

# Hydrologic Conditions Report

*(graphics as of April 25, 2017)*

*Lois Ann Sorensen, M.B.A.*

*Program Manager – Demand Management*



## Since Last Report

- District declared “Phase I” water shortage for parts of Lake, Marion and Sumter counties
- District expanded “Phase I” to all 16 counties
- Adjacent water management districts considered similar action
- “Phase I” acts as an alert that more action may become necessary

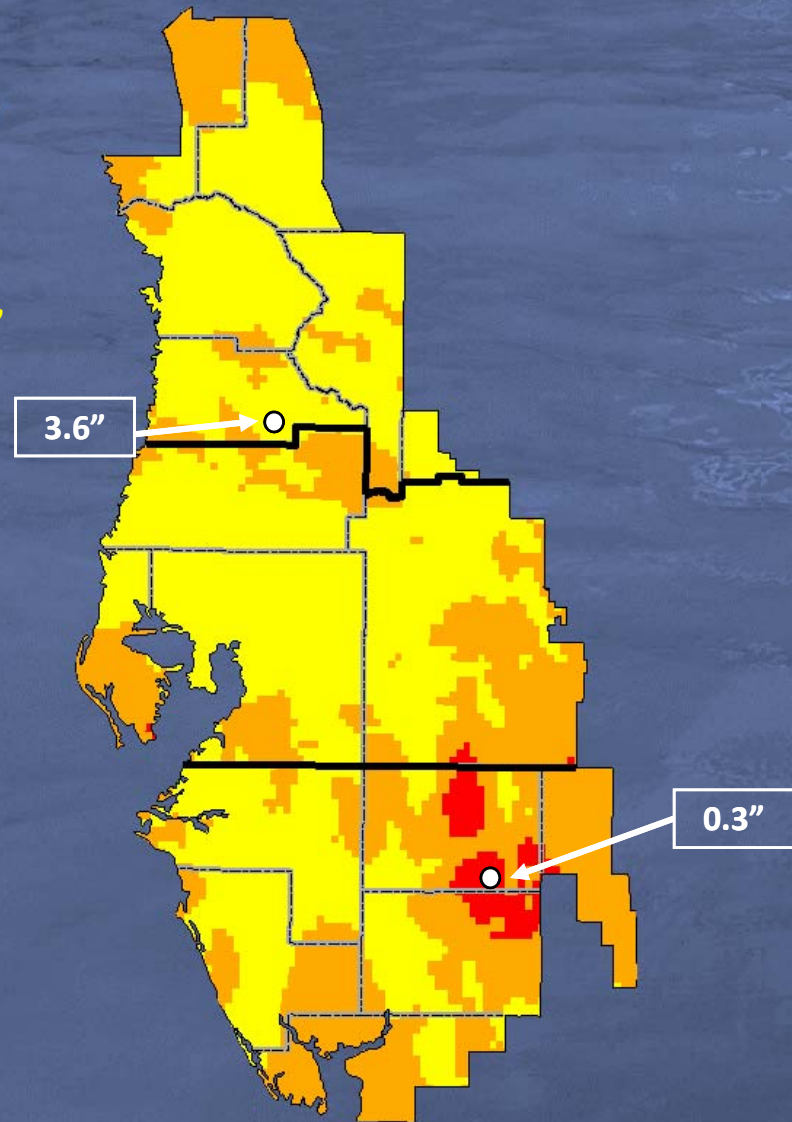
# Regional Drought Response Process

- Each water management district is required, by state law, to have a “Water Shortage Plan”
- Chapter 40D-21, F.A.C.:
  - Four phases of restrictions/requirements (non-emergency board orders)
  - Implementation and emergency provisions
  - Monitor hydrologic conditions, other factors

# SWFWMD Rainfall Distribution February 2017

**Mean Rainfall Received = 1.5" / 2.8"**

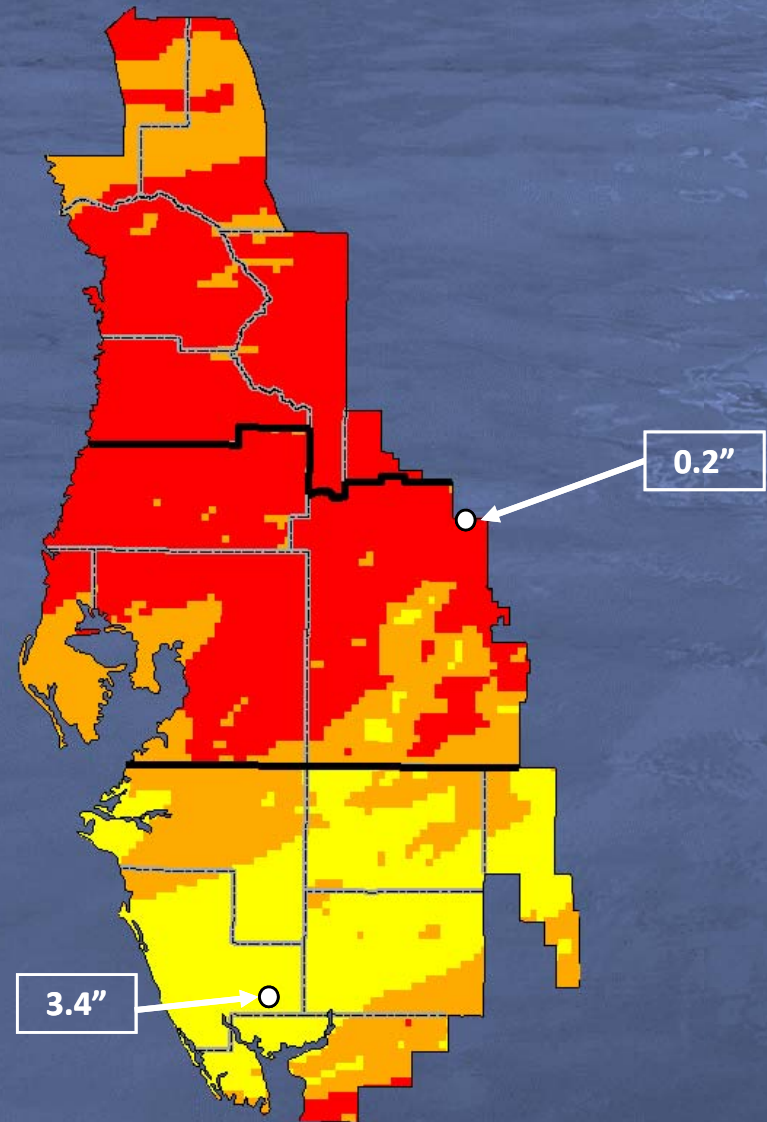
< P10	Very dry
P10 – P25	Drier than normal
P25 – P75	Normal
P75 – P90	Wetter than normal
> P90	Very wet



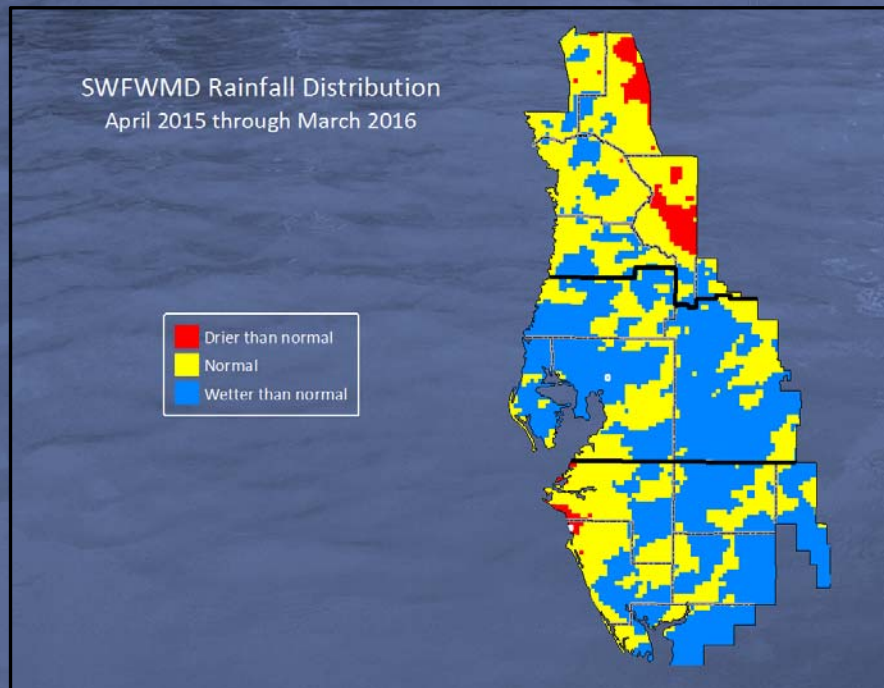
## SWFWMD Rainfall Distribution March 2017

**Mean Rainfall Received = 1.5" / 2.8"**

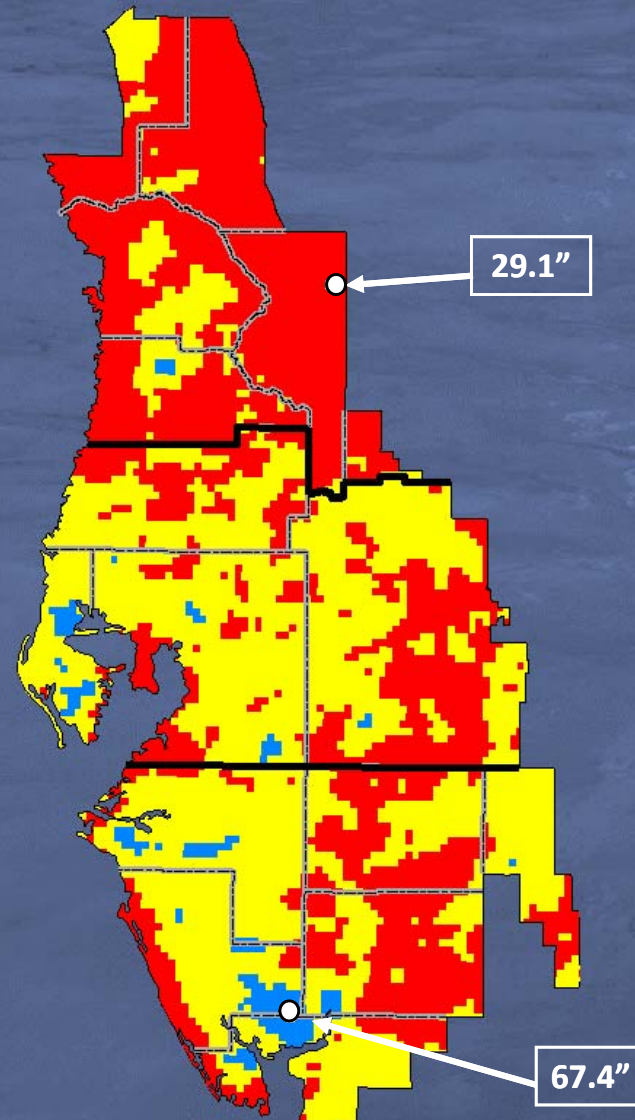
< P10	Very dry
P10 – P25	Drier than normal
P25 – P75	Normal
P75 – P90	Wetter than normal
> P90	Very wet



# SWFWMD Rainfall Distribution April 2016 through March 2017 12-Month Rainfall

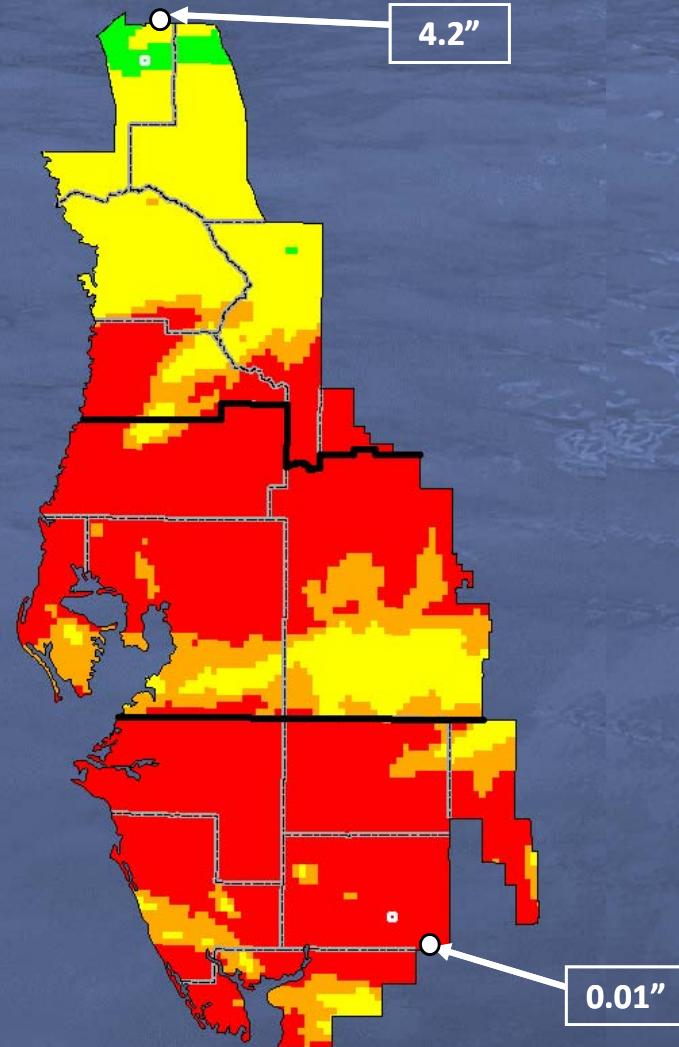


Southwest Florida  
Water Management District

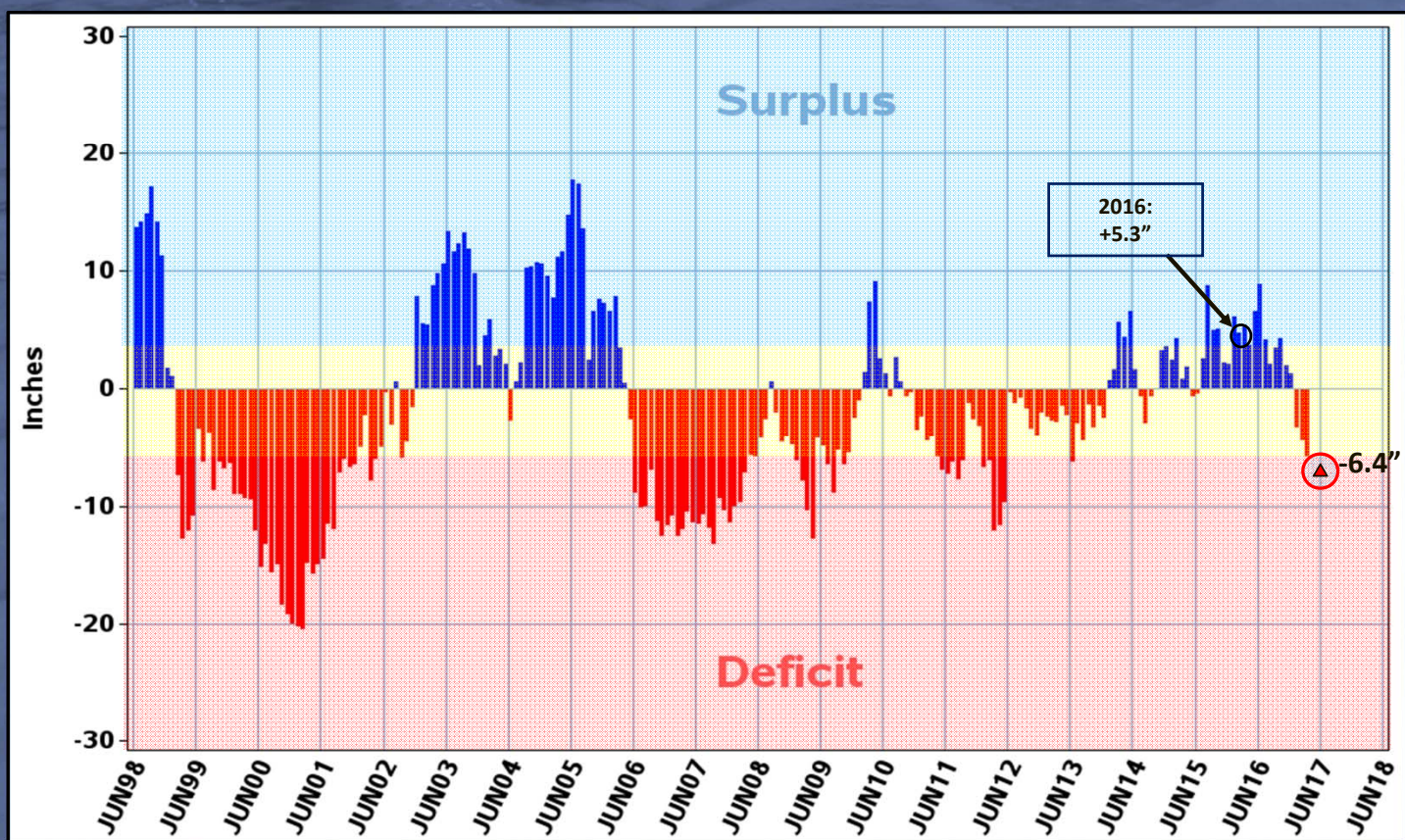


# SWFWMD Rainfall Distribution April 1-23, 2017

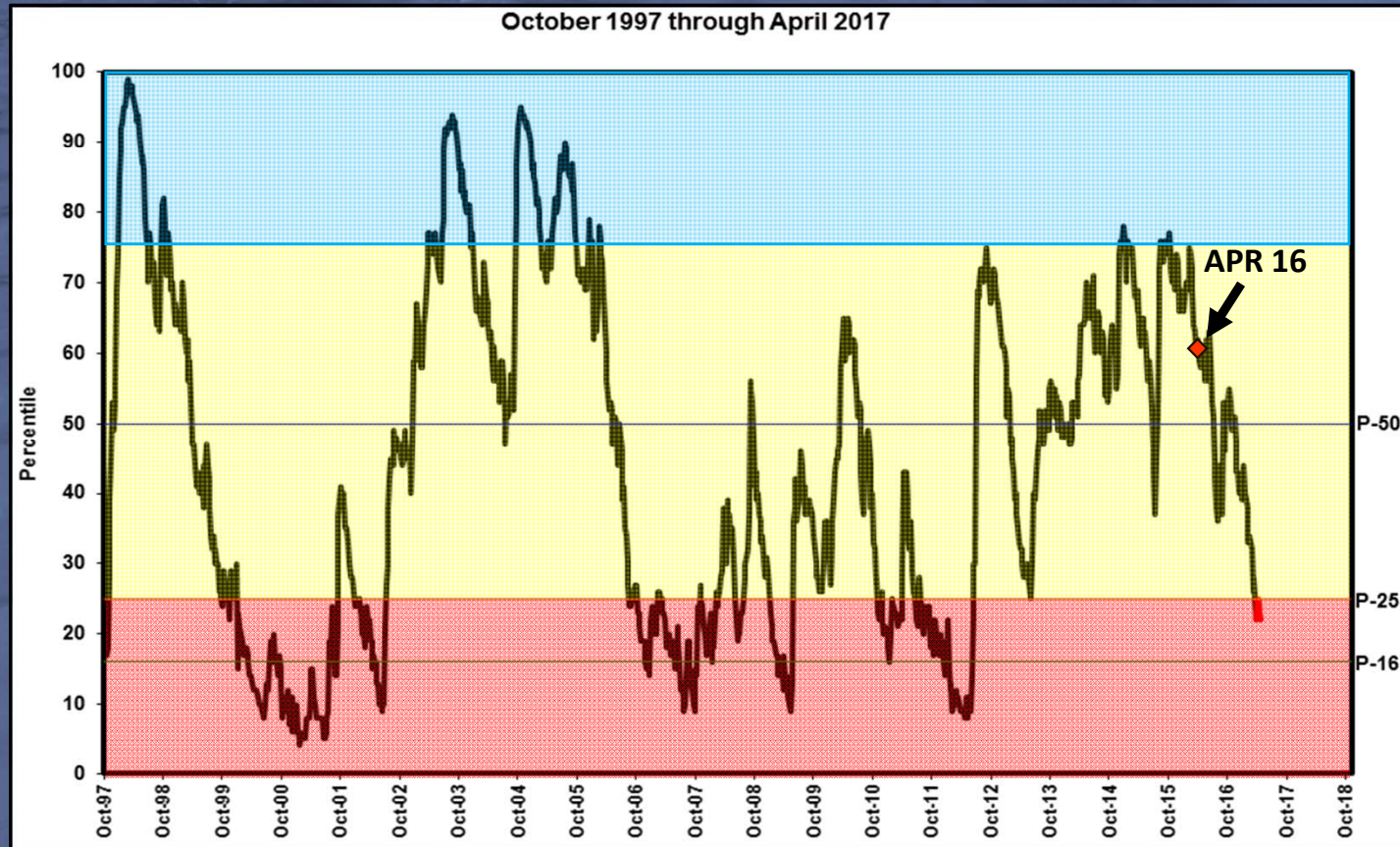
**Mean Rainfall Received = 0.8" / 2.6"**



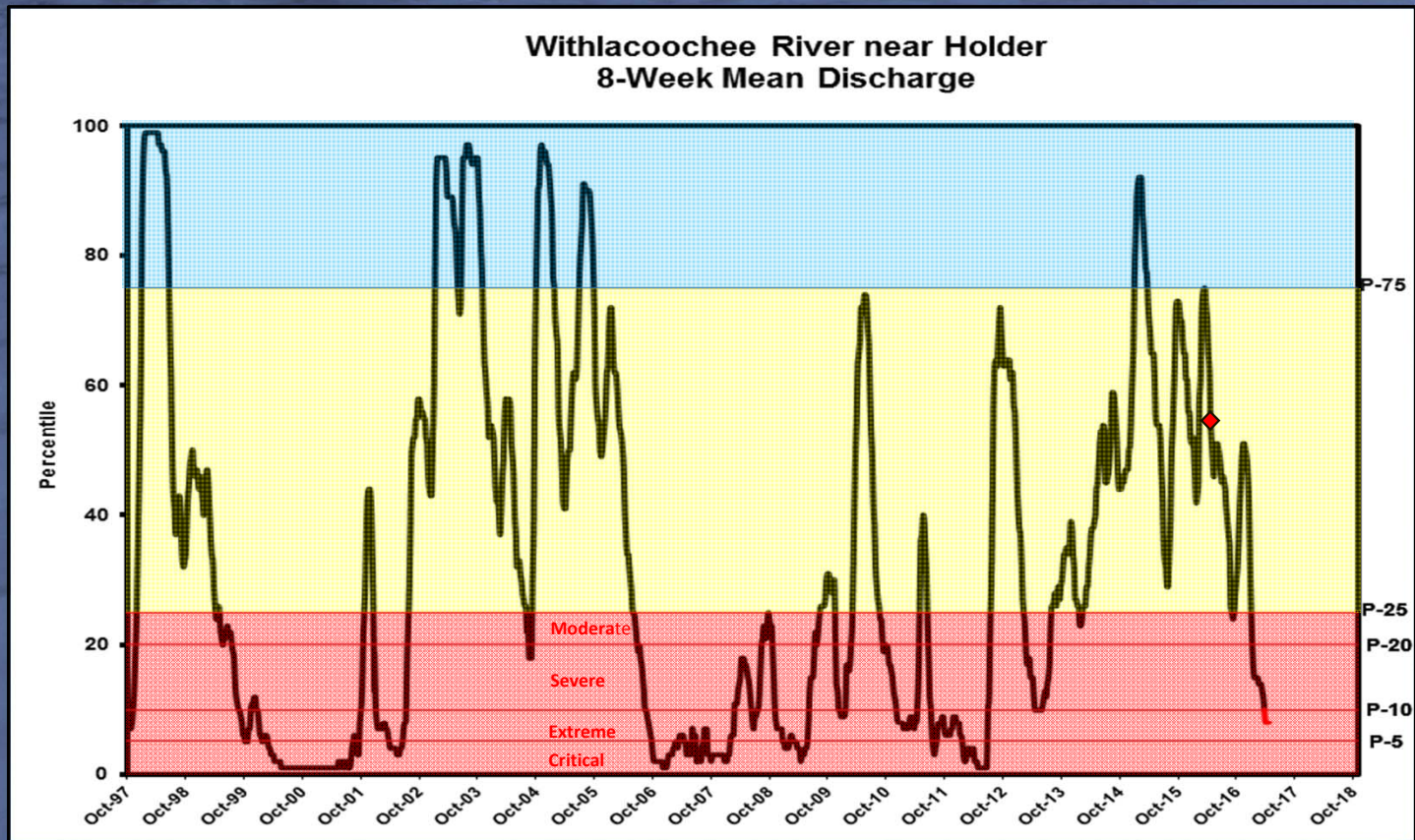
## Rainfall: 12-Month Departure from Mean



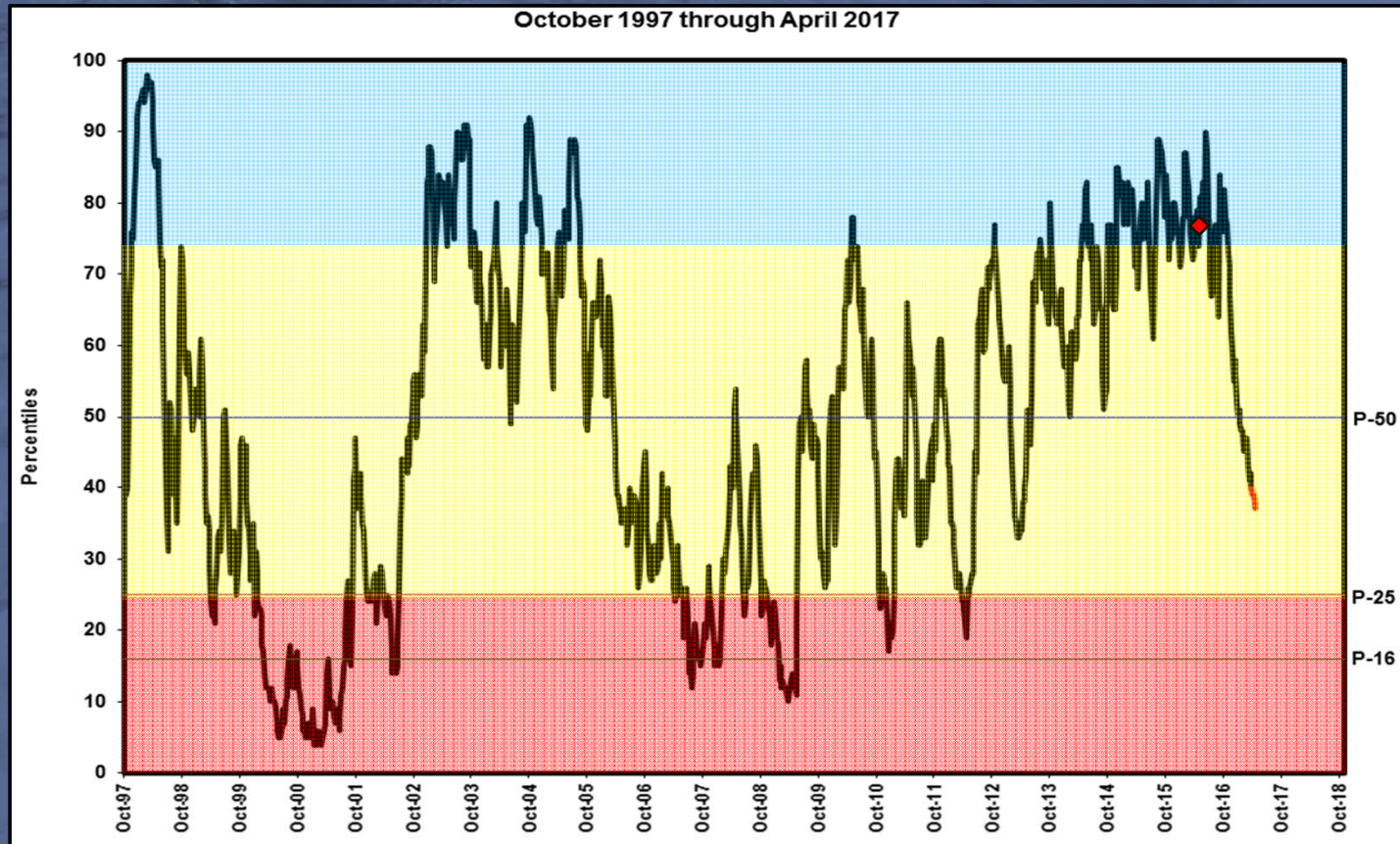
# Groundwater Levels: Northern Counties



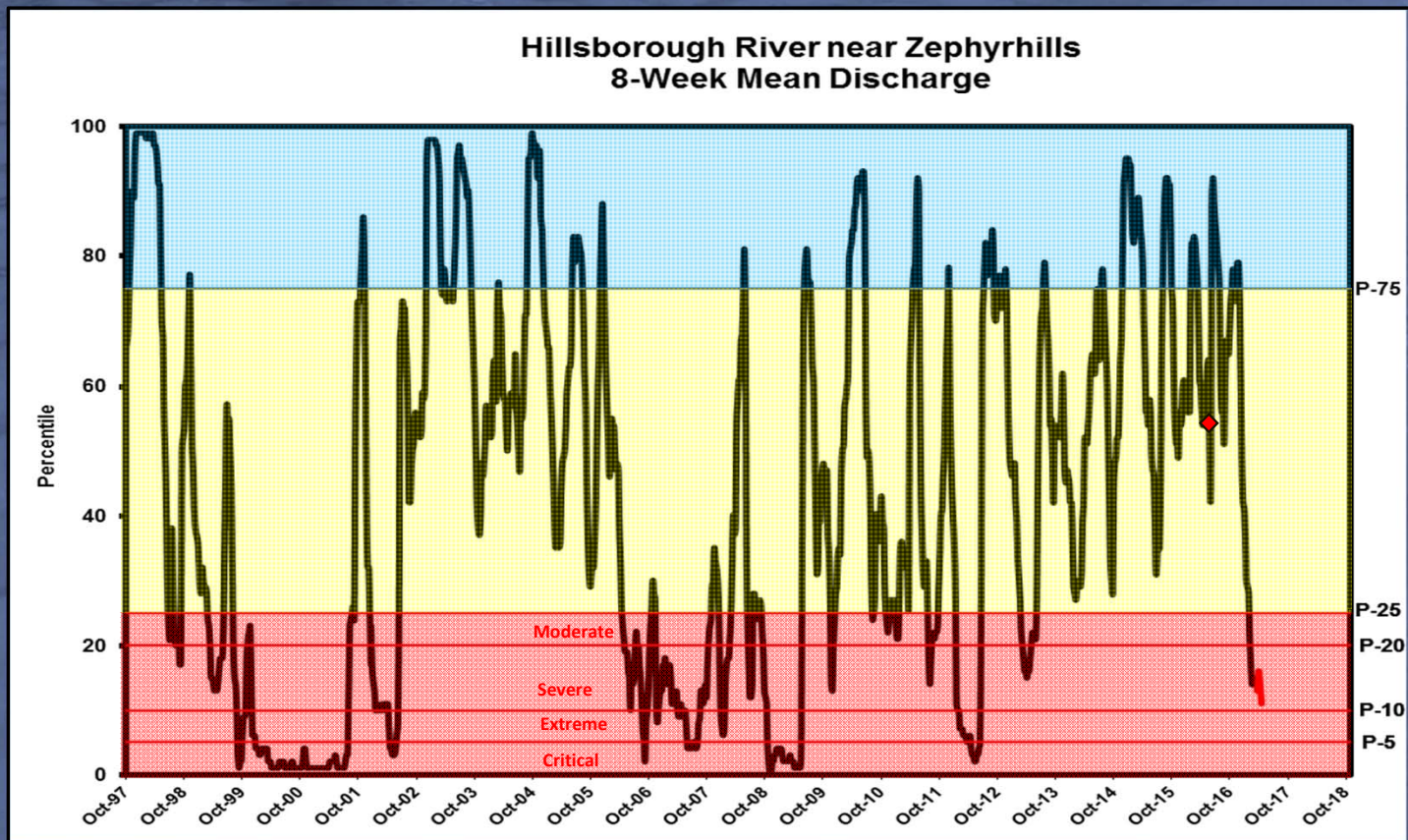
# Surface Water Discharge: Withlacoochee River



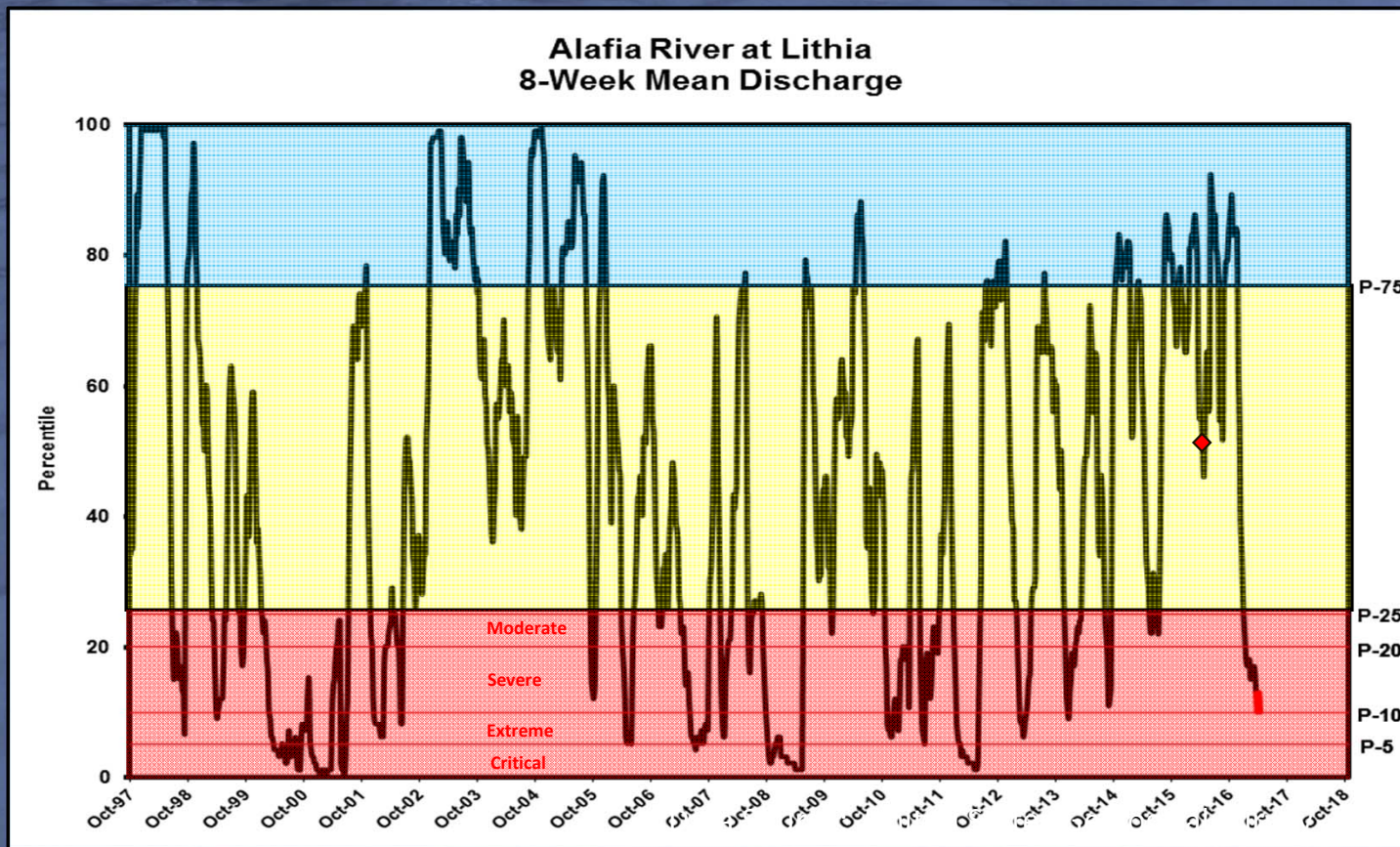
# Groundwater Levels: Central Counties



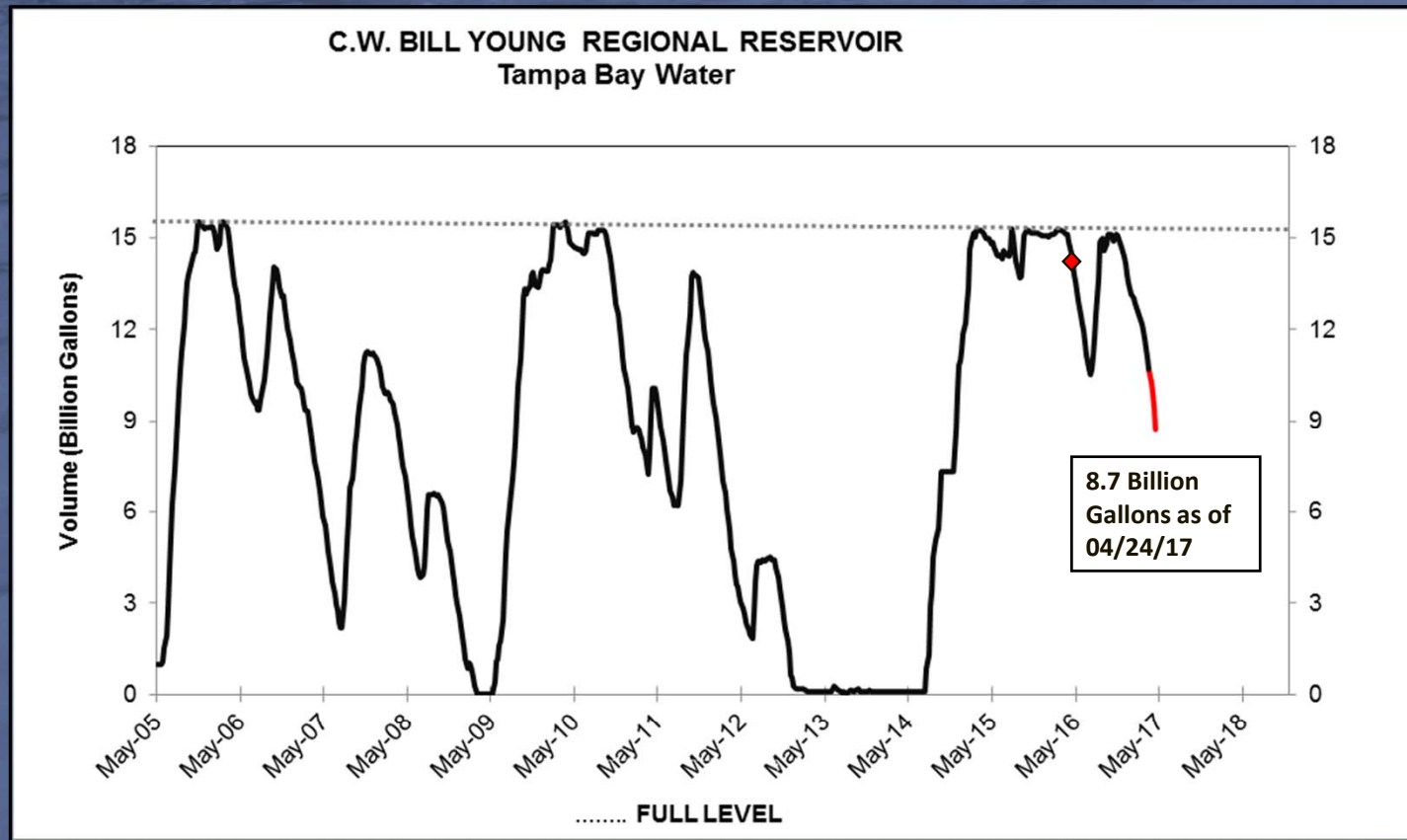
# Surface Water Discharge: Hillsborough River



# Surface Water Discharge: Alafia River



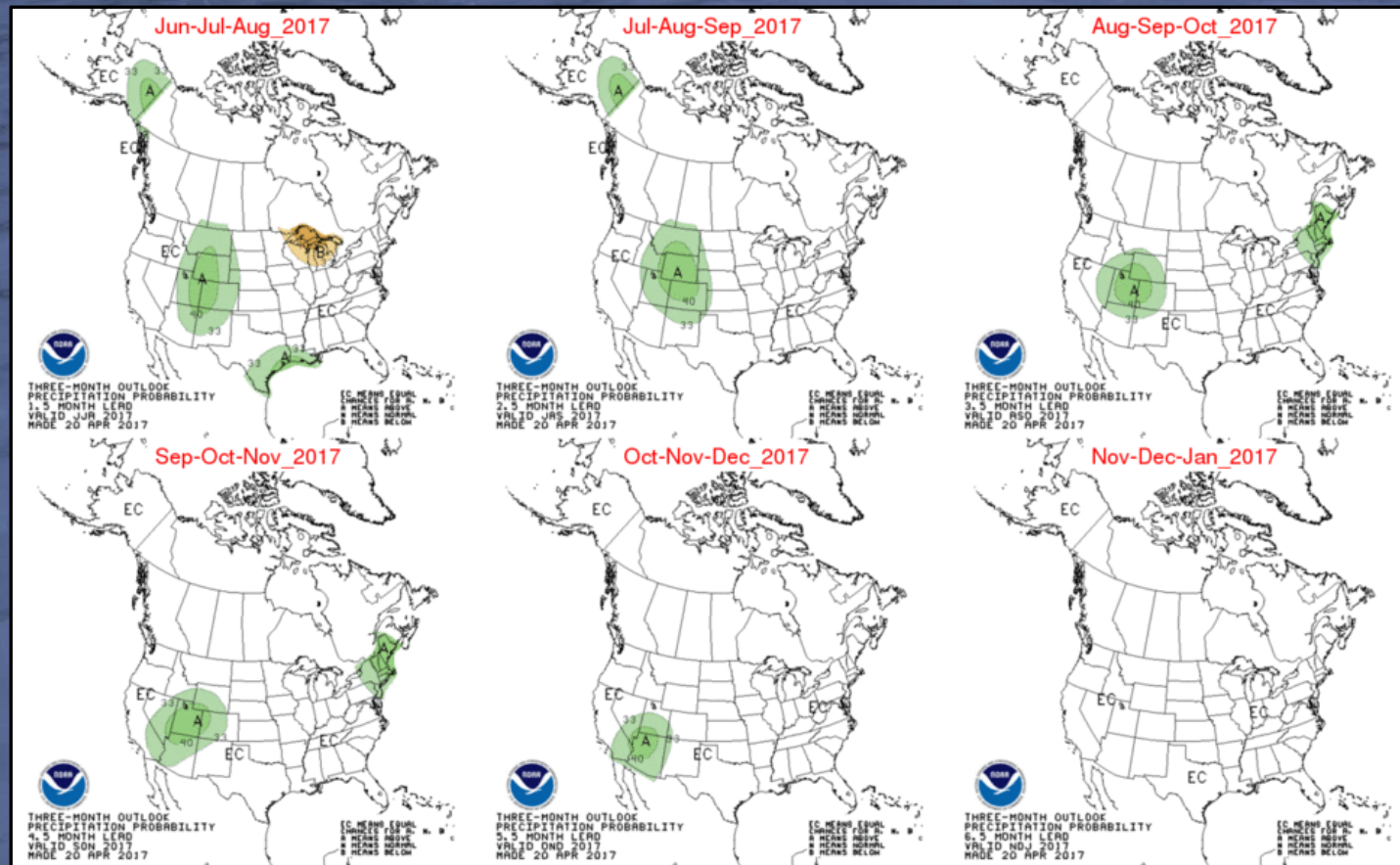
# Public Supply – storage in Central Counties



Active wildfire season, too



# Extended Precipitation Forecast

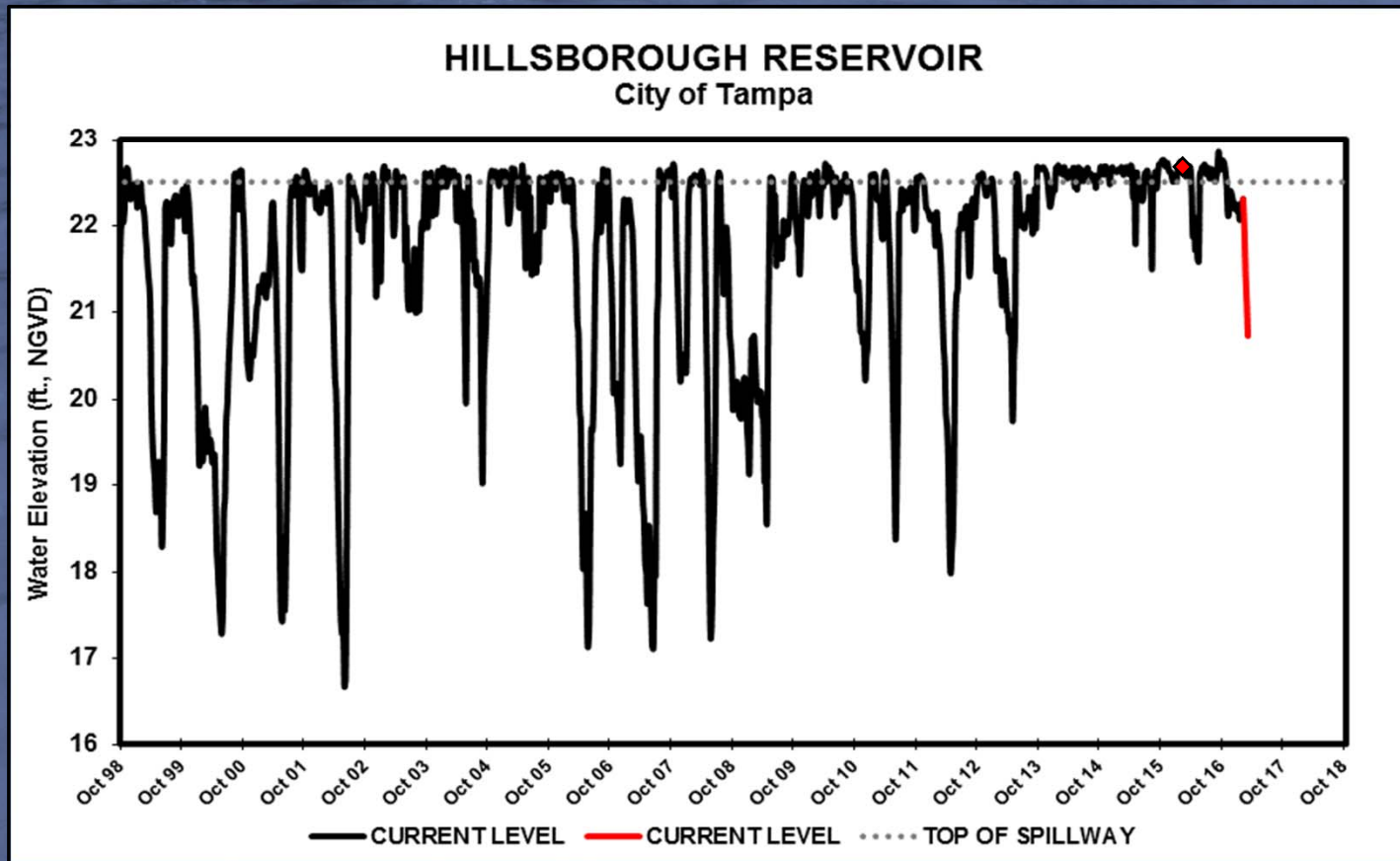


# Summary

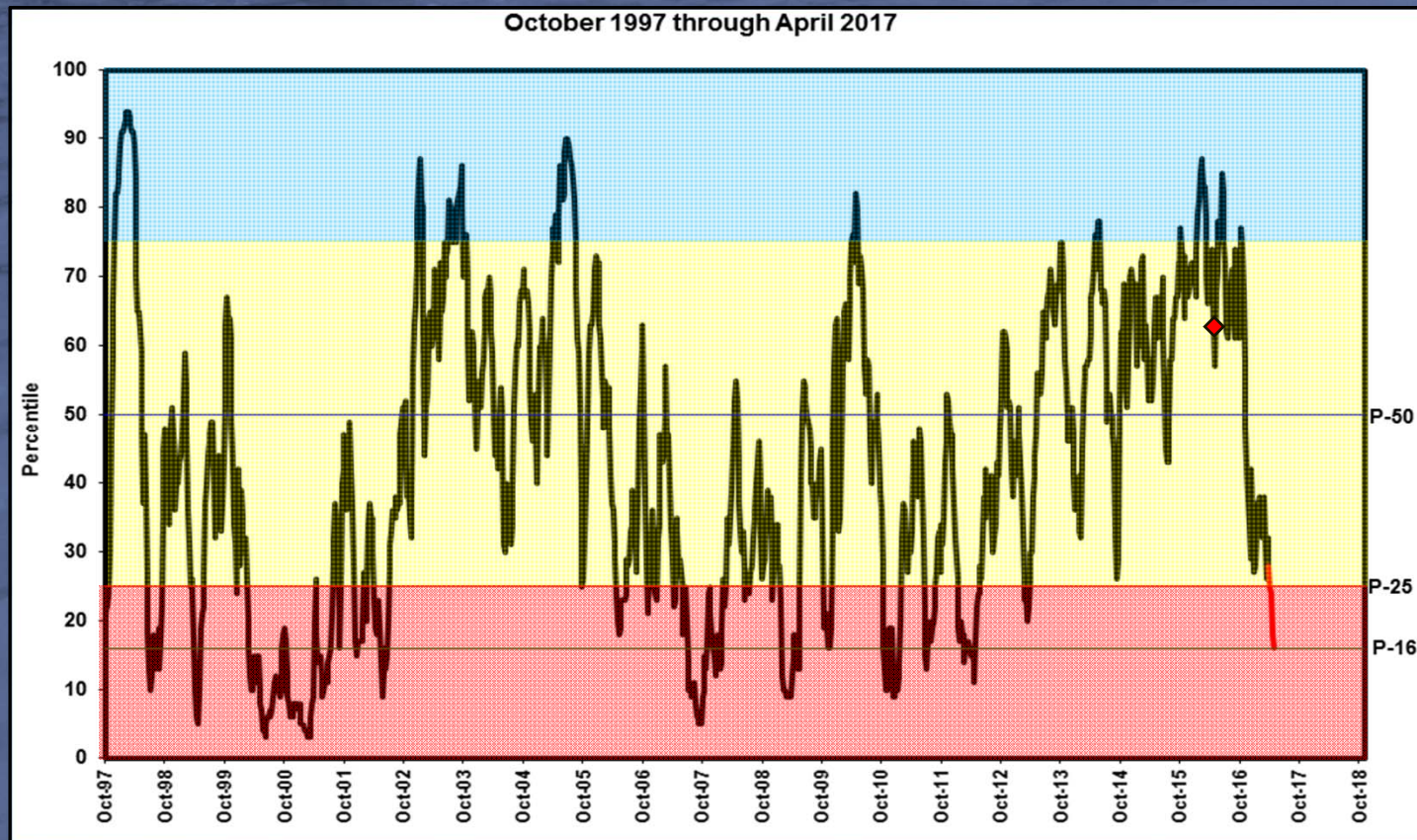
- Rainfall deficit growing
- Drought conditions have expanded
- Mid-range forecasts provide no guidance
- Longer-term models:
  - Still favor development of El Niño
  - But weaker/shorter than expected earlier



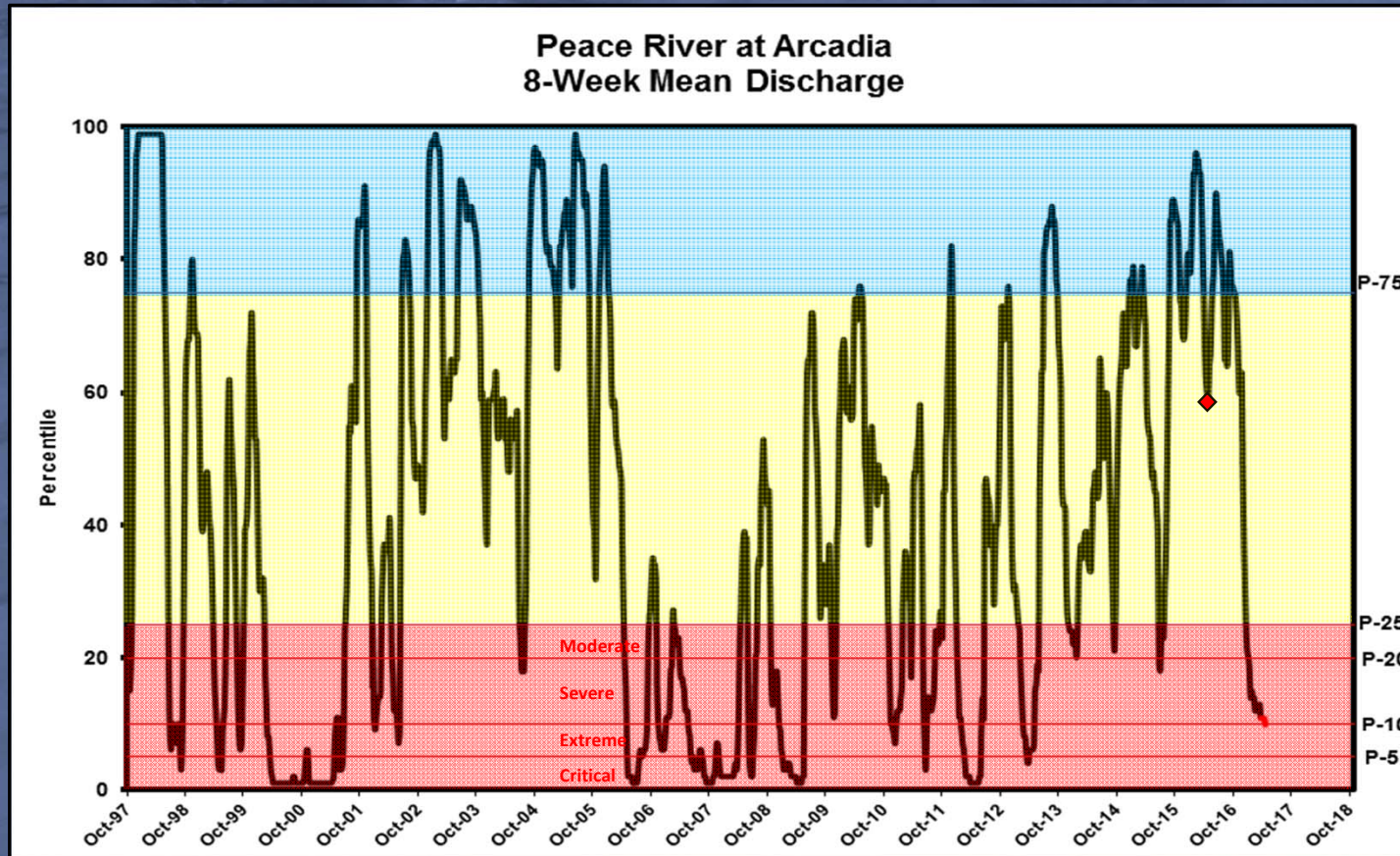
## Public Supply Levels (*City of Tampa*)



# Groundwater Levels: Southern Counties

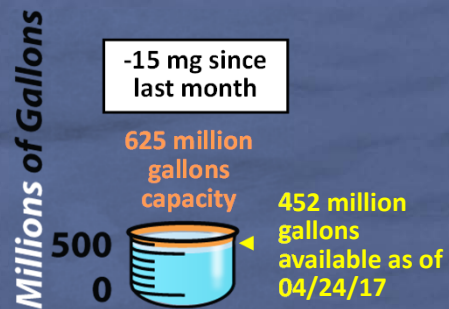


# Surface Water Discharge: Peace River

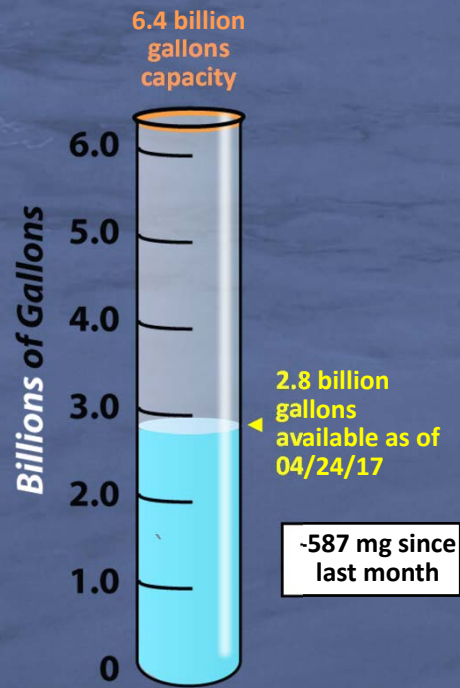


# Public Supply Volume *(Peace River)*

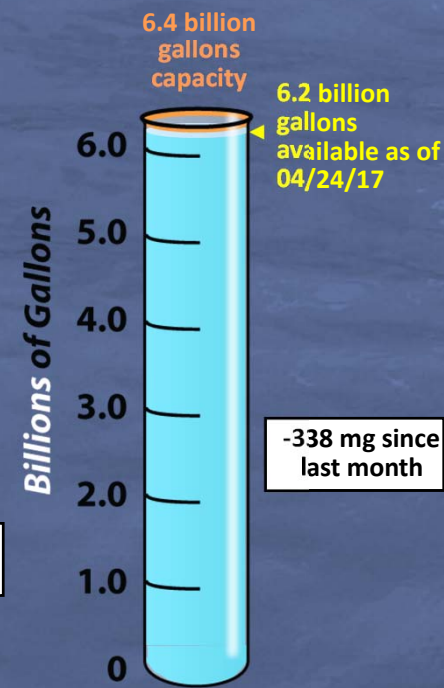
9.50 billion gallons  
now available =  
359-day supply



Reservoir 1



Reservoir 2



ASR Wellfield



*Withlacoochee Regional  
Water Supply Authority*

Proposed FY 2017-18  
Annual Budget

May 17, 2017

# FY 2017-18 Work Program

- Water Conservation Grants Program
- Residential Irrigation Audit Program
- Legislative and Governmental Affairs
- Charles A. Black Wellfield
- Groundwater Modeling
- Springs Protection and Restoration
- Program Development and Assistance

# FY 2017-18 Work Program (continued)

- Program Development and Assistance
  - Defining groundwater availability
  - Building regional partnerships for water supply planning & development
  - Monitoring MFLs
  - Participating in WMD regional water supply planning
  - Coordinating with State and regional agencies in rule and program development
  - Monitoring water supply planning and development in adjacent communities
  - Monitoring significant water use permit applications

**WITHLACOOCHEE REGIONAL WATER SUPPLY AUTHORITY**

**Proposed Fiscal Year 2017-18 Budget**

As of April 26, 2017

	4/1/2016 Population Estimate	Comments	Fiscal Year 2017-18	Fiscal Year 2016-17	\$ Change	% Change
<b>Revenues: Administrative</b>						
Assessments:		Official BEBR Population Estimates				
Citrus	143,054	1,553 person increase	\$27,180	\$26,885	\$295	1.1%
Hernando	179,503	2,684 person increase	\$34,106	\$33,596	\$510	1.5%
Marion	345,749	4,544 person increase	\$65,692	\$64,829	\$863	1.3%
Sumter	118,577	2,920 person increase	\$22,530	\$21,975	\$555	2.5%
Total Population/Assessments @ 19¢/Capita	786,883	See Attachment 1	\$149,508	\$147,285	\$2,223	1.5%
Administrative Revenue from Citrus Contract		Based on Citrus County contract and Board direction	\$64,497	\$60,000	\$4,497	7.5%
Subtotal			\$214,005	\$207,285	\$6,720	3.2%
Carryover Administration Reserve Funds (FYE 16/17 Estimate) (SBA1)		See Attachment 2	\$500,377	\$409,187	\$91,190	22.3%
<b>Total Administrative Revenue Available</b>			<b>\$714,382</b>	<b>\$616,471</b>	<b>\$97,911</b>	<b>15.9%</b>
<b>Revenues: Water Resource Development (WRD) Projects</b>						
Phase 4 Irrigation Audit Program SWFWMD Matching Funds		See Attachment 1	\$52,510	\$100,000	-\$47,490	NA
Phase 4 Irrigation Audit Program Cooperator Matching Funds		See Attachment 1	\$26,255	\$50,000	-\$23,745	NA
Annual Citrus WRD Payments (SBA2)		Based on CAB wellfield contract minimum production charge minus funds allocated to administration	\$159,503	\$163,587	-\$4,084	-2.5%
Subtotal			\$238,268	\$313,587	-\$75,319	-24.0%
Carryover WRD Reserve Funds (FYE 15/16 Estimate) (SBA2)		See Attachment 2	\$928,280	\$880,795	\$47,485	5.4%
<b>Total Water Resource Development Revenue Available</b>			<b>\$1,166,548</b>	<b>\$1,194,382</b>	<b>-\$103,153</b>	<b>-8.6%</b>
<b>Total Revenues Available</b>			<b>\$1,880,930</b>	<b>\$1,810,853</b>	<b>-\$5,242</b>	<b>-0.3%</b>

**WITHLACOOCHEE REGIONAL WATER SUPPLY AUTHORITY**

**Proposed Fiscal Year 2017-18 Budget**

As of April 26, 2017

	4/1/2016 Population Estimate	Comments	Fiscal Year 2017-18	Fiscal Year 2016-17	\$ Change	% Change
31	<b>Expenditures: General Administration</b>					
32	Executive Director	Based on annual contract	\$80,000	\$80,000	\$0	0.0%
33	Administrative Assistant	Based on annual contract	\$37,500	\$37,500	\$0	0.0%
34	Legal Services	Based on annual contract:				
35	Monthly Meetings @ \$500/meeting	10 meetings per year	\$5,000	\$5,000	\$0	0.0%
36	Other Services @ \$150/hr.	80 hours	\$12,000	\$12,000	\$0	0.0%
37	Legislative Consultant	Based on annual contract	\$42,000	\$42,000	\$0	0.0%
38	Advertising	Based on recent usage	\$1,000	\$1,000	\$0	0.0%
39	Audit	Based on 3% CPI	\$9,978	\$9,687	\$291	3.0%
40	Bookkeeping Services	\$500/quarter per Engagement Letter	\$2,000	\$2,000	\$0	0.0%
41	Liability Insurance	Based on FY 15-16 plus 5% rounded up	\$2,625	\$2,500	\$125	5.0%
42	Office Supplies	Based on recent usage	\$800	\$800	\$0	0.0%
43	Postage	Based on recent usage	\$800	\$800	\$0	0.0%
44	Printing and Reproduction	Based on recent usage	\$2,000	\$2,000	\$0	0.0%
45	Publications/Software	Based on recent usage	\$200	\$200	\$0	0.0%
46	Rent (Lecanto Gov't Bldg)	Based on lease agreement	\$2,048	\$2,048	\$0	0.0%
47	Registrations/Dues	Based on inventory	\$1,900	\$1,900	\$0	0.0%
48	State Fees/Assessments	Based on recent usage	\$175	\$175	\$0	0.0%
49	Telephone	Based on recent usage	\$1,100	\$1,100	\$0	0.0%
50	Travel (Board Members & Staff)	Based on recent usage	\$9,000	\$9,000	\$0	0.0%
51	Web Page / Computer Maintenance	Increase in web maintenance costs	\$2,300	\$2,000	\$300	15.0%
52	Contingencies	@ 5% of non-contract admin costs	\$1,579	\$1,074	\$505	47.0%
53	<b>Subtotal - General Administration Expenditures</b>		<b>\$214,005</b>	<b>\$212,784</b>	<b>\$1,221</b>	<b>0.6%</b>
54						
55	Fund Balance for Admin. Reserves FYE 17/18	FYE16/17 Admin Funds Bal + FY17/18	\$500,377	\$403,687	\$96,690	24.0%
56		Admin Rev's - FY17/18 Admin Exp's				

1	<b>WITHLACOOCHEE REGIONAL WATER SUPPLY AUTHORITY</b>						
2	<b>Proposed Fiscal Year 2017-18 Budget</b>						
3	As of April 26, 2017						
4		4/1/2016		Fiscal	Fiscal		
5		Population		Year	Year		
6		Estimate	Comments	2017-18	2016-17	\$ Change	% Change
58	<b>Expenditures: Water Resource Development Projects</b>						
59	General Services Contracts		As Needed Eng. & Tech. Firms	\$75,000	\$75,000	\$0	0.0%
60	Local Government Grant Program		Based on Board direction	\$130,000	\$130,000	\$0	0.0%
61	Phase 3 Irrigation Audit Program		Project Complete in FY16/17	\$0	\$3,500	-\$3,500	-100.0%
62	Phase 4 Enhanced Irrigation Audit Program		50% of the Audits, Promo and Admin; 100% of the Follow-ups	\$105,020	\$200,000	-\$94,980	NA
63	<b>Subtotal - Water Resource Development Projects</b>			<b>\$310,020</b>	<b>\$408,500</b>	<b>-\$98,480</b>	<b>-24.1%</b>
64							
65	Fund Balance for Water Resource Development Reserves		FYE16/17 WRD Funds Bal + FY17/18	\$856,528	\$888,767	-\$32,239	-3.6%
66	FYE 17/18		WRD Rev's - FY17/18 WRD Exp's				
67							
68	<b>Total Administration and WRD Expenses</b>			<b>\$524,025</b>	<b>\$621,284</b>	<b>-\$97,259</b>	<b>-15.7%</b>
69							
70	<b>Total Administration and WRD Fund Balances at FYE 17/18</b>			<b>\$1,356,905</b>	<b>\$1,292,454</b>	<b>\$64,451</b>	<b>5.0%</b>
71							
72	<b>Combined Expenditures and Fund Balances</b>			<b>\$1,880,930</b>	<b>\$1,913,738</b>	<b>-\$32,808</b>	<b>-1.7%</b>

# Staff Recommendation

- Board approval of Resolution 2017-03, Adopting the Final Budget for Fiscal Year 2017-18  
(staff to read Resolution into the record)

**Withlacoochee Regional Water Supply Authority**  
3600 W. Sovereign Path, Suite 228, Lecanto, Florida 34461

**Bills For Payment**  
**5/17/2017**

<u>Administrative Invoices</u>	<u>Invoice Number(s)</u>	<u>Invoice Date</u>	<u>Amount</u>
Richard S. Owen, AICP, Executive Director	2017-04	5/3/2017	\$6,824.61
Larry Haag, Attorney	33007	5/9/2017	\$453.00
Diane Salz, Governmental Affairs / Professional Fee	#043017	4/30/2017	\$3,500.00
C. LuAnne Stout, Administrative Assistant / Fee	4-Apr-2017	5/5/2017	\$3,125.00
Purvis Gray & Company / 2015-16 Yrly Audit	30378	4/26/2017	\$9,766.46
Purvis Gray & Company / 2016-17 1st & 2nd Qrtly Audits	30418 30831	4/26/2017	\$1,000.00
Karen Allen / Web Maintenance	#86	5/15/2017	\$87.50
Sun Trust Business Card Statement	5.2.2017	5/2/2017	\$228.00
<b>Total Administrative Invoices</b>			<b>\$24,984.57</b>

<u>Water Supply Studies and Facilities</u>	<u>Contract/ Budget</u>	<u>Balance Remaining</u>	<u>Current Invoice(s)</u>
General Services Contract	\$75,000.00	\$50,000.00	
Work Order 17-01. Water Resource Associates	\$25,000.00	\$23,899.35	\$600.00 (1)
FY2016-17 Water Conservation Grants Program			
Citrus County	\$36,875.00	\$36,875.00	
Hernando County	\$47,500.00	\$47,500.00	
Marion County	\$35,245.00	\$35,245.00	
Phase 3 Irrigation Program	\$3,500.00	\$0.00	
Phase 4 Irrigation Program	\$200,000.00	\$175,594.92	\$8,385.00 (2)
<b>Total Project Invoices</b>	<b>\$423,120.00</b>	<b>\$369,114.27</b>	<b>\$8,985.00</b>

<b>Total Bills to be Paid</b>	<b>\$33,969.57</b>
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<b>State Board of Administration</b>	<b>Transfer from SBA2 to SBA1</b>	<b>\$8,985.00</b>
<b>State Board of Administration</b>	<b>Transfer from SBA1 to SunTrust Bank</b>	<b>\$33,969.57</b>

Notes:

(1) WO 17-01. Water Resource Associates

\$600.00 Invoice 17-1000.2

(2) Phase 4 (N822) - Irrigation Audits

Jack Overdorff, ECO Land Design

\$8,385.00 Invoice 271

**Ocala Star Banner**

## **Judge hears arguments over Sleepy Creek Lands' request for more water**

By Fred Hiers

Posted May 11, 2017 at 5:36 PM Updated May 11, 2017 at 7:36 PM

The legal feuding over whether to grant a cattle ranch south of Fort McCoy permission to withdraw an additional 1.22 million gallons per day from the aquifer continued Thursday and will do so again Friday before a Florida administrative law judge.

The petitioners are the St. Johns Riverkeeper, Florida Defenders of the Environment, Silver Springs Alliance and Alice Gardiner. The respondents are Sleepy Creek Lands, LLC and St. Johns River Water Management District.

The district staff recommended in December 2016 that the cattle ranch be allotted the additional water from 2017 through 2023. They also recommended that from 2024 through 2034, the ranch's water use then again drop to its current 1.46 mgd.

E. Gary Early will make a ruling sometime after the hearings, which are being held at the water district headquarters in Palatka.

The staff recommendation to allow the additional pumping came two years after warning the cattle ranch they would recommend the board deny the request. Staffers said their reversal is based on better computer modeling and better data recently collected and analyzed. They said the change would have minimal impact on Silver Springs and the Silver River.

Staff's proposal is for a total allocation of 2.54 mgd for pasture irrigation, crop irrigation and livestock use, and 0.14 mgd for commercial/industrial use for years 2017 through 2023.

At issue is the ranch's tract north of County Road 316 and east of County Road 315 outside Fort McCoy. There is another tract south of County Road 316. The additional water request is for the northern tract.

Sleepy Creek's plan is to convert 7,208 acres of the north tract and about 1,010 acres of the tract south of CR 316 into part of the cattle grazing and processing operation. To do that, Sleepy Creek plans to irrigate 2,231 acres of the tracts to produce enough grass and hay to feed the cattle. The whole operation covers about 30,000 acres in north Marion County.

Environmentalists say the staff change of heart is the result of pressure from the wealthy applicant, Austrian/Canadian billionaire Frank Stronach, and political urging from higher ups. They cite the springs' 30 percent drop in flow during the past decades and warn that more water withdrawal will only make flow worse, something the spring can ill afford.

Earlier this year, the water district board voted that Silver Springs' minimum flows and levels (MFL) could be safely reduced another 2.5 percent. The hearing Thursday and Friday is to consider the effect of the new MFL on the proposal to allow Sleepy Creek to withdraw the additional water.

Stronach, who made his fortune in the international auto parts business, also owns several race tracks including Santa Anita Park in California, Pimlico Race Course in Maryland and Gulfstream Park in Florida. He is the largest land owner in Marion County.

— Reach Fred Hiers at [fred.hiers@starbanner.com](mailto:fred.hiers@starbanner.com) and 352-397-5914.

**Ocala Star Banner**

## **Environmentalists doubt Swiftmud listening on Rainbow**

Three-hour meeting at Swiftmud headquarters doesn't yield much.

By Fred Hiers

Posted May 15, 2017 at 6:28 PM / Updated May 15, 2017 at 9:10 PM

**BROOKSVILLE** — Hopes that regulators would change their minds about how to best protect the Rainbow River were dim on Monday after 50 or so environmentalists met with a member of the Southwest Florida Water Management District's governing board.

In March, the board decided that the Rainbow River's flow could safely be cut another 5 percent without doing significant harm to the pristine and state-protected water body or the ecosystem that depends on it.

Many of those who attended Monday's meeting at Swiftmud's headquarters brought pictures showing that the Rainbow's level has fallen several feet during the past few years. They said an additional 5 percent reduction in flow would make matters seriously worse. Many want Swiftmud to not allow any reduction in flow.

Swiftmud board member Kelly Rice oversaw the meeting and represented the board. He was the only board member present.

Rice said at the close of the meeting that he still had faith in district staff's computer modeling, which shows that the Rainbow's flow could be safely reduced.

"As a board member I have confidence in Mark's group," Rice said, referencing Mark Hammond, director of Swiftmud's Resource Management Division.

Most of the people attending the meeting were area environmentalists or Dunnellon residents. They say that most of the Rainbow's 20 percent decline in flow over the past few decades is a result of over pumping of the aquifer. The Swiftmud staff and board say the reduction is a result of a significant decline in rainfall.

"I can tell you other parts of the state (that) I'm not seeing water where I used to see water," Rice said, citing the ongoing Florida drought that is causing many rivers and springs to experience declines.

Many in the audience complained that neither Swiftmud staffers nor board members were listening to anyone opposed to the additional 5 percent reduction.

Dunnellon resident Mary Ann Hilton said after the three-hour meeting that she doubted much would come of the public's complaint, or that anyone on the Swiftmud board would change his or her position.

"I don't know if they'll have the intestinal fortitude to do what is right," she said.

While staff and environmentalists agree flow is diminished, and unwanted nutrients have increased, they disagree about the causes.

Hammond contends that while the Rainbow River's flow has been diminishing, on average annually since about 1960, that is due to mainly reduced rainfall. Pumping accounts for only 1 percent to 2 percent of the river's reduced flow, he said.

In March, Swiftmud staff presented rainfall and flow data showing that between 1992 and 2014 pumping actually declined. Despite those reductions in pumping, flow also continued to decline.

Swiftmud staff said evidence shows that drought, not pumping, is behind the declining Rainbow River flow.

“In terms of the water level, we feel that is the drought,” Hammond said. “The ground model that we have reflects years of development ... and is based on extensive data we collected over decades.”

Between 2001-2010, median annual rainfall has been about 51.5 inches. Between 1941-1950, rainfall had reached a maximum of about 59 inches a year, according to Swiftmud data.

The newly established minimum flows and levels, known as MFL, which allow for the 5 percent reduction, means the Rainbow River flow eventually could be reduced to about 646 cubic feet per second (cfs). If the river’s flow diminishes by the full 5 percent, Hammond told the audience, the depth of the river would fall only a few inches.

Swiftmud staff’s original recommendation to allow flow to be reduced 5 percent was peer reviewed. Originally, the peer review made note of the river’s increased nutrient concentrations, and how flow keeps those nutrients washing down the river and unavailable to unwanted vegetation.

“The District should consider capping withdrawals at current levels, or with a minimal allowable increase, until the nutrient issues are effectively addressed,” the peer review said.

But during the March meeting, peer review board Chairman Dann Yobbi had changed his mind.

He said that after much discussion with staff, the staff’s 5 percent proposal was “reasonable” and based on science. The staff’s recommendation was originally allowing up to 7 percent flow reduction, but that was reduced to 5 percent, the culmination of staff and peer review discussions, he said.

Robert Knight is the director of the Howard T. Odum Florida Springs Institute in Gainesville. He opposes allowing the Rainbow River’s flow to decline an additional 5 percent.

He said Swiftmud’s model, which supports the reduction, is wrong, and pumping, not just drought, is behind much of the Rainbow River’s decline.

He presented data that showed that during the 1960s, while rainfall was still greater than it is today, the river’s flow began to decline. Only a few years later did rainfall also decline.

“You can pretty much assume the rest is due to pumping,” he told the audience, Rice and Swiftmud staff on Monday.

He also showed that the river’s flow was an average of 718 cubic feet per second between 1929 and 1939. Average annual rainfall during that period was 54.13 inches, he said.

But between 2000 and 2016, the river’s flow was down to 596.1 cubic feet per second while annual average rainfall was 50.15 inches.

Given Swiftmud staff’s argument that drought is behind most of the flow’s decline, 50.15 inches of rainfall still should have resulted in about 700 cfs worth of flow, Knight said. But it didn’t, Knight said. The reason: pumping.

The hearing Monday was part of the process by which Swiftmud establishes minimum flows and levels. Those MFLs allow for the 5 percent reduction in flow. The hearing was part of the Swiftmud MFL process by which people affected by the MFL can make their case.

The people at the meeting can now take their case to a Florida administrative law judge and challenge the Swiftmud board decision. Otherwise, Swiftmud will send its MFL approval to state authorities for final approval.

Bill Vibber, of Dunnellon, said that while it's an uphill battle, he and others opposed to the further flow decline had little choice but to voice their concerns.

"We're going to continue the discussion and the debate," he said. "Science isn't always right."

He said the reduced flow has many additional consequences. One is that unwanted nutrients such as nitrogen doesn't get washed downstream; instead, they linger and cause algae blooms and unwanted vegetation growth.

The river's nitrogen level has increased from 0.1 milligrams per liter to the current 2.6 milligrams per liter.

"There is a risk here," Vibber said. "I am extremely skeptical in making decisions based on modeling. Do we really want to risk that on modeling? I don't think so."

He said Swiftmud staff is trying to protect the river but also feeling pressure from industries that want more water.

Burt Eno, president of Rainbow River Conservation Inc., a nonprofit group of mostly residents and environmentalists focused on protecting the river and its spring, said he did not yet know if his group, or any other, would take legal steps to block Swiftmud's MFL and 5 percent reduction.

Kaithleen Hernandez, 21, said that young people will reap the consequences of the Swiftmud board's decision.

"You're only thinking short-term profit. I have a whole lifetime to think about (what becomes of the river)," she told Rice during the hearing.

"It is these industries (asking for more water) that need regulating," she said. "There is no future with development and more water withdrawals.

"Please don't let the health of the river reach the point of no turning back," she said.

— Contact Fred Hiers at [fred.hiers@starbanner.com](mailto:fred.hiers@starbanner.com) and 352-397-5914.

**Hernando Sun**

## **Complicated task looms: septic to sewer conversions**

Outline of area that will require septic to sewer conversions.

Ben Grudzinski  
May 2, 2017 Workshop packet

On the 2nd of May, a workshop was held to discuss Hernando county's conversion from septic to sewer systems within the Weeki Wachee springshed. As mentioned by Utilities Director Gordon Onderdonk, the only reason this conversion is taking place is because the Florida Springs and Aquifer Protection (SAP) Act of 2016 is requiring it. The act provides protection and regulation for impaired springs in Florida and calls for the cleanup to be completed within 20 years.

One of the requirements for this project includes a project list – one that lies within the limitations established by the Florida SAP Act – and a subsequent estimate of costs. Another requirement, the development, approval and implementation of a Basin Management Action Plan (BMAP) which also outlines the negative impact that the current septic systems are having on the springs.

Encompassing just north of Weeki Wachee all the way to Brooksville and San Antonio, the study carried out for the BMAP would prioritize the springs in Weeki Wachee and the springshed located in the Spring Hill area. It is projected that 32,000 homes or lots have septic systems needing conversion.

Commissioner Allocco was the first to voice concerns regarding the costs of all the future conversions and it was estimated that, altogether, the conversion would cost around \$700 million.

Through cooperation with the Health Department and the Florida Department of Environmental Protection, advanced and cost-effective treatment systems are being workshopped – it is also being discussed by the agencies whether or not this conversion would entail a complete overhaul, with removal and replacement, or just retrofitted updates.

The septic systems in place right now produce too much Nitrogen for a healthy environment to be sustained, and as a result, Nitrogen Reductions had to be mapped out and calculated by the BMAP- keeping in mind that the numbers presented by Onderdonk do not take population growth into consideration.

It was argued by Commissioner Nick Nicholson that it seems unfeasible to try to ask all the projected residents to convert their septic systems- he brought up the fact that everyone may not be able to afford this conversion. (The average cost per lot is \$21,300.) For such ambitious goals, Nicholson continues, the implementation of this project needs work. Nicholson also argues over the costs of this conversion and where the money to hook up the sewer systems would come from- if the citizens have to pay. It may not 'go over very well,' Chairman Dukes commented. Commissioner Allocco also urged that – given that going from septic to sewer would only reduce Nitrogen levels by about 30% – more talks should be held in order to determine the effectiveness.

There were no formal motions carried out at this meeting. The commissioners strongly urged meetings be held in the future to discuss the best ways to carry out the proposed projects. The draft BMAP is scheduled to be released for stakeholder review on May 31st. In June, a BMAP public meeting with stakeholders will take place prior to DEP adoption. By July 1, 2017 the BMAP will be signed by the FDEP secretary.

## Editorial: Saving the springs an unending battle

Posted May 15, 2017 at 5:34 PM / Updated May 15, 2017 at 5:35 PM

Water is crucial to Marion County's economic and environmental future. On the surface, healthy lakes, rivers and springs act as natural attractions for swimming and fishing and critical wildlife habitat. Below ground, aquifers supply pure, fresh water for drinking, bathing and other daily activities. It's all tied together: Water on the surface seeps down into the aquifer and bubbles back up through thousands of springs. A threat to any part of the system imperils everything.

And the biggest threats are well-known. Pavement that keeps rainwater from soaking into the ground. Leaking septic tanks that contaminate springs. Runoff that carries petroleum products and lawn fertilizer into water bodies. Overpumping that draws up deeper reservoirs of salt water to spoil wells.

Because they provide a direct link between the aquifer and the surface, springs are one of the best harbingers of hydrological health — one that water management officials are obligated, by law and science, to take seriously. And local springs are clearly in distress. Silver Springs, which the state bought and took control of five years ago, is the veritable poster child for what ails Florida's springs, with high nitrate levels and declining flow. Rainbow Springs, the centerpiece of one of the area's most popular state parks, faces the same threats. Both these iconic springs are suffering from development and overpumping.

But springs aren't getting the protection they need. The St. Johns River Water Management District has approved plans for both Silver and Rainbow that will allow the spring flow to drop even further before stricter rules go into effect. The new rule — meant to comply with a legislative mandate to set "minimum flows and levels" for significant water bodies — infuriated local environmentalists, who pointed out that the flow of both springs is already causing ecological harm to the springs habitat.

What is particularly troublesome is that the water management officials for both St. Johns River and the Southwest Florida districts insist allowing the spring and river levels to fall even more will not constitute a threat to these water bodies. As we pointed out earlier, they obviously have not looked at the springs and the damage that is already occurring.

Nobody is pretending it will be easy to achieve restoration. The DEP plans for reducing nitrates are extremely ambitious and skimpy on the specific steps needed to reduce pollutants in springs. But there are a few obvious solutions, including reducing the number of septic tanks in the area, continuing to push back against over-use of fertilizer and evaluating stormwater systems for efficiency in making groundwater cleaner. It should be a united effort — with vocal support from Marion County as well as local cities for rules that will make it easier for them to require better water-use measures in future development, and roll back damage done by existing facilities.

We have been having this conversation about our springs for decades and the latest efforts have been underway for nearly half a decade. We need stringent rules, more aggressive conservation and anti-pollution programs and serious goals for reducing overpollution and overconsumption.

**The Observer Media Group Inc.** (Florida's Newspaper for the C-Suite)  
**Business Observer**

## **Governor picks area execs for board**

May 14, 2017

Sarasota resident Joel Schleicher, founder and executive chairman of Tampa-based Focal Point Data Risk, a cyber security firm, was one of two area executives appointed to the governing board of the Southwest Florida Water Management District.

Rebecca Smith, president and CEO for Tampa-based A.D. Morgan Corp., was also appointed to the board of the organization, known as Swiftmud.

Gov. Rick Scott appointed both Schleicher, 65, and Smith, 57, according to a statement.

Schleicher fills a vacant seat and was appointed for a term that begins May 12 and ends March 1, 2019. Smith also fills a vacant seat and was appointed for a term that begins May 12 and ends March 1, 2021. The appointments are subject to confirmation by the Florida Senate.

Schleicher is the former president and COO of Nextel Communications. He founded Presidio Networked Solutions in 2003. That firm grew to more than \$1.4 billion in annual sales before he sold it in 2011.

Smith founded A.D. Morgan in 1989. The commercial builder has since handled more than \$700 million in work, including schools, research facilities, parking garages, libraries and jails. It had \$34 million in sales in 2016.

## 11 percent MFL too steep for King's Bay

Tuesday, May 16, 2017 at 3:42 pm

The following has been sent to the Southwest Florida Water Management District Governing Board of Directors.

If Crystal River and King's Bay had water quality and quantity like it did in the

1970s, I would not be concerned with an 11 percent reduction in flow. However, King's Bay is not what it once was. The springs no longer boil like they used to, you can no longer see 100 feet under water, the clarity now can drop down to just a few feet.

Lyngbya and other alga have invaded becoming more numerous as the residence time spring water stays in King's Bay has increased.

There is a lot of scientific data that proves as residence time increases and spring water stays in the King's Bay longer, the more algae grows and water clarity decreases. If you look at the TMDL's that were set for King's Bay (Bridger FDEP 2015), the findings and conclusions clearly state the water quality is directly affected by residence time. As the spring flows decrease it allows more time for water to circulate in the Bay before it flows out the river to the Gulf of Mexico.

Depending on tides it can take 300 hours or up to seven days, with an 11 percent reduction that could drive residence time to over 16 days, which will encourage more algae like Lyngbya to grow.

An 11 percent water withdrawal will reduce spring flow, which will cause saline water to intrude into King's Bay. The heavier saline water will act like a plug further reducing spring flow. This result will drastically increase residence time beyond the model prediction of 16 days. Due to the increased residence time and shallowness of King's Bay, algal and phytoplankton growth will increase further reducing clarity and smothering native eel grass.

I started the One Rake at a Time project in King's Bay in 2011 initially to clean up the swimming area for the kids. It has grown exponentially from there to include efforts all over King's Bay. One Rake clean-ups have also started in Weeki Wachee Springs, Homosassa Springs, and the Halls River. Myself and hundreds of volunteers have removed tons of Lyngbya that contain Legacy nutrients that were being picked up in the water column as it circulated in King's Bay. The more Lyngbya that was removed the clearer the water became (SWFWMD 2014). The graph on water clarity shows that since 2011 water clarity started improving as there was less algae in the bay going from 16 feet up to 30 feet in 2013 in the Hunter Springs basin. We don't want to stop there, with help from you and others our community is now using mechanical help from state of the art equipment. We are proving again that vacuuming up the legacy nutrients locked in Lyngbya is improving water quality and quantity also, by unplugging spring vents that were buried under tons of dead lyngbya in benthic mats on the bay's floor.

With all of the Lyngbya removed, so went nutrient pollutants with it. Also, as an extra benefit, all Lyngbya removed ended up on farm land so it could be worked into the soil and used as an enriched soil supplement helping with water retention in sandy soils and providing lots of nitrogen that stayed locked in the filaments of the stringy algae until plant roots went in to get them, growing healthier plants.

Our community has worked hard along side the Southwest Florida Water Management District for years working and studying the problems and challenges with water quality and quantity in King's Bay. The City of Crystal River and Duke

Energy have helped too, the city's spray field, that was responsible for about 18 percent of the nutrients in the spring flow, have been converted into a reclaimed water source.

That is now being used at Duke energy to scrub pollutants out of the coal stacks.

The previous Secretary of the FDEP, Herschel Vinyard said at the ribbon cutting for the reclaimed water line that this is a "twofer" "a project that helps both the quality and quantity of spring flows. He went on to explain, first as we stop pollution from going into King's Bay, and second as we save water by not pumping millions of gallons of groundwater out the spring basin that we were before. He added, we will also save money in the long run, because having less pollutants entering King's Bay and more water flow to remove nutrients from King's Bay, will save time and increase effectiveness of the clean-up and restoration of King's Bay that is already in progress. He said he could not be more proud of our community here in Citrus county.

We believe that the higher the flow of water, the more beneficial it is to ongoing restoration efforts. We are working closely with SWFWMD to plant eel grass and re-establish a healthy SAV community of plants on the bottom of King's Bay again. Data from the University of Florida has shown a large decrease in SAV biomass from over 75,000 lbs. fresh wt/ac in 1994 to less than 5,000 pounds fresh weight per acre in 2013. We want to reverse that.

In fact, the Crystal River community, Duke Energy and SWFWMD have started an aggressive growing and planting of eel grass to help restore a healthy SAV plant community that can out-compete the Lyngbya for nutrients in King's Bay. The One Rake at a Time lyngbya clean ups are planting eel grass in appropriate areas after volunteer cleanups. An 11 percent reduction would jeopardize clean up and restoration efforts, which would be a HUGE blow to volunteers. It would also affect the ecotourism within this community, which has become a staple in supporting many families.

My community has put our backs into loving and caring for King's Bay and I would hope that the SWFWMD Board understands and would expect nothing less. It is our hope that the Board shares our belief in trying to preserve as much of the spring flow as possible.

The springs are the life blood of the nature coast and help create and economic base for tourism, fishing and recreational activities that attract tourists from all over Florida and the world.

Springs need fresh water flow or they will die a horrible death of muck and stench. I would hope the seven rivers and springs of Citrus county would be respected as some of the most valuable and unspoiled systems in Florida and serve as an example of what all of Florida used to look like. King's Bay is the gem of the Nature Coast and it is worth protecting.

The MFL that recommends an 11 percent reduction in spring flow before significant harm is done, ignores the reality of the harm that has already been done.

We all understand the need for water and know many others may want us to share our beautiful spring water. We do understand. Maybe we can share more water as long as people promise to be super careful and respect it. We do not want to see it wasted. New Florida developments should use "Florida friendly" landscaping bylaws so everyone is on the same page.

It is too much to start out at an 11 percent allowable drawdown of our precious spring water. Let's be cautious as I am sure SWFWMD does not want to cause further significant harm to Crystal River/King's Bay.

Let's start out at 2 or 3 percent and work on the data for water quality that was not able to be included in the report because SWFWMD scientists said "it was not feasible at this time to make a full determination of the potential impacts of changes to flow on water quality." This is a very important issue! As a member of the community, we strongly believe that the less flow equals decreased water quality and increased Lyngbya and algal growth in King's Bay. I suggest we start out conservative and review the MFL next year with water quality data included as a factor in determining MFL's

The BMAP (Basin Management Action Plan) will be done at the end of June 2017, and we now have the TMDL (total maximum daily load) for King's Bay that proves residence time is very important to water quality and water quantity. Water flow has a direct relationship to residence time.

Please, please, be cautious, SWFWMD has always been a good resource and partner in the clean up of legacy nutrients from King's Bay. Also helping us in many ways with prevention, education, conservation and eel grass projects.

We will respect your decision and we look forward to continuing a good working relationship.

Please, we know establishing a MFL is important and we want to get it right. Let's start out at a more conservative number like 2 percent or 3 percent. Then we can get the water quality data and other data that was not available in the MFL report, review it within the next year and adjust the numbers as the science proves with all the data included. We want King's Bay to still remain the Gem of the Nature Coast.

*Art Jones is founder and president of One Rake at a Time, Inc., a nonprofit 501(c)3 organization.*

## 2017 Legislative Wrap-up

May 9, 2017

### BUDGET

The Legislature passed its \$82.4 billion budget on May 8<sup>th</sup> (sine die occurred at 8:52 pm), with the House voting 98-14 to approve the budget, while the Senate voted 34-4. The budget now heads to Governor Scott for his consideration. Once the Legislature sends Gov. Scott the 2017-18 budget, the governor has 15 days to sign, exercise his line-item veto power, or veto the entire budget. If the governor decides to veto the entire budget, the Legislature has the opportunity to head back to the capital city to override the veto. To do that, they'll need two-thirds of the members present and voting for a veto-override.

The following are a number of water projects in the region included in the budget:

- Belleview Reduction of Nutrient Loading Study -- \$300,000 non-recurring
- Brooksville Horselake Creek Drainage -- \$350,000 non-recurring
- Dunnellon Downtown Infrastructure Improvements -- \$300,000 non-recurring
- Homosassa River Heritage Park -- \$850,000 non-recurring
- Homosassa River Restoration -- \$350,000 non-recurring
- Inglis Sub Regional Wastewater Treatment -- \$500,000 non-recurring
- Kings Bay Restoration -- \$2 million non-recurring
- Springs Protection and Restoration -- \$50 million recurring funds
- Weeki Wachee River Restoration -- \$400,000 non-recurring

### LEGISLATION

#### PASSED:

SB 10 relating to Lake Okeechobee Reservoir -- authorizes the South Florida Water Management District and the Board of Trustees of the Internal Improvement Trust Fund to negotiate the amendment and termination of leases on lands within the Everglades Agricultural Area for exchange or use for the reservoir project, among other related things. Effective Date: Upon becoming a law.

HB 573 relating to Heartland Headwaters Protection Act -- requires the Polk County Cooperative to prepare an annual report concerning water resource projects and specifies requirements for such report. Effective Date: July 1, 2017.

SB 1018 relating to pollution notification -- requires an owner or operator of an installation at which a reportable pollution release occurred to provide certain information within 24 hours after the discovery of the release. Effective Date: July 1, 2017.

#### FAILED:

- HB 17 relating to local regulation preemption
- HB 479/SB 880 relating to government accountability
- HB 285/SB 1748 relating to on-site sewage system inspections
- HB 663/SB 1082 relating to implementing the Water & Land Constitutional Amendment
- HB 413/SB 1300 relating to water oversight & planning
- HB 1357/SB 1686 relating to reclaimed water
- HB 755/SB 1438 relating to aquifer replenishment
- SB 1700 relating to water management