



SUSQUEHANNA RIVER BASIN COMMISSION
2020 ANNUAL REPORT

Celebrating
50
YEARS
1971 - 2021

SRBC
SUSQUEHANNA RIVER
BASIN COMMISSION
NY • PA • MD • USA

EXECUTIVE DIRECTOR'S MESSAGE



Andrew Dehoff
Executive Director

The year 2020 has certainly been a challenging year, but I am pleased that our work on important river basin projects suffered no interruptions or significant delays as a result of the COVID pandemic. We have continued to enhance public welfare through comprehensive planning, water supply allocation, and management of the water resources of the Susquehanna River Basin. This report highlights initiatives in which our role as river steward has evolved over the years, reflecting our ability to adapt to changing needs.

Our staff's commitment to excellence is nothing short of inspiring. We are re-imagining our work at a time when we are still uncertain about what lies ahead and which changes may be temporary or permanent. No matter the look of our operations, I'm confident in conveying the following regarding 2021:

- We will continue to host virtual public meetings with Commissioners and the public to report on our work;
- We will continue our legislative outreach and interaction before Congress and state legislative leaders in New York, Pennsylvania & Maryland; and
- We will continue to be responsive to water resource management needs of the Commission's signatory members, coordinating management of interstate water resources and serving as an effective forum for resolution of water resource issues and controversies within the Basin.



As the adage goes, hindsight is 20/20, so what better way to move forward than by looking back on the year 2020 with gratitude and lessons learned, and forging an ambitious and positive outlook for the coming year.

A handwritten signature in blue ink, appearing to read "Andrew W". The signature is written in a cursive, flowing style.



PENNSYLVANIA (CHAIR)
PATRICK MCDONNELL
Secretary
Pennsylvania Department of
Environmental Protection

1st Alternate: Aneca Atkinson



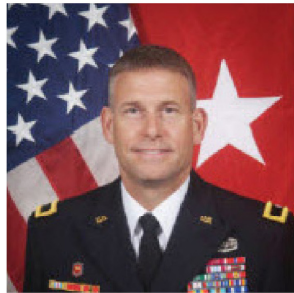
MARYLAND (VICE CHAIR)
BEN GRUMBLES
Secretary
Maryland Department
of the Environment

1st Alternate: Saeid Kasraei
2nd Alternate: Suzanne Dorsey



NEW YORK
BASIL SEGGOS
Commissioner
New York State Department of
Environmental Conservation

1st Alternate: James M. Tierney
2nd Alternate: Paul J. D'Amato



UNITED STATES
BG THOMAS J. TICKNER
Commander
North Atlantic Division
U.S. Army Corps of Engineers

1st Alternate: Col. John T. Litz
2nd Alternate: Amy M. Guise

Commission staff extends sincere appreciation to Matthew Marko of NYSDEC and Summer Kunkel of PADEP for their dedicated service to SRBC in 2020, both serving in acting roles as alternates on behalf of their respective commissioners.

2020 COMMISSIONERS

STAFF LEADERSHIP

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
Director, 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

James P. Shallenberger
Monitoring and Protection

REGULATORY ROUNDUP

SRBC ADOPTS FIRST GENERAL PERMIT

In December 2020, the Susquehanna River Basin Commission adopted its first General Permit that would approve the withdrawal of groundwater for groundwater remediation projects. The General Permit, GP-01, became effective on January 1, 2021.

General Permits (GPs) are issued for a specific category of projects that the Commission regulates in lieu of an individual approval.

A GP covers a type of activity that can operate under the same conditions and results in minimal adverse impacts to the water resources of the Basin. Equipped with qualifying criteria and conditions of operation, a General Permit streamlines the application and permit review process to reduce costs.



Source: USGS



REGULATORY ROUNDUP

WATER USE POLICY EXPANDS MITIGATION OPTIONS

Commission has expanded its traditional scope of water use mitigation alternatives.

In addition to traditional water storage and ecosystem flow projects, the updated policy places greater emphasis on water reuse and water recycling, as well as other stormwater and environmental restoration projects that enhance groundwater recharge.

REGULATORY ROUNDUP

WATER USE POLICY EXPANDS MITIGATION OPTIONS

New policy builds a watershed's resilience against changing climate and low flow conditions. In addition to traditional water releases from large reservoirs, our policy now allows for creative solutions that improve water quality and alleviate dry conditions.



South Branch Bear Run before treatment of mine drainage.



South Branch Bear Run after treatment of mine drainage.

New Mitigation Options:

- Restoring wetlands, removing legacy dams, and improving habitat in surface waters;
- Addressing legacy mining issues;
- Retrofitting stormwater practices to increase groundwater infiltration and cleanse runoff;
- Re-establishing floodplains and expanding streamside buffers.

REGULATORY ROUNDUP

WATER USE POLICY: REVISED APPROACH TO EVAPORATIVE LOSSES

The new Consumptive Use policy revises the Commission's approach to evaporative loss from certain on-site structures. Evaporation from ponds and basins constructed for the purpose of supplying mitigation water or reducing or dampening withdrawal rates will no longer be subject to consumptive use mitigation requirements.

Facilities such as golf courses and ski resorts will find changes to SRBC's water use policy beneficial through a reduction in fees paid.



An aerial photograph of a natural gas processing facility, likely a compressor station or dehydration plant, situated in a lush, green river basin. The facility features a prominent tall, blue and white tower, several large white storage tanks, and various industrial structures. The surrounding area is densely forested with green trees, and a river is visible in the upper left corner. The overall scene depicts the intersection of industrial activity and a natural environment.

WATER USE TRENDS IN THE NATURAL GAS INDUSTRY

SRBC released a new report in 2020 that extended its analysis of water withdrawal and use by the natural gas industry in the river basin.

The report's evaluation covers the evolution of water use from 2008 - 2018, identifies long-term trends, and offers insights into water management associated with the industry.

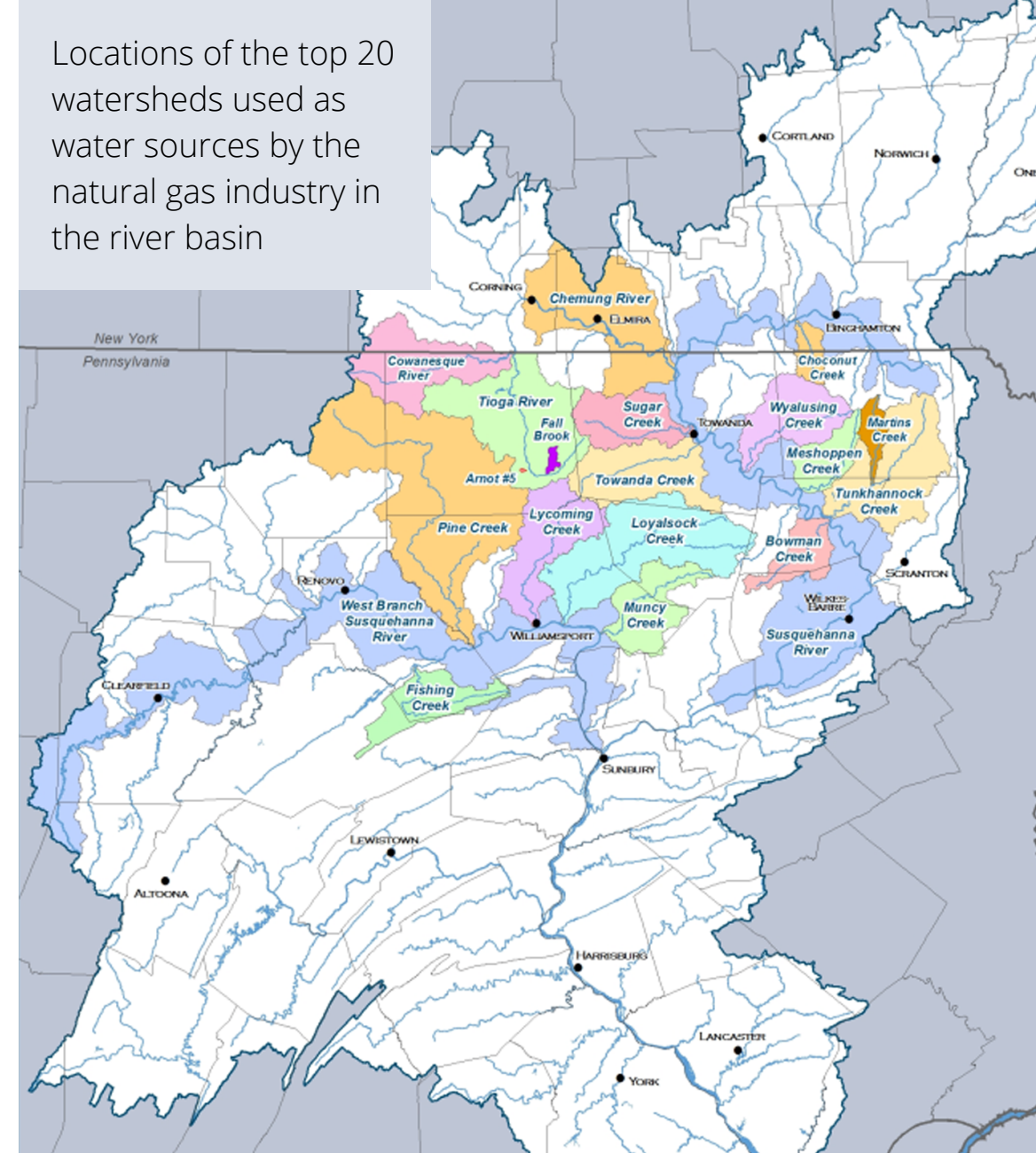
WATER USE TRENDS IN THE NATURAL GAS INDUSTRY

FINDINGS: WATER SOURCES

The natural gas industry continues to primarily rely on streams for its water sources.

The concentration of activity continues to be located in northern Pennsylvania. Four counties -- Bradford, Susquehanna, Tioga, and Lycoming -- contain approximately 80 percent of the total number of water withdrawal approvals issued by the Commission to the industry.

Locations of the top 20 watersheds used as water sources by the natural gas industry in the river basin

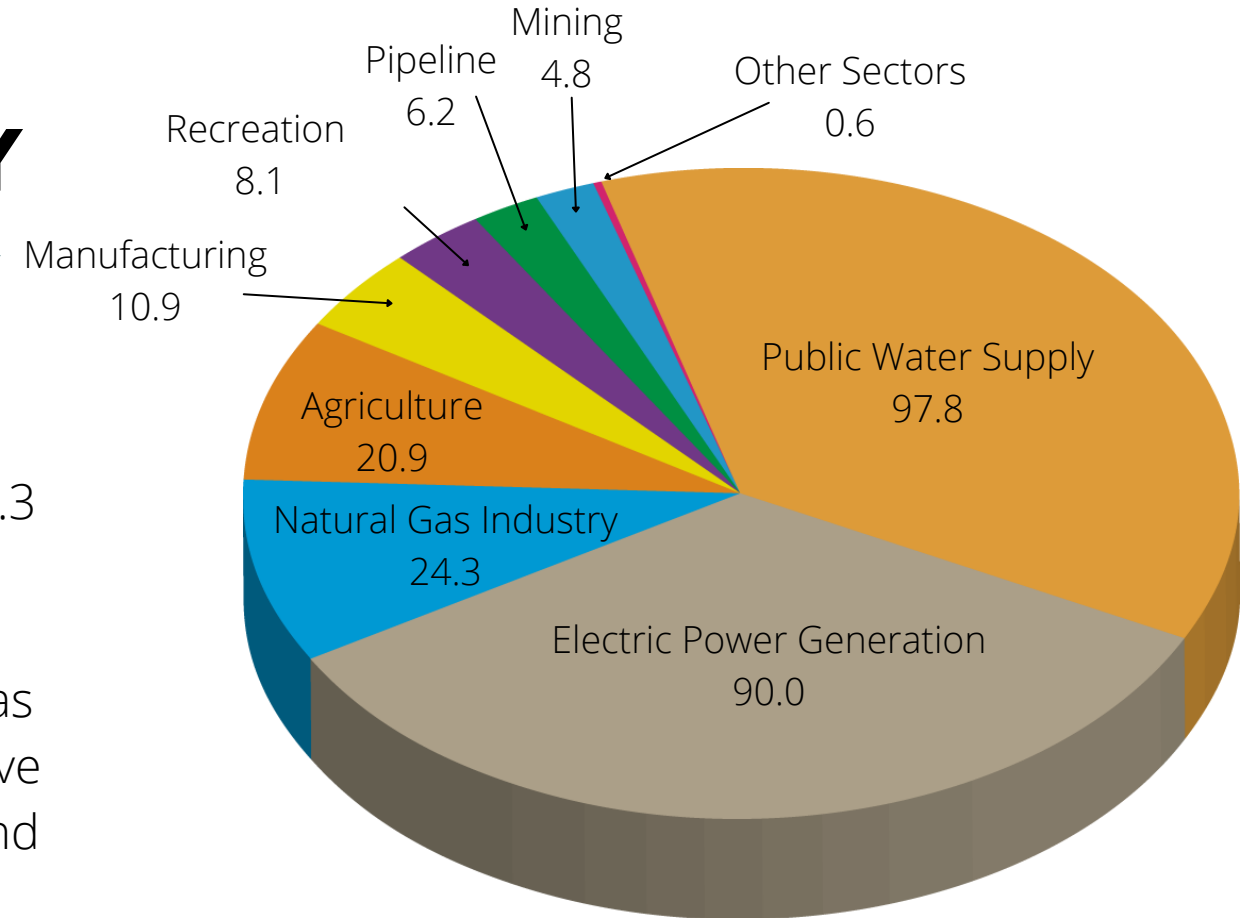


WATER USE TRENDS IN THE NATURAL GAS INDUSTRY

FINDINGS: WATER QUANTITY

The total amount of water consumptively used by the industry from July 2008 through December 2018 was 26.3 billion gallons.

Compared with other water users in 2018, the natural gas industry (24.3 mgd) ranks as the third largest consumptive water user, after public water supply (as exportations) and electric power generation.



Average Consumptive Water Use (MGD) (2018)

WATER USE TRENDS IN THE NATURAL GAS INDUSTRY

FINDINGS: WATER IMPACTS

Potential adverse impacts to streams are focused on the quantity, timing, and location of the withdrawals. These concerns, including those related to withdrawals from headwater streams, have been addressed by protective operating conditions, such as withdrawal limitations and interruptions based on ecologically meaningful science backed up by on-site verification.



SRBC staff assess an unnamed tributary to North Branch Sugar Creek (Bradford County, Pa.) near surface water withdrawal.

OVER THIRTY YEARS OF CHESAPEAKE BAY PROGRAM SUPPORT

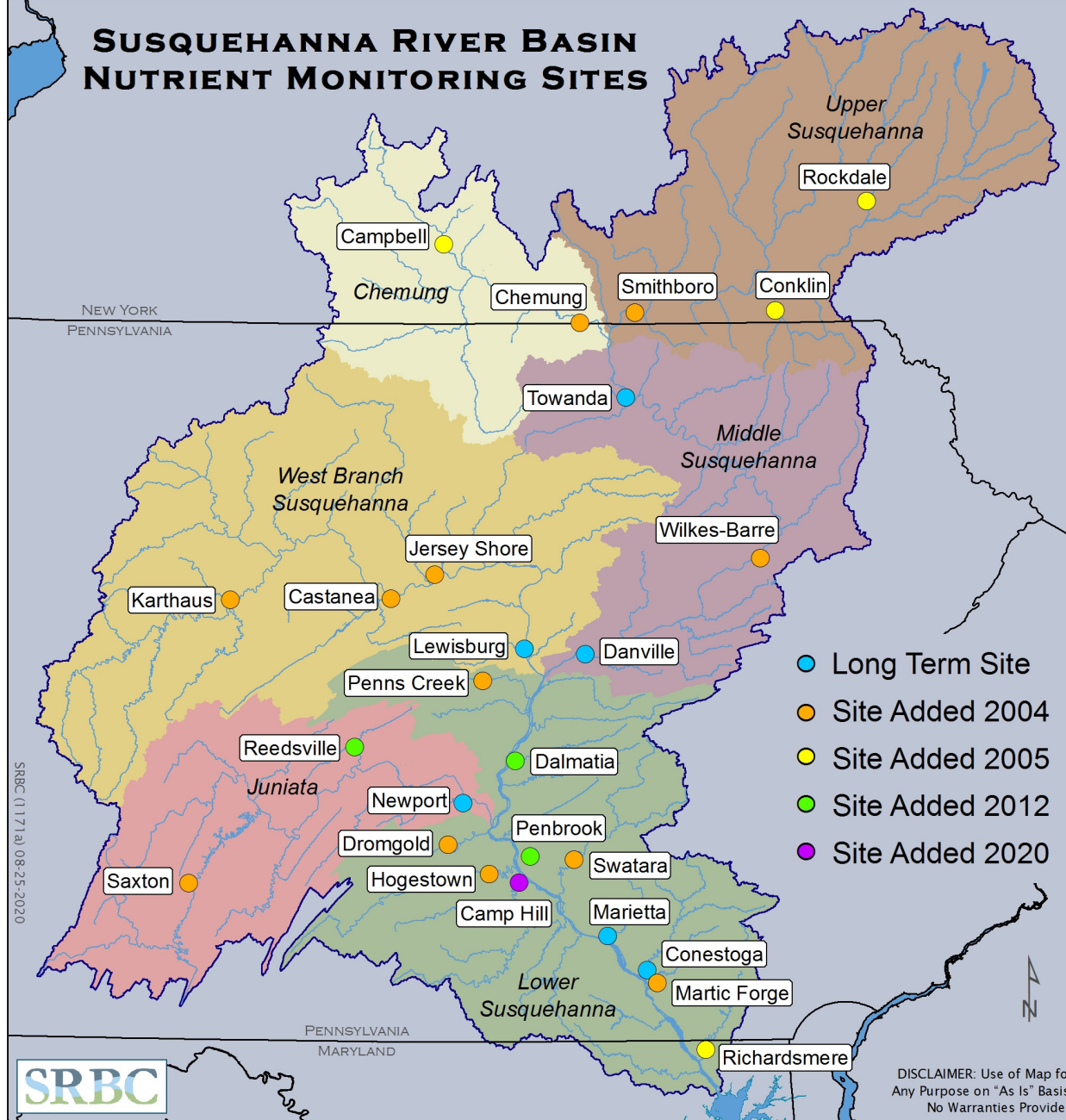
- Monitoring
- Pollution Reduction Analyses
- Local Technical Assistance



CHESAPEAKE BAY MONITORING

Since 1984, SRBC has monitored sediment and nutrient loadings at monitoring stations throughout the river basin.

SNAP (Sediment and Nutrient Assessment Program) includes 24 stations and is the backbone of the largest non-tidal monitoring program in the Chesapeake Bay watershed.



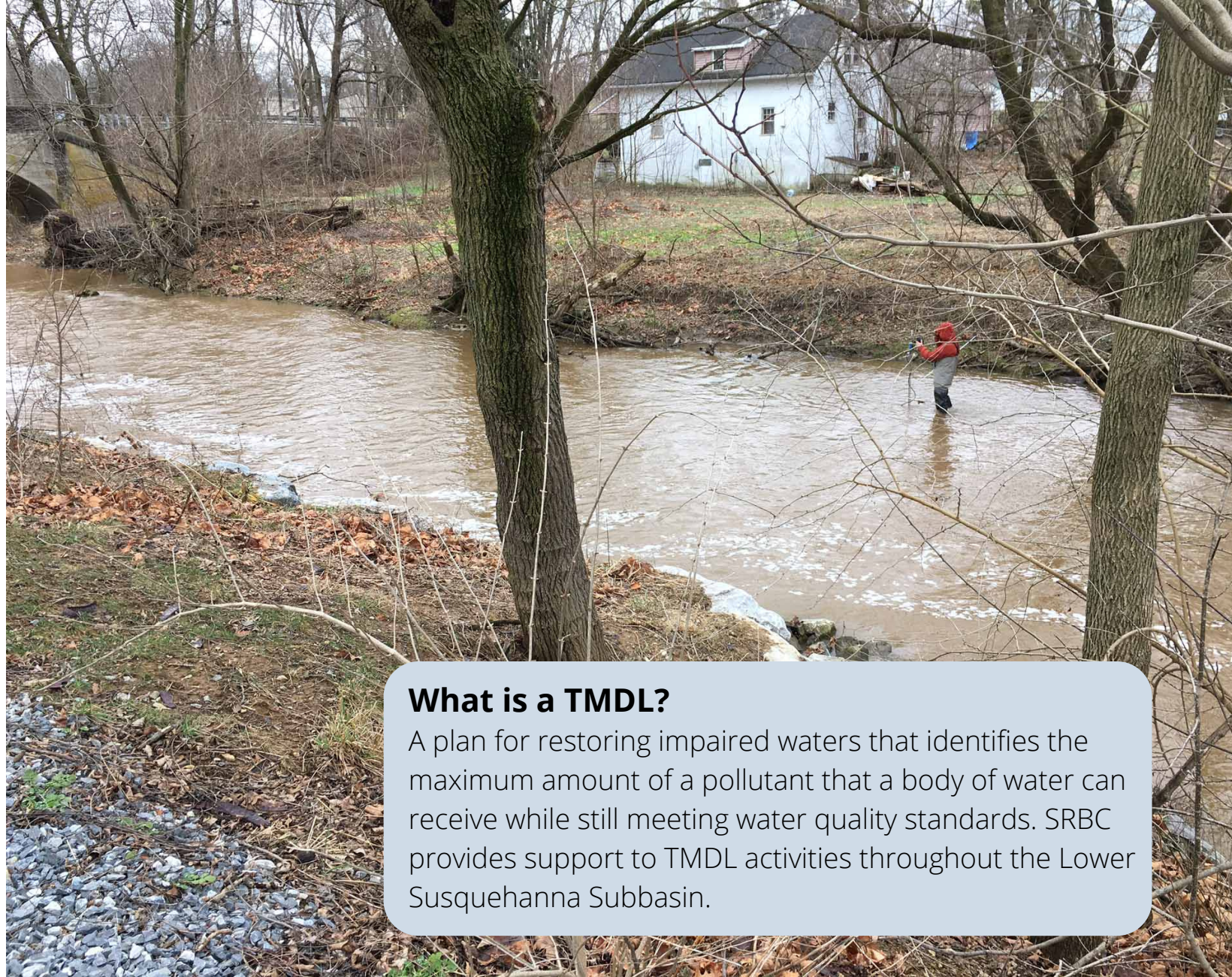
Monitoring Data:

- Informs Trends
- Ties real world stream data to model output
- Tracks long term progress towards achievement of Bay TMDL

CHESAPEAKE BAY

POLLUTION REDUCTION ANALYSES

Over the past 20 years, SRBC has helped develop TMDLs in Pennsylvania. Since 2015, staff have partnered with PA DEP on a TMDL Alternative process in the Chiques Creek Watershed. This pilot approach engages a broad group of local stakeholders to collaboratively work toward reducing pollution across contributing sectors. SRBC also provides support to TMDL activities in the Octoraro Creek Watershed.



What is a TMDL?

A plan for restoring impaired waters that identifies the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards. SRBC provides support to TMDL activities throughout the Lower Susquehanna Subbasin.

A scenic view of a farm with a river, cows, and a white barn. The river flows through the center of the frame, bordered by lush green vegetation. In the foreground, several cows are partially submerged in the water. In the background, a large white barn with a red roof stands prominently, surrounded by more greenery and a fence. The sky is clear and blue.

CHESAPEAKE BAY BOLSTERING COUNTY IMPLEMENTATION

SRBC's role in pollution reduction has evolved to providing support to PADEP for county implementation and plan development to meet nutrient and sediment reduction goals under the Chesapeake Bay Phase 3 Watershed Implementation Plan.

SRBC roles:

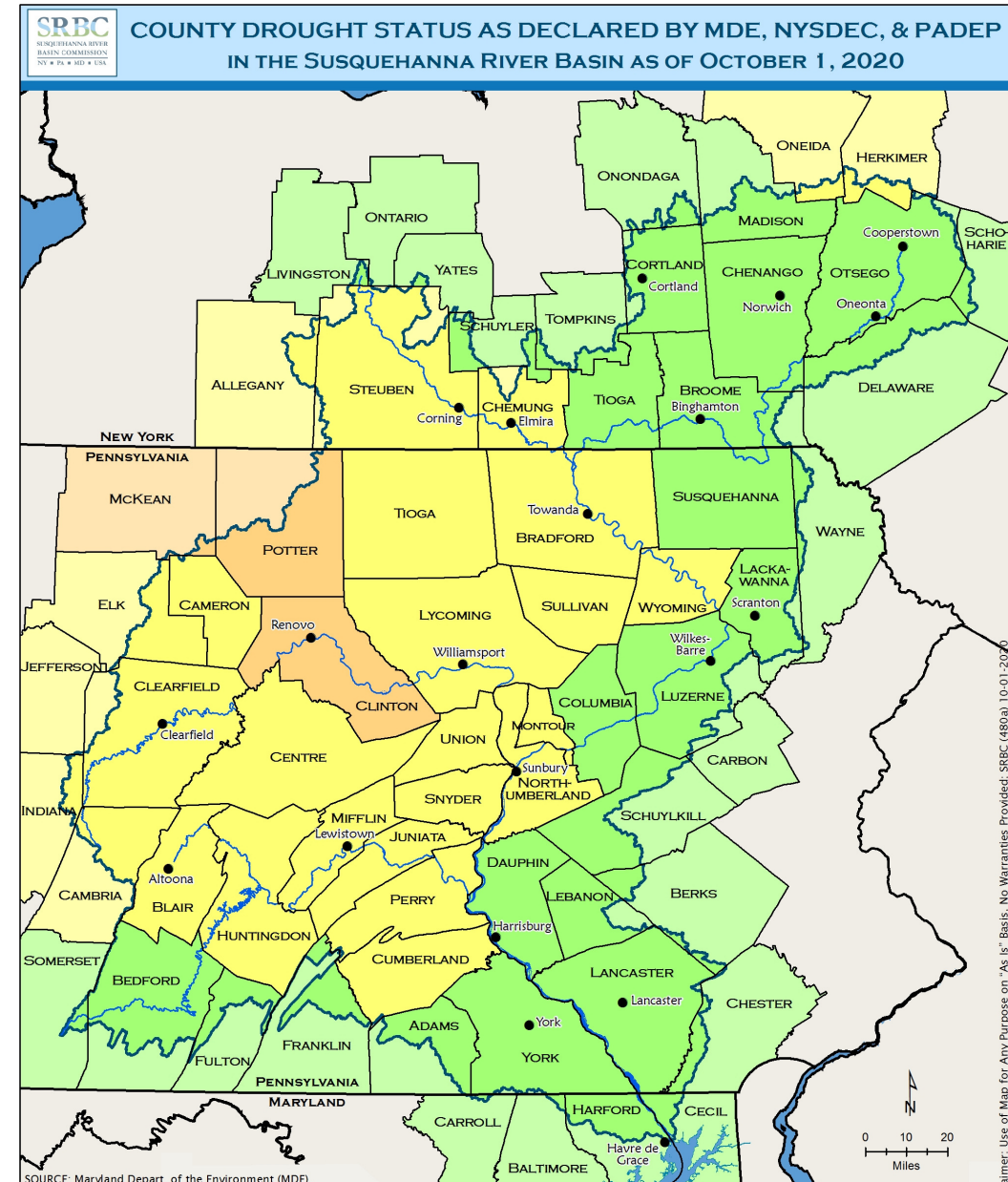
- Running model scenarios to help inform stakeholders on where best to implement pollution reduction measures
- Assisting counties with implementation plan priorities using GIS tools
- Serving as technical advisor to PA DEP Chesapeake Bay Office

2020 DROUGHT

DROUGHT MONITORING & COORDINATION

Drought conditions began in mid-August and expanded during the fall of 2020, affecting a total of 30 counties in New York and Pennsylvania.

In response, SRBC convened its Drought Coordinating Committee (includes partner agencies) to review monitoring data and discuss response actions. Several drought watch and warning declarations in NY and PA urged residents to reduce individual water use by 5-10 percent and 10-15 percent respectively.



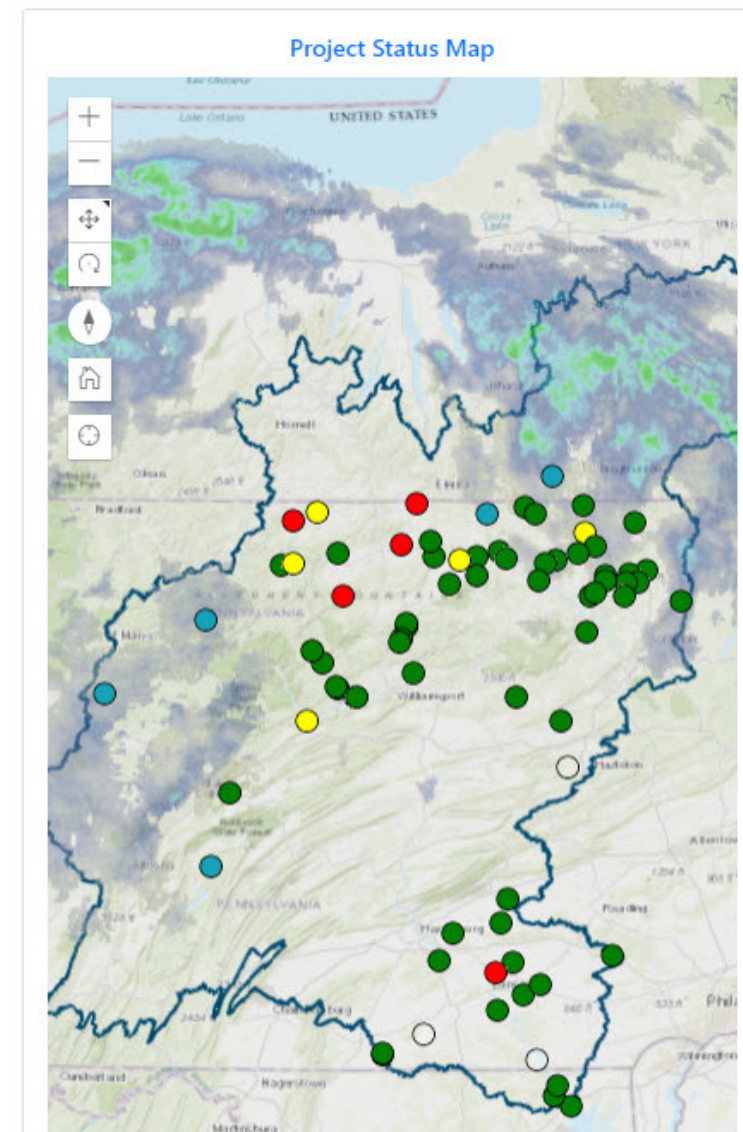
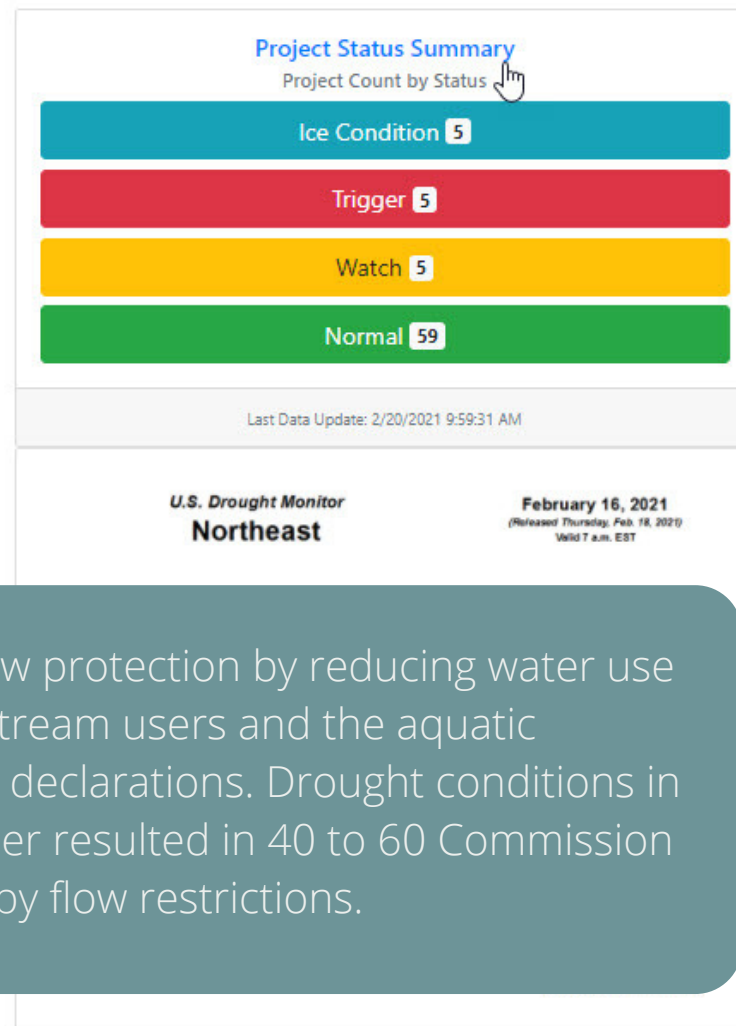
2020 DROUGHT

WATER USE PROJECTS

SRBC's Hydrologic Conditions Monitor tracks the status of water use projects regulated by the Commission that have passby flow requirements.

Passby flows are effective at providing instream flow protection by reducing water use during low flow periods to avoid impacts to downstream users and the aquatic ecosystem. They are triggered well before drought declarations. Drought conditions in the Basin during the months of July through October resulted in 40 to 60 Commission regulated water withdrawals being subject to passby flow restrictions.

Dashboard



2020 DROUGHT

ENVIRONMENTAL WATER RELEASES

The Commission monitors low flow conditions related to operations of various electric generation, public water supply, and reservoir release projects during drought events.

In September 2020, environmental releases were initiated from the United States Army Corps of Engineers Whitney Point Lake to augment low flow conditions downstream in support of aquatic life and habitat.



Whitney Point Reservoir, Broome County, NY

NEW FEATURES: INSTREAM MONITORING WEBSITE

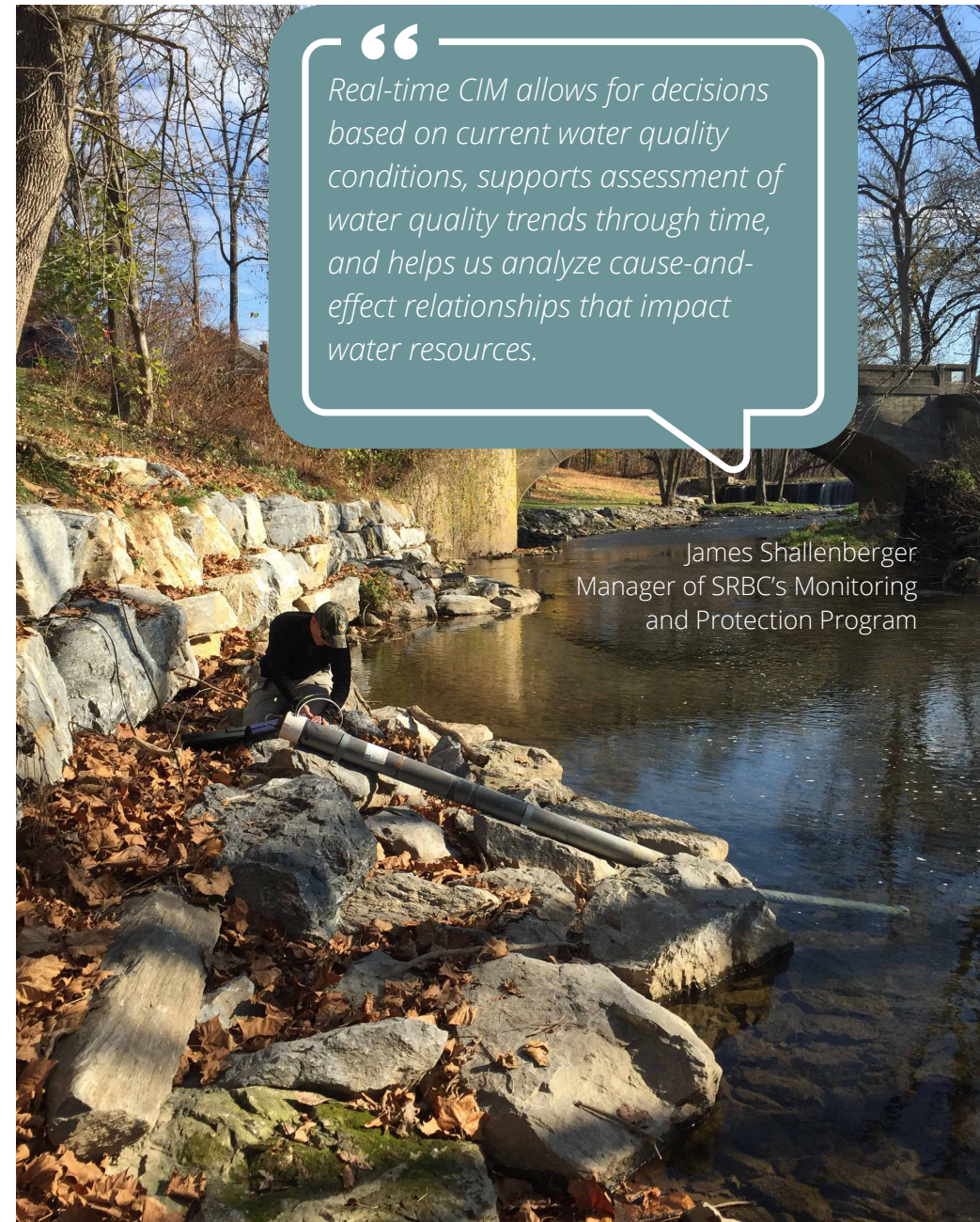
CONTINUOUS INSTREAM MONITORING

A suite of new and enhanced features are now available under SRBC's Continuous Instream Monitoring (CIM) website, found at <https://www.srbc.net/continuous-instream-monitoring>.

CIM is a network of approximately 75 stations throughout New York's and Pennsylvania's portions of the Susquehanna River Basin that are equipped with advanced water quality sensors and digital relay technology to enable real-time access to stream conditions 24 hours a day, seven days a week.

“
Real-time CIM allows for decisions based on current water quality conditions, supports assessment of water quality trends through time, and helps us analyze cause-and-effect relationships that impact water resources.”

James Shallenberger
Manager of SRBC's Monitoring
and Protection Program





STAFF AWARDS

2020 ANNUAL EXCELLENCE AWARD

MIKE SWEITZER, SYSTEMS ADMINISTRATOR

When SRBC offices closed in March 2020 due to the COVID pandemic, **Systems Administrator Mike Sweitzer** stepped to the plate and successfully prepared SRBC's network so that staff stayed connected virtually. It was new territory in IT emergency preparedness, but SRBC has experienced virtually zero downtime since the onset of the pandemic.

Mike received no less than 344 helpdesk tickets between March 16 and December 21, 2020.

Mike works collaboratively with other IT staff members and outside vendors on network architecture and planning, and he has worked with nearly every staff member to resolve IT problems through his desktop support role.

The quality of our network speaks for itself. Mike has strived to stay ahead of all things IT, keeping hardware and software up-to-date, managing our data and file inventory, allowing scalability, and ensuring redundancy and maximum up-time.

A small, dark-colored frog is perched on a large, smooth, grey rock in a stream. The water is shallow and clear, reflecting the surrounding environment. Other rocks of various sizes and colors are visible in the background.

STAFF AWARDS

2020 EMPLOYEE SPOTLIGHT AWARDS

1st Quarter:

Jeff Zimmerman

2nd Quarter:

Curtis Sebastian

3rd Quarter:

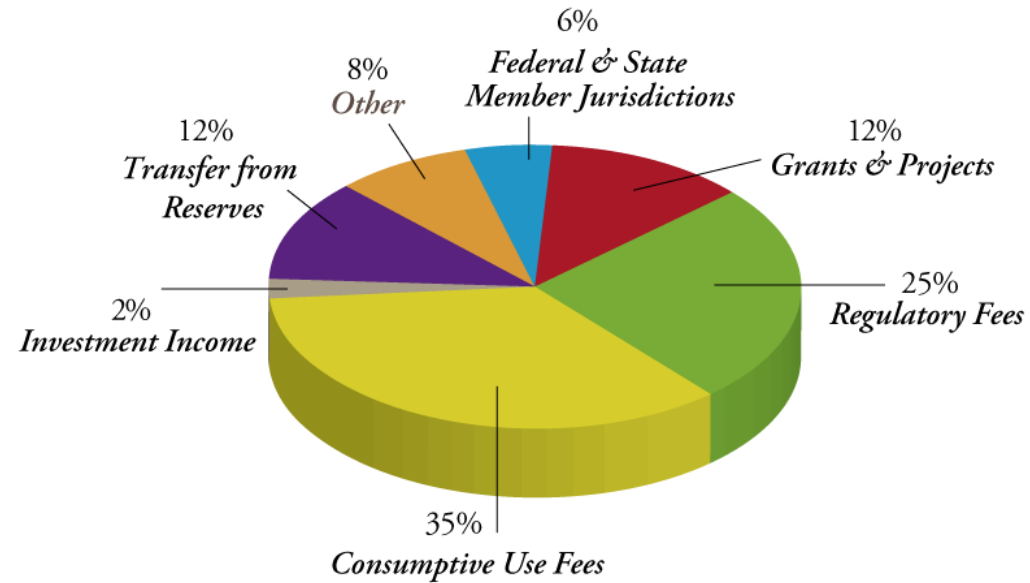
Luanne Steffy

4th Quarter:

Ben Pratt and Kim Dagen

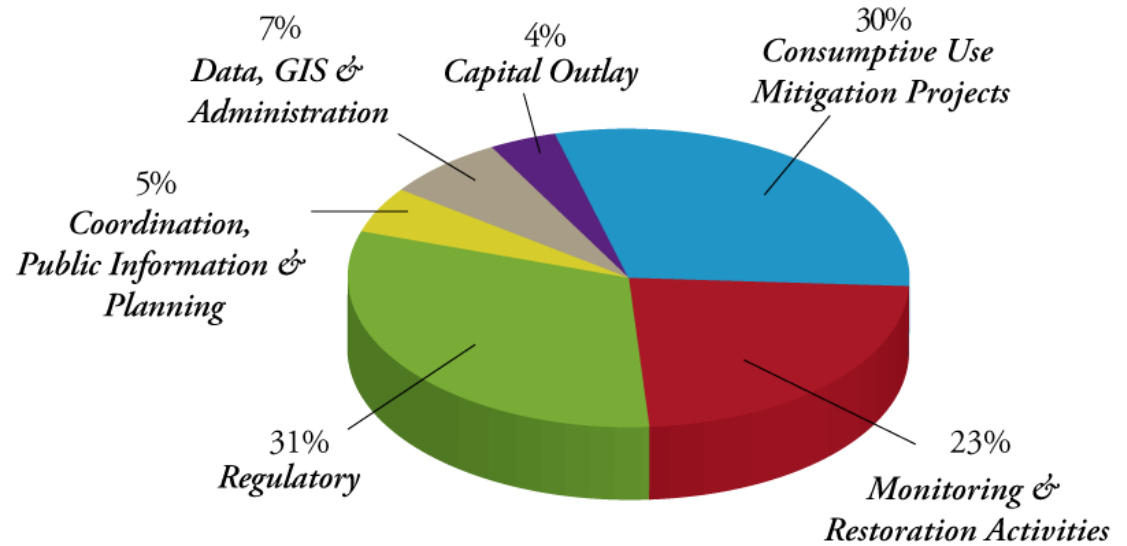
FISCAL YEAR 2020

FINANCIAL SUMMARY



REVENUE

Total: \$12,877,491



EXPENDITURES

Total: \$11,901,877

Change in Commission Fund Balances:

Fiscal Stabilization Fund	\$	(1,007,651)
Sustainable Water Resources Fund	\$	(699,763)
<u>Water Management Fund</u>	\$	<u>2,683,028</u>
Total	\$	975,614

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