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Virgin River and Tributaries Utah, Arizona, and Nevada

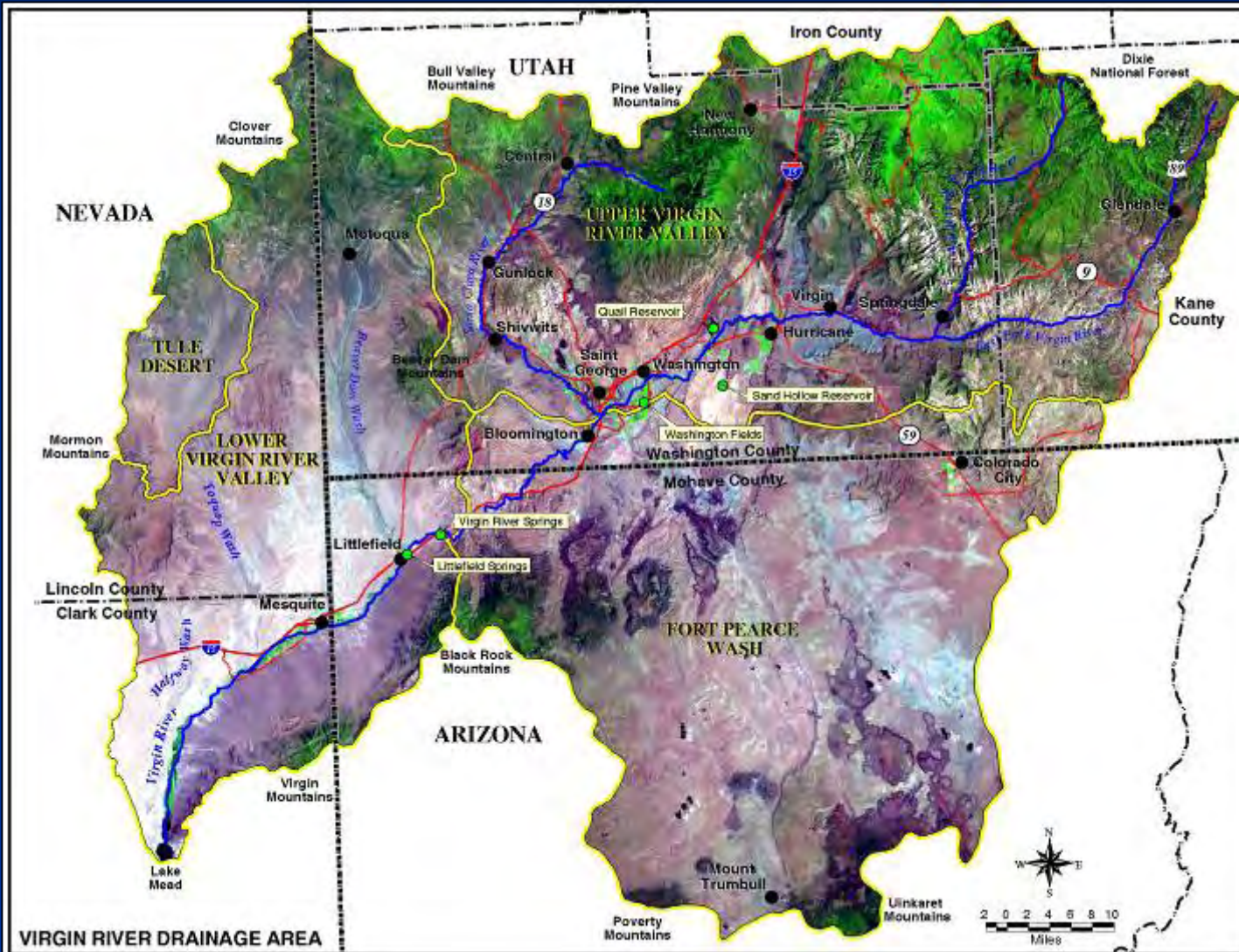
Floodplain Management Strategy

**May 24, 2007
Mesquite, Nevada**

Virgin River and Tributaries – UT, AZ, & NV Floodplain Management Strategy



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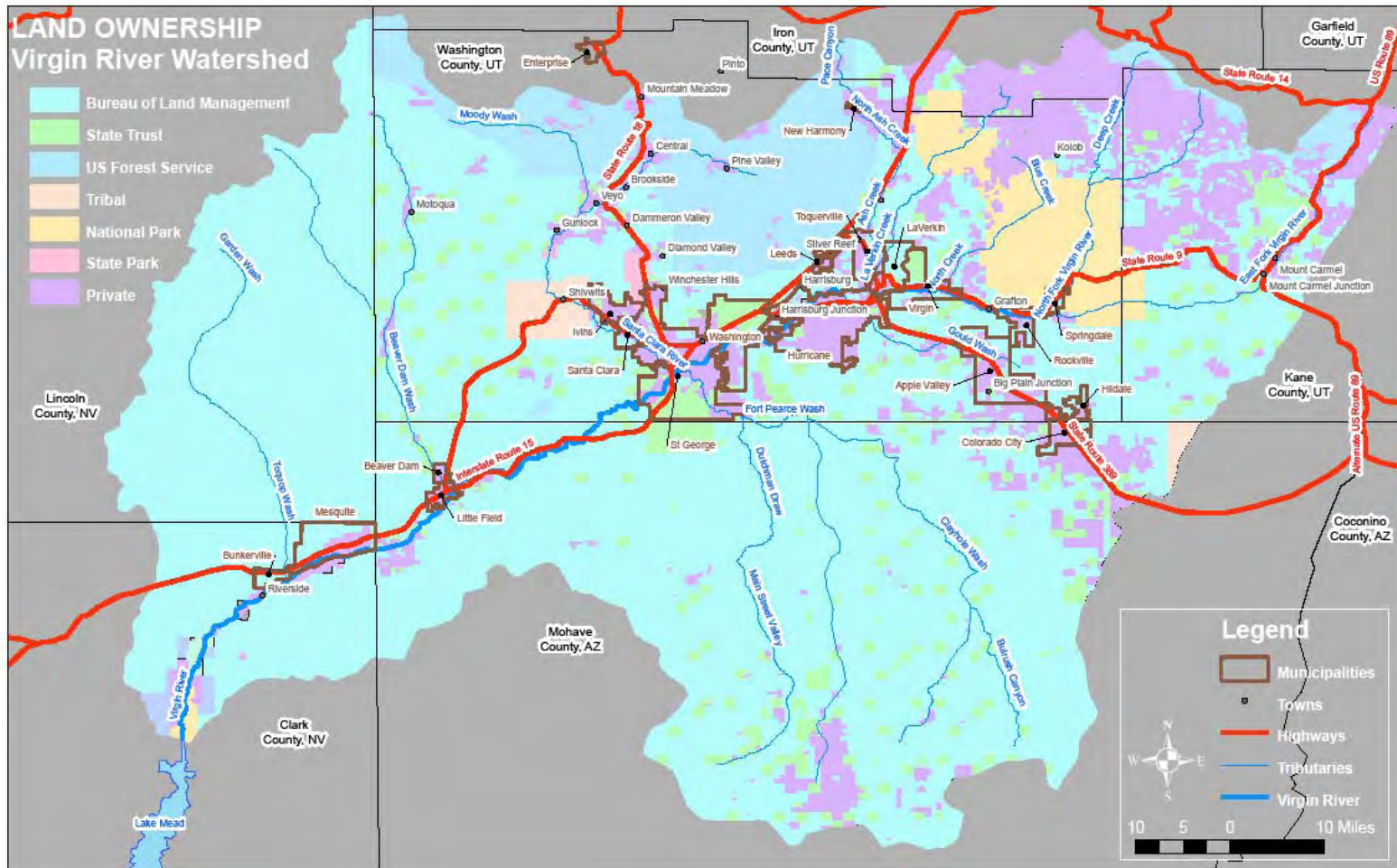


Virgin River and Tributaries – UT, AZ, & NV

Floodplain Management Strategy



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Virgin River and Tributaries – UT, AZ, & NV

Floodplain Management Strategy



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OBJECTIVE

Formulate a **Floodplain Management Strategy** for implementation by stakeholders in the Virgin River watershed.

Key Characteristics

- ✓ Comprehensive
- ✓ Watershed-based
- ✓ Coordinated
- ✓ Consensus-driven
- ✓ Non-structural
- ✓ Implementable



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SUCCESS = The **Floodplain Management Strategy** effectively leverages available resources to facilitate stakeholder communication for the purpose of maintaining forward momentum in the implementation of strategic measures even after completion of the comprehensive watershed plan.

SUCCESS ≠ The **Floodplain Management Strategy** consists of a resource-intensive set of recommended structural Capital Improvement Projects.



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WORK PLAN

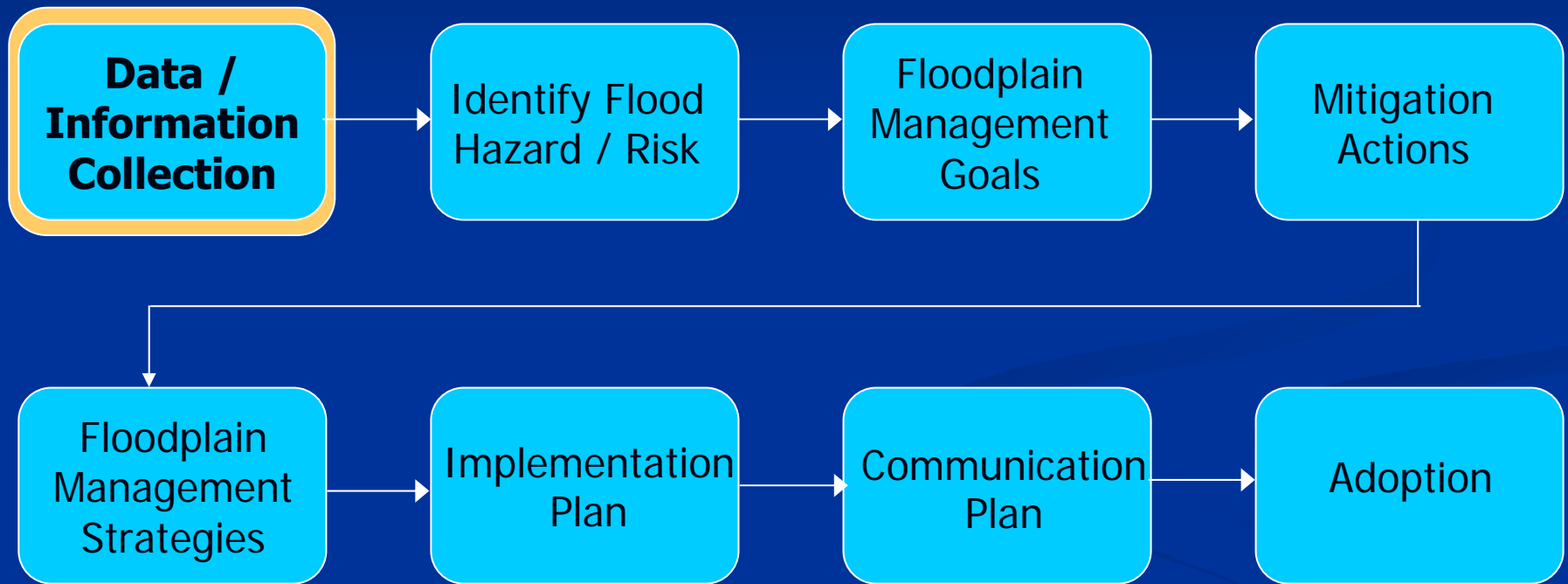


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DATA / INFORMATION COLLECTION

Stakeholder Interviews

- ✓ Roles & Responsibilities
- ✓ Resources
- ✓ Regulations
- ✓ Capabilities
- ✓ Experience
- ✓ Communications
- ✓ Needs

Review & Summary

- ✓ 2005 Flooding Data
- ✓ Post-Flood Reports
- ✓ Technical Data & Reports
- ✓ Digital Data



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DATA / INFORMATION COLLECTION

Desired Outcome (Analysis)

- ✓ Understand Problems, Opportunities, Constraints
- ✓ Identify Connects / Disconnects Between Resources, Capabilities, & Needs
- ✓ Understand Policies / Regulations Consistencies & Inconsistencies
- ✓ Understand Institutional / Jurisdictional Challenges

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DATA / INFORMATION COLLECTION

Main Page - Virgin River Watershed - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://localhost/mediawiki/index.php?title=Main_Page

Main Page - Virgin River Wa...

127.0.0.1 talk for this ip log in / create account

article discussion edit history

Main Page

Welcome to the wiki page of Virgin River Watershed.

Consult the [User's Guide](#) for information on using the wiki software.

Virgin River Watershed

[edit]

The map displays the Virgin River Watershed with various tributaries and towns. Key features include:

- Towns:** Molequia, Gunlock, Dammeron Valley, Diamond Valley, Winchester Hills, Shivwits, Harpersburg, Grafton, Mount Carmel, Riverside, and others.
- Tributaries:** Central, Brookside, Pine Valley, New Harmony, Volcan, and others.
- Roads:** State Route 10, State Route 14, State Route 63, State Route 89, and others.
- Counties:** Washington County, UT; Piute County, UT; Kane County, UT; Mohave County, NV; Clark County, NV; Mohave County, AZ; and Coconino County, AZ.

This website hosts the Virgin River Watershed information

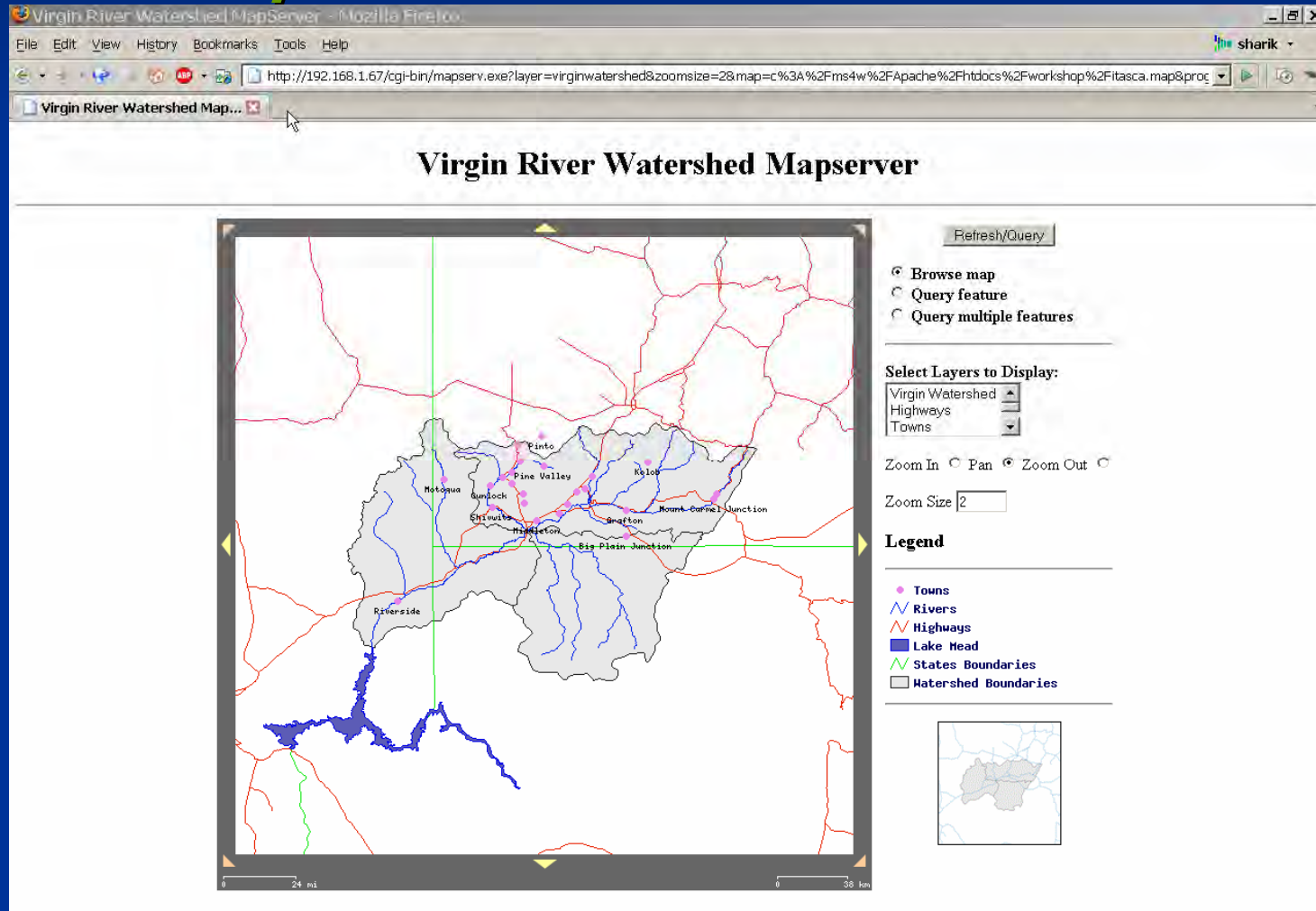
- Configuration settings list
- MediaWiki FAQ
- MediaWiki release mailing list

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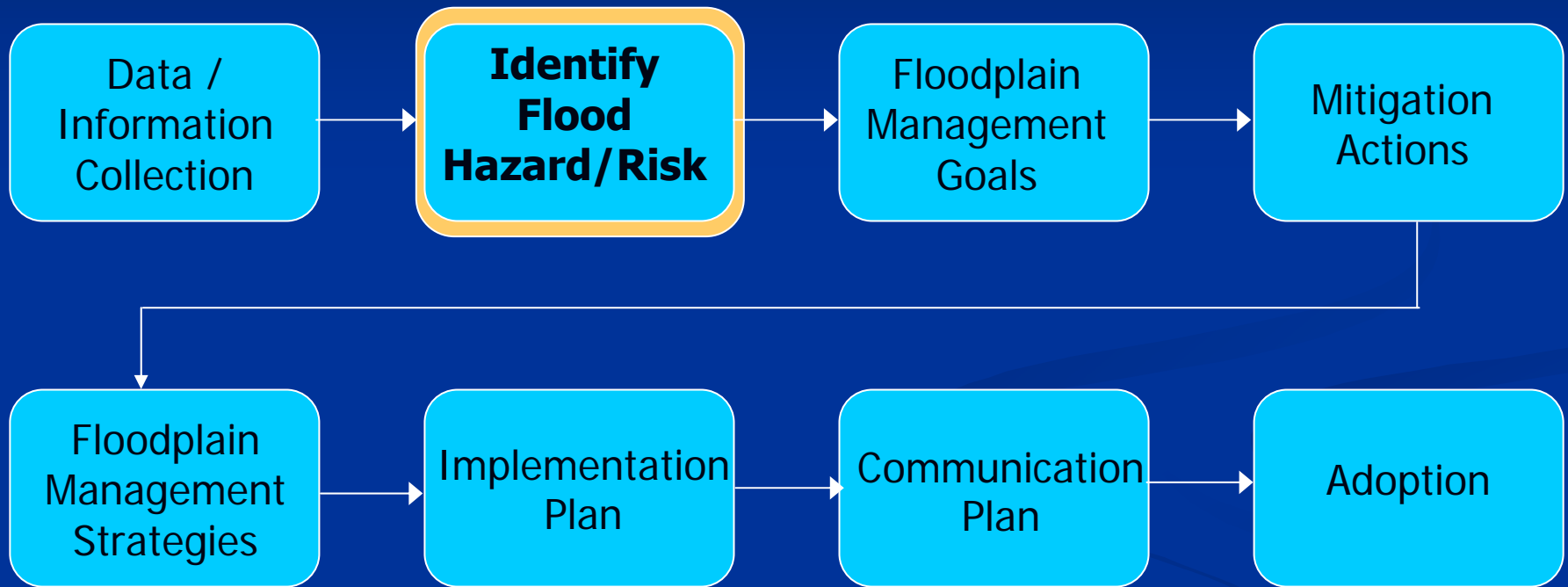


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IDENTIFY FLOOD HAZARD / RISK

Identify Issues – What's the Problem?

- ✓ Erosion Hazard Areas / Delineations
- ✓ Sedimentation & Debris / Trends in Channel Change / Maintenance
- ✓ Response to Urbanization / Encroachment / Watershed Cover
- ✓ Response to Wildfire / Vegetation Changes
- ✓ Invasive Species Impacts / Tamarisk / Cheat Grass
- ✓ Flood Warning / Flood Response

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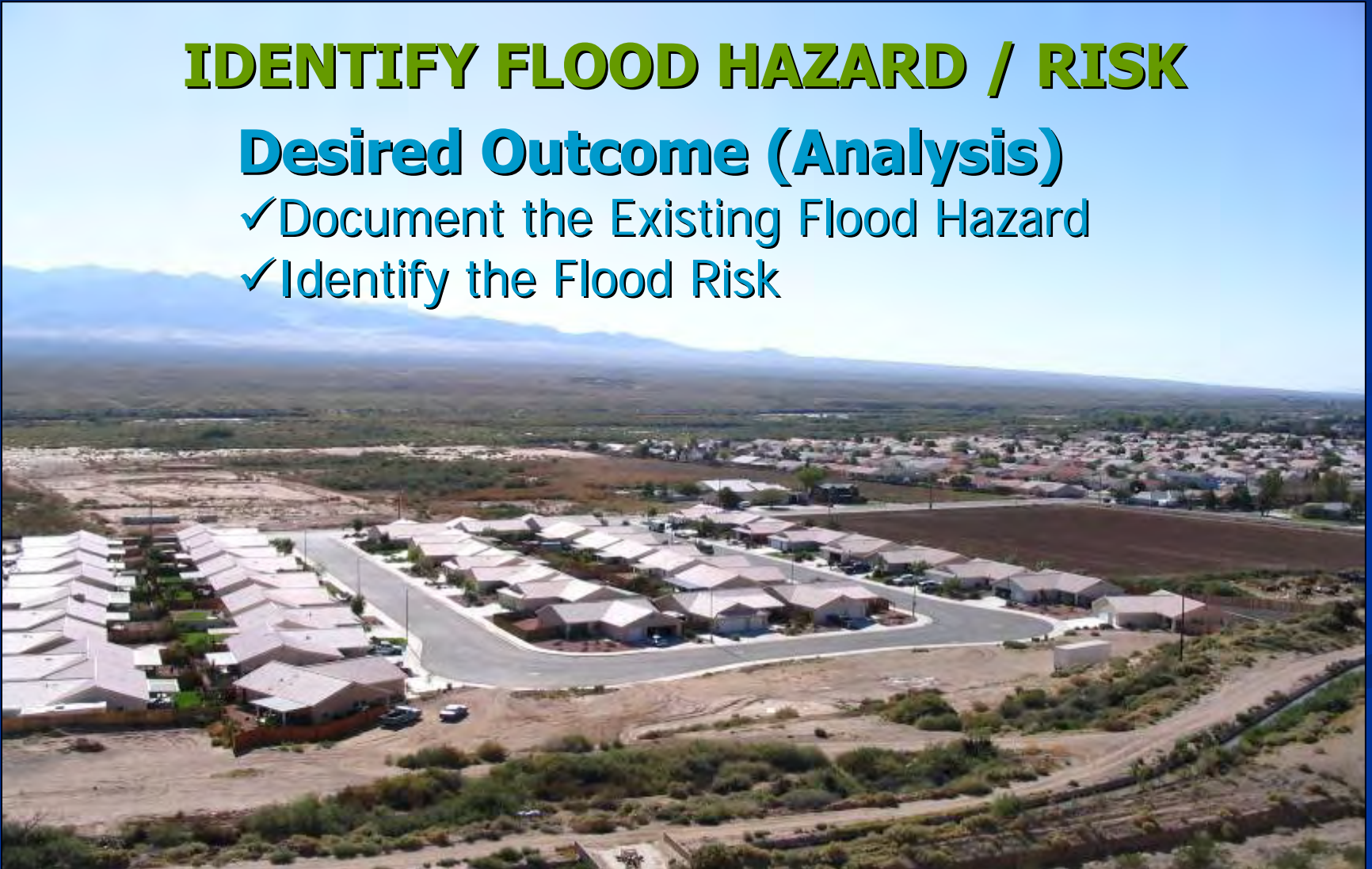


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IDENTIFY FLOOD HAZARD / RISK

Desired Outcome (Analysis)

- ✓ Document the Existing Flood Hazard
- ✓ Identify the Flood Risk

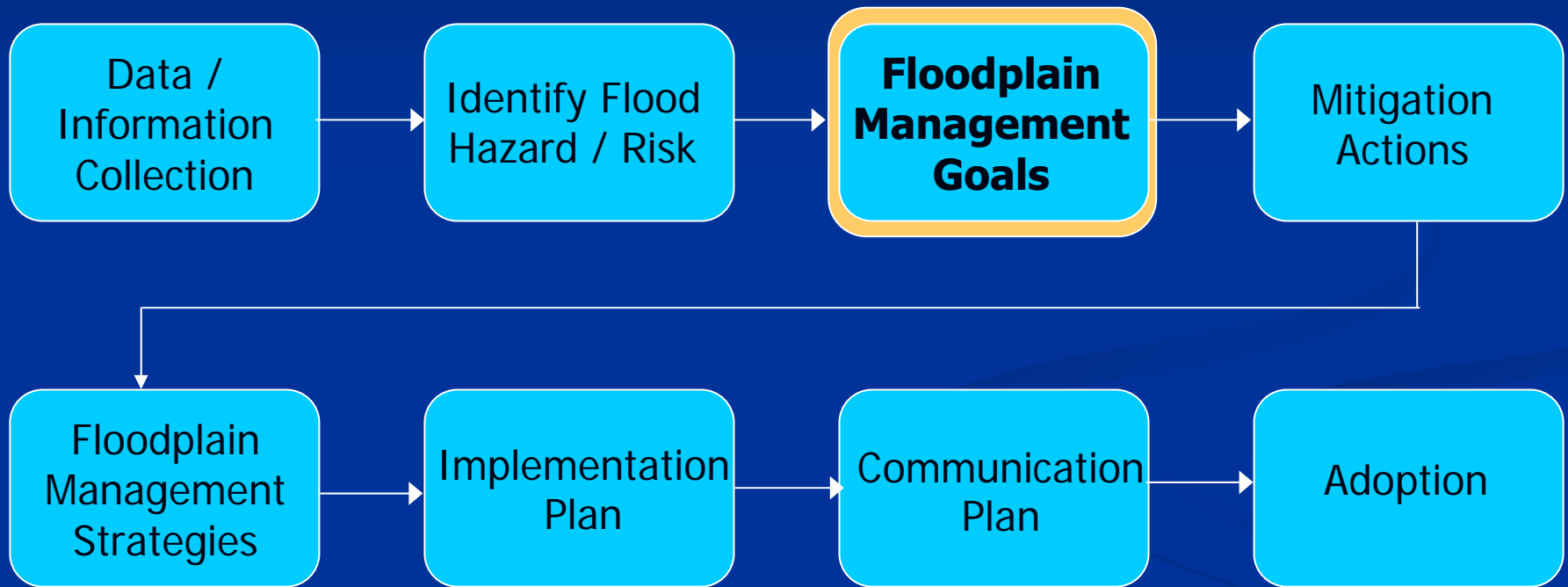


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FLOODPLAIN MANAGEMENT GOALS

Identify Goals – What's the Solution?

- ✓ Identify Natural & Beneficial Functions of Floodplains
- ✓ Update or Improve Existing Knowledge / Conditions
- ✓ Facilitate / Enhance Multi-Jurisdictional
Communication & Cooperation
- ✓ Address Interrelationship of Flooding, Erosion, &
Sedimentation

Desired Outcome (Synthesis)

Evaluate Stakeholder Goals / Compatibility for
Opportunities to Collaborate

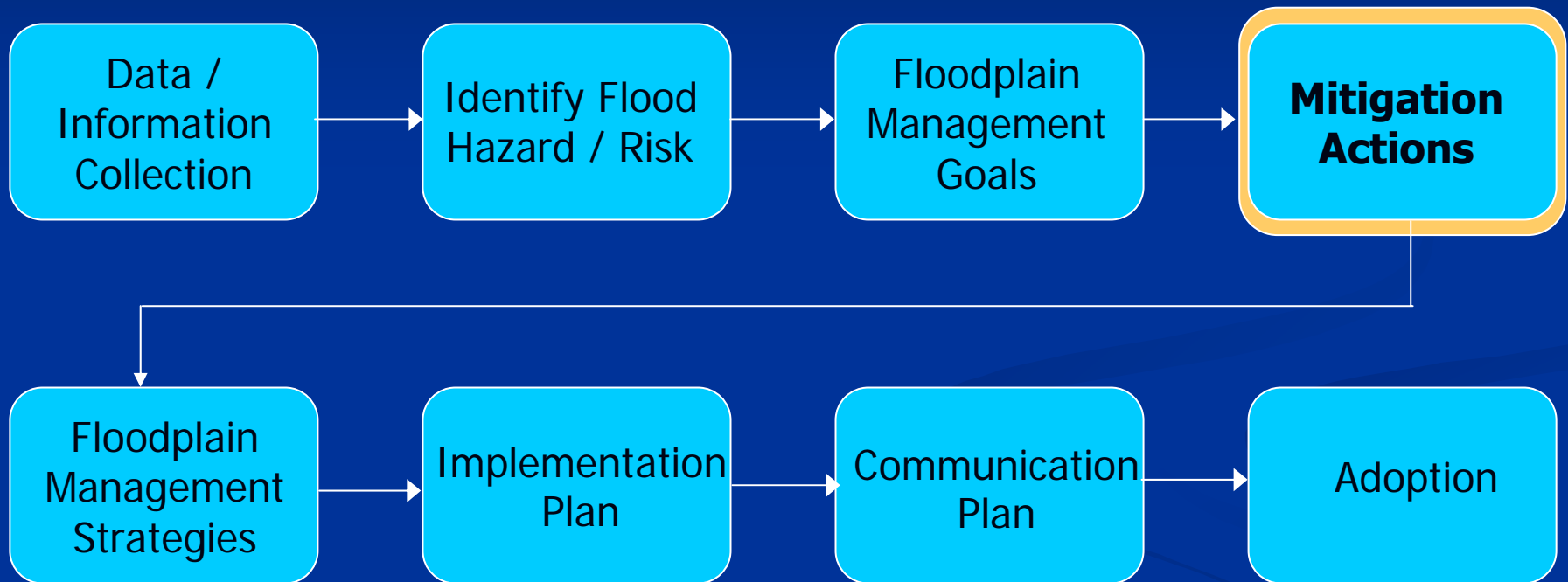


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MITIGATION ACTIONS

Identify & Evaluate Mitigation Actions

- ✓ Technically Feasible / Cost Effective
- ✓ Floodplain Delineation / Floodplain Regulations
- ✓ Floodplain Management Guidelines
- ✓ Erosion Hazard Delineation / Erosion Hazard Guidelines
- ✓ Land Use Planning Recommendations / Impacts to Watershed & Floodplains

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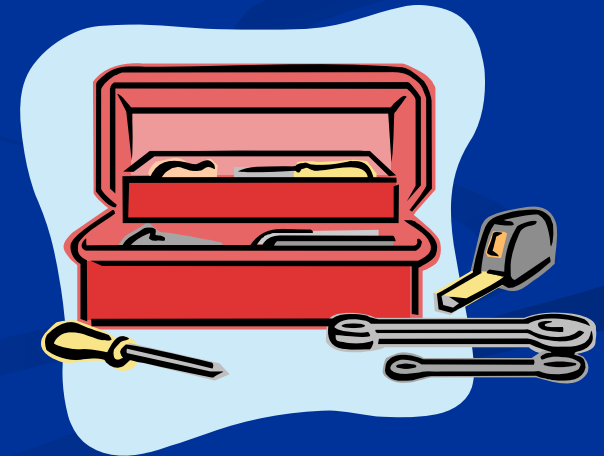
MITIGATION ACTIONS

Identify & Evaluate Mitigation Actions (cont'd.)

- ✓ Best Management Practices Recommendations
- ✓ Flood Risk Management
- ✓ Permitting
- ✓ Flood Response Planning
- ✓ Public Education & Awareness Programs
- ✓ Web-based Information Delivery

Desired Outcome

Compile the Mitigation Action Toolbox

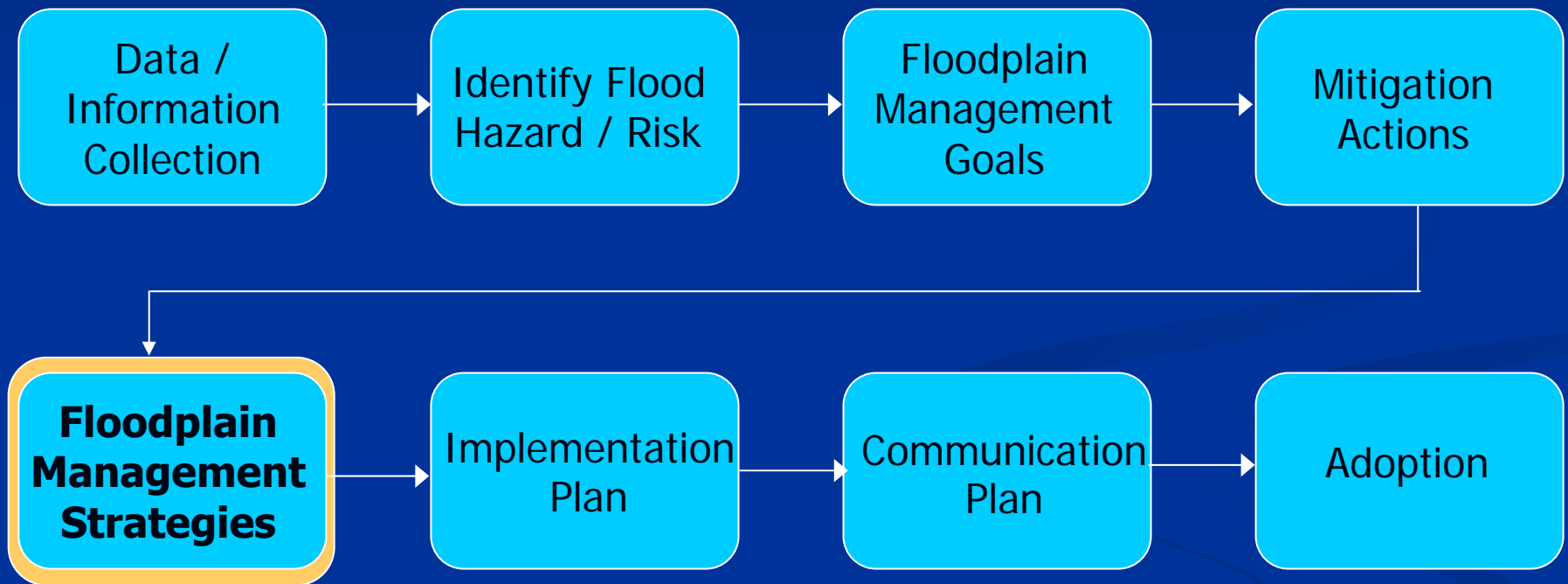


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FLOODPLAIN MANAGEMENT STRATEGIES

Content – Mitigation Actions or Categories of Actions
(e.g., Administrative, Operational, Regulatory)

Organization – Virgin River Watershed Group /
Technical Advisory Group / Other Work Groups

Timeline – Combination of Sequential and Parallel Work
Tracks / Short-, Mid-, Long-Term Priorities

Scale – Combination of Local, Regional, & Watershed-wide
Mitigation Actions

Means – Funding Sources / Mechanisms for Sustainable
Funding

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FLOODPLAIN MANAGEMENT STRATEGIES

Desired Outcome

Create the **Floodplain Management Strategy** addressing common goals, reducing flood risk, compliant with the NFIP, consisting of various Mitigation Actions, organized in a cohesive framework, and with relative priorities and funding sources identified.

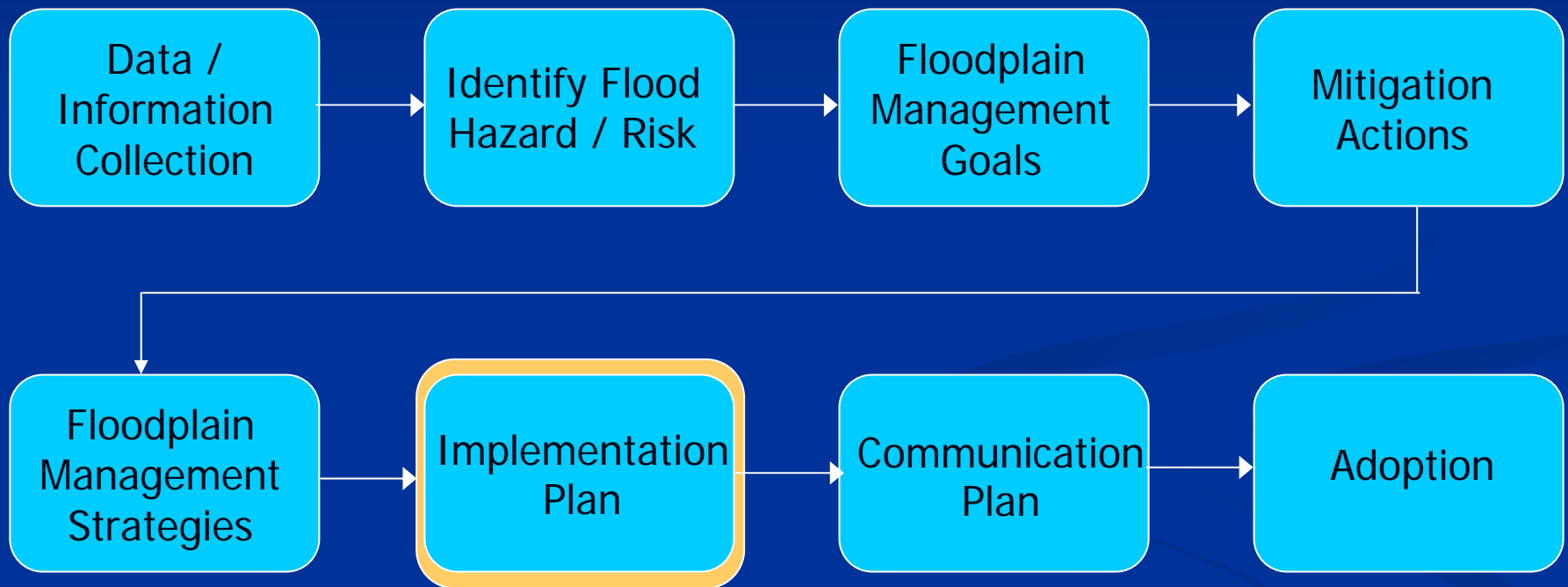


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IMPLEMENTATION PLAN

- ✓ Short-, Mid-, Long-Term Priorities
- ✓ Funding Mechanisms
- ✓ Progress Milestone Identification
- ✓ Recommendations for Revisions/Updates to Strategy

Desired Outcome

Outline the road map by which the
Floodplain Management Strategy
will be implemented and
how it will be funded.



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COMMUNICATION PLAN

- ✓ Local, County, State, Tribal, and Federal Coordination and Communication
- ✓ Public Education / Awareness Program

Desired Outcome

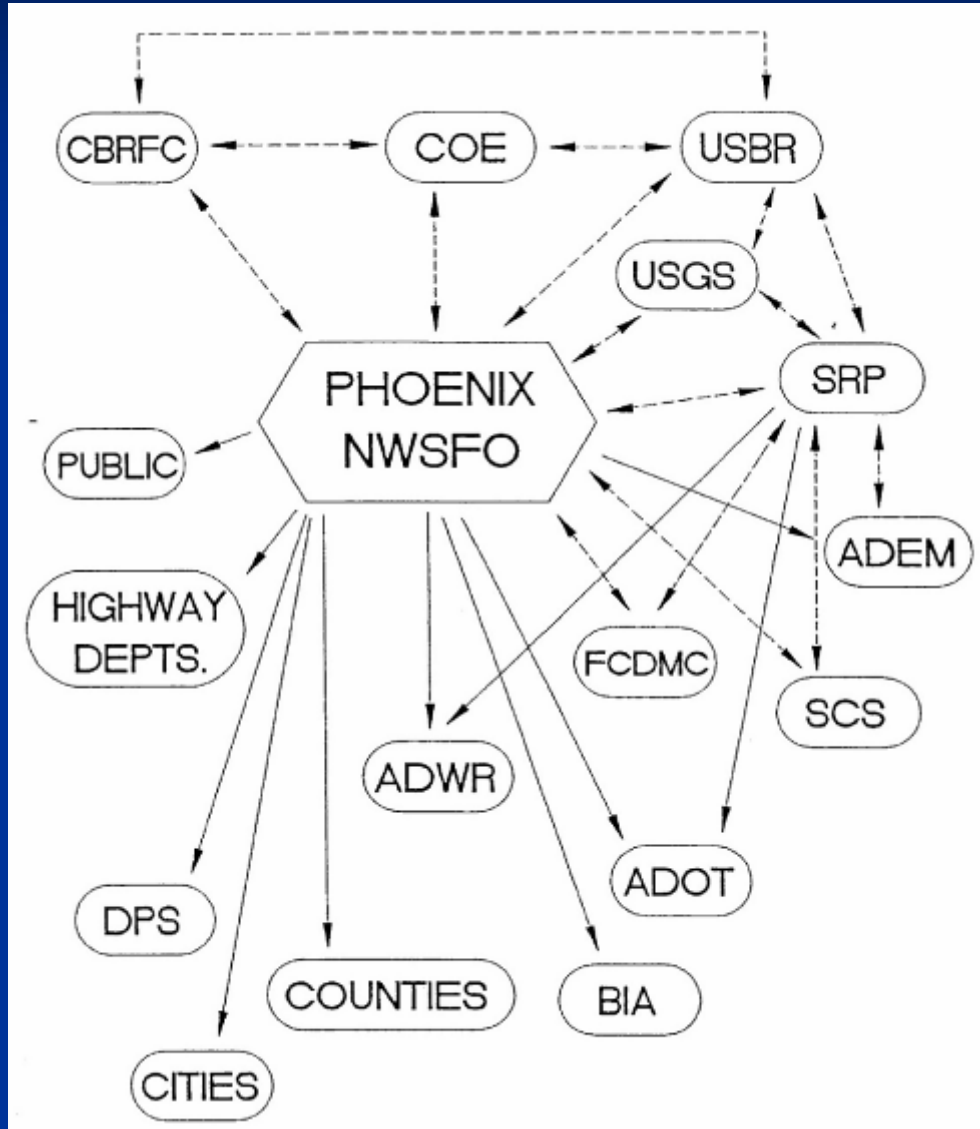
Databases

Flowchart(s) clearly presenting communication protocols

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COMMUNICATION SCHEMATIC

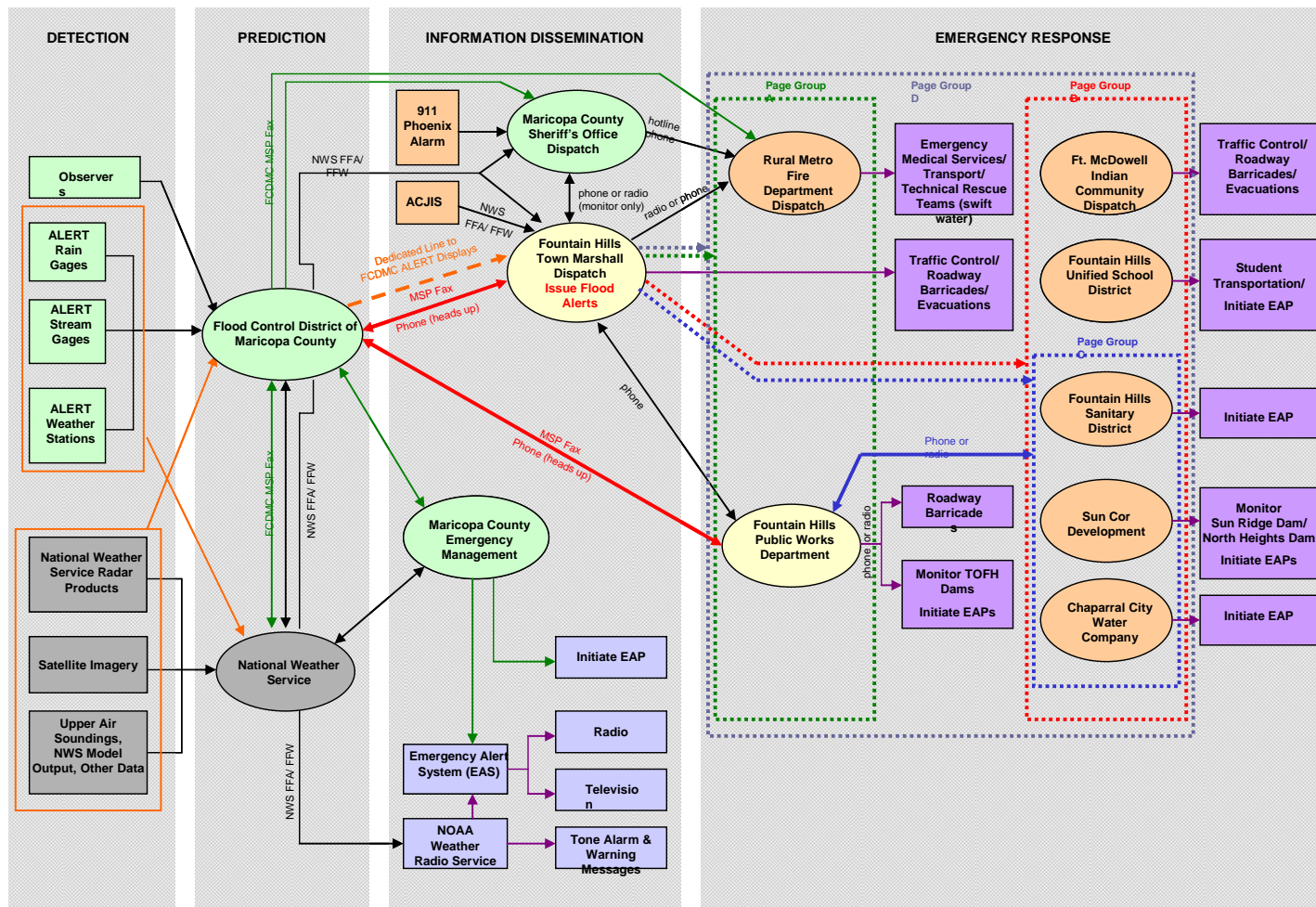
AZ Statewide Flood
Warning System
(1995)

BEFORE...

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AFTER...

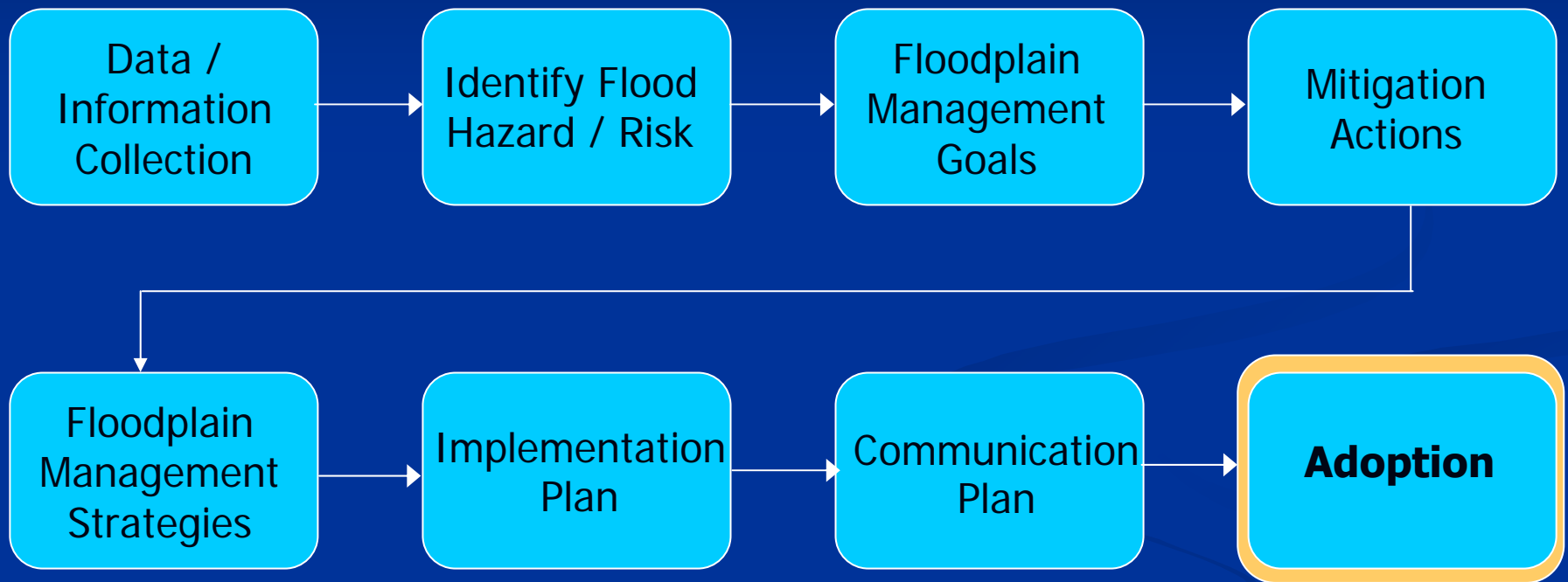
FOUNTAIN HILLS FLOOD RESPONSE PLAN
COMMUNICATIONS FLOWCHART

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FLOODPLAIN MANAGEMENT STRATEGY ADOPTION

Desired Outcome

Documentation of formal adoption by the legal entity submitting the **Floodplain Management Strategy**



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WORK PRODUCTS

Floodplain Management Strategy Report

- ✓ Introduction
- ✓ Floodplain Management Strategies
- ✓ Overview of Floodplain Management in the Virgin River Watershed
- ✓ Overview of On-Going River Management Activities
- ✓ Floodplain Management Issues in the Virgin River Watershed
- ✓ Floodplain Management in Action: January 2005 Floods
- ✓ Needs Analysis – Future Activities
- ✓ Implementation Plan
- ✓ Communication Plan
- ✓ Recommendations

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WORK PRODUCTS



Databases

- ✓ Stakeholder Contact Database
- ✓ Resource Catalog Database
- ✓ GIS Database

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WHAT'S NEXT?

Next Work Tasks

- ✓ Complete Interviews
- ✓ Gather Reports / Data
- ✓ Document Flood Hazard
- ✓ Review and Summarize Issues
- ✓ Prepare GIS Database
- ✓ Compile List of Stakeholder Needs / Goals
- ✓ Understand Opportunities / Constraints
- ✓ Identify Floodplain Management Goals
- ✓ Brainstorm Mitigation Activities



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WHAT'S NEXT?

Next Meeting Agenda

- ✓ Present Results of Interviews
- ✓ Summarize Data/Report Review Findings
- ✓ Preview Database Work Products
- ✓ Discuss/Verify Floodplain Management Goals
- ✓ Brainstorm Mitigation Activities

Set Next Meeting Date

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THANK YOU