



# **SB 536 Study Workshop**

**SJRWMD**

**November 13, 2014**



# Senate Bill 536

“DEP, in coordination with stakeholders shall conduct a comprehensive study and submit a report on the expansion of the beneficial use of reclaimed water, stormwater, and excess surface water in this state.”

Today, we will focus on three study elements related to expanding the beneficial use of these water sources:

- Impediments
- Incentives
- Storage Methods



# Senate Bill 536

## General Requirements:

- Hold a minimum of two public meetings to gather input on the study.
- Provide opportunity for public to submit written comments before submitting the report.
- Submit report to Governor, Senate President, Speaker of the House no later than December 1, 2015.



# Definitions

Term	Definition
Reclaimed Water	Water that has received at least secondary treatment and basic disinfection, and is reused after flowing out of a domestic wastewater treatment facility.
Stormwater	The flow of water which results from, and which occurs immediately following, a rainfall event and which is normally captured in ponds, swales, or similar areas for water quality treatment or flood control.
Excess Surface Water	Water withdrawn from rivers, lakes or other water bodies that is in excess of the amount of water needed to sustain healthy ecological conditions in the water body.

# Storage

Senate Bill 536 also directs DEP to determine the feasibility, benefit, and cost estimate needed to construct regional storage features for the beneficial use of reclaimed water, stormwater, and excess surface water.





# Storage Types

Term	Definition
Aquifer Recharge	The enhancement of natural ground water supplies using man-made conveyances such as infiltration basins or injection wells.
ASR	Aquifer Storage and Recovery - Injecting water underground and storing it for future withdrawal for beneficial purposes.
Reservoirs	A natural or artificial place where water is collected and stored for use, especially for water supply.



# Storage Types

Term	Definition
Dispersed Water Storage	The retention of regional stormwater runoff by private and public land owners, rather than allowing this water to drain off site into rivers and lakes. Typically, this water is stored using relatively simple structures to hold water on the landscape.
Wetlands & Other Natural Features	For the purposes of this study, the storage of water to create, enhance, or restore wetlands, and to indirectly recharge the aquifer or augment stream flows from these areas.



# Planning Workgroup

Agency	Planning Workgroup Members
DEP	Tom Beck, Janet Llewellyn, Carolyn Voyles Shanin Speas-Frost
DACS	Rich Buddell
DOT	Rick Renna
NFWFMD	Leigh Brooks
SFWMD	Mark Elsner
SJRWMD	Joanne Chamberlain
SRWMD	Ann Shortelle
SWFWMD	Mark Hammond





# Major Tasks

- ✓ 1. Form Work Teams for Subject Areas in Study
  - a. Reclaimed Water
  - b. Stormwater
  - c. Excess Surface Water
  - d. Storage – Reservoirs
  - e. Storage – ASR (Aquifer Storage and Recovery) & Dispersed Water Management



# Subject Area Work Team Leaders

Agency	Subject Area Work Team Leaders
Reclaimed Water	Rick Nevulis (SF)
Excess Surface Water	Ann Shortelle (SR)
Stormwater	Joanne Chamberlain (SJR), Rick Renna (DOT)
Storage – Reservoirs	Mark Hammond (SWF)
Storage – ASR/Dispersed	Bob Verrastro (SF)



# Major Tasks

- ✓ 2. Establish study website and email address for stakeholder communication
- ✓ 3. Conduct On-line Survey
- 4. Hold 1<sup>st</sup> Round of Public Workshops in Each WMD (**today**)
  - a. Present preliminary survey results to stakeholders
  - b. Solicit stakeholder comments on the study



# Major Tasks

5. Hold Additional Stakeholder Meetings, Review/Incorporate Stakeholder Comments, Prepare Draft Report
6. Hold 2<sup>nd</sup> Round of Public Workshops in Each WMD
  - a. Present draft report results to stakeholders
  - b. Solicit stakeholder comments on the draft report
  - c. Collect and review stakeholder comments
7. Prepare Final Report – **due December 1, 2015**



# Projected Schedule

TASKS	Date
4. Hold public workshops to present initial survey results, identify other stakeholder issues, and solicit comments	October – November 2014
5. Hold additional stakeholder meetings Review and incorporate stakeholder input Assemble needed information for study report Prepare draft study report	November 2014 – June 2015
6. Post draft study report on the web Hold workshops for stakeholder comments Review and incorporate stakeholder input	July – August 15, 2015
7. Prepare draft final report for internal/team reviews	August – November 2015
Submit report to the Governor and the Legislature	<b>NLT December 1, 2015</b>

# Questions?



# Survey



Florida Department of Environmental Protection

## Survey for Senate Bill 536 Study Use of Reclaimed Water and Stormwater/Excess Surface Water

The 2014 Florida Legislature passed Senate Bill 536 requiring the Department of Environmental Protection to conduct a study and submit a report on the expansion of the use of [reclaimed water](#) and [stormwater/excess surface water](#). As a first step in our study, we are conducting a survey to gather stakeholder input and ideas related to expansion of these water sources. In the fall, we plan to hold public workshops in each water management district to present initial findings from the survey and to solicit further comments from stakeholders.

Please complete the survey no later than **August 19, 2014**. Thank you for your help with our study.

Please note that your responses to this survey are subject to disclosure as a public record pursuant to Chapter 119, Florida Statutes.

- I understand and wish to continue
- I do not wish to continue (end survey)



# Describe Self - % Respondents

Describe Self (multiple choices allowed)	%
Individual Water User	26%
Local Government	24%
Public Utility	23%
Consultant	18%
Wastewater Utility	12%
Environmental Organization	11%
Regulatory or Oversight Agency	6%
Professional Association	6%
Water Supply Authority	5%
Community Outreach Group	5%
Private Utility	4%
Builder/Developer/Contractor (added)	4%
Academia	4%
Industrial Association	3%
Research Organization	3%
Manufacturing/Commercial/Industrial (added)	2%
Attorney	2%
Farmer/Cattleman/Ag Operations (added)	1%
<b>Total Responses Statewide</b>	<b>949</b>

Responses:  
 949 statewide  
 535 SJRWMD





# Sectors of Interest - % Respondents

Sectors of Interest (multiple choices allowed)	%
Public Supply	49%
All	40%
Commercial/Industrial	31%
Recreational Irrigation	31%
Agriculture	23%
Power Generation	8%
Total Responses Statewide	949

Responses:  
949 statewide  
535 SJRWMD



# Survey Section - % Respondents

Survey Type (statewide)	%
Both	76%
Stormwater / Excess Surface Water	13%
Reclaimed Water	11%
Total	100%

Responses:  
949 statewide  
535 SJRWMD



# Survey Questions

- Reclaimed Water and Stormwater/Excess Surface Water
  - Impediments to Expanded Use and Potential Solutions
  - Incentives to Further Expanded Use
  - Methods for Increasing Storage
  - Other Relevant Information



# Survey Questions

- Reclaimed Water Only
  - Indirect Potable Reuse – Impediments and Solutions

Term	Definition
<b>Indirect Potable Reuse</b>	The augmentation of either surface water or groundwater with reclaimed water, where natural processes of filtration and dilution of the water with natural flows will occur prior to intake by a drinking water treatment plant.




# Ratings Table Example

**Question 2:** Please evaluate the importance of the following **incentives** that could further the expanded use of reclaimed water:

	Not Important	Somewhat Important	Moderately Important	Important	Very Important
Funding assistance for reclaimed water projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Funding or other assistance for educational programs to influence public perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased permit durations for related groundwater permits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulatory Changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other 1 (Please Specify) <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other 2 (Please Specify) <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>


# Preliminary Findings

 qualtrics

**Florida Department of Environmental Protection**

**Question 4:** Please evaluate the degree of importance of the following factors in **prohibiting or compelling** **potable use** of reclaimed water:

	Not Important	Somewhat Important	Moderately Important	Very Important
Engineering constraints/technology not available	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Environmental constraints	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Fiscal constraints (cost prohibitive, bond funding, utility rate structures, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Public health issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Public perception/customer resistance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Regulations/regulatory actions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Other 1 (please specify) <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other 2 (please specify) <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>





# Impediments - Statewide

Impediments (Totals = Number of Important + Very Important Responses)	Reclaimed Water	Storm/XS Surface Water
Infrastructure availability	655	426
Fiscal constraints (cost prohibitive, bond funding, utility rate structures, etc.)	604	439
Storage availability	585	430
Regulations/regulatory actions	556	341
Environmental constraints	548	366
Reliability of supply	511	378
Public perception/customer resistance	475	269
Direct potable reuse not allowed/considered	468	n/a
Public health issues	460	245
Inefficient use of current reclaimed water supplies	459	n/a
Indirect potable reuse not allowed/considered	430	n/a
Supplementation needed	409	n/a
Technical expertise of local utility operators	407	236
Public's trust of utility operators	403	197
Engineering constraints/technology not available	336	250
Permit durations are too short	n/a	207



# Incentives – Statewide

Impediments (totals =Number of Important + Very Important Responses)	Reclaimed Water	Storm/XS Surface Water
Funding assistance for projects	664	496
Regulatory Changes	491	357
Funding or other assistance for educational programs to influence public perception	476	298
Increased permit durations	371	246





# Storage Methods - Statewide

Storage Methods (Totals = Number of Important + Very Important Responses)	Reclaimed Water	Storm/XS Surface Water
Wetlands and other natural features	501	404
Aquifer recharge	500	377
Aquifer storage and recovery	459	331
Reservoirs	428	342
Dispersed Water Storage	423	347
Salt Water Barrier	372	255



# Indirect Potable Reuse – Statewide

Indirect Reuse Methods (Totals = Number of Important + Very Important Responses)	Reclaimed Water
Fiscal constraints (cost prohibitive, bond funding, utility rate structures, etc.)	534
Public perception/customer resistance	493
Regulations/regulatory actions	455
Environmental constraints	393
Public health issues	392
Engineering constraints/technology not available	278



# Summary: Importance

Category	Top Ranked Items - Statewide
Impediments	<ul style="list-style-type: none"><li>• Fiscal constraints</li><li>• Infrastructure availability</li><li>• Storage availability</li></ul>
Incentives	<ul style="list-style-type: none"><li>• Funding for projects</li><li>• Regulatory changes</li><li>• Funding for education</li></ul>
Storage Methods	<ul style="list-style-type: none"><li>• Wetlands/natural areas</li><li>• Aquifer recharge</li></ul>
Indirect Potable Reuse	<ul style="list-style-type: none"><li>• Fiscal constraints</li><li>• Public perception</li><li>• Regulations/regulatory actions</li></ul>



# Summary: Importance - SJR

Category	Top Ranked Items - Statewide
Impediments	<ul style="list-style-type: none"><li>• Fiscal constraints</li><li>• Infrastructure availability</li><li>• Storage availability</li></ul>
Incentives	<ul style="list-style-type: none"><li>• Funding for projects</li><li>• Regulatory changes</li><li>• Funding for education</li></ul>
Storage Methods	<ul style="list-style-type: none"><li>• Wetlands/natural areas</li><li>• Aquifer recharge</li></ul>
Indirect Potable Reuse	<ul style="list-style-type: none"><li>• Fiscal constraints</li><li>• Public perception</li><li>• Regulations/regulatory actions</li></ul>



# Essay Questions

- Pick top two & discuss
- Impediments, Storage, Indirect Reuse
  - Describe the impediments
  - Tell us how to fix it or lessen the impacts
- Incentives
  - Describe the incentives in detail





# Contact Us

- Written comments are due to DEP by  
Friday, December 5, 2014
- Email: [sb536study@dep.state.fl.us](mailto:sb536study@dep.state.fl.us)
- SB 536 Study Web Site:  
<http://www.dep.state.fl.us/water/reuse/study.htm>

# Questions?



# Public Comments

