

Past and Present Water Uses and Water Law in New Mexico

Examining Historical Use of Water, Water Law, and Water Use Today

OVERVIEW: This series of lessons gives students an overview of the complex legal and economic issues involved when making decisions about water in New Mexico. The reading materials describe how water has been historically used, basic concepts of water law and contemporary demands on the water supply. Students create maps, charts and graphs to develop a deeper understanding of the complexity of water issues on the Rio Grande.

OBJECTIVES:

- To understand the importance of water to the traditional cultures in the state
- To understand basic principles of New Mexico water law
- To understand current and future water depletion in the state

Procedures—Part I

1. Introduce the lesson by discussing the importance of water to people living in the southwestern region of the United States. Ask students to suggest some problems associated with the scarcity of water in our state.
2. Distribute **Handout 1, Early Users of Water in New Mexico**. Go over the vocabulary needed to understand this material. Allow time for students to read the material. Then go over the main points stressing the information on acequia systems.
3. Distribute **Map 1, A Traditional Irrigation System**. Divide the class into groups of three. Ask the students to draw a plan for an acequia system in a fictitious community located on the Rio Grande. They must solve the problem of getting water to many farms, some of which are not directly on the river. Students should use the concept of gravity. Ask the students to consider the lay

Materials:

- **Handout 1** (Early Users of Water in New Mexico)
- **Map 1** (A Traditional Irrigation System)
- Narration: A Journey Down the Rio Grande
- Colored pencils or crayons

Time:


One Class Period

Vocabulary:

Traditional flood-water method
irrigation method
acequias
acequia madre
mayordomo

Suggestions:

You may want students to complete #2 of the procedures (Handout #1- Early Users of Water in NM) as a homework assignment.

<p>of the land and how gravity works to get a good flow of water in an acequia system. They should consider the fact that traditional farmers planted land in narrow strips leading away from the rivers and streams. They should think about how the water should be controlled after each field has enough water.</p>	
<p>Procedures—Part II</p> <ol style="list-style-type: none"> 1. Distribute Handout 2, New Mexico Water Law. Discuss the vocabulary items before students begin their reading of the material. Allow time for the students to complete their reading. 2. Have the students return to their same groups of three that created a Traditional Irrigation System, Map 1. The teams will determine A) prior appropriation. Which of their 'users' of the acequia water in their fictitious communities with their acequias has Senior and Junior water rights. B) They may have certain owners of water rights sell or transfer those rights to another. 	<p>Materials:</p> <ul style="list-style-type: none"> • Handout 2, New Mexico Water Law <p>Time: One Class Period</p> <p>Vocabulary: surface water acre foot ground water aquifers withdrawal return flow depletion</p> <p>Suggestions: You may want to create transparencies of these maps and charts and discuss each with the class as the reading progresses. It is important to help students identify both surface and ground water basins in the state.</p>
<p>Procedures—Part III</p> <ol style="list-style-type: none"> 1. Distribute Handout 3, New Mexico Water Use. Discuss the vocabulary before students begin to read the material. Students will need copies of Maps 1 – 3 to follow along with the reading material in this section. 	<p>Materials:</p> <ul style="list-style-type: none"> • Handout 3 and Maps 1 to 3, Maps and Charts • Colored pencils or crayons <p>Time: One or two class periods</p> <p>Vocabulary: Prior appropriation; senior right; junior right; beneficial use; state engineer; interstate compacts; treaty</p>