



Northern Tampa Bay LTPRG  
Recovery Assessment Update  
August 7, 2007



# Tasks for the SWFWMD by 2010

- Form an opinion on the status of hydrologic recovery in the NTB area
- Assess the need to revise the MFLs (including methods and values)
- Adopt rules to implement the existing or the New MFLs
- Assess Tampa Bay Water's Consolidated Permit
- Revise 40D-80 ... to incorporate a second phase to the Recovery Strategy .... as necessary

# Schedule

- 2007 through 2008 – majority of staff recovery analysis, with regular reports to the Governing Board and LTPRG.
- 2009 - 2010 – assessment of consolidated permit
- 2010 – decision -making

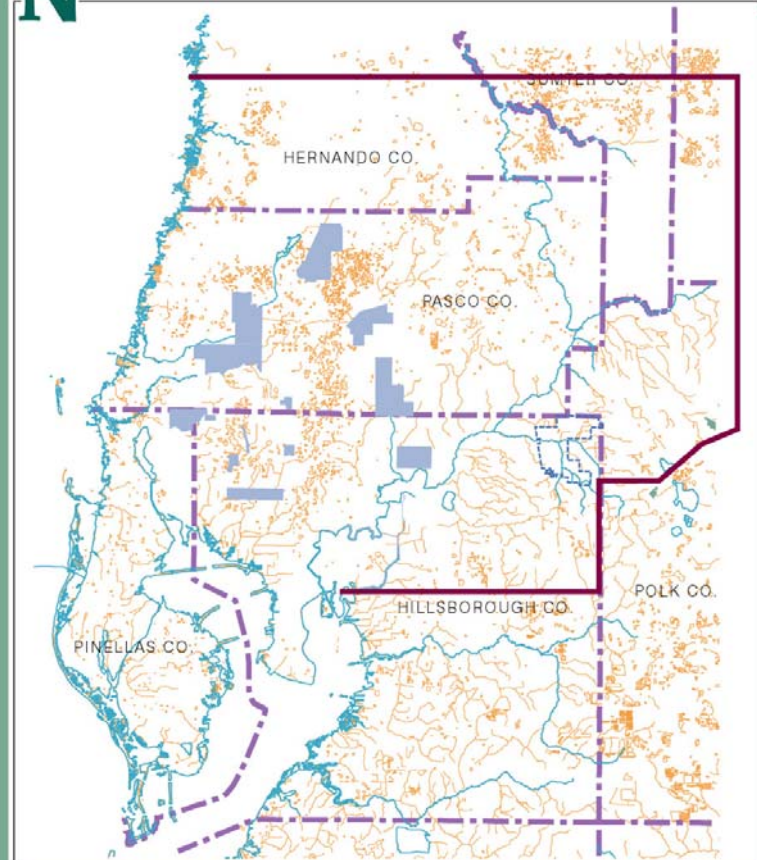
# Timeline

Task	2007	2008	2009	2010
Recovery Plan Development				
Internal/External Comment				
Recovery Assessment				
Internal/External Comment				
Rule Re-evaluation and Change				
Internal/External Comment				
Development and Reassessment of MFLs				
Internal/External Comment				
Discussion of Recovery Plan Phase Two				
Consolidated Permit Development				
Consolidated Permit Submittal/Review				
Board Decision on Recovery				
Board Decision on Permit				

# 1999

## NTB Phase II Program

### Northern Tampa Bay Phase II Scope of Work



October 21, 1999  
DRAFT

# Northern Tampa Bay II

## Objectives

- Expand and Improve Data Collection
- Evaluate Existing MFL Methods and Develop New MFL Methods
- Evaluate the Effects of Recovery
- Evaluate Alternative Management Methods

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# **“To Do” for 2007 - Data**

- Finalize WAP database
- QA/QC check and process development for WAP
- Create NTB water level database
- Continue with network maintenance



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# **Accomplishments for 2005/2006 - MFLs**

- Revision, application, and training for WAP
- Development of complete WAP database
- Surveying
- Further development of MFL applications for lakes

# **“To Do” for 2007 - MFLs**

- Reevaluation of cypress MFL methodology
- Development of MFL methods for other wetland types
- Further development of compliance techniques

# Minimum Flows and Levels

## *Seawater Intrusion Minimum Levels for Northern Tampa Bay*



DRAFT - March 1999

Hydrologic Evaluation Section  
Resource Conservation and Development Department



# MFL Development and Application

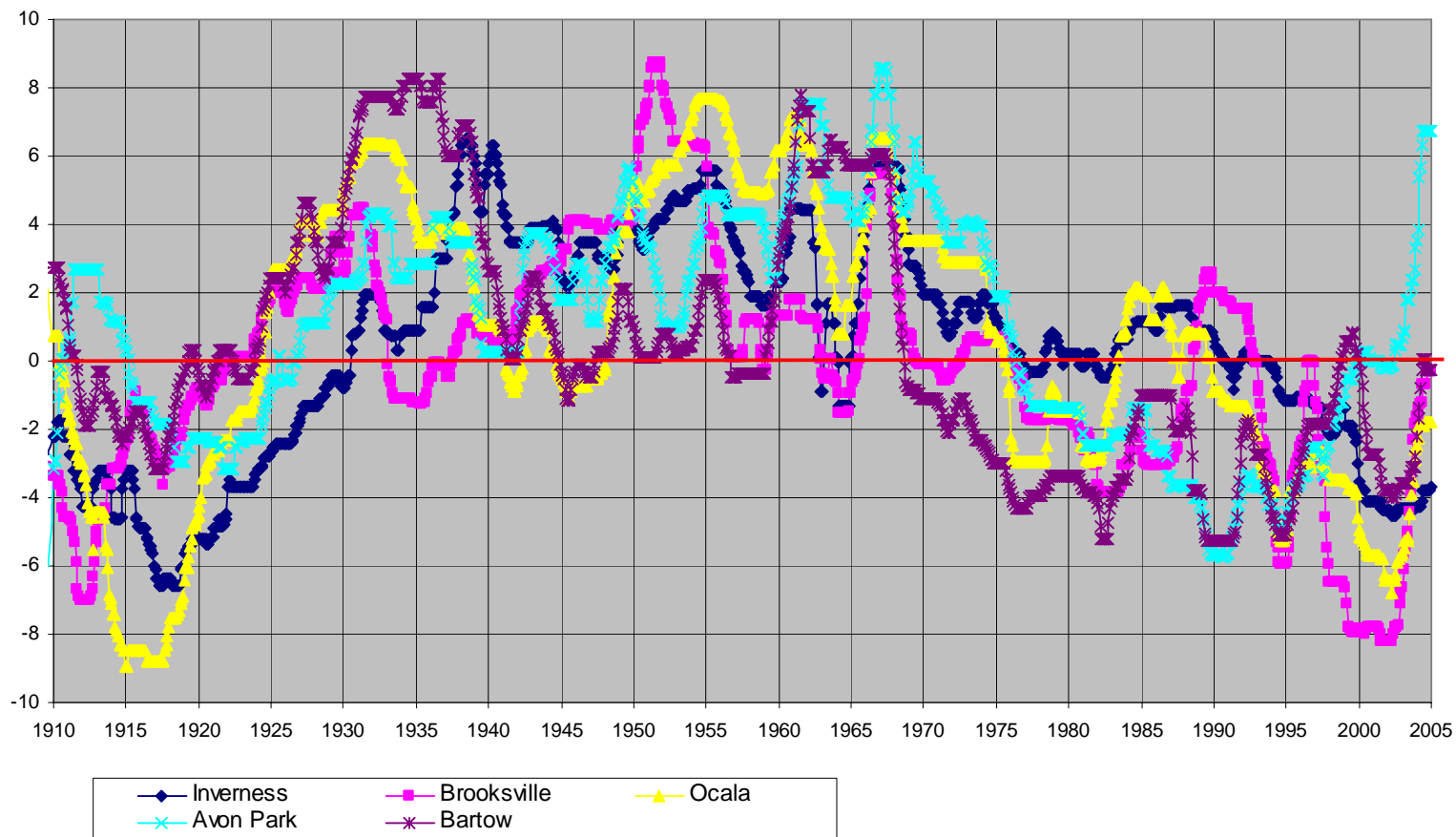
## Four Step Process

1. Develop MFL methodology
2. Apply MFL methodology
3. Assess MFL compliance
4. Go back to 1

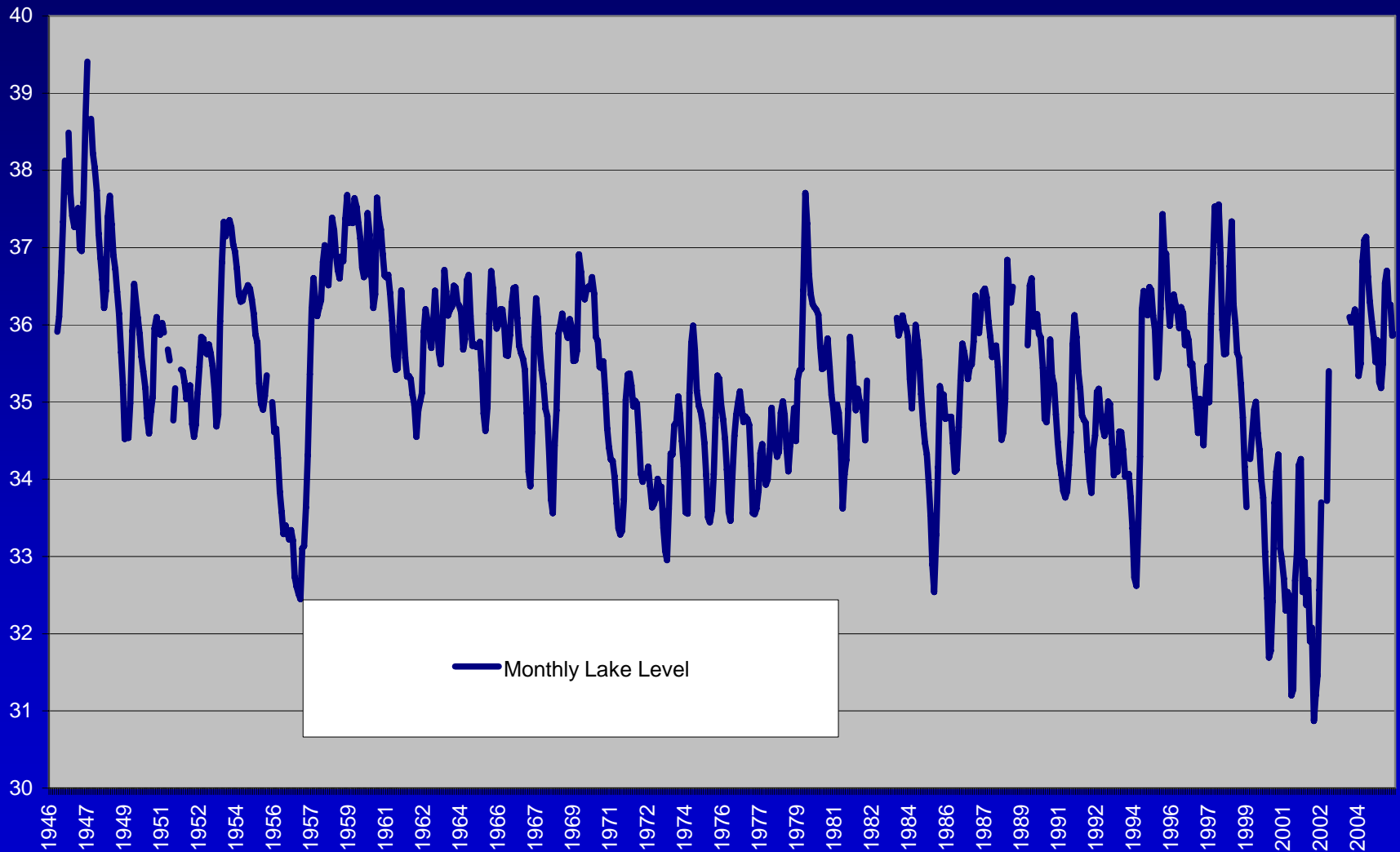
# Four Required Steps/Methodologies for Establishing MFLs

- Estimation of existing impacts
- Estimation of Historic Water Level Percentiles
- Determination of MFL
- Determination of MFL compliance

Rainfall 10-yr Moving Median Minus the POR Median

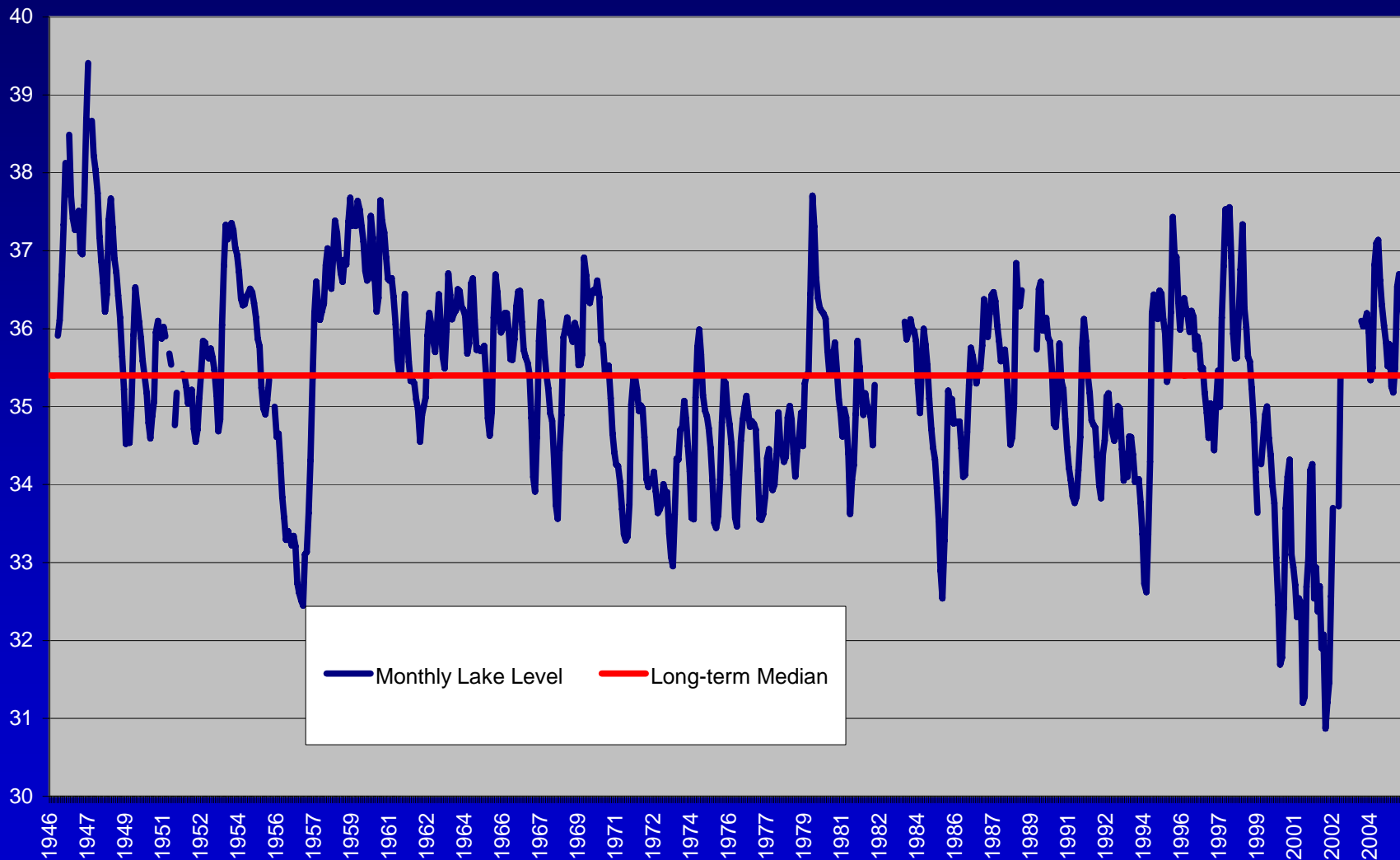


# Lake Carroll

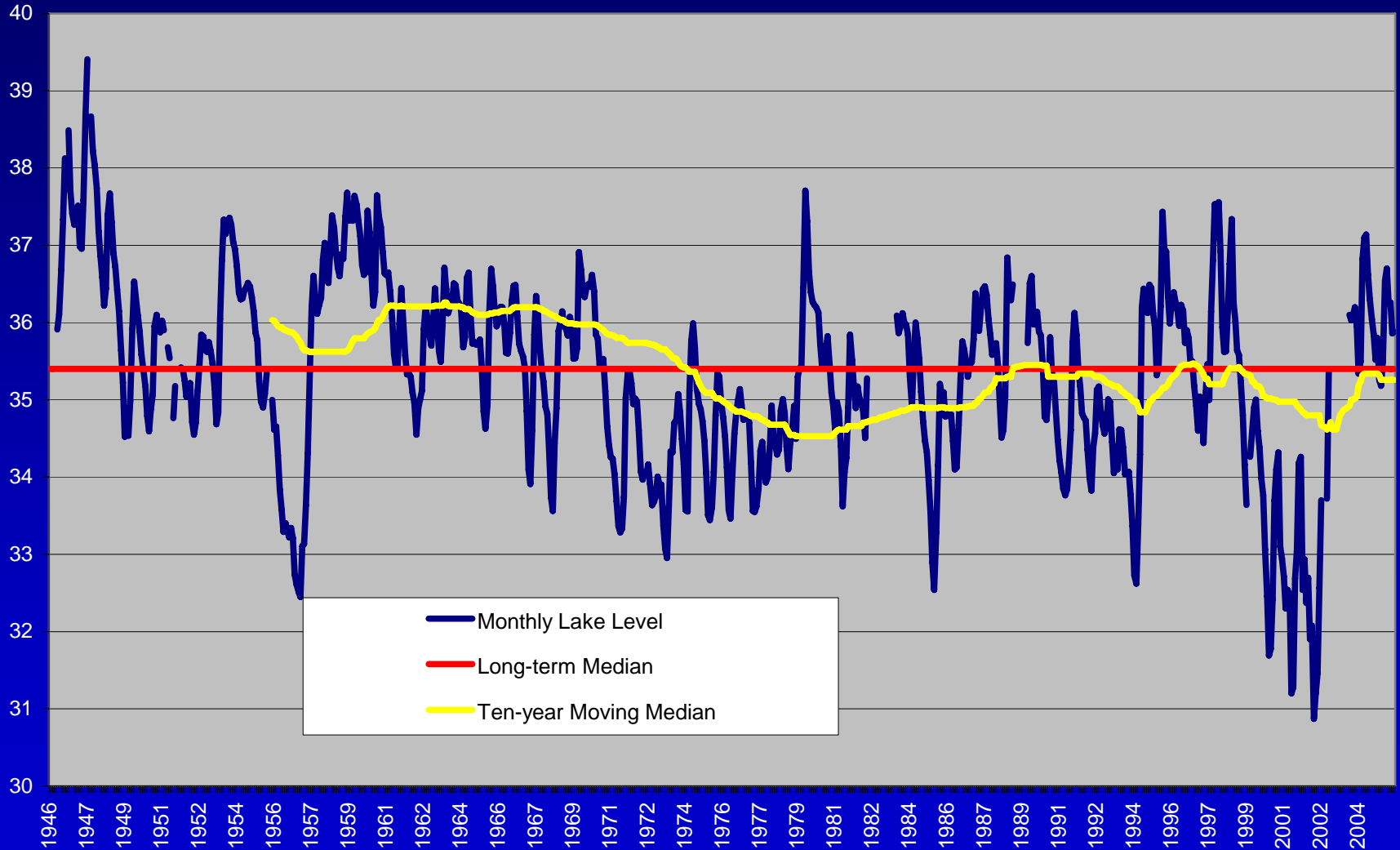




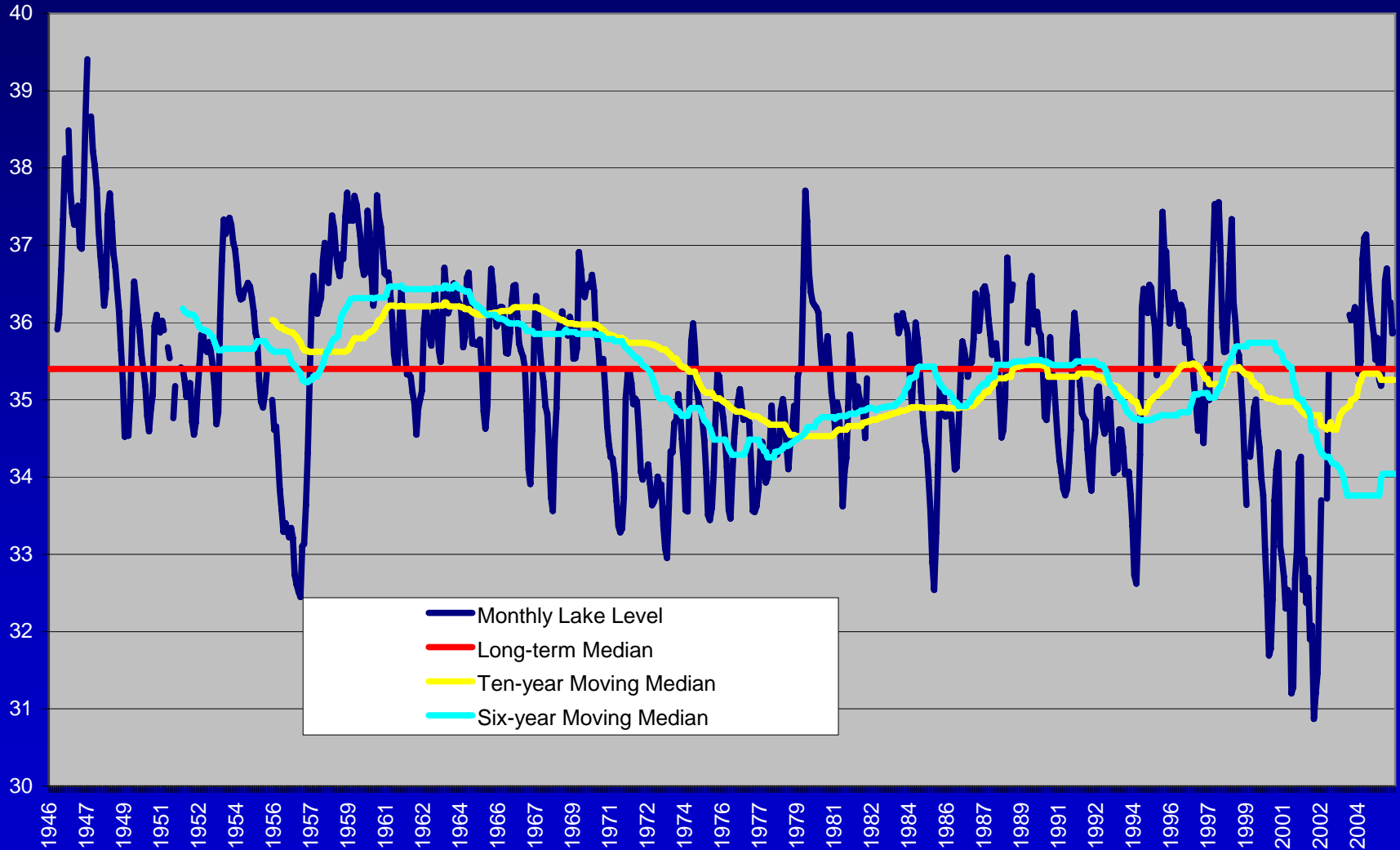
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# Ongoing or Completed Recovery Management Projects in the NTB area

- Morris Bridge Structures Modification
- Lake Armistead Control Structure
- Big Fish Lake Augmentation
- Augmentation Studies
- Well reconstruction at Section 21
- Cross Bar Wellfield Wetlands Restoration
- Starkey Wellfield Reclaimed Water Rehydration
- Section 21 Wellfield Rehydration
- Rocky Creek Lake Enhancement
- Cypress Creek Surface Water Management
- South Pasco Wellfield Berm Modification
- Starkey Wellfield Ancloste Rehydration

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**What do we mean by  
“RECOVERY”?**

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**How do we determine  
“RECOVERY”?**



# Recovery (Chapter 373)

If the existing flow or level in a water body is below, or is projected to fall within 20 years below, the applicable minimum flow or level established pursuant to s. [373.042](#), the department or governing board, as part of the regional water supply plan described in s. [373.0361](#), shall expeditiously implement a recovery or prevention strategy, which includes the development of additional water supplies and other actions, consistent with the authority granted by this chapter, to:

- (a) Achieve recovery to the established minimum flow or level as soon as practicable; or
- (b) Prevent the existing flow or level from falling below the established minimum flow or level.

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# Objectives of the Recovery Strategy (40D-80)

- All water use permittees within the Area are addressed by this Rule 40D-80.073, F.A.C. However, Tampa Bay Water ..... facilities account for the majority of water withdrawals within the Area. For this reason, these facilities are the primary focus of the portion of the recovery strategy encompassed by this Rule 40D-80.073, F.A.C. Other users ..... are addressed in 40D-80.073(5), F.A.C.
- Recovery to Wetland and Lake Minimum Levels for wetlands and lakes described in and established in 40D-8 ..... is the objective of this Rule 40D-80.073, F.A.C.

# Components of the Recovery Strategy (40D-80)

- “Partnership Plan”
- ...the Floridan Aquifer Recovery Management Levels set forth in Table 80-1 below shall be used as long-term guidelines for allocating withdrawals within the Operations Plan, submitted to the District by TBW pursuant to the Agreement, and shall be reevaluated in 2010
- Interim Recovery monitoring
- Addressing other existing (non – Tampa Bay Water) water use upon renewal
- Supplemental hydration of lakes and wetlands
- New applications for water use

## **2010 Recovery Assessment (40D-80)**

- The District will evaluate the state of knowledge of these matters in 2010, including analysis of all information and reports submitted pursuant to Rule 40D-80.073(3)(c), data collected and analyzed and relationships determined pursuant to Rule 40D-8.011(5), F.A.C., regarding the Minimum Flows and Levels for the priority waters in the area (The "MFLs") and the Central System Facilities permit(s).

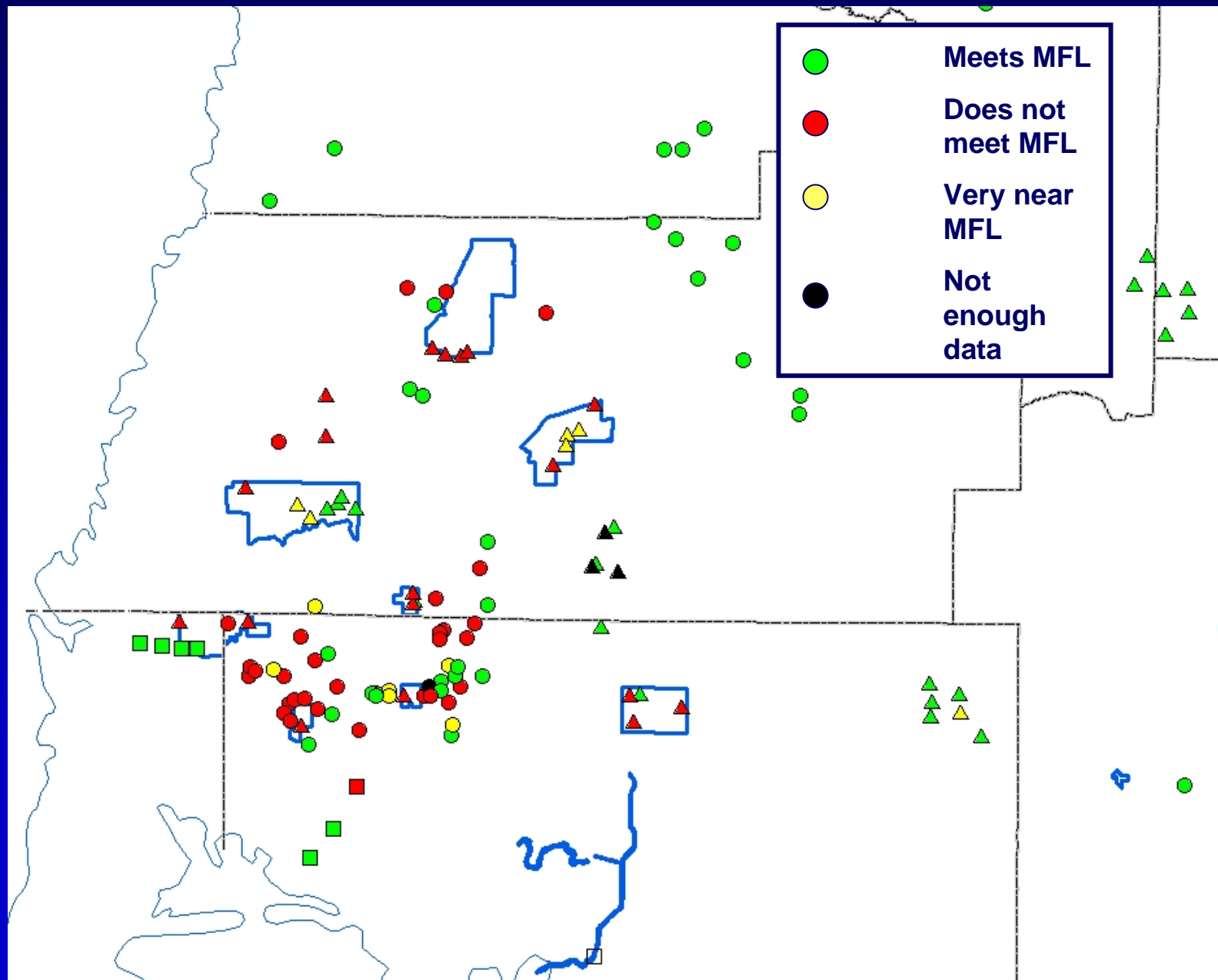
# 2010 Recovery Assessment (40D-80)

- Based on that analysis and evaluation, on or before December 31, 2010, the District will initiate rulemaking to
  - revise the MFLs ...as necessary;
  - adopt rules to implement the existing or the New MFLs ...; and
  - Revise this Rule ... to incorporate a second phase to this Recovery Strategy .... as necessary

# **Recovery Assessment includes:**

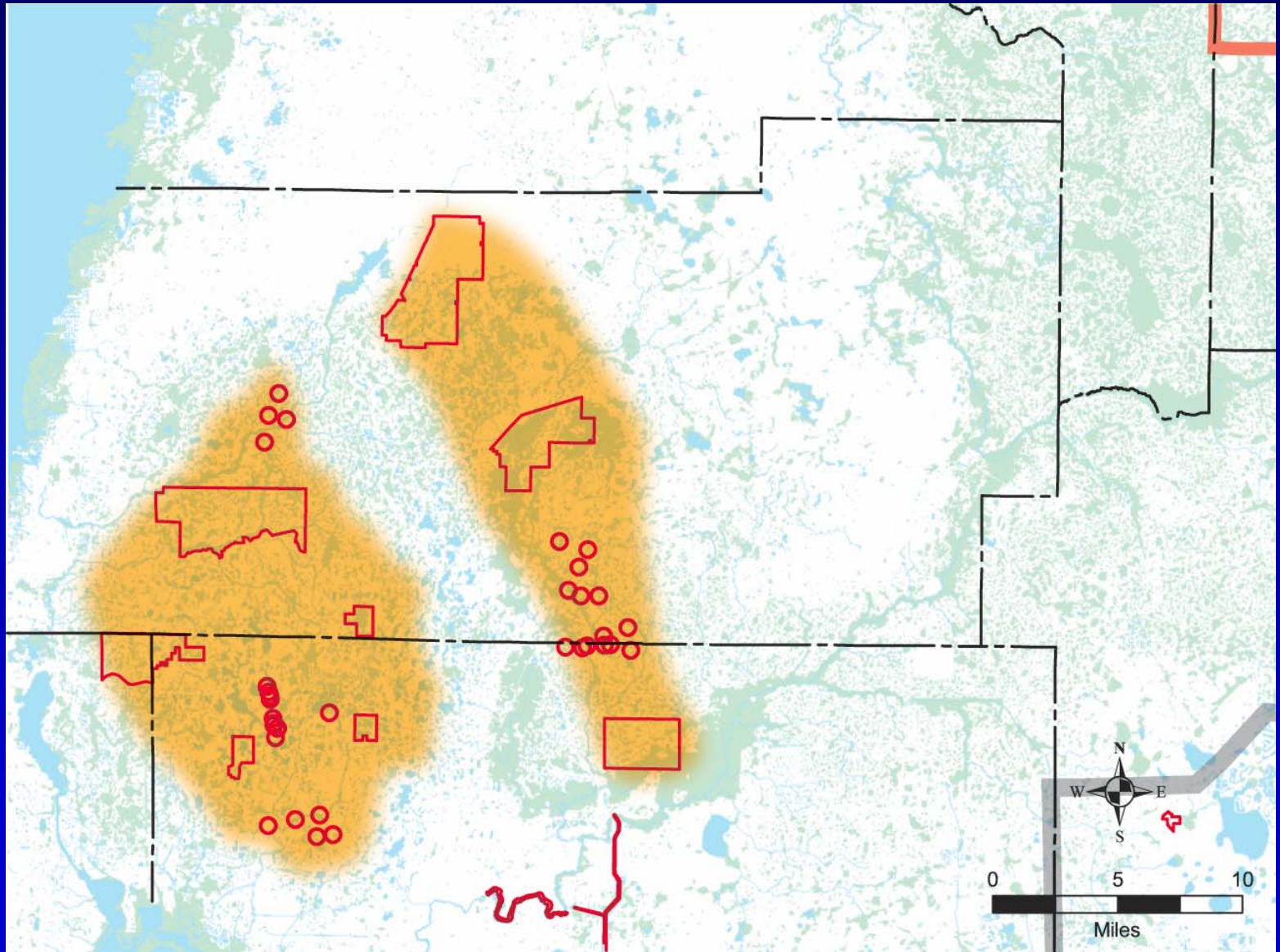
- Are the MFLs being achieved?

# MFL Status 2007

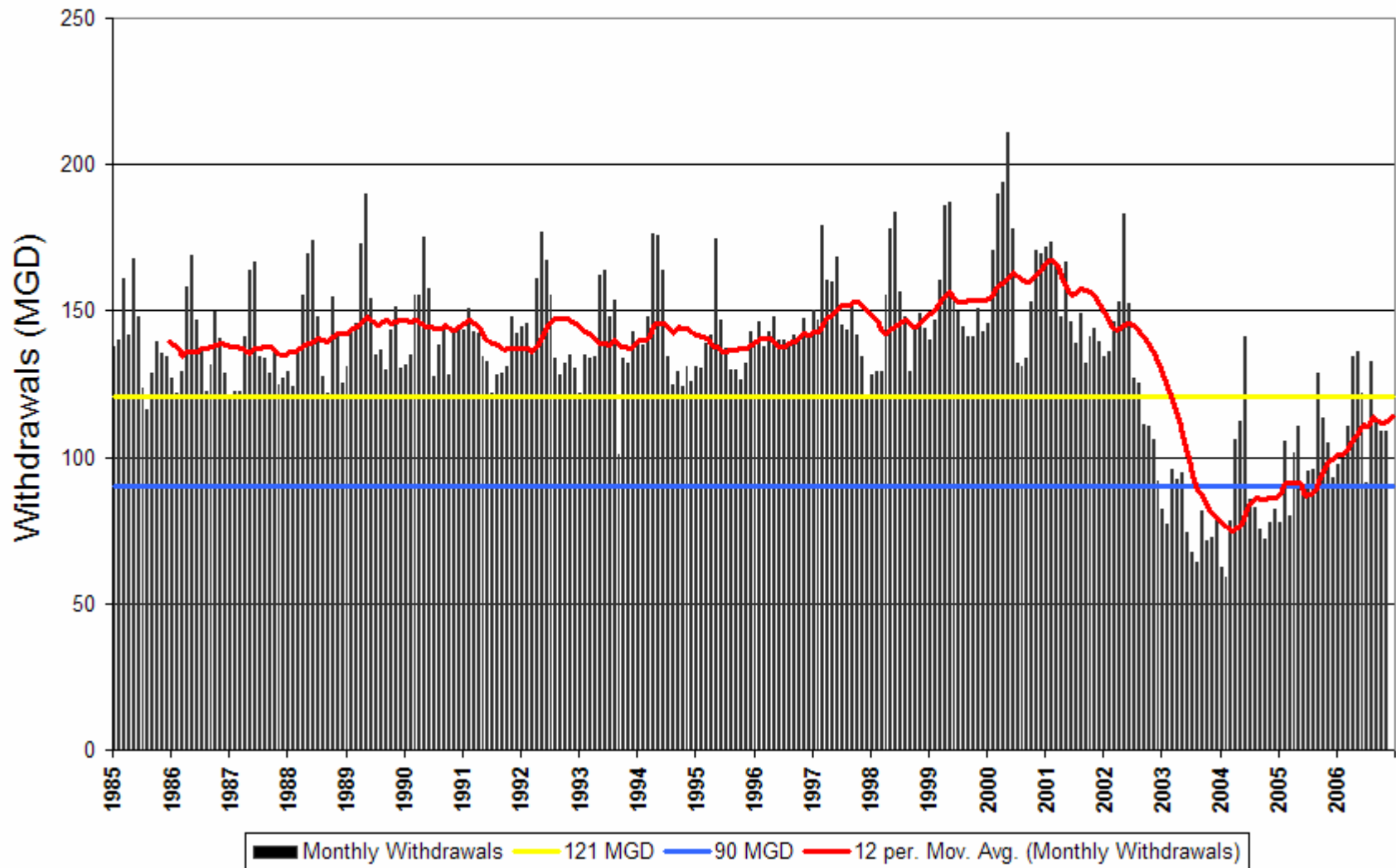




# Impacts in 1998

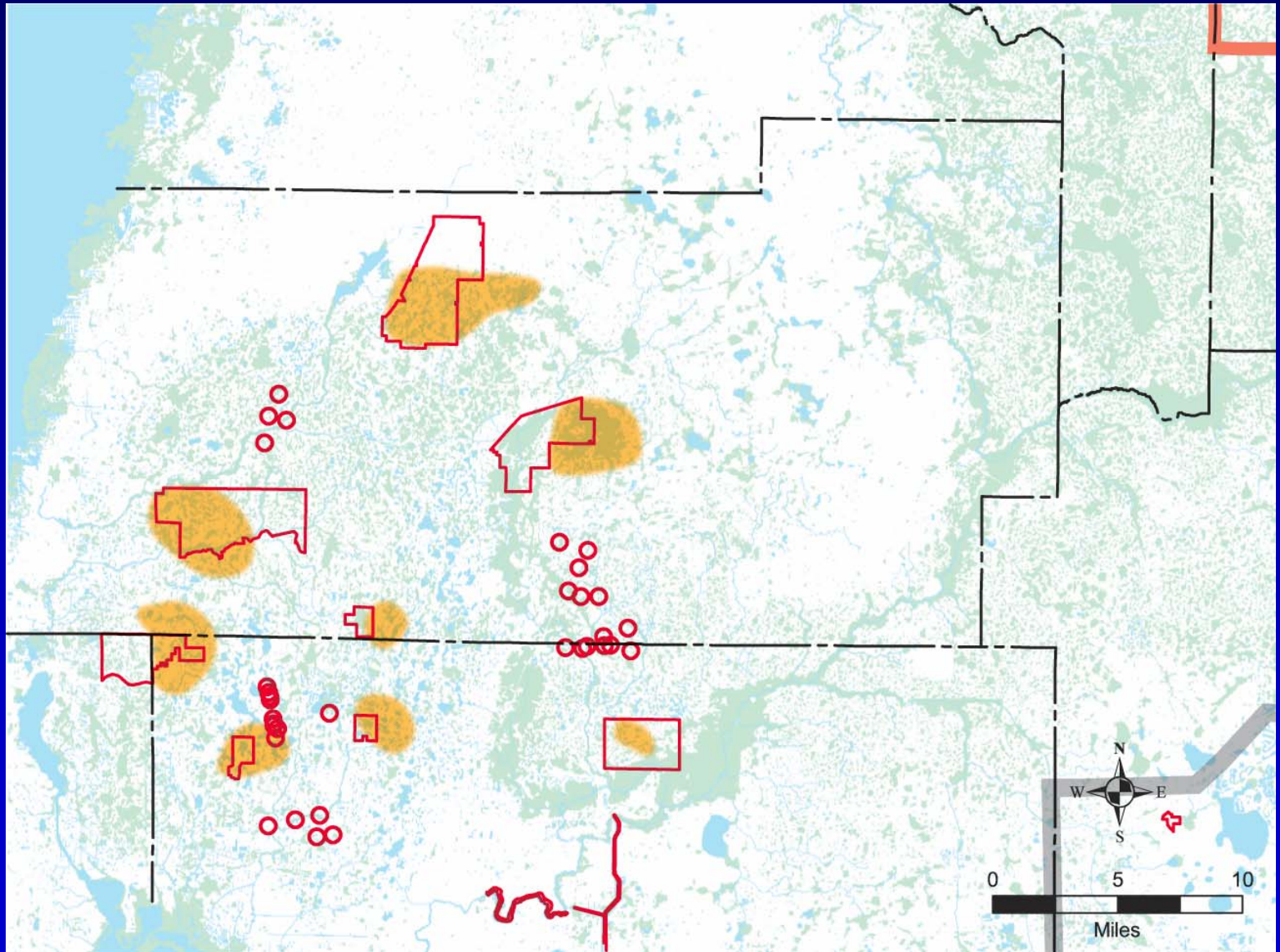


## Consolidated Permit Withdrawals





# Impacts in 2010



# Why is my wetland/lake still impacted, and what will be done?

- It's a karst system, and the models aren't perfect
- Bad choice for MFL water body, or MFL set incorrectly
- MFL method needs adjusting
- Something else is impacting the water body
- The water body is physically altered, and cannot return
- We need to adjust the OROP
- Other

# **Recovery Assessment includes:**

- Are the MFLs being achieved?
- Assessment of the rest of the wetlands in the area, using
  - MFL-like assessments for other wetlands
  - IHM modeling
  - General biologic assessments

# **“To Do” for 2007 - Recovery**

- Continue evaluation of MFL status
- Development of Recovery Assessment Plan
- Begin discussions on aspects of Recovery Plan Phase II

# Current Expectations

- Regional cutbacks will generally result in predicted system health condition
  - Many dispersed individual exceptions to deal with – many MFLs not being met
- Alternative management options will not solve all remaining problems
- Further optimization of ground-water withdrawals will help to a degree

# Schedule

- 2007 through 2008 – majority of staff recovery analysis, with regular reports to the Governing Board and LTPRG.
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