

Selected Papers on State Instream Flow Policies in the U.S

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March 2007

Table 1. State Instream Flow Policy Reviews. Read across to find policy review that applies to any state. States are grouped by region. See annotated bibliography below for full paper citation and abstract. Contact Mary Davis (mdavis@tnc.org) for copies of the state instream flow policy reviews.

	Charney 2005	Malloch 2005	Mathews 2006	Weston 2005	Mayland 2005/6	Smith 2006	Amer Rivers- NWF 2003	Diffen- derfer 2005/6
Eastern								
CONNECTICUT			X		X	X		
DELAWARE				X				
MAINE					X	X		
MARYLAND				X				
MASSACHUSETTS			X		X	X		
NEW HAMPSHIRE						X		
NEW JERSEY				X				
NEW YORK				X			X	
OHIO							X	
PENNSYLVANIA			X	X				
RHODE ISLAND						X		
VIRGINIA			X	X				
VERMONT			X		X	X		
WEST VIRGINIA			X					
Southern								
ALABAMA			X				X	
ARKANSAS								
FLORIDA								X
GEORGIA							X	
KENTUCKY							X	
LOUISIANA							X	
MISSISSIPPI								
NORTH CAROLINA			X				X	
SOUTH CAROLINA			X				X	
TENNESSEE							X	
Central								
ILLINOIS							X	
INDIANA							X	
IOWA			X					
KANSAS	X							
MICHIGAN							X	
MINNESOTA							X	
MISSOURI								
NORTH DAKOTA	X		X					
NEBRASKA	X							
OKLAHOMA	X							
SOUTH DAKOTA	X		X					
TEXAS	X	X	X					
WISCONSIN							X	
Rocky Mountain								
ARIZONA	X		X					
COLORADO	X	X						
IDAHO	X	X	X					
MONTANA	X	X	X					
NEW MEXICO	X							
NEVADA	X	X						
UTAH	X		X					
WYOMING	X		X					
Pacific North American								
ALASKA	X		X					
CALIFORNIA	X	X						
HAWAII			X					
OREGON	X	X						
WASHINGTON	X	X	X					

ABSTRACTS OF MULTI-STATE REVIEWS

Charney 2005

Charney, Sasha. 2005. Decades down the road: an analysis of instream flow programs in Colorado and the western United States: Colorado Water Conservation Board, 65 p. not including Appendix B

Characterizes programs and accomplishments for each of 17 western states and compares Colorado's program and experiences to other western states. For each state, Appendix B describes:

- general water rights system
- instream flow legal recognition
- options available for instream flow protection
- entities authorized to appropriate instream flows
- entities authorized to request/recommend/administer instream flows
- procedures for securing instream flow rights or reservations
- public participation
- protected beneficial uses of instream uses
- acquisition program or other capacity for transfers or conversion of existing rights
- flow quantification methods
- monitoring and enforcement
- record keeping
- federal and NGO involvement
- statistics, including:
 - number of instream water rights
 - stream miles, quantity (cfs) of protected flow
 - ratio of protect to unprotected stream miles
 - year instream flow program/legislation enacted
 - number of instream flow employees
- other, including:
 - Interesting, unusual legal provisions
- bibliography, websites

Malloch 2005

Malloch, Steven. 2005. Liquid assets: protecting and restoring the West's rivers and wetlands through environmental water transactions: Trout Unlimited, 121 p.

Describes market-based mechanisms to change water uses from "traditional" (diversion) to "environment" (instream flow).

For each state:

- State Law Procedures and Issues
- Environmental Water Transactions
- State-specific transactions and programs
 - Private water trusts
 - ESA-driven state and federal acquisitions
 - Wildlife Management Areas

Mathews 2006

Mathews, Ruth. 2006. Survey of state instream flow programs: The Nature Conservancy Sustainable Waters Program, 95 p.

Surveyed instream flow agency staff to determine what challenges their programs face and how TNC can help overcome them. Survey questions:

- Instream flow staff adequacy
- Legal and regulatory framework adequacy (identified as the #1 hurdle)
- Public and legislator understanding of instream flow need and importance (identified as #1 activity to invest in first)
- Science and technical tool availability
- Compliance and monitoring mechanisms

American Rivers, NWF 2003

American Rivers, National Wildlife Federation, Southern Environmental Law Center, and Upper Chattahoochee Riverkeeper, 2003, Establishing a baseline: status of water policy in Great Lakes and southeastern states, 1998 and 2003, C.S. Mott Foundation, 257 p.

Assesses progress that states have made in water policy from 1998 to 2003

Includes list of statutes, regulations, and agencies for each state.

State-by-state survey questions:

- Water Quality:
 - Regulatory Scope (including whether or not the state fully implements in-stream flow standards)
 - Regulatory Protection
 - Enforcement
 - Research
 - Funding
 - Reporting
- Water Management (emphasizing water quantity)
 - Regulatory Scope -- whether or not:
 - in-state and out-of-state uses are regulated even handedly
 - both diversions and consumptive uses are regulated even handedly
 - in-stream flows are considered and protected in the planning and development of reservoirs
 - surface and groundwater regulations are integrated
 - land use and water management policy is integrated
 - threshold for withdrawals adequately protects natural resources
 - protection of natural resources is not compromised with loopholes
 - consistent statewide standards, supplemented with additional local protections
 - the state is committed to multi-state agreements
 - Regulatory Protection -- whether or not:
 - the state has a water management policy/plan in place
 - the state program requires water conservation and protection and improvement of natural resources
 - the state program maintains public rights in water and public trust protection
 - the state program protects stream flow and has mechanisms for drought protection
 - the state uses a thorough permitting process to ensure natural resource protection
 - regular monitoring, metering, and reporting are required that give the state high quality data
 - meaningful public participation is incorporated into state decisions
 - Enforcement – whether or not:
 - there is meaningful enforcement of the state’s water management program
 - there is a role for public participation via citizen suits or intervention
 - Research– whether or not:
 - regulations or policies are in place that promote / facilitate scientific research on water quantity
 - meaningful state-sponsored research has been done

- there is an inventory of surface and groundwater resources
- existing and future demands have been identified
- there is research into aquifer storage and retrieval
- Funding– whether or not:
 - there is adequate funding for each regulatory program
 - there is adequate funding for enforcement and research
 - user fees fund the state program, with minimal reliance on general funds
- Reporting– whether or not:
 - there is full reporting of water use data, including uses, source water, and trend analysis
 - the reported information is accessible to the public
 - the state shares information in a useful way with other states in the region
- Hydropower Relicensing
 - Policy/Regulation– whether or not:
 - there are state policies specifically applicable to the licensing and operation of a hydropower facility.
 - water quality standards include flow requirements.
 - the state requires dissolved oxygen and temperature standards that adequately protect water resources
 - the state has an antidegradation policy and implementation plan that adequately protect resources.
 - Funding – whether or not:
 - there is adequate funding for regulatory programs
 - funding levels have remained stable or increased.
 - adequate staffing has been assigned to implement and oversee the state 401 program.
 - Basin-by-basin, project-by-project survey questions

Weston 2005

Weston, R. Timothy. 2005. Evolving water resource issues in the Mid-Atlantic region: American Bar Association Section of Environment, Energy, and Resources 13th Section Fall Meeting, Evolving Issues in Eastern Water Law, Nashville, TN September 21-25, 2005, 37 p.

For each state:

- Permit system for water withdrawals
- Criteria for granting permits
- Areas of critical water supply concerns (NJ only)

For the Delaware and Susquehanna Basin Commissions:

- Basin facts and good map
- Basin compact
- Commission project review and regulatory powers

Evolving issues:

- Factors or standards for withdrawal approvals
 - Management of Trans-Watershed Transfers
 - Development of Water Budgets / Consumptive Use Management
 - Management of Instream Flows / Balancing Instream and Offstream Use
 - Sharing and Managing Interstate Waters

Mayland 2006

Mayland, Kirt. 2006. New England states move toward major changes in water allocation law and regulation: Eastern Water Law and Policy Reporter, April 2006, p. 99-105.

Focuses on Connecticut. “The new streamflow standards have to be protective of natural aquatic life and must be based on the natural variation in flows and the best available science.”

Also Mayland, Kirt. 2005. Summary of recent movements in New England water allocation law. *In* Proceedings of: Evolving issues in eastern water law, American Bar Association Section of Environment, Energy, and Resources, Sept 21-25, 2005, Nashville, TN, 8 p.

Smith 2006

Smith, Mark. 2006. Summary of New England states’ efforts at making explicit reference to water quantity in water quality standards: The Nature Conservancy, unpublished notes.

All New England states except Connecticut and Massachusetts reference water quantity in their water quality standards. These notes detail those references.

Diffenderfer 2005

Diffenderfer, Michelle. 2005. Hot issues from the southeast. *In* Proceedings of: Evolving issues in eastern water law, American Bar Association Section of Environment, Energy, and Resources, Sept 21-25, 2005, Nashville, TN, 20 p.

Focuses on Florida, including a 4-page section on reserving water for the environment.

Diffenderfer 2006

Diffenderfer, Michelle, and Tara W. Duhy. 2006. Florida's approach: minimum flows and levels and reservations of water. *In* Proceedings of: Eastern water resources: emerging issues in competition, science, and politics, American Bar Association Section of Environment, Energy, and Resources, May 11, 2006, Miami, Fla, p. 6-14.