

Rangeland Watersheds

Media Type: iCEV Segment

Duration: 7 Minutes

Goal: To provide insight into rangeland watersheds, their management and the effect on water quality.

Description: Rangelands serve as watersheds across much of the United States. This segment presents information on watersheds and how rangeland management can affect the quality of water within a watershed.

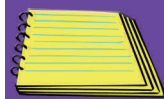
Objectives:

1. To define the term watershed.
2. To explain the hydrologic (water) cycle as it relates to watersheds.
3. To describe how rangeland management can affect water quality.

Horizontal Alignment

Core-Subject Area	Foundation Concept	Basic Understanding
Language Arts	<i>Application of Writing Skills</i>	<ul style="list-style-type: none">• Editing/proofreading• Vocabulary enhancement
	<i>Analysis of Text & Information</i>	<ul style="list-style-type: none">• Expression of thoughts and ideas• Communication skills• Creating visual representations
	<i>Technology Applications in Literature</i>	<ul style="list-style-type: none">• Utilizing document processing software• Internet-based research
Science	<i>Scientific Thinking & Investigating</i>	<ul style="list-style-type: none">• Field and laboratory investigations• Real-world investigations and applications• Technology-based research• Evaluating conclusions• Compare/contrast findings• Classification/organization skills

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Lesson Plan



Video
7 min.

Begin by distributing the *Vocabulary Handout* and *Worksheet* for students to fill in as they view the production. Show the *Rangeland Watersheds* segment. After completing the segment, hand out the *Local Watershed Activity* which can be completed during class. The *Surface Runoff Impacts Project* can be completed outside of class.



Lab Activity

Local Watershed

Directions:

Distribute the *Local Watershed Activity*. Visit the U.S. Environmental Protection Agency's website Surf Your Watershed at <http://cfpub.epa.gov/surf/locate/index.cfm> on the Internet. Find your local watershed using the methods available on the website. Discuss the information provided on your watershed with the class, using the subjects provided on the *Local Watershed Activity* sheet as a guide.



Project

Surface Runoff Impacts

Directions:

Distribute the *Surface Runoff Impacts Project*. Ask students to select three areas which have varying amounts of cover on top of the soil. Have them find a one gallon container and fill it with water. Instruct students to pour out the one gallon container on each of the soil surface types. Have students write a report on their observations. Students should address all of the questions presented on the *Surface Runoff Impacts Project*.



Lesson Links

Interception on Rangeland Watersheds

- <http://ucanr.edu/sites/ucceir/files/118002.pdf>

Rangeland and Pastureland Hydrology and Erosion

- http://www.nrcs.usda.gov/internet/fse_documents/stelprdb1043066.pdf



Career & Technical Student Organizations

Society for Range Management

- Student Section
- FFA
- Rangeland Assessment



Career Connections

Using the *Career Connections Activity*, allow students to explore the various careers associated with this lesson. See the *Activity* for more details. *If student licenses have been purchased:* Students will select the interviews to watch based on your directions. *If only a teacher license is purchased:* Show students all the career interviews and instruct them to only complete the interview form for the required number of interviews.

- iCEV50094, Irvin Welch, Ranch Manager
- iCEV50062, Paul McDaniel, Ph.D., Professor of Soil Science, University of Idaho
- iCEV50018, Sally Collins, Associate Chief, U.S. Forest Service