Meeting Summary

St. Johns River Water Management District
Suwannee River Water Management District
Northern Planning Area/Upper Santa Fe Water Supply Plan

Thursday, June 18, 2009
9:00 a.m. – noon
Alachua County Health Department Auditorium
224 SE 24th Street, Gainesville, FL 32461

I. Welcome

Kirby Green, Executive Direct of the St. Johns River Water Management District (SJRWMD), opened the meeting and welcomed all participants. Mr. Green emphasized the importance of the meeting and having public involvement in the water supply planning process.

David Still, Executive Director of the Suwannee River Water Management District (SRWMD), welcomed the participants gave an overview of the significance of this water supply planning effort to SRWMD. He commented that the meeting represented a historic event because it was the first planning process for SRWMD.

II. Introductions and Overview

Linda Shelley, a consultant to SJRWMD, who acted as the meeting facilitator, asked all participants to introduce themselves indicating who they were representing. Ms. Shelley asked participants to include an email address on the sign-in sheets so they can be provided with meeting summaries, etc. Ms. Shelley also noted that the meeting was being recorded.

Public input, questions and comments were solicited after each agenda item. Action items related to public input are included with this meeting summary. A copy of the meeting agenda is attached to this meeting summary.

Materials related to this meeting, including a full size copy of the presentation, sign-in sheets, photos, completed subgroup participation forms and any materials handed out at the meeting will be available to the public at the following SJRWMD ftp site until 5:00 p.m. Friday, July 10, 2009: ftp://ftp.sjrwmd.com/DWSP_2010/June_18_2009_NPA-USF_Work_Group_Meeting/

III. Planning Process

Ms. Shelley presented the process for preparing the SJRWMD District Water Supply Plan 2010 (DWSP 2010). Her presentation is included in the attached slides (numbers 5-18). Ms. Shelley indicated that anyone interested in a topic-specific subgroup should fill out a Subgroup Participation Form and hand it in

IV. Review of Draft SJRWMD District Water Supply Assessment 2008

Dr. David Hornsby, with SJRWMD, presented a review of the Draft District Water Supply Assessment 2008 (WSA 2008). Dr. Hornsby stated that the final WSA 2008 will be included as

an appendix to DWSP 2010. A copy of Dr. Hornsby's presentation is included with this meeting summary (attached slide numbers 19-40).

V. SRWMD Water Supply Assessment and Planning Process

Mr. Carlos Herd, with SRWMD, discussed the water supply assessment process for SRWMD and the reasoning behind beginning the Upper Santa Fe Water Supply Plan before the SRWMD water supply assessment is complete. A copy of Mr. Herd's slides is included with this meeting summary (attached slide numbers 41-63).

VI. Groundwater Modeling/Hydrologic Data

Mr. Doug Munch, with SJRWMD, presented SJRWMD's modeling approach used in the draft SJRWMD Water Supply Assessment 2008 plus plans for additional modeling actions to be used in support of the Northern Planning Area/Upper Santa Fe River Basin planning process. A copy of Mr. Munch's presentation is included with this meeting summary (attached slide numbers 64-79).

VII. Relationship Between 2010 Water Supply Plans and Local Government Comprehensive Plans

Mr. Peter Brown, with SJRWMD, gave a summary presentation of the relationship between 2010 water supply plans and local government comprehensive plans. Mr. Brown's presentation is included with this meeting summary (attached slide numbers 80-83).

VIII. Subgroups

Ms. Shelley gave an overview of the subgroup process that will be used in development of the Northern Planning Area/Upper Santa Fe River Basin planning process. Ms. Shelley's presentation is included with this meeting summary (attached slide numbers 84-85). Ms. Shelley then introduced the people who will be heading up the subgroups relevant to the planning process. Each subgroup leader gave a brief description of their respective subgroup as listed below with references to their attached slide numbers.

- Water Conservation Subgroup – Max Castaneda, SJRWMD (attached slide numbers 86-94).
- Groundwater Modeling Subgroup – Lisette Staal, UF, Water Institute (attached slide numbers 95-99).
- Minimum Flows and Levels – David Hornsby, SJRWMD (attached slide numbers 100-102).
- Alternative Water Supply Project Identification and Preliminary Scoping Subgroup – Glenn Forrest, consultant to SJRWMD (attached slide numbers 103-104).

IX. Next Steps

Ms. Shelley identified the next major steps in the planning process. Slides used in her presentation are included with this meeting summary (slide numbers 105-109). She identified the following important future public meetings.

- WSA 2008/DWSP 2010 Technical Methods Workshop
    - Thursday, July 9, 2009; 10:00 a.m. – 4:00 p.m. (lunch 12-1:30)
    - SJRWMD Governing Board Chambers, 4049 Reid St., Palatka, FL 32177

- Water Conservation Subgroup
  - Thursday, July 30, 2009; 9:00 a.m. – noon
  - SJRWMD Governing Board Chambers, 4049 Reid St., Palatka, FL 32177
- Northern Planning Area/Upper Santa Fe Work Group #2
  - Thursday, August 20, 2009; 9:00 a.m. – noon
  - Alachua County Health Department Auditorium, 224 SE 24th Street, Gainesville, FL 32641
- Northeast Florida Groundwater Modeling Subgroup
  - Thursday, August 27, 2009; 9:00 a.m. – 3:00 p.m.
  - University of Florida, Emerson Hall, Warrington Board Room, Gainesville, FL 32611
- Northeast Florida MFL Subgroup
  - Friday, October 30, 2009; 9:00 a.m. – noon
  - SJRWMD Governing Board Chambers, 4049 Reid St., Palatka, FL 32177
- Northeast Florida AWS Subgroup
  - Tuesday, November 10, 2009; 9:00 a.m. – 3:00 p.m.
  - Alachua County Health Department Auditorium, 224 SE 24th Street, Gainesville, FL 32641
- Meetings posted on District website
  - www.sjrwmd.com/watersupplyplanning/upcomingmeetings.html

X. Public Input

Questions and comments were received and addressed during the meeting. The following action items were identified.

- SJRWMD will consider providing teleconference access to subgroup meetings.
- SJRWMD will determine if it is necessary to reschedule the September 24, 2009 Modeling Subgroup meeting due to a potential conflict with the second day of the St. Johns River Water Supply Impact Study symposium.
- The MFL subgroup will be asked to discuss potential impacts to Green Cove Spring.
- A letter from Mr. Avery with Clay County Utility Authority is included with this meeting summary.
- SJRWMD will consider having future water supply meetings in the City of Green Cove Springs.

XI. Adjourn

The meeting was adjourned at approximately 11:15 a.m.

District Water Supply Plan 2010
Northern Planning Area/
Upper Santa Fe
Work Group Meeting

June 18, 2009

St. Johns River Water Management District
Suwannee River Water Management District

www.sjrwmd.com
ftp://ftp.sjrwmd.com/DWSP_2010/

Welcome

Kirby Green, Executive Director
St. Johns River Water Management District

David Still, Executive Director
Suwannee River Water Management District

Introductions and Overview

Linda Shelley
Fowler, White, Boggs, P.A.

Agenda

- **Welcome - (*Kirby Green and David Still*)**
- **Introductions and overview - (*Linda Shelley*)**
- **Planning process - (*Linda Shelley*)**
- **Review of draft SJRWMD Water Supply Assessment 2008 - (*David Hornsby*)**
- **SRWMD water supply assessment and planning process - (*Carlos Herd*)**
- **Groundwater modeling/hydrologic data - (*Doug Munch*)**
- **Relationship between 2010 water supply plans and local government comprehensive plans - (*Peter Brown*)**
- **Subgroups - (*Linda Shelley*)**
- **Next steps - (*Linda Shelley*)**
- **Public input**
- **Adjourn**

Planning Process

Linda Shelley
Fowler, White, Boggs, P.A.

Regional Water Supply Planning Requirements

Chapter 373, *Florida Statutes*

- **20-year planning horizon (2030)**
- **Public process**
- **Coordination with water supply entities, local governments, and other affected parties**
- **Identifies:**
  - **Water supply development projects adequate to meet projected water supply needs**
  - **Water resource development projects**
  - **Sources of project fund**ing

Water Supply Planning History

- 1997 legislation requiring water supply planning
- 1998 Water Supply Assessment
- 2000 District Water Supply Plan
- 2003 Water Supply Assessment
- 2005 District Water Supply Plan
- 2008 Water Supply Assessment
- 2010 District Water Supply Plan

Planning Areas in SJRWMD

Priority Water Resource Caution Areas and Potential Caution Areas

Potential Caution Areas

- Areas that may not be able to meet future water demands without unacceptable impacts to water resources and related natural systems
- Will be further evaluated during 2010 water supply planning process

Northern Planning Area Process Schedule

- First work group meeting – June 18, 2009
- Technical Methods workshop – July 9, 2009
- Second work group meeting – August 20, 2009

Planning Process Participants

- Local governments
- Public supply utilities
- Multijurisdictional entities
- Self-suppliers
- Other affected/interested parties

District Water Supply Plan 2010

- Purpose: identify projects and actions to meet future water demands while sustaining the water resources and related natural systems
- Designed to meet water supply planning provisions of Section 373, Florida Statutes
  - Water supply development component
  - Water resource development component
  - Minimum flows and levels component
- Based on draft District Water Supply Assessment 2008
- Planning horizon of 2030

Planning Process Objectives

- Review projected water resource impacts
- Finalize priority water resource caution areas in SJRWMD
- Complete 2008 water supply assessment (WSA) as appendix to 2010 District Water Supply Plan
- Identify strategies to prevent projected unacceptable impacts
- Develop 2010 District Water Supply Plan

District Water Supply Plan 2010

Public input opportunities

- Work group and subgroup meetings for each of the three planning areas
- Review and comment
  - Draft 2008 District Water Supply Assessment
  - Draft 2010 District Water Supply Plan

Subgroup Participation Form

Subgroup Participation Form

St. Johns River Water Management District and
Suwannee River Water Management District
District Water Supply Plan 2010

Please indicate the subgroup(s) in which you want to participate.

___ SJRWMD districtwide Conservation
___ Volusia Minimum Flow and Level (MFL) Prevention and Recovery Strategy
___ Northern Planning Area Minimum Flow and Level (MFL) Prevention and Recovery Strategy
___ Northern Planning Area Groundwater Modeling
___ Northern Planning Area Alternative Water Supply (AWS) Project Identification and Preliminary Scoping
___ Southern Planning Area Groundwater Modeling

Contact Information

Name: _____

Representing: _____

Email: _____

SJRWMD District Water Supply Plan 2010

- Final plan will include:
  - Recommendations for each of the three planning areas
  - District Water Supply Assessment 2008 as an appendix

SRWMD District Water Supply Plan 2010

- Will address Upper Santa Fe River Basin
- Scheduled for approval by SRWMD Governing Board in December 2010

Review of Draft SJRWMD Water Supply Assessment 2008

David Hornsby, Ph.D., Technical Program Manager
St. Johns River Water Management District
dhornsby@sjrwmd.com

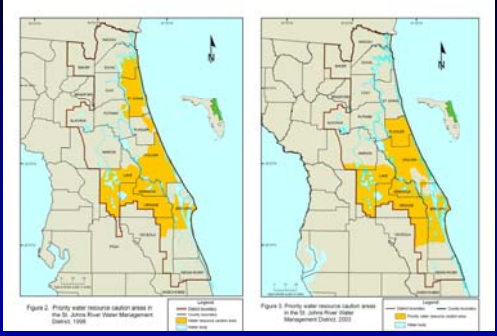
Statutory Requirements

Subparagraph 373.036(2) (b) 4, *Florida Statutes*

- **Districtwide assessment which determines**
  - **Existing and projected water use (through 2030)**
  - **Existing and proposed sources of water and conservation efforts**
  - **Areas where projected uses cannot be sustained with proposed sources without unacceptable impacts to water resources and related natural systems – *priority water resource caution areas* (PWRCAs)**

Priority Water Resource Caution Areas

1998 and 2003



WSA 2008 Tools

- **Water use data (1995-2030)**
- **Groundwater flow models**
- **Water resource constraints**

District Population and Water Use 1995 to 2030

1995	2030	Percent Change
Population		
3,516,494	7,247,602	106
Total Water Use (mgd)		
1,346.00	1,742.37	29
Public Supply Water Use (mgd)		
467.48	1,018.85	118

Northern Planning Area Population in SJRWMD

County	1995 Population	2030 Population	Percent Change 1995–2030
Alachua	153,696	243,097	58
Baker	19,020	37,086	95
Bradford	1,031	1,481	44
Clay	123,400	301,999	145
Duval	725,925	1,200,256	65
Flagler	39,267	293,074	646
Nassau	50,802	122,051	140
Putnam	67,747	93,518	38
St. Johns	103,482	418,596	305
TOTAL	*1,284,370*	*2,711,158*	*111*

Northern Planning Area
Total Water Use in SJRWMD

County	1995 Water Use (mgd)	2030 Water Use (mgd)	Percent Change 1995–2030
Alachua	30.59	43.65	43
Baker	4.67	9.25	98
Bradford	0.42	0.49	17
Clay	27.48	60.89	122
Duval	162.04	238.44	47
Flagler	15.75	52.36	232
Nassau	44.28	70.26	59
Putnam	83.15	54.77	-34
St. Johns	53.98	80.27	49
TOTAL	*422.36*	*610.38*	*45*

Northern Planning Area
Public Supply Population in SJRWMD

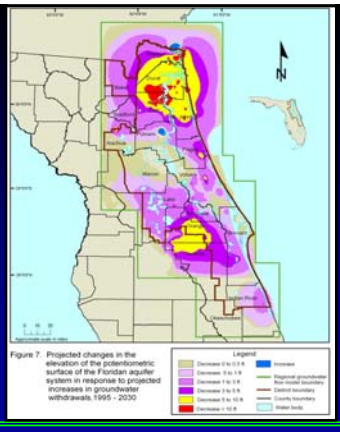
County	1995 Public Supply Population	2030 Public Supply Population	Percent Change 1995–2030
Alachua	137,441	224,765	64
Baker	3,786	5,082	34
Bradford	0	400	400
Clay	55,863	231,186	314
Duval	633,716	1,116,251	76
Flagler	30,867	239,524	676
Nassau	23,642	57,290	142
Putnam	11,503	26,887	134
St. Johns	42,474	385,505	808
TOTAL	*939,292*	*2,286,890*	*143*

Northern Planning Area
Public Supply Water Use in SJRWMD

County	1995 Water Use (mgd)	2030 Water Use (mgd)	Percent Change 1995–2030
Alachua	20.18	33.21	65
Baker	0.65	0.98	50
Bradford	0.04	0.09	125
Clay	11.83	39.38	233
Duval	106.73	174.74	64
Flagler	4.57	38.24	737
Nassau	4.82	12.42	157
Putnam	3.32	5.38	62
St. Johns	7.94	55.57	600
TOTAL	*160.08*	*360.01*	*125*

Regional Groundwater Flow Model Domains

Projected changes in the elevation of the potentiometric surface of the Floridan aquifer system



Projected changes in surficial aquifer system water levels

Water Resource Constraints

Identify limits of water level change at which unacceptable impacts are likely to occur

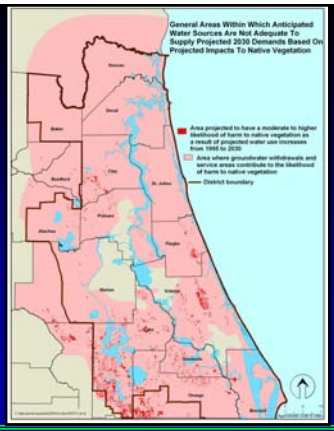
- **Natural systems constraints**
  - **Native vegetation (wetlands)**
  - **Lakes**
  - **Springs**
  - **Minimum flows and levels (MFLs)**
- **Groundwater quality constraint**
  - **Salt water intrusion**

Northern Planning Area Water Resource Constraints

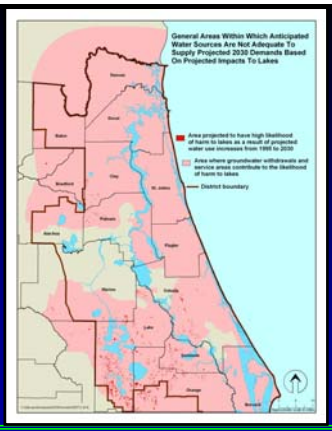
1995-2030

County	Impacts to Native Vegetation	Impacts to Lakes	Impacts to Springs (15% Reduction in Flow)	Impacts to Springs with Established MFLs	Impacts to Lakes with Established MFLs	Impacts to Groundwater Quality
Alachua	•	•	•		•	
Baker	•	•	•		•	
Bradford	•	•	•		•	
Clay	•	•	•		•	
Duval	•	•	•		•	•
Flagler	•	•	•		•	
Nassau	•	•	•		•	
Putnam	•	•	•		•	
St. Johns	•	•	•		•	

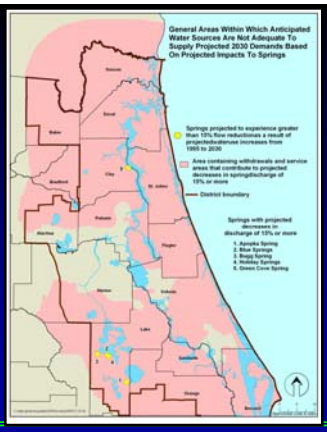
Projected Unacceptable Impacts to Native Vegetation



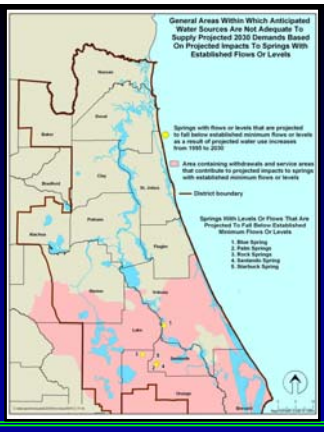
Projected Unacceptable Impacts to Lakes



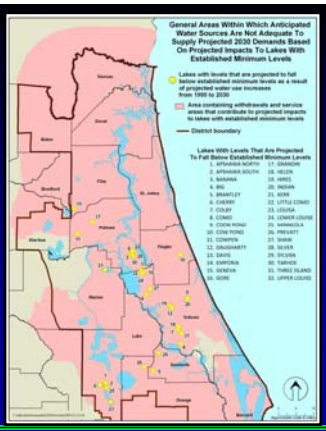
Impacts to Springs (15% Reduction in Flow)



Impacts to Springs with Established MFLs



Lakes with Levels Projected to Fall Below Established MFLs



Projected Unacceptable Impacts to Groundwater Quality

Priority Water Resource Caution Areas and Potential Caution Areas

Draft WSA 2008 Review Process

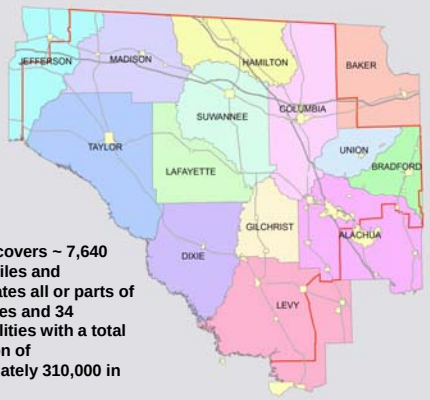
- Review underway now
  - http://www.sjrwmd.com/dwsp.html
- Summer 2010 – Draft DWSP 2010
- October 2010 – final comments for incorporation into DWSP 2010
- December 2010 – District Governing Board action on DWSP 2010

SRWMD Water Supply Planning/Assessment

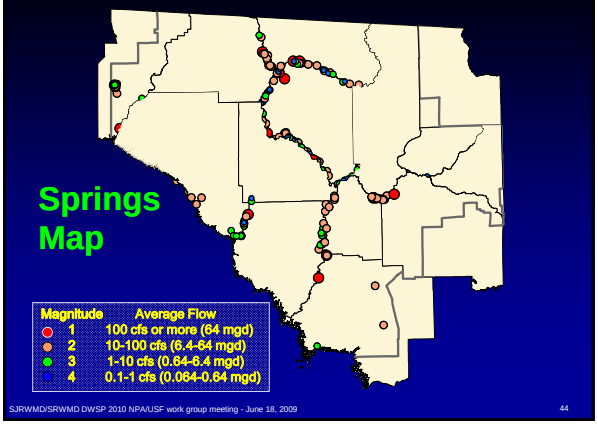
Carlos Herd, Senior Hydrogeologist
Suwannee River Water Management District
cdh@srwmd.org

Topics

- SRWMD Districtwide Water Supply Assessment Update 2009
- Upper Santa Fe River Basin (USFRB) Minimum Flows and Levels
- USFRB Regional Water Supply Plan



SRWMD covers ~ 7,640 square miles and incorporates all or parts of 15 counties and 34 municipalities with a total population of approximately 310,000 in 2005



Regional Groundwater Trends

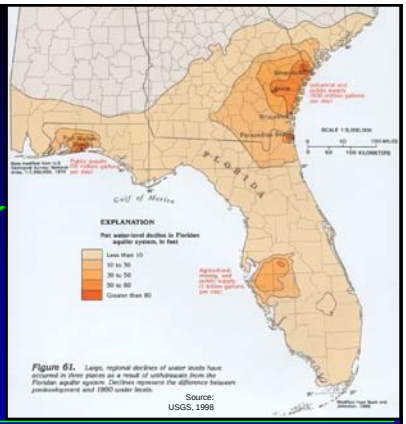
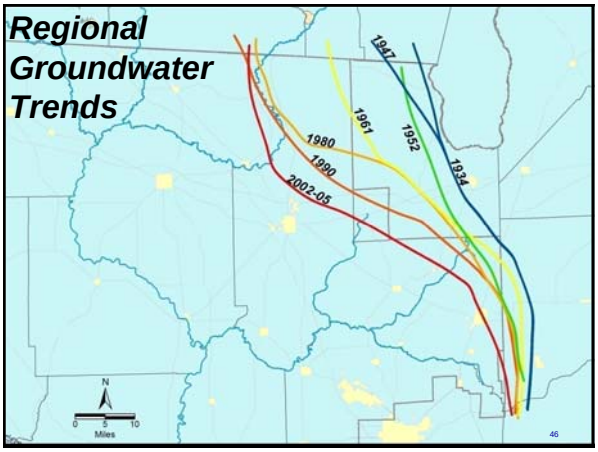


Figure 61. Large, regional declines of water levels have occurred in three places as a result of withdrawals from the Floridan aquifer system. Declines represent the difference between predevelopment and 1980 water levels.

Source: USGS, 1998

Regional Groundwater Trends



SRWMD Districtwide Water Supply Assessment (WSA) Update will:

- Include a 20-year planning horizon (2010–2030)
- Comply with Chapter 373.036(2)(b)4., Florida Statutes (F.S.)
- Define any specific regions in need of water supply planning within the planning horizon.

The SRWMD WSA will determine:

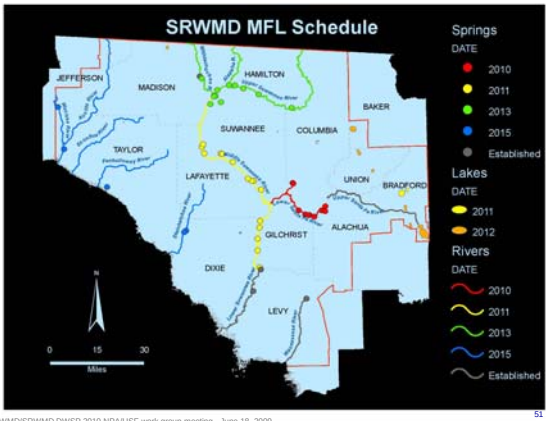
- Existing legal uses,
- reasonably anticipated future needs,
- existing and reasonably anticipated sources of water,
- conservation efforts; and
- whether or not there is sufficient water to meet existing and future needs

Tasks required for the SRWMD WSA update:

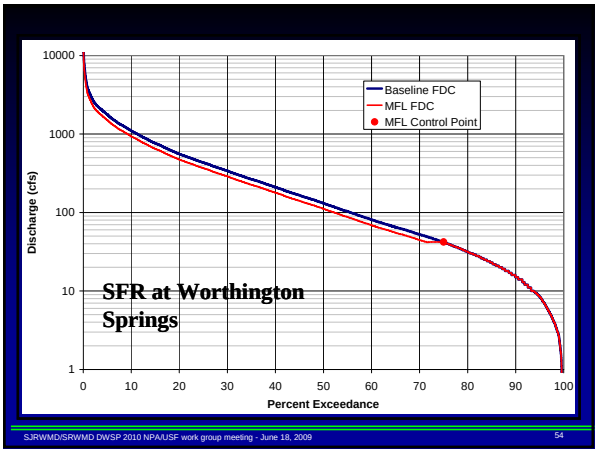
- Provide population and water use estimates for the 20-year planning horizon (2010-2030)
- Define water resource constraints (MFLs)
- Evaluate water use impacts using the SRWMDs North Florida model
- Prepare a comprehensive, Districtwide WSA Report - Spring 2010

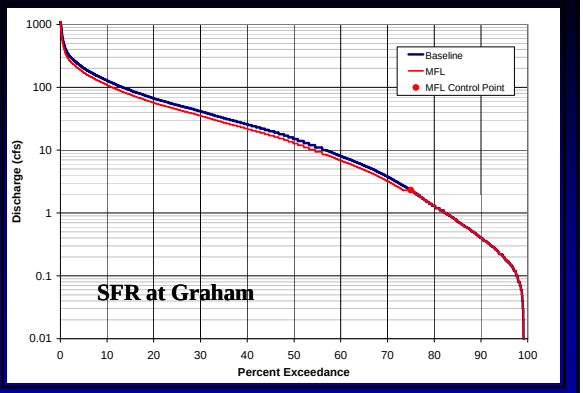
Chapter 373.042, F.S.

(1) Minimum flow...shall be the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area.



Upper Santa Fe River Basin (USFRB) Minimum Flows and Levels





SRWMD MFL Implementation

- Regulatory program will evaluate the predicted change in surface water/groundwater interaction
- Thru:
  - Groundwater Modeling (SRWMD North Florida Model)
  - Tracking of Cumulative Impacts

Upper Santa Fe River Basin Regional Water Supply Plan

SRWMD Regional Water Supply Planning

- District must prepare a Regional Water Supply Plan where existing sources of water are not adequate to meet existing and future needs for the planning period
- The Regional Water Supply Plan was initiated based upon the Upper Santa Fe River Basin MFLs

Regional Water Supply Plan Development

- Requires coordination with local governments, water supply entities, agricultural users, and other affected parties.

Regional Water Supply Plan statutory requirements:

- Quantification of water supply needs
- List potential water supply development projects
- List potential water resource development projects
- Recovery and prevention strategies for MFLs
- Funding strategies
- Local governments are required within 18 months to accept the measures listed in the District's plan or develop their own

Quantification of Needs

Demands projected over a 20 year planning period, 2010 to 2030 for:

- Agricultural
- Commercial\Industrial\Institutional
- Public Supply
- Domestic Self-supply
- Recreational
- Thermoelectric power generation

Water Supply Development Projects

- Must include options for public supply utilities and other entities
- Projects are identified using input from stakeholders during the planning process
- Projects are evaluated based on technical, environmental, and economic feasibility

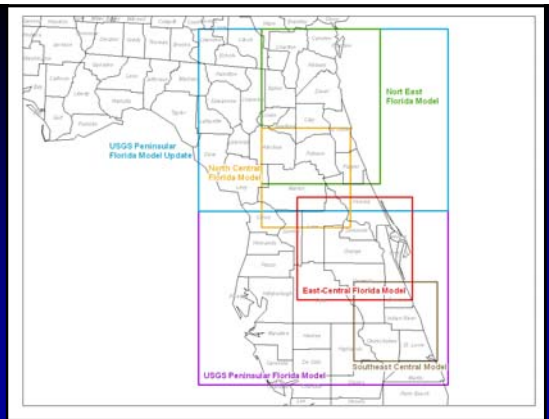
Minimum Flows and Levels

- Identify MFLs for water resources within the planning region
- As needed, recovery and prevention strategies described in s. 373.0421(2) F.S.

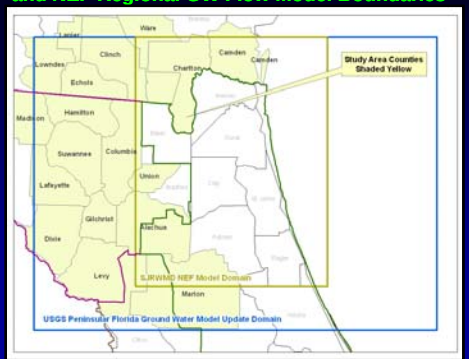
Ground Water Modeling and Hydrologic Data Evaluation

Work Activities in Preparation for the Northern District Water Supply Planning Process

Doug Munch, P.G., Division Director
St. Johns River Water Management District
dmunch@sjrwmd.com



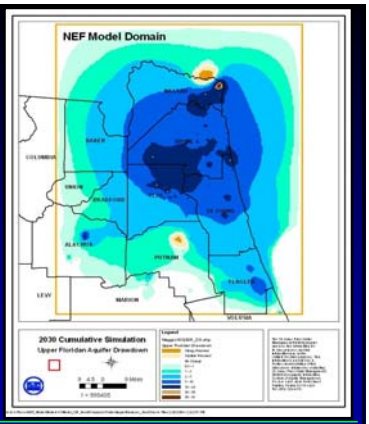
Revised SJ/SR USGS Peninsular Florida Ground Water Model and NEF Regional GW Flow Model Boundaries

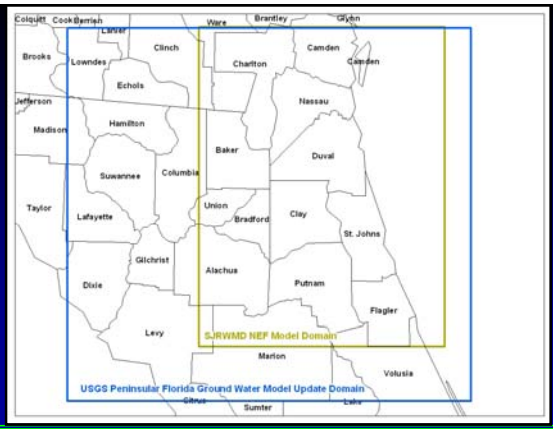


Northeast Florida Regional GW Flow Model

- Current model – Version 3 changes
  - Surficial aquifer is actively simulated
  - Recharge component includes:
    - Ag irrigation return flow
    - Landscape/recreational irrigation return flow
    - RIB return flow
  - Recalibration of the model to 1995 conditions
  - Post 1995 model simulation of 2004 average hydrologic conditions – in progress –model validation

Predicted Upper Floridan Aquifer Water Level Change 1995 to 2030





SR/SJR USGS Peninsular Florida Ground Water Model Revision

- Develop a new steady-state model
  - Make surficial aquifer an active layer
  - Include portions of Georgia not previously simulated in the original USGS Peninsular Florida Ground Water Model (PFGWM)
  - Incorporate to extent possible river package
  - Calibrate to water levels, spring flows and surfacewater discharge
  - Perform sensitivity analysis
  - Perform various predictive simulations
  - Determined impacts to NEF model boundary conditions

SR/SJ USGS Peninsular Florida Ground Water Model - Application

- Evaluate the potential water resource impacts across the model domain
- Evaluate the relative contribution of groundwater withdrawals in the respective jurisdictional areas of SRWMD, SJWMD and south Georgia to the overall cumulative water resource impacts
- Utilize the results of the 2030 projected water demand simulation to adjust lateral boundary conditions of the NEF model
- Perform other model simulations deemed appropriate

Evaluation of Hydrologic Data Within the Upper Suwannee/Santa Fe River Basins of Georgia and Northeast Florida

Bin Gao , Osvaldo Gargiulo, Kathleen McKee, and Wendy Graham

Department of Agricultural & Biological Engineering

University of Florida

Water Institute, University of Florida, Gainesville, Florida 32611

Hydrologic Data Evaluation: Upper Suwannee River and Santa Fe River Basins, NE Florida and So. Georgia

Work contracted to the University of Florida

- Objectives:
  - Examine time-series trends in hydrologic data
  - Determine if there are statistical significant correlations between Floridan aquifer system groundwater withdrawals and the hydrologic time-series data
  - Work by SJRWMD District Staff
  - Statistical evaluations of long-term Floridan observation wells in Putnam, St. Johns, Flagler, Clay, Duval, Nassau and Camden counties

Upper Suwannee River and Santa Fe River Basins

Hydrologic Data Summary for South Georgia and Within the SRWMD

- Groundwater Level
  - 59 Stations
- Rainfall
  - 44 stations
- Stream
  - 19 stations
- Spring
  - 10 stations

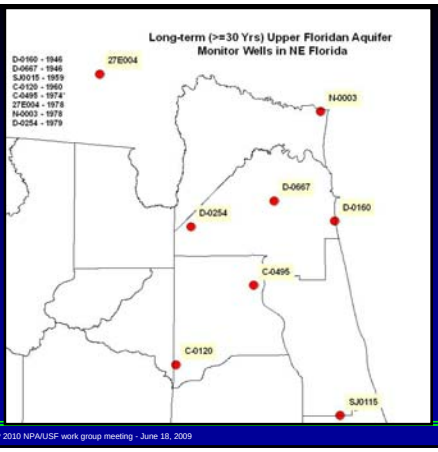
SJRWMD Upper Floridan Aquifer (UFA) Long-Term Water Level Trends for Northeast Florida

Statistical Trend Analysis Goals

- Explore the water level relationships between UFA monitor wells using pre-1980's to 2008 water levels in NE Florida
- Questions: Are the UFA water levels
  - Maintaining levels ?
  - Increasing ?
  - Decreasing ?
  - In synch or out of synch – i.e. have a common or different driver(s)?

What to Analyze

- Data – Water level measurements
  - Recorder data & Manual readings
- Long-term
  - UFA wells in Nassau, Duval, Clay & St Johns counties & SE Georgia
  - Pre 1980's to 2008
  - Minimum 4 measurements per year (Quarterly or yearly aggregated data)
  - Start at least by July of 1st year (close to min for year & may catch max)



Relationship Between 2010 Water Supply Plans and Local Government Comprehensive Plans

Peter Brown, Policy Analyst
St. Johns River Water Management District
pbrown@sjrwmd.com

Water Supply Planning Requirements

- Water supply facilities work plans
- Capital improvements schedules
- Water supply concurrency
- Water supplies and facilities to support future land uses
- Coordination with water management districts and water suppliers
- Evaluation and appraisal reports

Water Supply Facilities Work Plan Links to 2010 Water Supply Plans

- 10-year water demand projections
- Alternative water supply projects
- Reuse and conservation measures

Collaborative Effort to Meet the Requirements

- SJRWMD assistance available
  - Participate in meetings and teleconferences
  - Respond to requests for information and guidance
  - Review draft work products
  - Coordinate reviews

Subgroups

Linda Shelley
Fowler, White, Boggs, P.A.

Subgroups

Planning Area	Subgroup				
	Volusia MFL Prevention and Recovery Strategy	Northern MFL Prevention and Recovery	Conservation	Groundwater Modeling	AWS Project Identification and Preliminary Scoping
Districtwide DWSP 2010 District PM: David Hornsby PM: Terry Clark			**Facilitator:** Max Castaneda **Support:** Don Brandes		
Northern Planning Area Work Group Facilitator: Linda Shelley Support: Terry Clark		**Facilitator:** David Hornsby **Support:** John Fitzgerald		**Facilitator:** Wendy Graham, UF **Support:** Lisette Staal, UF	**Facilitator:** Glenn Forrest **AWS team:** Jerry Salsano, Ron Wycoff Support: Jerry Salsano
Central Planning Area Work Group Facilitator: Jim Gross Support: Elizabeth Thomas	**Facilitator:** Bill Dunn **Support:** David Hornsby				
Southern Planning Area Work Group Facilitator: Jim Gross Support: Elizabeth Thomas				To be determined	To be determined

Subgroup – Water Conservation

- **Facilitator: Max Castaneda, SJRWMD**
  - **Email: mcastane@sjrwmd.com**
- **Support: Don Brandes, SJRWMD**
  - **Email: dbrandes@sjrwmd.com**
- **Meeting dates/times:**
  - **July 30, 2009 – 9:00 a.m. - noon**
  - **August 25, 2009 – 9:00 a.m. - noon**
  - **September 29, 2009 – 9:00 a.m. - noon**
  - **January 28, 2010 – 9:00 a.m. - noon**

Water Conservation Subgroup Meetings

- **July 30, 2009 9am-noon**
  - **Present general overview of program and pilot projects for estimating potential conservation**
- **August 25, 2009**
  - **Present results of pilot project for estimating potential conservation options**
- **September 29, 2009**
  - **Present results and expansion of pilot project for estimating potential conservation options District-wide**
- **January 28, 2010**
  - **Status report on pilot project for estimating potential conservation options District-wide**

SJRWMD Water Conservation Subgroup Goals

- **Assist water supply utilities, agriculture, commercial, industrial, institutional and other users to identify and develop water conservation options to meet future demands**
- **Provide input to water supply planning process for estimating potential public supply system water savings from conservation**

Possible SJRWMD Water Conservation Goals

- **District developing measurable conservation goals by sector:**
  - **Public Supply – 100 GPCD**
  - **Agriculture – 85% efficient**
  - **Commercial/Industrial/Institutional – within 25% of benchmark**
- **Evaluating sector-based water conservation planning approaches**

Public Water Supply Sector-based Water Conservation Approaches

- **Public Supply-**
  - **Single-family, multi-family…**
- **Agriculture-**
  - **Row crop types, Citrus…**
- **Commercial/Industrial/Institutional-**
  - **Hotels, restaurants, healthcare, office buildings, grocery stores…**

Public Water Supply Sector-based Water Conservation Plans

- Merge benchmarks with County Appraisal District/Department of Revenue codes
- Generate maps of water conservation potential throughout each utility service area

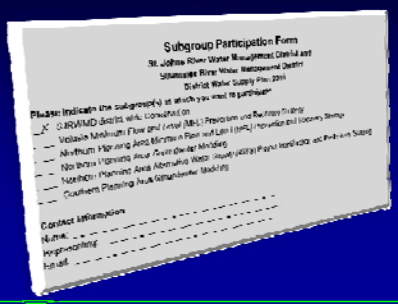
Public Water Supply Sector-based Water Conservation Plans

- Meant to be executed by the utility and its customers in phases
- Used by utilities to reduce the need for alternative water supplies
- Used by the District to determine water usage upper and lower limits and perform what-if scenarios

Initial Water Conservation Subgroup Meeting

- Initial water conservation subgroup meeting:
  - Thursday, July 30, 2009
  - 9:00 a.m. – noon
  - SJRWMD Governing Board Chambers 4049 Reid St., Palatka, FL 32177

If you are interested in the participating in this Subgroup, then please fill out the participation form


Subgroup Participation Form

Please indicate the subgroup(s) in which you would like to participate*

Contact Information

Name:

Organization:

Email:

Subgroup – Northeast Florida Groundwater Modeling

- Facilitator: Wendy Graham, University of Florida Water Institute
  - Email: wgraham@ufl.edu
- Support: Lisette Staal , University of Florida Water Institute
  - Email: lstaal@ufl.edu
- Meeting dates/times:
  - August 27, 2009 – 9:00 a.m. – 3:00 p.m.
  - September 24, 2009 – 9:00 a.m. – 3:00 p.m.
  - January 14, 2010 – 9:00 a.m. – 3:00 p.m.
  - March 25, 2010 – 9:00 a.m. – 3:00 p.m.

Subgroup – Northeast Florida Groundwater Modeling

- UF WATER Institute (WI) will facilitate a process that engages the Groundwater Modeling sub-group and the District modelers in reviewing and establishing an understanding of specific groundwater models and associated data being used for the northern planning area.
- WI TEAM -
  - Technical Lead: Wendy Graham
  - Facilitator: Lisette Staal
  - WI Intern

Subgroup – Northeast Florida Groundwater Modeling

- **Structure and Activities**
  - Series of meetings scheduled on UF Campus
  - Solicit Sub-group members' written input
  - Facilitate discussions between the District modelers and Groundwater Modeling Subgroup members
  - Identify unresolved issues and strategies to address these issues
  - Meet with District modelers and develop strategies
  - Report subgroup progress and updates to the Northern Planning Area Working Group

Subgroup – Northeast Florida Groundwater Modeling

- **Groundwater Modeling Subgroup Participants** should understand ground water modeling, commit time to participate in all of the sub-group meetings and any appropriate sub-group follow-up.
- Meeting dates/times:
  - August 27, 2009 – 9:00 a.m. – 3:00 p.m.
  - September 24, 2009 – 9:00 a.m. – 3:00 p.m.
  - January 14, 2010 – 9:00 a.m. – 3:00 p.m.
  - March 25, 2010 – 9:00 a.m. – 3:00 p.m.

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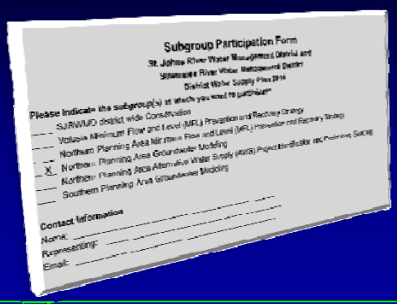

Subgroup Participation Form

Please indicate the subgroup(s) in which you want to participate:

___ SJRWMD district wide Conservation

___ Volusia Minimum Flow and Level (MFL) Prevention and Recovery Strategy

___ Northern Planning Area Minimum Flow and Level (MFL) Prevention and Recovery Strategy

X Northern Planning Area Groundwater Modeling

___ Northern Planning Area Alternative Water Supply (AWS) Project Identification and Planning Study

___ Southern Planning Area Groundwater Modeling

Contact Information

Name: _____

Representing: _____

Email: _____

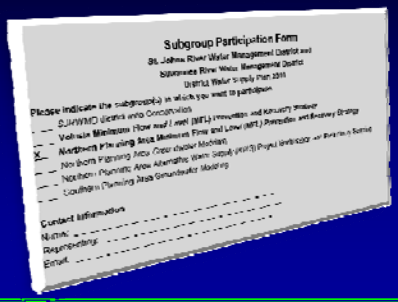
Subgroup – Northern Planning Area Minimum Flow and Level (MFL) Prevention and Recovery Strategy

- Facilitator: David Hornsby, SJRWMD
  - Email: dhornsby@sjrwmd.com
- Support: John Fitzgerald, SJRWMD
  - Email: jfitzgerald@sjrwmd.com
- Meeting dates/times:
  - October 30, 2009 – 9:00 a.m. – noon
  - February 26, 2010 – 9:00 a.m. – noon
  - April 23, 2010 – 9:00 a.m. – noon
  - July 9, 2010 – 9:00 a.m. – noon

Outcome - through a public planning process develop water supply strategies that do not exceed the sustainable yield of the water resources, and that also:

- Prevent future violation of existing and planned MFLs
- Include recovery strategies for MFLs that may already be exceeded

If you are interested in the participating in this Subgroup, then please fill out the participation form


Subgroup Participation Form

Please indicate the subgroup(s) in which you want to participate:

___ SJRWMD district wide Conservation

___ Volusia Minimum Flow and Level (MFL) Prevention and Recovery Strategy

X Northern Planning Area Minimum Flow and Level (MFL) Prevention and Recovery Strategy

___ Northern Planning Area Groundwater Modeling

___ Northern Planning Area Alternative Water Supply (AWS) Project Identification and Planning Study

___ Southern Planning Area Groundwater Modeling

Contact Information

Name: _____

Representing: _____

Email: _____

Subgroup – Northeast Florida Alternative Water Supply Project Identification and Preliminary Scoping

- Facilitator: Glenn Forrest, consultant
  - Email: gforrest@sjrwmd.com
- Support: Jerry Salsano, Taurant Consulting, Inc.
  - Email: jsalsano@sjrwmd.com
- Meeting dates/times:
  - November 10, 2009 – 9:00 a.m. – 3:00 p.m.
  - January 26, 2010 – 9:00 a.m. – 3:00 p.m.
  - March 9, 2010 – 9:00 a.m. – 3:00 p.m.
  - April 8, 2010 – 9:00 a.m. – 3:00 p.m.

If you are interested in the participating in this Subgroup, then please fill out the participation form


Subgroup Participation Form

Please indicate the subgroup(s) in which you want to participate:

___ SJRWMD-SRWMD Water Conservation

___ Volusia Minimum Flow and Level (MFL) Prioritization and Recovery Strategy

___ Northern Planning Area Groundwater Modeling

___ Northern Planning Area Alternative Water Supply (AWS) Project Identification and Preliminary Scoping

_X_ Northern Planning Area Groundwater Modeling

___ Southern Planning Area Groundwater Modeling

Contact Information

Name

Employer

Email

Next Steps

Linda Shelley
Fowler, White, Boggs, P.A.

Next Steps

- Ongoing coordination between SJRWMD and SRWMD
- Re-assessment of priority water resource caution areas (PWRCAs)

Future Meetings

- WSA 2008/DWSP 2010 Technical Methods Workshop
  - Thursday, July 9, 2009; 10:00 a.m. – 4:00 p.m. (lunch 12-1:30)
  - SJRWMD Governing Board Chambers, 4049 Reid St., Palatka, FL 32177
- Water Conservation Subgroup
  - Thursday, July 30, 2009; 9:00 a.m. – noon
  - SJRWMD Governing Board Chambers, 4049 Reid St., Palatka, FL 32177
- Northern Planning Area/Upper Santa Fe Work Group #2
  - Thursday, August 20, 2009; 9:00 a.m. – noon
  - Alachua County Health Department Auditorium, 224 SE 24th Street, Gainesville, FL 32641

Future Meetings - continued

- Northeast Florida Groundwater Modeling Subgroup
  - Thursday, August 27, 2009; 9:00 a.m. – 3:00 p.m.
  - University of Florida, Emerson Hall, Warrington Board Room, Gainesville, FL 32611
- Northeast Florida MFL Subgroup
  - Friday, October 30, 2009; 9:00 a.m. – noon
  - SJRWMD Governing Board Chambers, 4049 Reid St., Palatka, FL 32177
- Northeast Florida AWS Subgroup
  - Tuesday, November 10, 2009; 9:00 a.m. – 3:00 p.m.
  - Alachua County Health Department Auditorium, 224 SE 24th Street, Gainesville, FL 32641
- Meetings posted on District website
  - www.sjrwmd.com/watersupplyplanning/upcomingmeetings.html

Public Access to Information

- SJRWMD file transfer site
  - /ftp://ftp.sjrwmd.com/DWSP_2010
  - Meeting materials (summaries, presentations, sign-in sheets, etc.) available for two weeks after meetings
- Meeting summaries distributed after meetings
  - Meeting summaries will be emailed to everyone that signs in with an email
- Audio recordings - contact Dina Hutchens
  - Email: dhutchens@sjrwmd.com
  - Phone: 386-329-4239

Public Input

Adjourn

www.sjrwmd.com
ftp://ftp.sjrwmd.com/DWSP_2010/

6-18-09 Public Hearing Presentation

My name is Ray O Avery. I am the Executive Director of the Clay County Utility Authority, 3176 Old Jennings Road, Middleburg, Fl. 32068.

Thank you for the opportunity to address this public hearing with our concerns regarding this NE Florida water supply planning process and its potential implications to our rate payers. We have had conversations with other utilities throughout NE Florida, many of whom are here today, and although we do not speak for them we have come to discover that their concerns are very similar to ours.

Based on the briefings we have had from the SJRWMD to date, it is our understanding that your current groundwater modeling predicts that our existing groundwater resource will not be able to sustain projected growth through the year 2030 with out damage to several existing natural systems such as:

- **Wetlands**
- **Spring Flows**
- **Minimum Lake Levels**
- **Water Quality**

We want you to know that this is very devastating news to us and many other area utilities in the public water supply business.

With this news, a multitude of questions come to mind:

- **Are the groundwater models that are being relied on to make these predictions, accurate?**
- **Is the input of existing known data into the models accurate?**
- **When will the models, that have been used to make these predictions, be complete? It is our understanding they are continuing to be modified and therefore are continuing to evolve?**
- **Are the assumptions used by the models correct and reasonable?**
- **Are the models calibrated to field conditions and will they predict results that will reconcile to field condition?**
- **Are recharge assumptions correct?**
- **Do we know enough about areas adjacent to the District boundary to predict how their usage and recharge will affect groundwater supply in our area?**
- **Which models will be used to draw the final conclusions and how will they be used. It is our understanding that three different groundwater models will be involved in this process.**
- **Has credit been included to reflect the offset of potable supply by existing and proposed reclaimed water supply?**
- **Has the impact of conversion of "Ag land use" to "developed land uses" been considered?**
- **Are the thresholds and assumptions for measuring "natural system" declines, reasonable?**

- **Has adequate emphasis been placed on water conservation to effect the most efficient preservation of our existing potable water supply?**

- **Are the population projections correct? (We are certain that the model includes growth projections based on a very high growth pattern over the past several years. However, due to the current recession we believe that growth will be relatively non existent for 5-10 years. It is our understanding that for the first time in decades Florida had a net out-migration of its population this past year. In our area, we believe that recovery will be greatly impacted by significant impact fees that have been levied by our local governments to deal with inadequate infrastructure improvements. Because of the cumulative effect of the increase in governmental impact fees, decline or elimination of growth in our state due to the high cost of living and the decline of our economy in general, we believe the growth projections are seriously overstated.)**

We are all concerned about managing and protecting our "natural resources" and "natural systems" as well as sustaining our "groundwater resources". At the same time, we have an obligation to our ratepayers to monitor and participate in this process to be sure our concerns are satisfactorily addressed. It is essential that the tools being used to predict these results are accurate

and can be confidently relied on to make such predictions.

Hopefully, at the end of the process, we will have determined that a water resource caution area designation is not needed through this planning period.

However, if the current models predictions are validated, it is essential that we know as far in advance as possible so that each utility can go about orderly planning to deal with the consequences of such a conclusion.

I want to thank you for the opportunity to put our position on the record. We look forward to working with you during this process to assure that the critical decisions to be made are based on the most accurate scientific methods and modeling available. We also look forward to actively collaborating with the District on various water conservation alternatives and the effective benefits these may offer. In our opinion, these are absolutely essential in addressing the long term solutions to sustain our potable water resources and natural systems for the future.

Thank you.