

Creating a Resilient Basin: DRBC's Water Resources Resilience Plan

September 30, 2026



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14th Annual Delaware River Watershed Forum

Shaping the Future of Our Watershed

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What is the Delaware River Basin Commission?

Managing, protecting, and improving the Basin's water resources.



From 1961...



... to today



The Delaware River Basin Commission is a federal-interstate government agency



Our Mission

Manage, protect, and improve the water resources of the Delaware River Basin.

Our Vision

Provide trusted, effective, and coordinated management of the Basin's shared water resources.

Our Foundation

The Delaware River Basin Compact is both an agreement, federal law and state law.

The basin-state governors and a U.S. Army official are the DRBC Commissioners



Pennsylvania Governor, Josh Shapiro

DRBC Chair



New Jersey Governor, Mikie Sherrill

DRBC Vice Chair



New York Governor, Kathy Hochul



Delaware Governor, Matt Meyer



North Atlantic Division Commander
US Army Corps of Engineers, BG Jesse Curry



Why is DRBC developing a Water Resources Resilience Plan?

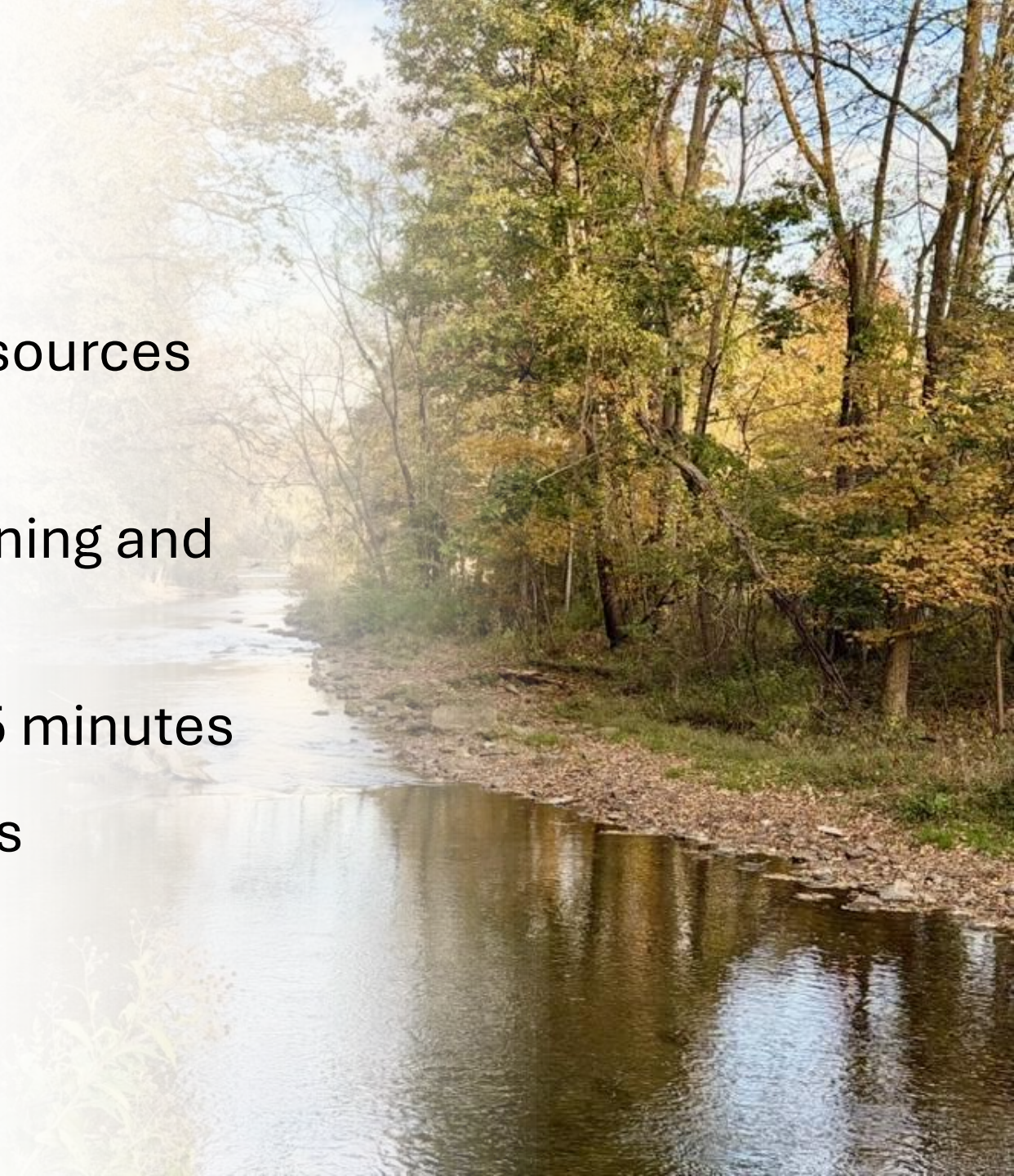
- **14 m+ people** rely on our shared waters
- **13,539 sq. mi.** watershed
- **4 states**
- **330 river miles**
- **130 miles** tidally influenced

Finding: Climate change is impacting the Basin's water cycle



Today's agenda

- Introduction to DRBC's Water Resources Resilience Plan – 15 minutes
- State of Delaware resilience planning and partnership – 5 minutes
- Transition to Listening Session – 5 minutes
- Discussion in groups – 30 minutes
- Closing – 5 minutes



The Water Resources Resilience Plan (WRRRP) will inform DRBC actions and activities to **prepare and adapt the Basin's shared water resources to withstand the known and potential impacts of climate change and other hazards.**

DRBC will **collect stakeholder input** during all 3 Phases of the WRRP



- **P1:** A Framework for DRBC's WRRP
 - Set the stage for work to be done in Phases 2 and 3.

- **P2:** Advancing Resilience of the Delaware River Basin's Water Resources to Climate Change

- **P3:** Advancing Resilience of the Delaware River Basin's Water Resources to Additional Challenges



We are here!

DRBC will **collect** **stakeholder** **input** during all 3 Phases of the WRRP



■ **P1:** A Framework for DRBC's WRRP

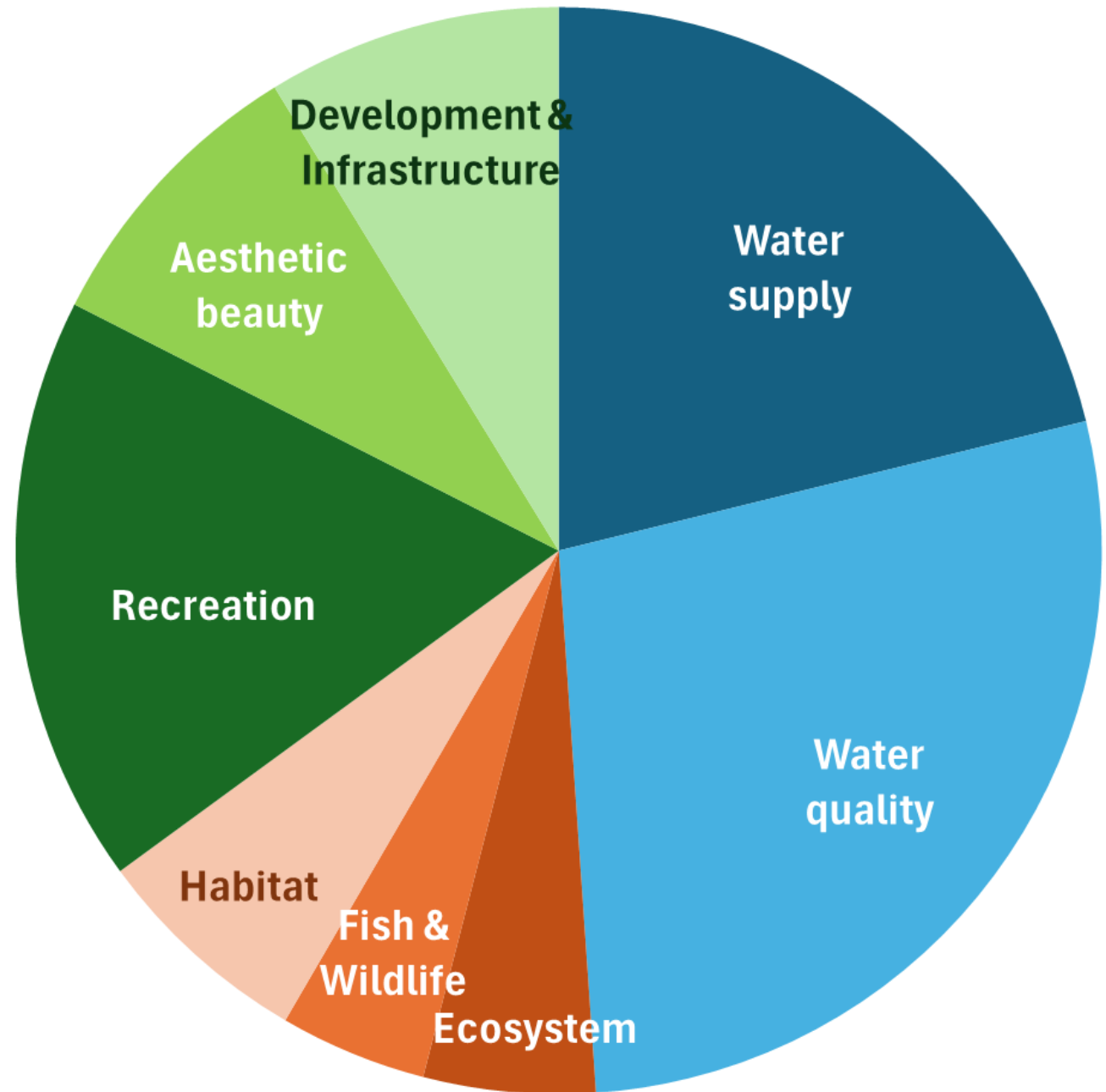
- Open-ended questions about stakeholders' **values** and **concerns**
- Ensure the **scope of the WRRP** considers the breadth of public and partner concerns about climate change and water resources
- We engaged with **150** participants from:

State government, non-profits, youth,
Basin residents, public utility, academia,
private utility, faith-based groups,
federal government, community groups

“ I just enjoy [the
Delaware River’s]
existence and beauty...

Many stakeholders noted the Basin’s **aesthetic beauty**, partake in a range of **recreational activities**, and acknowledged the River as an important **source of water**.

Stakeholders'
responses
communicated
what they
value about the
Basin's water
resources

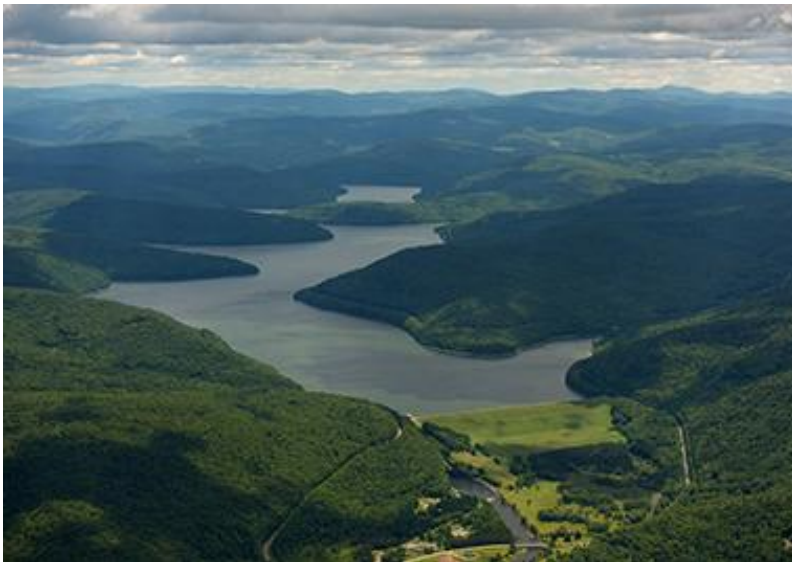
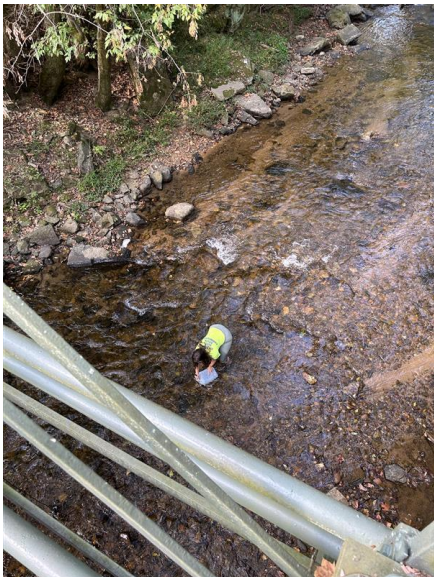


The WRRP will focus on protecting and managing **three Basin-wide water resource assets**

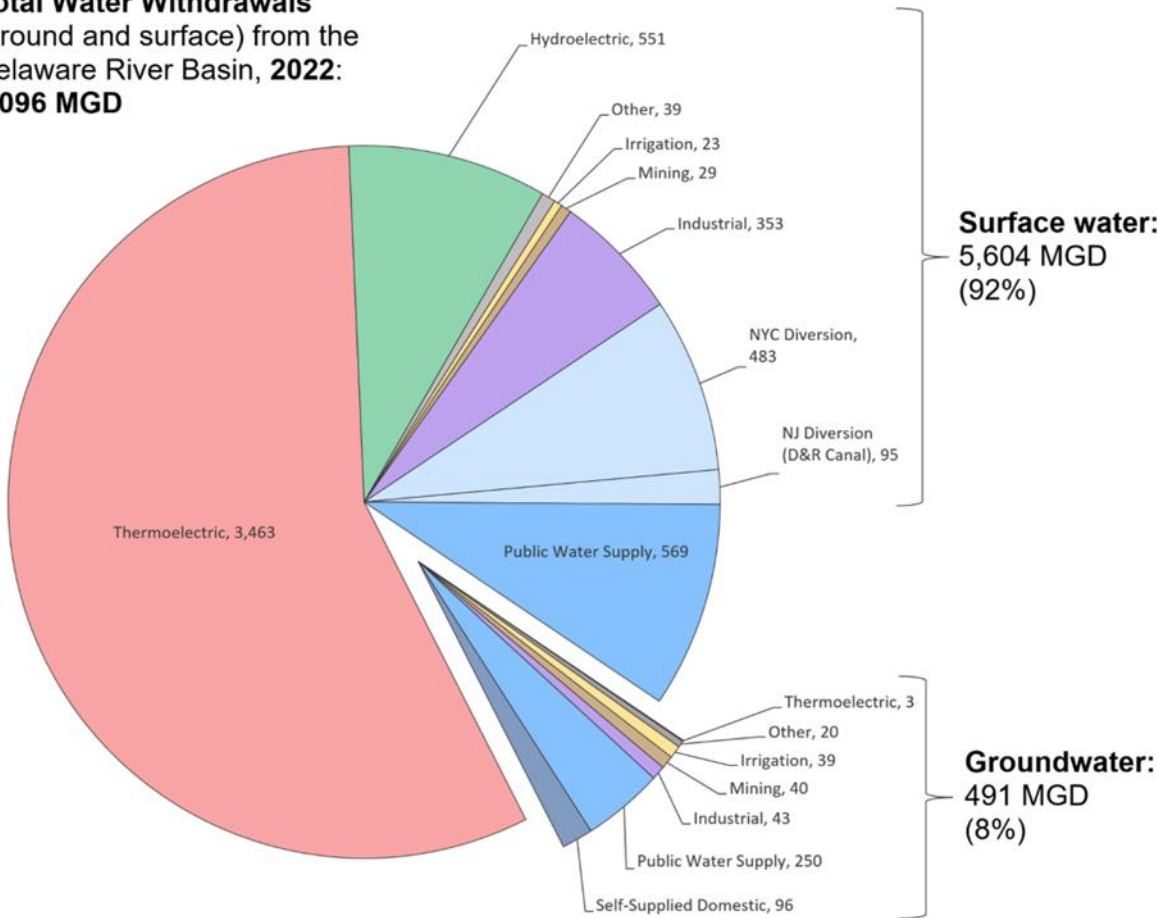


WATER AVAILABILITY

Quality water supply
throughout the Basin that
supports human needs



Total Water Withdrawals
(ground and surface) from the
Delaware River Basin, **2022:**
6,096 MGD



The WRRP will focus on protecting and managing **three Basin-wide water resource assets**



WATER AVAILABILITY	Quality water supply throughout the Basin that supports human needs
AQUATIC ECOSYSTEM	Habitat that supports species that live in and/or rely on water bodies in the Basin



Image credits: maine.gov, DNREC, Haskins
Shellfish Research Laboratory, NPS, John Whyte
of the Ontario B.A.S.S. Nation, DNREC, PDE

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- This list reflects stakeholder input: What we **collectively value** about water resources in the Basin
- Each water resource asset includes many **inter-connected features**
- **Any questions about these definitions?**

CLIMATE CHANGE DRIVERS

HAZARDS TO WATER RESOURCES

EXAMPLE CONSEQUENCES TO WATER RESOURCE ASSETS

Warming air temperatures

Changing precipitation patterns

Sea-level rise

Water temperature increase

Stress to temperature-sensitive species

Aquatic ecosystem



Brook trout
Image credit: maine.gov



Invasive northern snakehead
Image credit: invadingspecies.com



Limerick generating station
Image credit: Constellation Energy



Slimy sculpin
Image credit: Jason Freund, Trout Unlimited

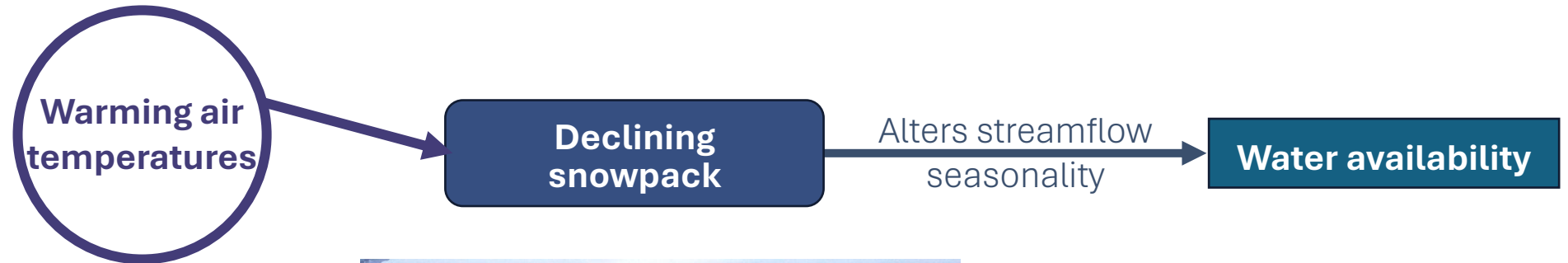


Blue-green algae
Image credit: DNREC

CLIMATE CHANGE DRIVERS

HAZARDS TO WATER RESOURCES

EXAMPLE CONSEQUENCES TO WATER RESOURCE ASSETS



Changing
precipitation
patterns

Sea-level
rise



Snow in the Catskills Mountains, NY
Image credit: Jenny Flavin, Catskills Visitor Center

CLIMATE CHANGE DRIVERS

HAZARDS TO WATER RESOURCES

EXAMPLE CONSEQUENCES TO WATER RESOURCE ASSETS

Warming air temperatures

Changing precipitation patterns

Sea-level rise



Pepacton Reservoir at 63% capacity in November 2024
Image credit: Delaware Currents

Drought

Less water in streams and rivers

Water availability

Delaware River during the drought of record, 1963
Image credit: DRBC

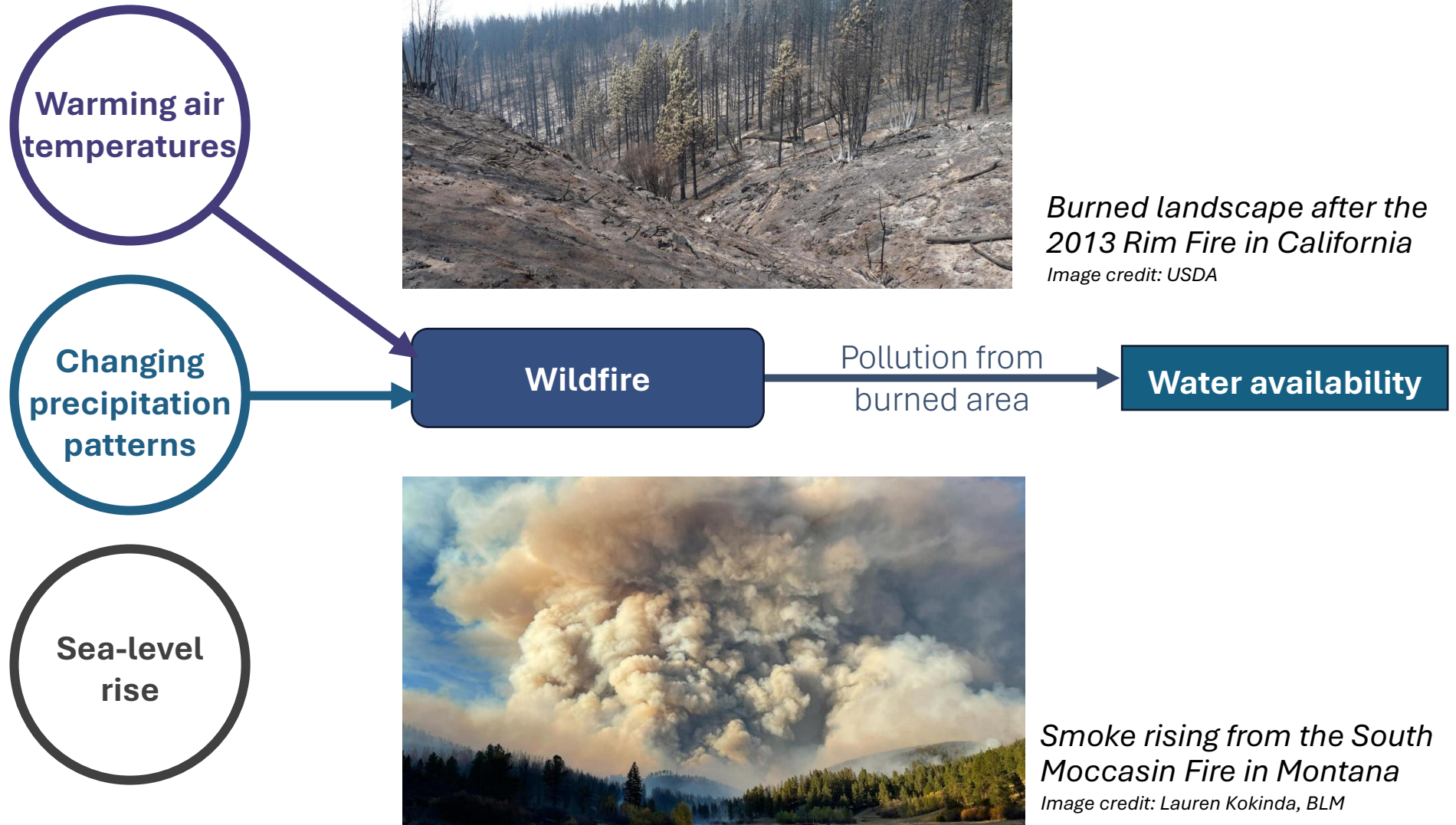


Eastern blacknose dace
Image credit: Ryan Hagerty, USFWS

CLIMATE CHANGE DRIVERS

HAZARDS TO WATER RESOURCES

EXAMPLE CONSEQUENCES TO WATER RESOURCE ASSETS



CLIMATE CHANGE DRIVERS

Warming air temperatures

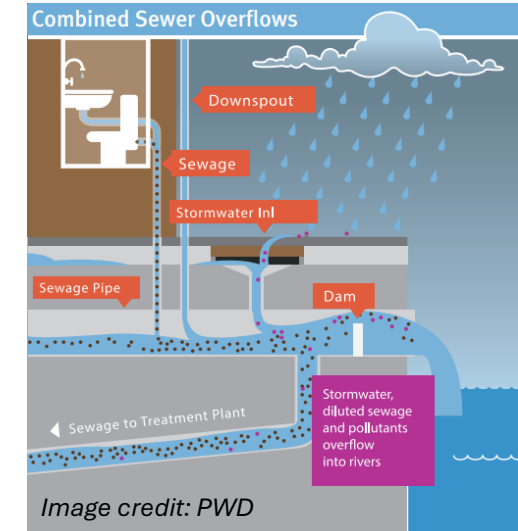
Changing precipitation patterns

Sea-level rise

HAZARDS TO WATER RESOURCES



EXAMPLE CONSEQUENCES TO WATER RESOURCE ASSETS



Flooding

Damage to infrastructure

Built Environment



Smallmouth bass nesting

Image credit: John Whyte of the Ontario B.A.S.S. Nation

Mussels in the Upper Delaware

Image credit: NPS



CLIMATE CHANGE DRIVERS

Warming air temperatures

Changing precipitation patterns

Sea-level rise

HAZARDS TO WATER RESOURCES



Ghost forest near Delaware Bay

Image credit: Jerry Habraken, Delaware News Journal

EXAMPLE CONSEQUENCES TO WATER RESOURCE ASSETS



Submerged road at king tide in CA

Image credit: California Ocean Protection Council



Marshes and tidal wetlands provide critical habitat

Image credit: PDE

Land inundation

Loss of
marsh vegetation

Aquatic ecosystem

CLIMATE CHANGE DRIVERS

HAZARDS TO WATER RESOURCES

EXAMPLE CONSEQUENCES TO WATER RESOURCE ASSETS

Warming air temperatures

Changing precipitation patterns

Sea-level rise

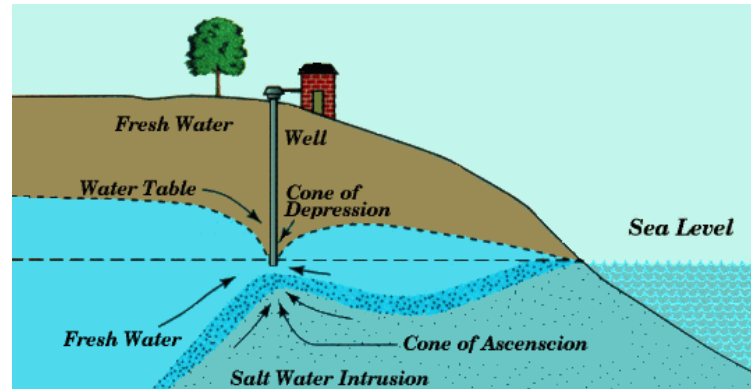
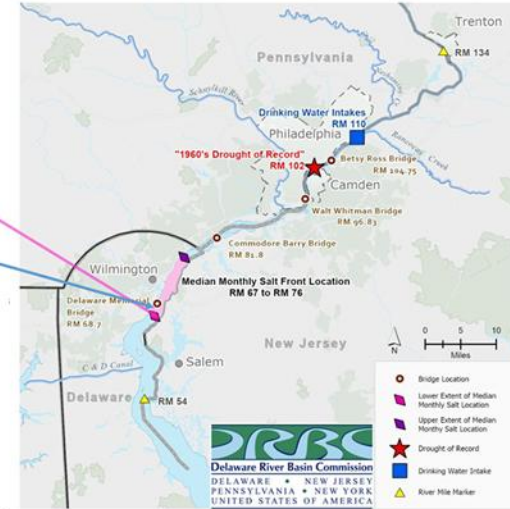
Salt Front Location:
April 27, 2026

Normal April
Location:
RM 67

4/27/2026
Location:
RM 68

Tracking the
Salt Front

Image credit: DRBC



Cultured oysters from Delaware Bay

Image credit: Haskins Shellfish Research Laboratory



Atlantic sturgeon

Image credit: DNREC

Saltwater intrusion into groundwater

Image credit: Lenntech.com

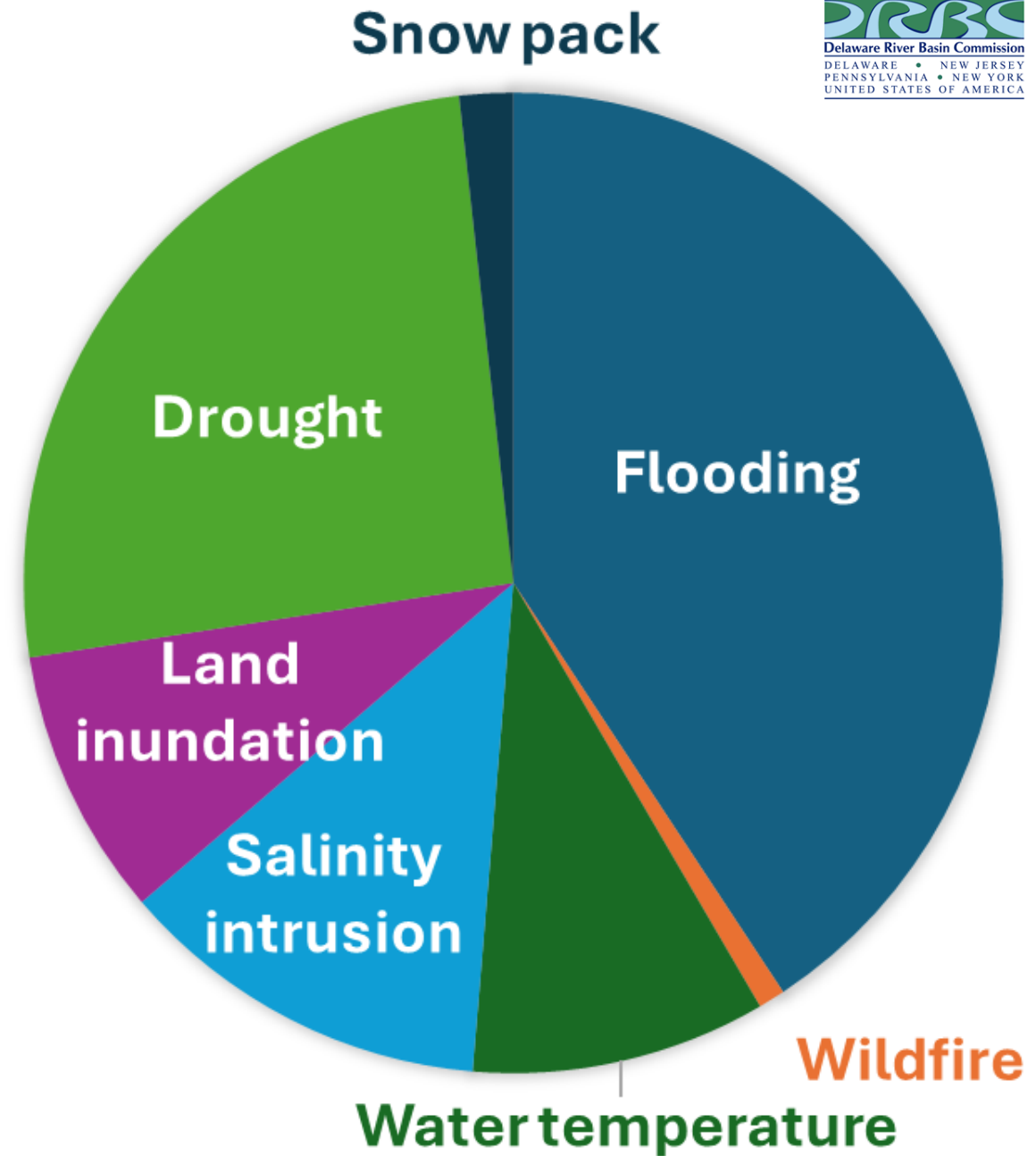
Salinity intrusion

Reduces GW as a
freshwater source

Water availability

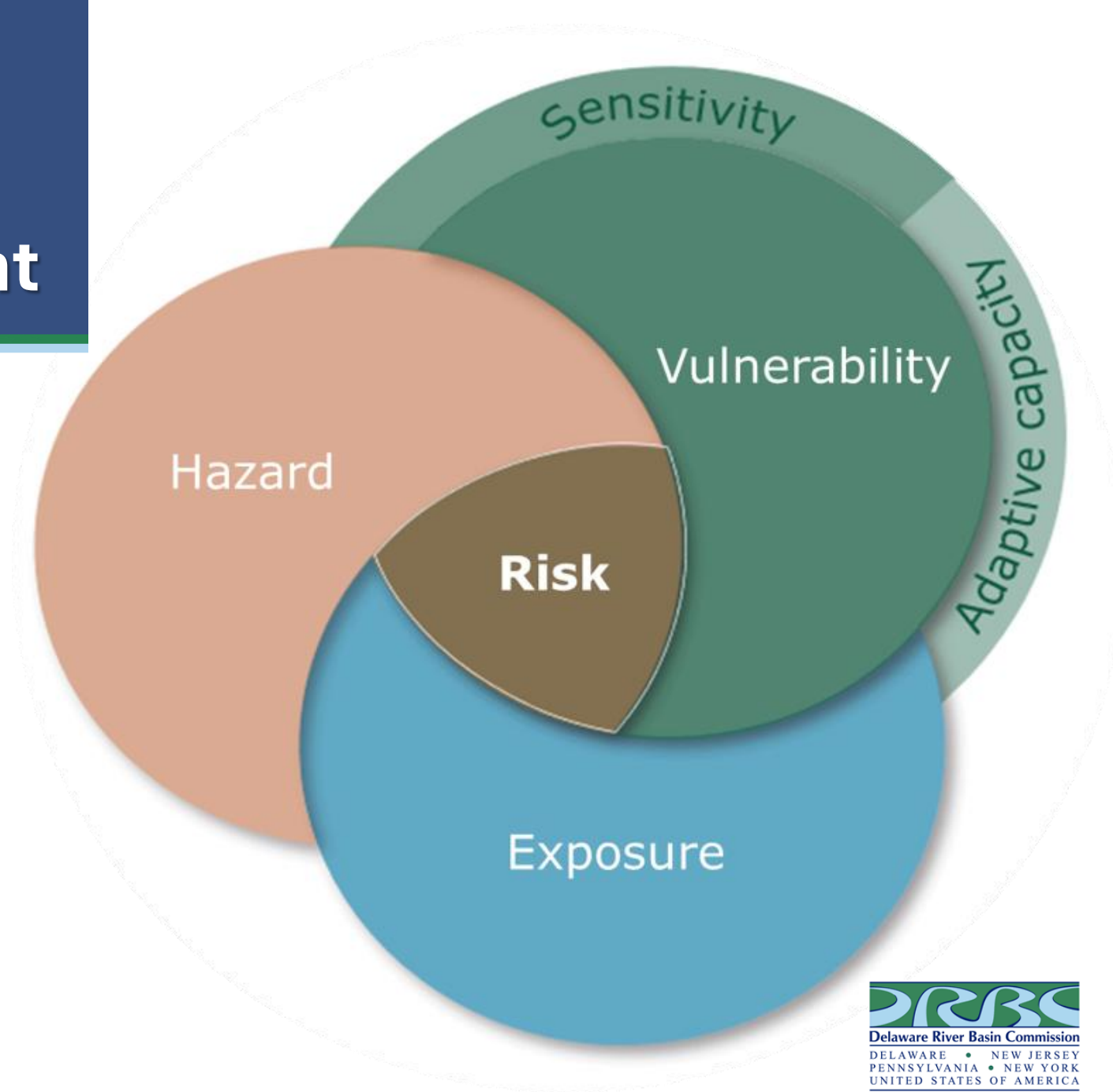
Flooding and drought were of greatest concern

- Reflects public knowledge as well as their concerns
- Other challenges mentioned (for consideration in Phase 3):
 - Over development, deforestation
 - PFAS and other contaminants
 - Non-point source pollution
 - Aging infrastructure
 - Freshwater salinization
 - Affordability
 - Public perception
 - Data centers
 - Dredging
 - Hydraulic fracturing



DRBC is currently conducting a **vulnerability assessment**

- **How and where are the Basin's water resources most at risk from climate change hazards?**
- Generate a list of features for each water resource asset
- For each feature, characterize sensitivity, adaptive capacity, and expected exposure
- After the VA, a Gap Analysis will ask **What gaps exist in addressing those identified risks?**



Stakeholder engagement is informing the vulnerability assessment

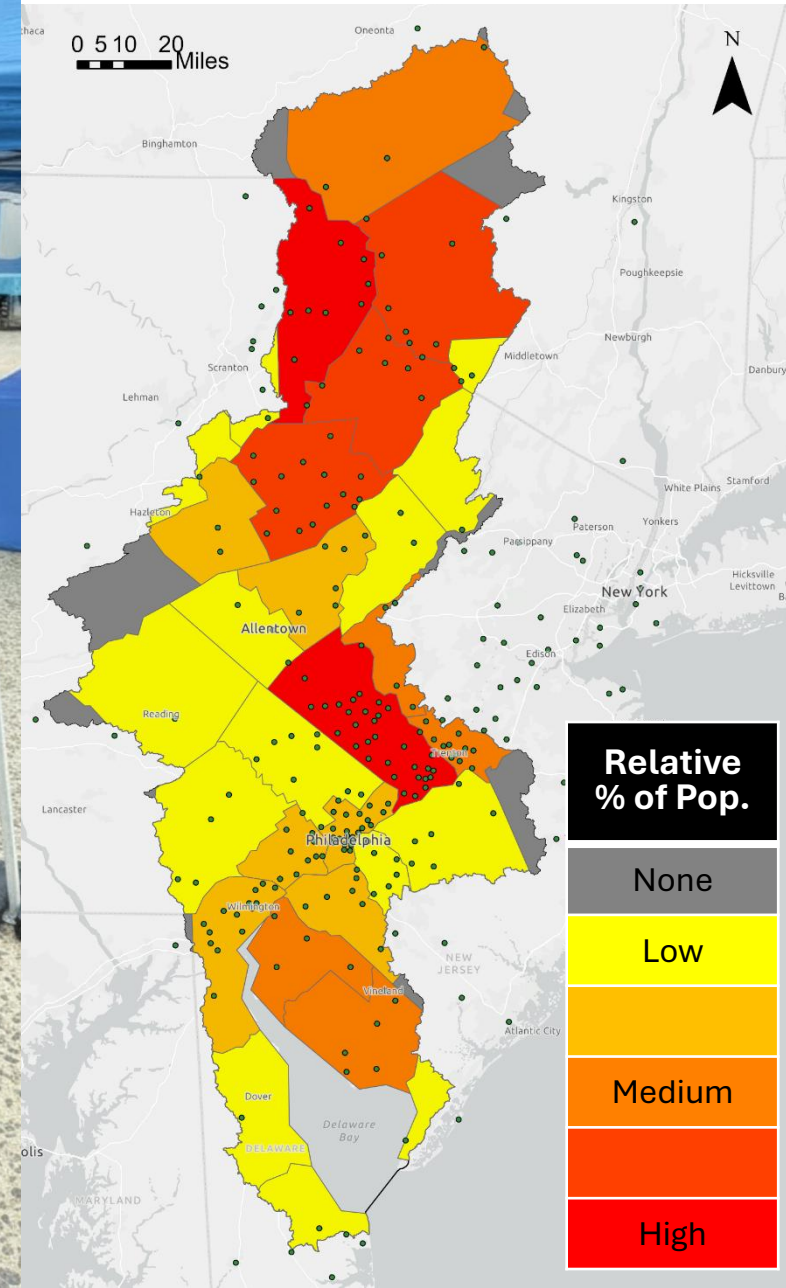
Short survey:

[TinyURL.com/WRRP-Survey](https://tinyurl.com/WRRP-Survey)

- Awareness and ranking of climate change concerns
- Survey will close **October 19th**



Map of **790** Responses Collected
(09/25/26)



Today's listening session is the next step of Phase 2 public input.

- The WRRP strives to **support, complement, and build on** existing efforts to promote water resources resilience in the Basin.
- Hear from participants about **efforts of which DRBC should be aware** and **perceived gaps in resilience planning efforts**.
- Input will be incorporated into DRBC's Gap Analysis this winter.



Delaware Resilience Planning

Ashley Norton, DNREC/DRBC ACCC Member



Delaware Climate Action Plan

A tree planting event hosted at the Blackbird Creek Reserve in Townsend, Delaware.

Photo credit: DNREC

Climate Action Plan Development Timeline

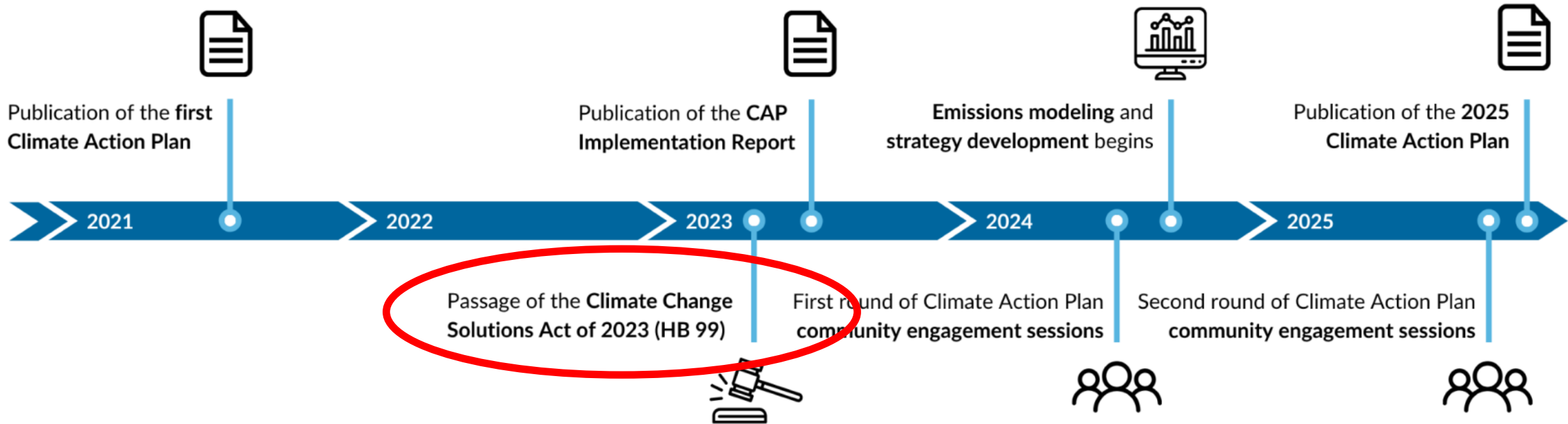
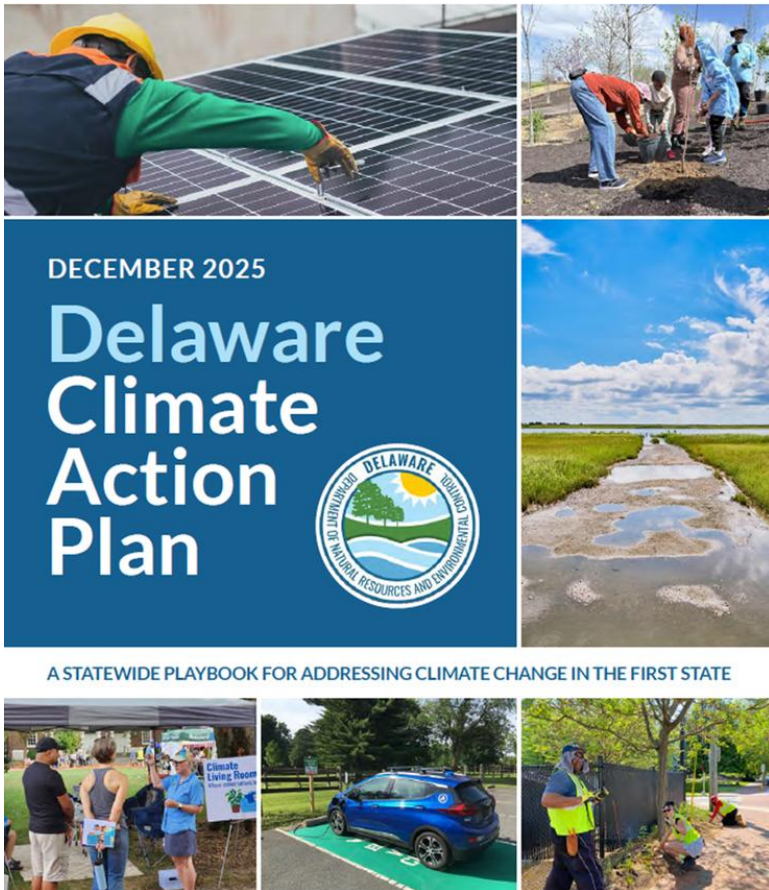
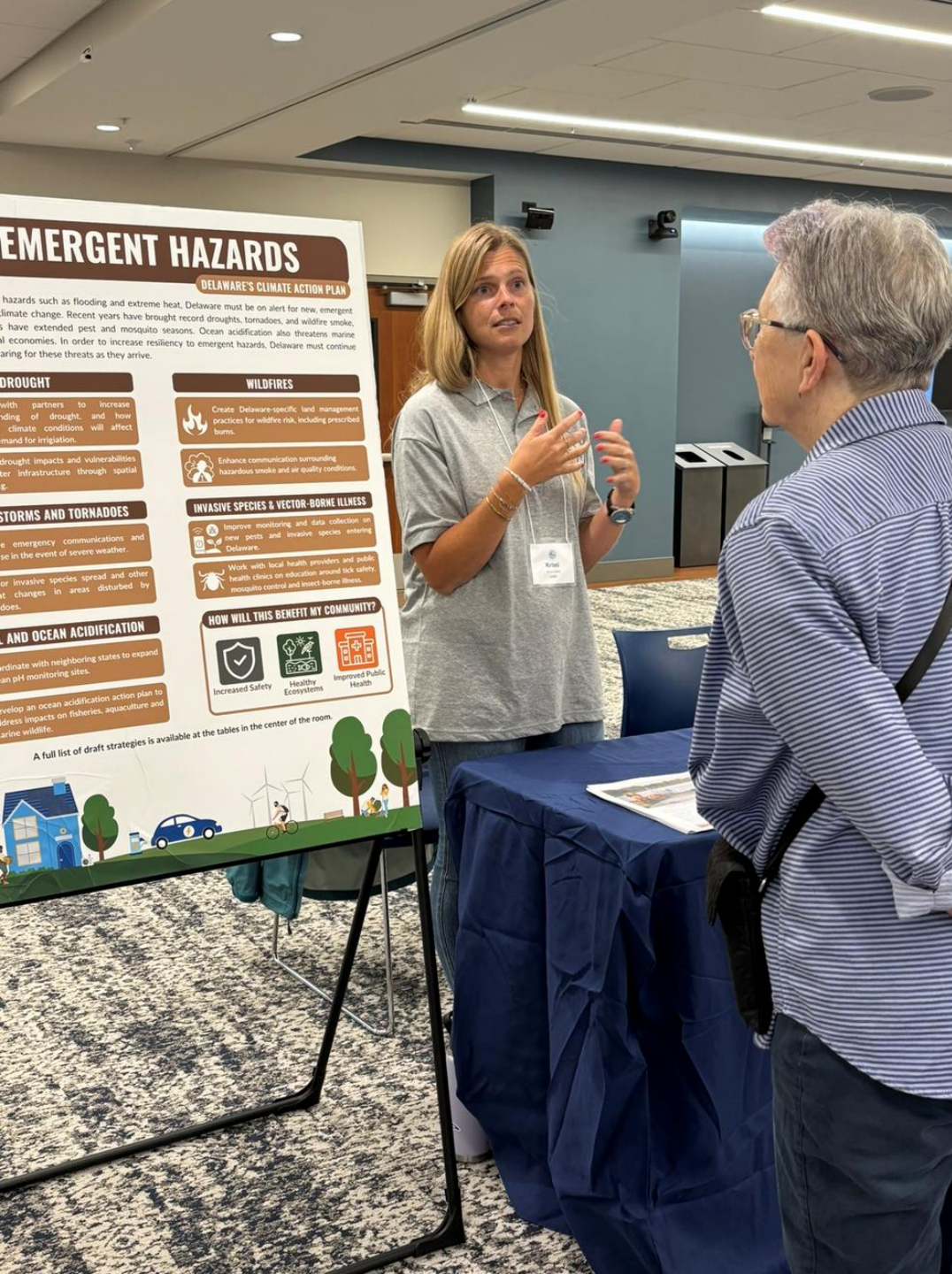


Figure 1. Timeline of key milestones in Climate Action Plan development.

A comprehensive statewide playbook for addressing climate change in Delaware



- Takes a two-fold approach to climate action:
1. Charting a path towards achieving net-zero greenhouse gas emissions by 2050
 2. Protecting Delaware communities from the impacts of climate change



What's in the Plan

- Summary of climate projections for Delaware
- Description of climate change risks
- Quantitative analysis of emission reduction pathways
- Description of recent progress and foundational policies
- Clean energy workforce analysis
- Guiding principles for equitable implementation



What's New in the 2025 Climate Action Plan?



EMISSION REDUCTION TARGETS

The 2025 plan is guided by the statutory emissions-reduction targets established by the 2023 Climate Change Solutions Act— targets that did not exist when the first plan was published.



LAND USE SECTION

The new land use section serves as the bridge between the climate mitigation and adaptation chapters, showing how land use directly affects climate change and emphasizing how the plan's strategies connect to land use decisions.



IMPACT-FOCUSED ADAPTATION SECTION

While the 2021 plan grouped the adaptation section by strategies state agencies could undertake, the 2025 plan categorizes it by specific climate change impacts.

Resilience Planning: Updates

- **2025 CAP Resilience Actions Implementation**

Drought Monitoring & Planning

Enhancing Saltwater Intrusion Monitoring

Freshwater Wetlands Program Development

DE Coastal and Ocean Acidification Community of Practice

- **2025 Delaware Climate Projections**

How should state/municipalities use these?

Tool development (visualizations, map products, etc.)

- **Climate Change Officers**

Representatives from key state agencies to implement CAP

Partnership with DRBC

- **Resilient and Sustainable Communities League (RASCL)**
DRBC is a member now!
- **Regional Climate Projections and Planning**
How will climate change impact the basin and the Delaware Bay off of Delaware?
- **Surface Water Quality and Availability**

Facilitated discussions (30 min)

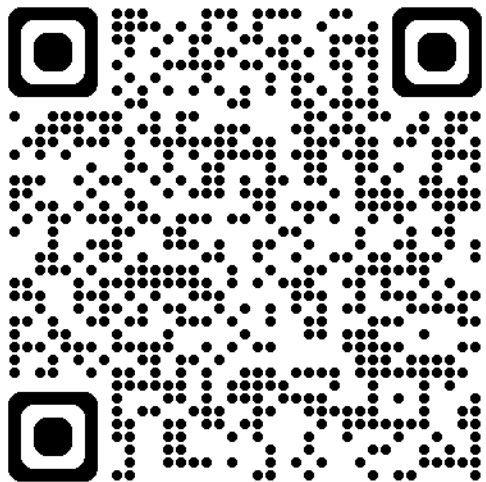
Groups will be separated by topic:	
WATER AVAILABILITY (2 groups)	Quality water supply throughout the Basin that supports human needs
AQUATIC ECOSYSTEM (2 groups)	Habitat that supports species that live in and/or rely on water bodies in the Basin
BUILT ENVIRONMENT (1 group)	Water-adjacent infrastructure that supports quality of life and recreation

Dialogue Questions:

1. What is important to you about this topic?
2. What efforts and resources relating to climate hazards for your topic should we be aware of?
3. What challenges exist to advancing water resources resilience in the Delaware River Basin?



Stay Engaged



- **Check out the WRRP landing page:**
TinyURL.com/DRBC-WRRP
- **Sign up for the WRRP updates listserv:**
NJ.gov/drbc/contact/interest/
- **Complete the Phase 2 Survey:**
TinyURL.com/WRRP-Survey
- Co-host a listening session with us!
- Stay tuned for Phase 3 public participation opportunities...

Thank you for participating!

Please remember to give your comment cards to your group facilitator.

Join the conversation on social media! Tag @DelRivCoalition with #DRWForum2026

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