

# **Supporting Document C-4**

## **Water Picture Show**

**Water Assembly  
Presents  
the  
Water Picture Show**



***Framing the Wet Water Picture -  
For Today and Tomorrow***



# What Is The Water Assembly?

A Large and Growing Grass Roots Organization  
of Citizens Concerned about Water Issues in the Area

- *Hydrology Experts*
- *Water System Managers*
- *Government Agencies*
- *Environmentalists*
- *Business People*
- *Politicians*
- *Private Citizens*
- *... etc.*

**A Diverse Volunteer Group**

**... Partnered with the  
Middle Rio Grande Council of Governments**

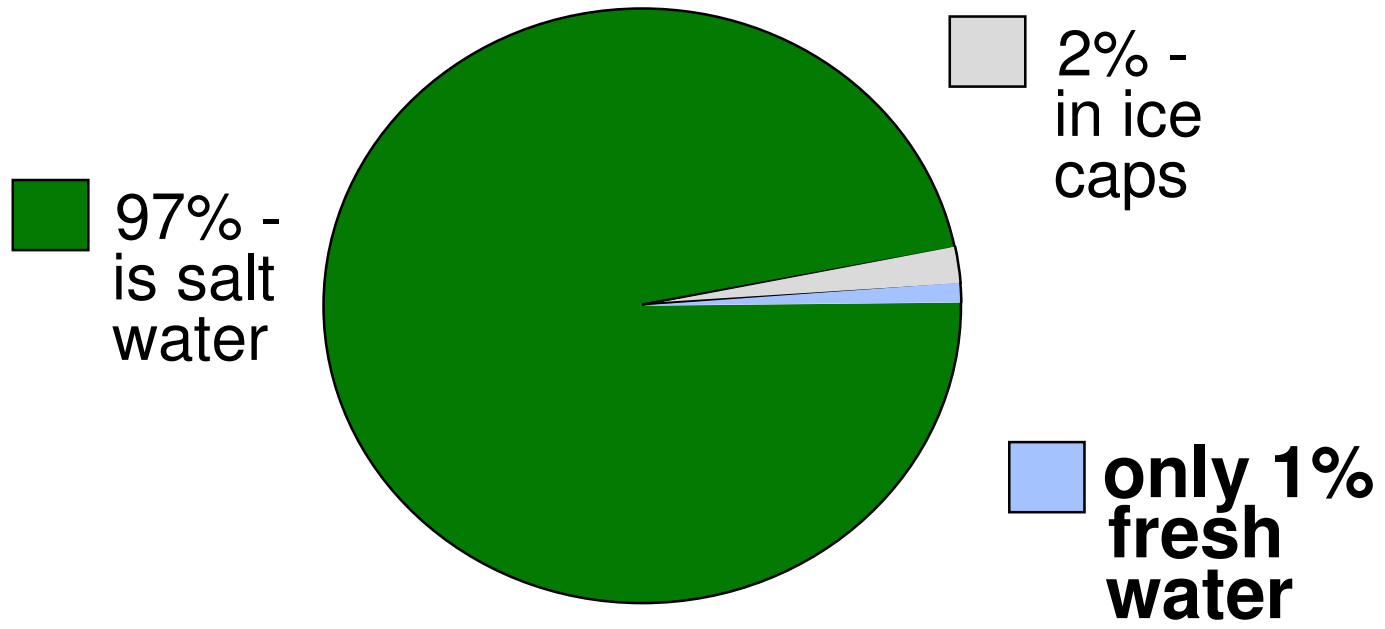
# Discussion Topics



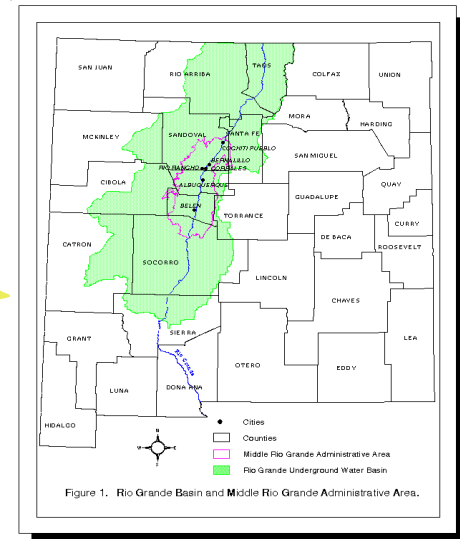
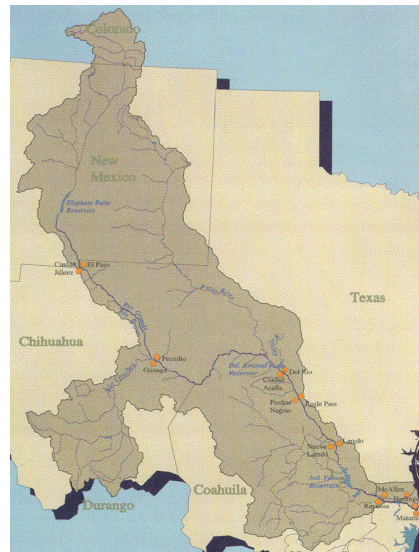
- Introduction
- Water - The Five Hard Facts
- The Water Budget
- Regional Water Planning
- Current Planning Status
- ... and This Means You!

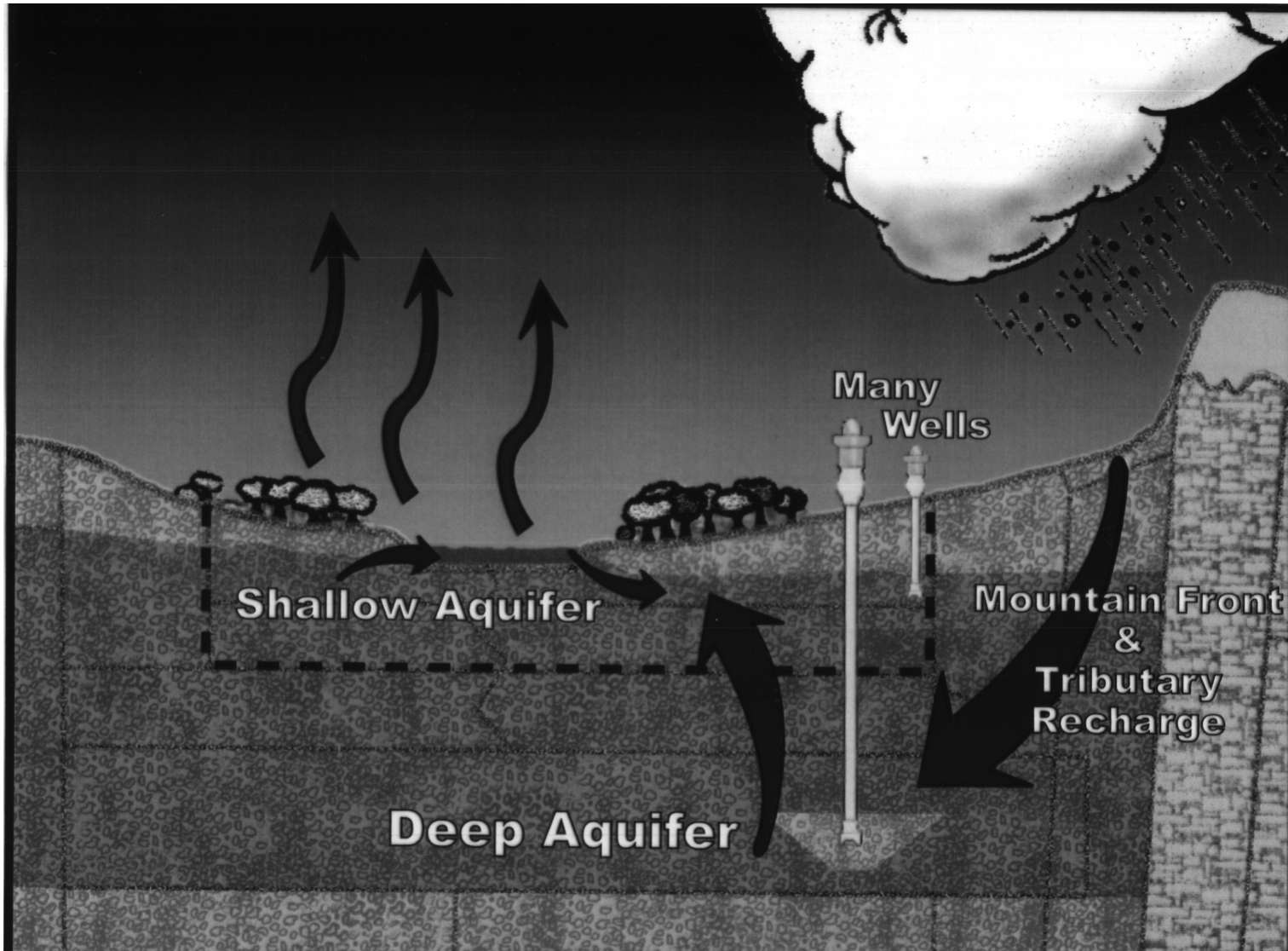


# Worldwide - A Limited Supply of Fresh Water



# The Middle Rio Grande - A Part of the Whole Picture



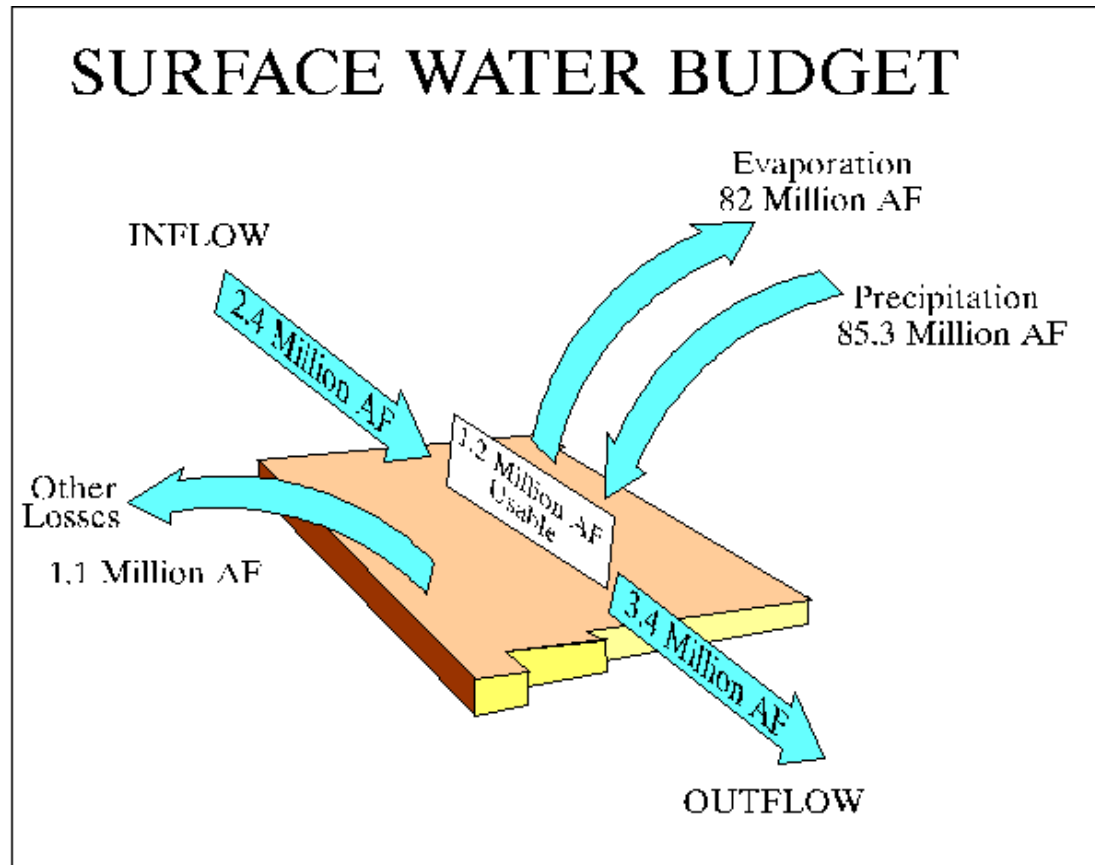


# Water - The Five Hard Facts

1. The Middle Rio Grande region's water supply is limited.
2. The aquifer, our water savings account, is being used up.
3. We have a legal obligation to provide river habitat.
4. We have a legal obligation to downstream water users.
5. The population and water demand are growing rapidly.



# Where It Comes From ... ... and Where It Goes



7/20/2011

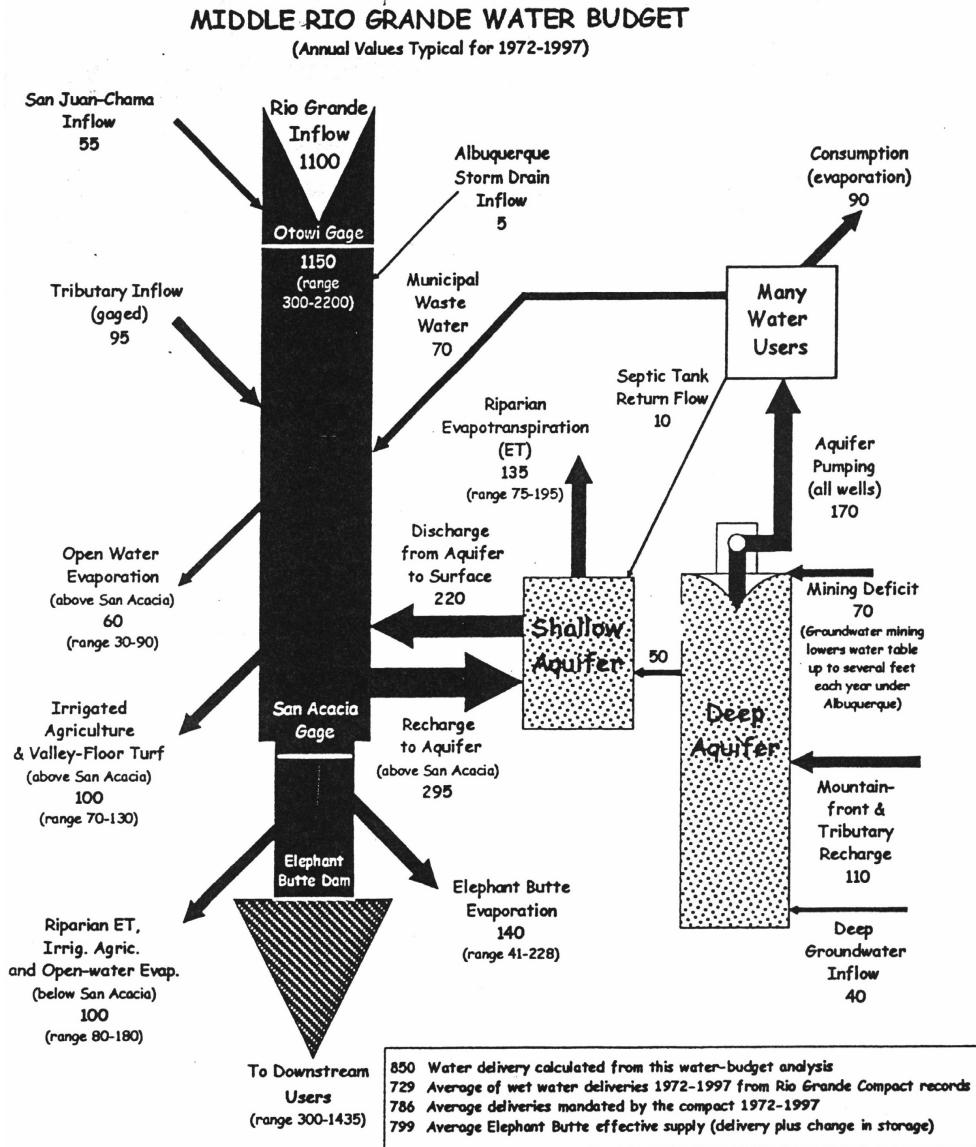
# Water Budget

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## The Technical Details

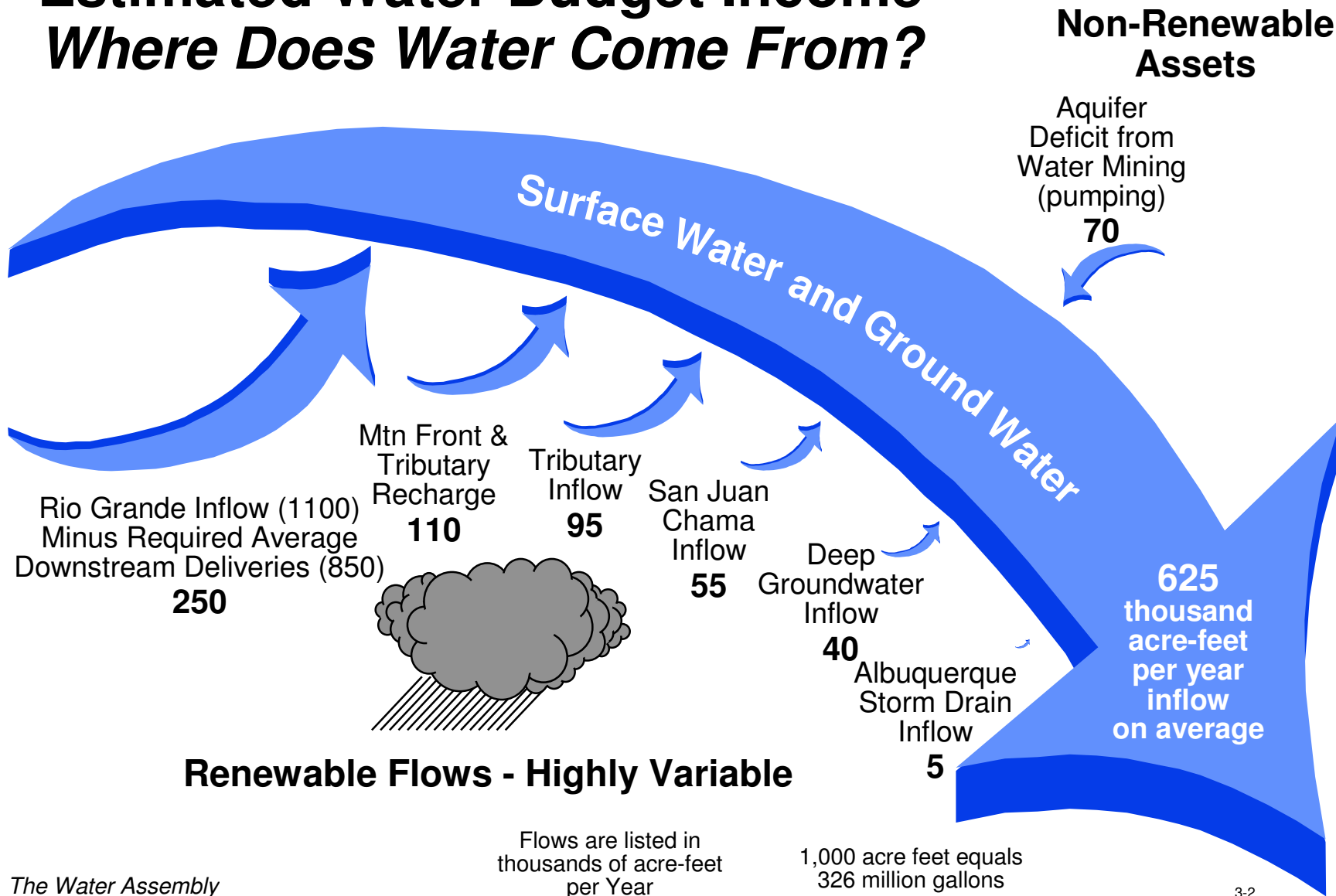
Available surface water varies substantially from year to year, according to precipitation.  
 In an average year:

- We get enough surface water to meet our annual usage, and
- The net loss to the aquifers is 70,000 acre-feet per year



# Estimated Water Budget Income

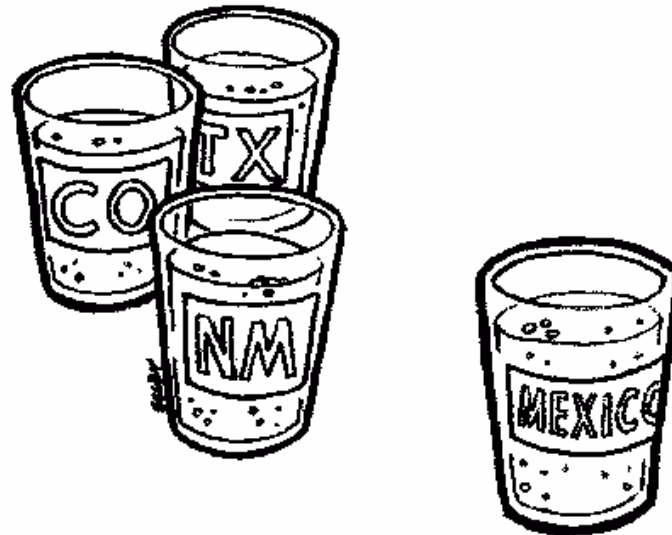
## Where Does Water Come From?



# The Rio Grande Flows Were Divided

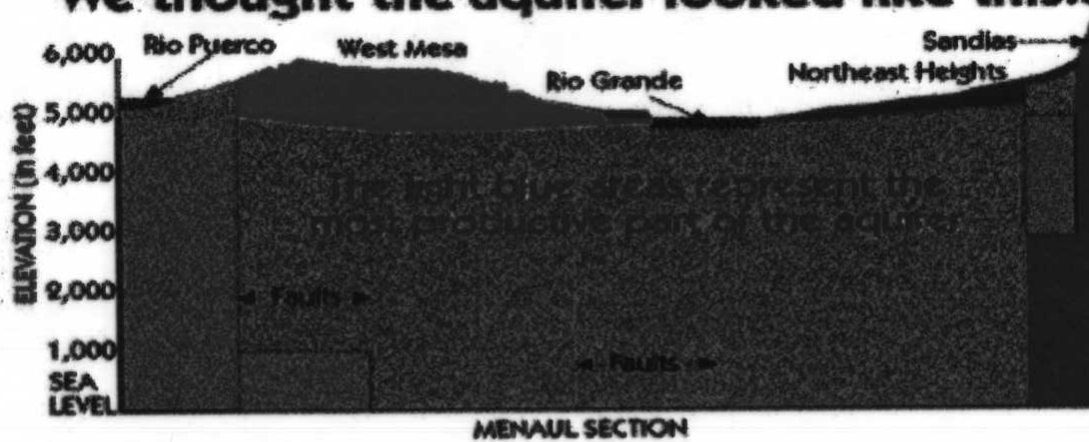
- Negotiations Resulted in the Rio Grande Compact.
- Rivers Flows Divided Between Colorado, New Mexico, and Texas.
- Treaty Obligation to Deliver Allotment to Mexico.

**Bottom Line:** For Middle Rio Grande Region, there is an allotment of water for use and a specific quantity to be delivered downstream.

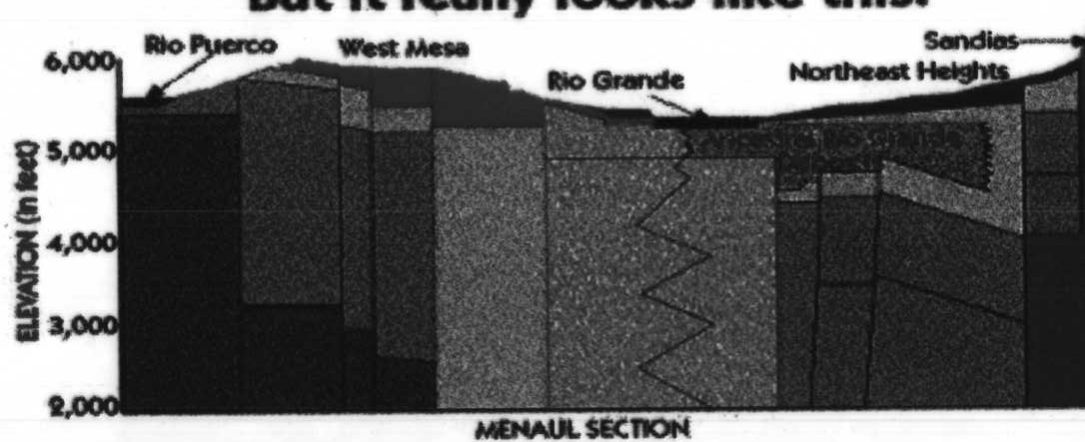


# Aquifer Past and Present

We thought the aquifer looked like this...

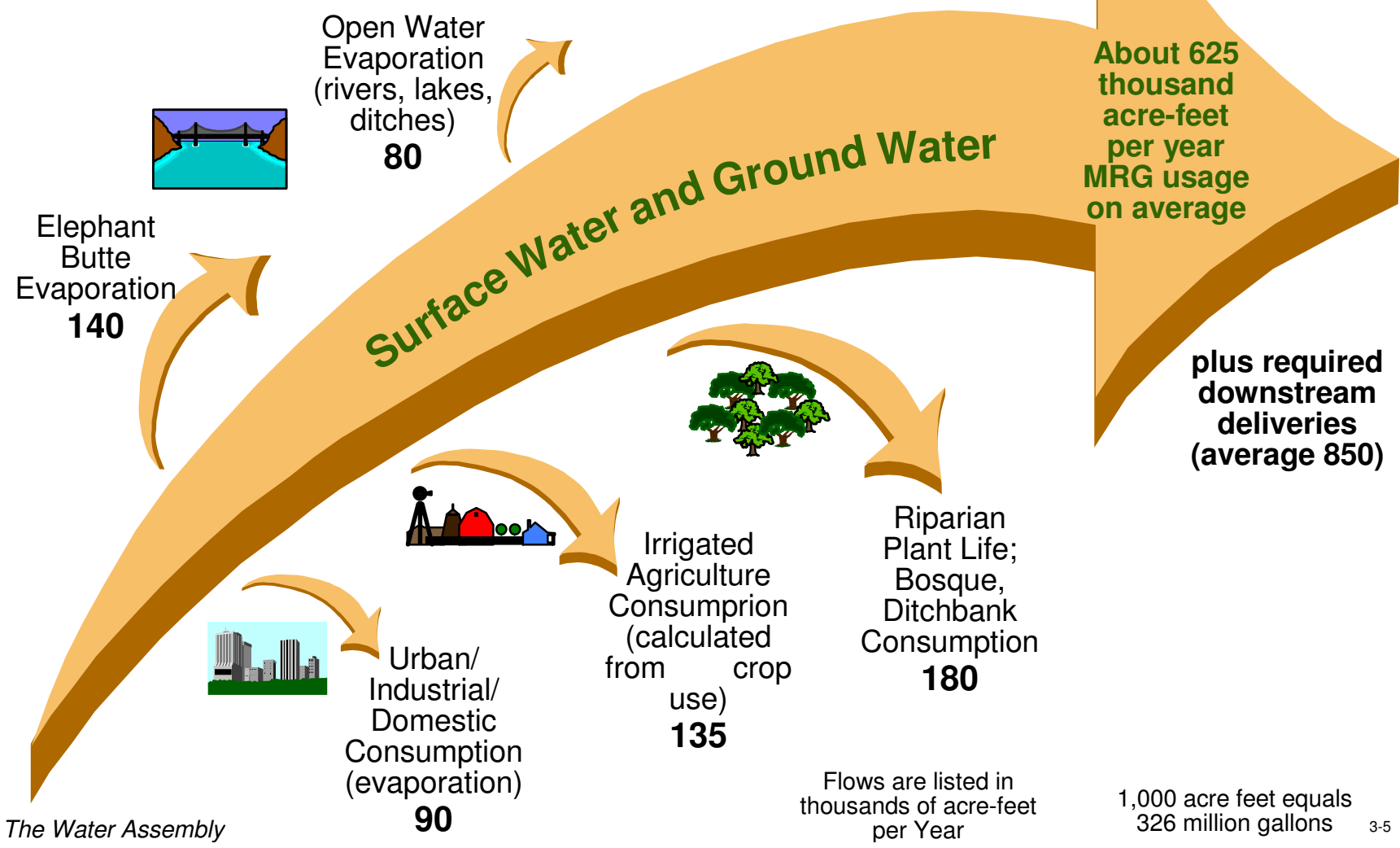


But it really looks like this:

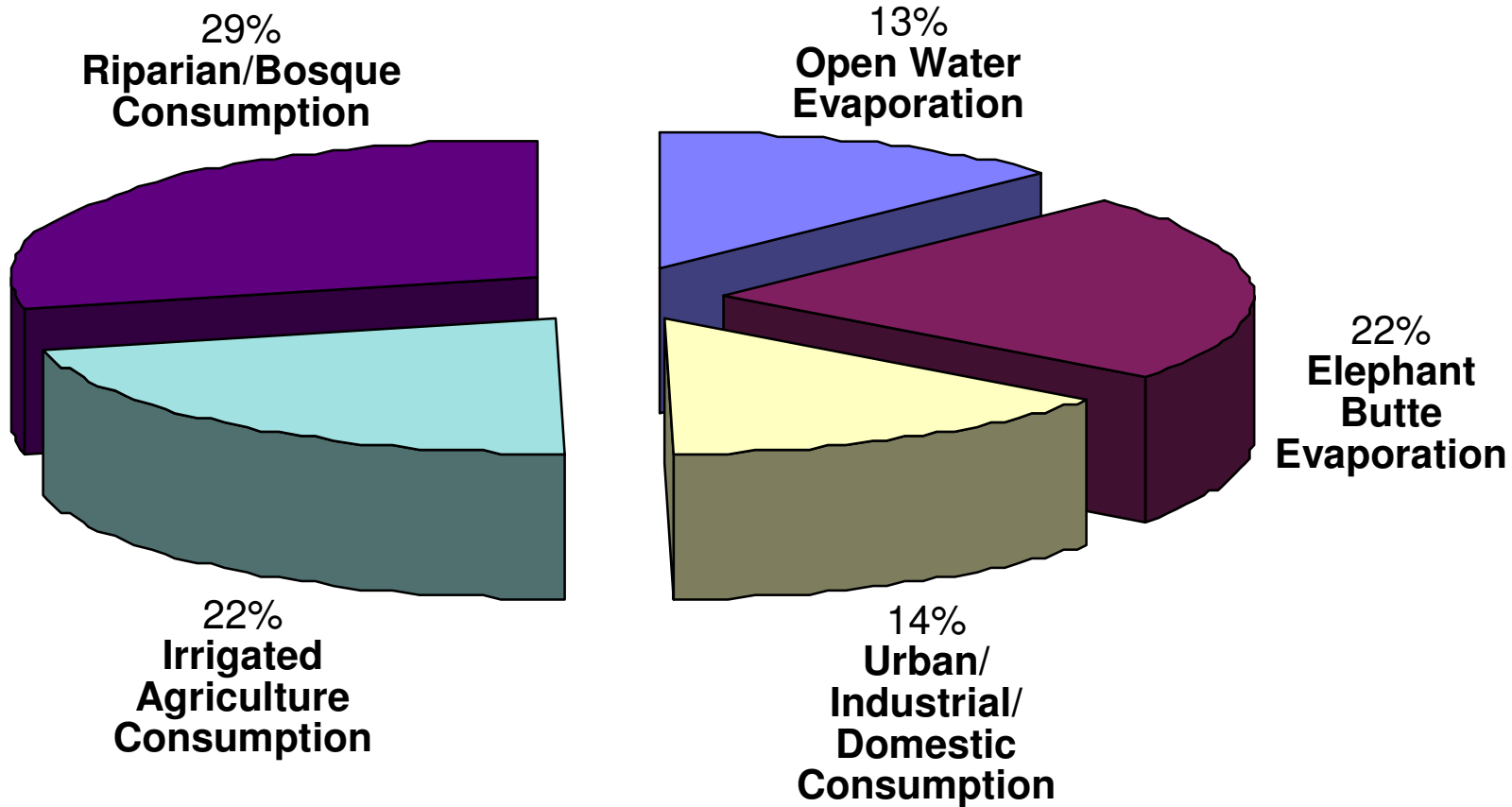


# Estimated Water Budget Expenses

## Where is Water Now Used?

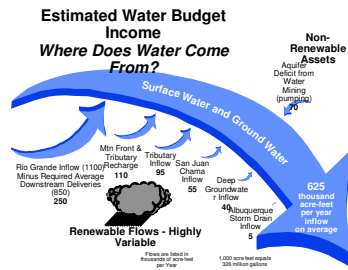


# How We Are Now Sharing the Pie

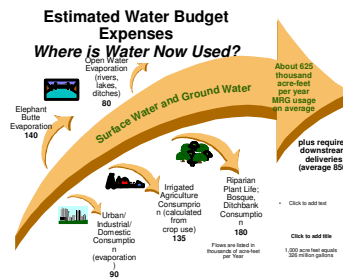


# Today's Water Budget Arithmetic

**Income**    *Minus*    **Expenses**    *Equals*    **Surplus**



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=

0

... in an average year



# The Population is Growing

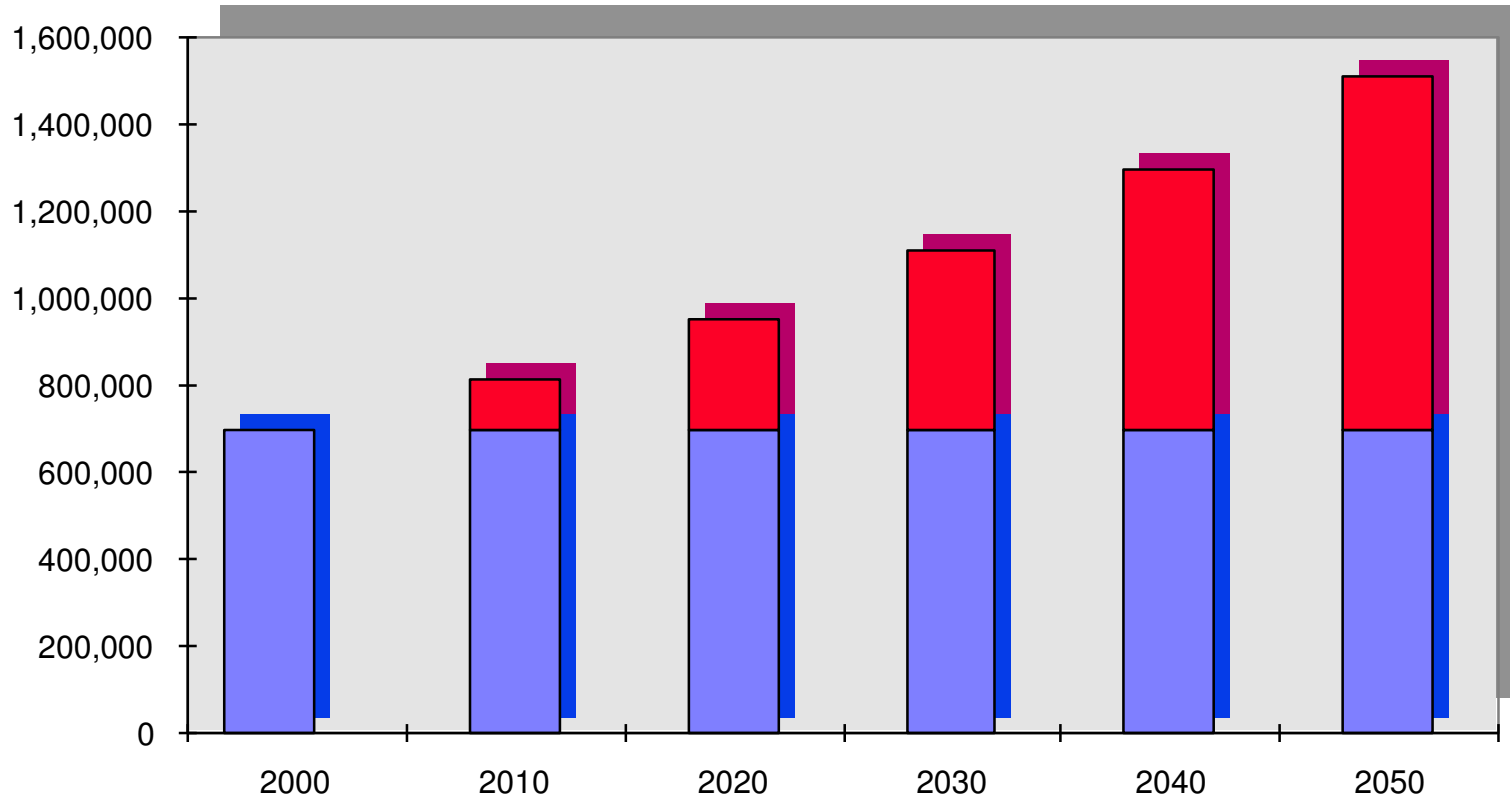


Chart based upon  
1.55% Growth  
per Year  
(double in 50 years)

*The Water Assembly*

**... increasing demand for the limited water**

**What Can We Do About It?**



**PLAN!**



# What Does Water Planning Mean?

- Understanding What Physical Resources We Have
- Understanding What We Really Value
- Deciding What We Absolutely Must Have
- And ... Figuring Out How to Share



**... Tough Decisions Will Be Needed**

# Who Needs a Water Plan?

- **User Communities** - Understanding the Situation and the Future
- **Interstate Stream Commission** - Protect New Mexico's Interests
- **State Engineer** - For Statewide Water Resource Management
- **Council of Governments** - For Resource-Based Regional Planning
- **State Government** - For Enabling Legislation and Funding
- **Local Governments** - For Local Implementation Ordinances

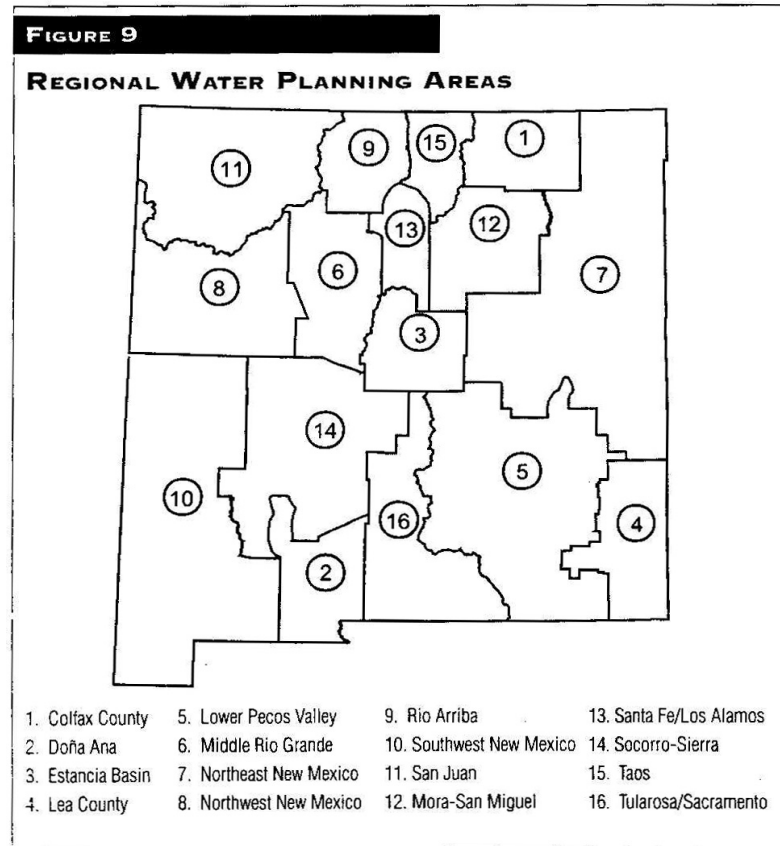
... **Something for Everyone**

# The Five Essential Planning Questions

- What Is the Region's Water Supply?
- How Much Water is Needed Now, and in the Future?
- What Are The Choices to Balance Supply and Demand?
- Which of the Choices Reflect our Region's Values?
- What Strategies Will Bring the Best Choices to Reality?

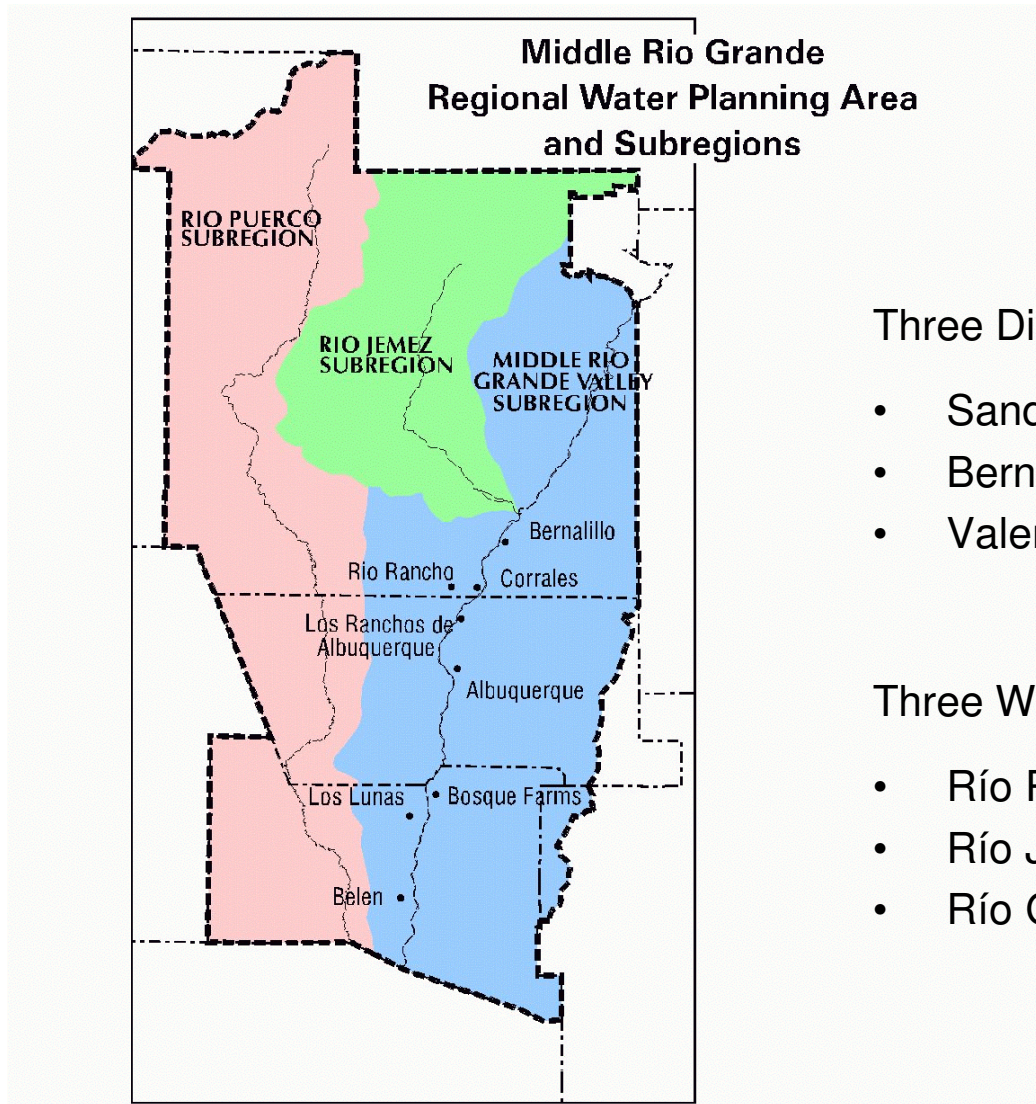
**... Our Planning Process**

# Statewide Planning



Map generated by the Hydrographic Survey Bureau GIS system

**... Assembled from Regional Planning**




Three Diverse Counties:


- Sandoval
- Bernalillo
- Valencia

Three Watersheds:

- Río Puerco
- Río Jemez
- Río Grande



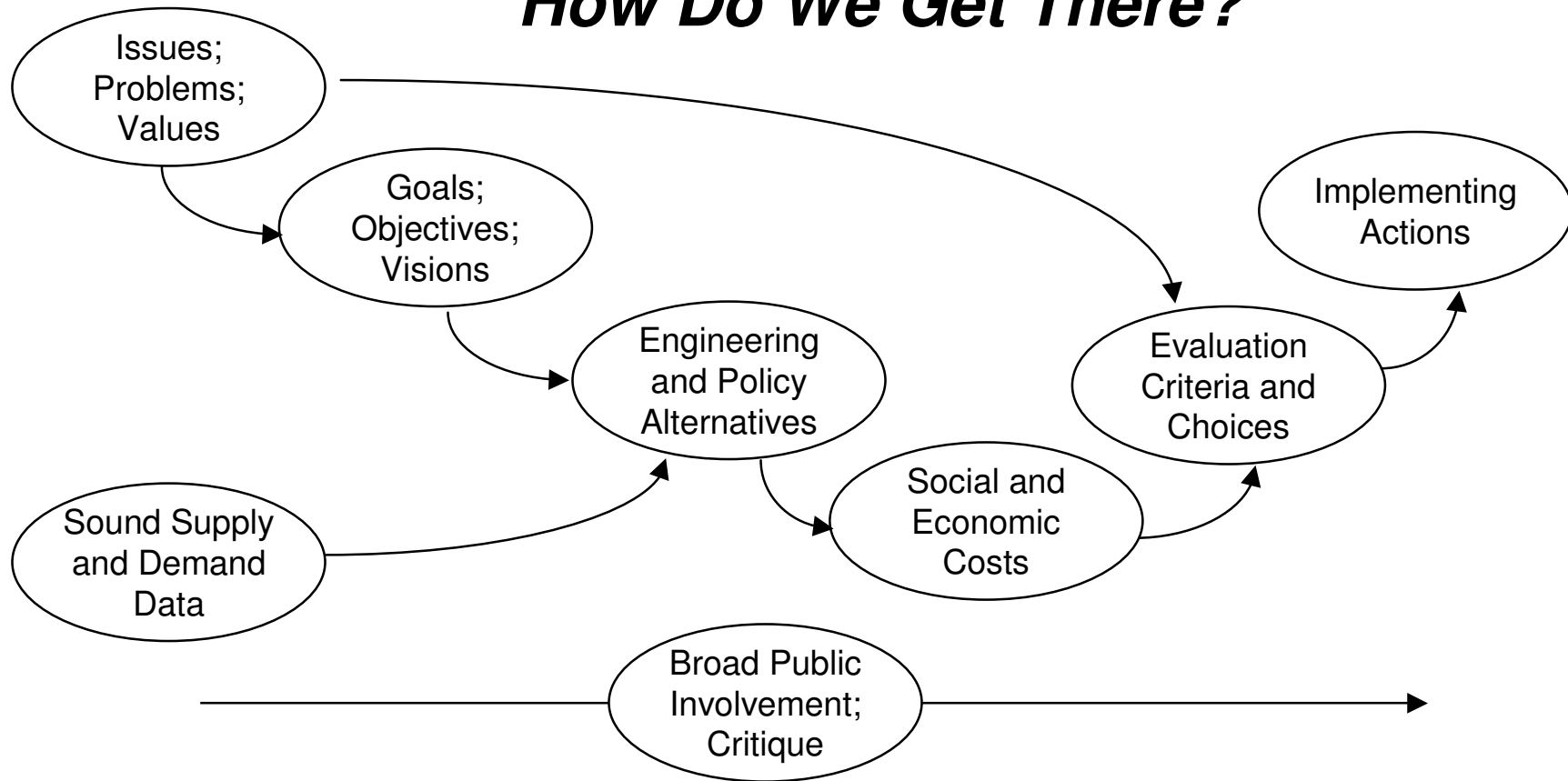
**What is the Current  
Water Planning Status  
for the  
Middle Rio Grande Region?**





# Water Planning Overview

## *How Do We Get There?*



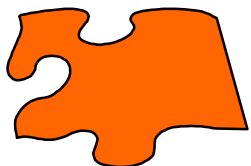
**... by Everyone Working Together**

# Where Are We On The Five Essential Planning Questions?

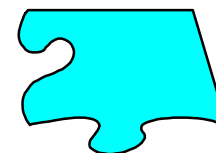
- What Is the Region's Water Supply?  
Water Budget Developed; Detailed Refinement Nearly Complete
- How Much Water is Needed Now, and in the Future?  
The "Now" Study Complete; "Future" Evaluation during 2000
- What Are The Choices to Balance Supply and Demand?  
Public Input Being Sought - This Meeting and Conversations
- Which of the Choices Reflect our Region's Values?  
Public Input Being Sought - This Meeting and Conversations
- What Strategies Will Bring the Best Choices to Reality?  
The Later Steps - To Be Based upon Answers to the First Four

**... Much Progress; Still a Long Way to Go**

# Water Planning

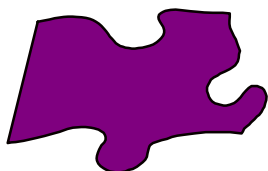


*Riparian and Bosque*

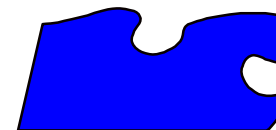


*Recreational*

## Balance Supply among Users

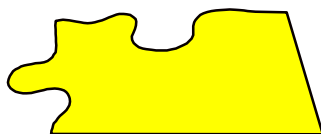


*Development and Domestic*



*Rural and Agricultural*

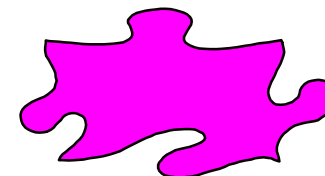
## Assembling the Puzzle



*Future Needs*



*Urban and Industrial*



*River and Habitat*

# The Issues are Here and Now:

**Farm Protection Sought**  
Economist: Central N.M. Irrigation Wasting Water

**Belen says it won't sell water to Cobisa plant**  
**io Grande Listed As Endangered**

**Tree Rings Indicate Coming Drought Years**

Changes that accompany a population boom in Valencia County create tensions between residents old and new

**Industrial water usage remains big question**

**Finding a balance**

**Minnows May Deny Farmers**

Proposal Could Mean No Water For Irrigation

Area Has Enough Water for Next Few Decades, Experts Say

# Active Public Participation Is Important

- From the New Mexico State  
Regional Water Planning Handbook:

**“Public Participation must be the significant factor in development of regional plans.”**

**You must participate if the plan is to be successful.**

# Water Planning - An Extensive Public Process

1999

- Full Assembly Review
- The Roadshow
- The Water Budget

2000

- Mar - Full Assembly Review
- May - Current/Historical Demand
- May-Aug - Water Picture Show
- Jun - Public Opinion Survey
- Jul - Detailed Supply Study
- Jul-Aug - Issues and Problems
- Aug-Sep - Goals and Objectives

- Sep-Feb - Saving Water Series
- Nov - Regional Coordination
- Nov - Preliminary Alternatives
- Dec - Interim Goals and Objectives

2001

- Feb - WPS: Demand/Opinion Update
- Jan - Evaluation Criteria
- Mar - Full Assembly Review
- May - WPS: Saving Water Update
- Apr-Jul - Alternatives Identification
- Sep-Nov - Prelim. Evaluation
- Oct - WPS Alternatives Update

**... and more to come**

## **Note to person organizing the slides**

Choose one (or possibly two) of the following four slides according to the venue in which the presentation is being given.

- Valencia County
- Rio Rancho
- Bernalillo Town Hall
- Bernalillo County

# Valencia County Conversations in 2000

- Jul 24        Issues and Problems
- Aug 8         Goals and Objectives
- Nov 4         Region-Wide - Goals and Objectives
- Nov 14        Preliminary Alternatives
- Dec 13        WRB Goals and Objectives
- 3rd Weds     Saving Water in the Desert Series

... and Much More to Come in 2001

**Save the Dates ... Be There!**



# Rio Rancho Conversations in 2000

- Aug 22      Issues and Problems
- Sep 11      Goals and Objectives
- Nov 4        Region-Wide - Goals and Objectives
- Nov 9        Preliminary Alternatives
- Dec 13      WRB Goals and Objectives
- 3rd Weds    Saving Water in the Desert Series

... and Much More to Come in 2001

**Save the Dates ... Be There!**

# Bernalillo Town Hall Conversations in 2000

- Aug 23      Issues and Problems
- Sep 13      Goals and Objectives
- Nov 4        Region-Wide - Goals and Objectives
- Nov 15      Preliminary Alternatives
- Dec 13      WRB Goals and Objectives
- 3rd Weds    Saving Water in the Desert Series

... and Much More to Come in 2001

**Save the Dates ... Be There!**

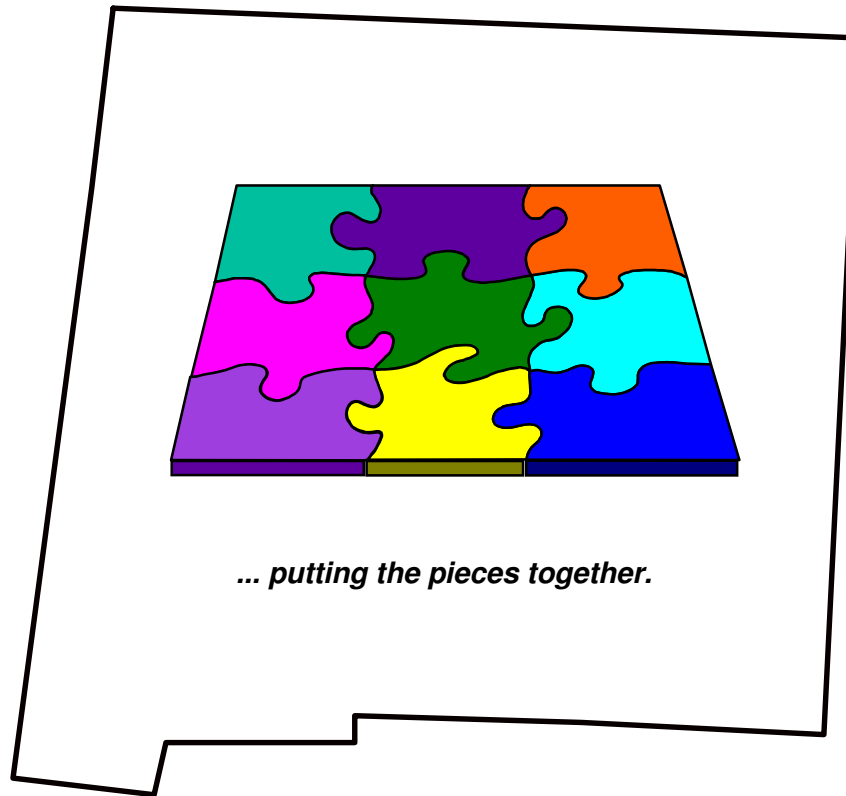
# Bernalillo County Conversations in 2000

- Sep 5 Issues and Problems
- Sep 19 Goals and Objectives
- Nov 4 Region-Wide - Goals and Objectives
- Nov 20 Preliminary Alternatives
- Dec 13 WRB Goals and Objectives
- 3rd Weds Saving Water in the Desert Series

... and Much More to Come in 2001

**Save the Dates ... Be There!**

*This means YOU !*

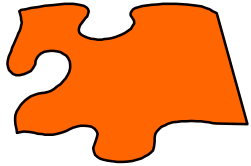


*... putting the pieces together.*

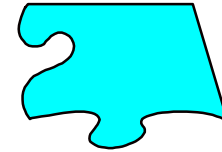
*Water Unites Us !*

*¡El Agua nos Une!*

**Now...**

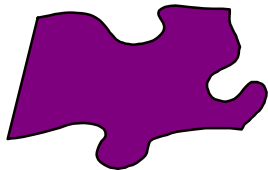


*Riparian and Bosque*



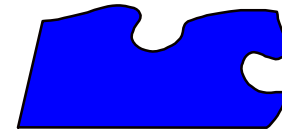
*Recreational*

**Assembling the  
Puzzle ...**

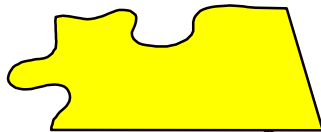


*Development and Domestic*

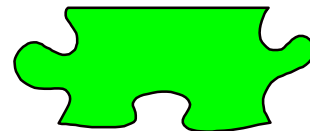
**How Do We  
Share the  
Water Here?**



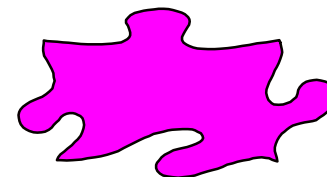
*Rural and Agricultural*



*Future Needs*



*Urban and Industrial*

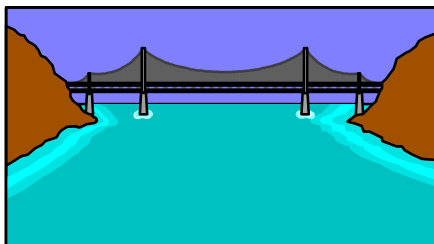
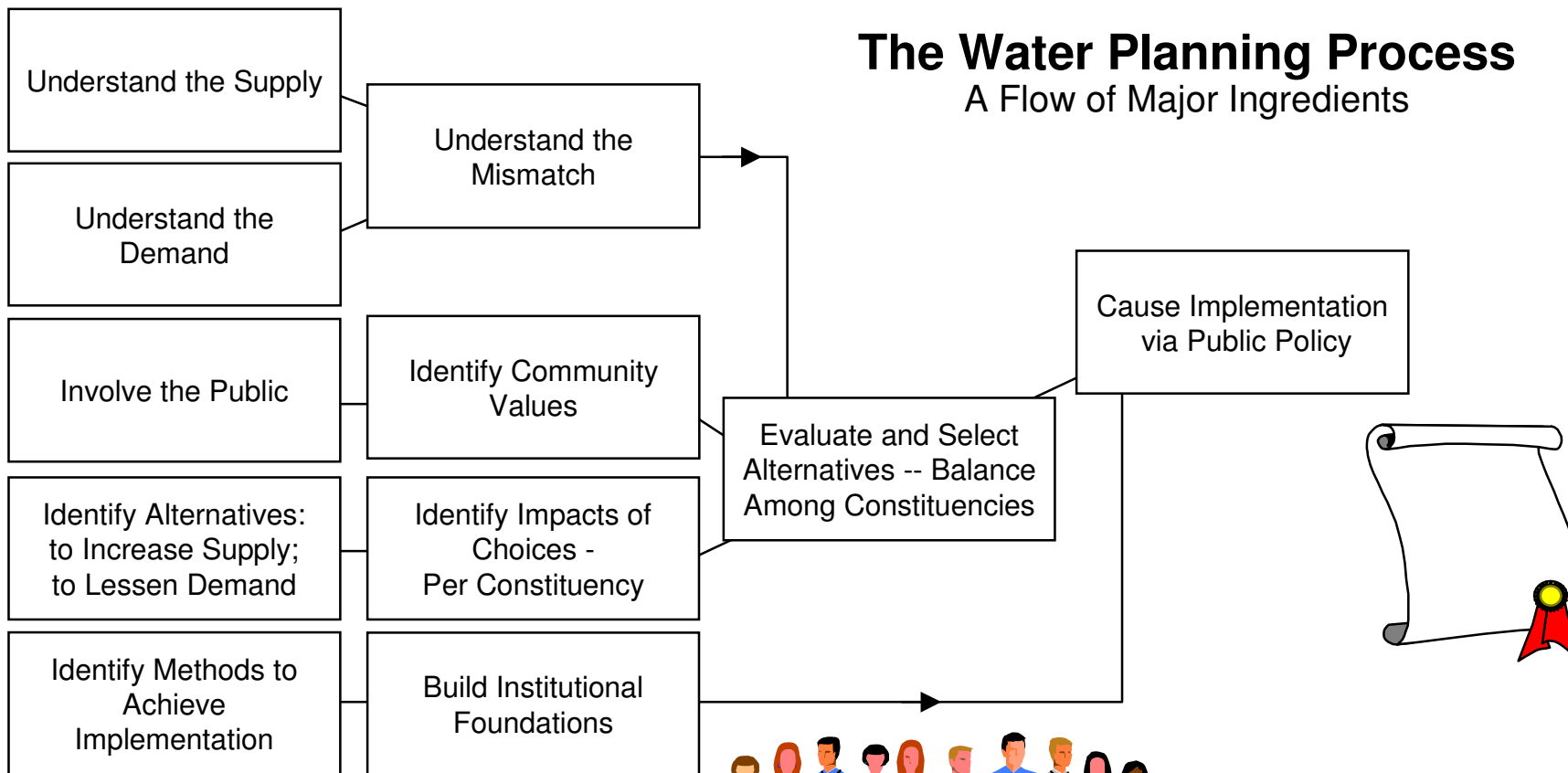


*River and Habitat*

# **START OF BACK UP SLIDES**

# The Water Planning Process

## A Flow of Major Ingredients



*The Water Assembly*



# Water Planning Areas of Endeavor

Some of the Major Puzzle Pieces



## Understanding:

- Physical Systems
- Management Systems
  - River, Aquifer, Watershed
  - Natural/Human Uses



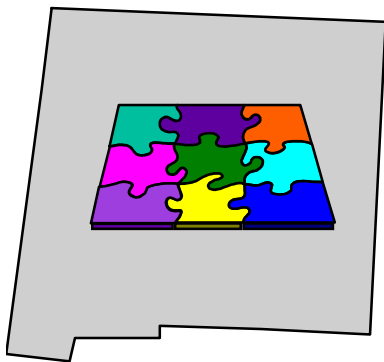
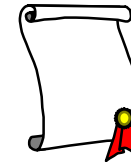
## Public Involvement:

- Infrastructure
- Informing the Public
- Listening to the Public
- Developing Decision Criteria
- Synthesizing Public Opinion



## Public Policy Action:

- Current Situation
- Policy Changes
- Legislative Changes
- Supporting the Changes



*The Water Assembly*



## Water Assembly Operations:

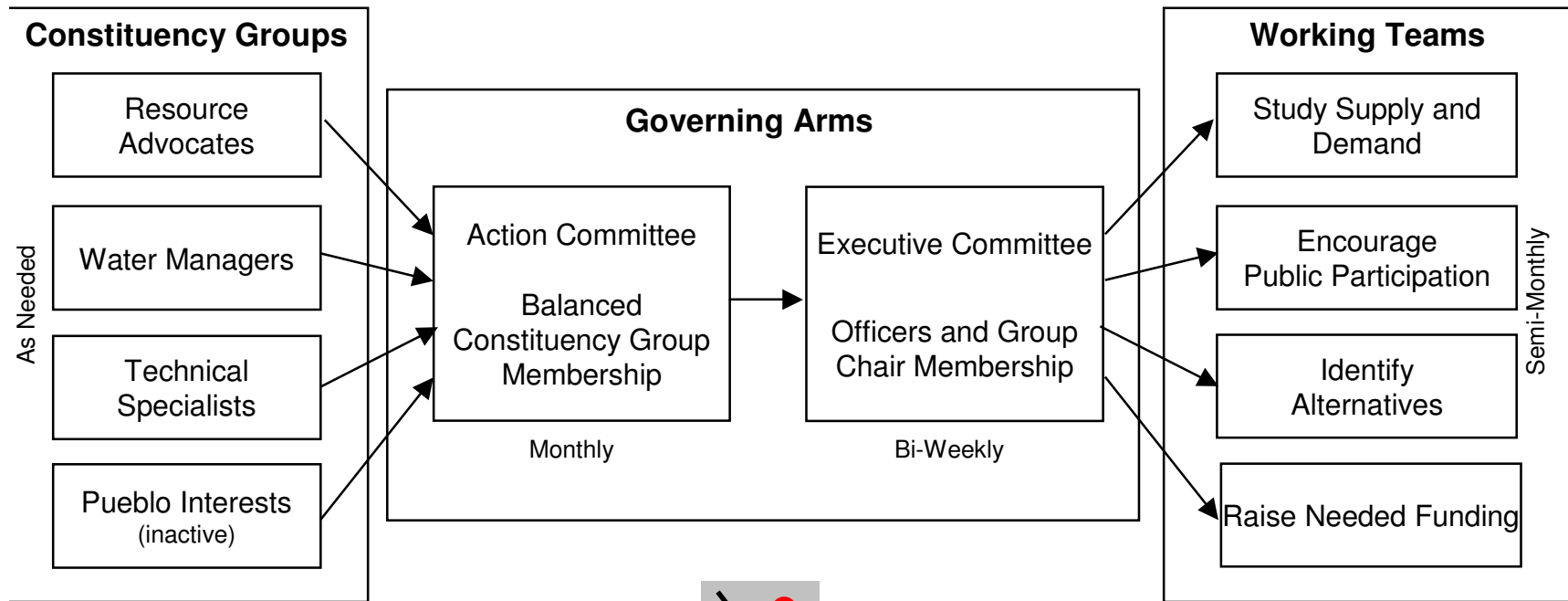
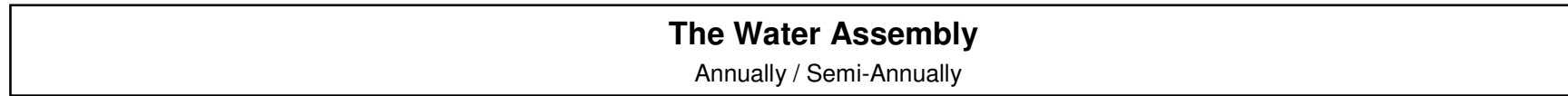
- Obtaining Funding
- Staffing & Logistics
- Organizational Liaison
- Self Monitoring





# The Water Assembly Organization

For a Balanced Public Water Planning Process

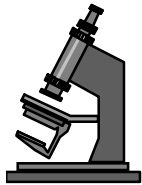
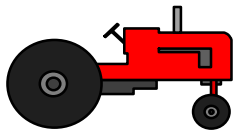
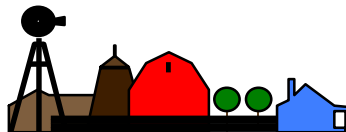
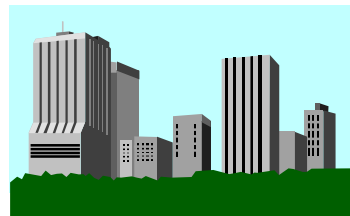
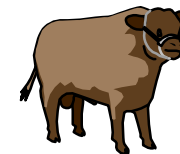
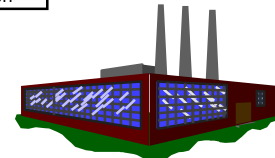
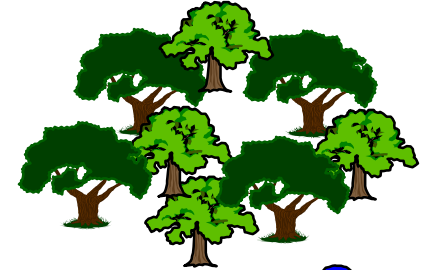
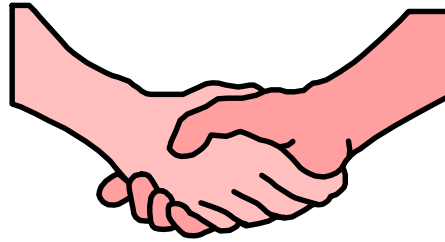
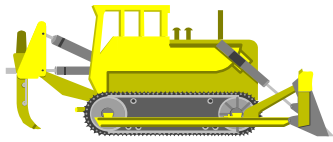


*The Water Assembly*



# Actively Bringing All Viewpoints to the Table

## Toward a Broadly Acceptable Solution



### Study Working Team

#### Establish a Scientific Basis:

- Understand the Physical Systems
  - Surface, Aquifer, and Recharge
  - Natural and Human Use Mechanisms
  - Supply/Demand Relationships
- Understand Management Obligations
  - River, Aquifer, Watershed
  - Drought Preparation and Planning
  - Import/Export Requirements

### Public Participation Working Team

#### Inform the public:

- Develop Literature for Distribution
- Employ Print and Broadcast Media
- Operate and Maintain Internet Media
- Address School Forums

#### Involve the Public:

- Outreach to Specific Constituencies
- Conduct Regional Outreach Sessions
- Conduct Community Outreach Sessions
- Develop and Staff Event Booths
- Utilize Surveys and Polls

#### Build Support Products:

- Plan Public Participation Process
- Develop Water Planning Library
- Codify Public Feedback

### Alternatives Working Team

#### Analyze and Synthesize Alternatives:

- Identify Possible Alternative Actions
- Identify Consequences of Alternatives
- Describe/Publicize Alternatives
- Relate Alternatives to Community Values
- Develop Criteria for Balancing Alternatives
- Select/Balance among Users/Alternatives
- Establish Guidance for Public Policy Action

The Water Assembly