

# Florida Water Law and the Floridan Aquifer

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Richard Hamann

University of Florida, Levin College of Law

hamann@law.ufl.edu

# The Legal and Administrative Framework

- Florida Water Law Background
  - Common Law
  - Administrative

See Christine A. Klein, Mary Jane Angelo and Richard Hamann, *Modernizing Water Law: The Example of Florida*, 61 FLA. L. REV. 403-474 (2009)

[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1324329](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1324329)

# Water Resources Act of 1972

- Consumptive Use Permitting
- Permit duration, renewal and transfer
- Water Shortages and Emergencies
- Ownership of water
- Control of water
- Transport of Water
  - Local sources first
- Minimum flows and levels
- Reservations
- Water supply planning

# Conflict

- Human Conflict
  - Conflicting consumptive uses
    - Drawdown effects
  - Consumptive vs *in situ* uses
    - Hydropower, navigation, waste disposal, recreation, aesthetics
- Drainage vs Storage
  - Flood vs Drought
- Between areas
  - Coast vs Interior
  - North vs South
- Natural Systems Needs

# Common Law of Water

East (humid) vs West (arid)

Riparianism vs Prior Appropriation

## **Riparian Rights**

Owner of riparian land

Right to use water

navigation, fishing, swimming, view, waste disposal etc.

withdrawal for use on riparian land

natural flow doctrine

Right to receive natural quantity and quality of water

# Reasonable Use

Right to make reasonable use

Right to be protected against unreasonable use by other riparians.

Reasonableness = Balancing of public and private interests

Riparian land/watershed limitation

Right limited to riparian land within the same watershed

# Groundwater

“Because the existence, origin, movement and course of such waters, and the causes which govern and direct their movements, are so secret, occult, and concealed. . . an attempt to administer any set of legal rules in respect to them would be involved in hopeless uncertainty, and would be, therefore, practically impossible.” *Frazier v. Brown*, 12 Ohio St. 294, 311 (1861)

Percolating Waters vs. Underground Streams

Absolute Ownership vs. Reasonable Use

# Limitations

- No certainty of water rights tenure
- Disputes must be adjudicated.
  - e.g. CA groundwater adjudications
- Reactive vs Proactive
  - No research or monitoring.
  - No planning for public interest



# Prior Appropriation

Right to use water is acquired by diverting it from natural course.

Senior appropriators have priority over junior appropriators.

First in time, first in right.

No rights to instream flow. Water must be diverted.

Beneficial use doctrine

Water must be put to beneficial use.

Rights not tied to ownership of land.

Market in water rights.

But limits on transfer to protect other users

# Limitations of Prior Appropriation

Overappropriated streams.

Diversion out of watershed encouraged

Public must acquire water rights for environment.

Market determines reallocation

# Water Administration

- Privatization of Public Lands
  - Swamp and Overflow Lands Act of 1850;  
Riparian Lands Act of 1856
- Ditch, Drain, Fill
  - Drainage Districts, Everglades Drainage District
- 1947 Flood → Flood Control District
  - Central and Southern Florida Flood Control District
- 1960 Flood – Southwest Florida Water Management District

# 1957 Water Resources Act

- State Bd of Conservation (Governor and Cabinet)
- Authorize use of “excess” surface or groundwater
- Delegate authority to water management districts

# Water Resources Act of 1972

(Ch 373, F.S.)

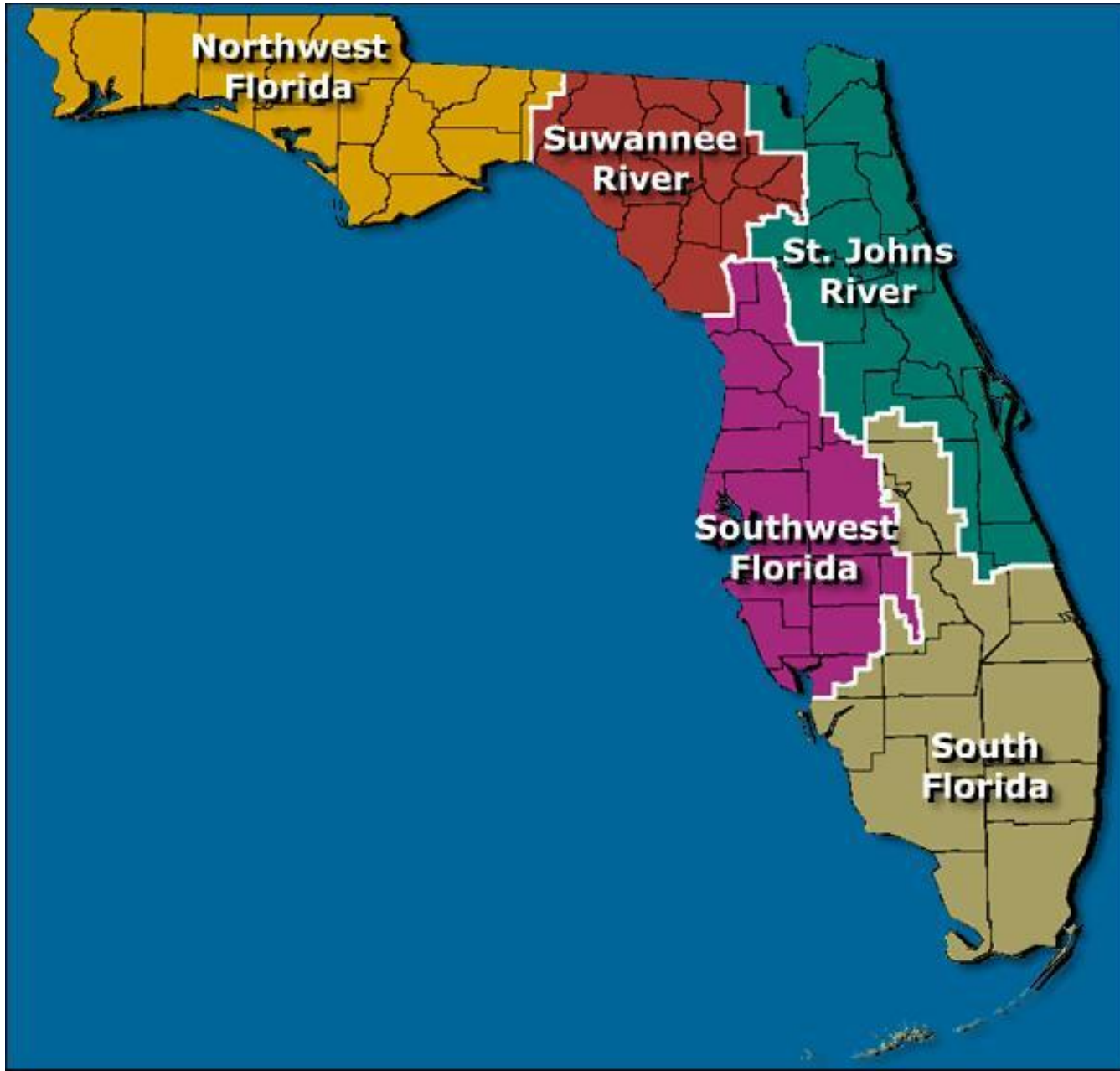
Severe drought 1970-71

FRANK E. MALONEY et. al., A MODEL WATER CODE (1972)

## Administrative System

5 regional water management districts – surface basins

# Water Management District Boundaries



# Administration

- Governing Boards (9-13 members; 4 year term)
- Gov appoints Senate confirms
- Hire staff. Executive Director
- Levy ad valorem taxes. Up to 1 mil (.05 in NFWWMD)
- DEP has “general supervisory authority”
  - Water Resource Implementation Rule 62-40
- Decisions may be appealed to Gov. and Cab. (FLWAC)
- Budgets now approved by Gov and Legislature
- Rules now approved by Gov and Legislature

# Authorities

research and monitoring

planning

water supply

water quality restoration (SWIM)

construct, adopt and operate structures and works

dams, dikes, levees, pumps

acquire and manage land

floodplains, wetlands, recharge areas

**Pt IV, Ch 373--**Regulate surface water management facilities and wetlands conversion (Environmental Resource Permits)

**Pt II, Ch 373--** Regulate consumptive use of water



# Consumptive Use Permitting (CUP or WUP)

## **Regulated Activities**

- All withdrawals or diversions subject to CUP
- Exception: Domestic, indoor use for cooking, bathing, sanitation
  - NA to irrigation, swimming pools, air conditioners etc.

## **Three Criteria**

- No interference with existing legal users
- Reasonable beneficial use
- Public interest

# "Reasonable-beneficial use"

means the use of water in such quantity as is necessary for economic and efficient utilization for a purpose and in a manner which is both reasonable and consistent with the public interest.

- Efficiency of water use.
- Harm caused to water resources
- Practicality of reuse or lower quality water
- Salt water intrusion or water quality impacts
- Social and economic value of the use

# Public Interest

- Relatively undefined.
- Consideration of plans
  - Mandated for transfers
  - “Alternative” water supplies presumption
- Preferred water sources given consideration

# Environmental Impacts

- **RBU / Public Interest Standards**
  - allows consideration of environmental impacts on case by case basis
  - eg no adverse effects on wetlands or lands of others
- **Minimum Flows and Levels**
- **Reservations**

# Permit Duration, Renewal and Transfer

- Permit for 20 year duration
- Can be transferred but only if use, location etc. remain the same
- Subject to competing uses on renewal
- If equal, renewal preferred.
- If not, use that best serves the public interest.

# Water Shortages and Emergencies

- Permits based on 1:10 year conditions
- If water is not sufficient, implement water shortage plan
- Phase I-IV
- Cutbacks by source, use, area etc. as planned.
- If not sufficient, water emergency orders

# Ownership of Water

- public resource
- Not owned by landowner
- Rights to use water only under WRA
  - *Village of Tequesta v Jupiter Inlet Corp*, 371 So. 2d 663 (Fla. 1979)
- Extent of property ownership is not relevant
  - *Pinellas Cty. v. Southwest Fla. Water Mgt. Dist.*, 10 FALR 4239-4260, 4255 (Final Order, May 17, 1988)

# Control of Water

- Not controlled by owner of adjacent or overlying land
- Local government control is preempted to WMD
  - e.g. water bottling plants, transfers



# Transport of Water

- Not allowed under common law
- Allowed if “consistent with the public interest”
  - (2) The governing board or the department may authorize the holder of a use permit to transport and use ground or surface water beyond overlying land, across county boundaries, or **outside the watershed** from which it is taken if the governing board or department determines that such transport and use is consistent with the public interest, and no local government shall adopt or enforce any law, ordinance, rule, regulation, or order to the contrary.

# Local Sources First

shall consider:

(a) proximity

(b) All impoundments, streams, groundwater sources, or watercourses that are geographically closer to the area of use or application than the proposed source, and that are technically and economically feasible for the proposed transport and use

(c) All **economically and technically feasible alternatives** to the proposed source, including, but not limited to, desalination, conservation, reuse of nonpotable reclaimed water and stormwater, and aquifer storage and recovery

(d) The potential environmental impacts that may result from the transport and use of water from the proposed source, and the potential environmental impacts that may result from use of the other water sources identified in paragraphs (b) and (c)

(e) Whether existing and reasonably anticipated sources of water and conservation efforts are adequate to supply water for existing legal uses and reasonably anticipated future needs of the water supply planning region in which the proposed water source is located.

(f) Consultations with local governments affected by the proposed transport and use

## 373.042. Minimum flows and levels

(1) Within each section, or the water management district as a whole, the department or the governing board **shall** establish the following:

(a) **Minimum flow** for all surface watercourses in the area. The minimum flow for a given watercourse shall be the limit at which further withdrawals would be **significantly harmful** to the **water resources or ecology** of the area.

(b) **Minimum water level**. The minimum water level shall be the level of groundwater in an aquifer and the level of surface water at which further withdrawals would be **significantly harmful** to the **water resources** of the area.

## 373.042 (cont.)

The minimum flow and minimum water level shall be calculated by the department and the governing board using the **best information available**. When appropriate, minimum flows and levels may be **calculated to reflect seasonal variations**. The department and the governing board shall also consider, and at their discretion **may provide for, the protection of nonconsumptive uses** in the establishment of minimum flows and levels.

# Issues of Interpretation

- Is “shall” mandatory?
- What are water resources?
- Limit further withdrawals as of when?
  - Present levels vs historic
  - MFL for restoration goals
- How much harm is significant?
- What are “water resources”?
- Minimum flows vs hydrologic regime



## Rule 62-40.473 Minimum Flows and Levels.

- In establishing minimum flows and levels. . . consideration shall be given to natural seasonal fluctuations in water flows or levels, nonconsumptive uses, and environmental values associated with coastal, estuarine, riverine, spring, aquatic, and wetlands ecology, including

- a) Recreation in and on the water;
- (b) Fish and wildlife habitats and the passage of fish;
- (c) Estuarine resources;
- (d) Transfer of detrital material;
- (e) Maintenance of freshwater storage and supply;
- (f) Aesthetic and scenic attributes;
- (g) Filtration and absorption of nutrients and other pollutants;
- (h) Sediment loads;
- (i) Water quality; and
- (j) Navigation.

# 1997 Amendments

Priority list approved by DEP

Prevention or recovery strategy in regional water supply plans

## Considerations

- **shall consider changes and structural alterations** to watersheds, surface waters, and aquifers and the **effects** such changes or alterations have had, and the **constraints** such changes or alterations have placed, **on the hydrology** of an affected watershed, surface water, or aquifer, **provided that nothing in this paragraph shall allow significant harm** as provided by s. 373.042(1) caused by withdrawals. 373.0421(1)(a), F.S.

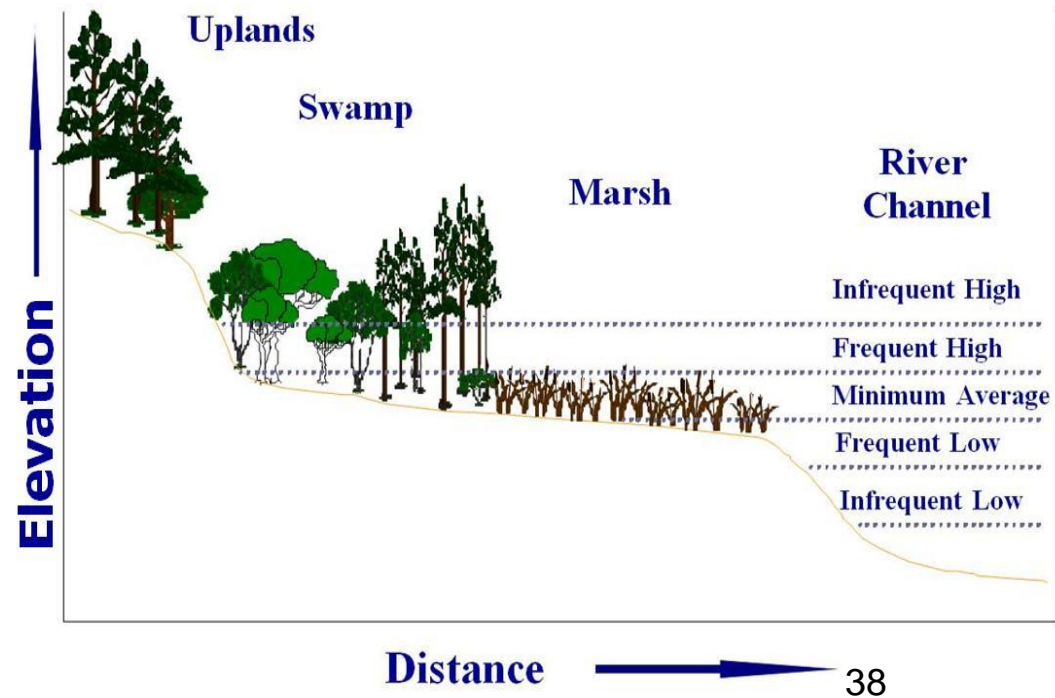
# Exclusions

The Legislature recognizes that certain water bodies no longer serve their historical hydrologic functions. The Legislature also recognizes that **recovery of these water bodies to historical hydrologic conditions may not be economically or technically feasible**, and that such recovery effort **could cause adverse environmental or hydrologic impacts**. Accordingly, the department or governing board **may determine that setting a minimum flow or level for such a water body based on its historical condition is not appropriate**. 373.0421(b)(1), F.S.

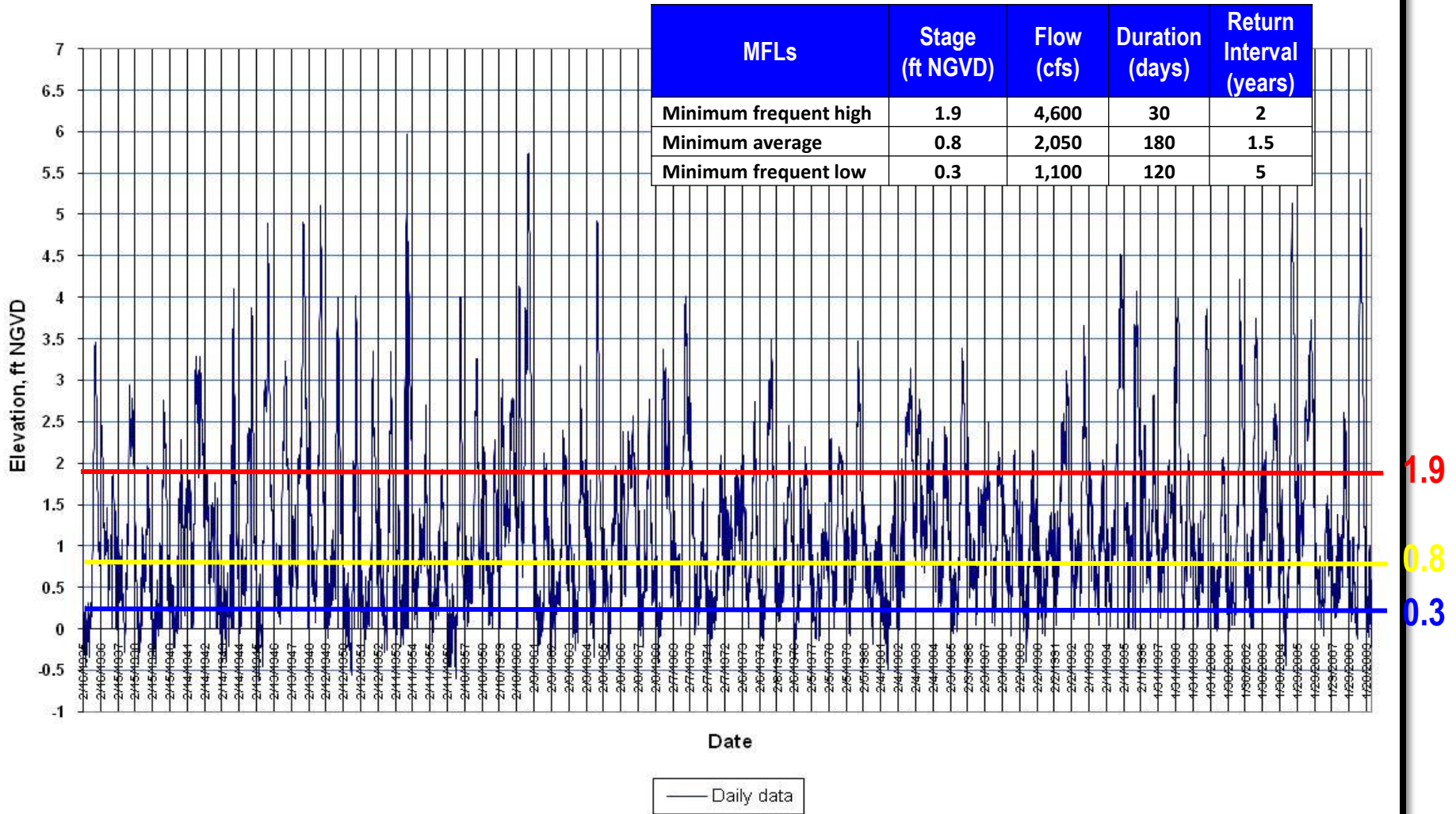
# Multiple MFLs Protect Protect Hydrologic Regime

MFLs	Hydrologic Conditions	Protection Criterion
Infrequent High (IH)	Flooding	Riparian inundation
Frequent High (FH)	Flooding	Wetland inundation
Minimum Average (MA)	Dewatering	Organic substrate
Frequent Low (FL)	Dewatering	Floodplain drawdown
Infrequent Low (IL)	Dewatering	Fish passage

## River Floodplain Profile



### St. Johns River near De Land Stage hydrograph (USGS data: 1/23/1934 - 5/14/2009)



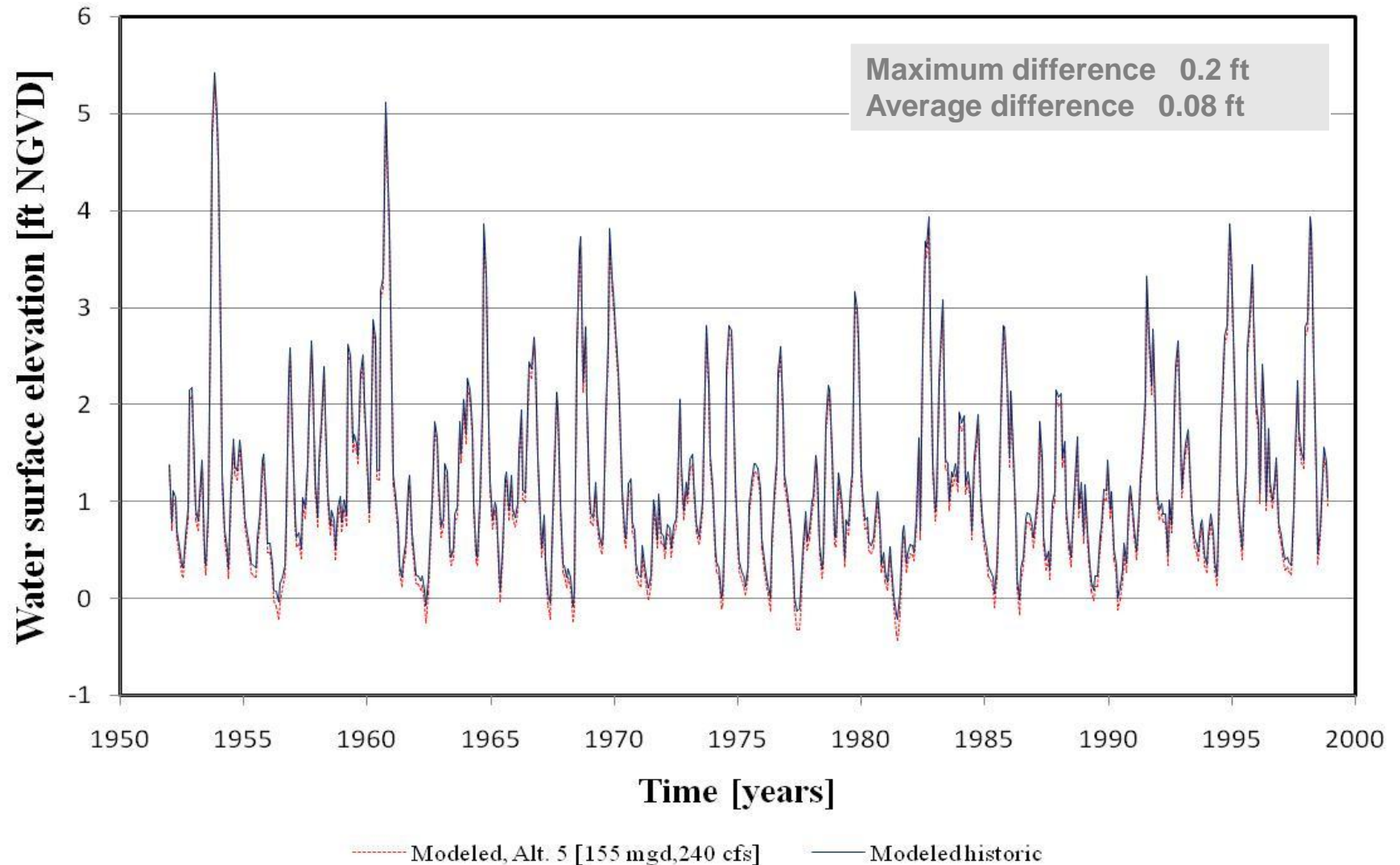
# Implementation

- Model the cumulative effect of all existing and proposed withdrawals on the hydrologic regime
- If any project would violate the hydrologic criteria of any of the adopted MFLs, deny
- Alternative sources, methods, timing etc.



# Case Study – St. Johns River near DeLand

## Water surface elevation SJR at DeLand



# Reservations

The governing board or the department, by regulation, may reserve from use by permit applicants, water in such locations and quantities, and **for such seasons of the year**, as in its judgment may be required for the **protection of fish and wildlife or the public health and safety**. Such reservations shall be subject to periodic review and revision in the light of changed conditions. However, all presently existing legal uses of water shall be protected so long as such use is not contrary to the public interest. Section 373.223(4), F.S.

# Rule 62-40.474 Reservations

- a) Reservations may be used for the protection of fish and wildlife to:
1. Aid in a recovery or prevention strategy for a water resource with an established minimum flow or level;
  2. **Aid in the restoration of natural systems which provide fish and wildlife habitat;**
  3. Protect flows or levels that support fish and wildlife before harm occurs;
  4. Protect fish and wildlife within an Outstanding Florida Water, an Aquatic Preserve, a state park, or other publicly owned conservation land with significant ecological value; or
  5. Prevent withdrawals in any other circumstance required to protect fish and wildlife.

# Rule Challenge

Association of Fla. Community Developers vs. Fla. Dept. of Env't'l. Protection, Case No. 04-0880RP, Final Order, DOAH, Feb. 24, 2006.

34. A restoration project could go beyond “protection” of fish and wildlife if, rather than merely restoring an environmental condition required for the health and sustainability of existing fish and wildlife communities, the project results in significantly larger fish and wildlife communities. Whether water reserved to restore and environmental condition is required for the protection of fish and wildlife depends on the particular circumstances involved.

# Water Supply Planning

## **Regional Water Supply Plans**

- Required if water shortages exist or are predicted within 20 years per water supply assessment
- Plan to provide water for all existing and projected reasonable beneficial uses and natural systems.
- Include adopted MFLs
  - Prevention and Recovery Plans
- Identify projects and costs
  - Section 373.709, F.S. (2013)

## **Local Comprehensive Plans**

- Must include projects from regional water supply plan
- Water supply projects must meet 10 year needs assessment
  - Section 163.3177(6)(c)(3), F.S. (2013)