

THE EXTERNAL PHOSPHORUS BUDGET FOR LAKE APOPKA, 1989-2010

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Upper Ocklawaha Basin Working Group

October 19, 2011

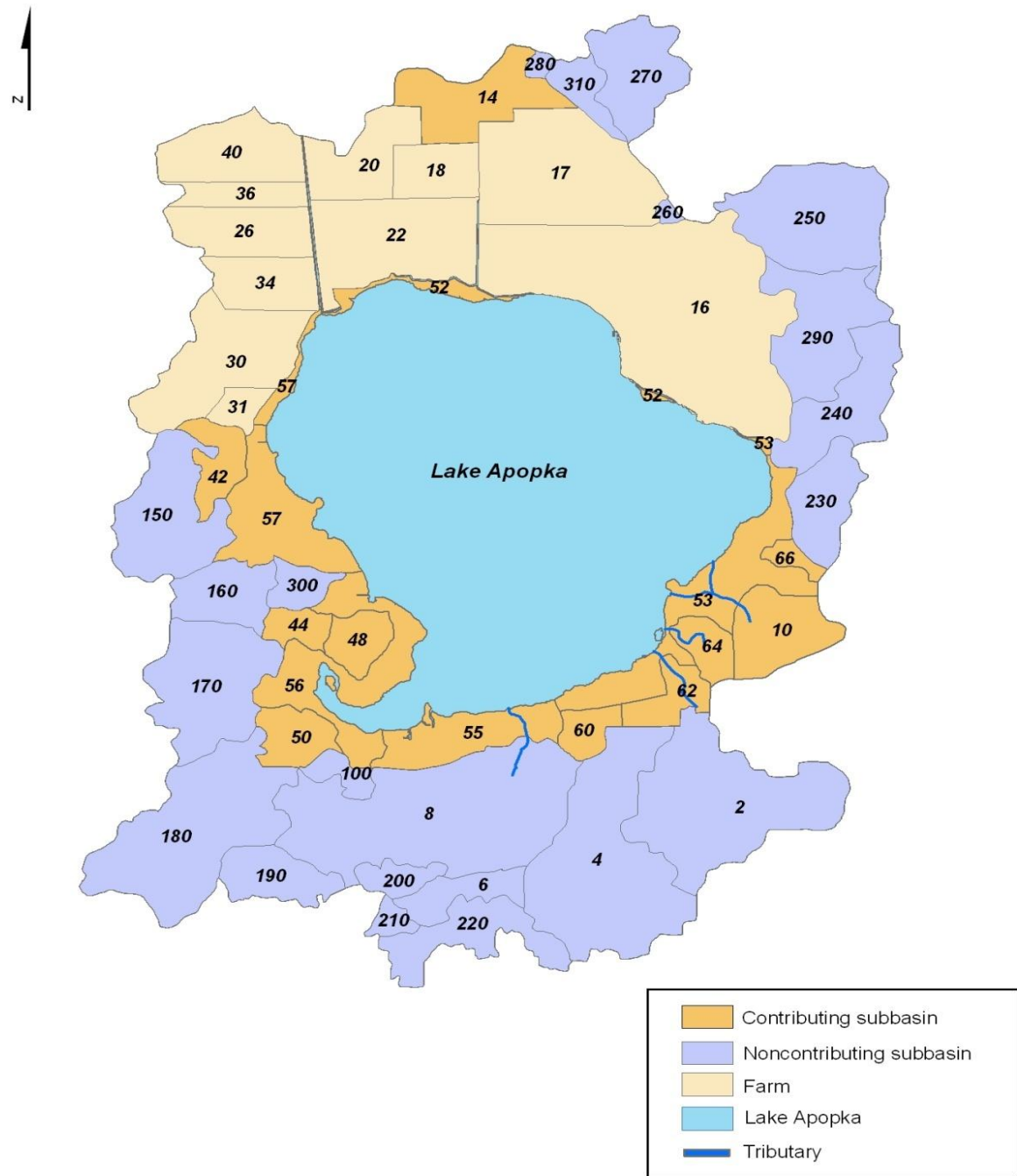


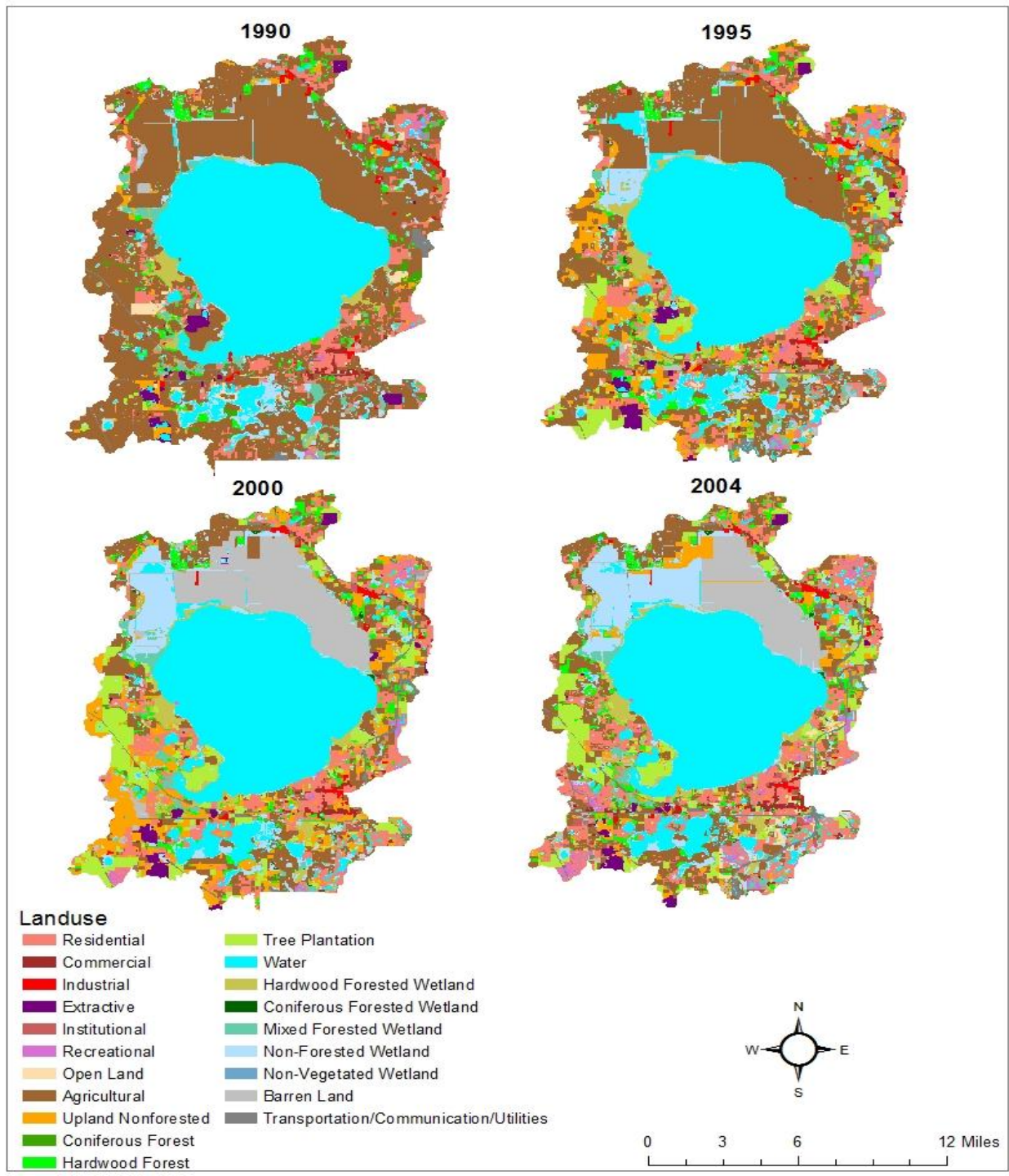
Lake Apopka watershed





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Lake Apopka Restoration Act of 1985

Chapter 85-148

Section 5.

- (3) Develop a nutrient budget for the lake to ensure that appropriate regulatory efforts are instituted with respect to nutrient loading



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Monitoring effort

1989 and 1990 selected for full monitoring
Streamlined monitoring conducted before
and following
QA plan approved by FDEP





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NuRF

Apopka Beauclair
Canal Lock and
Dam

West Marsh

Duda Farms

ABC

Marsh
Flow-Way

Clay
Island

Lake Orange Co.

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Imagery Date: 1/26/2011



1994

28°41'12.82" N 81°40'44.88" W elev 65 ft

Eye alt 31780 ft





Jones Ave.

Zellwood

Zellwood, FL

SW Park

Lake Level Canal

Zellwin
Sand
Farm

ZDWCD
Unit 1

441

Co Rd 437

McDonald Canal

AB Canal

Duda

ZDWCD Unit 2

Lake Co.
Orange Co.

State Hwy 37

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Image U.S. Geological Survey
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Imagery Date: 5/1/2010



1990

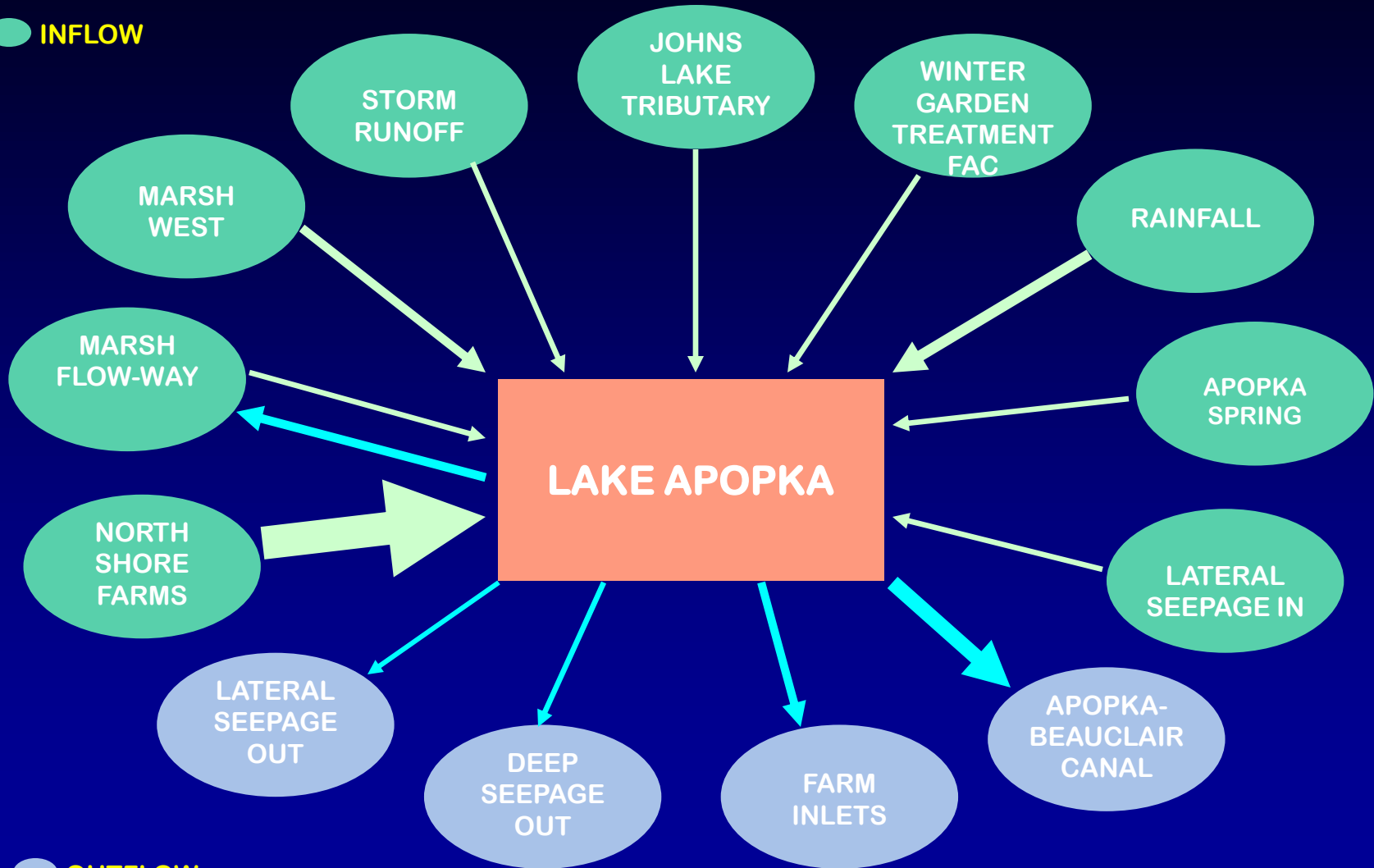
28°41'14.53" N 81°36'42.05" W elev 64 ft

Eye alt 41322 ft



Lake Apopka Phosphorus Sources and Sinks

● INFLOW



● OUTFLOW

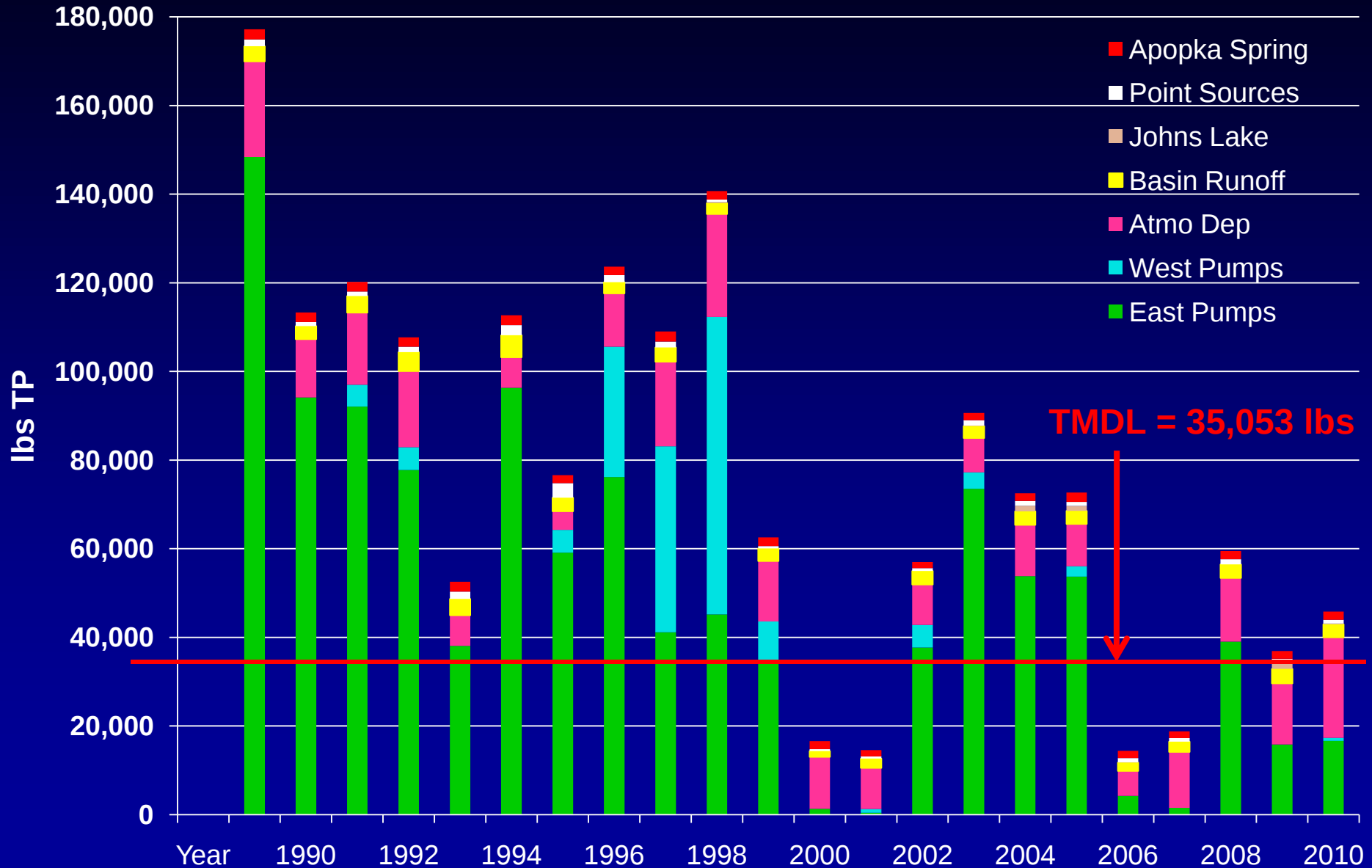


7.23.2002



01/28/2004

Total Phosphorus inputs to Lake Apopka, 1989-2010



Basin Projects – Load Reduction

- LAP09 – Jones Avenue Stormwater Park: 296 #/yr
- LAP14, SR 50-Basin G: -2.8 #/yr
- LAP15, SR 50-Basin H: 13.5 #/yr
- LAP16 , SR 50-Basin I: -0.02 #/yr
- LAP18, Berg Drive: 1.9 #/yr
- LAP19, Water Street: 22.8 #/yr
- LAP25, Pioneer Key Stormwater Park: 134 #/yr
- Total = 478.74 #/yr



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Areas of Concern

- Jones Avenue Basin (Basin 14)
- Tributaries to Lake Apopka (no sampling by SJRWMD except Johns Lake)
- Additional culvert adjacent to slide gate control structure at Johns Lake outflow site
- Quantifying septic tank and package plant impacts



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Holly Ct

Mohawk Dr

Holly Creek Rd

441

Jones Ave

Whiting St

By-pass
canal

Jewel Foliage Rd

Canal

Stormwater
Park
MAID
system

Laughlin Rd

Lake Level
Canal

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Imagery Date: 5/1/2010



1995

28°43'47.87" N 81°37'23.11" W elev 68 ft

Eye alt 8270 ft



Johns Lake control structure

Metal pipe
installed around
1990.

Slide gate control
structure constructed
around 1965

10.27.2010 14:54



Lake Apopka Interconnect Project

Outfall to McDonald Canal

Clean out Canal
Replace Culvert
With Bridge

Sheet Pile Plug/
Inlet structure

Pump to sand farm

Breach Levee

Plug in Lake Level Canal

Zellwood

441

Blossom Trail