



Stewardship and Sustainability

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Stewardship & Sustainability

- Protecting the Future
 - Multi-Species Conservation Program
- CAP and Climate Change
 - Water Utility Climate Alliance
 - Research Investments
 - Climate Adaptation Plan
- Adapting for the Future
 - Augmentation & Conservation



Multi-Species Conservation Program

GOALS:

BALANCE LOWER BASIN USE OF COLORADO RIVER WATER RESOURCES
WITH CONSERVATION OF NATIVE SPECIES AND THEIR HABITAT



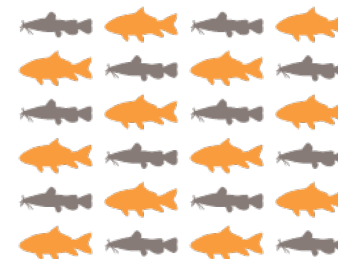
50

YEAR PROGRAM
(2005-2055)



8,132

ACRES OF NEW/
AUGMENTED HABITAT



1.2

MILLION NATIVE
FISH STOCKING

Multi-Species Conservation Program



CAP and Climate Change

HOW IS CAP ADAPTING TO CLIMATE CHANGE?

And as a cost-of-service water utility, what should we be doing about climate change?

There are a number of actions CAP will continue to pursue to adapt to the effects of drought and climate change, protect the Colorado River system and provide a reliable and resilient water supply to central and southern Arizona.



CLIMATE CHANGE

Water Utility Climate Alliance



PROVIDING LEADERSHIP

For 2020 and 2021, CAP was chair of the Water Utility Climate Alliance (WUCA), an organization of 12 of the largest water utilities in the United States, supplying drinking water for more than 50 million people. The organization's mission is to collaboratively advance water utility climate change adaptation.

wucaonline.org

Water Utility Climate Alliance Activities



- **Leading Practices in Climate Adaptation**
- **Climate Resilience Trainings**
- **Engineering Case Studies**
- **Greenhouse Gas Mitigation**
- **Heat Impact Case Studies**

CAP Carbon Footprint



DETERMINING CAP'S CARBON FOOTPRINT

- CAP is in the process of quantifying the organization's carbon footprint
- Most of CAP's power usage is attributed to pumping
- CAP has a strategic goal to minimize CAP's carbon footprint, consistent with CAP's mission

CAP Research Investment

Improving Predictability in the Colorado River Basin by utilizing winter synoptic patterns with Sea Surface Temperature (SST) states (DRI/CAP, 2013-2015)

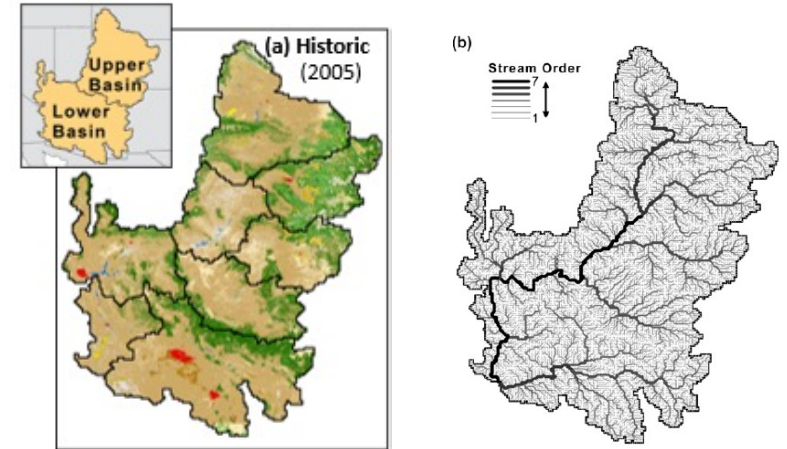
Sensitivity of Reservoir Storage to Hydro-Meteorological variables in the Colorado River Basin (DRI/CAP, 2017-2019)

Exploring response of the Colorado River Basin to Future Climate using CMIP5 climate data and custom-modified Variable Infiltration Capacity (VIC) model (ASU/CAP, 2018-2019)

Averting Drought Shortages in the Colorado River: Transitioning Long-Range, Data-Infused Scenario Modeling to Operations of the Central Arizona Project (ASU/CAP/NASA, 2019-2022)

Managing the Colorado River as an Infrastructure Asset: Fusing Remote Sensing and Numerical Modeling in the Operations of the Central Arizona Project (ASU/CAP/NASA, 2022-2025)

Variability and Predictability of Spring Precipitation over the Upper Colorado River Basin and Resulting Streamflow (Scripps/SNWA/CAP/CRAU/CUWCD/CWCB/DW/SAC, 2022-2023)



- Incorporate NASA data with climate change and land use scenarios into long-term hydrologic modeling for the Colorado River Basin
- Stakeholder engagement with Colorado River Basin partners from Upper and Lower Basin

CAP Climate Adaptation Plan



DEVELOPING CAP'S CLIMATE ADAPTATION PLAN

CAP's Climate Adaptation Plan, published in 2018, focuses directly on our water delivery mission and considers the effects of climate change on CAP's ability to accomplish this mission, beyond the obvious water and power implications.

Adapting for the Future

Augmentation & Conservation:

Finding new supplies to increase the reliability of the Colorado River

Examples include:

- Desalination
- Innovative Conservation Partnerships
- System Use Agreement
 - Wheeling non-project water

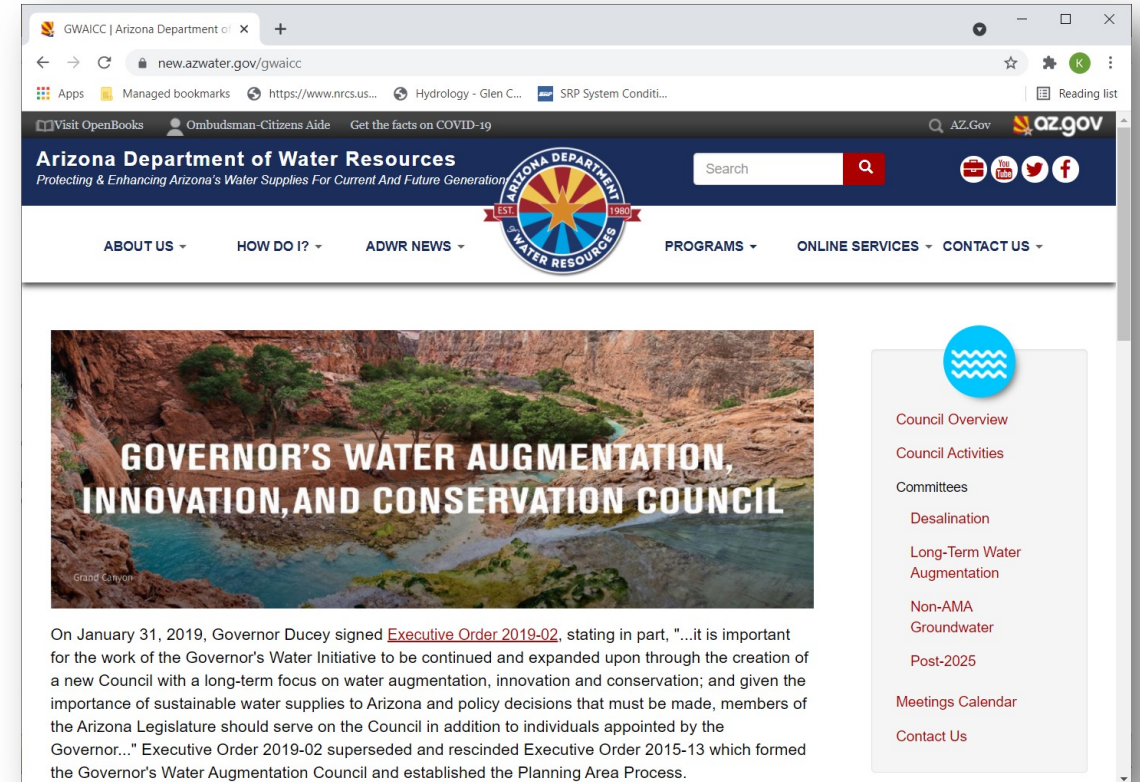


Adapting for the Future

Governor's Augmentation, Innovation, and Conservation Council

○ Committees

- Desalination
- Long-Term Water Augmentation
- Non-AMA Groundwater
- Post-2025



The screenshot shows the website for the Governor's Water Augmentation, Innovation, and Conservation Council. The header includes the Arizona Department of Water Resources logo and navigation links: ABOUT US, HOW DO I?, ADWR NEWS, PROGRAMS, ONLINE SERVICES, and CONTACT US. The main content area features a large image of a river in a canyon with the text "GOVERNOR'S WATER AUGMENTATION, INNOVATION, AND CONSERVATION COUNCIL". Below the image is a paragraph of text: "On January 31, 2019, Governor Ducey signed [Executive Order 2019-02](#), stating in part, "...it is important for the work of the Governor's Water Initiative to be continued and expanded upon through the creation of a new Council with a long-term focus on water augmentation, innovation and conservation; and given the importance of sustainable water supplies to Arizona and policy decisions that must be made, members of the Arizona Legislature should serve on the Council in addition to individuals appointed by the Governor..." Executive Order 2019-02 superseded and rescinded Executive Order 2015-13 which formed the Governor's Water Augmentation Council and established the Planning Area Process."

On the right side of the page, there is a sidebar with a blue circular icon containing a white wave pattern. The sidebar contains the following links: Council Overview, Council Activities, Committees, Desalination, Long-Term Water Augmentation, Non-AMA Groundwater, Post-2025, Meetings Calendar, and Contact Us.

Stewardship & Sustainability: Key Take-Aways

- Through the Multi-Species Conservation Program, we're working with our partners in the Colorado River Basin to create habitats that protect various species of birds, reptiles and fish – some of which are starting to return to the area after decades
- CAP is adapting to the effects of climate change to protect the Colorado River system and to continue to provide a resilient and reliable water supply – this includes a model climate adaptation plan, working with other water utilities across the country, and investing in climate change research
- We are working with others to augment and conserve our Colorado River supply, create new opportunities through desalination, innovative partnerships and to use our system to convey new supplies through the CAP system





Thank you.

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