plant Construction Cost Option	1.5 MGD (FKAA's cost share component) ***Note- cost provided by FKAA*		$ 350,000	$ 4,200,000	$ 3,800,000			**$ 8,350,000**						**$ -**										**$ -**	$ 8,350,000
Total Project Costs		**$ -**	**$ 2,658,783**	**$19,849,985**	**$17,541,200**	**$ -**	**$ -**	**$ 40,049,968**	**$ -**	**$ 1,836,400**	**$ -**	**$ -**	**$ -**	**$ 1,836,400**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 41,886,368**
Transmission Mains and Booster Pump Stations								**$ -**						**$ -**										**$ -**	
Replace 36-inch transmission Main	Other 18-mile stretch segments			$ 200,000				**$ 200,000**						**$ -**										**$ -**	$ 200,000
Replace 36-inch transmission Main	MM 93-98 Replacement		$ 4,554,000	$ 9,108,000				**$ 13,662,000**						**$ -**										**$ -**	$ 13,662,000
12-inch Ocean reef Transmission Mains Contract 1					$ 3,188,000			**$ 3,188,000**						**$ -**										**$ -**	$ 3,188,000
Replace 18-inch Main, Key Largo 93				$ 750,000	$ 750,000			**$ 1,500,000**						**$ -**										**$ -**	$ 1,500,000

Exhibit 7-2

20-Year Capital Improvement Plan

Project Name	Project		1 2007	2 2008	3 2009	4 2010	5 2011	Immediate TOTAL	6 2012	7 2013	8 2014	9 2015	10 2016	Mid-term Subtotal	11 2017	12 2018	13 2019	14 2020	15 2021	16 2022	17 2023	18 2024	19 2025	Long-term Subtotal	Total
Marathon 18-inch Transmission Main Replacements								**$ -**	$ 300,000					**$ 300,000**										**$ -**	$ 300,000
18-inch Transmission Main replacement N. Roosevelt					$ 1,572,000	$1,572,000		**$ 3,144,000**						**$ -**										**$ -**	$ 3,144,000
Phase II Cathodic Protection			$ 2,118,334					**$ 2,118,334**						**$ -**										**$ -**	$ 2,118,334
J. Robert Dean WTP	Upsize diesel driven pumps 1 and 2					$ 302,000		**$ 302,000**						**$ -**										**$ -**	$ 302,000
J. Robert Dean WTP	Install new 5 MG storage tank							**$ -**	$ 4,855,000					**$ 4,855,000**										**$ -**	$ 4,855,000
Key Largo Booster PS	Install 3rd electric transmission pump							**$ -**				$ 251,850		**$ 251,850**										**$ -**	$ 251,850
Plantation Key Booster PS								**$ -**	$ 4,209,000	$ 4,209,000				**$ 8,418,000**										**$ -**	$ 8,418,000
Marathon Pump Station Inp.	Engine & Pumps - 1075		$ 907,000					**$ 907,000**						**$ -**										**$ -**	$ 907,000
Marathon Booster PS	Add a second 3 MG storage tank					$1,430,500	$ 1,430,500	**$ 2,861,000**						**$ -**										**$ -**	$ 2,861,000
Marathon Booster PS	Install 3rd electric pump							**$ -**				$ 251,850		**$ 251,850**										**$ -**	$ 251,850
Lower Keyes Booster Pump Station #1								**$ -**				$ 4,209,000	$ 4,209,000	**$ 8,418,000**										**$ -**	$ 8,418,000
Lower Keyes Booster Pump Station #2								**$ -**						**$ -**								$4,209,000	$4,209,000	**$ 8,418,000**	$ 8,418,000
Ramrod Booster PS								**$ -**				$ 104,000		**$ 104,000**										**$ -**	$ 104,000
Total Project Costs		**$ -**	**$ 7,579,334**	**$10,058,000**	**$ 5,510,000**	**$3,304,500**	**$ 1,430,500**	**$ 27,882,334**	**$ 9,364,000**	**$ 4,209,000**	**$ -**	**$ 4,816,700**	**$ 4,209,000**	**$ 22,598,700**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$4,209,000**	**$4,209,000**	**$ 8,418,000**	**$ 58,899,034**
Distribution Mains								**$ -**						**$ -**										**$ -**	
Replace Old Galvanized Mains			$ 341,000					**$ 341,000**						**$ -**										**$ -**	$ 341,000
Upsize Small-Diameter Mains to 4-inch & other upgrades			$ 1,607,000	$ 1,558,500	$ 1,558,500	$2,500,000	$ 2,500,000	**$ 9,724,000**	$ 2,500,000	$ 2,500,000	$2,500,000	$ 2,500,000	$ 2,500,000	**$ 12,500,000**	$ 2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	**$22,500,000**	$ 44,724,000
Cudjoe Key Additional Distribution Main Header			$ 552,000					**$ 552,000**						**$ -**										**$ -**	$ 552,000
Islamorada Distribution PS	Install distribution main header			$ 941,500	$ 941,500			**$ 1,883,000**						**$ -**										**$ -**	$ 1,883,000
Total Distribution Mains Project C		**$ -**	**$ 2,500,000**	**$ 2,500,000**	**$ 2,500,000**	**$2,500,000**	**$ 2,500,000**	**$ 12,500,000**	**$ 2,500,000**	**$ 2,500,000**	**$2,500,000**	**$ 2,500,000**	**$ 2,500,000**	**$ 12,500,000**	**$ 2,500,000**	**$2,500,000**	**$2,500,000**	**$2,500,000**	**$2,500,000**	**$2,500,000**	**$2,500,000**	**$2,500,000**	**$2,500,000**	**$22,500,000**	**$ 47,500,000**
Distribution Pump Station and Storage								**Immediate**						**Mid-term**										**Long-term**	
Ocean Reef	Additional 1.0 MG Storage							**$ -**		$ 860,000	$ 860,000			**$ 1,720,000**										**$ -**	$ 1,720,000
Lake Surprise	New Pump Station and 0.75 MG Storage tank							**$ -**				$ 1,126,500	$ 1,126,500	**$ 2,253,000**										**$ -**	$ 2,253,000
Rock Harbor	Replace and Upsize existing Pump Station							**$ -**	$ 538,000	$ 538,000				**$ 1,076,000**										**$ -**	$ 1,076,000
Rock Harbor	Install 0.5 MG Storage Tank							**$ -**	$ 405,000	$ 405,000				**$ 810,000**										**$ -**	$ 810,000
Rock Harbor	Install a third 0.5 MG Tank							**$ -**						**$ -**				$ 810,000						**$ 810,000**	$ 810,000
Tavernier	New Larger Pump Station and New Larger Storage tank (1.0 MG)					$1,318,500	$ 1,318,500	**$ 2,637,000**						**$ -**										**$ -**	$ 2,637,000
Tavernier	6-inch tap and 8" fill line					$ 76,000	$ 76,000	**$ 152,000**						**$ -**										**$ -**	$ 152,000

Exhibit 7-2

20-Year Capital Improvement Plan

Project Name	Project	1 2007	2 2008	3 2009	4 2010	5 2011	Immediate TOTAL	6 2012	7 2013	8 2014	9 2015	10 2016	Mid-term Subtotal	11 2017	12 2018	13 2019	14 2020	15 2021	16 2022	17 2023	18 2024	19 2025	Long-term Subtotal	Total
Tavernier	Install 8-inch distribution main header along both sides of US-1 where required				$ 646,000	$ 646,000	**$ 1,292,000**						**$ -**										**$ -**	$ 1,292,000
Plantation Key	New Pump Station and 1.0 MG Storage tank						**$ -**						**$ -**	$ 1,325,500	$1,325,500								**$ 2,651,000**	$ 2,651,000
Lower Matecumbe key	New Pump Station and and 0.5 MG Storage tank						**$ -**						**$ -**		$ 974,500	$ 974,500							**$ 1,949,000**	$ 1,949,000
Duck Key/Grassy Key	New Pump Station and 0.75 MG Storage tank						**$ -**						**$ -**			$1,133,500	$1,133,500						**$ 2,267,000**	$ 2,267,000
Crawl Key	Install New and Upgraded Pump Station				$1,090,000		**$ 1,090,000**						**$ -**										**$ -**	$ 1,090,000
Crawl Key	Install New 6-inch tap and 8-inch (assumed) Fill Line				$ 109,000		**$ 109,000**						**$ -**										**$ -**	$ 109,000
Crawl Key	Replace and Upsize Storage Tank (to 1 MG)						**$ -**					$ 1,464,000	**$ 1,464,000**										**$ -**	$ 1,464,000
Vaca Cut	Install New 0.5 MG Storage Tank					$ 810,000	**$ 810,000**						**$ -**										**$ -**	$ 810,000
Vaca Cut	Demolish Existing 0.5 MG Storage Tank and Install New 0.5 MG Storage Tank						**$ -**					$ 869,000	**$ 869,000**										**$ -**	$ 869,000
69th Street							**$ -**						**$ -**										**$ -**	$ -
33rd Street	Replace Existing Pump Station						**$ -**	$ 1,138,000					**$ 1,138,000**										**$ -**	$ 1,138,000
33th Street	Replace Existing 0.5 MG Storage Tank with New 0.5 MG storage tank						**$ -**						**$ -**					$ 897,000					**$ 897,000**	$ 897,000
Ramrod	New Pump Station and 0.50 MG Storage Tank						**$ -**						**$ -**	$ 1,900,000									**$ 1,900,000**	$ 1,900,000
Cudjoe Key	New Pump station and 1.0MG Storage Tank		$ 1,750,000				**$ 1,750,000**						**$ -**										**$ -**	$ 1,750,000
Summerland Key	Replace Pump Station and Storage tank, New 0.5 MG tank						**$ -**						**$ -**	$ 1,932,000									**$ 1,932,000**	$ 1,932,000
Lower Sugarloaf	New Pump Station and Storage Tank, New 0.5 MG tank						**$ -**						**$ -**					$1,900,000					**$ 1,900,000**	$ 1,900,000
Stock Island Distribution	Replace Existing Pump Station						**$ -**	$ 2,070,000					**$ 2,070,000**										**$ -**	$ 2,070,000
Total Distribution Pump Station		**$ -**	**$ 1,750,000**	**$ -**	**$ -**	**$3,239,500**	**$ 2,850,500**	**$ 7,840,000**	**$ 4,151,000**	**$ 1,803,000**	**$ 860,000**	**$ 1,126,500**	**$ 3,459,500**	**$ 11,400,000**	**$ 5,157,500**	**$2,300,000**	**$2,108,000**	**$1,943,500**	**$2,797,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$14,306,000**	**$ 33,546,000**
Facilities and Structure																							**$ -**	
Desal Sewall Repairs	3073		$ 750,000	$ 3,250,000			**$ 4,000,000**						**$ -**										**$ -**	$ 4,000,000
Rehab Admin Bldg/Garage	3081		$ 400,000	$ 3,400,000	$ 3,400,000		**$ 7,200,000**						**$ -**										**$ -**	$ 7,200,000
Marathon Central Warehouse	3077						**$ -**						**$ -**										**$ -**	$ -
Customer Service/Meter Bldg	3091		$ 425,000	$ 425,000			**$ 850,000**						**$ -**										**$ -**	$ 850,000
DESAL/Stock Island/Lower Keys Garage Wastewater	3083		$ 200,000				**$ 200,000**						**$ -**										**$ -**	$ 200,000
Marathon Customer Service Center	3077		$ 300,000	$ 1,000,000	$ 1,650,000		**$ 2,950,000**						**$ -**										**$ -**	$ 2,950,000
Total Project Costs		**$ -**	**$ 2,075,000**	**$ 8,075,000**	**$ 5,050,000**	**$ -**	**$ -**	**$ 15,200,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 15,200,000**
		$ -	**$19,263,117**	**$44,082,985**	**$33,461,200**	**$9,044,000**	**$ 6,781,000**	**$112,632,302**	**$16,015,000**	**$12,763,400**	**$3,360,000**	**$ 8,443,200**	**$10,168,500**	**$ 50,750,100**	**$ 7,657,500**	**$4,800,000**	**$4,608,000**	**$4,443,500**	**$5,297,000**	**$2,500,000**	**$2,500,000**	**$6,709,000**	**$6,709,000**	**$45,224,000**	**$208,606,402**

Exhibit 7-2

20-Year Capital Improvement Plan (Costs in Inflated Dollars)

Project Name	Project	2006	2007	2008	2009	2010	2011	Immediate Subtotal	2012	2013	2014	2015	2016	Mid-term Subtotal	2017	2018	2019	2020	2021	2022	2023	2024	2025	Long-term Subtotal	Total
			1	2	3	4	5		6	7	8	9	10		11	12	13	14	15	16	17	18	19		
Water Supply								**$ -**						**$ -**										**$ -**	
J. Robert Dean WTP Phase 1 RO Facility	For a 4.5 MGD WTP-Three 2 mgd wells and one standby	$ -	$ 1,751,000	$ 3,819,000	$ 3,125,000	$ -	$ -	**$ 8,695,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 8,695,000
J. Robert Dean WTP Phase 2 RO Facility	For an additional 1.5 MGD WTP-One 2 mgd well	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ 2,970,000	$ -	$ -	$ -	**$ 2,970,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 2,970,000
Ocean Reef WTP 4.5 MGD RO Facility	***Ocean Reef supply wells are included in the water treatment section.*	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -
Aquifer Storage and Recovery (ASR)	1073	$ -	$ 1,030,000	$ -	$ -	$ -	$ -	**$ 1,030,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,030,000
Total Project Costs		**$ -**	**$ 2,781,000**	**$ 3,819,000**	**$ 3,125,000**	**$ -**	**$ -**	**$ 9,725,000**	**$ -**	**$ 2,970,000**	**$ -**	**$ -**	**$ -**	**$ 2,970,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 12,695,000**
Water Treatment								**$ -**						**$ -**										**$ -**	
J. Robert Dean WTP Phase 1 RO	4.5 MGD RO	$ -	$ 412,000	$ 9,507,000	$ 9,793,000	$ -	$ -	**$ 19,712,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 19,712,000
J. Robert Dean WTP Phase 1 RO	1 DIW for Concentrate Disposal			$ 3,660,000	$ 3,770,000			**$ 7,430,000**																	$ 7,430,000
J. Robert Dean WTP Phase 2 RO	An additional 1.5 MGD RO	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ 2,259,000	$ -	$ -	$ -	**$ 2,259,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 2,259,000
Kermit H. Lewin RO Desalination WTP Membrane Replacement	Stock island Construction 1082	$ -	$ 1,966,000	$ 2,025,000	$ -	$ -	$ -	**$ 3,991,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 3,991,000
Marathon Ro Desalination WTP Membrane replacement and Plant Upgrades	Marathon Construction Cost	$ -	$ -	$ 1,410,000	$ 1,453,000	$ -	$ -	**$ 2,863,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 2,863,000
Ocean Reef 4.5 MGD RO Desalination WTP Membrane Plant Construction Cost Option	1.5 MGD (FKAA's cost share component) ***Note-cost provided by FKAA*	$ -	$ 361,000	$ 4,456,000	$ 4,152,000	$ -	$ -	**$ 8,969,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 8,969,000
Total Project Costs		**$ -**	**$ 2,739,000**	**$ 21,058,000**	**$ 19,168,000**	**$ -**	**$ -**	**$ 42,965,000**	**$ -**	**$ 2,259,000**	**$ -**	**$ -**	**$ -**	**$ 2,259,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 45,224,000**
Transmission Mains and Booster Pump Stations								**$ -**						**$ -**										**$ -**	
Replace 36-inch transmission Main	Other 18-mile stretch segments	$ -	$ -	$ 212,000	$ -	$ -	$ -	**$ 212,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 212,000
Replace 36-inch transmission Main	MM 93-98 Replacement	$ -	$ 4,691,000	$ 9,663,000	$ -	$ -	$ -	**$ 14,354,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 14,354,000
12-inch Ocean reef Transmission Mains Contract 1		$ -	$ -	$ -	$ 3,484,000	$ -	$ -	**$ 3,484,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 3,484,000
Replace 18-inch Main, Key Largo 92-		$ -	$ -	$ 796,000	$ 820,000	$ -	$ -	**$ 1,616,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,616,000
Marathon 18-inch Transmission Main Replacements		$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 358,000	$ -	$ -	$ -	$ -	**$ 358,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 358,000

Exhibit 7-2

20-Year Capital Improvement Plan (Costs in Inflated Dollars)

Project Name	Project	2006	2007	2008	2009	2010	2011	Immediate Subtotal	2012	2013	2014	2015	2016	Mid-term Subtotal	2017	2018	2019	2020	2021	2022	2023	2024	2025	Long-term Subtotal	Total
			1	2	3	4	5		6	7	8	9	10		11	12	13	14	15	16	17	18	19		
18-inch Transmission Main replacement N. Roosevelt		$ -	$ -	$ -	$ 1,718,000	$ 1,769,000	$ -	**$ 3,487,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 3,487,000
Phase II Cathodic Protection		$ -	$ 2,182,000	$ -	$ -	$ -	$ -	**$ 2,182,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 2,182,000
J. Robert Dean WTP	Upsize diesel driven pumps 1 and 2	$ -	$ -	$ -	$ -	$ 340,000	$ -	**$ 340,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 340,000
J. Robert Dean WTP	Install new 5 MG storage tank	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 5,797,000	$ -	$ -	$ -	$ -	**$ 5,797,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 5,797,000
Key Largo Booster PS	Install 3rd electric transmission pump	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ 329,000	$ -	**$ 329,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 329,000
Plantation Key Booster PS		$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 5,026,000	$ 5,177,000	$ -	$ -	$ -	**$10,203,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 10,203,000
Marathon Pump Station Inp.	Engine & Pumps - 1075	$ -	$ 934,000	$ -	$ -	$ -	$ -	**$ 934,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 934,000
Marathon Booster PS	Add a second 3 MG storage tank	$ -	$ -	$ -	$ -	$ 1,610,000	$ 1,658,000	**$ 3,268,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 3,268,000
Marathon Booster PS	Install 3rd electric pump	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ 329,000	$ -	**$ 329,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 329,000
Lower Keys Booster pump Station # 1		$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ 5,492,000	$ 5,657,000	**$11,149,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 11,149,000
Lower Keys Booster pump Station # 2		$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 7,166,000	$ 7,381,000	**$14,547,000**	$ 14,547,000
Ramrod Booster PS		$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ 136,000	$ -	**$ 136,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 136,000
Total Project Costs		**$ -**	**$ 7,807,000**	**$10,671,000**	**$ 6,022,000**	**$ 3,719,000**	**$ 1,658,000**	**$ 29,877,000**	**$11,181,000**	**$ 5,177,000**	**$ -**	**$ 6,286,000**	**$ 5,657,000**	**$28,301,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 7,166,000**	**$ 7,381,000**	**$14,547,000**	**$ 72,725,000**
Distribution Mains								**$ -**						**$ -**										**$ -**	
Replace Old Galvanized Mains		$ -	$ 351,000	$ -	$ -	$ -	$ -	**$ 351,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 351,000
Upsize Small-Diameter Mains to 4-inch & other upgrades		$ -	$ 1,655,000	$ 1,653,000	$ 1,703,000	$ 2,814,000	$ 2,898,000	**$ 10,723,000**	$ 2,985,000	$ 3,075,000	$3,167,000	$ 3,262,000	$ 3,360,000	**$15,849,000**	$ 3,461,000	$3,564,000	$3,671,000	$ 3,781,000	$3,895,000	$4,012,000	$4,132,000	$ 4,256,000	$ 4,384,000	**$35,156,000**	$ 61,728,000
Cudjoe Key Additional Distribution Main Header		$ -	$ 569,000	$ -	$ -	$ -	$ -	**$ 569,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 569,000
Islamorada Distribution PS	Install distribution main header	$ -	$ -	$ 999,000	$ 1,029,000	$ -	$ -	**$ 2,028,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 2,028,000
Total Distribution Mains Project C		**$ -**	**$ 2,575,000**	**$ 2,652,000**	**$ 2,732,000**	**$ 2,814,000**	**$ 2,898,000**	**$ 13,671,000**	**$ 2,985,000**	**$ 3,075,000**	**$3,167,000**	**$ 3,262,000**	**$ 3,360,000**	**$15,849,000**	**$ 3,461,000**	**$3,564,000**	**$3,671,000**	**$ 3,781,000**	**$3,895,000**	**$4,012,000**	**$4,132,000**	**$ 4,256,000**	**$ 4,384,000**	**$35,156,000**	**$ 64,676,000**
Distribution Pump Station and Storage								**Immediate**						**Mid-term**										**Long-term**	
Ocean Reef	Additional 1.0 MG Storage	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ 1,058,000	$1,089,000	$ -	$ -	**$ 2,147,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 2,147,000
Lake Surprise	New Pump Station and 0.75 MG Storage tank	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ 1,470,000	$ 1,514,000	**$ 2,984,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 2,984,000
Rock Harbor	Replace and Upsize existing Pump Station	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 642,000	$ 662,000	$ -	$ -	$ -	**$ 1,304,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,304,000
Rock Harbor	Install 0.5 MG Storage Tank	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 484,000	$ 498,000	$ -	$ -	$ -	**$ 982,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 982,000
Rock Harbor	Install a third 0.5 MG Tank	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ 1,225,000	$ -	$ -	$ -	$ -	$ -	**$ 1,225,000**	$ 1,225,000
Tavernier	New Larger Pump Station and New Larger Storage tank (1.0 MG)	$ -	$ -	$ -	$ -	$ 1,484,000	$ 1,529,000	**$ 3,013,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 3,013,000
Tavernier	6-inch tap and 8" fill line	$ -	$ -	$ -	$ -	$ 86,000	$ 88,000	**$ 174,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 174,000
Tavernier	Install 8-inch distribution main header along both sides of US-1 where required	$ -	$ -	$ -	$ -	$ 727,000	$ 749,000	**$ 1,476,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,476,000
Plantation Key	New Pump Station and 1.0 MG Storage tank	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,835,000	$1,890,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 3,725,000**	$ 3,725,000

Exhibit 7-2

20-Year Capital Improvement Plan (Costs in Inflated Dollars)

Project Name	Project	2006	2007	2008	2009	2010	2011	Immediate Subtotal	2012	2013	2014	2015	2016	Mid-term Subtotal	2017	2018	2019	2020	2021	2022	2023	2024	2025	Long-term Subtotal	Total
			1	2	3	4	5		6	7	8	9	10		11	12	13	14	15	16	17	18	19		
Lower Matecumbe key	New Pump Station and and 0.5 MG Storage tank	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$1,389,000	$1,431,000	$ -	$ -	$ -	$ -	$ -	$ -	**$ 2,820,000**	$ 2,820,000
Duck Key/Grassy Key	New Pump Station and 0.75 MG Storage tank	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$1,665,000	$ 1,715,000	$ -	$ -	$ -	$ -	$ -	**$ 3,380,000**	$ 3,380,000
Crawl Key	Install New and Upgraded Pump Station	$ -	$ -	$ -	$ -	$ 1,227,000	$ -	**$ 1,227,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,227,000
Crawl Key	Install New 6-inch tap and 8-inch (assumed) Fill Line	$ -	$ -	$ -	$ -	$ 123,000	$ -	**$ 123,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 123,000
Crawl Key	Replace and Upsize Storage Tank (to 1 MG)	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ 1,967,000	**$ 1,967,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,967,000
Vaca Cut	Install New 0.5 MG Storage Tank	$ -	$ -	$ -	$ -	$ -	$ 939,000	**$ 939,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 939,000
Vaca Cut	Demolish Existing 0.5 MG Storage Tank and Install New 0.5 MG Storage Tank	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ 1,168,000	**$ 1,168,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,168,000
69th Street		$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -
33rd Street	Replace Existing Pump Station	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,359,000	$ -	$ -	$ -	$ -	**$ 1,359,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,359,000
33th Street	Replace Existing 0.5 MG Storage Tank with New 0.5 MG storage tank	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$1,397,000	$ -	$ -	$ -	$ -	**$ 1,397,000**	$ 1,397,000
Ramrod	New Pump Station and 0.50 MG Storage Tank	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 2,630,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 2,630,000**	$ 2,630,000
Cudjoe Key	New Pump station and 1.0MG Storage Tank	$ -	$ 1,803,000	$ -	$ -	$ -	$ -	**$ 1,803,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,803,000
Summerland Key	Replace Pump Station and Storage tank, New 0.5 MG tank	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 2,674,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 2,674,000**	$ 2,674,000
Lower Sugarloaf	New Pump Station and Storage Tank, New 0.5 MG tank	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$2,960,000	$ -	$ -	$ -	$ -	**$ 2,960,000**	$ 2,960,000
Stock Island Distribution	Replace Existing Pump Station	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 2,472,000	$ -	$ -	$ -	$ -	**$ 2,472,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 2,472,000
Total Distribution Pump Station		**$ -**	**$ 1,803,000**	**$ -**	**$ -**	**$ 3,647,000**	**$ 3,305,000**	**$ 8,755,000**	**$ 4,957,000**	**$ 2,218,000**	**$1,089,000**	**$ 1,470,000**	**$ 4,649,000**	**$14,383,000**	**$ 7,139,000**	**$3,279,000**	**$3,096,000**	**$ 2,940,000**	**$4,357,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$20,811,000**	**$ 43,949,000**
Facilities and Structure																								**$ -**	
Desal Sewall Repairs	3073	$ -	$ 773,000	$ 3,448,000	$ -	$ -	$ -	**$ 4,221,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 4,221,000
New Admin Bldg/Garage	3081	$ -	$ 412,000	$ 3,607,000	$ 3,715,000	$ -	$ -	**$ 7,734,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 7,734,000
Marathon Central Warehouse	3077	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -
DESAL Customer Service/Records Bldg	3091	$ -	$ 438,000	$ 451,000	$ -	$ -	$ -	**$ 889,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 889,000
DESAL/Stock Island/Lower Keys Garage Wastewater	3083	$ -	$ 206,000	$ -	$ -	$ -	$ -	**$ 206,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 206,000
Marathon Customer Service Center	3077	$ -	$ 309,000	$ 1,061,000	$ 1,803,000	$ -	$ -	**$ 3,173,000**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 3,173,000
Total Project Costs		**$ -**	**$ 2,138,000**	**$ 8,567,000**	**$ 5,518,000**	**$ -**	**$ -**	**$ 16,223,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 16,223,000**
All Project Costs includes Faciliti		**$ -**	**$ 19,843,000**	**$46,767,000**	**$36,565,000**	**$10,180,000**	**$ 7,861,000**	**$ 121,216,000**	**$19,123,000**	**$ 15,699,000**	**$4,256,000**	**$11,018,000**	**$13,666,000**	**$63,762,000**	**$10,600,000**	**$6,843,000**	**$6,767,000**	**$ 6,721,000**	**$8,252,000**	**$4,012,000**	**$4,132,000**	**$11,422,000**	**$11,765,000**	**$70,514,000**	**$255,492,000**

Note: Projected Costs assume annual inflation of **3.00%**

Exhibit 7-2 (continued)
Water Supply

Project	Construction Cost[a]	Total Construction Cost[a]	Consulting, Administrative, Legal Fees[b]	Contingency[c]	Total Project Cost	Suggested Timing
J. Robert Dean WTP Phase I and Phase II RO Facility, Floridan Wells Construction Cost						
Floridan Water Supply Well - Phase I 4.5MGD WTP - Three 2mgd wells and one standby	$ 5,913,044	$ 5,913,044	$ 1,182,609	$ 1,064,348	$ 8,160,000	2007-2009
Floridan Water Supply Well - Phase II adding 1.5MGD for a total of 6MGD WTP - One additional 2mgd well	$ 1,750,000	$ 1,750,000	$ 350,000	$ 315,000	$ 2,415,000	2013
ASR (Cost per FKAA for FY 2007 only)	$ 1,000,000	$ 1,000,000			$ 1,000,000	2007
Project Total					**$ 11,575,000**	

Notes:

[a]These are order-of-magnitude cost opinions (in April 2006 dollars) made without detailed engineering design. It is normally expected that estimates of this type are accurate within -30% to +50%.

[b]Consulting, administrative, legal fees equal 20 percent of construction cost.

[c]Contingency (15 percent of subtotal costs for all items).

Exhibit 7-2 (cont.)
Water Treatment Plant

Project	Construction Cost[a]	Total Construction Cost[a]	Total Project Cost	Suggested Timing	Remarks
J. Robert Dean WTP Phase I and Phase II RO Facility Construction Cost Option (Phase 1 based on 60% design cost estimate and Phase 2 based on 60% estimate line item cost)					
PHASE I - 4.5MGD RO Piping and Electrical to supply wells and concentrate injection well	$ 1,829,721	$ 1,829,721	$ 1,829,721	2007-2009	
PHASE I - 4.5MGD RO membrane system	$ 5,439,072	$ 5,439,072	$ 5,439,072	2007-2009	
PHASE I - 4.5MGD RO Degasifier/Scrubber system	$ 1,248,204	$ 1,248,204	$ 1,248,204	2007-2009	
PHASE I - 4.5MGD RO Product transfer pump station	$ 3,123,766	$ 3,123,766	$ 3,123,766	2007-2009	
PHASE I - 4.5MGD RO Chemical storage and feed system	$ 760,706	$ 760,706	$ 760,706	2007-2009	
PHASE I - 4.5MGD RO Site work	$ 795,946	$ 795,946	$ 795,946	2007-2009	
PHASE I - 4.5MGD RO Yard piping	$ 1,026,337	$ 1,026,337	$ 1,026,337	2007-2009	
PHASE I - 4.5MGD RO Electrical and I&C	$ 1,863,390	$ 1,863,390	$ 1,863,390	2007-2009	
PHASE I - 4.5MGD RO Building	$ 2,236,257	$ 2,236,257	$ 2,236,257	2007-2009	
PHASE I - One Concentrate Disposal DIW[1]	$ 6,900,000	$ 6,900,000	$ 6,900,000	2007-2009	
PHASE II - 1.5MGD ADDITION (TOTAL 6.0MGD RO) RO membrane system	$ 1,290,000	$ 1,290,000	$ 1,290,000	2013	
PHASE II - 1.5MGD ADDITION (TOTAL 6.0MGD RO) Well pipinig, pump, electrical	$ 546,400	$ 546,400	$ 546,400	2013	
PHASE II - 1.5MGD ADDITION (TOTAL 6.0MGD RO) Site work	$ -	$ -	$ -	2013	
PHASE II - 1.5MGD ADDITION (TOTAL 6.0MGD RO) Yard piping	$ -	$ -	$ -	2013	
PHASE II - 1.5MGD ADDITION (TOTAL 6.0MGD RO) Yard electrical	$ -	$ -	$ -	2013	
PHASE II - 1.5MGD ADDITION (TOTAL 6.0MGD RO) Plant computer system and programm	$ -	$ -	$ -	2013	
Project Total	$27,059,799	$27,059,799	**$27,059,799**		
Kermit H. Lewin RO Desalination WTP Membrane Replacement and Plant Upgrades, Stock Island, Construction Cost Option (Based on 60% Design Cost Estimate)					
CO2 pretreatment storage and feed system	$ 826,851	$ 826,851	$ 826,851	2007-2009	
Elevated walkway and platform	$ 143,403	$ 143,403	$ 143,403	2007-2009	
14" Auger cast piles	$ 88,532	$ 88,532	$ 88,532	2007-2009	
Clearwell rehabilitation	$ 37,898	$ 37,898	$ 37,898	2007-2009	
Relocate injection well piping	$ 16,788	$ 16,788	$ 16,788	2007-2009	
RO train piping upgrade	$ 1,379,755	$ 1,379,755	$ 1,379,755	2007-2009	
Electrical and I&C	$ 66,839	$ 66,839	$ 66,839	2007-2009	
Toyobo RO membrane/pressure vessels	$ 1,257,500	$ 1,257,500	$ 1,257,500	2007-2009	
Project Total	$ 3,817,566	$ 3,817,566	**$ 3,817,566**		
Marathon RO Desalination WTP Membrane Replacement and Plant Upgrades, Marathon, Construction Cost Option (Based on Stock Island 60% line item estimate)					
CO2 pretreatment storage and feed system	$ 413,400	$ 413,400	$ 413,400	2007-2009	
14" Auger cast piles	$ 88,000	$ 88,000	$ 88,000	2007-2009	
RO train piping upgrade	$ 689,900	$ 689,900	$ 689,900	2007-2009	
Elevated walkway and platform	$ 143,403	$ 143,403	$ 143,403	2007-2009	
Electrical and I&C	$ 66,800	$ 66,800	$ 66,800	2007-2009	
Toyobo RO membrane/pressure vessels	$ 1,257,500	$ 1,257,500	$ 1,257,500	2007-2009	
Project Total	$ 2,659,003	$ 2,659,003	**$ 2,659,003**		
OCEAN REEF 1.5MGD NEW RO WTP[2]	$ 8,350,000	$ 8,350,000	**$ 8,350,000**	2007-2009	
Grand Total			**$41,886,368**		

Notes:
[1]Standby DIW not required since FKAA has flexibility to perform the 5 year MIT during the wet season and can shut down the RO WTP during that time
[2]Cost provided by FKAA

Exhibit 7-2 (cont.)

Construction and Total Project Cost Estimates for Proposed Transmission Main Improvement Projects

Project	Pipeline Size (inches)	Pipeline Size (inches)	Construction Cost[a]	Total Construction Cost[a]	Consulting, Administrative, Legal Fees[b]	Contingency[c]	Total Project Cost	Suggested Timing	Remarks
Replace 36-inch Transmission Main									
Jewfish Creek								FY2008	Contingency, only needed if construction costs exceed funds in JPA
C-111, Protect 36-inch							$0		With elimination of C-111 Canal Bridge FDOT owes money to FKAA
Other 18-mile stretch segments, Protect 36-inch			$ 144,928	$ 144,928	$28,986	$26,087	$200,000	FY2008/2009	For protection of transmission main during highway construction
MM 93-98[d]	36	21,120	$ 13,662,000	$ 13,662,000			$13,662,000		
Replace Other Transmission Mains									
12-inch Ocean Reef Transmission Main	12	22,000	$2,310,145	$2,310,145	$462,029	$415,826	$3,188,000	At FKAA discretion	Worst segments done first
Replace 18-inch Main, Key Largo MM 92-93[e]	18	1,400	$ 1,086,957	$ 1,086,957	$217,391	$195,652	$1,500,000		
Marathon 18- inch Main Replacements	18	1,000	$ 217,391	$ 217,391	$43,478	$39,130	$300,000		
18-inch Main Replacement, N. Roosevelt	18	15,500	$ 2,278,261	$ 2,278,261	$455,652	$410,087	$3,144,000		
Phase II Cathodic Protection			$ 1,613,696	$ 1,613,696	$228,334	$276,304	$2,118,334	FY2006/2007	Based on bid price and contingency allowance (includes engineering SDC)
J. Robert Dean WTP									
Upsize diesel driven pumps 1 and 2			218840.5	218840.5	$43,768	$39,391	$302,000	FY2010	
Install new 5MG storage tank			3518116	3518116	$703,623	$633,261	$4,855,000	At FKAA discretion	
Paint interior of 1MG steel tank (maintenance)					$0	$0	$0	FY2007	
Paint exterior of 1MG concrete tank (maintenance)					$0	$0	$0	At FKAA discretion	
Paint exterior of 5MG concrete tank (maintenance)					$0	$0	$0	At FKAA discretion	
Key Largo Booster PS									
Install 3rd electric transmission pump (maintenance)			182500	$182,500	$36,500	$32,850	$251,850	At FKAA discretion	
Plantation Key Booster PS			6100000	$6,100,000	$1,220,000	$1,098,000	$8,418,000	FY2010 and 2011	On line by 2011
								FY2007 and 2008	If 36" at MM 93-97 replacement is delayed, property acquisition and design should begin immediately
Marathon Booster PS									
Engine & Pumps 1075			657246.5	657246.5	$131,449	$118,304	$907,000	FY2006 and 2007	Ready to go out to bid
Repairs to 3MG tank exterior (maintenance)			0	0	$0	$0	$0	FY2007	
Add a second 3MG storage tank			2073188.5	2073188.5	$414,638	$373,174	$2,861,000	At FKAA discretion	
Install 3rd electric pump (maintenance)			182500	182500	$36,500	$32,850	$251,850	At FKAA discretion	
Lower Keys Booster Pump Station #1			6100000	$6,100,000	$1,220,000	$1,098,000	$8,418,000	At FKAA discretion	Implementation at the end of master plan planning period. Depends on results of transmission system hydraulic evaluation and what increasing water demands dictate
Lower Keys Booster Pump Station #2			6100000	$6,100,000	$1,220,000	$1,098,000	$8,418,000	At FKAA discretion	Implementation at the end of master plan planning period. Depends on results of transmission system hydraulic evaluation and what increasing water demands dictate

Exhibit 7-2 (cont.)

Construction and Total Project Cost Estimates for Proposed Transmission Main Improvement Projects

Project	Pipeline Size (inches)	Pipeline Size (inches)	Construction Cost[a]	Total Construction Cost[a]	Consulting, Administrative, Legal Fees[b]	Contingency[c]	Total Project Cost	Suggested Timing	Remarks
			75362	75362					
Ramrod Booster PS					$15,072	$13,565	$104,000	At FKAA discretion	Implementation at the end of master plan planning period. Depends on results of transmission system hydraulic evaluation and what increasing water demands dictate
Transmission SCADA Upgrade			0	0	$0	$0		At FKAA discretion	Being implemented
						Project Total	**$58,899,034**		

Notes:

[a]These are order-of-magnitude cost opinions (in April 2006 dollars) made without detailed engineering design. It is normally expected that estimates of this type are accurate within -30% to +50%.

[b]Consulting, administrative, legal fees equal 20 percent of construction cost.

[c]Contingency (15 percent of subtotal costs for all items).

[d]Construction Cost from Exhibit D-2, with 20 percent contingency removed from that estimate.

[e]Unit Price Construction Cost from Exhibit D-1, with 20 percent contingency removed from that estimate.

Exhibit 7-2 (cont.)

Construction and Total Project Cost Estimates for Proposed Distribution Pipeline Improvements

Project	Pipeline[1]		Construction Cost	Total Construction Cost[2]	Consulting, Administrative, Legal Fees[3]	Contingency[4]	Total Project Cost	Suggested Timing	Remarks
	Size (inches)	Length (foot)							
Replace Old Galvanized Mains	4	400	$23,102	$247,102	$49,420	$44,478	$341,000	FY 2006/2007	Part of $2.5 million annual allocation for distribution upgrades
	6	3,200	$224,000						
						Subtotal	**$341,000**		
Upsize Small-Diameter Mains to 4-inch	4	369,900	$32,408,696	$32,408,696	$6,481,739	$5,833,565	$44,724,000	At FKAA discretion	At $2.5 million per year, will take 11 years to replace all pipe
						Subtotal	**$44,724,000**		
Cudjoe Key Additional Distribution Main Header	8	6000	$400,000	$400,000	$80,000	$72,000	$552,000	At FKAA discretion	Part of $2.5 million annual allocation for distribution upgrades
						Subtotal	**$552,000**		
Tavernier Pump Station									
New Dedicated 6-inch tap and 8-inch Fill Line									
6-inch Tap	--	--						FY 2007/2008	Part of Tavernier pump station improvements
8-Inch Fill Line	8	900			$0	$0	$0		
Install 8-inch distribution main header along both sides of US 1, where required	8	12,000			$0	$0	$0	At FKAA discretion	Part of Tavernier Pump Station Improvements
						Subtotal	**$0**		
Islamorada Distribution PS									
Install distribution main header	8	17,500	$ 1,364,493	$ 1,364,493	$272,899	$245,609	$1,883,000	At FKAA discretion	Part of $2.5 million annual allocation for distribution upgrades
						Subtotal	**$1,883,000**		
Crawl Key									
Install New 6-inch tap and 8-inch (assumed) Fill Line									
6-inch Tap									
8-inch Fill Line	8	500			$0	$0	$0	At FKAA discretion	Installed when pump station installed
						Subtotal	**$0**		
						Project Total	**$47,500,001**		

Notes:

[1]Pipeline costs are estimated in Appendix E as follows: 4-inch=$58/LF, 6-inch=$70/LF, 8-inch=$78/LF, 10-inch=$95/LF, 12-inch=$105/LF

[2]These are order-of-magnitude cost opinions (in April 2006 dollars) made without detailed engineering design. It is normally expected that estimates of this type are accurate within -30% to +50%

[3]Consulting, administrative, legal fees equal 20 percent of construction cost.

[4]Contingency (15 percent of subtotal costs for all items).

Exhibit 7-2 (cont.)

Construction and Total Project Cost Estimates of Proposed Distribution Pump Station System Improvements and for Proposed New Distribution Pump Station Systems

Distribution Pump Station System	Pump Station Construction Cost[1]	Ground Storage Tank Construction Cost[1]	Total Construction Cost[1]	Consulting, Administrative, Legal Fees[2]	Contingency[3]	Total Project Cost	Suggested Timing and Remarks
Ocean Reef							
Additional 1.0 MG Storage	--	$1,246,377	$1,246,377	$249,275	$224,348	$1,720,000	If space is available with RO WTP
Permanent Standby Power (included in RO WTP)							included in RO WTP
					Subtotal	**$1,720,000**	
Lake Surprise							
New Pump Station and 0.75 MG Storage Tank	$1,632,609	$0	$1,632,609	$326,522	$293,870	$2,253,000	Implemented at FKAA's discretion
					Subtotal	**$2,253,000**	
Rock Harbor							
Replace and Upsize Existing Pump Station	$779,710	--	$779,710	$155,942	$140,348	$1,076,000	Assumes maintenance functions will be relocated and site will be dedicated to distribution pump station system
Install 0.5 MG Storage Tank	$ 586,957		$586,957	$117,391	$105,652	$810,000	Within next 5 years
Repaint Tank Exterior (maintenance)	--		$0	$0	$0	$0	As corrosion of exterior dictates, probably within 5–10 years
Install a Third 0.5 MG Tank	$ 586,957		$586,957	$117,391	$105,652	$810,000	Monitor need for a third 0.5 MG tank; likely will be at end of planning period
					Subtotal	**$2,696,000**	
Tavernier							
New Larger Pump Station and New Larger Storage Tank (1.0 MG)		1910869.5	$1,910,870	$382,174	$343,957	$2,637,000	
6-inch tap and 8" fill line		110144.6	$110,145	$22,029	$19,826	$152,000	
Install 8-inch distribution main header along both sides of US-1 where required		$936,232	$936,232	$187,246	$168,522	$1,292,000	Requires demolition of existing pump station and storage tank before construction begins. As soon as possible; definitely within the next 5 years.
					Subtotal	**$4,081,000**	
Plantation Key							
New Pump Station and 1.0 MG Storage Tank	$1,921,015		$1,921,015	$384,203	$345,783	$2,651,000	Implemented at FKAA's discretion
					Subtotal	**$2,651,000**	
Lower Matecumbe Key							
New Pump Station and 0.5 MG Storage Tank	$1,412,319		$1,412,319	$282,464	$254,217	$1,949,000	Implemented at FKAA's discretion
					Subtotal	**$1,949,000**	
Duck Key/Grassy Key							
New Pump Station and 0.75 MG Storage Tank		$1,642,754	$1,642,754	$328,551	$295,696	$2,267,000	Implemented at FKAA's discretion
					Subtotal	**$2,267,000**	

Exhibit 7-2 (cont.)

Construction and Total Project Cost Estimates of Proposed Distribution Pump Station System Improvements and for Proposed New Distribution Pump Station Systems

Distribution Pump Station System	Pump Station Construction Cost[1]	Ground Storage Tank Construction Cost[1]	Total Construction Cost[1]	Consulting, Administrative, Legal Fees[2]	Contingency[3]	Total Project Cost	Suggested Timing and Remarks
Crawl Key							
Install New and Upgraded Pump Station		789855	$789,855	$157,971	$142,174	$1,090,000	Assumes adjacent property could not be purchased. As soon as possible, within next 5 years.
Repaint Existing Exterior Storage Tank (Maintenance)	--	$78,986	$78,986	$15,797	$14,217	$109,000	Probably within the next 5–7 years
Replace and Upsize Storage Tank (to 1 MG)	--	$1,060,870	$1,060,870	$212,174	$190,957	$1,464,000	Assumes tank replacement will occur when existing tank needs replaced. (Estimate between 10–15 years.)
					Subtotal	**$2,663,000**	
Vaca Cut							
Install New 0.5 MG Storage Tank	--	$586,957	$586,957	$117,391	$105,652	$810,000	Begin immediately
Demolish Existing 0.5 MG Storage Tank and Install New 0.5 MG Storage Tank	--	$629,710	$629,710	$125,942	$113,348	$869,000	Assumes existing tank will be used until about end of useful life, probably within the next 7– 10 years
					Subtotal	**$1,679,000**	
69th Street		$824,638	$824,638	$164,928	$148,435	$1,138,000	No capital costs; assumes facility will be abandoned when existing tank needs painting
33rd Street		$650,000	$650,000	$130,000	$117,000	$897,000	
Replace Existing Pump Station		--	$0	$0	$0		Replace when pump station cannot meet demands (assumed to be within the next 4–7 years). Proposed new 3 MG storage tank proposed under transmission will accommodate additional distribution storage requirements.
Paint Existing 0.5 MG Storage Tank Exterior (maintenance)	--		$0	$0	$0	$0	When corrosion dictates, probably within 7-12 years
Replace Existing 0.5 MG Storage Tank with New 0.5 MG Storage Tank	--		$0	$0	$0	$0	When tank has reached its useful life (estimated to be within next 15–20 years). Requires demolition of existing storage tank.
					Subtotal	**$3,714,000**	
Ramrod							
New Pump Station and 0.5 MG Storage Tank	$	1,376,812	$1,376,812	$275,362	$247,826	$1,900,000	Longer term improvement. Implemented at FKAA's discretion
					Subtotal	**$1,900,000**	

Exhibit 7-2 (cont.)

Construction and Total Project Cost Estimates of Proposed Distribution Pump Station System Improvements and for Proposed New Distribution Pump Station Systems

Distribution Pump Station System	Pump Station Construction Cost[1]	Ground Storage Tank Construction Cost[1]	Total Construction Cost[1]	Consulting, Administrative, Legal Fees[2]	Contingency[3]	Total Project Cost	Suggested Timing and Remarks
Summerland Key							
Replace Pump Station and Storage Tank, New 0.5 MG Tank		$1,400,000	$1,400,000	$280,000	$252,000	$1,932,000	Assumes FKAA adjacent property has wetlands; must build on existing site. Demolition of pump station and storage tank required. Implemented at FKAA's discretion
					Subtotal	**$1,932,000**	
Cudjoe Key (4)							
New Pump Station and 1.0 MG Storage Tank (under design)		$1,268,116	$1,268,116	$253,623	$228,261	$1,750,000	Longer term improvement. Implemented at FKAA's discretion
					Subtotal	**$1,750,000**	
Lower Sugarloaf							
New Pump Station and 0.5 MG Storage Tank		$1,376,812	$1,376,812	$275,362	$247,826	$1,900,000	Longer term improvement. Implemented at FKAA's discretion
					Subtotal	**$1,900,000**	
Stock Island Distribution							
Replace Existing Pump Station		$1,500,000	$1,500,000	$300,000	$270,000	$2,070,000	Replace when deteriorating conditions of existing structure dictate, and Records Storage Building is abandoned
					Subtotal	**$2,070,000**	
					Project Total	**$33,546,000**	

Notes:

[1]Land acquisition costs are not included in these are order-of-magnitude cost opinions (in April 2006 dollars), which were made without detailed engineering design. It is normally expected that estimates of this type

[2]Consulting, administrative, legal fees equal 20 percent of construction cost.

[3]Contingency (15 percent of subtotal costs for all items).

4. From Bond Report.

Project cost estimates reflect April 2006 costs (Engineering News Record Construction Cost Index of 7,695).

Actual costs for any given project would depend on multiple factors, including, but not limited to, actual material and market costs, competitive market conditions, final project scope, implementation schedule, and other variable factors. As FKAA is aware from recent construction projects, prices are also highly subject to variation as a result of shortages resulting from recent natural disasters. As a result, the final project costs will vary from the estimates presented herein.

Because of such factors as limited labor force, high cost of housing, and high cost of goods and services, Keys construction costs are greater than costs for comparable work on the mainland of South Florida. Generally, a 20 percent "Keys Factor" is added to Keys construction cost estimates to account for the Keys market conditions.

Wherever possible, actual construction prices recently received by FKAA for different types of work (that is, distribution system pipelines, distribution pump stations, storage tank painting) have been used to develop cost estimates for this Master Plan, adjusted to April 2006 costs, where noted. These costs already account for Keys market conditions and generally provide the most accurate cost estimates at this planning stage when only a conceptual design is available.

Where actual construction prices for similar types of recent work are not available, standard estimating procedures are used to estimate construction costs.

Other costs, such as consulting and engineering inspection, administration, legal, and financing, are part of any project and must be included with construction costs, so that all capital improvement costs are accounted for. For this Master Plan, these other project costs are estimated as follows:

- An amount of 20 percent of the construction cost was used for consulting and engineering inspection, administration, legal, and financing.
- A contingency of 15 percent of the subtotal of construction cost and the 20 percent cost above was also included as part of the other project costs.

Total project costs are the total of the construction cost and the other project costs. All capital improvement costs addressed in this Master Plan are total project costs, unless otherwise indicated.

Estimated project costs for all proposed water system capital improvements are summarized in Exhibit 7-2. The basis for estimating detailed construction costs and total project costs for specific projects is provided in the respective sections of this Master Plan.

MEMORANDUM

MONROE COUNTY PLANNING & ENVIRONMENTAL RESOURCES DEPARTMENT

We strive to be caring, professional and fair

To: Monroe County Board of County Commissioners

Through: Mayté Santamaria, Senior Director of Planning & Environmental Resources

From: Emily Schemper, Comprehensive Planning Manager

Date: March 18, 2016

Subject: 10-Year Water Supply Facilities Work Plan Update

Meeting: April 13, 2016

I. REQUEST

The Planning & Environmental Resources Department is requesting to amend the Monroe County 2010 Comprehensive Plan to adopt a 10-year Water Supply Facilities Work Plan update, in accordance with Section 163.3177(6)(c) of the Florida Statues which requires that the Infrastructure Element of the Comprehensive Plan incorporate a 10-Year Water Supply Plan that identifies alternative water supply projects, traditional water supply projects, conservation and reuse to meet identified water needs.

II. BACKGROUND INFORMATION

The purpose of the Monroe County Water Supply Facilities Work Plan (Work Plan) is to identify and plan for the water supply sources and facilities needed to serve existing and new development within the local government's jurisdiction. Chapter 163, Part II, F.S., requires local governments to prepare and adopt Work Plans into their comprehensive plans within 18 months after the water management district approves a regional water supply plan or its update. The *Lower East Coast Water Supply Plan Update* was approved by the South Florida Water Management District (SFWMD) on September 12, 2013.

Residents of Monroe County obtain their water directly from the Florida Keys Aqueduct Authority (FKAA), which is responsible for ensuring that enough capacity is available for existing and future customers.

The Monroe County Water Supply Facilities Work Plan (Work Plan) references the initiatives already identified in FKAA's 20-year Water System Capital Improvement Master Plan. According to state guidelines, the Work Plan and associated comprehensive plan amendments must address the development of traditional and alternative water supplies, bulk sales agreements and conservation and reuse programs that are necessary to serve existing and new development for at least a 10-year planning

period. The Monroe County Water Supply Facilities Work Plan will have the same planning time schedule consistent with the Comprehensive Plan and the Lower East Coast Water Supply Plan Update.

The adopted and presently effective Monroe County Year 2010 Comprehensive Plan includes several Goals, Objectives and Policies (GOPs) that implement water supply concurrency and conservation. These GOPs are located within the Potable Water Element, Intergovernmental Coordination Element, Conservation and Coastal Management Element, Future Land Use Element and Capital Improvements Element. Proposed amendments to these GOPs have been included in the Monroe County 2030 Comprehensive Plan, which the Board of County Commissioners (BOCC) approved for transmittal to the State of Florida Department of Economic Opportunity (DEO) at their January 14, 2015 special meeting. A new Energy and Climate Element was also included as part of the proposed amendments. On April 28, 2015, DEO issued its Objections, Recommendations, and Comments (ORC) report on the proposed amendments. The ORC report contained no objections to the proposed changes within these GOPs, and they are anticipated to be adopted by the BOCC at their April 13, 2016 special meeting.

At its regularly scheduled meeting on September 23, 2014, the Monroe County Development Review Committee reviewed the proposed amendment and the Chair recommended approval to the Planning Commission and BOCC, memorialized in Resolution DRC18-15.

At its regularly scheduled meeting on January 28, 2015, the Monroe County Planning Commission held a public hearing to consider the proposed amendment and recommended approval to the BOCC, memorialized in PC Resolution P02-15 (Exhibit A).

On July 15, 2015, at its regularly scheduled meeting, the BOCC adopted Resolution 186-2015 (Exhibit B) transmitting the proposed ordinance amending the Monroe County Comprehensive Plan, adopting the 10-year Water Supply Facilities Work Plan update, to the State of Florida for review by the Department of Economic Opportunity (DEO).

On October 19, 2015, the County received DEO's ORC report regarding the proposed amendment (Exhibit C). The ORC report identified two objections and two comments. The County must address the two identified objections and determine whether to adopt the amendment, adopt the amendment with changes or not adopt the amendment. The County is not required to make modifications relative to the two comments. The County has 180 days from receipt of the ORC report to adopt, adopt with changes, or not adopt the proposed amendment. The deadline for adoption is April 16, 2016.

The first objection identified in the ORC report states:

> *Section 5.0 of the Monroe County Water supply Facilities Work Plan contains Goals, Objectives, and Policies that were proposed under the County's Evaluation and Appraisal Review. These policies have not yet been adopted….Adopting the Water Supply Plan containing the draft policies would make them part of the Comprehensive Plan. Subsequent adoption or modification of these policies may create inconsistencies within the Comprehensive Plan.*

The recommendation in the ORC report regarding this objection is:

> *Remove the Goals, Objectives, and Policies referenced in Section 5.0 of the Water Supply Facilities Work Plan. Alternatively, include these policies within the Ordinance for explicit adoption and include them within their respective elements within the Comprehensive Plan. However, if the Evaluation and Appraisal Review-based amendments are adopted prior to this*

amendment's adoption, and includes these policies verbatim, they may remain within the Water Supply Facilities Work Plan.

The GOPs referenced in Section 5.0 of the Work Plan are included in the proposed EAR-based amendments to the Comprehensive Plan, which are anticipated to be adopted at the April 13, 2016 special meeting of the BOCC. Based on guidance received from the South Florida Water Management District regarding preparation of the Work Plan, the relevant GOPs from the County's Comprehensive Plan should be included in the Work Plan. Therefore, in response to DEO's first objection, staff is proposing to leave the GOPs within the Work Plan, assuming they are adopted at the April 13, 2016 public hearing as part of the EAR-based amendments to the Comprehensive Plan.

The second objection identified in the ORC report is directed at Policies 1502.1.5, 1502.1.6 and 1502.1.7, regarding a five year timeframe for considering the vulnerability of public infrastructure to sea level rise. The recommendation in the ORC report is:

> *Use the available data and analysis to identify points along a sea level rise continuum that threaten public infrastructure. The County can then identify approximate planning time frames for addressing those risks.*

The County does not currently have data available regarding the elevations of water supply facilities; the data or mapping capabilities to analyze the projected 3" to 7" rise; or a specific timeline of estimated future sea level rise. Additional time is necessary to allow the county to obtain additional data on both the water supply facilities and LIDAR or comparable elevation data. Further, the referenced policies are proposed as part of the new Energy and Climate Element in the EAR-based amendments to the Comprehensive Plan. These policies have been transmitted to the State, and the County received DEO's ORC report on April 28, 2015, which identified no objections or comments regarding the policies. They are anticipated to be adopted at the April 13, 2016 special meeting of the BOCC as part of the proposed EAR-based amendments to the Comprehensive Plan. In response to the second objection in the ORC report, staff is proposing to leave reference to Policies 1502.1.5, 1502.1.6 and 1502.1.7 within the Work Plan, assuming they are adopted at the April 13, 2016 public hearing as part of the EAR-based amendments to the Comprehensive Plan.

III. PROPOSED AMENDMENT

Staff recommends the following changes (Additions are underlined and in green; Text to remain the same is in black):

Policy 701.1.~~8~~6
Monroe County adopts the Monroe County 10-Year Water Supply Facilities Work Plan update, dated March, 2016, by reference, into the Comprehensive Plan. Monroe County shall update the 10-year Water Supply Work Plan every 5 years or within 18 months after the governing board of the South Florida Water Management District approves an updated regional water supply plan.

IV. CONSISTENCY WITH THE MONROE COUNTY YEAR 2010 COMPREHENSIVE PLAN, THE FLORIDA STATUTES, AND PRINCIPLES FOR GUIDING DEVELOPMENT

A. The proposed amendment is generally consistent with the following Goals, Objectives and Policies of the Monroe County Year 2010 Comprehensive Plan. Specifically, it furthers:

The proposed amendment will support and enhance the level of service standards identified within the Potable Water Element and ensure the availability of water supply as identified within the Capital Improvements Element and the Intergovernmental Coordination Element.

B. The proposed amendment is consistent with Part II of Chapter 163, Florida Statutes (F.S.). Specifically, the amendment furthers:

163.3177(1), F.S. – The comprehensive plan shall provide the principles, guidelines, standards, and strategies for the orderly and balanced future economic, social, physical, environmental, and fiscal development of the area that reflects community commitments to implement the plan and its elements. These principles and strategies shall guide future decisions in a consistent manner and shall contain programs and activities to ensure comprehensive plans are implemented. The sections of the comprehensive plan containing the principles and strategies, generally provided as goals, objectives, and policies, shall describe how the local government's programs, activities, and land development regulations will be initiated, modified, or continued to implement the comprehensive plan in a consistent manner. It is not the intent of this part to require the inclusion of implementing regulations in the comprehensive plan but rather to require identification of those programs, activities, and land development regulations that will be part of the strategy for implementing the comprehensive plan and the principles that describe how the programs, activities, and land development regulations will be carried out. The plan shall establish meaningful and predictable standards for the use and development of land and provide meaningful guidelines for the content of more detailed land development and use regulations.

163.3177(6)c3, F.S. – Within 18 months after the governing board approves an updated regional water supply plan, the element must incorporate the alternative water supply project or projects selected by the local government from those identified in the regional water supply plan pursuant to s. 373.709(2)(a) or proposed by the local government under s. 373.709(8)(b). If a local government is located within two water management districts, the local government shall adopt its comprehensive plan amendment within 18 months after the later updated regional water supply plan. The element must identify such alternative water supply projects and traditional water supply projects and conservation and reuse necessary to meet the water needs identified in s. 373.709(2)(a) within the local government's jurisdiction and include a work plan, covering at least a 10-year planning period, for building public, private, and regional water supply facilities, including development of alternative water supplies, which are identified in the element as necessary to serve existing and new development. The work plan shall be updated, at a minimum, every 5 years within 18 months after the governing board of a water management district approves an updated regional water supply plan. Local governments, public and private utilities, regional water supply authorities, special districts, and water management districts are encouraged to cooperatively plan for the development of multijurisdictional water supply facilities that are sufficient to meet projected demands for established planning periods, including the development of alternative water sources to supplement traditional sources of groundwater and surface water supplies.

163.3180(1)(b), F.S. – The local government comprehensive plan must demonstrate, for required or optional concurrency requirements, that the levels of service adopted can be reasonably met. Infrastructure needed to ensure that adopted level-of-service standards are achieved and

maintained for the 5-year period of the capital improvement schedule must be identified pursuant to the requirements of s. 163.3177(3).

163.3180(3), F.S. - Governmental entities that are not responsible for providing, financing, operating, or regulating public facilities needed to serve development may not establish binding level-of-service standards on governmental entities that do bear those responsibilities.

C. Consistency with the Principles for Guiding Development in the Florida Keys Area of Critical State Concern:

For the purposes of reviewing consistency of the adopted plan or any amendments to that plan with the principles for guiding development and any amendments to the principles, the principles shall be construed as a whole and no specific provision shall be construed or applied in isolation from the other provisions.

(a) Strengthening local government capabilities for managing land use and development so that local government is able to achieve these objectives without continuing the area of critical state concern designation.

(b) Protecting shoreline and marine resources, including mangroves, coral reef formations, seagrass beds, wetlands, fish and wildlife, and their habitat.

(c) Protecting upland resources, tropical biological communities, freshwater wetlands, native tropical vegetation (for example, hardwood hammocks and pinelands), dune ridges and beaches, wildlife, and their habitat.

(d) Ensuring the maximum well-being of the Florida Keys and its citizens through sound economic development.

(e) Limiting the adverse impacts of development on the quality of water throughout the Florida Keys.

(f) Enhancing natural scenic resources, promoting the aesthetic benefits of the natural environment, and ensuring that development is compatible with the unique historic character of the Florida Keys.

(g) Protecting the historical heritage of the Florida Keys.

(h) Protecting the value, efficiency, cost-effectiveness, and amortized life of existing and proposed major public investments, including:

1. The Florida Keys Aqueduct and water supply facilities;
2. Sewage collection, treatment, and disposal facilities;
3. Solid waste treatment, collection, and disposal facilities;
4. Key West Naval Air Station and other military facilities;
5. Transportation facilities;
6. Federal parks, wildlife refuges, and marine sanctuaries;
7. State parks, recreation facilities, aquatic preserves, and other publicly owned properties;
8. City electric service and the Florida Keys Electric Co-op; and
9. Other utilities, as appropriate.

(i) Protecting and improving water quality by providing for the construction, operation, maintenance, and replacement of stormwater management facilities; central sewage collection; treatment and disposal facilities; and the installation and proper operation and maintenance of onsite sewage treatment and disposal systems.

(j) Ensuring the improvement of nearshore water quality by requiring the construction and operation of wastewater management facilities that meet the requirements of ss. 381.0065(4)(l) and 403.086(10), as applicable, and by directing growth to areas served by central wastewater treatment facilities through permit allocation systems.

(k) Limiting the adverse impacts of public investments on the environmental resources of the Florida Keys.

(l) Making available adequate affordable housing for all sectors of the population of the Florida Keys.

(m) Providing adequate alternatives for the protection of public safety and welfare in the event of a natural or manmade disaster and for a postdisaster reconstruction plan.

(n) Protecting the public health, safety, and welfare of the citizens of the Florida Keys and maintaining the Florida Keys as a unique Florida resource.

Pursuant to Section 380.0552(7) Florida Statutes, the proposed amendment is consistent with the Principles for Guiding Development as a whole and is not inconsistent with any Principle.

V. PROCESS

Comprehensive Plan Amendments may be proposed by the Board of County Commissioners, the Planning Commission, the Director of Planning, or the owner or other person having a contractual interest in property to be affected by a proposed amendment. The Director of Planning shall review and process applications as they are received and pass them onto the Development Review Committee and the Planning Commission.

The Planning Commission shall hold at least one public hearing. The Planning Commission shall review the application, the reports and recommendations of the Department of Planning & Environmental Resources and the Development Review Committee and the testimony given at the public hearing. The Planning Commission shall submit its recommendations and findings to the Board of County Commissioners (BOCC). The BOCC holds a public hearing to consider the transmittal of the proposed comprehensive plan amendment, and considers the staff report, staff recommendation, and the testimony given at the public hearing. The BOCC may or may not recommend transmittal to the State Land Planning Agency. The amendment is transmitted to State Land Planning Agency, which then reviews the proposal and issues an Objections, Recommendations and Comments (ORC) Report. Upon receipt of the ORC report, the County has 180 days to adopt the amendments, adopt the amendments with changes or not adopt the amendment.

VI. STAFF RECOMMENDATION

Staff recommends approval.

VII. EXHIBITS

A. Planning Commission Resolution No. P02-15
B. BOCC Resolution 186-2015
C. Objections Recommendations and Comments (ORC) Report received October 19, 2015
D. Draft Ordinance (with Exhibit A to Ordinance: Monroe County 10-Year Water Supply Facilities Work Plan Update)

MONROE COUNTY, FLORIDA
PLANNING COMMISSION RESOLUTION NO. P02-15

A RESOLUTION BY THE MONROE COUNTY PLANNING COMMISSION RECOMMENDING APPROVAL OF AN ORDINANCE BY THE MONROE COUNTY BOARD OF COUNTY COMMISSIONERS AMENDING THE MONROE COUNTY COMPREHENSIVE PLAN; ADOPTING THE 10-YEAR WATER SUPPLY PLAN UPDATE TO BE CONSISTENT WITH THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT LOWER EAST COAST WATER SUPPLY PLAN UPDATE OF 2013; PROVIDING FOR SEVERABILITY; PROVIDING FOR REPEAL OF CONFLICTING PROVISIONS; PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY AND THE SECRETARY OF STATE; PROVIDING FOR INCLUSION IN THE MONROE COUNTY COMPREHENSIVE PLAN; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Section 163.3180(2)(a). F.S. requires local governments to consult with water suppliers to ensure that adequate water supplies will be in place and available to serve new development no later than when the local government issues a certificate of occupancy. Local Governments should update their comprehensive plans and land development regulations to address this concurrency requirement; and

WHEREAS, the Monroe County Comprehensive Plan and Land Development Regulations already have adopted policies and regulations requiring concurrency; and

WHEREAS, pursuant to Section 163.3177(6)(c), F.S., local governments that are subject to a regional water supply plan must update its adopted 10-year water supply facilities work plan within 18-months of the adoption of the regional water supply plan update; and

WHEREAS, the South Florida Water Management District (SFWMD) updated its Lower East Coast Water Supply Plan on September 12, 2013, which identifies areas where water supply, demand, and shortages are projected to occur within the next 20 years; and

WHEREAS, the service provider for potable water in Monroe County is the Florida Keys Aqueduct Authority (FKAA) and the FKAA has coordinated with Monroe County staff to ensure that the current potable water supply and projected demands are incorporated within the Monroe County 10-year Water Supply Facilities Work Plan Update; and

WHEREAS, the FKAA 20-year Water System Capital Improvement Master Plan serves as the Monroe County water supply plan; and

WHEREAS, the FKAA demand and supply data project adequate water supply; and

WHEREAS, at a regularly scheduled meeting held on the 23rd day of September, 2014, the Monroe County Development Review Committee considered the proposed amendment and the Planning Director recommended approval by Resolution No. DRC18-14; and

WHEREAS, at a regularly scheduled meeting held on the 28th day of January, 2015, the Monroe County Planning Commission held a public hearing for the purpose of considering the proposed amendment; and

WHEREAS, the Planning Commission was presented with the following documents and other information relevant to the request, which by reference is hereby incorporated as part of the record of said hearing:

1. Monroe County 10-Year Water Supply Facilities Work Plan Update;
2. Staff report prepared by Emily Schemper, Comprehensive Planning Manager, dated January 13, 2015;
3. Draft Ordinance;
4. Sworn testimony of Monroe County Planning & Environmental Resources Department staff; and
5. Advice and counsel of Steve Williams, Assistant County Attorney, and John Wolfe, Planning Commission Counsel; and

WHEREAS, the Planning Commission recommended revisions be made to sections 2.2 and 3.9 of the 10-year Water Supply Facilities Work Plan Update to reconcile conflicting information regarding potential saltwater intrusion into the FKAA wellfield due to sea level rise; and

WHEREAS, based upon the information and documentation submitted, the Planning Commission makes the following Findings of Fact and Conclusions of Law:

1. The proposed amendment is consistent with the Goals, Objectives and Policies of the Monroe County Year 2010 Comprehensive Plan; and
2. The proposed amendment is consistent with the Principles for Guiding Development for the Florida Keys Area of Critical State Concern, Section 380.0552(7), Florida Statute; and
3. The proposed amendment is consistent with Part II of Chapter 163, Florida Statute.

NOW, THEREFORE, BE IT RESOLVED BY THE PLANNING COMMISSION OF MONROE COUNTY, FLORIDA:
The Monroe County Planning Commission recommends approval by the Board of County Commissioners of an amendment to the Monroe County Year 2010 Comprehensive Plan to include the Monroe County 10-Year Water Supply Facilities Work Plan Update with revisions to sections 2.2 and 3.9 to reconcile conflicting information regarding potential saltwater intrusion into the FKAA wellfield due to sea level rise.

PASSED AND ADOPTED BY THE PLANNING COMMISSION of Monroe County, Florida, at a regular meeting held on the 28th day of January, 2015.

William Wiatt, Chair	___Yes ✓
Denise Werling, Commissioner	___Yes ✓
Beth Ramsey-Vickrey, Commissioner	___Yes ✓
Elizabeth Lustburg, Commissioner	___Yes ✓
Ron Miller, Commissioner	___Yes ✓

PLANNING COMMISSION OF MONROE COUNTY, FLORIDA

By_____

William Wiatt, Chair

Signed this 25th day of February, 2015

Monroe County Planning Commission Attorney
Approved As To Form

_____

Date: 2/25/2015

FILED WITH THE

FEB 25 2015

AGENCY CLERK

MONROE COUNTY, FLORIDA
MONROE COUNTY BOARD OF COUNTY COMMISSIONERS
RESOLUTION NO. 186 - 2015

A RESOLUTION BY THE MONROE COUNTY BOARD OF COUNTY COMMISSIONERS TRANSMITTING TO THE STATE LAND PLANNING AGENCY AN ORDINANCE BY THE MONROE COUNTY BOARD OF COUNTY COMMISSIONERS AMENDING THE MONROE COUNTY COMPREHENSIVE PLAN; ADOPTING THE 10-YEAR WATER SUPPLY PLAN UPDATE TO BE CONSISTENT WITH THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT LOWER EAST COAST WATER SUPPLY PLAN UPDATE OF 2013; PROVIDING FOR SEVERABILITY; PROVIDING FOR REPEAL OF CONFLICTING PROVISIONS; PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY AND THE SECRETARY OF STATE; PROVIDING FOR INCLUSION IN THE MONROE COUNTY COMPREHENSIVE PLAN; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Monroe County Board of County Commissioners conducted a public hearing for the purpose of considering the transmittal to the State Land Planning Agency a proposed amendment to the Monroe County 2010 Comprehensive Plan as described above; and

WHEREAS, the Monroe County Planning Commission and the Monroe County Board of County Commissioners support the requested text amendment; and

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MONROE COUNTY, FLORIDA:

Section 1: The Board of County Commissioners does hereby adopt the recommendation of the Planning Commission to transmit the draft ordinance for adoption of the proposed text amendment.

Section 2: The Board of County Commissioners does hereby transmit the proposed amendment to the State Land Planning Agency for review and comment in accordance with the State Coordinated Review process pursuant to Section 163.3184(4), Florida Statutes.

Section 3: The Monroe County staff is given the authority to prepare and submit the required transmittal letter and supporting documents for the proposed amendment.

Section 4: The Clerk of the Board is hereby directed to forward a certified copy of this resolution to the Director of Planning.

PASSED AND ADOPTED by the Board of County Commissioners of Monroe County, Florida, at a regular meeting held on the 15th day of July, 2015.

Mayor Danny L. Kolhage	Yes
Mayor Pro Tem Heather Carruthers	Yes
Commissioner George Neugent	Yes
Commissioner David Rice	Yes
Commissioner Sylvia Murphy	Yes

Attest: AMY HEAVILIN, CLERK

By: Cheryl Robertson
Deputy Clerk

(SEAL)

BOARD OF COUNTY COMMISSIONERS
OF MONROE COUNTY, FLORIDA

By: Danny L. Kolhage
Mayor Danny L. Kolhage

MONROE COUNTY ATTORNEY
APPROVED AS TO FORM:
S. T. Williams
STEVEN T. WILLIAMS
ASSISTANT COUNTY ATTORNEY
Date 7/2/15

FILED FOR RECORD
2015 JUL 31 AM 9:45
CLK. CIR. CT.
MONROE COUNTY, FLA

Rick Scott
GOVERNOR

FLORIDA DEPARTMENT of ECONOMIC OPPORTUNITY

Jesse Panuccio
EXECUTIVE DIRECTOR

OCT 19 2015 RECD

October 16, 2015

The Honorable Danny Kohlage
Mayor, Board of County Commissioners, Monroe County
530 Whitehead Street, Suite 102
Key West, Florida 33040

Dear Mayor Kohlage:

The Department of Economic Opportunity has completed its review of the proposed comprehensive plan amendment for Monroe County (Amendment No. 15-4ACSC), which was received on August 18, 2015 and determined complete on August 19, 2015. We have reviewed the proposed amendment in accordance with the state coordinated review process set forth in Sections 163.3184(2) and (4), Florida Statutes (F.S.), for compliance with Chapter 163, Part II, F.S. Review comments received by the Department from the appropriate reviewing agencies are also enclosed.

The attached Objections, Recommendations, and Comments Report outlines our findings concerning the amendment. We have identified two objections and two comments and have included recommendations regarding measures that can be taken to address the objections. We have spoken to your staff regarding the Department's objections and ways the County can address the issues raised in the attached report. We look forward to working together with you to address these issues.

The County should act by choosing to adopt, adopt with changes, or not adopt the proposed amendment. Also, please note that Section 163.3184(4)(e)1, F.S., provides that if the second public hearing is not held within 180 days of your receipt of the Department of Economic Opportunity report, the amendment shall be deemed withdrawn unless extended by agreement with notice to the Department of Economic Opportunity and any affected party that provided comment on the amendment. For your assistance, we have enclosed the procedures for final adoption and transmittal of the comprehensive plan amendment.

If you have any questions related to this review, please contact Erin Schaefer, at (850) 717-8498, or by email at Erin.Schaefer@deo.myflorida.com.

Sincerely,

William B. Killingsworth, Director
Division of Community Development

WBK/es

Enclosures: Objections, Recommendations, and Comments Report
Procedures for Adoption
Agency Comments

cc: Ms. Christine Hurley, Growth Management Director, Monroe County
Mr. James F. Murley, Executive Director, South Florida Regional Planning Council

OBJECTIONS, RECOMMENDATIONS AND COMMENTS REPORT

PROPOSED COMPREHENSIVE PLAN AMENDMENT

MONROE COUNTY (DEO No. 15-4ACSC)

Department staff identified the following objections and comments. If the city adopts the amendment without addressing the objections, the Department many find the amendment not in compliance pursuant to Section 163.3184(4)(e)4, F.S.

Objections:

1) Section 5.0 of the Monroe County Water Supply Facilities Work Plan contains Goals, Objectives, and Policies that were proposed under the County's Evaluation and Appraisal Review. These policies have not yet been adopted. They are not being explicitly proposed to be adopted within this amendment cycle. However, the Water Supply Plan is being proposed to be adopted by reference into the Comprehensive Plan. Adopting the Water Supply Plan containing the draft policies would make them part of the Comprehensive Plan. Subsequent adoption or modification of these policies may create inconsistencies within the Comprehensive Plan.

   Section: 163.3177(2), F.S.

   Recommendation: Remove the Goals, Objectives, and Policies referenced in Section 5.0 of the Water Supply Facilities Work Plan. Alternatively, include these policies within the Ordinance for explicit adoption and include them within their respective elements within the Comprehensive Plan. However, if the Evaluation and Appraisal Review-based amendments are adopted prior to this amendment's adoption, and includes these policies verbatim, they may remain within the Water Supply Facilities Work Plan.

2) Policies 1502.1.5, 1502.1.6, and 1502.1.7 direct the County to, within five years, consider the vulnerability of public infrastructure to sea level rise, and to consider its useful life and potential impacts from sea level rise. These policies also contemplate a 2030 planning horizon and assume a fixed range of sea level rise tied to that planning horizon. Given the uncertainty inherent within sea level rise predictions, the County would be better served to initially consider its vulnerability apart from a planning horizon, identify the elevated sea levels that pose greatest level of risk for specific public infrastructure, and then identify planning timeframes for addressing these risks. The consideration of these vulnerabilities is required by recent legislative updates to the Coastal Management Element requirements (Chapter 163.3178(2)(f)).

Section: 163.3177(1)(f), 163.3177(3)(a)1, 163.3177(5)(a), 163.3178(2)(f), F.S.

Recommendation: Use the available data and analysis to identify points along a sea level rise continuum that threaten public infrastructure. The County can then identify approximate planning time frames for addressing those risks. As the County moves forward with the adoption of its EAR-based amendments, it should closely review its existing and proposed changes to its Coastal Management Element to ensure that it meets the new requirements and make changes if necessary.

Comments:

1) Objective 701.1 of the policies provided in Section 5.0 of the Water Supply Facilities Work Plan changes the timing of ensuring that adequate potable water facilities are available from the issuance of the development permit to the issuance of a certificate of occupancy or its functional equivalent. Postponing the assurance of adequate capacity to serve development until after its construction may create issues associated with available capacity. The county should consider leaving the timing of facility capacity requirements at the development order stage, as it is for fire flow requirements.

2) Revised Policy 701.1.4 (renumbered as 701.1.3) states "2 shall specify procedures for updating facility demand and capacity information, utilizing data provided by the FKAA as potable water facilities are installed or upgraded." This policy is not a complete sentence, and should be revised.

SUBMITTAL OF ADOPTED COMPREHENSIVE PLAN AMENDMENTS

FOR STATE COORDINATED REVIEW

Section 163.3184(4), Florida Statutes

May 2011

NUMBER OF COPIES TO BE SUBMITTED: Please submit three complete copies of all comprehensive plan materials, of which one complete paper copy and two complete electronic copies on CD ROM in Portable Document Format (PDF) to the Department of Economic Opportunity and one copy to each entity below that provided timely comments to the local government: the appropriate Regional Planning Council; Water Management District; Department of Transportation; Department of Environmental Protection; Department of State; the appropriate county (municipal amendments only); the Florida Fish and Wildlife Conservation Commission and the Department of Agriculture and Consumer Services (county plan amendments only); and the Department of Education (amendments relating to public schools); and for certain local governments, the appropriate military installation and any other local government or governmental agency that has filed a written request.

SUBMITTAL LETTER: Please include the following information in the cover letter transmitting the adopted amendment:

_____ Department of Economic Opportunity identification number for adopted amendment package;

_____ Summary description of the adoption package, including any amendments proposed but not adopted;

_____ Ordinance number and adoption date;

_____ Certification that the adopted amendment(s) has been submitted to all parties that provided timely comments to the local government;

_____ Name, title, address, telephone, FAX number and e-mail address of local government contact;

_____ Letter signed by the chief elected official or the person designated by the local government.

ADOPTION AMENDMENT PACKAGE: Please include the following information in the amendment package:

_____ In the case of text amendments, changes should be shown in strike-through/underline format;

_____ In the case of future land use map amendment, an adopted future land use map, **in color format,** clearly depicting the parcel, its existing future land use designation, and its adopted designation;

_____ A copy of any data and analyses the local government deems appropriate.

Note: If the local government is relying on previously submitted data and analysis, no additional data and analysis is required;

_____ Copy of executed ordinance adopting the comprehensive plan amendment(s);

Suggested effective date language for the adoption ordinance for state coordinated review:

> The effective date of this plan amendment, if the amendment is not timely challenged, shall be the date the Department of Economic Opportunity posts a notice of intent determing that this amendment is in compliance. If timely challenged, or if the state land planning agency issues a notice of intent determining that this amendment is not in compliance, this amendment shall become effective on the date the state land planning agency or the Administration Commission enters a final order determining this adopted amendment to be in compliance. No development orders, development permits, or land uses dependent on this amendment may be issued or commence before it has become effective. If a final order of noncompliance is issued by the Administration Commission, this amendment may nevertheless be made effective by adoption of a resolution affirming its effective status, a copy of which resolution shall be sent to the Department of Economic Opportunity.

_____ List of additional changes made in the adopted amendment that the Department of Economic Opportunity did not previously review;

_____ List of findings of the local governing body, if any, that were not included in the ordinance and which provided the basis of the adoption or determination not to adopt the proposed amendment;

_____ Statement indicating the relationship of the additional changes not previously reviewed by the Department of Economic Opportunity to the ORC report from the Department of Economic Opportunity.

Eubanks, Ray

From: Hight, Jason <Jason.Hight@MyFWC.com>
Sent: Thursday, September 10, 2015 11:27 AM
To: santamaria-mayte@monroecounty-fl.gov; DCPexternalagencycomments
Cc: Wallace, Traci; Chabre, Jane; Krueger, Marissa
Subject: Monroe County 15-4ACSC (Resolution 186-2015)

Ms. Santamaria:

Florida Fish and Wildlife Conservation Commission (FWC) staff has reviewed the proposed comprehensive plan amendment in accordance with Chapter 163-3184(3), Florida Statutes. We have no comments, recommendations, or objections related to fish and wildlife or listed species and their habitat to offer on this amendment.

If you need any further assistance, please do not hesitate to contact Jane Chabre either by phone at (850) 410-5367 or by email at FWCConservationPlanningServices@MyFWC.com. If you have specific technical questions, please contact Marissa Krueger at (561) 882-5711 or by email at Marissa.Krueger@myfwc.com.

Sincerely,

Jason Hight
Biological Administrator II
Office of Conservation Planning Services
Division of Habitat and Species Conservation
620 S. Meridian Street, MS 5B5
Tallahassee, FL 32399-1600
(850) 228-2055

OFFICE OF THE COMMISSIONER
(850) 617-7700

THE CAPITOL
400 SOUTH MONROE STREET
TALLAHASSEE, FLORIDA 32399-0800

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

COMMISSIONER ADAM H. PUTNAM

September 9, 2015

VIA EMAIL (Santamaria-mayte@monroecountyfl.gov)

Monroe County Planning and Environmental
Resources Department
Attn: Mayte Santamaria
2798 Overseas Highway, Suite #400
Marathon, Florida 33050

Re: DACS Docket # -- 20150818-599
Monroe County Year 2010 Comprehensive Plan
Submission dated August 13, 2015

Dear Ms. Santamaria:

The Florida Department of Agriculture and Consumer Services (the "Department") received the above-referenced proposed comprehensive plan amendment on [DATE] and has reviewed it pursuant to the provisions of Chapter 163, Florida Statutes to address any potential adverse impacts to important state resources or facilities related to agricultural, aquacultural, or forestry resources in Florida if the proposed amendment(s) are adopted. Based on our review of your county's submission, the Department has no comment on the proposal.

If we may be of further assistance, please do not hesitate to contact me at 850-410-2289.

Sincerely,

Stormie Knight

Stormie Knight
Sr. Management Analyst I
Office of Policy and Budget

cc: Florida Department of Economic Opportunity
(SLPA #: Monroe County 15-4 ACSC)

Eubanks, Ray

From: Stahl, Chris <Chris.Stahl@dep.state.fl.us>
Sent: Thursday, September 10, 2015 8:34 AM
To: DCPexternalagencycomments
Cc: Craig, Kae; santamaria-mayte@monroecounty-fl.gov
Subject: Monroe County 15-4ACSC – Proposed

To: Ray Eubanks, Community Planning

Re: Monroe County 15-4ACSC – Expedited Review of Proposed Comprehensive Plan Amendment

The Office of Intergovernmental Programs of the Florida Department of Environmental Protection (Department) has reviewed the above-referenced amendment package under the provisions of Chapter 163, Florida Statutes. The Department conducted a detailed review that focused on potential adverse impacts to important state resources and facilities, specifically: air and water pollution; wetlands and other surface waters of the state; federal and state-owned lands and interest in lands, including state parks, greenways and trails, conservation easements; solid waste; and water and wastewater treatment.

Based on our review of the submitted amendment package, the Department has found no provision that, if adopted, would result in adverse impacts to important state resources subject to the Department's jurisdiction.

Feel free to contact me at Chris.Stahl@dep.state.fl.us or (850) 245-2169 for assistance or additional information. Please send all amendments, both proposed and adopted, to Plan.review@dep.state.fl.us or

Florida Department of Environmental Protection
Office of Intergovernmental Programs, Plan Review
3900 Commonwealth Blvd., MS 47
Tallahassee, FL 32399-3000

Chris Stahl

Centennial FDOT 1915 ★ 2015

Florida Department of Transportation

RICK SCOTT
GOVERNOR

1000 NW 111 Avenue
Miami, Florida 33172-5800

JIM BOXOLD
SECRETARY

September 1, 2015

Ray Eubanks, Plan Processing Administrator
Department of Economic Opportunity
Community Planning and Development
107 East Madison Street
Caldwell Building, MSC 160
Tallahassee, Florida 32399

Subject: Comments for the Proposed Comprehensive Plan Amendment, Monroe County #15-4ACSC

Dear Mr. Eubanks:

The Florida Department of Transportation, District Six, completed a review of the *Proposed Comprehensive Plan Amendment, Monroe County #15-4ACSC.* The District has reviewed the amendment package per *Chapter 163 Florida Statutes* and has found no adverse impacts to transportation resources and facilities of state importance.

Please contact me at 305-470-5445 if you have any questions concerning our response.

Sincerely,

Kenneth Jeffries
Transportation Planner

Cc: Harold Desdunes, PE, Florida Department of Transportation, District 6
Aileen Boucle, AICP, Florida Department of Transportation, District 6
Lisa Colmenares, AICP, Florida Department of Transportation, District 6
Mayte Santamaria, Monroe County

Monroe County 15-1ACSC (received 08-03-15)	√	N/A	09/09/2015	12/10/2014	Unanimously
Two proposed resolutions amending changes to the Future Land Use Map from Residential Low to Mixed Used/Commercial and from Industrial to Commercial for 4 parcels in Rockland Key. The Monroe County Planning and Environmental Resources Department requested an extension to the 180 day timeframe for the adoption of these proposed Future Land Use Map amendments.					
Monroe County 15-4ACSC (received 08-17-15)	√	N/A	09/09/2015	07/15/2015	Unanimously
The proposed amendment updated the County's Water Supply Facilities Work Plan that identifies and plans for the water supply sources and facilities needed to serve existing and new development with the local government's jurisdiction.					
Town of Cutler Bay 15-3ESR (received 08-05-15)	N/A	√	09/09/2015	07/15/2015	5-0
The adopted amendment updated the Town's Water Supply Facilities Work Plan that identifies and plans for the water supply sources and facilities needed to serve existing and new development with the local government's jurisdiction.					
Town of Cutler Bay 15-2ER (received 08-05-15)	N/A	√	09/09/2015	03/18/2015	5-0
This amendment is comprised of ten applications for amendments to the Town of Cutler Bay's Growth Management Plan on the 2014 evaluation and review. The ten applications contain numerous updates, changes and deletions.					
City of Dania Beach 15- 1ESR (received 07-13-15)	N/A	√	09/09/2015	06/23/2015	Unanimously
The adopted amendment updated the City's Water Supply Facilities Work Plan that identifies and plans for the water supply sources and facilities needed to serve existing and new development with the local government's jurisdiction.					