Central Florida Water Initiative

Session LL Central Florida Water Initiative

Andy Neff Drew Bartlett Robert Beltran Len Lindahl Eric Olsen

July 23, 2014

Northwest

Suwannee

South Florida

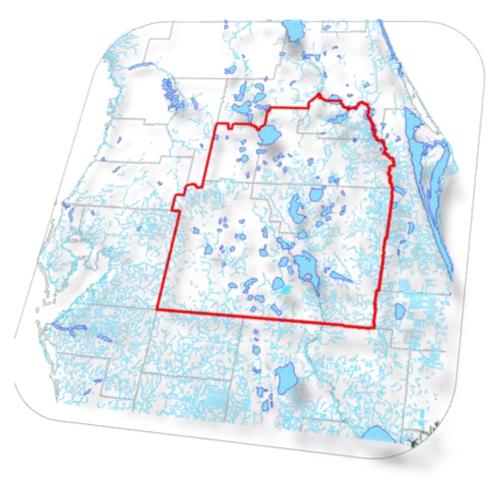
River

Today's Presentation

Central Florida Water Initiative
 History of CFWI
 Organization
 Solutions
 Regulatory
 User Perspective

Central Florida Water Initiative

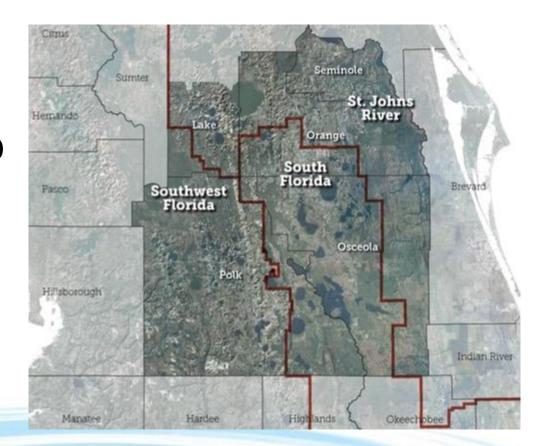
History



Andy Neff Director, Environmental Services Seminole County

What is the CFWI?

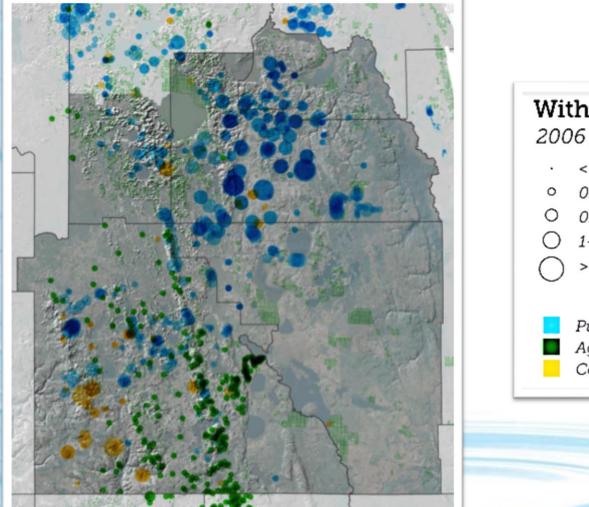
A collaborative water supply planning effort to protect, develop, conserve and restore central Florida's water resources.



What Are the Challenges?

- 1. Reaching sustainable groundwater limits
- 2. Meeting future demands on the area's water resources
- 3. Overlapping regulatory programs

Users Seeking a Limited Resource

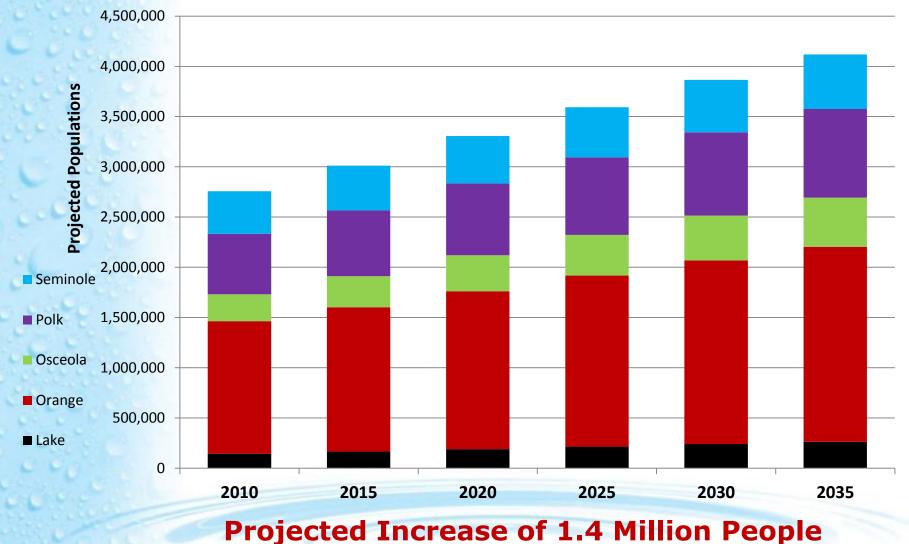


Withdrawal Types

2006 Annual Average

- < 0.1 mgd
- 0.1–0.5 mgd
- O 0.5–1 mgd
 - 🔾 1–3 mgd
 -) > 3 mgd
 - Public Supply
 - Agriculture
 - Commercial/Industrial

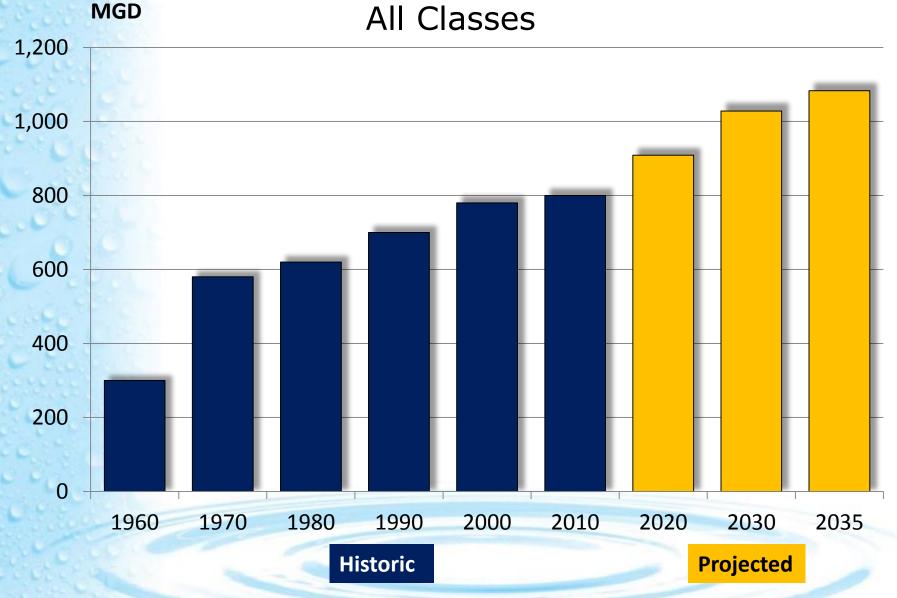
Projected Population



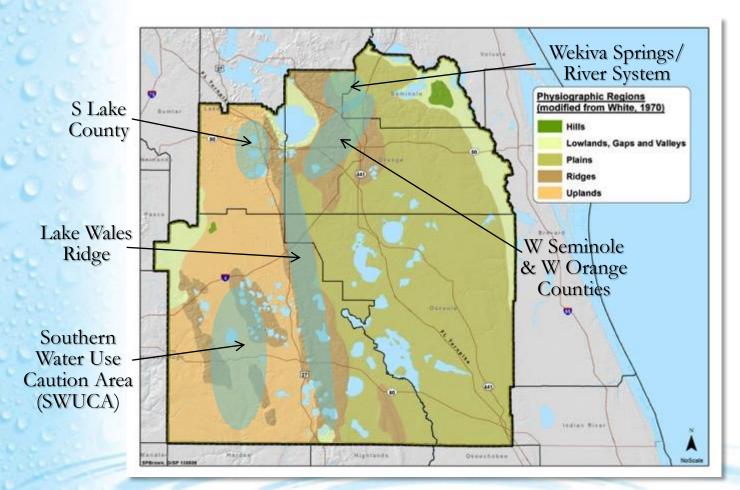
7

Central Florida Water Initiative

Water Use



Primary Areas Susceptible to Groundwater Withdrawals



How Did We Get Here?

- February 2006 Legal Action
 - SFWMD intervened in Orange County's water use permit issued by SJRWMD permit; Gov. Bush

Phase I

August 2006 - Action Plan

Central Florida Coordination Area- CFCA

- Significant increases in public water supply water demands; insufficient groundwater to satisfy without harm
- Need to equitably distribute remaining water
- Need to transition to alternative supplies for future demand
- 2008 Interim Rules
 - Required that demands beyond 2013 be met by alternate water supplies (AWS)
 - Rules set to sunset on December 31, 2012
 - Interim rules to be replaced by a long-term solution

How Did We Get Here?

Phase II

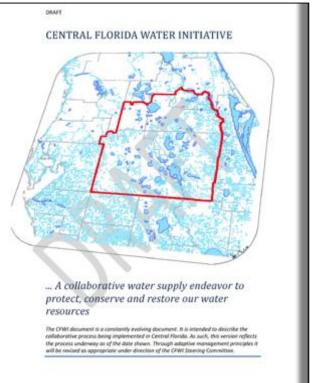
- **2009**
 - Attempts to replace interim CFCA rules
- September 2010
 - Unable to meet schedule resulting in stakeholder concern
- February 2011
 - New process / new name CFWI
 - Expand participation and increase collaboration
 - Interim rules allowed to sunset
- April 2011
 - CFWI Steering Group initiated
 - "Full collaboration" with stakeholders
 - Ultimate objective: complete community engagement for regional partnerships (elected officials, business community, environmental interests, PWS, agriculture)
 - Sustainably meet future water demands

Organization

Drew Bartlett, P.E. Director, Division of Environmental Assessment and Restoration Florida Department of Environmental Protection

Guidance Document Principles

- Identify sustainable quantities of groundwater sources
- 2. Develop strategies to meet water demands
- Establish consistent rules



Guidance Document available at CFWIwater.com

CFWI Governance

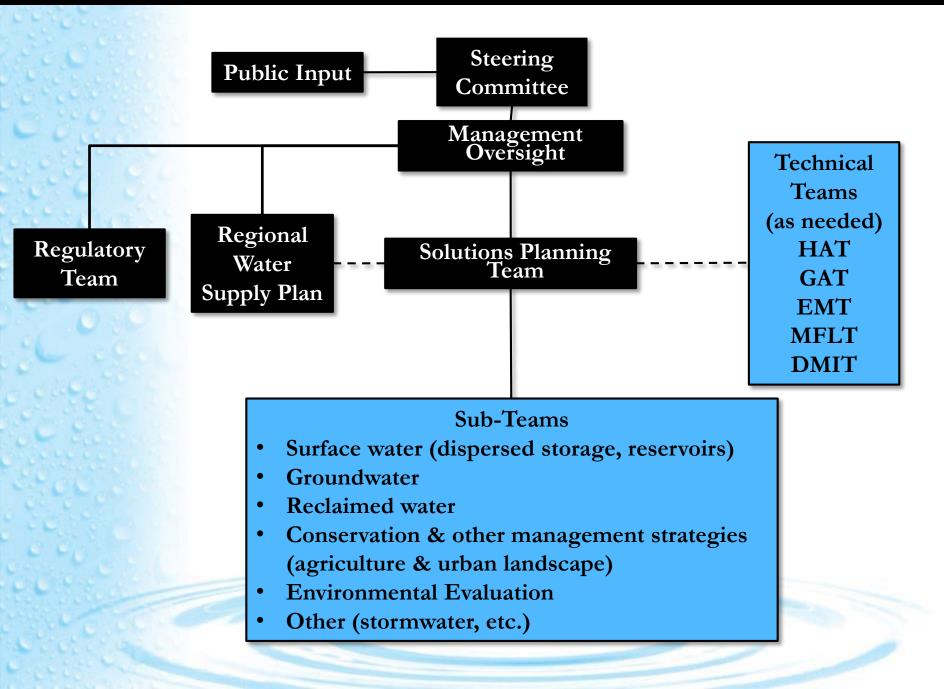
Steering Committee

One representative each from:

 Utilities, St. Johns River, South Florida & Southwest Florida water management districts' Governing Boards (3), Florida Department of Environmental Protection and Florida Department of Agricultural & Consumer Services

Management Oversight Committee
Technical Oversight Committee
Technical Teams (6)

Central Florida Water Initiative



Technical Teams

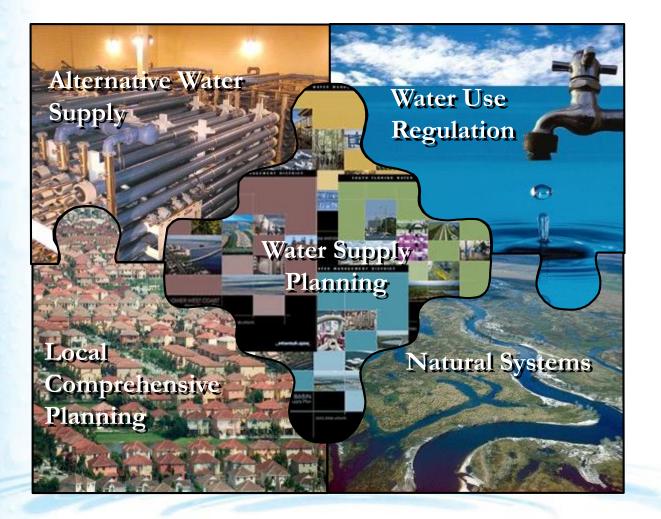
- Hydrologic Analysis (completed)
- Environmental Measures (completed)
- Minimum Flows and Levels (completed)
- Groundwater Availability (completed)
- Data, Monitoring & Investigations (completed)
- Regional Water Supply Planning
- Solutions Planning
- Regulatory

Collaboration

- Active membership in all workgroups across stakeholder groups
- Conference calls, web meetings, and periodic face-to-face meetings
- Over 200 participants across workgroups

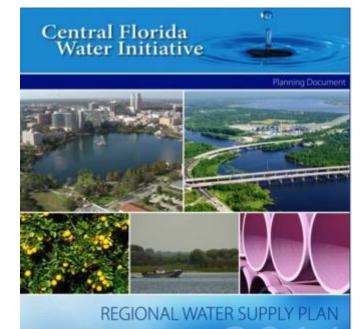


One Plan for CFWI Region



One Plan for CFWI Region

- Developing first-ever Regional Water Supply Plan
- Collaborative effort between Districts, FDEP, FDACS, utilities and other stakeholders
- Technical teams provided strong scientific foundation for development of Plan



Addressing the Challenges

 One shared groundwater model
 One coordinated strategy for Minimum Flows & Levels (MFLs) prevention & recovery
 One Regional Water Supply Plan (RWSP)

Stakeholders



Public Involvement

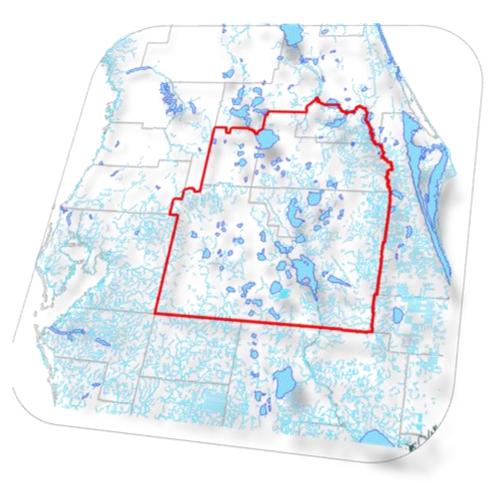
- Publicly noticed meetings/workshops
- Live webinar (recorded & on website)
- RWSP public comment period
 - 1,248 people submitted comments
- Ongoing outreach through business community, local government/utilities, independent organizations
- From June 2012 through April 2014, reached over 3,500 people through more than 120 presentations and briefings

Water Resource Evaluation

- Future demands estimated and aquifer changes evaluated
- Availability of groundwater determined from multiple measuring sticks to ensure protection of water resources and existing water users

Traditional groundwater sources can meet some, but not all projected and permitted needs in the CFWI. **Central Florida Water Initiative**

Solutions



Robert Beltran, P.E. Executive Director Southwest Florida Water Management District

Next Phase: Solutions Team

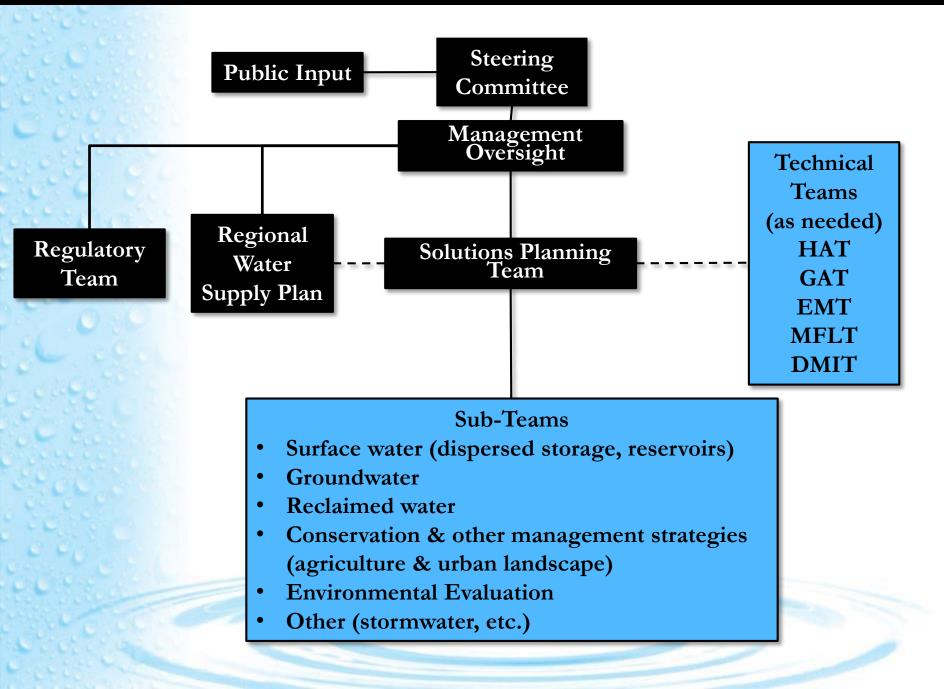
- Develop strategies to meet future water demands by:
 - Optimizing use of existing groundwater and developing viable alternatives
 - Coordinating projects to maximize efficiencies
 - Encouraging strategic infrastructure planning and partnerships
 - Identifying conservation activities

Solutions Team

Build on the CFWI RWSP

Senior management staff from the FDEP, FDACS, and the South, Southwest, and St. Johns River WMDs, together with public water supply utilities, agricultural land owners, environmental groups, regional leaders and business representatives

Central Florida Water Initiative



Solutions Team Sub-teams

- Surface water (dispersed storage, reservoirs)
- Groundwater
- Reclaimed water
- Conservation & other management strategies (agriculture & urban landscape)
- Environmental Evaluation
- Other (stormwater, etc.)

Solutions Team Sub-teams

- Focus on regional, multi-jurisdictional project options
- Evaluate project costs
- Support partnerships, identify conjunctive use opportunities and maximize efficiencies
- Develop the CFWI Implementation Plan

CFWI Implementation Plan

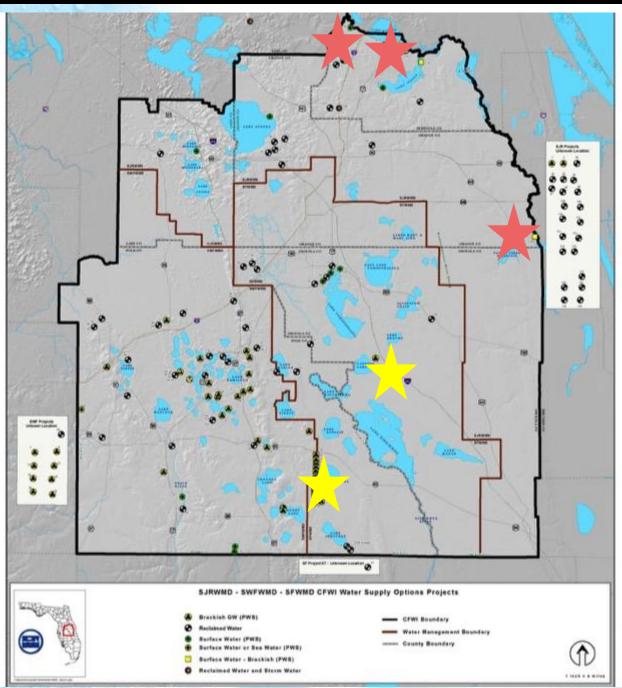
Further develop specific water supply projects through partnerships with water users including:

- Largest deficits/timing
- Source/project options
- Feasible/permittable
- Potential partnerships, governance structure
- Funding needs/sources
- Recovery/prevention needs

Comprehensive monitoring/assessment

Stakeholder outreach

Central Florida Water Initiative



Five Major Projects

- St. Johns River at Yankee Lake, 50 mgd
- 2. St. Johns River at SR46, 55 mgd
- 3. St. Johns River at Taylor Creek Reservoir, 43 mgd
- Brackish groundwater at Cypress Lake, 30 mgd
- 5. Lower Floridan at SE Wellfield, 30 mgd



2035 Water Resources Protection & Water Supply Strategies Document

- 1. Introduction
 - a. Goals
 - b. Public Outreach
- 2. Water Resource Assessment
- 3. Regional Water Supply Plan
- 4. Surface Water
- 5. Groundwater

2035 Water Resources Protection & Water Supply Strategies Document

- 6. Water Conservation
- 7. Reclaimed Water
- 8. Recovery/Prevention Projects
- 9. Stormwater, etc
- 10. Regulation Component
- 11. Financial Assessment Component
- 12. Recommendations

Solutions Team Schedule

Monthly meetings Sub-team reports Ad hoc meetings with stakeholders October 2014: Sub-team draft chapters of the 2035 Water **Resources Protection & Water Supply** Strategies Plan due to Solutions Team December 2014: Draft Plan to Steering Committee Public Meeting Solicit feedback/comments

Solutions Team Schedule

February 2015:
Incorporate comments
Develop Final Draft
Public Meeting
April 2015:
Final Draft Plan to Governing Boards

 Will work closely with the selected public involvement consultant to develop a communications plan and effectively engage all stakeholders

Future Path

- Build on the Final Draft Plan
- Develop a Solution Strategies Document to meet future water demands by:
 - Optimizing use of existing groundwater
 - Identifying conservation opportunities
 - Identifying viable alternative supplies
 Options for consistent rules

Central Florida Water Initiative

Regulatory

Lennart J. Lindahl, P.E. Assistant Executive Director South Florida Water Management District

Goal

Guiding Principle three for the CFWI is to "establish consistent rules and regulations for the three water management district that meet the Collaborative Process Goals and implement the results of this Central Florida Water Initiative."

Regulatory Team Objectives

- Develop options for consistent regulations (including Legislative) to implement the solution strategies identified in the CFWI process.
- Assist with resource recovery strategies.
- Provide for equitable and predictable review of consumptive use permit applications among the districts.

Path Forward

Building upon the planning process.

Solutions Planning Team Meeting future water supply demands Resource protection Regulatory Team Consistent rules and regulations Balance public interest, permitted user rights, and sustainability of water resources

Objectives

- Report consumptive use data
- Regulatory and statutory options
- Develop sustainability, demands, and strategy options
- Review management activities
- Regulatory alignment options
- Implementation consistency
- Report findings
- Reasonable-beneficial demand options

Scope of Work

- Develop sustainability, demands, and strategy options
- Regulatory alignment options



Scope of Work

- Regulatory and statutory options to support Solutions Planning
- Review management activities
- Implementation consistency
- Reasonable-beneficial demand options



Interim Steps

Per FDEP Memo (12/13/13), coordinated process for:

- Application decisions
- Conservation
- Permit duration
- Limiting conditions added to all CUPs issued



The Control Florida Water Institutive (CTWD) has reade significant programs in our colladorative afflict in plan for the future water negrly needs of Control Florida while sostiaming our natural measurem. The amplificant at flow inglinait groundwater reschi, the determents-or of the sostialable split of water scopely flow the apper Florida applicht, and the relevant of the dust of the tord yoost Registrat Water Stepply Flow from the apper Florida applicht, and post relations in solutions the other of the tord yoost flow flow in the apper Florida applicht, and post and the additional 250 MGD of water with the consideration of the draft registrat water negrly plan, as additional 250 MGD of water will be considered by 2005 to use do damak and provide natural measurem.

By the end of 2014, the CPWI foldering trans will not fire work accompliabel to date as the foundation to adhest specific projects and dividing strategies to provide the additional ware needed for some and from measure networks. In the interval, the ware measurement divertime most contained profess that standary responsibility to review and process consumptive use parents replacations such angliability interval of the provident in the proposed fits interval applications such asplicable unative and responsibility to review and process consumptive use parent applications the distribution in implementing the CCP program during this interview inter period. This publicate is effective, investmentary.

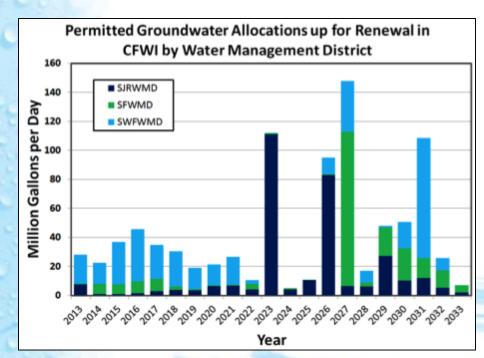
Coordination on Prading Agailentions

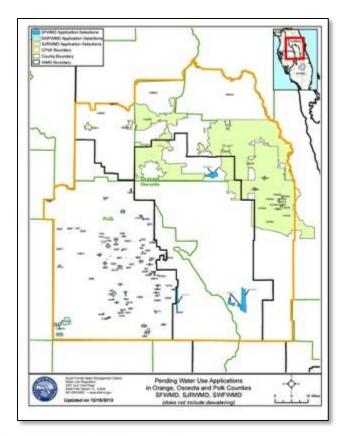
There is an immediate need for neverification and the three wear manigement districts are directed to checky accordingly approximate and according to the parent applications which the Control Theoria Arms, and provide transportery is its application process for ware users and other stakeholders in the regress. The WMBs should generate associally espects of consensptive and program due for considerations by the CTWE (application process of the information smalluble to the public on the CTWE website (procedure) applications, including tocation and requested withdewed quantities and parents terms. **Central Florida Water Initiative**

Regulatory Team Develop Common Language Field visit



Reporting consumptive use data





Review of management activities

- Delivered to the Groundwater Subteam for modeling scenarios and data analysis:
 - Reclaimed water projects
 - Wellfield operational plans
 - Mitigation



Menu of Conservation Measures

- Delivered to conservation sub-team
- Options for consideration in future planning activities







Working with Solutions Team to provide input on:

- Water use per capita
- Water shortage criteria comparison
- Aquifer recharge and impact offset sources and programs
- Resource redistribution
- Caution area example review
- Interdistrict transfer of ground and / or surface water
- Public interest (3rd prong test interpretation)

User Perspective

Eric Olsen Attorney Hopping Green & Sams, P.A. **Central Florida Water Initiative**

Land Development & Water Supply

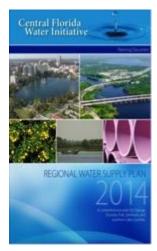
Local comp plan and RWSP statutory links:

- §163.3167(9) comp plans must address adequate water supply for existing and projected use considering WMD RWSP
- §163.3177(4)(a) comp plan must coordinate with WMD RWSP
- §163.3177(6)(c)3 potable water element must incorporate traditional & alternative water supply projects from WMD RWSP to meet needs for at least 10 years with facilities work plan
- §163.3177(6)(c)3 local gov's water supply work plan must update every 5 years 18 months after WMD approves RWSP.
 Submitted to DEO for review.
- §163.3180(2), adequate water supplies and facilities in place to serve new development by certificate of occupancy or equivalent

CFWI Draft RWSP

Key water demand points:

- Population projected increase 49% from 2.7 million in 2010 to 4.1 million in 2035
- Public supply water demand projected increase 50% from 435 mgd in 2010 to 653 mgd in 2035
- Agriculture water use projected increase 16% to 215 mgd in 2035
- Power generation, mining, industrial/commercial projected to increase
- Total water demands projected increase from 800 mgd to 1,100 mgd in 2035



CFWI Draft RWSP

Conclusions:

- Limited opportunities for additional fresh groundwater withdrawals
- Conservation 42 mgd potential (64% from public water supply & 26% from agriculture)
- AWS 139 project options providing up to 391 mgd of additional water supply
- AWS project options reclaimed water, water storage, brackish groundwater, surface water, desalinated seawater
- AWS project options total estimated cost = \$1.8 2.3 billion

CFWI – Possible Impacts on Land Development?

- Incorporating RWSP AWS into local gov. comp plans?
- More expensive water sources for new growth?
- Who pays?
- Higher impact fees or utility charges?
- Higher conservation standards in comp plans or local development regs?
- More time needed for local government utility cooperation to jointly develop and fund AWS projects?
- Will AWS projects be in place to support new growth or development?

Self Suppliers

New ag production – more crops on less land with irrigation



- Where does new and existing agriculture in CFWI obtain water?
- Current focus increased conservation & efficiency



Self Suppliers

- Definition obtain their own water (*i.e.* not from utilities).
- Examples: power plants, bottled water, mining, manufacturing, golf courses, water recreation.
- Role in CFWI?
- Alternative water sources?
- Self-planning.

Central Florida Water Initiative



Million Inc. one Planet and Lovals and Water Reservations

Professional Profe Amalyais

Reasonan and

and.

we will be a loss

CPWI Research

CPCA Bassarras Contacts

Planda's water management districts are committed to finding new ways of meeting the demand for bestwater Historically, the Plandan system has supplied vant majority of the water the careral sta ea. The boundaries of three agement descuts the St. Johns River Water ert Destrict, Soud! Water Hanagement strict and Southwest Florida Management District next in the area. The three the are shallying wheth te Rundan aquifer system is ing its sustainable limits use and exploring the need top supplemental instant of water the past, the three district worked independently to esolve water resource

Central Florida Water Initiative

Chills By makes while happing unlike an one district can impact the water resources of another. Today, the districts are working with other agencies and stakeholders to implement effective and consistent water resources.

resource planning

The CPWI builds on the prior work of the Central Florida Coordination Area (CPICA). Both efforts focus on an area that includes southern Lake, Orange, Osceola, Seminole and Polk countier tee water management distr

along with the Florida Department of mental Protection (DEP), Fonda Department of Agriculture and tensumer Services (DACS), regional ubic water supply utilities and other akeholders are collaborating to develop a unified process to address central Florida's current and long-ter ster supply needs

tinues, but the decisions of

Guiding principles

The guiding principles of the CPWC are

ntify the sustainable quantities of traditional groundwater sources available for water supplies that can be used without causing unacceptable harm to the water resources and associated natural systems.

development and management through the Central Plorida Water Initiative (CPWI).

- elop strategies to meet water demands that are in excess of the sustainable yield of existing tional groundwater siturities. aditional prov
- Establish consistent rules and regulations for the three wate their collective goals, and implement the results of the Central Florida Water Initiative



n

Additional information can be found at cfwiwater.com

Thank you.