SRBC

SUSQUEHANNA RIVER BASIN COMMISSION

NY ▪ PA ▪ MD ▪ USA

2022 ANNUAL REPORT

www.srbc.gov

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Welcome Message

Andrew Dehoff
Executive Director

I’m honored to present our 2022 Annual Report, which highlights the remarkable achievements and continued dedication of our staff and partners in managing and maintaining the Susquehanna River Basin. I’m extremely proud of the meaningful work our team has accomplished in fostering strong partnerships, advancing critical programs, and ensuring our commitment to diversity, equity, and inclusion in our basin communities.

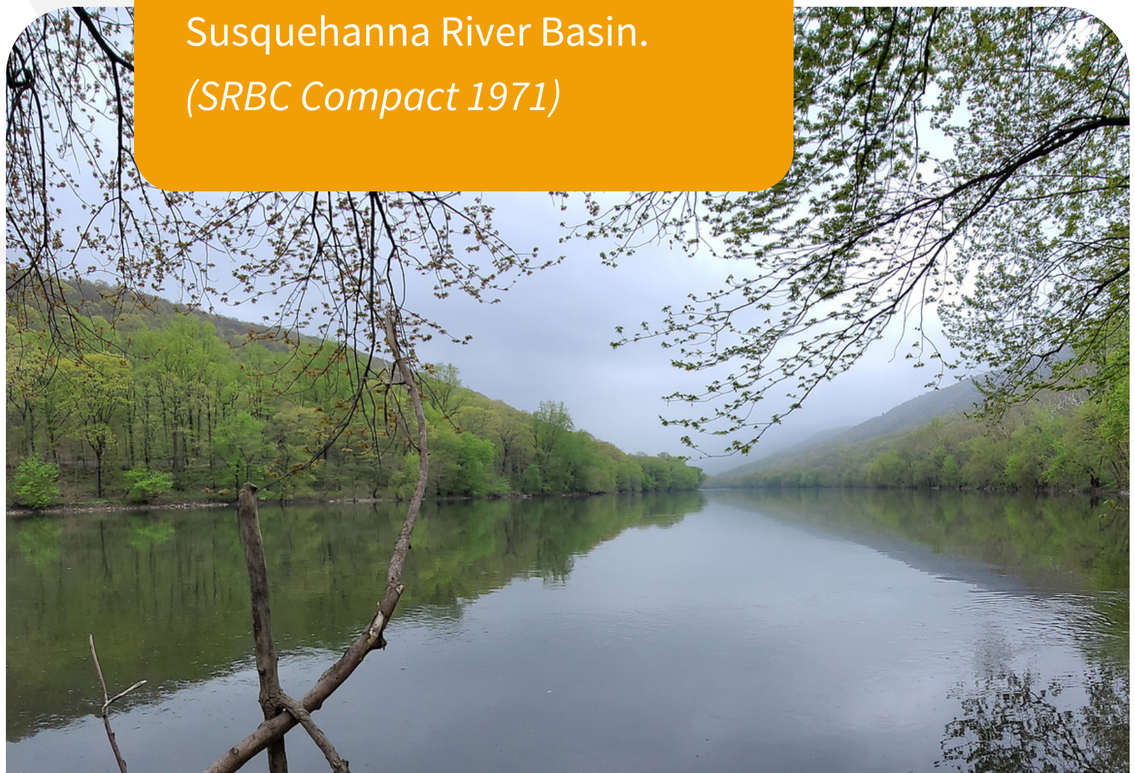
In 2022, we marked the inauguration of our Consumptive Use Mitigation Grant Program. This innovative initiative allows us to address the impacts of water consumption on the basin, ensuring that our resources are functional today and protected for generations to come. And in its second year, our Groundwater Level Monitoring Grants awarded more than $100,000 in funding to 20 projects, helping to develop a valuable resource of water level data for sustainably managing their water systems.

In 2022, we also analyzed and summarized excellent work others are doing with respect to changing rainfall and river flow patterns and their potential impact on our basin. This crucial work will help inform our policies and prepare our communities for more extreme weather in the future.

The success of the SRBC is a testament to the tireless efforts of our staff, partners, and community members. We are grateful for your support and look forward to continuing our work together to protect and enhance the Susquehanna River Basin.

Mission

to enhance public welfare through comprehensive planning, water supply allocation, and management of the water resources of the Susquehanna River Basin. *(SRBC Compact 1971)*



Our Vision

Vision

The Commission envisions a clean, sustainable, and adequate water supply in the Susquehanna River Basin that supports a range of human, economic, and ecological needs. Through collaborative partnerships and coordinated action, as well as use of the best science, water resources in the Basin will be managed effectively to meet existing and emerging challenges in the face of changes to the landscape and climate extremes. As a result, Basin communities will be able to reliably depend on their water supply for a range of uses, be better prepared and able to mitigate the impacts from floods and droughts, and benefit from healthy aquatic ecosystems and enhanced recreation.

2022 Commissioners

NEW YORK (CHAIR)
Governor Kathy Hochul
Governor Designee: Basil Seggos, Commissioner, New York State Department of Environmental Conservation
Alternate: James M. Tierney

PENNSYLVANIA (VICE CHAIR)
Governor Thomas Wolf
Governor Designee: Ramez Ziadeh, Acting Secretary, Pennsylvania Department of Environmental Protection
Alternate: Lisa Daniels
Alternate: Joe Adams

MARYLAND
Governor Larry Hogan
Governor Designee: Horacio Tablada
Acting Secretary, Maryland Department of the Environment
Alternate: Matt Rowe
Alternate: Suzanne Dorsey

UNITED STATES
Colonel John P. Lloyd
Commander, North Atlantic Division
US Army Corps of Engineers
Alternate: Colonel Estee Pinchasin
Alternate: Amy M. Guise

SRBC Staff

EXECUTIVE STAFF

Andrew D. Dehoff, P.E.
Executive Director

Andrew J. Gavin
Deputy Executive Director

Marcia E. Hutchinson
Director, Administration and Finance

Gene G. Veno
Governmental Affairs & Public Advocacy

Jason E. Oyler
General Counsel and Secretary to the Commission

MANAGERS

John W. Balay, P.E., P.H.
Planning and Operations

Paula B. Ballaron, P.G.
Policy Implementation and Outreach

Todd D. Eaby, P.G.
Project Review

Gordon D. Lauger
Accounting

Brydon H. Lidle, III
Information Technology

Jeremy M. Hoffman
Compliance & Enforcement

James P. Shallenberger
Monitoring and Protection

Training + Outreach +
Streamlined Processes =

Better Oversight

Large withdrawals of water from surface or groundwater supplies must secure approval from SRBC to ensure that the amount of water used does not adversely affect competing supplies, water quality and natural habitats.

SRBC supports an array of activities to promote industry compliance with SRBC policies and regulations. In 2022, SRBC:

- Conducted site visits and informational webinars
- Began building and sharing a library of water saving actions used by industry
- Targeted outreach to expiring projects
- Marked 10 years of outreach program for public water suppliers
- Trained groundwater users on streamlined data review processes

Better Oversight

Water Conservation by Industry

Goal

To establish best practices by industry type, promote desirable behaviors/practices, leverage Commission grant funding, form partnerships with permit holders and recognize good stewards.

Staff compiled a list of regulated projects that have implemented practices or technologies that reduced water demands.

Conservation Example:

Converting athletic fields to synthetic turf eliminates the need for irrigation.

Better Oversight

Targeted Outreach

Staff established a process that more effectively tracks upcoming approval expirations and communicates expectations/renewal requirements.

Outreach and inspections target projects that need assistance with the renewal process.

These efforts have proven very beneficial and have all but eliminated permit holders missing renewal application deadlines and finding themselves in non-compliance with Commission regulations/approval conditions.

Better Oversight

A Signature Outreach Program

Brief History

SRBC initiated the **Public Water Supply Assistance Program** in 2012 to help smaller municipal water supply systems keep abreast of current regulatory requirements. The outreach program now offers training on a variety of public water supply topics.

10-Year Milestones

- SRBC has reached over 1,500 public water supply operators, consultants, and regulated community through training opportunities.
- SRBC has created Voluntary Action Plans for 18 public water supply systems that provide assistance and guidance for successful renewal of projects.
- Program provides a platform for public water suppliers to share their successes.
- On average, in-person workshops and webinars reach 70 - 150 participants per event.

Better Oversight

Public Water Suppliers Learn AHE

What is AHE? The Alternative Hydrogeologic Evaluation (AHE) recently replaced SRBC's Aquifer Test Plan Waiver practice. It's the first step of a two-step process for submitting a groundwater renewal application to the Commission.

Update

In 2022, SRBC conducted three webinars and one in-person workshop on the new AHE policy. Over 150 people learned how to focus on what matters for each project while using as much existing data as possible to evaluate sustainability, impacts to other users, and impacts to the environment.

***Sample Well Evaluation**:*
SRBC's new streamlined AHE evaluation process focuses on 3 key risk factors: 1) sustainability, 2) impacts on other water users, and 3) environmental impacts.

Principal Risk Factor	Status for Well	Low Risk	Medium Risk	High Risk
Is the Withdrawal Sustainable?	Previous quantity is available, but Historical test data & Operational data suggests rate is not sustainable			✓
Are other users impacted?	Few potential wells to impact; however there are 6 residents to consider impacts.		✓	
Are Environmental Resources Impacted?	Historical testing-no stream monitoring Historical testing-no wetland monitoring RTE species – not a concern			✓

Consumptive Use Mitigation Grants

$ 6.6
MILLION

14
PROJECTS

2022 marked the inaugural year of SRBC's Consumptive Use Mitigation Grant Program. The program encourages the water use sector to engage in innovative projects for improving local water availability and building watershed resilience.

The grants support projects involving:

- Water storage and release
- Modified operations or new practices that increase instream flows or improve flow resilience
- Water conservation, reuse and/or recycling
- Environmental and water quality improvement

Consumptive use (CU) refers to water that is used but not returned to the river basin.

Consumptive Use Mitigation Grant

Water Conservation Success

Some water systems can lose as much as 60% of their potable water supply to leaks.

Kline Township, a small rural community in Schuylkill County, PA, received a CU Mitigation grant for cutting-edge satellite technology that will save the township's water utility tens of thousands of dollars per year. The technology scans for water-logged soils indicating underground system leaks.

Listen to the SRBC podcast:
https://www.srbc.net/about/news/podcasts.html

Karen Pollock
Senior Engineer, Systems Design Engineering for Kline Township Municipal Authority

"Is this really going to work? So we gave it a try, and we came up with some really dramatic results."

Groundwater Level Monitoring Grants

The SRBC completed its second year of the groundwater level monitoring grant program. The SRBC awarded over $100,000 in grants for twenty projects throughout the basin. These modest grants help municipalities and businesses purchase and install equipment needed to track water levels in their production wells. This aids them during the renewal of their projects with the Commission and with monitoring the performance of their wells to ensure sustainability of their operations.

Awardees include 15 public water suppliers, four corporations, and one country club.
Six projects are located in New York state, while 14 are in Pennsylvania.

$ 100
THOUSAND

20
PROJECTS

Operations

Partnerships and Policies

Stronger Partnership

SRBC and the PA Department of Environmental Protection executed an updated Letter of Understanding that focuses on **avoiding duplication of work between the agencies and improving the handling of permit reviews and program activities.**

Updated Compliance Settlement and Civil Penalty Policies

A highlight of these policies was the incorporation of environmental justice concepts into SRBC's compliance decision-making and providing for enhancements to civil penalties when vulnerable communities are affected.

Advocacy

The Value of the Susquehanna

State Support

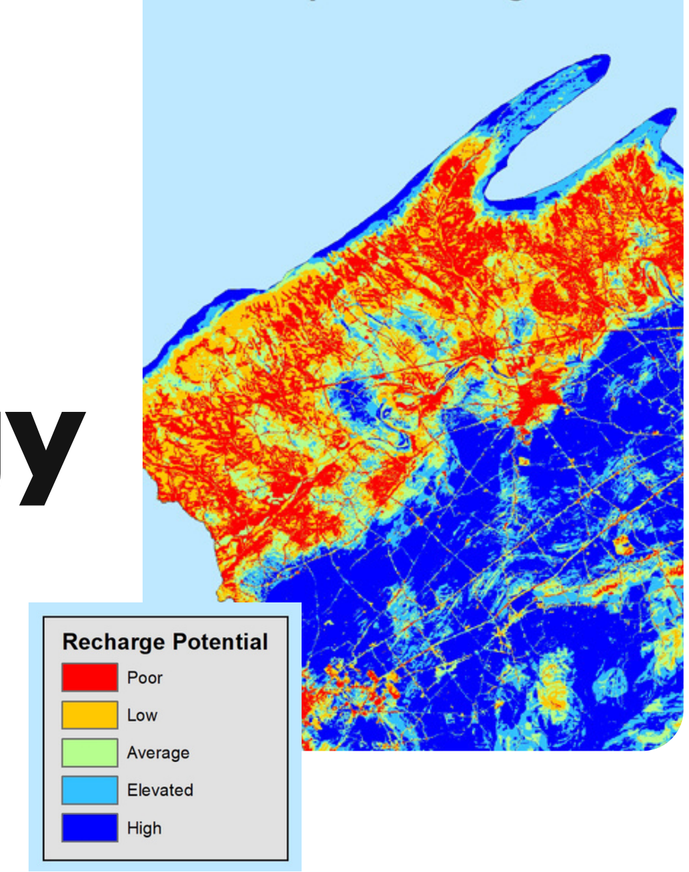
State government leaders embraced the value of SRBC in managing the river basin by providing financial support to Commission activities.

Monthly Minute Updates, Podcasts and the growing body of Public Information Pamphlets serve to educate policy makers and the public about issues important to the basin's resources.

Inclusive Education

SRBC's educational events in communities and public schools reflect SRBC's commitment to Diversity, Equity and Inclusion. Outreach to underserved communities helps SRBC to better understand diverse perspectives and community needs and builds stronger, more collaborative relationships.

Hydrology Studies



Mapping Critical Aquifer Recharge Areas

A new project aims to identify discrete areas of the Basin that provide greater groundwater recharge and are critical to maintaining adequate water supply. This will be accomplished by identifying areas of critical recharge, and developing restoration and/or protection strategies to assist with improved watershed management.

Climate Change & the River Basin

SRBC staff summarized recent climate change findings related to the Susquehanna River Basin in the fall of 2022. The review covered findings related to temperature, precipitation, streamflow, groundwater, drought, water quality, and wetlands.

Managing Low Flows

Scientists continued to study the relationship between stream flow and aquatic life to help SRBC better evaluate withdrawal limits, especially during critical low flows. A new report explains how SRBC modeled instream responses to reductions in stream flow.

Dry Cooling Technology

Since 2015, SRBC has promoted dry cooling, which uses ambient air to cool and condense steam in power plants rather than cooling with water. A 2022 study compared eight natural gas fueled plants and found that dry cooling saved 18 million gallons of water per day and used 6% less gas per MWH than evaporative cooling plants.

River Monitoring

2022 Highlights

SRBC participated in a cooperative effort with PADEP to monitor harmful algal blooms in Billmeyer Quarry, a source of water for the Susquehanna during periods of low flow or drought.

114

Sites Sampled

in PA and NY under US EPA's Section 106 funding; See new dashboard for 9 water quality parameters under surveillance.

02

More Bay Monitoring Sites

added to the network of sites that tracks trends in nutrient and sediment pollution from the Susquehanna River to the Chesapeake Bay.

>40

Instream Monitoring Stations

eclipsed 10-year Continuous Instream Monitoring (CIM) duration and were analyzed for trends.

25

Schools Participated

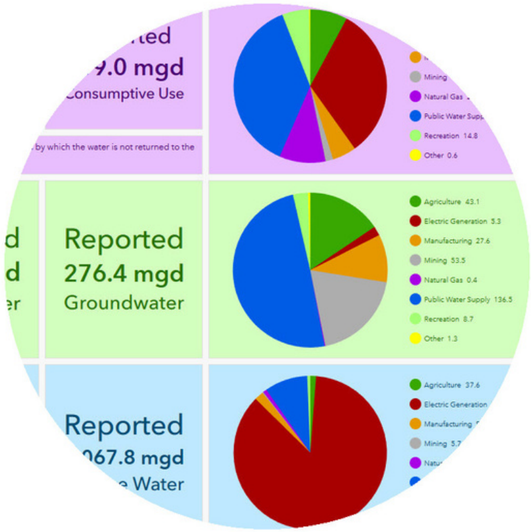
in the *Eels in the Classroom* program where students raise young eels for release back into the Susquehanna River.

Telling Our Story

New SRBC Features on the Web

Story Maps

Interactive web-based platform using multimedia elements to tell a story (maps, graphs, videos, photos, timelines).



Dashboards

One-page, interactive web-based presentation of information focused on a single topic. Great for illustrating trends, such as tracking real-time data and project status.

News Page

Redesigned News Page at SRBC News:

Press Releases
Newsletters
Videos
Podcasts

Story Maps Gallery

Eels in the Classroom

Invasive Fish eDNA Projects

50th Anniversary Celebration

Continuous Instream Monitoring

Stories in Water Data

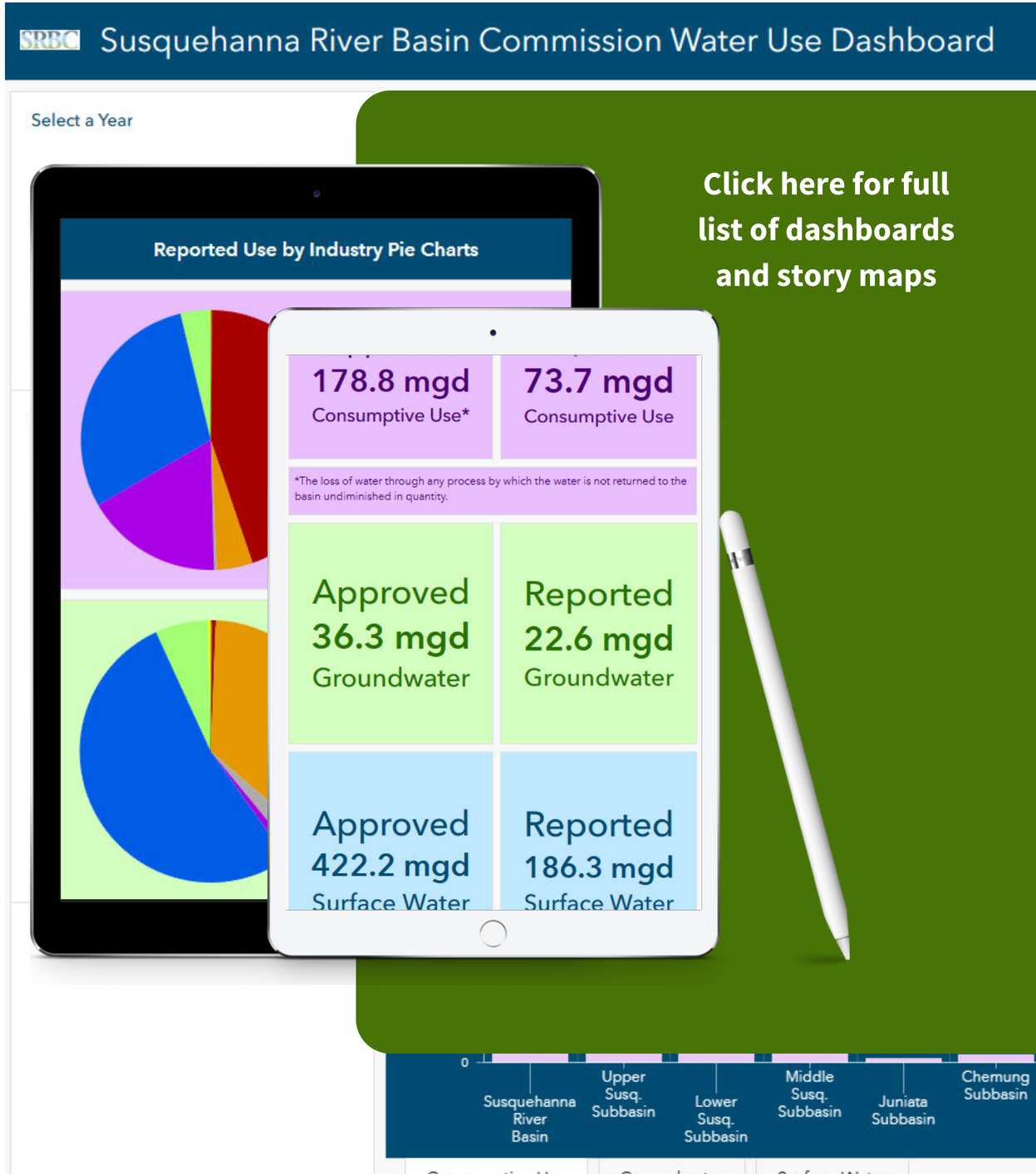
Try Our Dashboards

Instant Data at Your Fingertips

SRBC's Water Use Dashboard allows viewers to select specific locations for detailed information on water use for selected time periods.

Useful application for:

- Checking water use trends over time
- Understanding how different industries use surface and groundwater resources in the basin
- Tracking how water use varies between the basin's six major subbasins



Staff Awards

Annual Staff Excellence Award

Gene G. Veno

Director of Governmental Affairs & Public Advocacy

Spotlight Awards

- Julian Mazero
- Donna Heiser
- Glenda Miller
- Dorinda Kennedy
- Stacey Hanrahan
- Aaron Henning
- Johanna Hripto
- Scott McFeaters

Teamwork Award

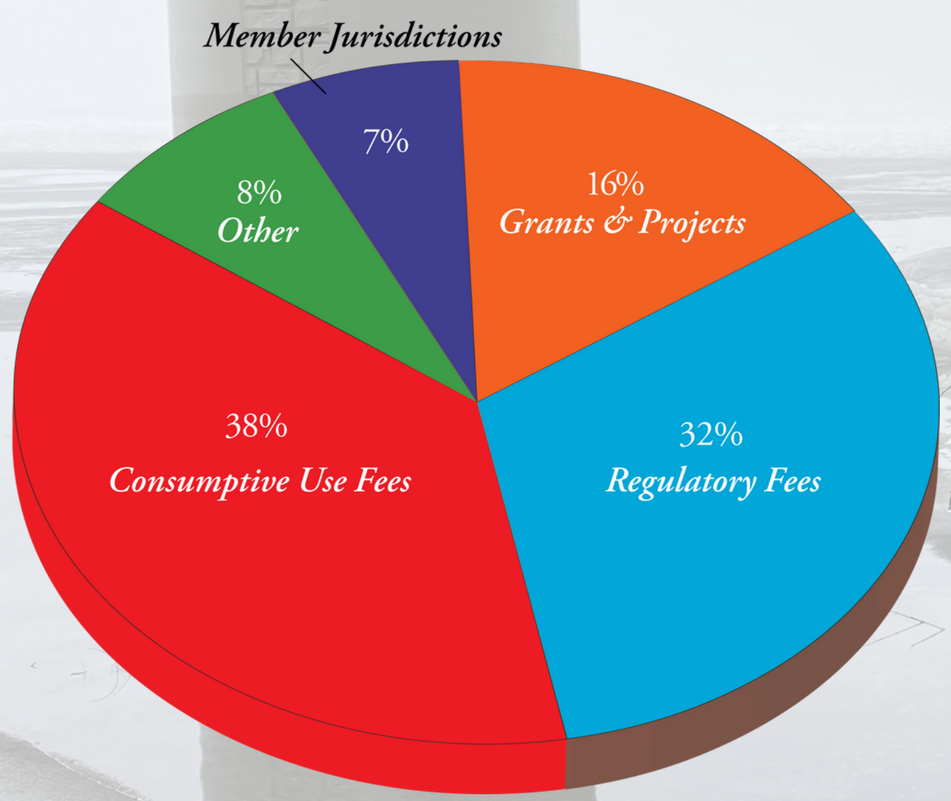
Alternative Hydrogeologic Evaluation Workshop/ Webinar Series

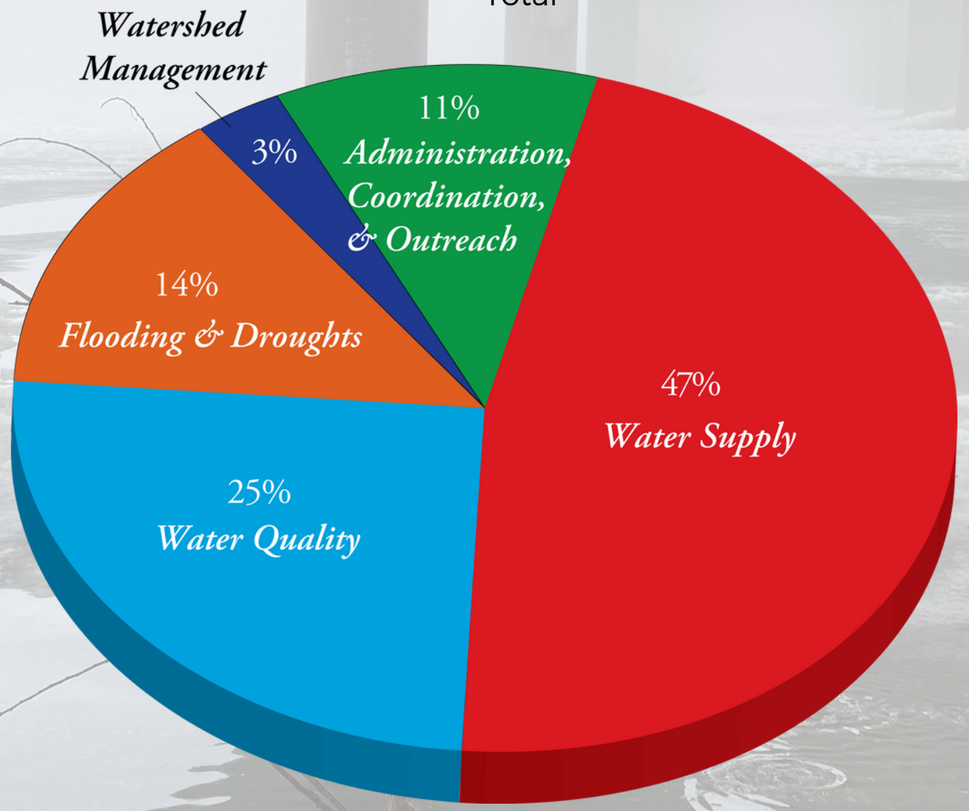
- Mike Appleby
- Scott McFeaters
- Jeff Thomas
- Jane Block
- Brydon Lidle
- Mike Sweitzer
- Chuck Frank
- Ava Stoops
- Dave Haklar

Fiscal Year 2022

Change in Commission Fund Balances (including investment losses):

Fiscal Stabilization Fund	$	(3,413,581)
Sustainable Water Resources Fund	$	(3,910,679)
Water Management Fund	$	(9,274,971)
Total	$	(16,599,231)





REVENUE
Total: $12,048,109

EXPENDITURES
Total: $11,708,950

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