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# ECOSPHERE

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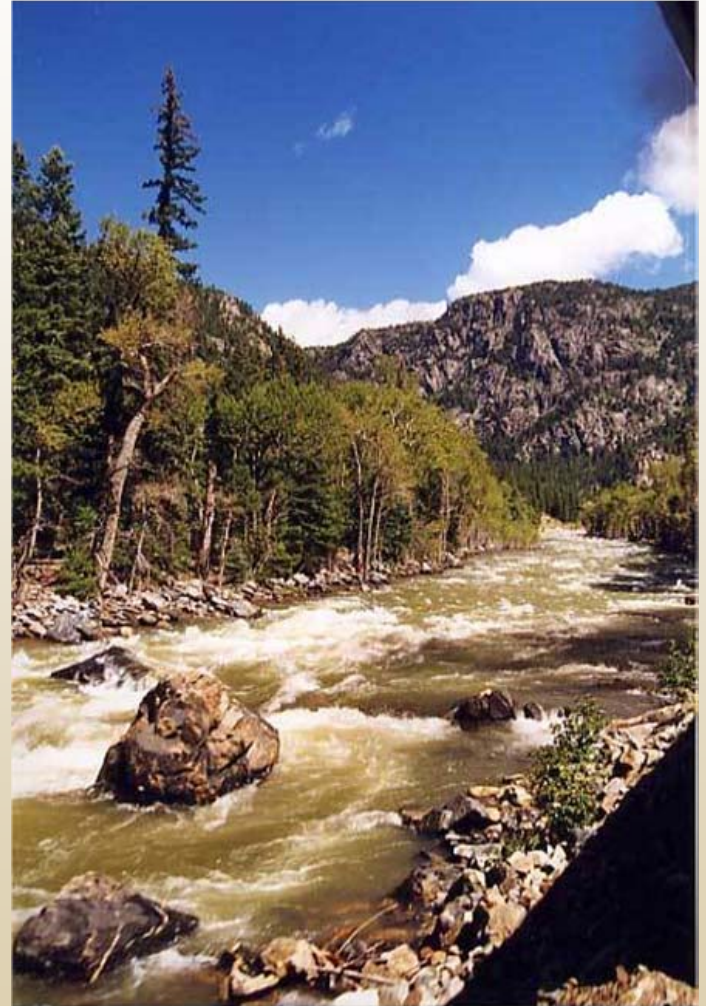
# Welcome to the Animas Watershed Project Stakeholder Meeting

April 2, 2008  
Aztec, New Mexico



# Introductions

# History of the Animas Watershed Project



# Planning Documents

- Web site
- Stakeholder information updates
- April Meeting
- WQ Forum April 3, 4
- May Meeting

The screenshot shows the website for Ecosphere Environmental Services. The header includes the company logo, contact information for two locations (Durango, CO and Farmington, NM), and a navigation menu with links for HOME, SERVICES, GSA SCHEDULE, OUR TEAM, CAREERS, and CONTACT US. The main content area features a search bar, a mission statement, and a section titled "Resources" with a sub-section for the "Animas Watershed Project".

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HOME SERVICES GSA SCHEDULE OUR TEAM CAREERS CONTACT US

SEARCH

Our mission is to employ sound scientific practices and our extensive regulatory experience to assist clients in meeting their goals and objectives in a cost-effective and timely manner.

**Resources**

**Animas Watershed Project**

**History, Purpose and Mission**

The Animas Watershed Project (AWP) is an extension of the Animas River Nutrient Workgroup (ARNW), which formed in December 2002 to address perceived nutrient enrichment on the Animas River. Stakeholders associated with the Animas Watershed Project, and the previous incarnation as the ARNW, include individuals and agency representatives from Colorado, New Mexico, the Southern Ute Indian Tribe and the Ute Mountain Ute Tribe.

In the fall of 2003, 2004, and 2005, the Animas River Nutrient Workgroup collected nutrient chemistry, periphyton, and macroinvertebrate data to determine whether or not the Animas River is nutrient impaired. As a result of this effort, coupled with data collected by the New Mexico Environment Department, a lower reach of the Animas was put on New Mexico's 303(d) List and a TMDL (Total Maximum Daily Load) was prepared to address the impairment.

Today, the AWP convenes monthly, alternating between meeting venues in Aztec, New Mexico and Durango, Colorado. The goal of the AWP is to draft a Watershed Management Plan using the US Environmental Protection Agency's (EPA's) *Handbook for Developing Watershed Plans to Restore and Protect Our Waters*. This Handbook details nine minimum elements to be included in a watershed plan. The group is also developing a sampling and analysis plan, researching grant opportunities, and compiling a geographical database focusing on water quality and land use along the Animas River.

GSA Advantage!

RESOURCES >>>


# Mission Statement (June 2007)

*The Animas Watershed Partnership protects and improves the quality of water resources in the Animas Watershed. Our values inspire us to create a community-based collaborative process involving all stakeholders in which we operate by consensus, use all available data sources, and, make informed decisions based on sound science.*

# Scope of Work

- Coordinate a stakeholder group
- Develop a Watershed Plan
- Submit five proposals for future projects
- Develop Sampling & Analysis Plan
- Develop Geographic Database - water quality/land use
- Implement small demonstration project in NM
- Coordinator Quarterly Reporting

# Presentation Overview

- Introduce EPA 'Handbook for Developing Watershed Plans to Restore and Protect Our Waters'
  - 6 Steps in watershed planning and implementation process.
  - Nine Minimum Elements to Be Included in a Watershed Plan.
- 
- The bottom right corner of the slide features a decorative graphic of several concentric, light blue circles that resemble ripples on water, set against the dark blue background.

Chapter		Steps in Watershed Planning and Implementation Process
1	Introduction	
2	Overview of Watershed Planning Process	
3	Build Partnerships	<b>Build Partnerships</b>
4	Define Scope of Watershed Planning Effort	<b>Characterize the Watershed</b>
5	Gather Existing Data and Create an Inventory	
6	Identify Data Gaps and Collect Additional Data if Needed	
7	Analyze Data to Characterize the Watershed and Pollutant Sources	
8	Estimate Pollutant Loads	

9	Set Goals and Identify Load Reductions	<b>Set Goals and Identify Solutions</b>
10	Identify Possible Management Strategies	
11	Evaluate Options and Select Final Management Strategies	
12	Design Implementation Program and Assemble Watershed Plan	<b>Design Implementation Program</b>
13	Implement Watershed Plan and Measure Progress	<b>Implement Watershed Plan</b>
		<b>Measure Progress and Make Adjustments</b>

## Steps in the Watershed Planning and Implementation Process

### 1. Build Partnerships

- Identify key stakeholders
- Identify issues of concern
- Set preliminary goals
- Develop indicators
- Conduct public outreach

### 2. Characterize the Watershed

- Gather existing data and create a watershed inventory
- Identify data gaps and collect additional data if needed
- Analyze data
- Identify causes and sources of pollution that need to be controlled
- Estimate pollutant loads

### 3. Finalize Goals and Identify Solutions

- Set overall goals and management objectives
- Develop indicators/targets
- Determine load reductions needed
- Identify critical areas
- Develop management measures to achieve goals

### 4. Design an Implementation Program

- Develop implementation schedule
- Develop interim milestones to track implementation of management measures
- Develop criteria to measure progress toward meeting watershed goals
- Develop monitoring component
- Develop information/education component
- Develop evaluation process
- Identify technical and financial assistance needed to implement plan
- Assign responsibility for reviewing and revising the plan

### 5. Implement Watershed Plan

- Implement management strategies
- Conduct monitoring
- Conduct information/education activities

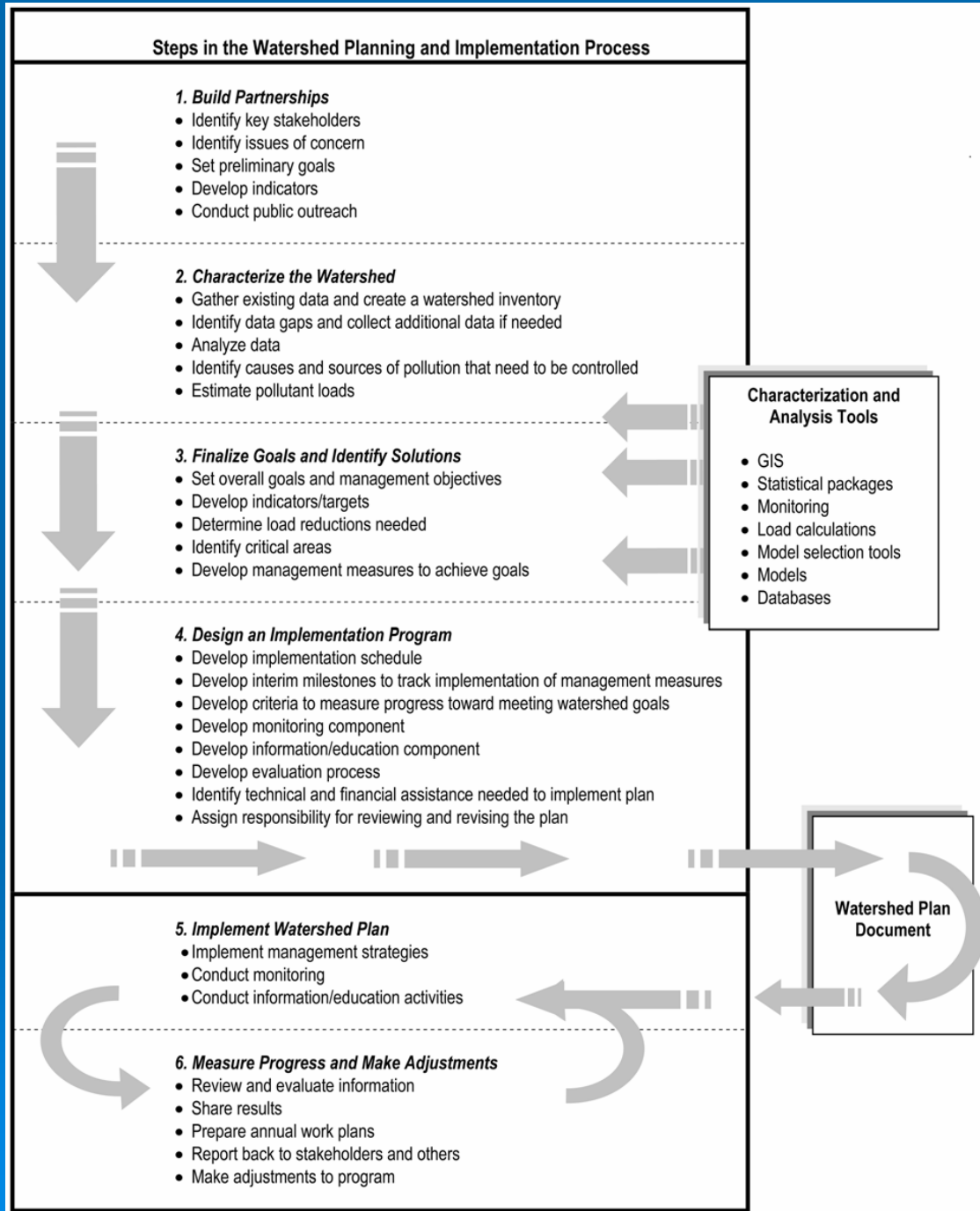
### 6. Measure Progress and Make Adjustments

- Review and evaluate information
- Share results
- Prepare annual work plans
- Report back to stakeholders and others
- Make adjustments to program

### Characterization and Analysis Tools

- GIS
- Statistical packages
- Monitoring
- Load calculations
- Model selection tools
- Models
- Databases

### Watershed Plan Document



## Steps in the Watershed Planning and Implementation Process

### 1. *Build Partnerships*

- Identify key stakeholders
- Identify issues of concern
- Set preliminary goals
- Develop indicators
- Conduct public outreach

### 2. *Characterize the Watershed*

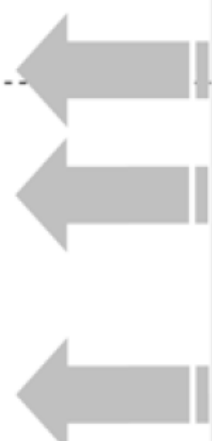
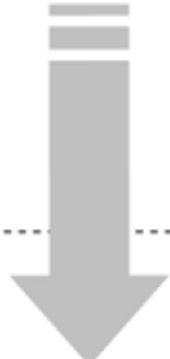
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### 3. *Finalize Goals and Identify Solutions*

- Set overall goals and management objectives
- Develop indicators/targets
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### Characterization and Analysis Tools

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The diagram illustrates a three-step process for developing and managing a watershed plan. Step 4, 'Design an Implementation Program', is the top section and includes a list of tasks such as developing schedules, milestones, and monitoring components. Step 5, 'Implement Watershed Plan', is the middle section, involving the execution of strategies and monitoring. Step 6, 'Measure Progress and Make Adjustments', is the bottom section, focusing on evaluation and program adjustments. A 'Watershed Plan Document' box on the right is connected to all three steps by arrows, indicating its central role. A large downward arrow on the left indicates the flow from step 4 to step 5. Horizontal arrows show the progression from step 4 to step 5, and from step 5 to step 6. Curved arrows on the left and right sides of step 6 indicate a feedback loop. A red box highlights the first six items in the list for step 4.

#### 4. Design an Implementation Program

- Develop implementation schedule
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#### 5. Implement Watershed Plan

- Implement management strategies
- Conduct monitoring
- Conduct information/education activities

#### 6. Measure Progress and Make Adjustments

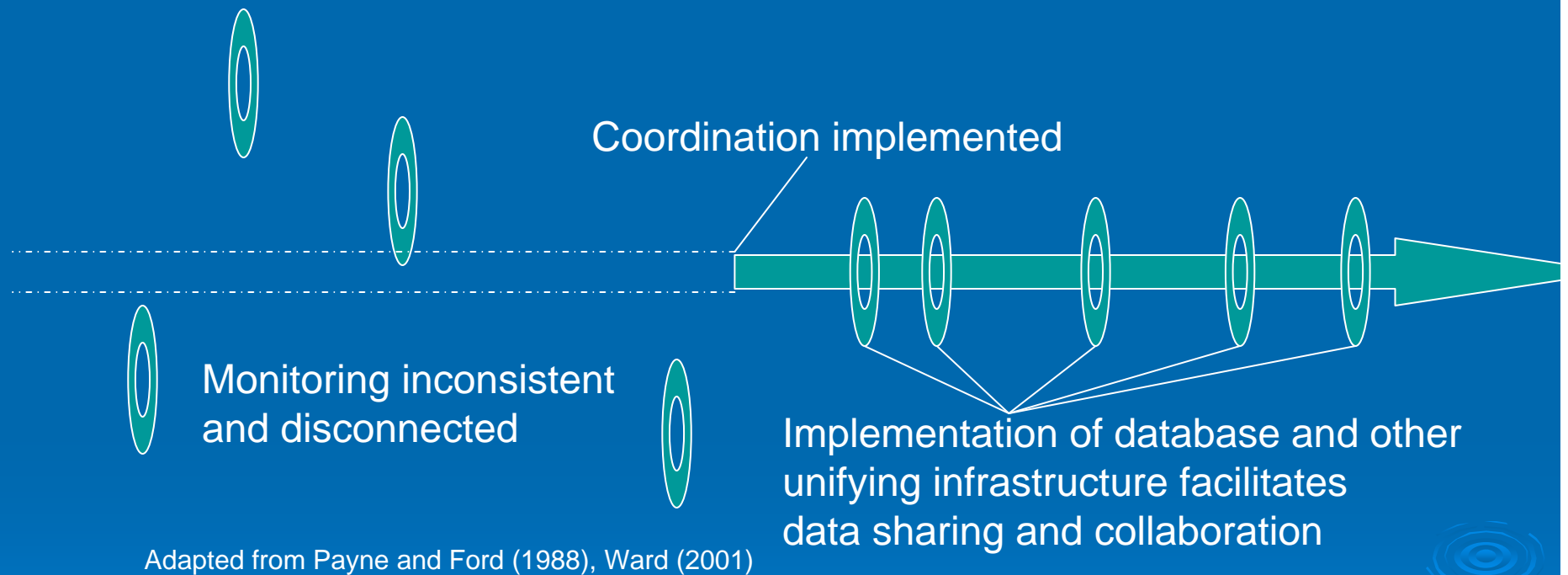
- Review and evaluate information
- Share results
- Prepare annual work plans
- Report back to stakeholders and others
- Make adjustments to program

Watershed Plan Document

# #1 Identify causes and sources of pollution that need to be controlled

- NMED Stream monitoring program
  - Animas 303(d) listing and TMDL
- Animas River Nutrient Workgroup
  - 3 years of nutrient/macro/periphyton data
- San Juan Watershed Group
  - Basin-wide water quality GIS
  - Nutrient source identification study
  - Stormwater nutrient study
- A host of additional monitoring efforts
  - SUIT, CO, ARSG, CO-DOW, US BOR, USGS

# Towards Coordination



## #2 Determine load reductions needed

- NMED TMDL for nutrients on the Animas
  - TN target = 201 lbs/day
  - TN estimate = 311 lbs/day
  - TP target = 33.5 lbs/day
  - TP estimate = 74.2 lbs/day
- Determine load reductions needed vs. determine load reductions most easily attainable?

## # 3 - #9

- Develop management measures to achieve goals
- Develop Implementation schedule
- Develop interim milestones
- Develop criteria to measure progress
- Develop monitoring component
  - Sampling Analysis Plan completed
- Develop information/education component
- Identify technical and financial assistance needed to implement plan



# May Meeting Date - Durango

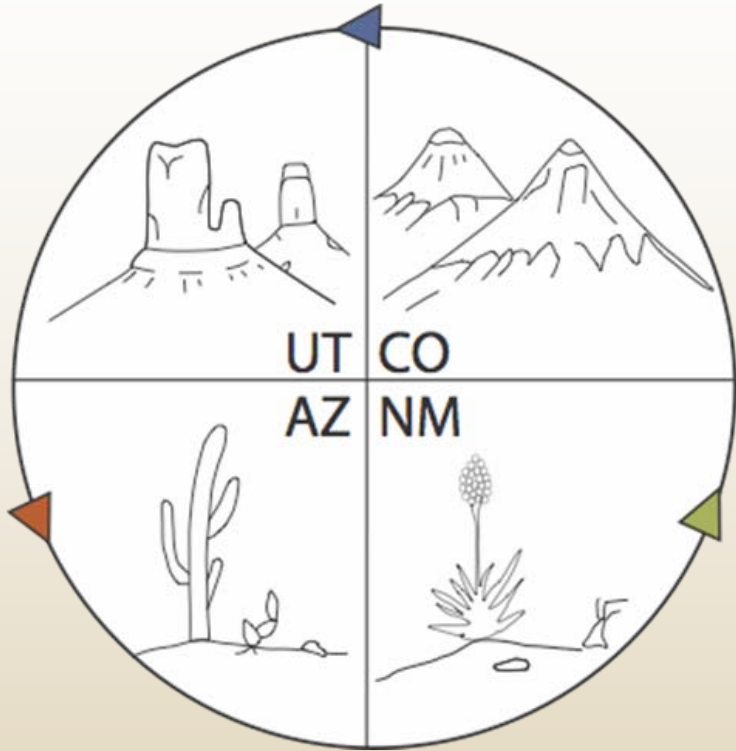


# Proposed Agenda Topics for May Meeting

# Additional Topics to Consider

- MOU with SUIT
- Prevention of Contaminants into the Watershed
- Grant Funding Process
- Recommended Resources for Website

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