

Arkansas Water Plan (AWP)

Contract # W912BV23D0010



**US Army Corps
of Engineers®**
Little Rock District



Michael Baker
INTERNATIONAL

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Water Plan Update





Arkansas Water Plan

Charting the Path to a Safe and Reliable Water Future



Introductions



**US Army Corps
of Engineers®**
Little Rock District



Michael Baker
INTERNATIONAL



AGENDA



Introductions



2014 Water
Plan Overview



Purpose of
Stakeholder
meetings



Statewide
Flood plan
Initiation



Discussion:
Needs and
Concerns



AWP Roadmap

Arkansas Natural Resource Division (ANRD)

- Governor Sander's Executive Order 23-27 directed the Arkansas Department of Agriculture and its Natural Resources Division to update the Arkansas Water Plan.
- Pursuant to Ark. Code Ann. § 15-22-503, The Arkansas Natural Resources Commission is responsible for the preparation and development of a comprehensive program for the orderly development and management of the state's water and related land resources (referred to as the "Arkansas Water Plan");

Purpose of the AWP Stakeholder Meetings

Review

- Review purpose of Water Plan and Flood Plan

Outline

- Water and Flood Planning process

Identify

- Audiences and intended uses
- Local water and flooding issues

Involvement

- Provide stakeholders with project updates and opportunities for continued involvement throughout the project lifecycle.

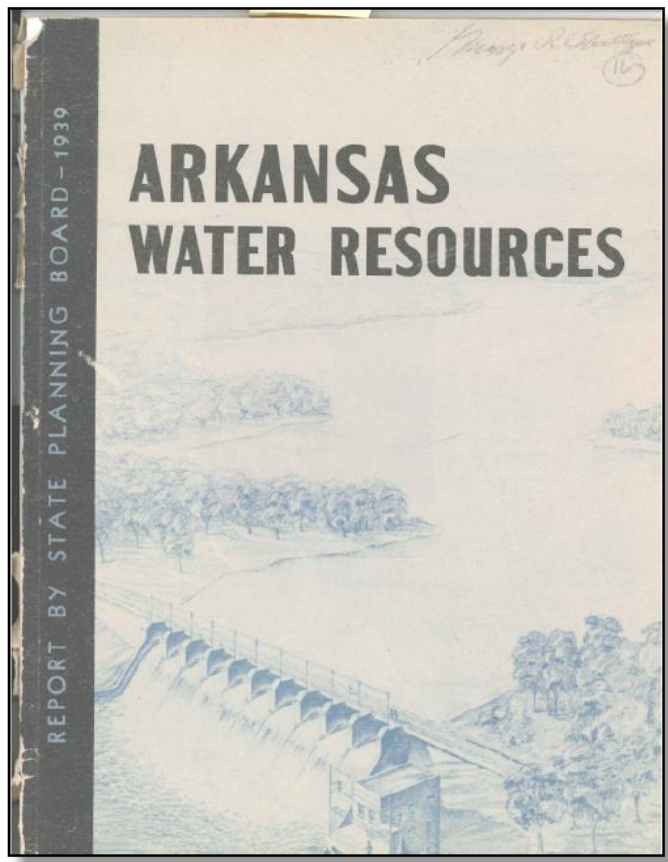
Purpose of Water Plan

The purpose of the Arkansas Water Plan is to conserve and protect the state's water resources, with a long-term goal of sustainable use to maximize the environmental and economic benefit of the State of Arkansas, and the health and well-being of its citizens.

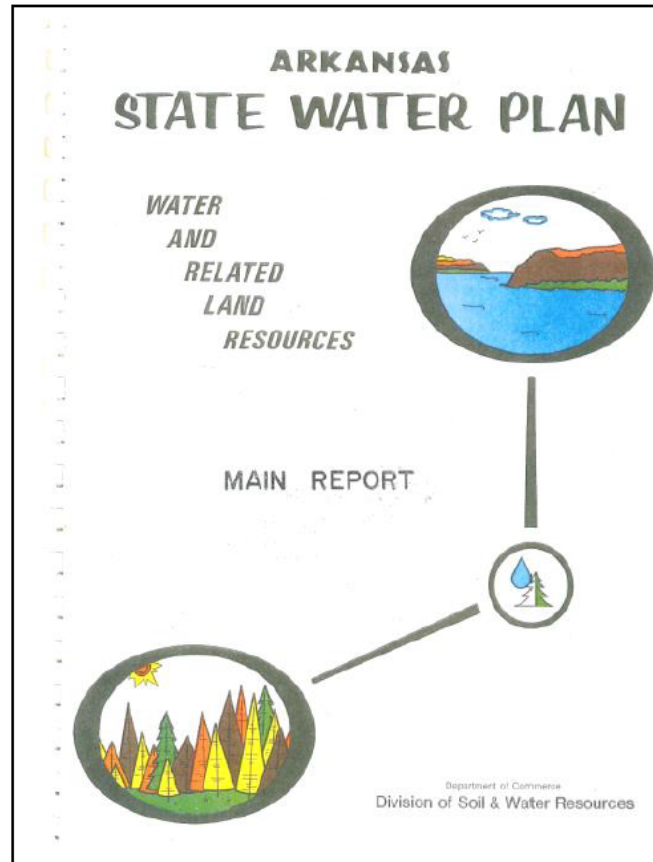
Flood Planning

A new component of this AWP update will be a structural analysis of flood mitigation infrastructure and programs, and proposed solutions to reduce impacts of flooding.

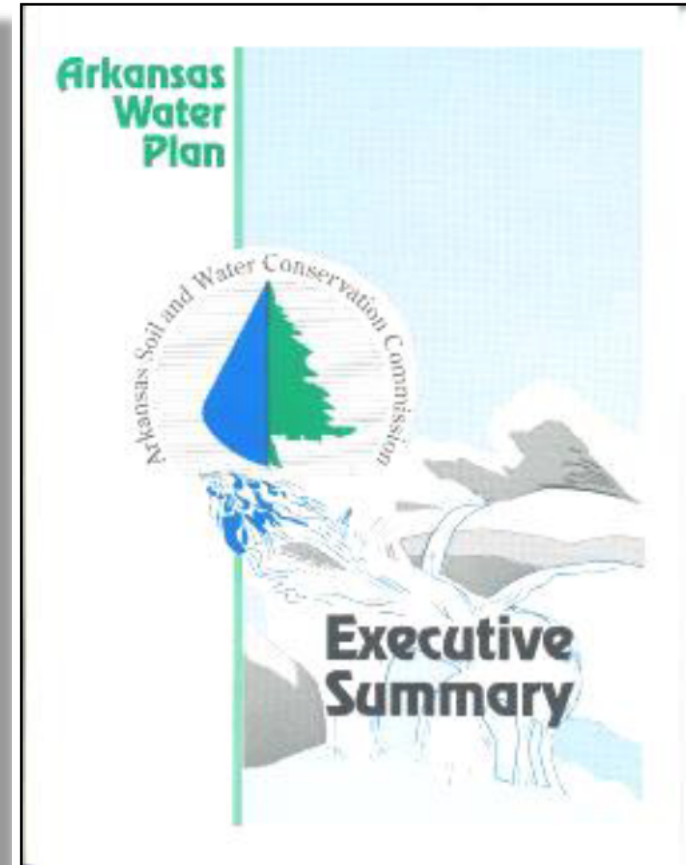
Arkansas Water Planning



1939



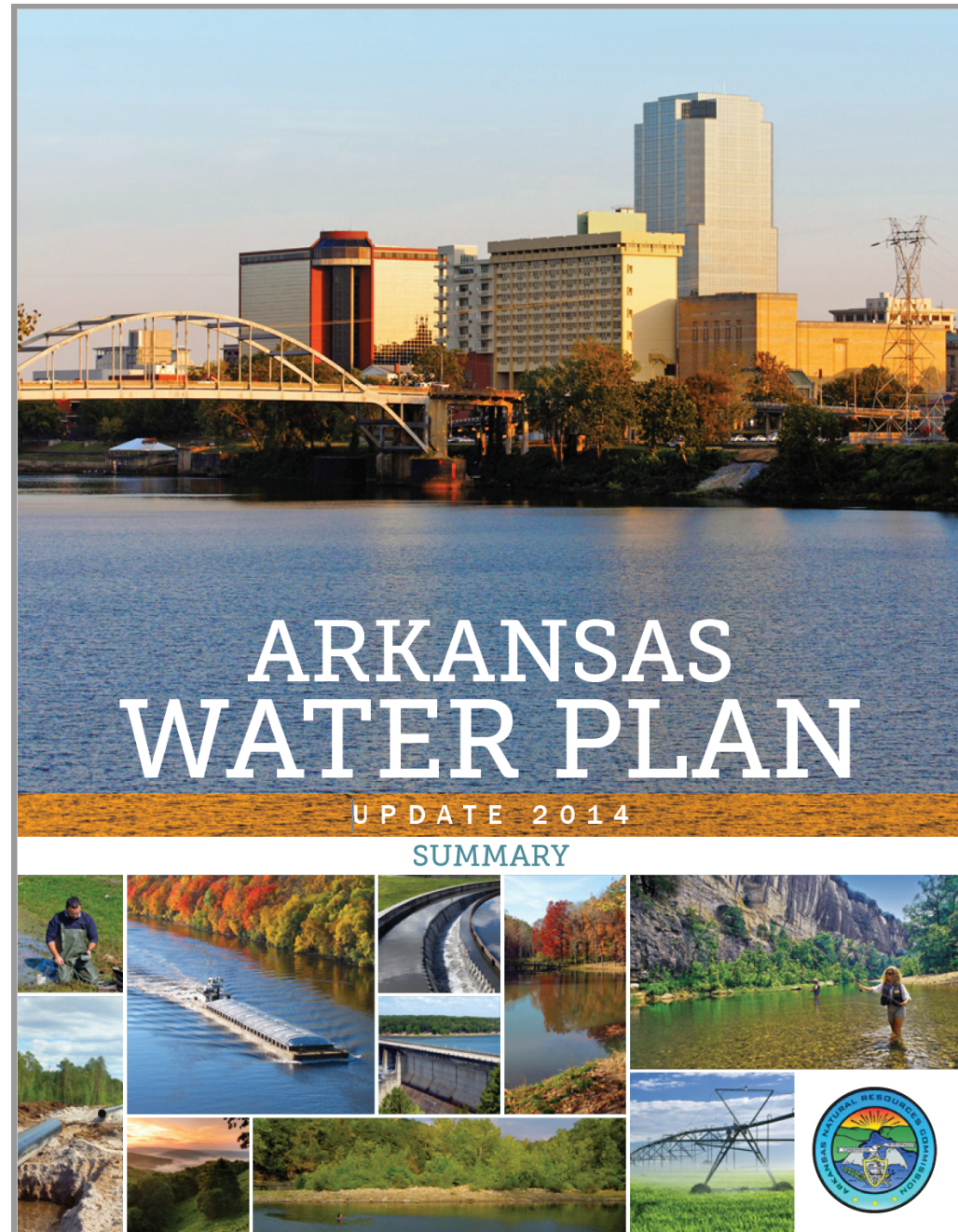
1975



1990

2014 Water Plan

- What is the Arkansas Water Plan
 - “A comprehensive program for the orderly development and management of the state’s water and related land resources”
Arkansas Code § 15-22-503(a)
- Purpose
 - To assess quantity and quality of water in Arkansas
 - To be ready for growth, declines, and new challenges
- Structure
 - Supply
 - Demands
 - Issues
 - Recommendations
- Public Involvement / Stakeholder Engagement
 - Approx. 250 Meetings and Presentations for the 2014 update



2014 Water Plan Overview



Demands



Science and Technology



Infrastructure



Ecological Protection



Water Management



Water Administration



Education

Demands



Meet the drinking water needs of the state.



Reliably meet agricultural water needs.



Reliably meet industrial water needs.



Reliably meet the water quantity and quality needs to help support navigation, recreation, and tourism.

Science and Technology



Use the best available science, data, tools, and technologies to support water resource decisions.



Employ the latest supply management and water efficiency technologies among the different sectors



Use best available science and data to update and implement the AWP, and identify and address data gaps and needs.

Infrastructure



Optimize existing water, wastewater, and flood control infrastructure



Maximize the current infrastructure reliability including dams, levees, and treatment and conveyance facilities.



Plan for changing demographics and related infrastructure maintenance and operation implications



Improve and update existing infrastructure and address aging infrastructure

Ecological Protection



Manage water resources in a manner that protects the ecological needs of fish and wildlife.



Identify and recommend procedures and criteria to improve upon existing instream flow methodologies taking into consideration water quality, fish and wildlife needs, aquifer recharge, and navigation needs at the statewide and basin-specific level.



Identify opportunities to manage water, wastewater, and stormwater to improve the quantity and quality of water, while providing for wise land management, wetland, and riparian protection for fish and wildlife sustainability.

Water Management

- Optimize the use of surface and groundwater for the differing economies of the unique regions of the state.
- Identify and address emerging water resource management needs as identified through the water planning process.
- Sustainably use surface and groundwater sources for the multiple intrastate uses while complying with interstate compacts.
- Identify implementable water resources alternatives that are socially, fiscally, technically, and environmentally feasible to protect, enhance, and wisely use surface and groundwater.
- Identify and implement alternatives that are fair and equitable.
- Allow for adaptability with changing technology, water uses, and socioeconomic conditions.
- Work cooperatively with other regions and states, and among agencies and entities responsible for stewardship of the state's natural resources.

Water Administration and Education



Refine criteria for declaring drought, water shortages and excess water, and advance policies and procedures for allocating water during times of shortage or drought.



Include recreation and tourism as non consumptive water uses



Provide education and open communication about the AWP and its implementation.

Flood Planning Preliminary Goals

Flood Risk Assessment

Identification of Mitigation Projects and
Flood Reduction

Flood Resiliency and Preparedness

Development of Flood Response Action
Plan

Funding and Compliance

Flood and Risk Assessment



Infrastructure inventory



Identification of Flood Prone Areas



Vulnerability assessment



Prioritization of Risks



Uncertainty and Sensitivity analysis

Identification and Prioritization of Mitigation Projects



Identification of high-risk assets and environmental vulnerabilities



Identification of structural, non-structural and natural measures of flood mitigation



Prioritization of projects based on factors such as flood risk reduction, feasibility, cost-effectiveness, and environmental impacts.



Integration of Multiple benefits and Long-term Sustainability



Development of administrative, regulatory, and legislative measures

Flood Resiliency and Preparedness



Infrastructure Resiliency



Community Preparedness



Natural Resources Management



Risk Reduction Strategies

Development of Flood Response Action Plan



Emergency Response
Procedures



Evacuation and
Sheltering strategies



Communication and
Information Sharing



Resource Management
and Logistics

Funding and Compliance



Securing Adequate Funding



Ensuring Compliance with Regulatory Requirements



Facilitating Project implementation



Maintaining Eligibility



Maximizing Return on Investment

Discussion



Roadmap



Phase 1

- Develop Programmatic Work Plan
- Stakeholder Engagement
- Upcoming Stakeholder meetings (May 2024)



Phase 2

Implementation of Work Plan

- Update of Water Plan
- Develop Flood Plan
- Stakeholder Engagement



Phase 3

Water Plan Roll Out

THANK YOU

For any questions/comments:
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