THE OPPORTUNITY OF ADAPTIVE GOVERNANCE

Going with the Flow: Governance Options for Clean Water Act Compliance
Local Government Academy, Pittsburgh PA, 3 May 2007

Bruce Stiftel, FAICP
Department of Urban and Regional Planning
Florida State University
bruce.stiftel@fsu.edu
reflections about...

1. The many faces of water
2. Fragmented Authorities
3. Adaptive Governance as an opportunity
4. Five Challenges
5. Two Florida Examples: a war and a constructive dialogue among stakeholders
6. Lessons learned that might help here
For an alien planet to house life it must be:
Close enough to its sun to receive enough energy;
Not so close to its sun that it's too hot for liquid water to exist.
LIQUID WATER IS THE PRE-CONDITION FOR LIFE.
75\% of the Earth’s surface is water.

Shin splints: Pain in the front of the lower leg. Their cause is unclear, but they tend to develop after prolonged and/or repetitive use of the legs in weight-bearing activities like running and jumping.

Stress fractures: An incomplete break in the bone. In dance they are often caused by repetitive landings from jumps. On an X-ray they appear as a thin line through the bone. In order to heal a stress fracture it is necessary to rest and reduce impact on the fractured bone, which usually means taking a break from dancing for a period of time. Shin splints are one result of stress fractures.

VII. Anatomical Tidbits

The arch of the foot is formed by: the structure of the bones, the navicular being the high point of the arch; the plantar fascia, a fibrous band extending from the heel to the ball of the foot; ligaments, the main one being the spring ligament acting as a supporting sling to the navicular bone; and muscles both starting and ending in the foot, as well as muscles originating from the lower leg area. The primary role of the long arch of the foot is to absorb shock.

The arm is divided into two parts: the upper arm and the forearm.
Water Policy: Major Domains

• Water Resources
  - Drinking Water
  - Domestic/Municipal Supply
  - Navigation
  - Recreation
  - Agriculture
  - Industrial withdrawals
  - Flood Prevention
  - Flood Mitigation and Response

• Water Quality
  - Point Sources
    - Sewage plants
    - Industry
  - Non-point Sources
    - Agriculture
    - Forestry
    - Urban Stormwater
    - Mining
    - Construction
    - Septic tanks

• Habitat
  - Public lands
  - Fisheries
Water Resources in Florida

River Basins
67 Florida counties

The Management Structure
400 municipalities
Aquifer boundaries
Army Corps districts: Jacksonville Mobile
6 Florida DEP districts
6 Fla DOT districts
5 Water Management Districts
11 Regional Planning Councils
Not Shown on Previous Map

**Federal**
- EPA
- Dept Interior
  - US Park Service
  - Bur Reclamation
  - Fish and Wildlife
  - USGS
- Dept Agriculture
  - US Forest Service
  - Nat Res Conservation Service
- NOAA
  - National Marine Fisheries Service
  - Marine Mammal Protection Commission
  - National Ocean Svce

**State**
- Dept Agriculture and Consumer Services
- Fish and Wildlife Conservation Comm
- Dept Health
- Dept Community Affairs
- Land and Water Adjudicatory Comm

- 26 Metropolitan Planning Organizations
- Regional Water Supply Authorities
- 1,600 Rural Water utilities
- Sewage districts
- Judicial Branch
- Alabama
- Georgia
Historically, we added new levels of management responding to new user problems:

- **Late 19th Century:** Navigation and Sanitation agencies
- **Early 20th Century:** Flood Control agencies; Irrigation agencies; Land Reclamation agencies
  - 1927: Central & South Florida Flood Control District
- **1950s:** Water Resource Planning agencies
- **1960s & 70s:** Environmental Protection agencies; Land Planning agencies; Regional Planning agencies
  - 1961: Post-Donna: SoWestFla WMD
  - 1971: Post-drought: WMDs for full state
  - 1972: Non-point source planning
- **1980s:** State Water Policy; Local Growth Management
  - Kissimmee Rv Resource Planning and Management Committee
- **1990s:** TMDL legislation; Landowner rights protections; Comprehensive Everglades Restoration Plan; Marine Mammals legislation; Tri-state Water War
Each era had its champions

Henry Flagler, 1830-1913
and its fallen giants

Hamilton Disston
1844-1896
Multiple Fragmentations in Authority

- Geographic
- Supply, Flooding, Quality, Ecosystem
- User Communities

- NO COMPLETE UNIFICATION IS POSSIBLE!
Traditional Governance Pattern: New Problem: New Agency

• **New agency for new demands for water use**
  - Define rights of water users
  - Provide infrastructure

• **Result: many specialized agencies**
  - Water supply
  - Drainage and stormwater runoff
  - Water quality
  - Habitat conservation/restoration
  - ...
New Water Conflicts

• Success of Specialized Agencies
  •  +  Growth
  •  +  Natural System Capacity Limits

• = Agency Externalities and Conflicts

• Responses: BATTLES or COLLABORATION
“we need to reinvent government over and over again”

- New conflicts extend beyond specialized systems and existing rules
- Conflicts are indication of unanticipated consequences, inadequate institutions
- New conflicts involve sustainability of ecosystems, not just user rights
- No new “Super Agency” will replace all previous authorities
Nine case studies of water conflicts

- Water Quality, Quantity, and Ecosystems
- Interstate, statewide, regional, single localities
- Fragmentation of authority is always present
- Innovative collaborations try to overcome fragmentation
Everglades: Reclamation; Development; Habitat Loss; Restoration

- **1890s to 1960s**: Land reclamation and flood protection
Everglades: Reclamation; Development; Habitat Loss; Restoration

• **1960s to 1980s: Debate over fisheries, wetlands functionality, compensation**
  – US Attorney’s Lawsuit
Everglades: Reclamation; Development; Habitat Loss; Restoration

• 1990s:
  - Governor’s Commission for a Sustainable South Florida
  - So Fla Ecosystem Restoration Task Force
  - Central and Southern Fla Project Comprehensive Restudy
  - Comprehensive Everglades Restoration Plan (1999)
Adaptive Governance

• Institutions capable of
  – shaping conflicts into resolvable issues
  – channeling them into arenas capable of resolving them
  – coordinating efforts involving previously independent systems of users, knowledge, authorities, and organized interests.
Tools of Adaptive Governance

- Conflict Assessment
- Policy Dialogue
- Negotiated rulemaking
- Collaborative Planning
- Joint fact finding
- Mediated participation
- Intergovernmental coordination
- Science juries
- Adaptive management

- Sometimes just plain working together!
Five Challenges to Adaptive Governance

• Decision Process Design
• Representation
• Scientific Learning
• Public Learning
• Problem Responsiveness
Decision Process Design

- Elicit clear understanding of interests
- Translate interests into compatible policy options
- Clarify relevant consequences of policy options
- Seek to reach consensus
- Accountability of representatives to constituencies
Representation

- Include all (?) affected interests
  - Reflect concerns of latent interests
- Develop/ ensure effective representation
- Assess/respond to unequal resources
Scientific Learning

- Incorporate existing knowledge in developing options
- Respond to adversarial nature of some science
- Develop specific research and monitoring program for future policy development
- Science as a process, not as a static body of knowledge
Public Learning

- **Promote user understanding of:**
  - Consequences of actions
  - System effects
  - Plan content and rationale
  - Legitimacy of decision process

- **Facilitate understanding on the part of elected and appointed officials, and leaders of user collectives.**

- **Encourage behaviors that support plan implementation.**
Problem Responsiveness

- **Efficiency**
  - How defined/measured?
  - Transaction costs.

- **Equity**
  - Inter-group
  - Interjurisdictional
  - Intergenerational

- **Sustainability**
Tampa Bay Water Wars

[Map of Tampa Bay area with various waterways and facilities marked]
Tampa Bay Water Wars

- Three county area, dependent on groundwater (and extra-territorial wellfields), with rapid population growth
- Overpumping: property damage; habitat losses; salt water intrusion
- 1994: WMD denied water use permits and issued Water Shortage Orders
- St. Pete city and West Coast Water Supply Authority sued WMD ($10 mill in legal costs)
Many Parties; Many Positions

• 1995 truce: “35 year water supply plan”
• Series of new law suits filed
• Pasco and Hillsborough ready to pull out of West Coast Reg Water Supply Authority
• Legislative leaders put pressure on the counties, cities, West Coast and WMD to find a solution; facilitated negotiations result
• 1998: Tampa Bay Water created as powerful regional water supply agency; local governments hand over authority; WMD pays for desalinization plant (which survives citizen suit).
Keys to the TB Result

- Pressures from Governor and legislative leaders
- Intense media coverage
- Changes in local leadership
- New science results
- Regionalization of solution
- Financial incentive from WMD
E. Central Fla. Regional Water Supply Planning Initiative
E. Central Fla. Regional Water Supply Planning Initiative

- Projection of consumption increases from 567 – 926 MGD (1995-2020); salt water intrusion, drying of wetlands and lakes, reduction of spring flows.
- Region spans three WMDs (SJRWMD took lead).
- Orange County commission chair pushes for Water Summit to avoid Tampa-like water war.
East Central Florida

• Neutral facilitators hired 2002
• Conflict assessment
  – Showed need to involve governments, utilities and user groups
• Series of sub-regional workshops
  – Ranked issues, refined potential strategies
  – Discussed alternative strategies
  – Developed priority projects
• 2006 proposed plan spans wide range of conservation, supply development, land use policies and intergovernmental relations.
Lessons from ECF

• Keeping interest of community leaders is difficult, but vital.
• Commitment to popular control important
• Independent science agency provided technical support responsively.
• Fears of defection remain, fueled by higher costs of new alternatives.
Conclusions

• **Stronger Collaboration**
  – **Stakeholder representatives**
    • Chosen by constituents
    • Embracing of leadership
  – **Standards for interagency consensual processes**
    • Formal guidelines
    • Clearer expectations
    • Procedural accountability
    • Oversight institutions
  – **Development of personnel**
    • Neutrals properly qualified
Conclusions

• Pragmatic Science
  – Recognize the partisan nature of scientific debate
  – Develop balanced, adequate technical representation designed to respond to the needs of the deliberations.
  – Define disagreements and needed research
  – Maintain scientific criteria in seeking consensus
  – Consider ongoing monitoring programs
Conclusions

• Wiser Competition
  – Develop creative incentive-based systems when practical to minimize rule-based controls
  – Avoid cumbersome bargaining and rulemaking process when adaptation required
Stronger Collaboration

Pragmatic Science

Wiser Competition

“Where they work well, these processes create spaces where adversaries can explore together and develop agreements that leave them better off. Science advances, solutions emerge; but conflict lives on. Only now it does so with new social and political rules and structures that encourage more efficient and perhaps more equitable next steps.”
Adaptive Governance and Water Conflicts
John T. Scholz and Bruce Stiftel, eds.
Resources for the Future, 2005