

Water Research and Public Policy

Stephen H. Schoenholtz

***Presentation to State Water Commission
12 January 2009***



**Virginia
WATER RESOURCES
Research Center**

At Virginia Tech since 1965
210 Cheatham Hall (0444), Blacksburg, VA 24061
(540) 231-5624 | www.vwrrc.vt.edu | water@vt.edu

History

- Federal Water Resources Research Act of 1964 - promote water research and education
- Virginia Water Center established at Virginia Tech in 1965
- Authorized in 1982 as a state agency by the Virginia General Assembly
- Joined VT College of Natural Resources in July 2005

Mission

- ✓ **Provide research & educational opportunities to future water scientists**
- ✓ **Encourage studies of practical solutions to water-resources problems**
- ✓ **Facilitate transfer of water-resources information to policy- and decision-makers**

Who we are

J. Michael Kelly
Dean, College of Natural Resources

**State Advisory
Board**

Stephen H. Schoenholtz
Director

**Tamim
Younos**
Assoc.
Director

**Inga
Solberg**
Fiscal
Officer

**Jane
Walker**
Research
Assoc.

**Alan
Raflo**
Research
Assoc.

**Tracey
Sherman**
Web-
master

**Kevin
McGuire**
Assistant
Professor

**Patrick
Fay**
Comm.
Manager

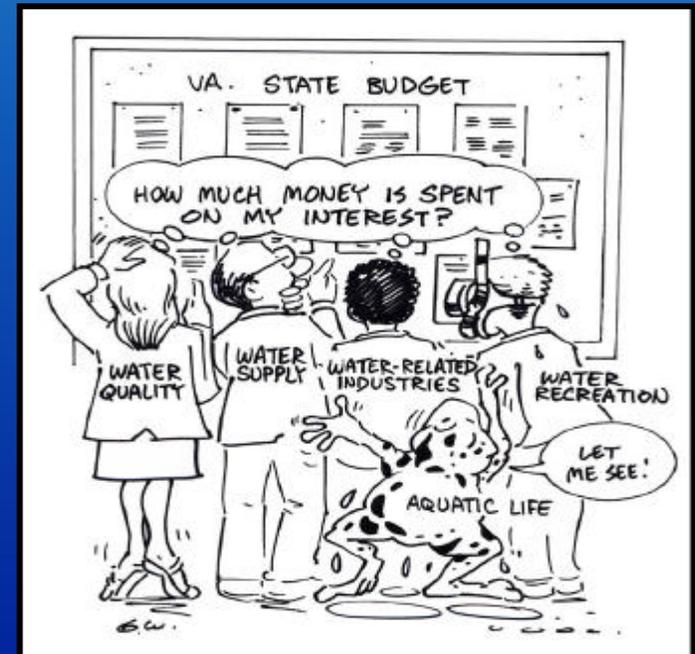
Find YOUR Water Issue...

- Drought
- Energy and Water
- Climate Change
- Federal, State, and Local Budgets
- Water Infrastructure Funding
- Safe Drinking Water Act
- Source Water Assessment/Protection
- Water Supply Planning
- Water Supply Capacity and Reliability
- Water Supply Regulations
- Groundwater Quantity
- Groundwater Quality
- Desalination
- Wastewater Treatment Regulations
- Wastewater Treatment Capacity
- Biosolids
- Clean Water Act
- TMDLs
- Wetlands
- Chesapeake Bay
- Transboundary Water Transfers
- Southern Rivers
- Floods
- Biofuel Production
- Mining
- Stormwater
- Nutrient Management
- Erosion/sediment Control
- Water Quality Trading
- Water Quality Monitoring
- Fish Kills
- Beach Water Quality
- Bacteria
- Watershed Planning and Management
- Stream Restoration
- Tropical Storms
- Marine Fisheries and Policies
- Riverfront Development
- Non-native Species
- Solid Waste Management
- Electronic Waste
- Emerging Contaminants

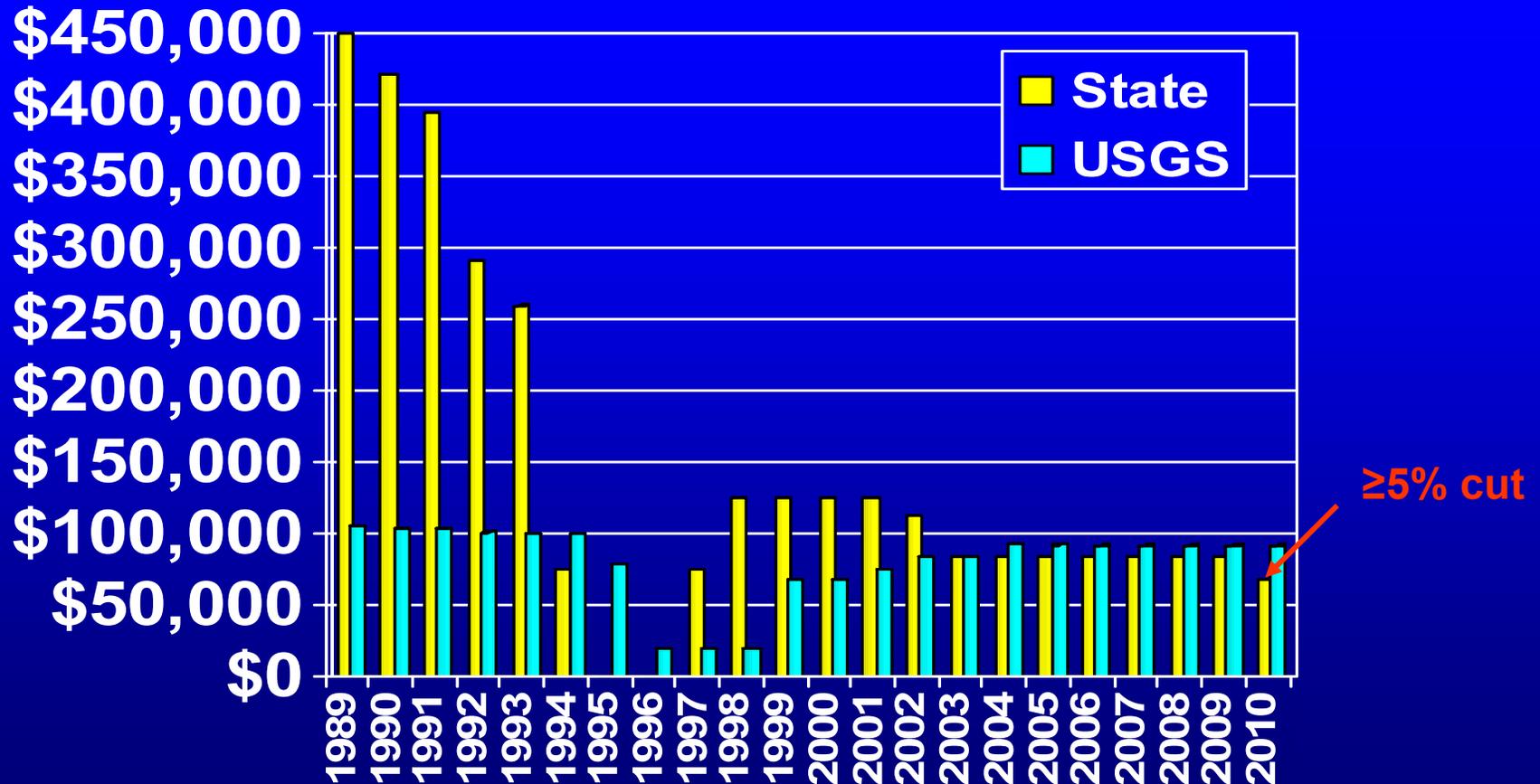


Sources of Support

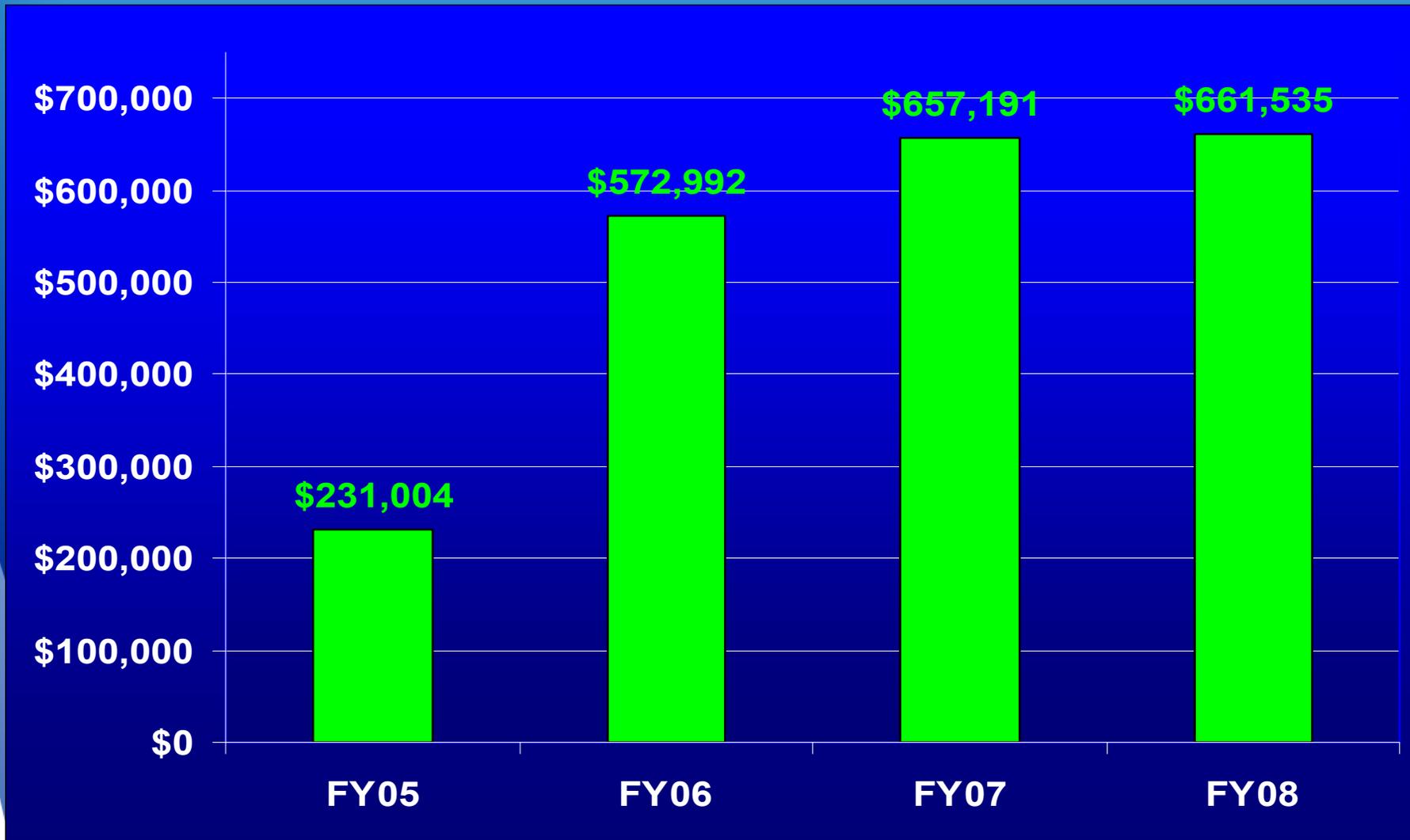
- **USGS Base Grant (Federal)**
- **State Appropriation**
- **Virginia Tech**
- **External Grants**



History of Base Support



Recent External Support



Water Center Programs

✓ **Research**

✓ **Education – Student Support**

✓ **Collaboration**

✓ **Outreach**



Research

➤ **Competitive Grants Program**

➤ **Facilitated and Collaborative Grants**



Competitive Grants Program

- **Microtopography effects on vegetative and biogeochemical patterns in created wetlands (GMU)**
- **Ecology of mycobacterial striped bass pathogens in water and sediments of the Rappahannock River (VIMS)**
- **Molecular assessment of the fate of pathogenic organisms in dairy manure (VT)**

Currently Funded Research Projects

- **Dissolved C & N retention & transport in forested catchments (USFS)**
- **TDS water quality standard for coalfield streams (DEQ, DMME, PRP)**
- **Coalfield stream restoration assessment (VT ICTAS)**

Currently Funded Research Projects

- **Stormwater BMP optimization (EPA)**
- **Rainfall harvesting for stormwater management (DCR)**
- **Decentralized energy/water systems (VT ICTAS)**
- **Nutrient criteria for wadeable streams (EPA)**

Education – Student Support

- **William R. Walker Graduate Fellowship**
- **Graduate assistantships**
- **Undergraduate research assistantships & internships (USGS-JMU)**
- **NSF REU – summers 2007, 08, 09**

Collaboration

- **Academic Advisory Committee (DEQ)**
 - **Nutrient criteria for VA's freshwaters**
- **Virginia Water Monitoring Council**
- **DCR Stormwater BMP Clearinghouse**
- **Clinch-Powell Clean Rivers Initiative**

Outreach

- Website (*vwrrc.vt.edu*)**
 - Legislative & water news updates**
 - Online publications**
 - Homepage for other programs**
 - (VWMC, Stormwater BMPs, CPCRI)**

- Water Central* Newsletter**

- Symposia, Seminars, Workshops**

Website Assistance



Water Status
Pages



Virginia
Water
Legislation



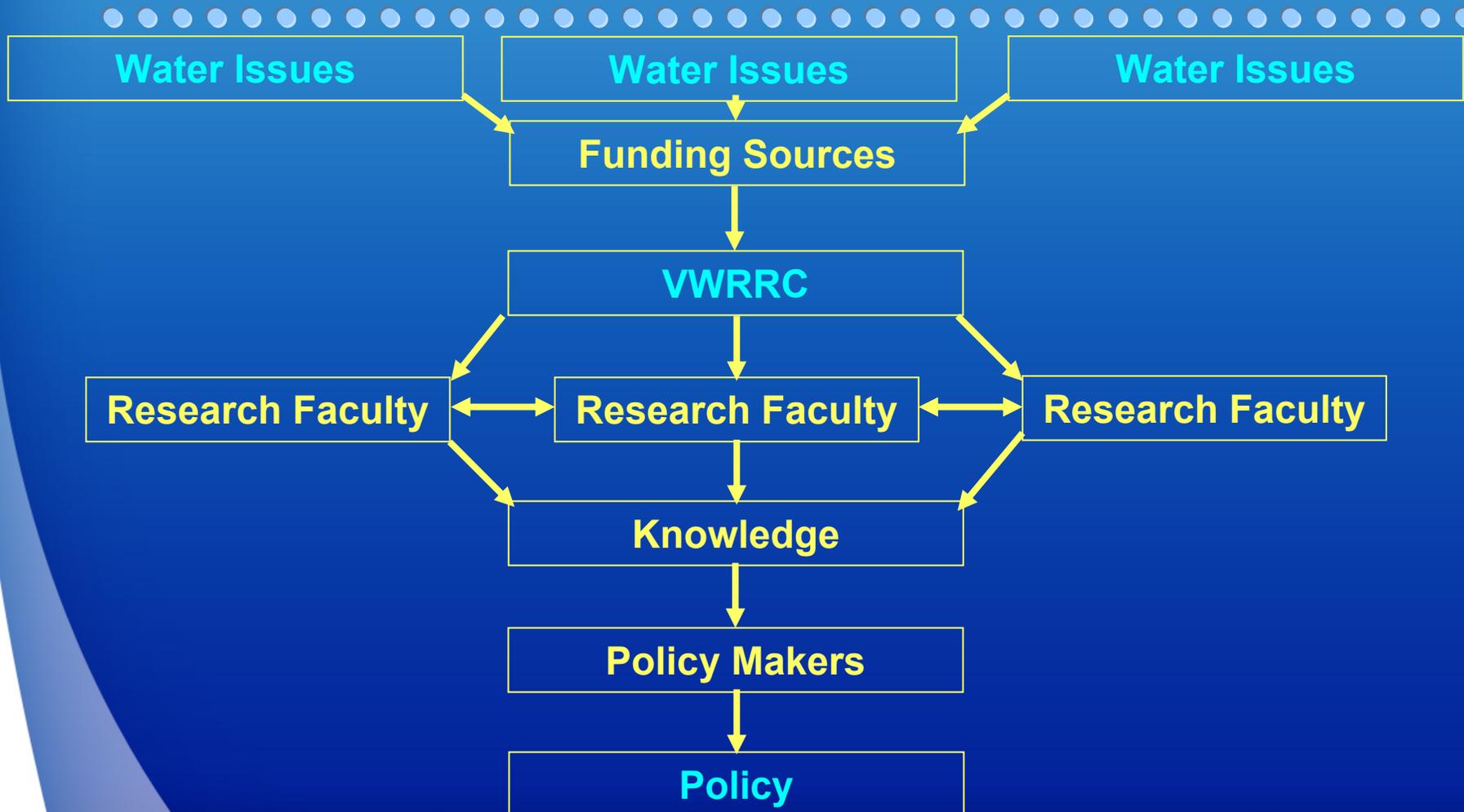
Annotated News
Articles

Plus:

Virginia water conferences, workshops, and other events.
Ask a water question!



Research-Policy Connection: VWRRC Role



VWRRC Vision

- **Strengthen linkages between Water Center and govt. agencies, industry, NGOs, academia, water-users**
- **Provide a clearinghouse for water information, tools, expertise, management**
- **Increase base funding and external funding**

VWRRC Vision

- **Promote annual water symposium**
- **Advance multi- & interdisciplinary approaches**
- **Collaborate with researchers at institutions across the Commonwealth**

Thank you



Stephen.Schoenholtz@vt.edu
www.vwrrc.vt.edu
540-231-0711

Illustrations by George Wills