

Corporate Water Strategy and Business Value: Sustainability and Resilience





Will Sarni
CEO, Water Foundry



WHY WATER?

2050



60% 

80% 

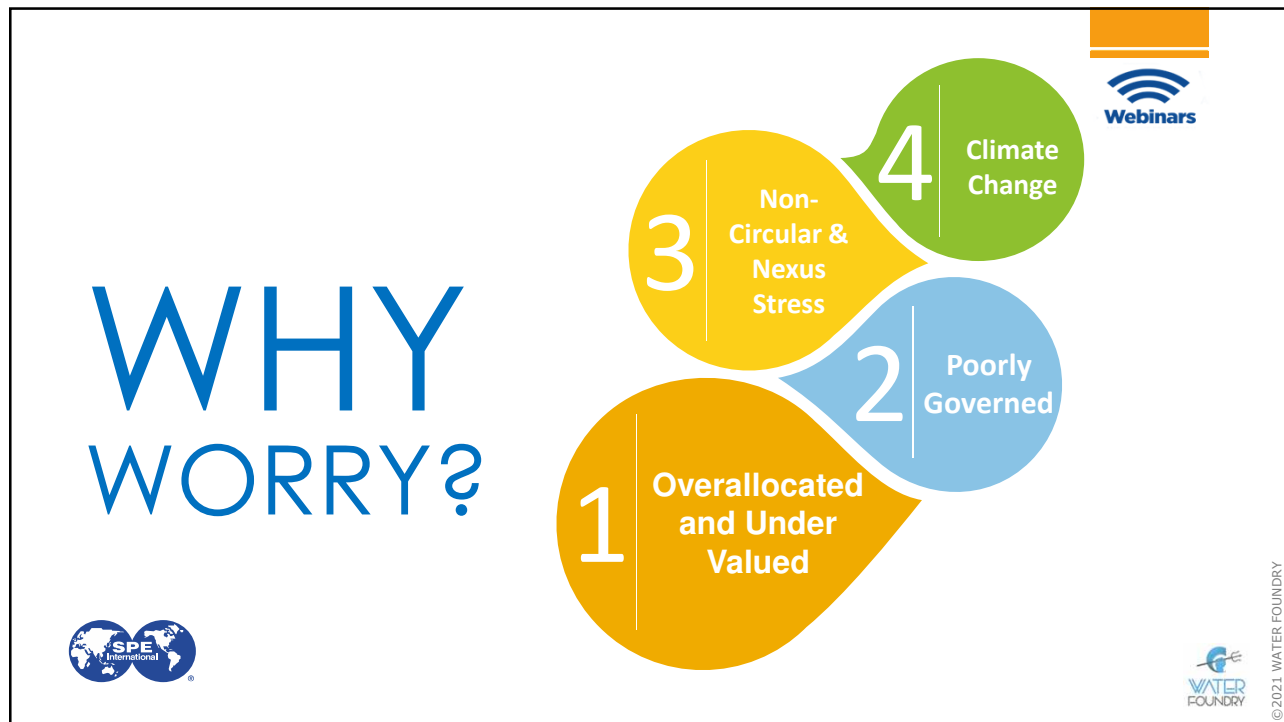
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Water is a Wicked Problem

WHAT IS A WICKED PROBLEM?

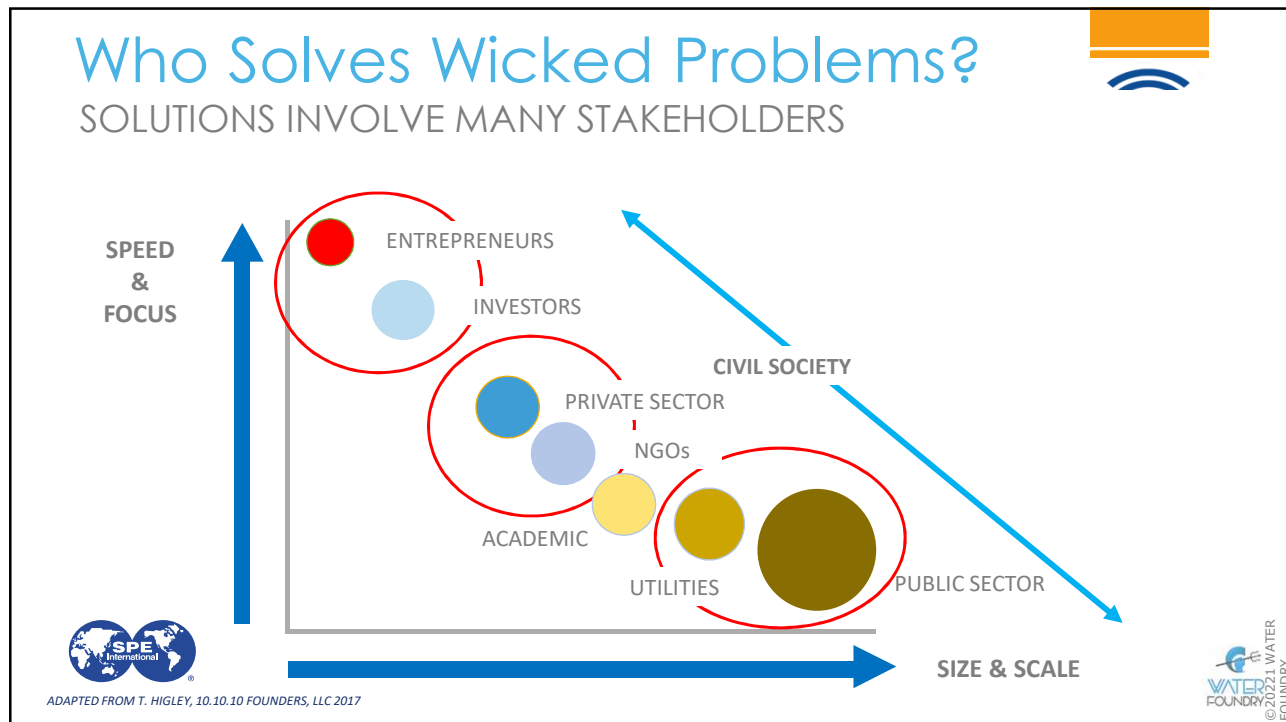
- Wicked problems are difficult to clearly define.
- Have many interdependencies and are often multi-causal.
- Attempts to address wicked problems often lead to unforeseen consequences.
- Often not stable, with no clear solution, and socially complex.
- Involve changing behavior.
- **Wicked problems hardly ever sit conveniently within the responsibility of any one organization.**
- **Some wicked problems are characterized by chronic policy failure.**

SPE International

Webinars

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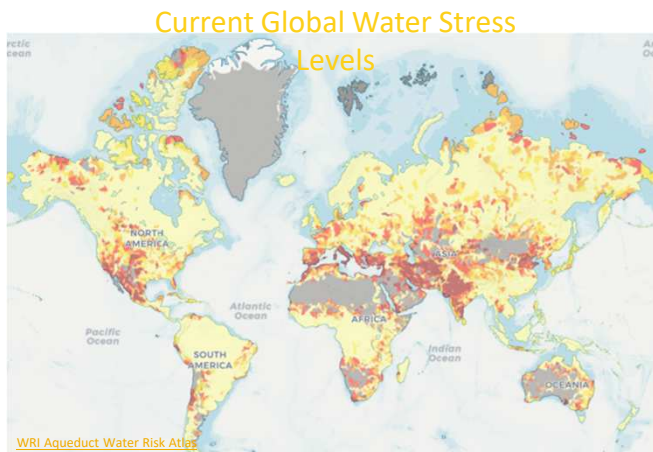
“How do companies with ambitious growth strategies secure the water they need to fuel business growth in a world where paying more for water will not work?”

Will Sarni

Water Risk and Stress



- Water risk is a **global issue** that is **manifested locally**
- Water risk can be categorized in three ways:
 - Physical:** water availability in the right quantity and quality at the time and location needed,
 - Regulatory:** new or changing regulations along with the cost of supply, treatment, and compliance, and
 - Reputational:** potential for stakeholders to react to water stewardship practices; social media amplifies this risk
- Water scarcity and quality issues tend to be driven by **over-allocation of the available water resources** by regulatory bodies (local and regional water boards)



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Corporate Value Chain Water Risks

BUSINESS VALUE AT RISK



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Water Stewardship vs. Strategy

RISK DRIVES ENGAGEMENT, VALUE DRIVES INVESTMENT



Businesses and water stewardship

- Focus on risk management and collective action.
- Water balance strategies primarily drive conservation programs.
- Is water just a CSR issue?

NGOs and water stewardship

- Conservation focus.
- Typically, do not focus on innovation.

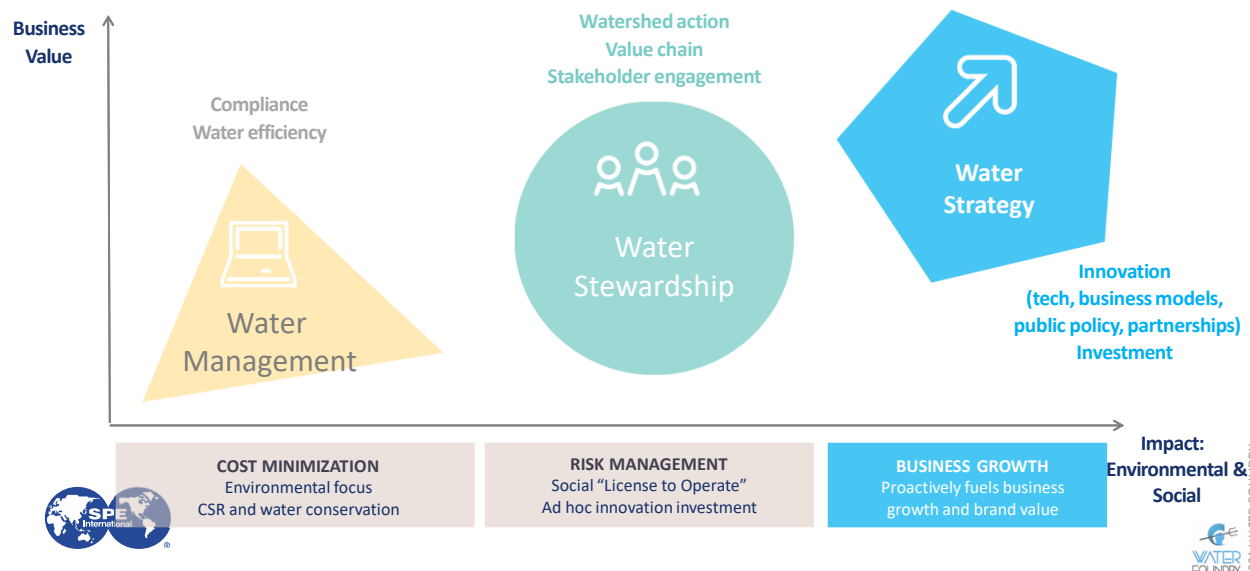
Business value creation is missing or incomplete

- Water as a business strategy and opportunity – new products and services.
- Opportunity to leverage non-conservation business contributions such as marketing, communication, brand (e.g., brands with purpose), innovation (e.g., venture fund), and business ecosystems.



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Corporate Water Strategy Maturity



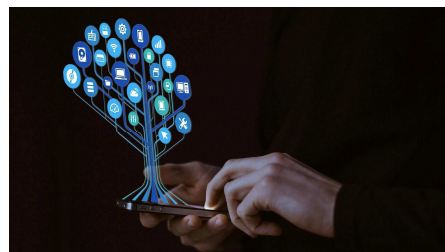
Handprint vs. Footprint

SCALING IMPACT BEYOND FOOTPRINT



Digital With a Purpose – Delivering Smarter2030

More informed and purposeful development and deployment of **digital technologies will catalyze progress** towards the Sustainable Development Goals (SDGs)

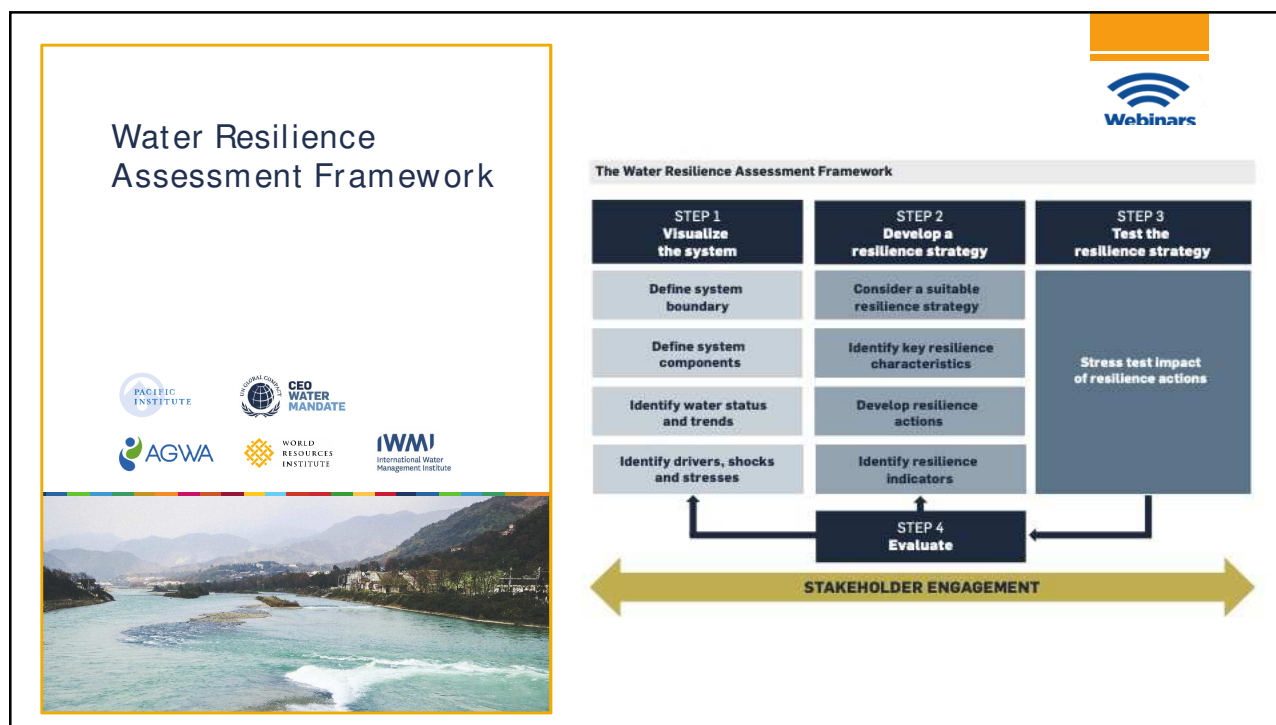
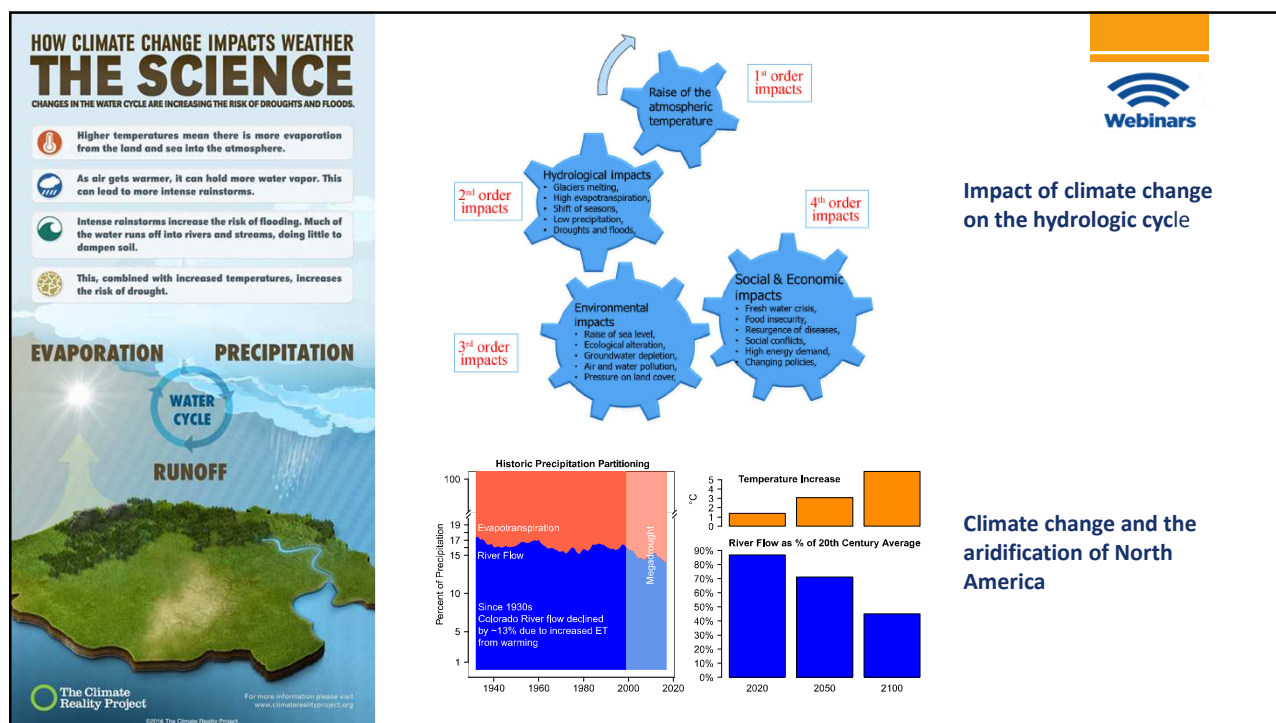


The **Digital Climate Alliance (DCA)** is a first-of-its-kind coalition of leading global companies with the purpose of informing public policy regarding the role **digitalization can play as an enabler of climate solutions**.



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Strategy: Net Positive



**WATER
RESILIENCE
COALITION**



Net-Positive Water Impact: Deliver measurable net-positive impact in water-stressed basins where we operate, focusing on the availability, quality, and accessibility of freshwater resources. Net-positive water impact is achieved when a water user's contributions exceed its impacts on water stress in the same region.

Water Resilient Value Chains: Develop, implement, and enable strategies to support leading impact-based water resilience practices across the global value chain.

Global Leadership: Raise the ambition of water resilience through public and corporate outreach, as well as inspire other industry leaders to join the Coalition and sign a Pledge.



Founders & Leadership



ABInBev

Cargill

DIAGEO

DOW

ECOLAB

Gap Inc.

KURITA

Microsoft

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Members



Braskem

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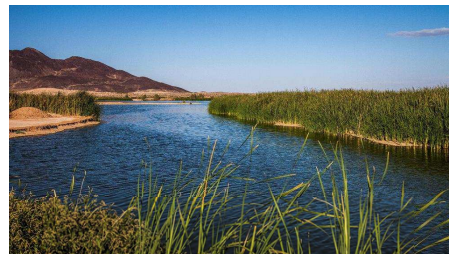
Strategy: Watershed Health



Corporate impact measurement and evaluation for watershed health and resilience

Companies should invest greater resources (time, staff capacity, funding) into measurement and evaluation of watershed outcomes in order to accelerate action and inform impactful water stewardship strategies.

Implementers of watershed interventions should prioritize measurement and evaluation of watershed outcomes in their initiatives to help to build the investment case in nature-based and other solutions over the long term.



PEPSICO

ABInBev



Corporate: Sustainability Innovation

100+ Sustainability Accelerator

will aim to solve 100+ challenges by 2025. The 100+ Sustainability Accelerator will run annual boot camps in 9 markets followed by a 10-week program for select entrepreneurs to test and scale solutions.



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Corporate: Innovation and Investment

Webinars



BasinScout® Platform
The Freshwater Trust and Upstream Tech developed BasinScout® Platform to help identify the best places to improve groundwater and surface water quantity and quality.

Emerald closes USD 100M water innovation impact fund with Temasek, SKion Water, **Ecolab and Microsoft**.

Fund will invest in early- to expansion-stage companies to drive innovation and adoption in the water space.



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Corporate: Sustainability Accelerator

Webinars

Will attract thousands of potential companies over the next 3 years
30 companies will be selected



PARTICIPATING COMPANIES



Corporate: Water Tech Accelerator

Webinars

URBAN WATER CHALLENGE

IMAGINE |  | H₂O



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Value Chain Innovation: Digital

Webinars



Watershed/Supply Chain

- Real time water quantity and quality
- Predictive analytics
- Integrated water, energy and agriculture management



Operations

- Predictive analytics
- Water quality monitoring
- VR/AR augmented workforce
- Smart hardware
- AI managed assets



Customers/ Communities

- Customer engagement and analytics
- Conservation management
- Water quality monitoring



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Operations Innovation



plutoshift

Operational data platform for industry & infrastructure for smarter processes & asset management

barbara

IoT solutions for industries and infrastructure, allowing for remote monitoring, predictive maintenance, and more efficient processes

H2OK Innovations

Analytics platform for more efficient liquid processes in manufacturing & industry



Cloud based analytics solution optimizes water treatment plants to reduce costs, increase efficiency, and improve process sustainability



Rapid design and process simulation technology for engineering planners in water treatment

Atonix DIGITAL

Data driven systems to predict failures, maintenance and enhance operational performance in water process plants



IntelliFlux Controls

Tracks water plant performance and learns plant behavior to optimize operations and provide maintenance and cleaning guidance to operators

sentry

Real-time bioelectrode monitoring and water plant microbial process optimization



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Watershed and Supply Chains



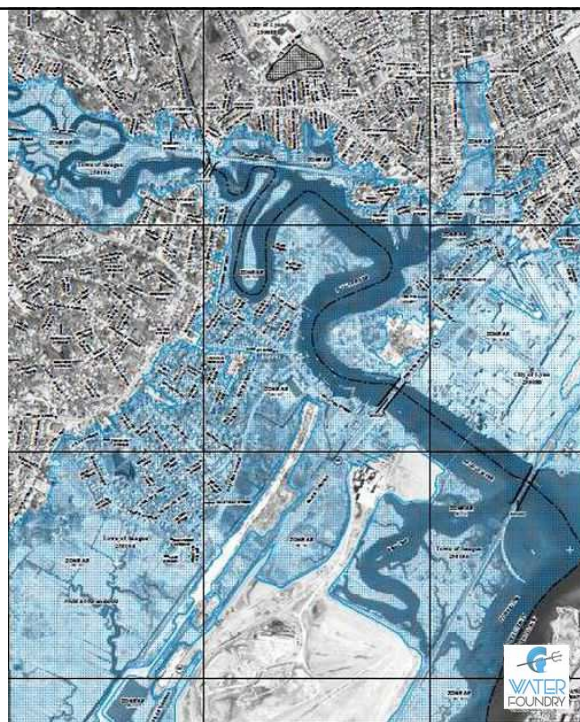
- Watershed climates and chemistry profiles can *fluctuate* rapidly and dramatically
- Watersheds are *vulnerable* to many threats (climate change and extreme weather events, pollution, overdevelopment, etc.)
- Ecosystems are extremely *diverse* by region, making standard monitoring schemes less effective
- A lot rides on the *robustness* of our watersheds: flooding, coastal resilience, safe drinking water sources, infrastructure resilience, algal blooms etc.



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Data Needs and Digital Water Tech Value

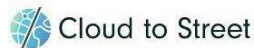
- o *Faster* and *more accurate* modeling and monitoring of watersheds: smarter sampling and remote monitoring
- o Rapid *detection, forecasting* and stakeholder warning systems
- o Better *communication* platforms
- o More intuitive *data* to drive better *decisions*
- o Innovative use of data to direct *impactful outcomes* (controlling traffic in flooding scenarios, more effective remediation solutions, etc.)



Watershed Digital Tech

Modeling & Management

Monitoring & Water Health



Climate & Flood Resilience

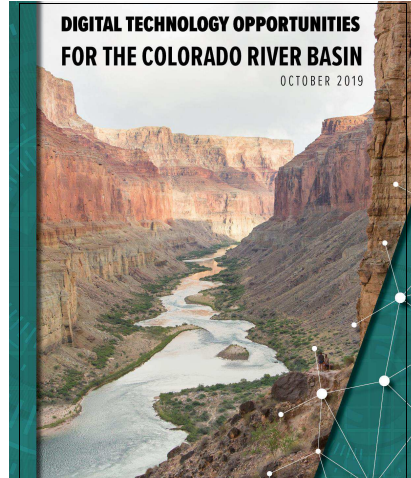


Circular Economy & Ecosystem Approaches



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Colorado River Basin Initiatives



**COLORADO
RIVER BASIN
FUND**



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Water Supply

Demand Management

Water Efficiency and Reuse

Smart home technologies

Stormwater Management and Recharge

Water Quality

Water Quality And Asset Monitoring

Water Treatment and Reuse

Infrastructure System Analytics

Brackish Water Desalination

Drinking Water Access

Alternative Sources

Home Water Reuse

Air Moisture Capture

Real time water quality monitoring

Impact and Reporting

ESG Data Acquisition

Watershed and Supply Chain Monitoring

Real Time Data Acquisition and Aggregation

Satellite Data Analytics



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