

**Distant Neighbors-Law and Science  
or  
If We Know So Much, Why Do We  
Make Such Crummy Decisions?**

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# The Study of Water—Science Version

## **hydrology**

[hahy-drol-uh-jee]

noun

1.

**the science dealing with the occurrence, circulation, distribution, and properties of the waters of the earth and its atmosphere.**

Dictionary.com

# Study of Water—Law Version

- **Water Law:** The body of law governing the ownership, use, and control of water (usually freshwater)
- **CAVEAT:** Water Law is Not Grounded in Hydrology, Ecology, or Social Utility

# Coastal Change—Science Version

“From a local perspective based on the GIS analysis, 31.33% of the coastal land loss is caused by natural processes and **68.67% is caused by human processes.**”

Penland et al., Gulf Coast Association of Geological Societies Transactions  
Vol. 52 (2002), Pages 799-807

# Coastal Change—Law Version

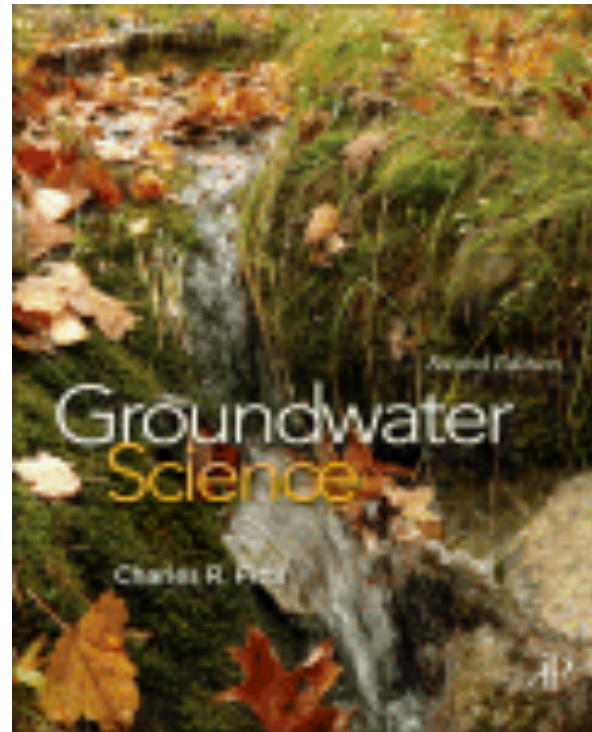
## HR 1330 (103<sup>rd</sup> Congress, 1993-94)

(a) Findings.--The Congress finds that-

(4) **most of the loss of wetlands in coastal Louisiana is not attributable to human activity**

# Ground Water—Science Version

## Enough for a Prize-winning Text



# Ground Water –Law Version (Traditionally)

...the movement of ground water is “**so secret, occult, and concealed** that an attempt to administer any set of legal rules would be involved in hopeless uncertainty...”.

Sipriano v Great Spring Waters of America (Tex. 1999)

East v Houston and Texas Central Railway (Tex. 1903)

Frazier v Brown, (Ohio, 1861)

Acton v Blondell (Ex Ch, 1843 (English))

# Water Science--Sources

Observation

Hypothesis

Testing

Research Grants

More Testing

Failure/Validation



# Water Law—The Sources

**State Law**

**Federal Law**

**Tribal Law**

**Constitutions**

**Treaties**

**Common Law**

**Statutes**

**Jurisprudence**

**Custom**

**BUT NOT SCIENCE**

# Preliminary Conclusions

- Science is a process of learning. Challenging the “known” and unknown are central
- Law is a structure for defining rights and responsibilities and resolving conflicts—Order and predictability are central
- Water Management is driven by law, policy and belief, not by hydrology, ecology or any science
- New knowledge and ideas fuel science
- New knowledge and ideas don’t, by themselves, do anything to law

# Beyond the Preliminary

- Interdisciplinary Pressures are Pushing for Interdisciplinary Responses—Like It or Not
- Law, Policy, Science and Engineering are Stuck with Each Other—Like It or Not
- Conflict is Inevitable—Make it Mean Something (Hey Law, We are Looking at You Here)

# Being Stuck with Each Other Does NOT Mean We Have to Work Together



# Talking about Collaboration Ain't Collaboration—Find Something to Do



# Collaboration is a Work of Will

Collaboration? I got a collaboration for you!



# Conclusion

- **NATURE AND HISTORY  
BAT LAST**

**Act like it**