

Delaware River Basin Commission

Climate Action Plan Discussion

Advisory Committee on Climate Change
December 20, 2023

Steve Tambini
DRBC, Executive Director



Today's objectives:

1. Review DRBC's Climate Action role
2. Review Climate Action Plan topics
3. Input from ACCC
4. Review Next Steps

From A. Broccoli, PhD, Rutgers Climate and Energy Institute ...“More”



- More warm extremes and fewer cold extremes
- Heavy rains become more intense
- More frequent dry spells
- Rising sea level with increased frequency and intensity of coastal flooding

*From RCI Co-Director **Tony Broccoli** featured at September 27, [2017](#) statewide conference *Climate Change Policy in New Jersey: Advancing Opportunities to make New Jersey Safer, Greener, Healthier and More Prosperous*, sponsored by the [New Jersey Climate Adaptation Alliance](#).*



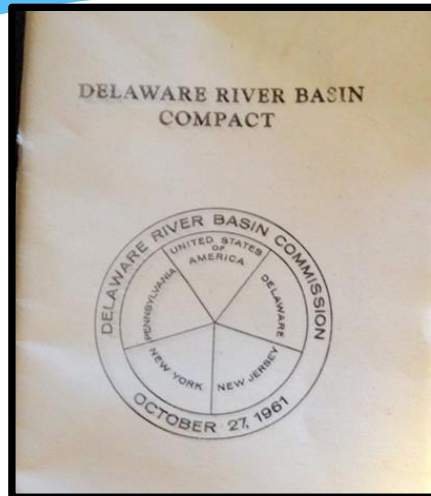
The Compact Provides for the following DRBC “charges” and authorities (in part)

- **conservation and development of ground and surface water supply...** (Article 4)
- **control projects and facilities for the storage and release of waters, for the regulation of flows** (Article 4)
- **control of movement of salt water** (Article 4)
- **abatement and control of pollution** (Article 5)
- **propagation of fish and game and protection of fisheries** (Preamble)
- **flood damage reduction** (Article 6) ;
- **promote sound watershed practices** (Article 7)
- **encourage water related recreational interests** (Article 8)
- **hydroelectric power** (Article 9)
- **regulate and control withdrawals and diversions from surface waters and ground waters of the basin,** (Article 10)
- **Plan and Budget** (Article 13)

DRBC Water Resource Management Programs

Planning	Operations	Regulation	Science
Sustainable Water Availability	Flow / reservoir management	Water withdrawals	Water quality Assessments
Future water use	Drought management	Wastewater discharges	Water quality Monitoring
Consumptive water use	Salinity control	Special protection waters	Emerging contaminants
Water efficiency	Decree parties	Groundwater special protection	Toxic pollutants
Water audits	Hydrologic models	Water quality standards - Interstate Waters	Fish consumption
Climate Change	Water charges	Flood protection	Reduction of legacy pollutants - PCBs

DRBC's authority and jurisdiction are defined by the Delaware River Basin Compact (PL 87-328, 75 Stat. 688)



DRB Compact Section 1.3:

“...to ... provide for the planning, conservation, utilization, development, management and control of **the water resources of the basin;**”

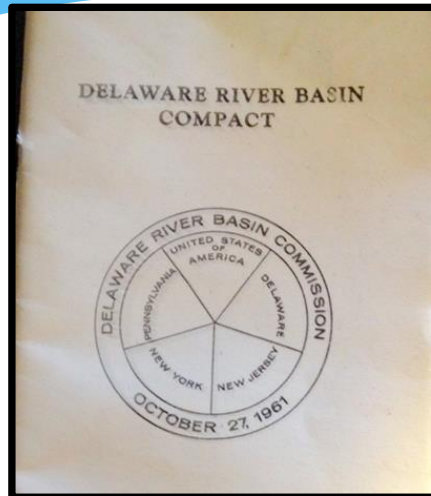


DRB Compact Section 13.1

Comprehensive Plan

- Policies
- Implementing Regulations
- Water Resource Projects
- Changes require public hearing

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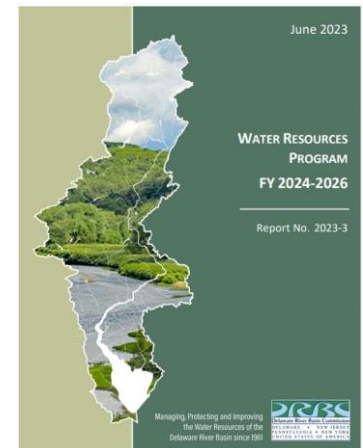
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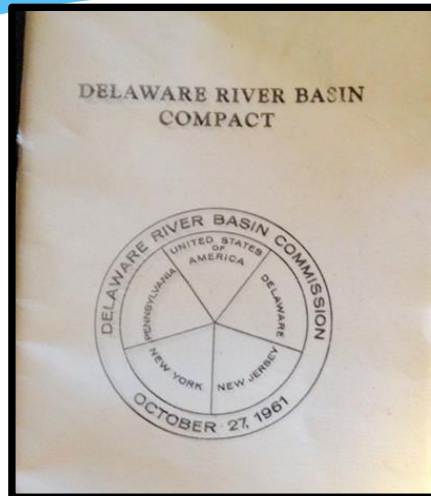
→ **DRB Compact Section 13.1**
Comprehensive Plan

→ **DRB Compact Section 13.2**
Water Resource Program

- Annual Requirement
- Review of Basin Conditions
- 3-year view of “DRBC work plan”
- Requires Public Hearing

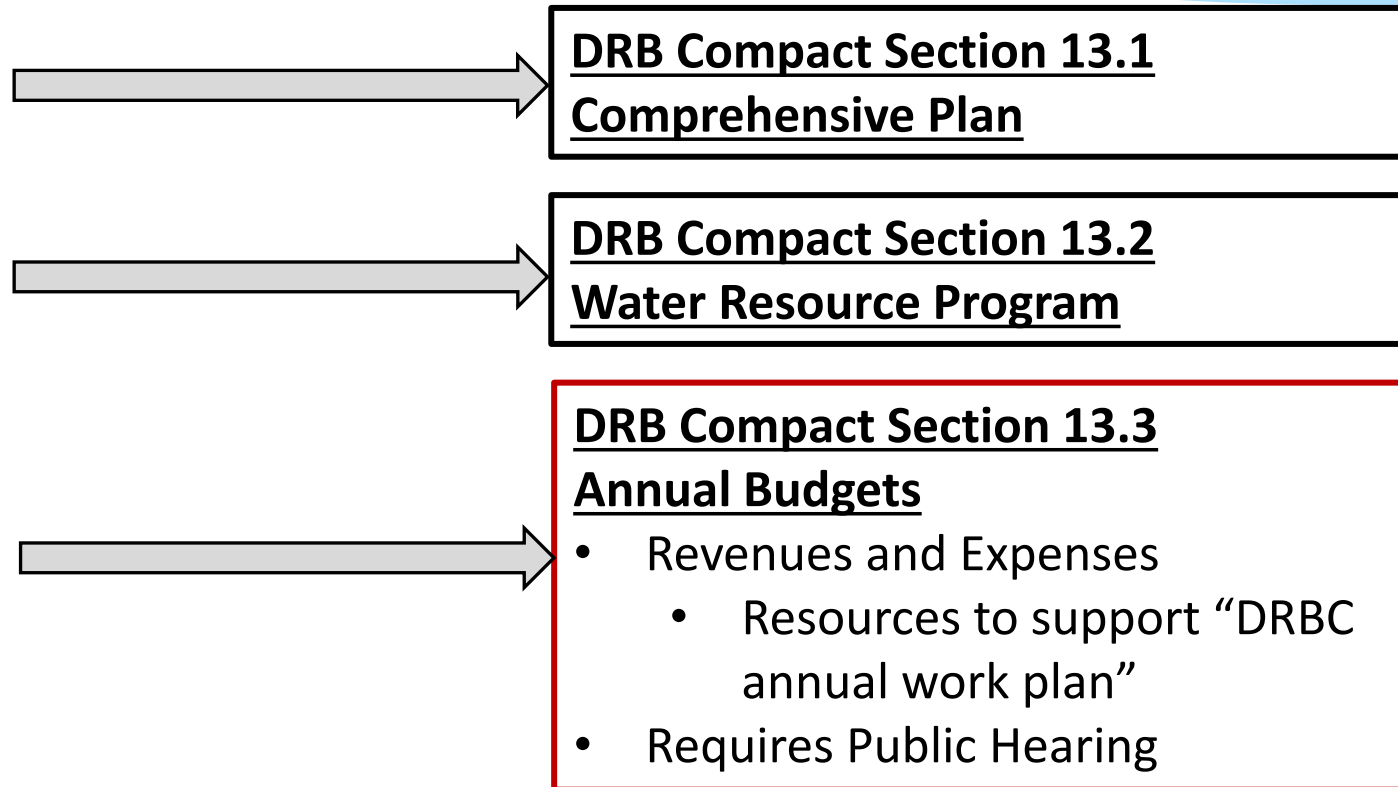


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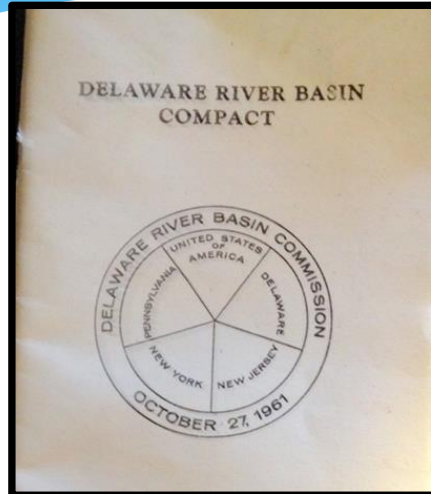


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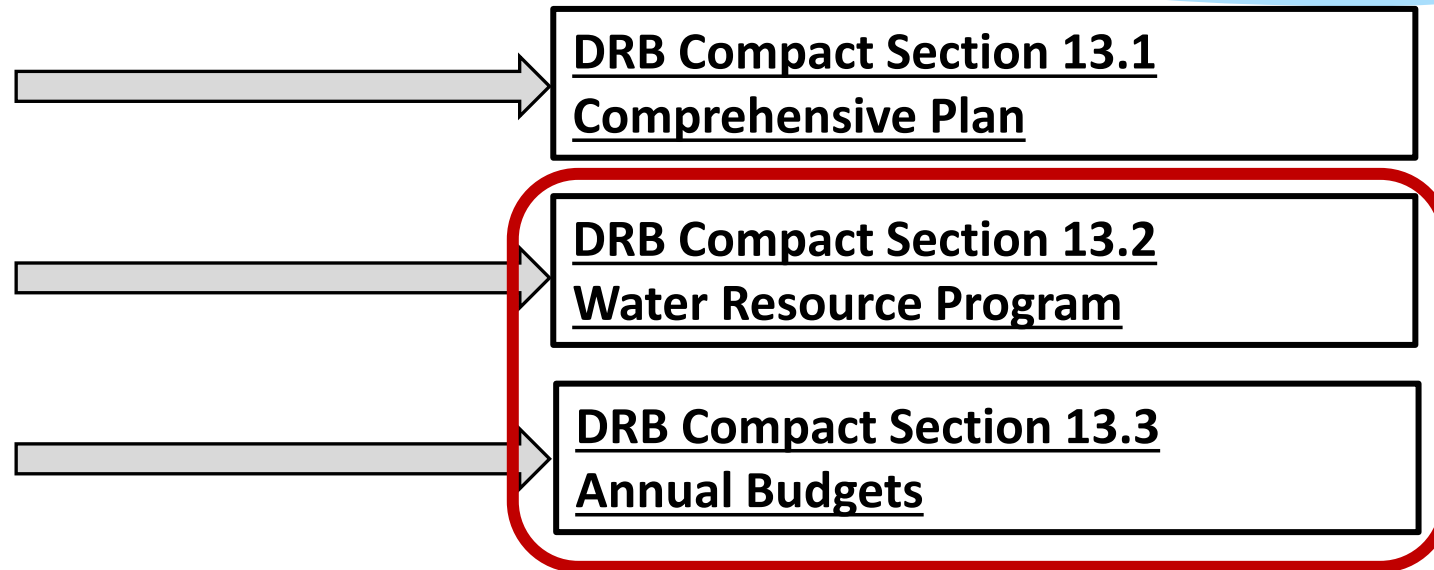


Climate Action should be considered in all three Plan, Program and Budget Compact Requirements

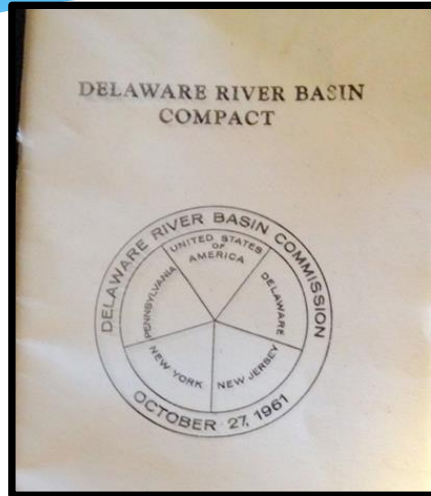


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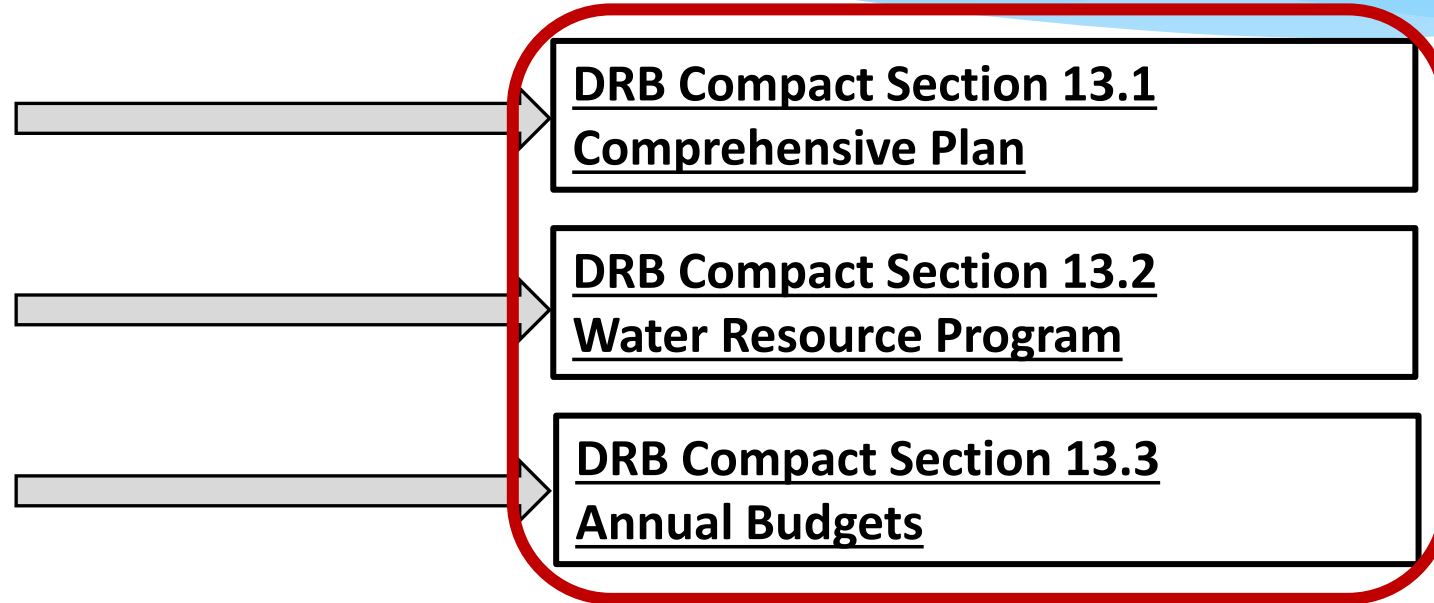


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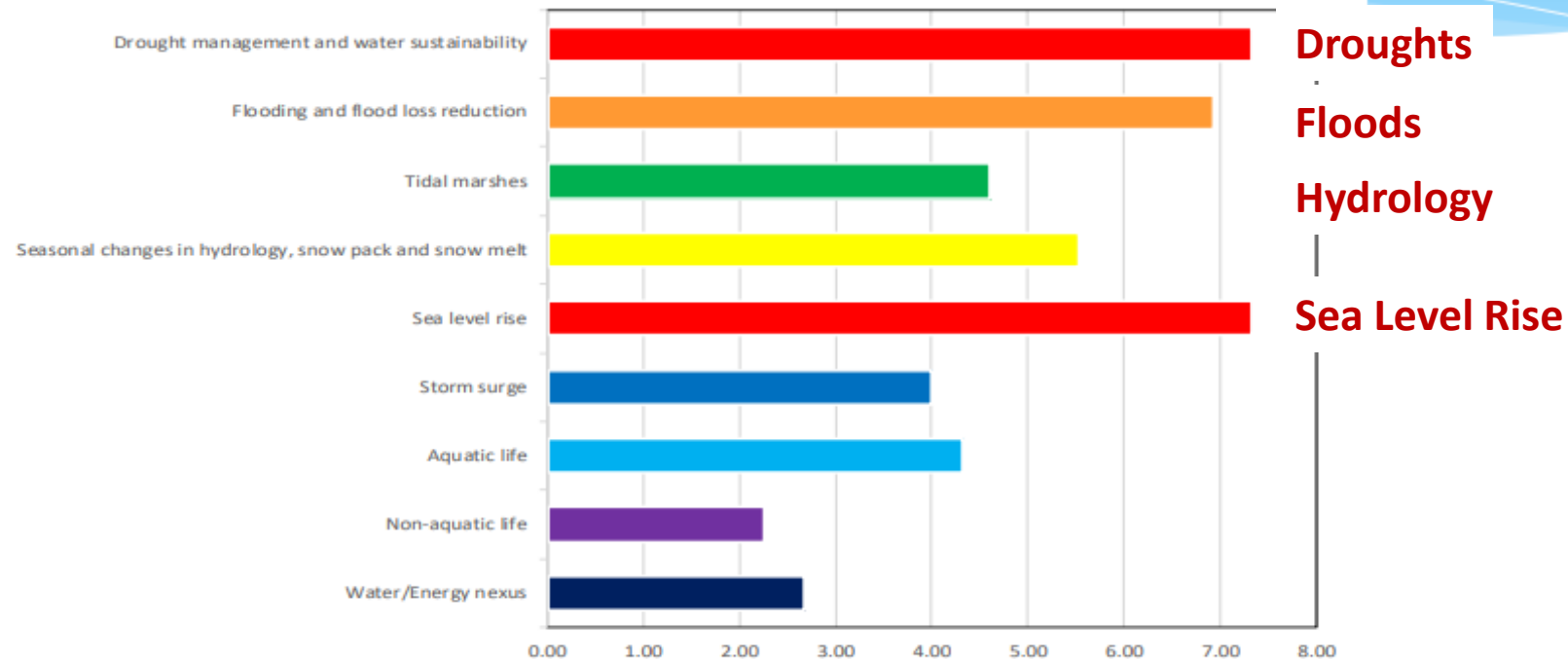


Action = Within the Authority and Jurisdiction of the Commission

From Aug 2021 ACCC Mtg:

Question to new ACCC members last year:

When considering the following climate change impacts and issues, please force rank what you believe the priorities should be for the DRBC in terms of water resources management.



Climate Action Plan: Flow Management / Drought

- Evaluation of changes in temperature and precipitation on **hydrology**, including snowpack, rainfall runoff, reservoir inflows, and seasonal and multi-season low flows.
- Evaluation of climate change on **sea level rise** salinity intrusion and protection of salinity sensitive uses.
- Evaluation of climate change on surface water **flow management** and reservoir management.
- Evaluation of climate change on seasonal and long-term droughts and **drought management**.
- Coordination with the parties to the 1954 Supreme Court Decree.
- Drought/ flow adaptation, responses, and recommendations.
- Consider policy / regulated flow revisions for the **DRBC Water Code**.

Climate Action Plan: Flood Loss

- Evaluation of climate change on the frequency and extent of non-tidal, localized, and **main stem flooding**.
- Evaluation of climate change on the frequency and extent of **tidal flooding**, storm surge flooding (including above).
- **Coordination with state and federal flood science and risk agencies.**
- Flood adaptation, responses, and recommendations.
- **Review and consider updates to *DRBC's Flood Plain Regulations*.**

Climate Action Plan: Water Quality

- Develop and review **surface water quality trends** due to climate change: temperature, salinity, pH, other.
- Evaluate and model future water quality conditions.
- Evaluate potential impacts on **designated water quality uses**.
- Primary focus on the Delaware River Estuary and Bay.
- Consider impacts to groundwater quality.
- **Coordination with state and federal environmental agencies.**
- Water quality adaptation, responses, and recommendations.
- **Review and consider updates to DRBC's *Water Quality Regulations*.**

Climate Action Plan: Water Availability and Efficiency

- Re-evaluate water use (withdrawal) and consumptive use projections based upon climate trends.
- Evaluate and consider additional water efficiency needs and impacts.
- Consider impacts to water use charges and DRBC revenues.
- Coordination with state and federal environmental agencies, especially those with administrative agreements.
- Review and consider updates to DRBC's ***Rules of Practice and Procedure and the DRBC Water Code (efficiency)***

Climate Action Plan: Project Reviews

- Coordination with state and federal environmental agencies.
- Consider regulations under DRBC's Rule of Practice and Procedure for analyzing the significant climate-related risks and vulnerabilities posed to, or by, projects submitted for review under Section 3.8, Section 10.3, or Article 11 of the Compact.

Climate Action Plan: Equity and Environmental Justice

- Identify and propose actions consistent with the Commission's Policy on Diversity, Equity, Inclusion, Justice and Belonging; design and implement measures that will enhance the resilience of overburdened and under-represented communities; and integrate measures to **promote equity and environmental justice into the activities and actions recommended in the Climate Action Plan.**

Climate Action Plan: Climate Trends and Metrics

- Throughout the Basin
- Coordination with, and data mining from, numerous state and federal agencies

1. Air temperature
2. Water temperature
3. Annual precipitation
4. Sea level Rise
5. Flood Frequency
6. Drought frequency
7. Extreme weather frequency
8. Tree Cover
9. Impervious Cover
10. Others

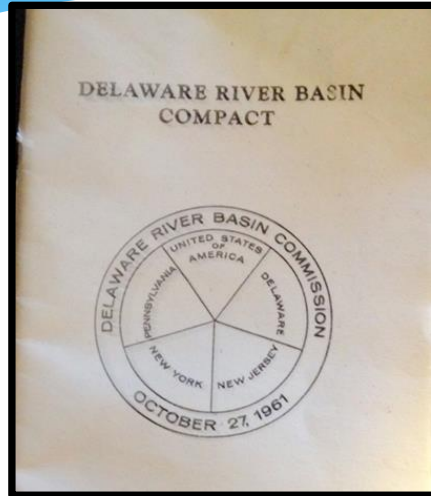
Climate Action Plan

- Advisory Committee on Climate Change. **Consult with the ACCC** on the Water Resources Program and the Climate Action Plan described above.
- Stakeholder and Public Input: Water Resources Program; Climate Action Plan, and any changes to the Comprehensive Plan.
- Outreach and Education: Continue to provide the Basin community with science-based information and data about the relationship of climate change to the water cycle and water resources of the Basin.

Coordination with, or work lead by others, on:

- Land use and land cover
- Localized and neighborhood flooding
- Public Access
- Water, wastewater and stormwater resilience
- Water dependent business and industry

Climate Action should be considered in all three Plan, Program and Budget Compact Requirements



DRB Compact Section 1.3:

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DRB Compact Section 13.1 Comprehensive Plan

DRB Compact Section 13.2 Water Resource Program

DRB Compact Section 13.3 Annual Budgets

Hydrology

Flow/ Drought Management

Flood Loss

Water Quality

Water Availability / Efficiency

Project Reviews

Water Equity and EJ

***Action = Within the Authority and
Jurisdiction of the Commission***

Next Steps:

- Review and input by ACCC
- Commission and Staff Actions – when and how

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www.drbc.gov



Delaware River Basin Commission

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PENNSYLVANIA • NEW YORK
UNITED STATES OF AMERICA

*Managing, Protecting and Improving
Our Shared Water Resources since 1961*