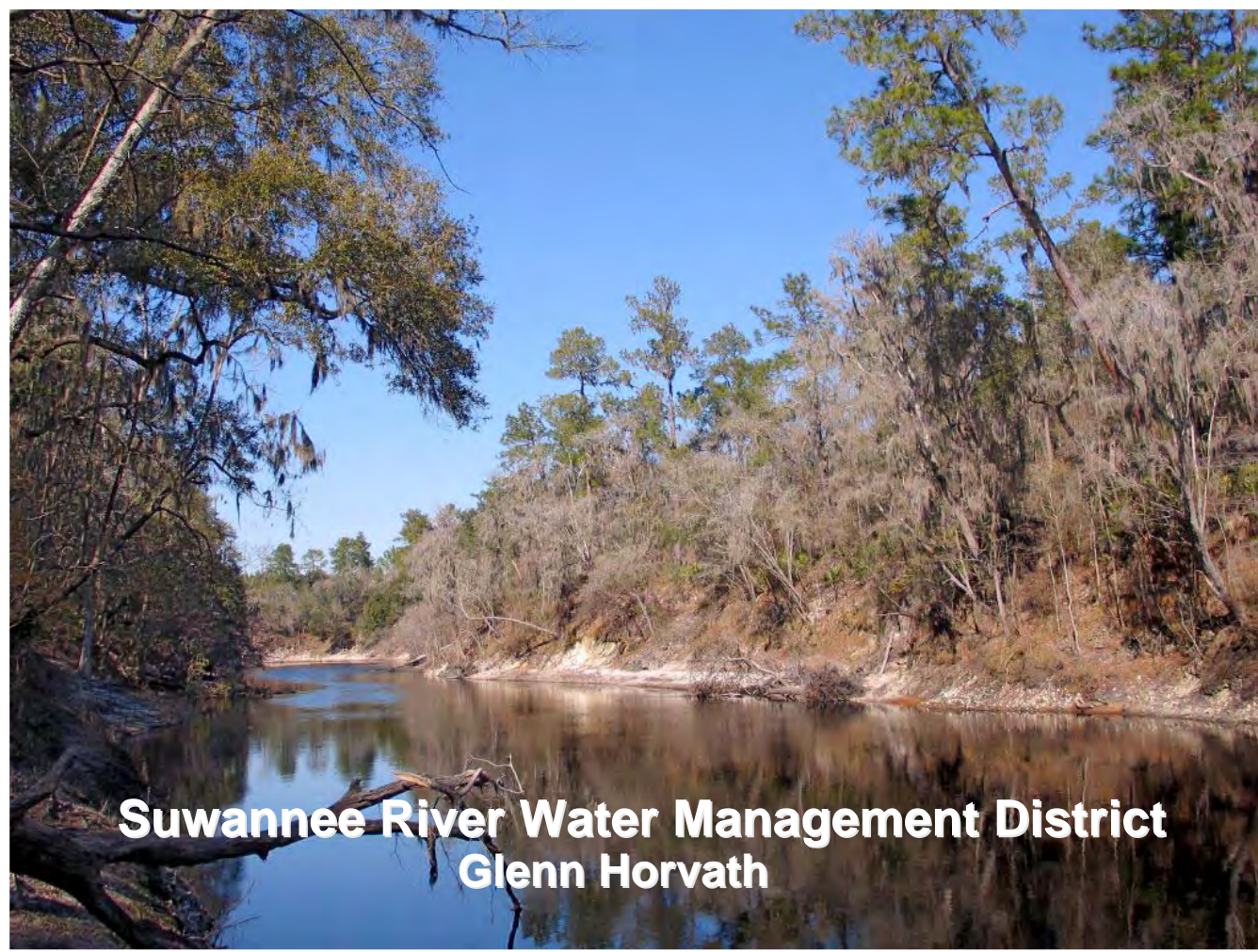


Water Issues in the Suwannee River Basin





THE FUTURE OF WATER

COSTLY • DIRTY • SCARCE





Improving Florida's Water Supply Management Structure

September 2003



Remember these headlines?

LAKE CITY REPORTER, THURSDAY, SEPTEMBER 4, 2003

While South Florida is looking to the north for new sources of drinking water, a growing number of groups are preparing to wage

WAR OVER YOUR WATER

The Times-Union, Jacksonville, Tuesday, October 7, 2003

Water wars are here, and your water is in the middle

The Times-Union, Jacksonville, Tuesday, October 7, 2003

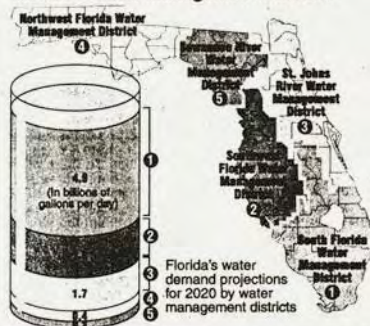
★ A-7

Report renews water wars

Regions fight over who gets how much

By Marcia Mattson
Times-Union staff writer

Florida's water management districts



Source: Summary of Water Projections, DEP, 2002

— Staff

THE GAINESVILLE SUN NEWS SUNDAY, AUGUST 17, 2003

State water wars pit North vs. South

By BOB ARNDORFER
Sun staff writer

This month has made it difficult to believe Central and South Florida will ever need more water.

Thanks to Tropical Storm Erika and a series of other weather systems, those regions have been inundated with rain that has flooded streets, bloated

creeks and caused rivers to spill over their banks. Residents of the Tampa Bay area have even donned wading boots to walk in their yards.

Yet the rushing torrents can't disguise the fact that ever-growing Central and South Florida are facing a future

shortage of water so critical that they're eyeing the rivers and springs of less-populated North Central Florida to help quench their thirst.

The e-mails of water managers and others concerned about protecting North Florida water resources have been active

lately with people relaying copies of a recent St. Petersburg Times story headlined, "North Has It, South Wants It." The story recounts efforts by politically connected business leaders to develop statewide policies to allow for the transfer of water from one region of Florida to another — specifically from north to south.

WATER on Page 5A



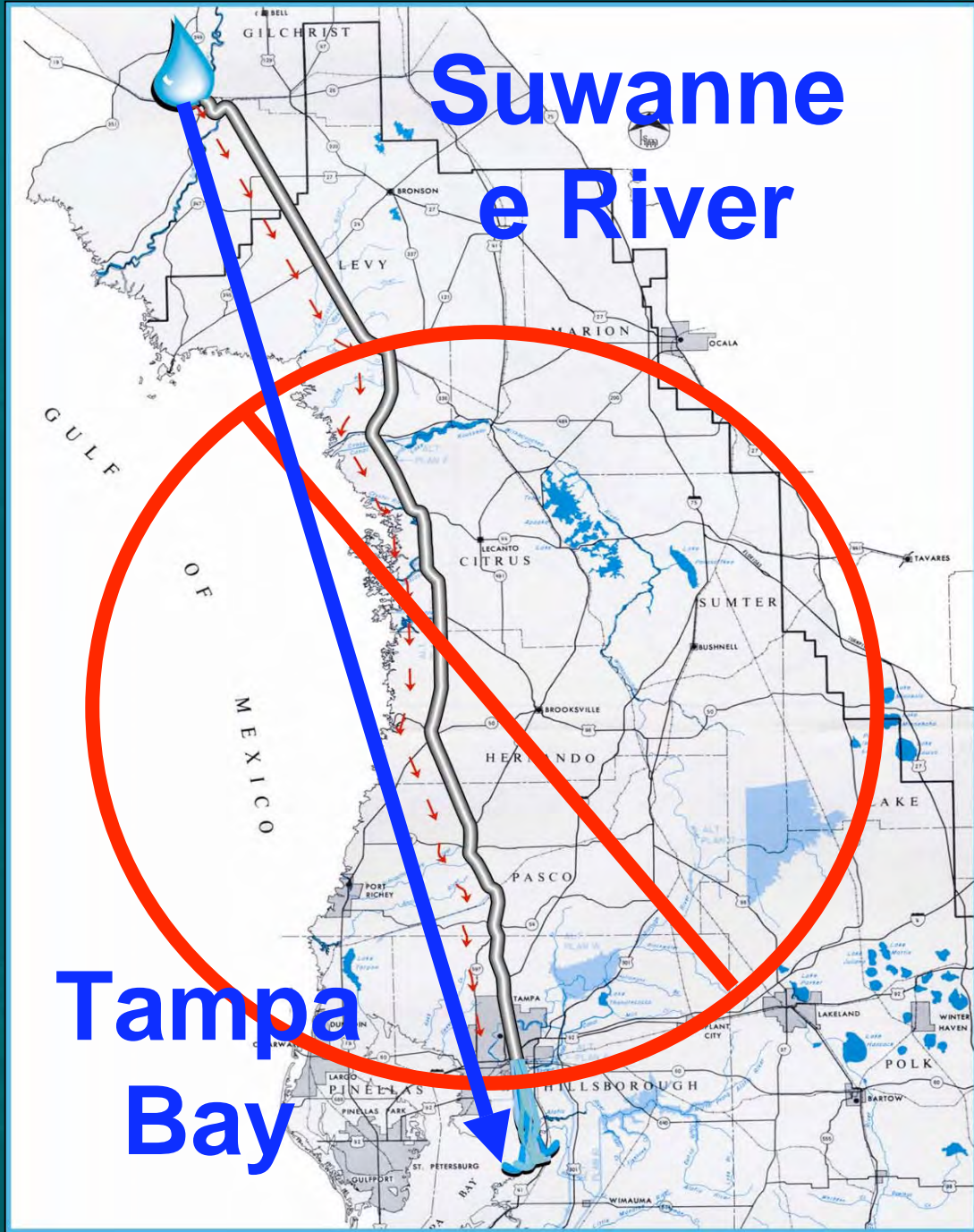
"It's absolutely a concern."

WES SKILES
Member of
Florida Springs
Task Force



Suwannee River

Tampa Bay



The Gainesville Sun

© 2007 The Gainesville Sun

FINAL EDITION Gainesville, Florida, Vol. 131, No. 307, four sections 50¢

RIVER OF DOUBT: The Suwannee River may look healthy, but it's showing signs of sickness. Waste is creeping into the river's springs. Farming, industry and water-bottlers are draining the river's water, which is now at a record low. Today, in the second installment of a three-day series, The Sun looks at the threats facing one of Florida's great natural gems.

Historic Suwannee facing uncertain future

Flood put springs in spotlight

By KAREN VOYLES
Sun staff writer

The storms other portion

■ The owners of the land around Lilly Springs want to pump for bottled water, but neighbors are against it.

By NATHAN CRABBE
Sun staff writer

HIGH SPRINGS — A nudist who acts as caretaker of Lilly Springs supports the proposal to bottle the spring's water. Neighbors are organizing in opposition. And the co-owner of the land around the springs says he's just trying to quench the public's insatiable thirst for bottled water.

Welcome to the wonderful world of water wars. In 21st century Florida, get used to it.

The owners of the land around Lilly Springs seek to bottle an average of 1 million gallons a day. Santa Fe River paddlers know these springs thanks to the presence of John Edward "Naked Ed" Watts, the gray-bearded nudist who has served as the property's caretaker for more than two decades.



Inside

■ A look at how low water levels impact wildlife in the Suwannee. Page 5A

Sitting next to the hut where he stays and watches over the springs, Watts said he believes the bottling proposal won't affect his presence there or the flow of the water. He's comfortable

with the property owner's rationale that the proposal is merely a response to demand for spring water.

"As long as there's a market for bottled water, there will be bottled-water plants," he said. "They've got to be in somebody's back yard."

But dry conditions and low groundwater levels have exacerbated concerns about water bottling in the Suwannee River Water Management District. Groundwater levels in 91 monitoring wells fell an average of 10 inches from the previous month, according to the district. Nine wells set new lows for the month and two wells set new historic lows.

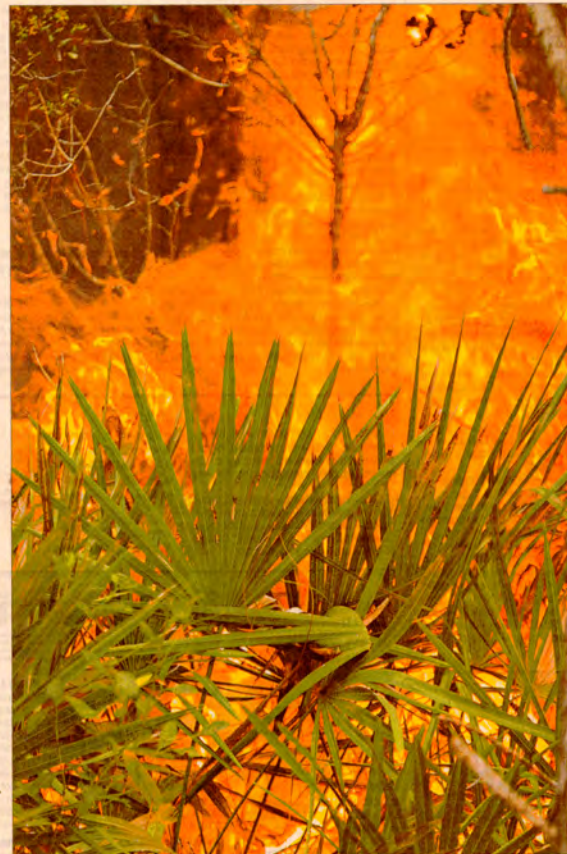
The news comes as South Florida deals with a full-fledged water crisis, forcing irrigation restrictions and the clamping of coastal wells to

SUWANNEE on Page 6A

Sun reporter Nathan Crabbe and photographer Tracy Wilcox are exploring the Suwannee River and

FIRE NEARS U.S. 441

Winds could push Bugaboo blaze across road



Palm fronds burn off Fairview Road in Columbia County on Sunday.

■ **WEATHER:** Some in the region see 4 inches of rain

■ **BRADFORD FIRE:** Wildfire about 80 percent contained

By JEFF ADELSON and KAREN VOYLES
Sun staff writers

LAKE CITY — Columbia County schools will be closed today and residents in the northern portion of the county have been told to prepare for the possibility that the fire may cross U.S. 441 today.

Today is "going to be a critical day for us," said Sonny Greene, an incident commander for the Florida Division of Forestry.

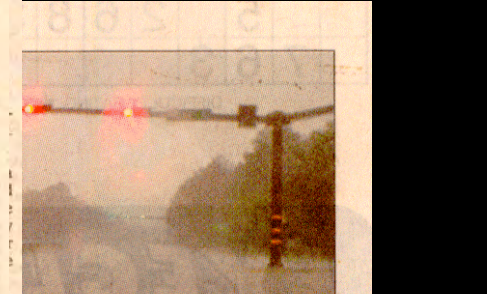
While officials had hoped rain from Sunday's storm system would help quench the fire, the prediction of thunderstorms brought new threats and reminders that the Bugaboo fire was started by lightning and, like others in the area, has been spread by high winds that accompany storms.

The Bugaboo fire in Columbia County got its start a month ago with a lightning strike in Georgia's Okfenokee Swamp and was swept into North Florida by winds like those being forecast again today — gusts up to 30 miles per hour. Officials said the strong storm system that moved over North Florida on Sunday dropped little rain over Columbia County.

Meanwhile another fire which has charred 15,000 acres in Alachua, Bradford and Clay counties was 80 percent contained.

FIRE on Page 7A

Online extras
To see videos of the fire, visit www.gainesville.com. To upload your own photos of the fire, go to www.gainesville.com/firepictures



www.gainesville.com

Sun

Gainesville, Florida, Vol. 131, No. 307, four sections

Flooding follows area storms

By KAREN VOYLES
Sun staff writer

The storms that soaked Gainesville and other portions of North Central Florida on Sunday afternoon and evening dumped as much as four inches of rain in

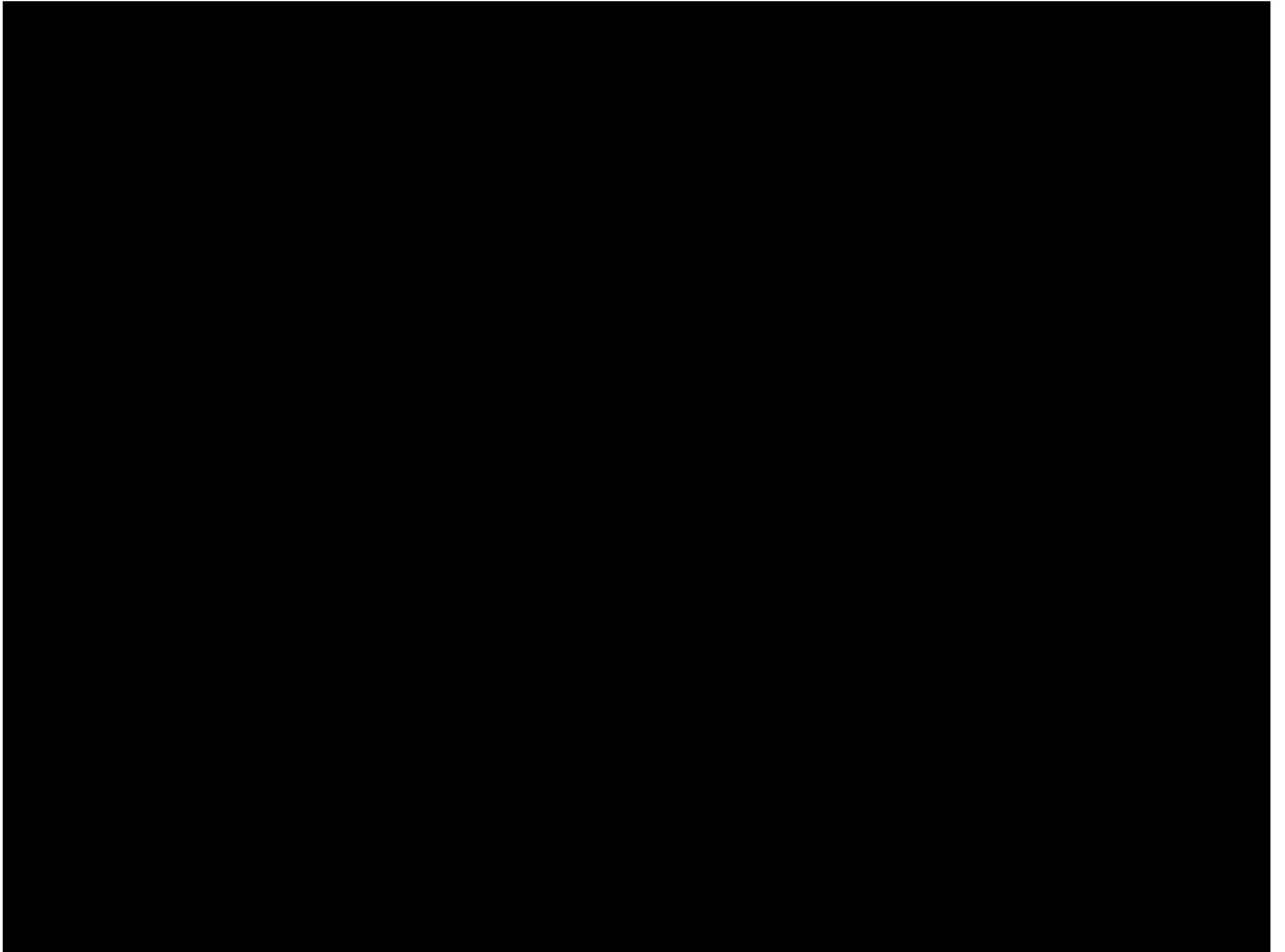
accompanying the storms and the potential for that lightning to ignite new fires or accelerate existing blazes.

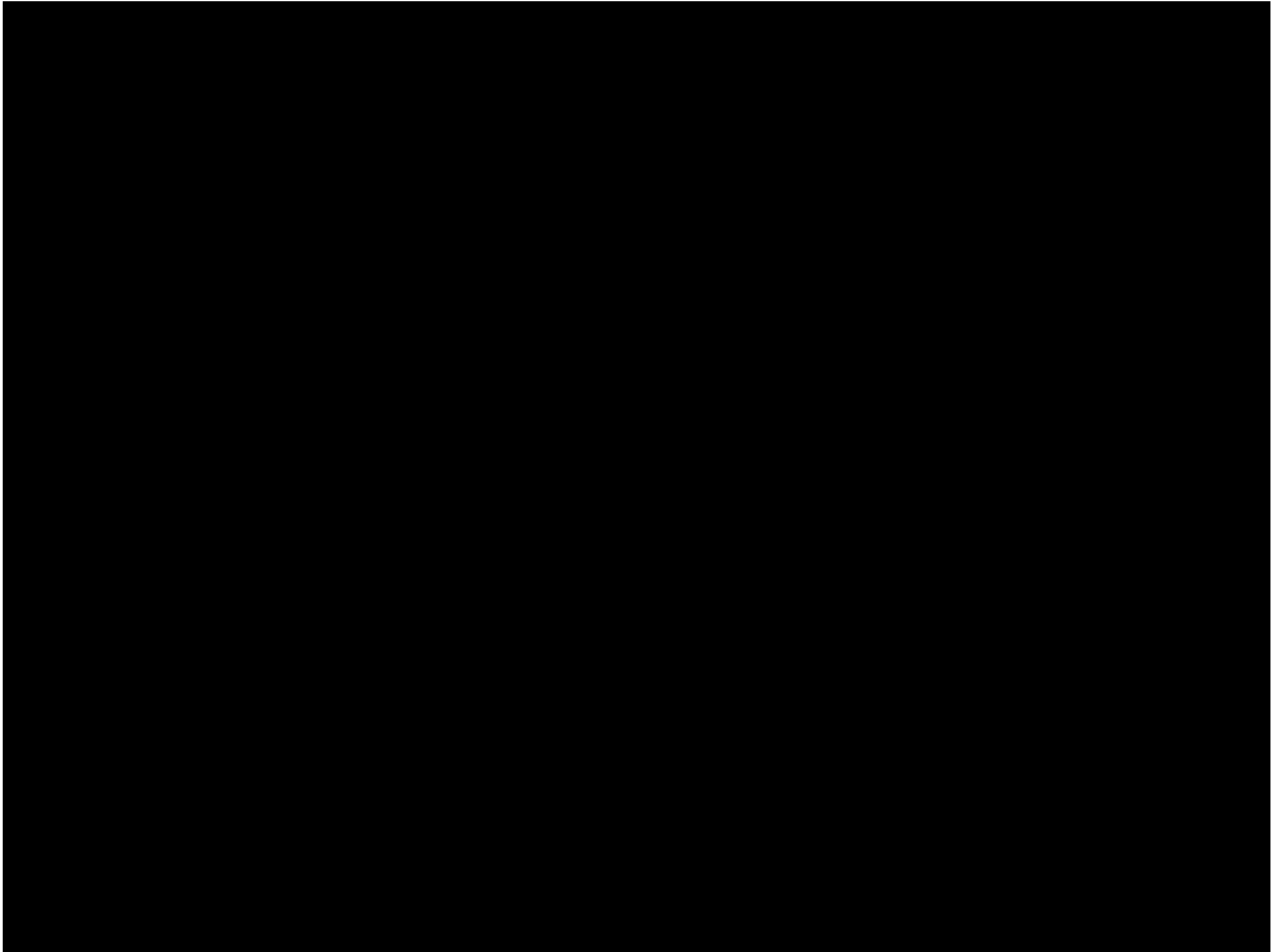
The deluge briefly flooded sections of NW 39th Avenue and was being blamed at least partially for several accidents ranging from neighborhood fender bend-

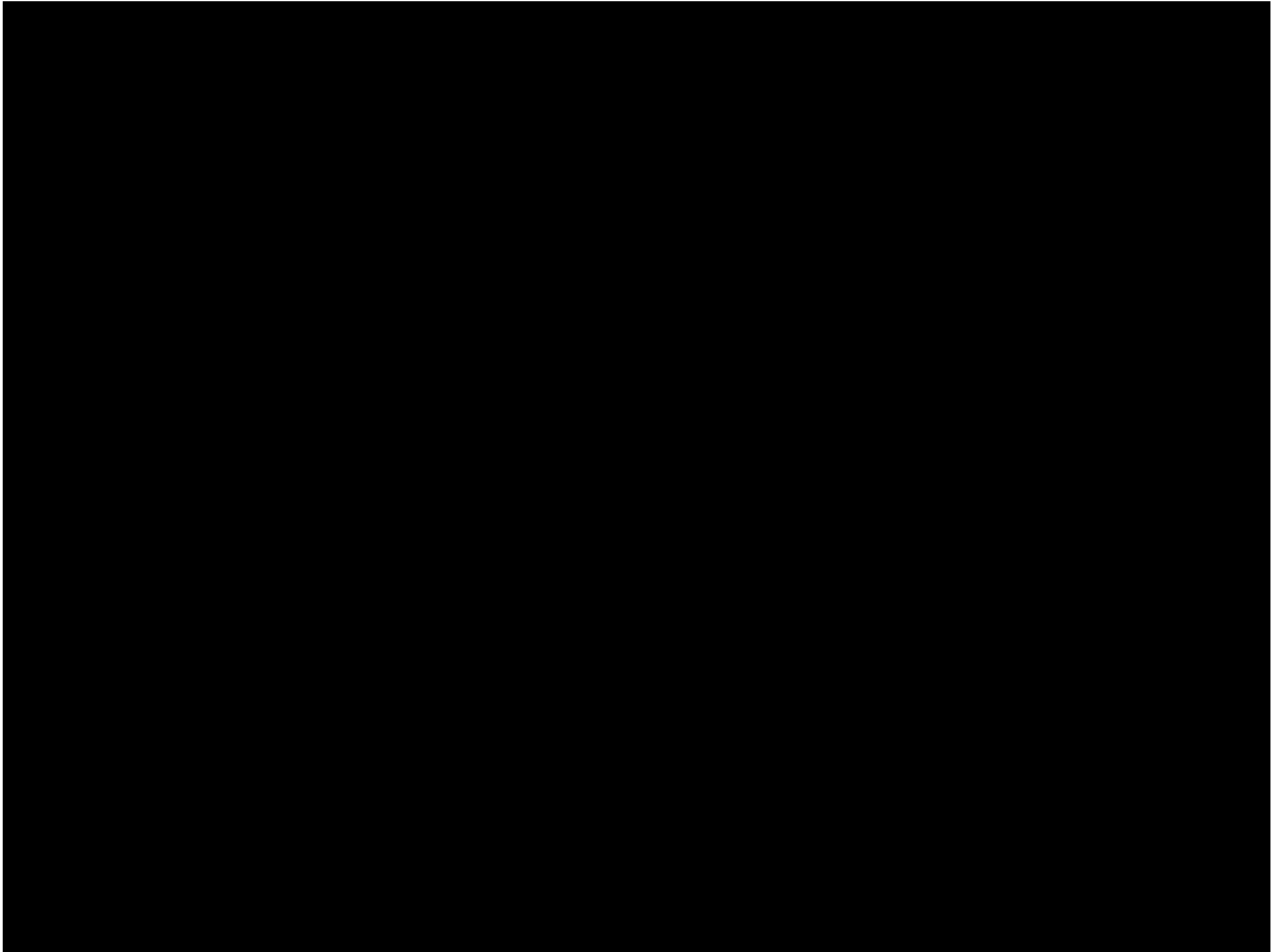


The

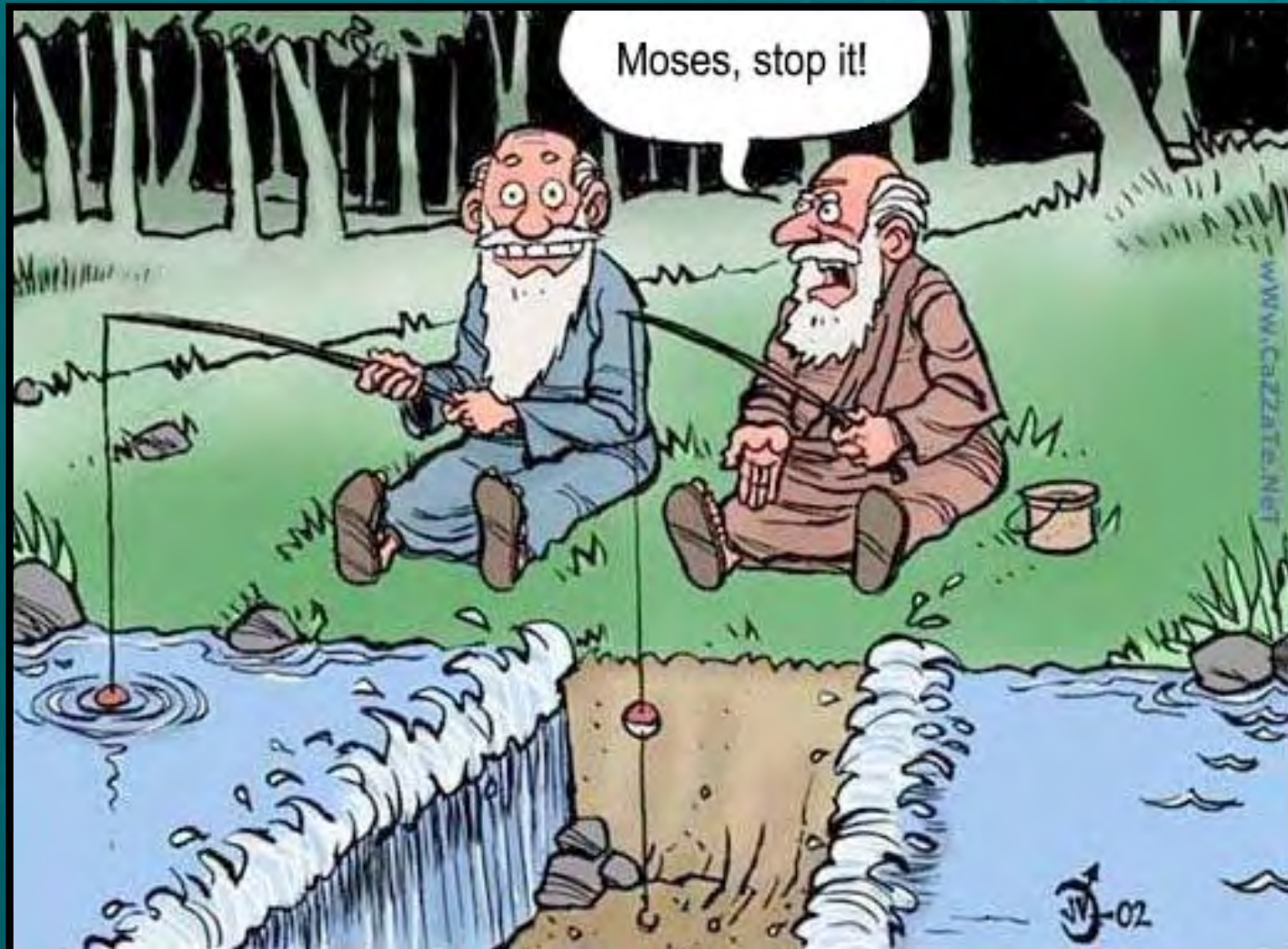
Gainesville Sun







Water is a high profile issue and there are concerns about the transfer and allocation of water.



**Northwest Florida
Water Management
District**

**Suwannee River
Water Management
District**

**St. Johns River
Water Management
District**

**Southwest Florida
Water Management
District**

**Florida's Five
Water
Management
Districts**

**South Florida
Water Management
District**

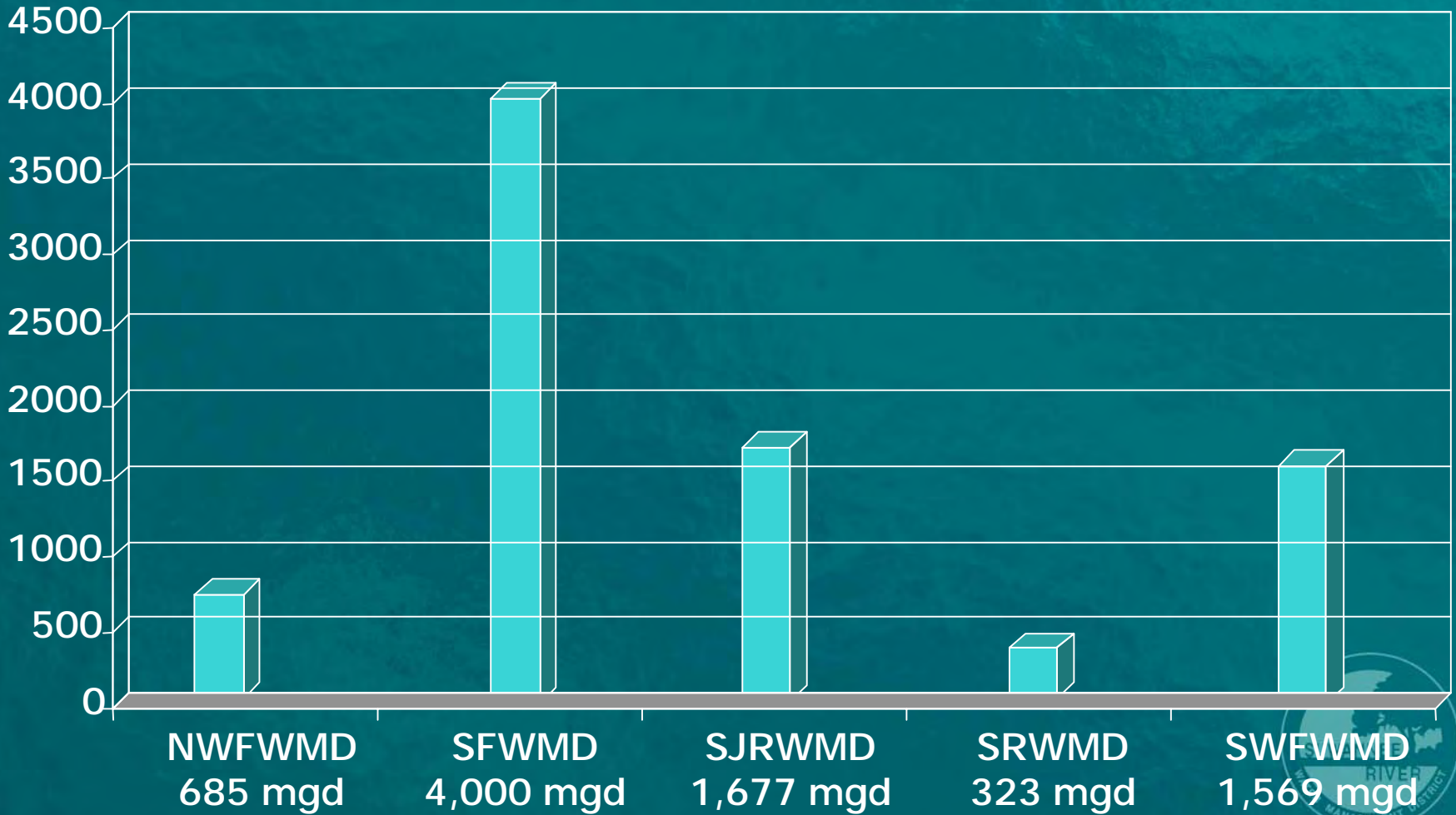


Florida Water Law (373, F.S.)

- ☁️ Water is a public resource
- ☁️ WMD Board is “trustee” of this resource
- ☁️ Water Use Permit system allocates this resource

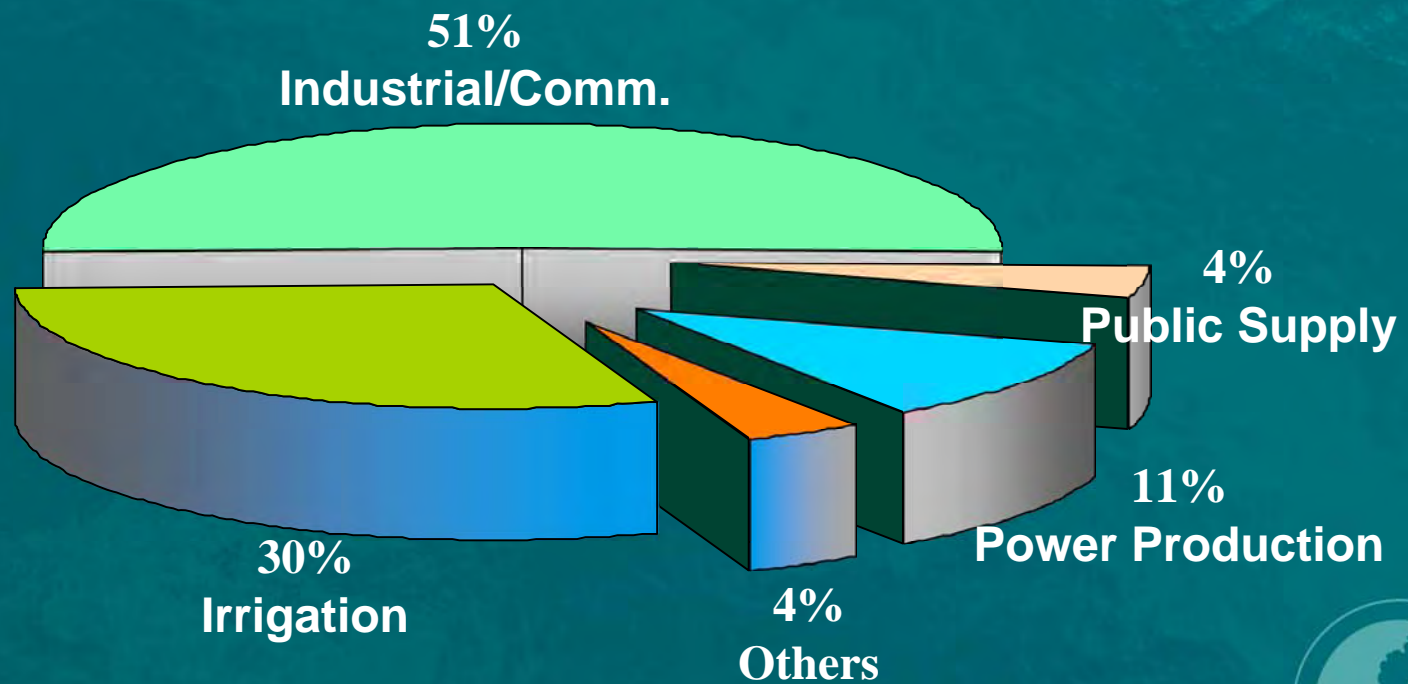


Total Water Allocated to WU Permits in 2000 (Surface Water and Ground Water)



Water allocated by use types

SRWMD



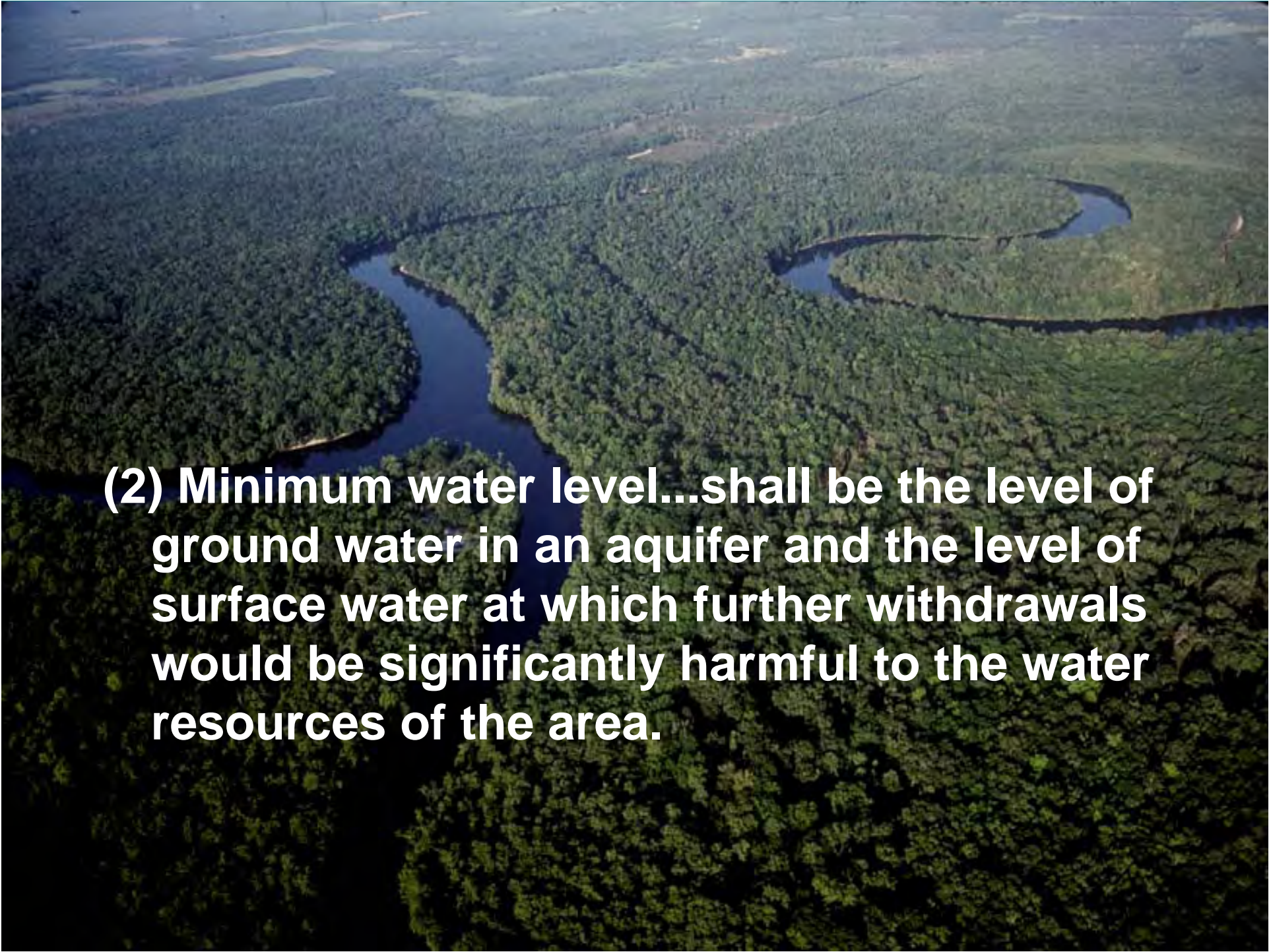
Minimum Flows And Levels



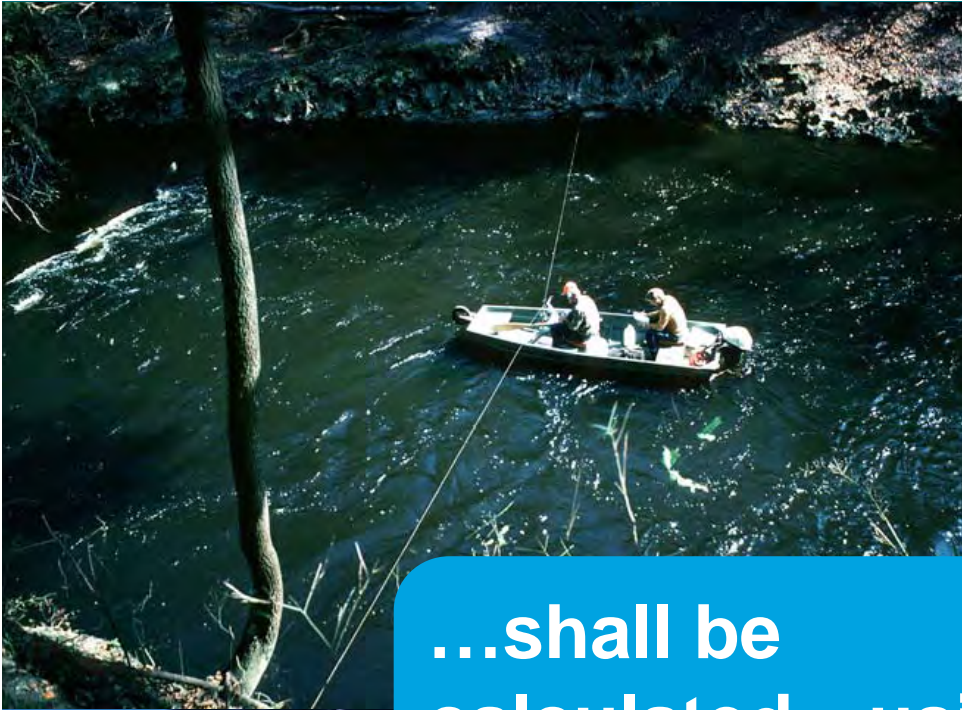
Chapter 373.042, F.S.

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

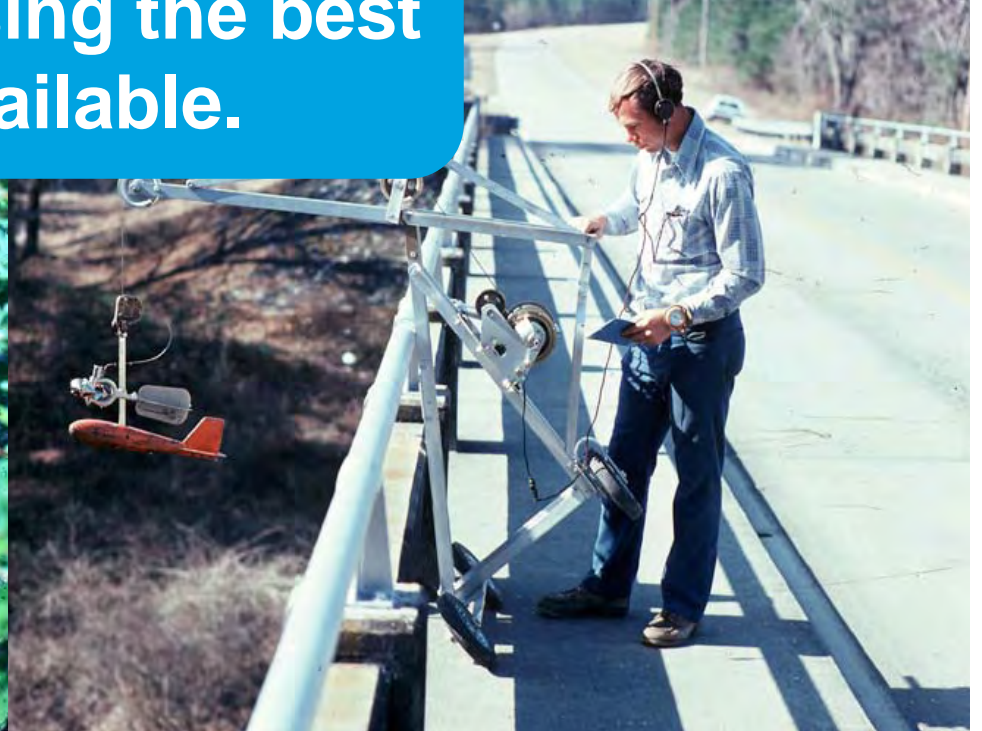
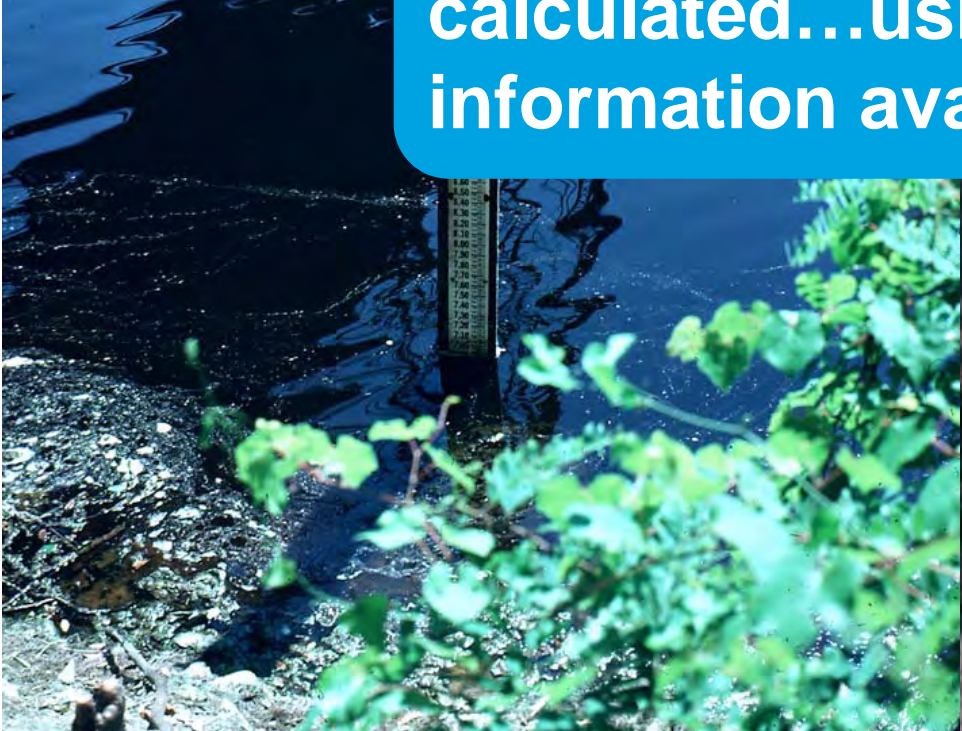


An aerial photograph showing a winding river flowing through a dense, green forest. The river has several meanders and a large loop. The surrounding landscape is mostly forested, with some cleared areas visible in the distance. The text is overlaid on the lower-left portion of the image.

(2) Minimum water level...shall be the level of ground water in an aquifer and the level of surface water at which further withdrawals would be significantly harmful to the water resources of the area.



**...shall be
calculated...using the best
information available.**



MFL Establishment Process

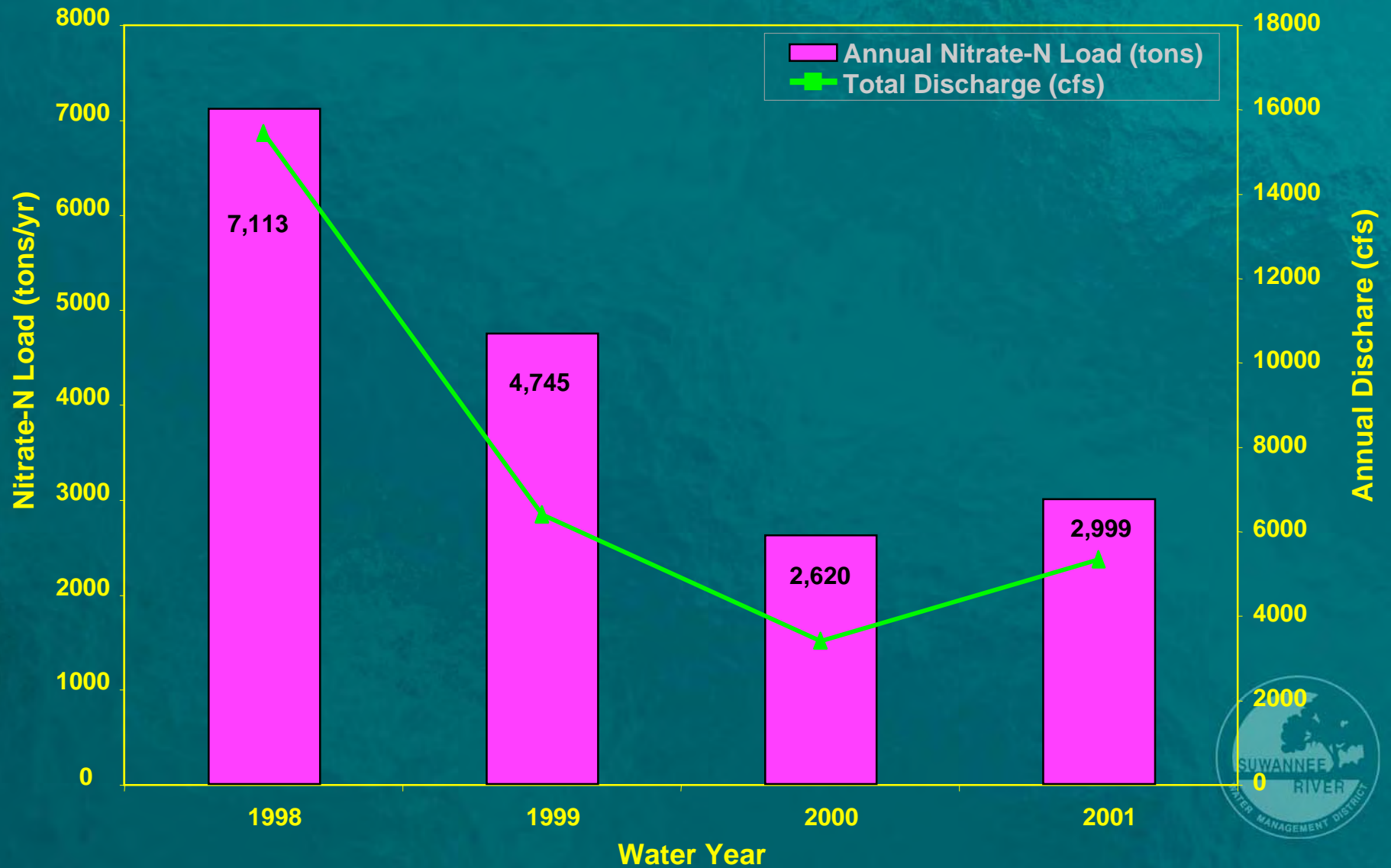
**Data
Assessment**



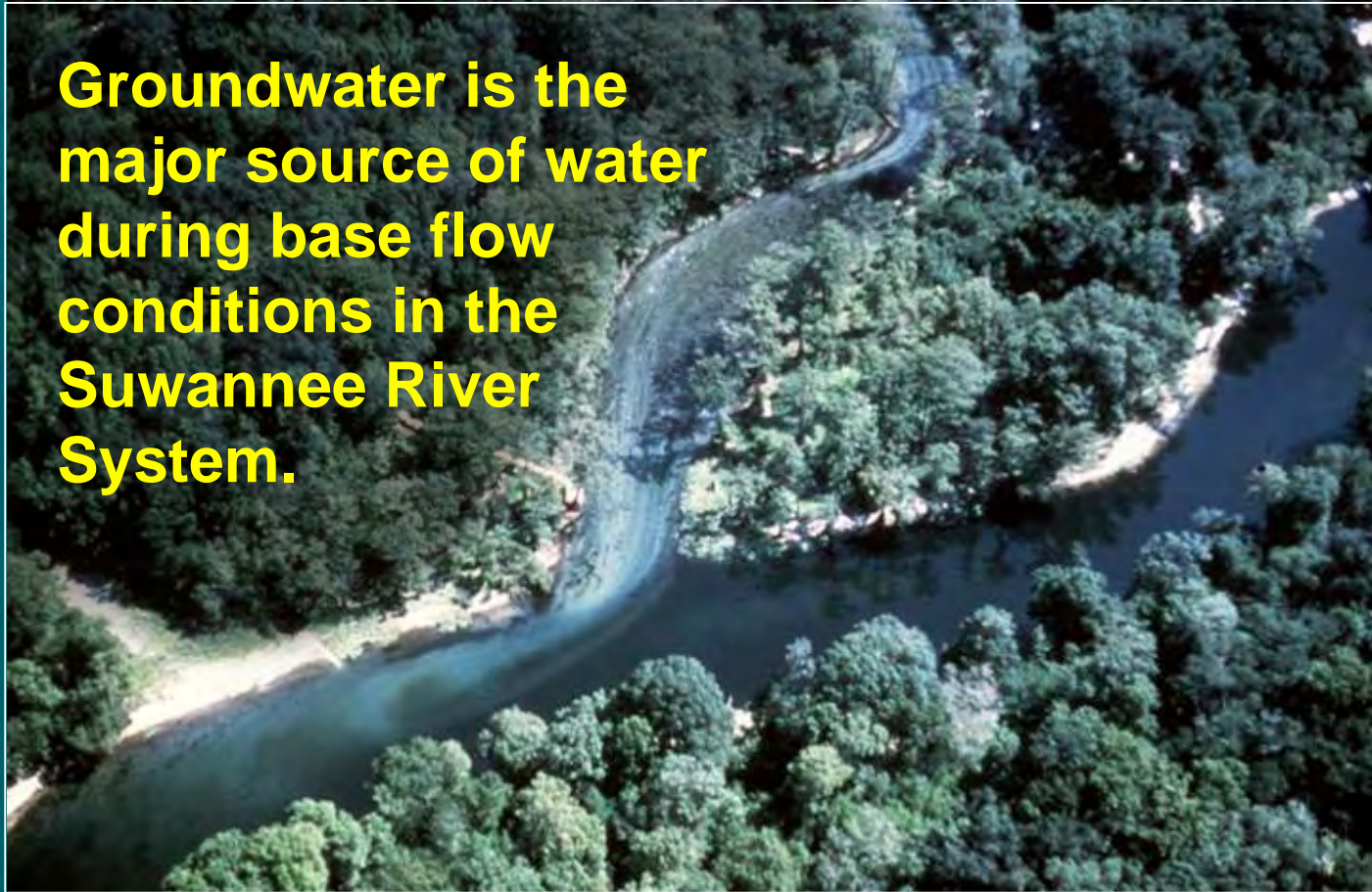
SUWANNEE RIVER	May 2007	Average May	May 2006	May Lowest	May Highest
White Springs	51.08	60.09	50.85	49.62	88.56
Ellaville	31.01	38.41	31.74	29.55	68.10
Branford	12.09	18.69	10.83	7.63	38.88
Wilcox	3.00	8.08	2.23	1.43	21.79

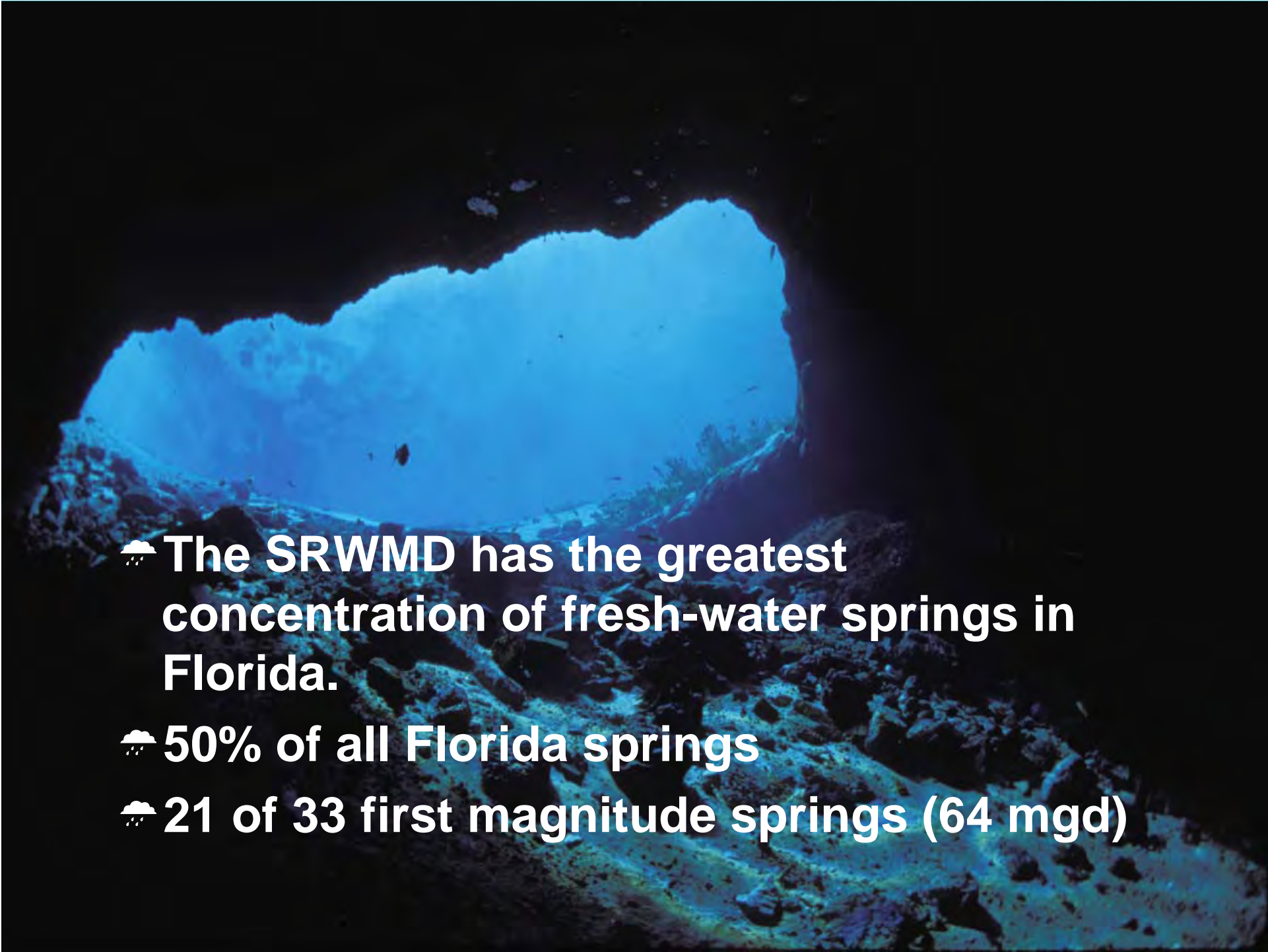


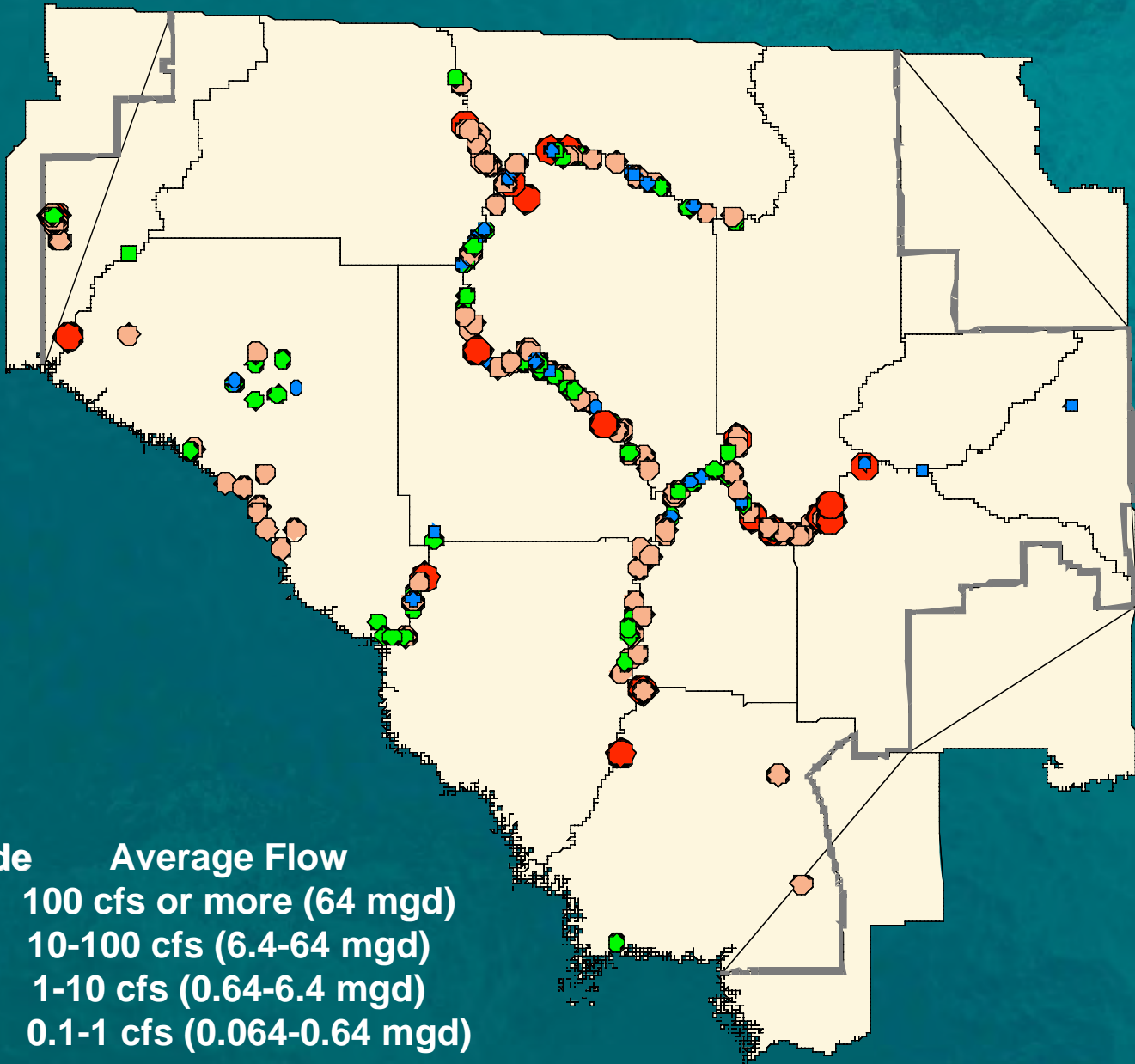
Nitrate-N Load and Discharge WY 1998 to 2001



Groundwater is the major source of water during base flow conditions in the Suwannee River System.



- 
- ☔ **The SRWMD has the greatest concentration of fresh-water springs in Florida.**
 - ☔ **50% of all Florida springs**
 - ☔ **21 of 33 first magnitude springs (64 mgd)**



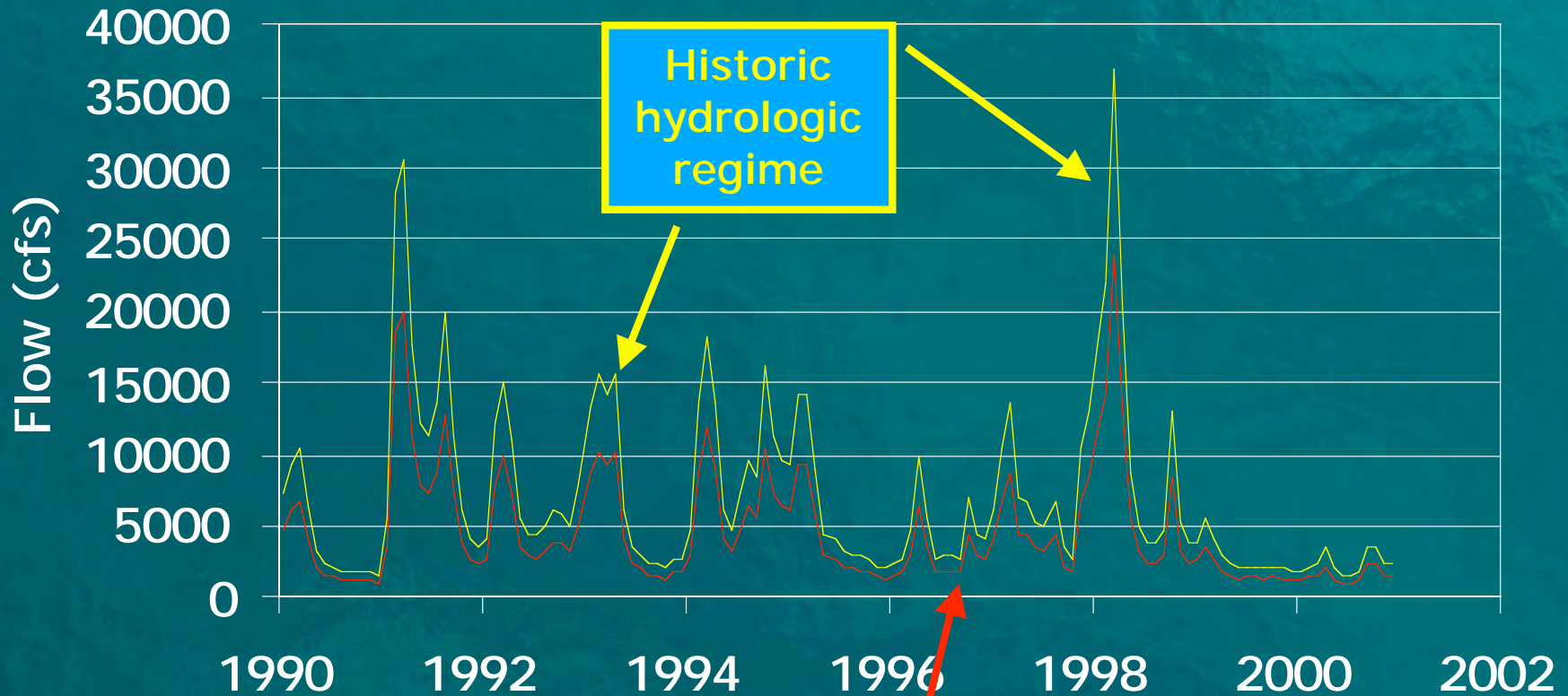
Magnitude	Average Flow
1	100 cfs or more (64 mgd)
2	10-100 cfs (6.4-64 mgd)
3	1-10 cfs (0.64-6.4 mgd)
4	0.1-1 cfs (0.064-0.64 mgd)



MFL Establishment Process



MFL will be an acceptable alternative hydrologic regime that approximates the natural regime and is adequate to meet ecological needs.



MFL Establishment Process



MFL Target Criteria

Chapter 60-40.473 Florida Administrative Code

- ☔ Recreation
- ☔ Fish and wildlife habitats and passage of fish
- ☔ Transfer of detrital material
- ☔ Sediment loads
- ☔ Estuarine Resources
- ☔ Freshwater storage and supply
- ☔ Aesthetic and scenic attributes
- ☔ Water quality
- ☔ Navigation
- ☔ Filtration and absorption of nutrients and pollutants



**Habitat based
MFLs will protect water resources
and ecology from significant harm
caused by withdrawals or diversions
and...**

Protect existing legal users.



TARGET HABITATS



**Floodplain aquatic habitats
(ponds, tributary creeks, sloughs)**



TARGET HABITATS



Riverine shoals habitat



TARGET HABITATS



Riparian snag habitat



TARGET HABITATS



Submerged aquatic vegetation beds



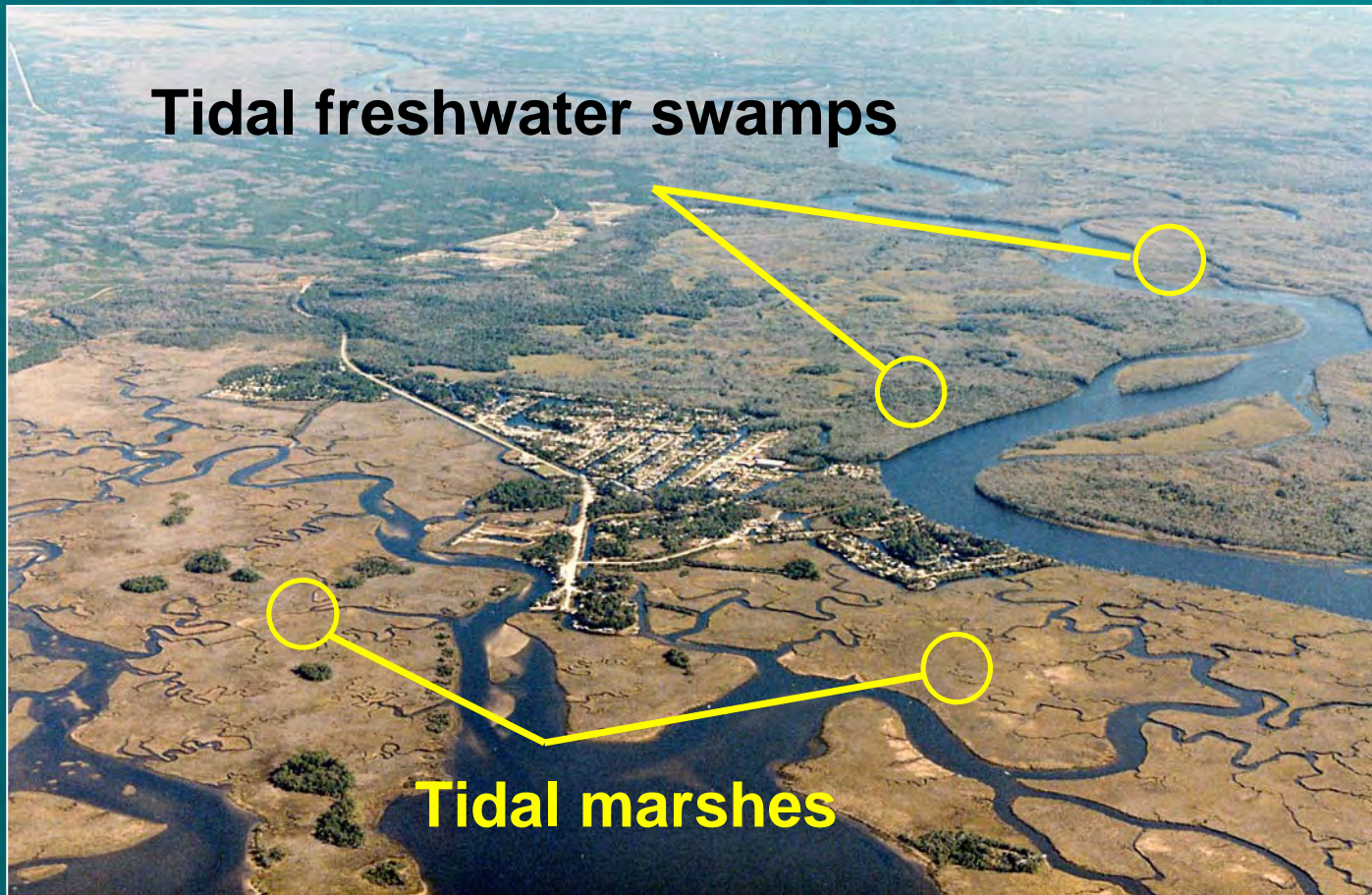
TARGET HABITATS



Tidal marshes (fresh, brackish & salt)



TARGET HABITATS



TARGET HABITATS



**Low-Salinity Submerged Aquatic
Vegetation Beds**



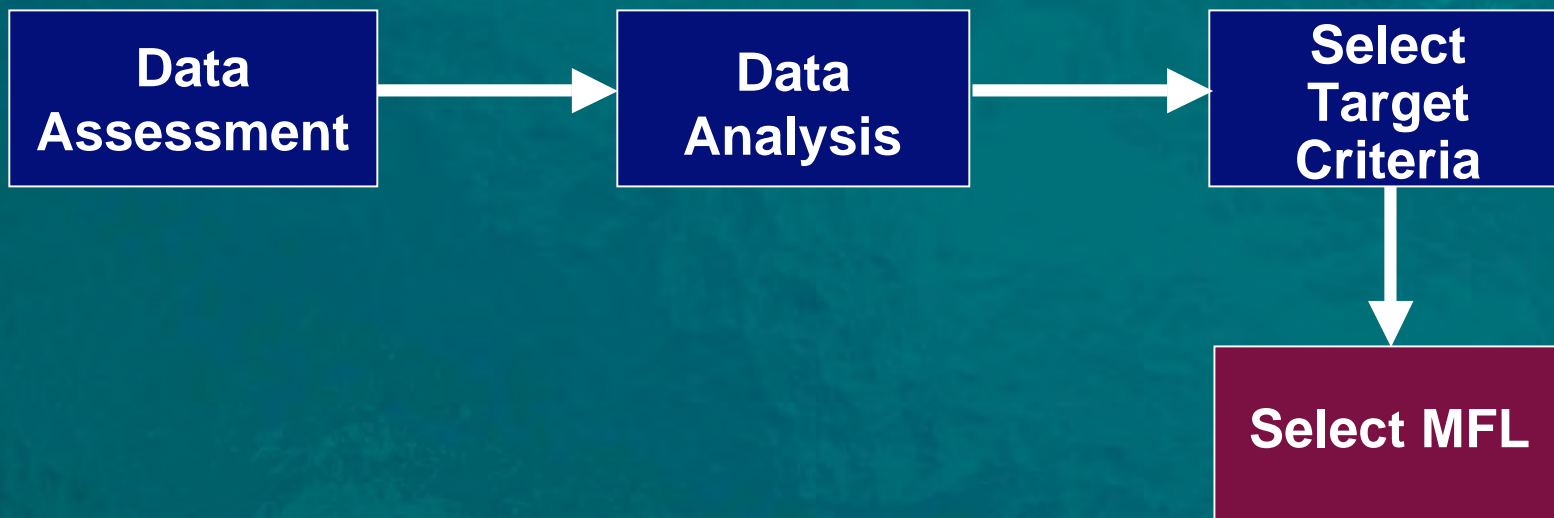
TARGET HABITATS



Oyster reefs and bars

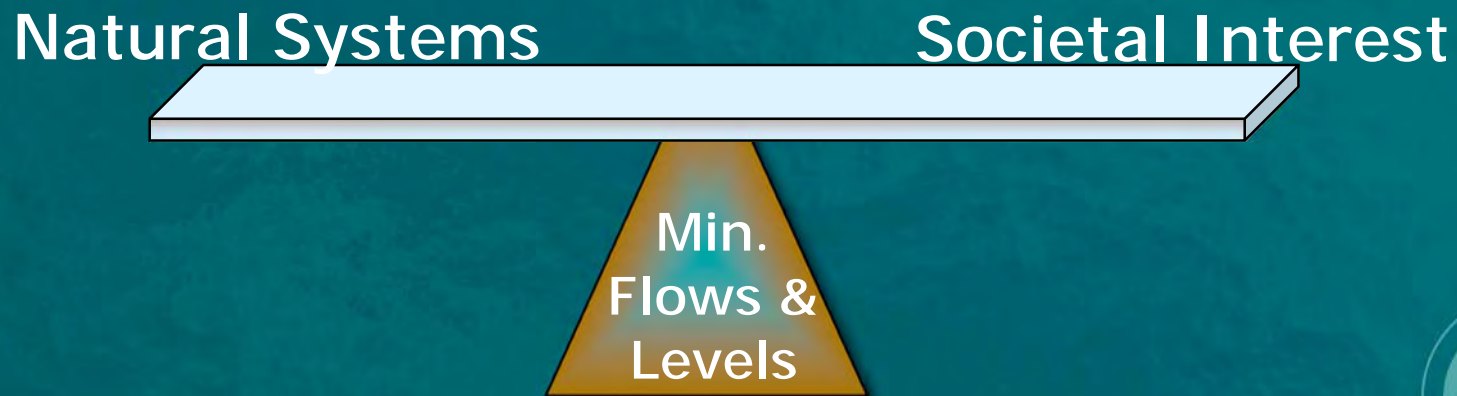


MFL Establishment Process



“...the establishment of MFLs is highly infused with policy considerations.”

Charlotte County vs. Southwest Florida WMD

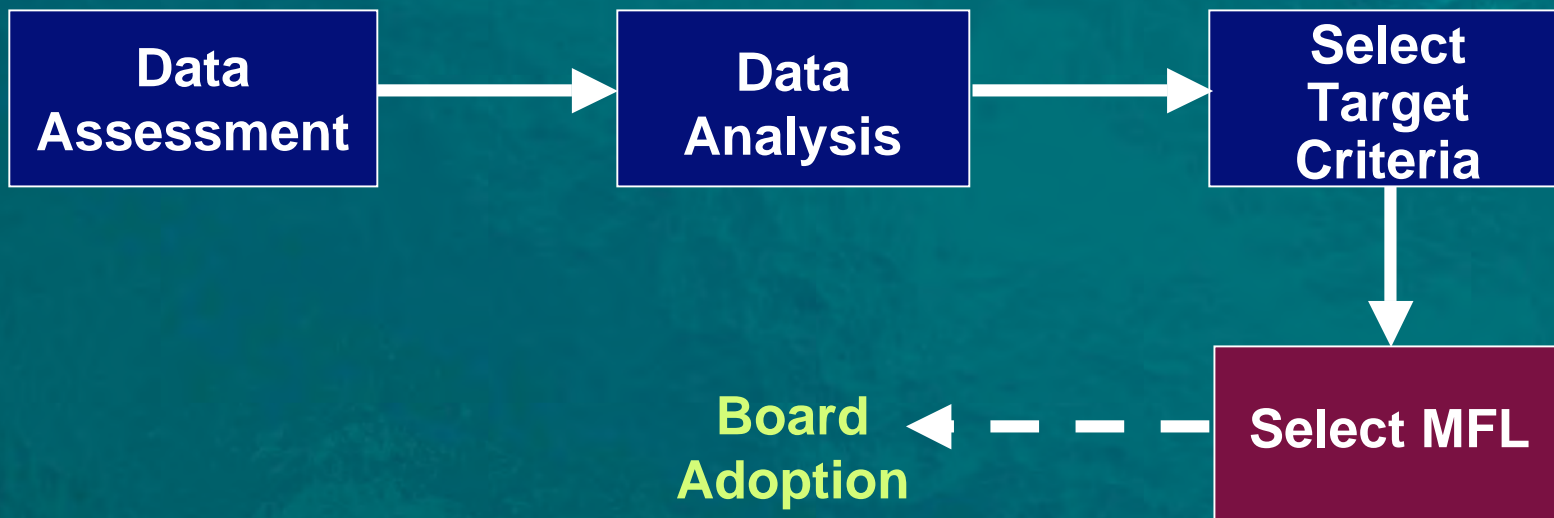


FISHBONZ

**BAIT RENTAL
LIVE & FROZEN KAYAKS**

QUALITY FISHING TACKLE

MFL Establishment Process

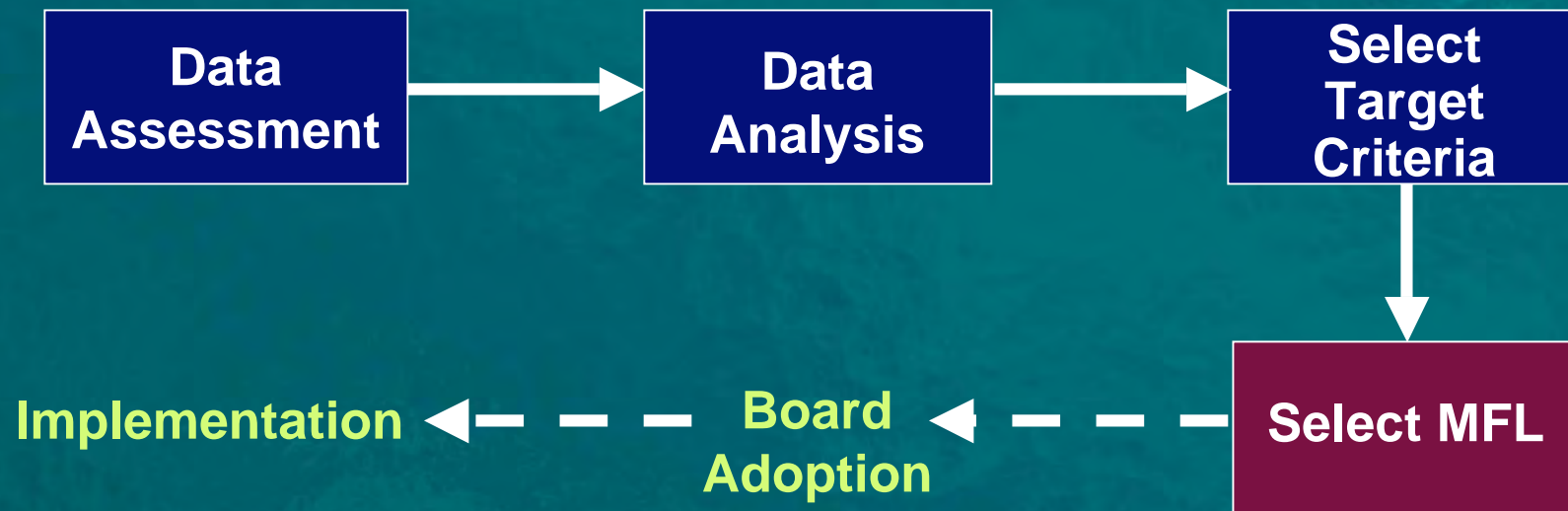


MFL Adoption Process

- ☔ Adopted by rule by the SRWMD Governing Board
- ☔ Adoption is preceded by:
 - ☔ Voluntary technical peer review
 - ☔ Public Notice
 - ☔ Workshops
 - ☔ Website information
 - ☔ Public Meetings
 - ☔ Review by Department of Environmental Protection



MFL Establishment Process



Implementation Tools

- ☁ Regulatory
 - ☁ Consumptive Use Rule
 - ☁ Environmental Resource Permitting
 - ☁ Water Shortage Rule
- ☁ Technical tools
 - ☁ Monitoring
 - ☁ Ground and surfacewater models
- ☁ Non-regulatory
 - ☁ Public education on MFLs
 - ☁ Water conservation education

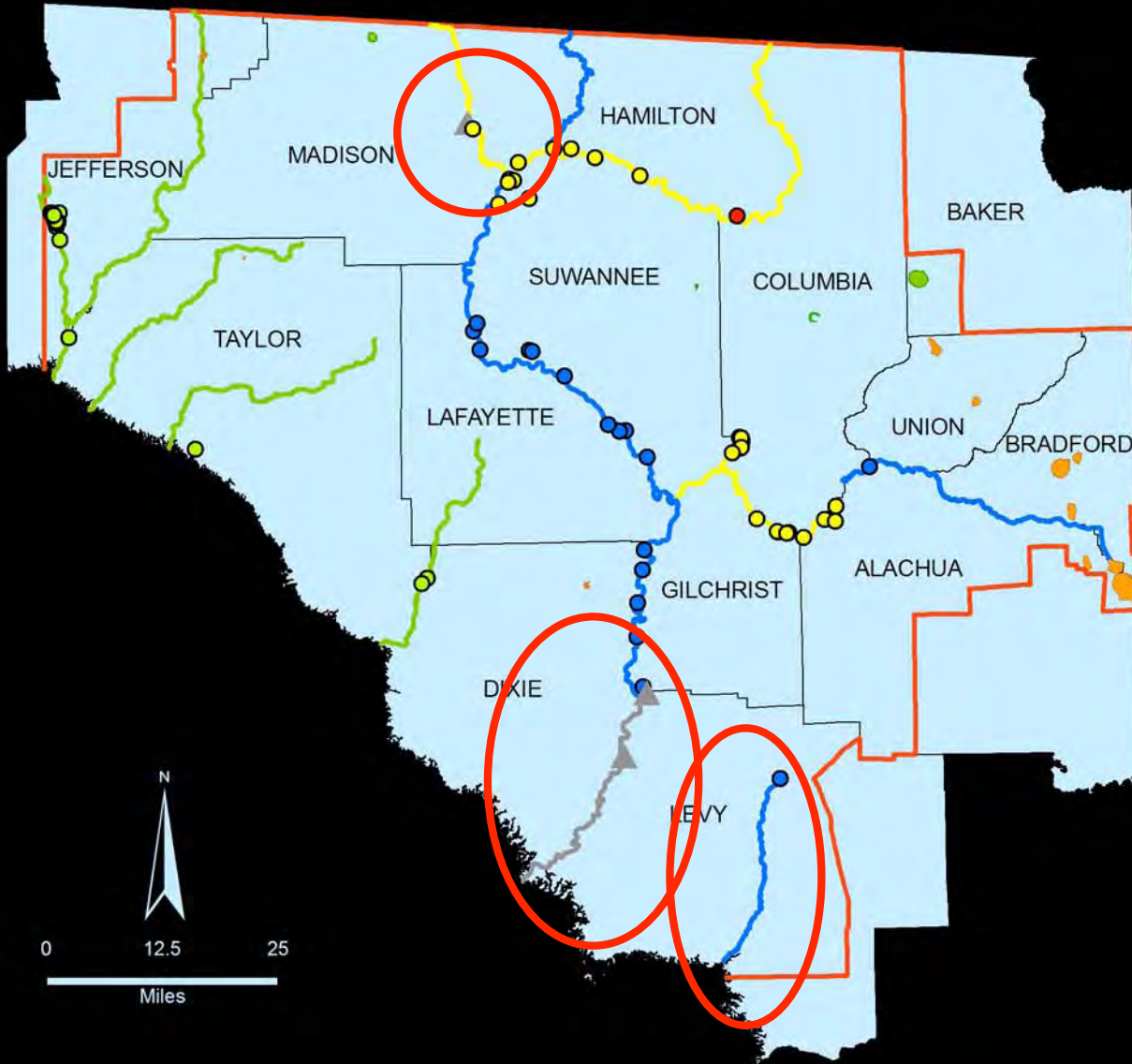


Can an MFL change over time?

- ☁️ **373.042 F.S. allows use of best information available**
- ☁️ **Data will improve and change with time**
- ☁️ **Analytical tools will improve with time**



SRWMD MFL Schedule



Completed

▲ Springs

■ River

Lakes

■ 2010

■ 2011

Springs

● 2007

● 2008

● 2009

● 2010

Rivers

■ Upper Santa Fe River - 2007

■ Waccasassa River - 2007

■ Middle Suwannee River - 2007

■ Alapaha River - 2007

■ Withlacoochee River - 2008

■ Lower Santa Fe River - 2008

■ Upper Suwannee River - 2008

■ Wacissa River - 2010

■ Aucilla River - 2010

■ Steinhatchee River - 2010

■ Fenholloway River - 2010

■ Ecofina River - 2010

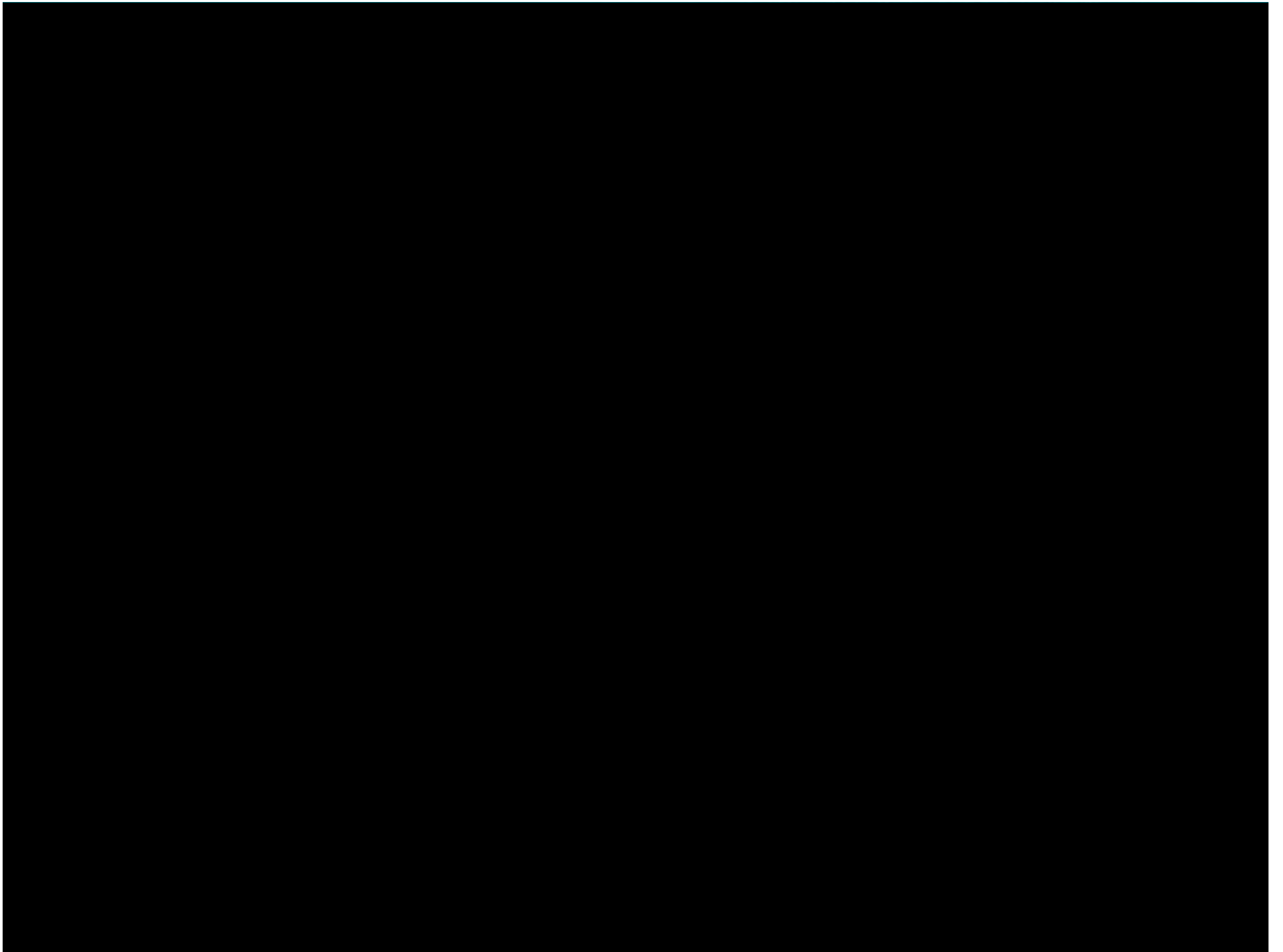




Questions?

mysuwanneeriver.com



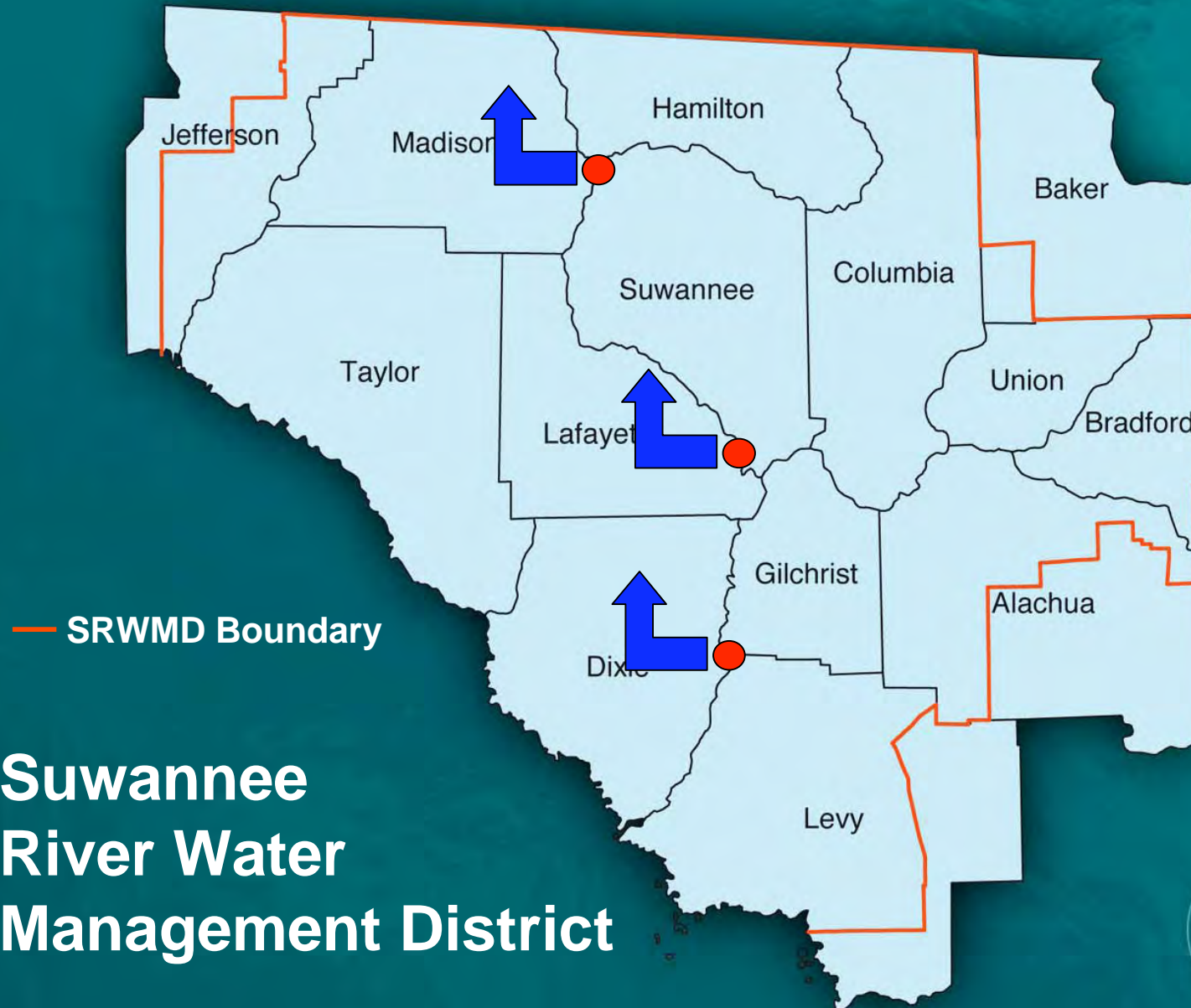


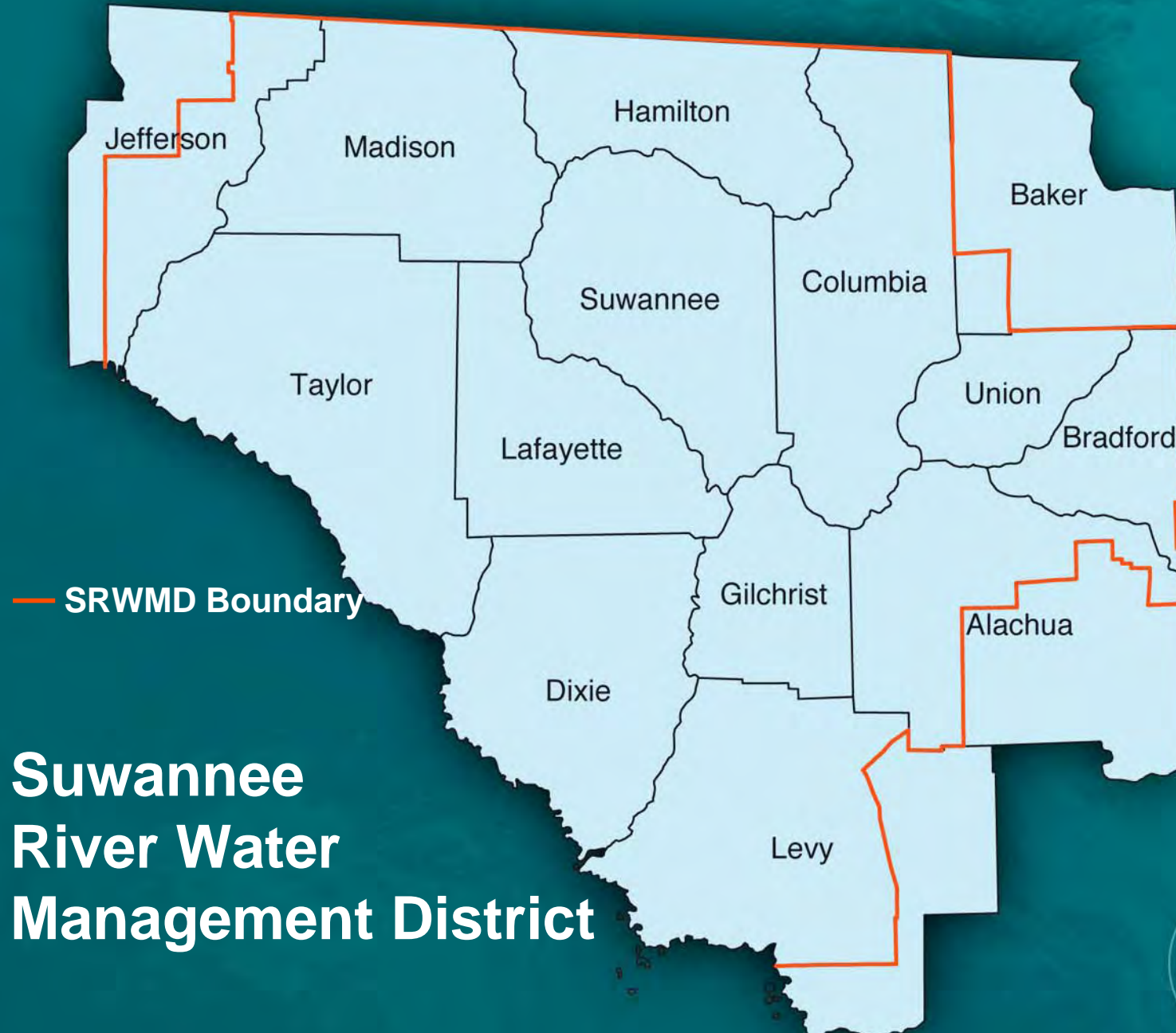
Schedule

- ☁ The Suwannee River Basin rivers and springs completed by 2008
- ☁ Other rivers and springs completed by 2011
- ☁ Lakes completed by 2011



“Reach Method”







Questions?

mysuwanneeriver.com



MFL Establishment Process

