

# Lesson Plan 4

Title:	Lesson 4: Emphasizing the Need for Public Participation
Target Grade Levels:	Grades 11-12
Time Allotted:	1–2 class periods
Instructor:	
Method of Instruction:	Lecture, group discussion, individual learning, Web-based learning

## Instructional Goal

Upon completion of the unit, the student will be able to describe stewardship activities and issues relating to the Department of Energy's activities on the Oak Ridge Reservation.

## Lesson Objectives

- Complete the overview of the history of the Manhattan Project
- Discuss the role of public input in the cleanup program
- Discuss the development of the stewardship movement (nationally and locally)

## Materials & Resources

- Glossary
- Scavenger Hunt Instructions

## Visual Aids

- Course Overhead Transparencies—Lesson Plan 4
- "The Manhattan Project" Video

## Handouts

- Scavenger Hunt Worksheet
- Question List for Video "The Manhattan Project" (distributed in Lesson 3)
- Crossword Puzzle—Cleanup and Public Involvement

## Vocabulary (refer to Glossary for definitions)

- Annotated outline
- Characterization
- End Use Working Group
- Regulatory agencies
- Stakeholder

Section	Instruction	Visual Aids
1.0	<p><b><u>Course Goal</u></b></p> <p><i>Review course goal:</i></p> <p>Upon completion of the unit, the student will be able to describe stewardship activities and issues relating to the Department of Energy's activities on the Oak Ridge Reservation.</p>	OVERHEAD 1: Stewardship on the Oak Ridge Reservation
2.0	<p><b><u>Lesson 4 Objectives</u></b></p> <p><i>Review objectives:</i></p> <ul style="list-style-type: none"> <li>• Complete the overview of the history of the Manhattan Project</li> <li>• Discuss the role of public input in the cleanup program</li> <li>• Review the development of the stewardship movement (nationally and locally)</li> </ul>	OVERHEAD 2: Lesson Objectives
3.0	<p><b><u>The History of the Manhattan Project</u></b></p> <p><i>Provide a brief review of the first half of "The Manhattan Project" Video, and show the second half (25 minutes). Allow time for students to complete video question handout and to discuss their answers afterward.</i></p>	"The Manhattan Project" Video
4.0	<p><b><u>The Role of Public Input</u></b></p> <p><i>Discuss how the public plays a role in environmental cleanup and stewardship.</i></p> <p>The role of the public in implementing long-term stewardship is an important part of the overall environmental management process. The public's involvement comes through interested individuals and groups. Because these people have a stake in making sure that cleanup and stewardship are implemented effectively, they are often referred to as "stakeholders." The term can also be applied to the Department of Energy and its regulatory agencies because they also have a stake in the process.</p>	

Section	Instruction	Visual Aids
4.1	<p><u>Stewardship Issues in Environmental Cleanup Decision-Making</u></p> <p><i>Discuss current stewardship issues facing the environmental management decision-makers and policy makers of the Oak Ridge Reservation. (These issues were discussed in Lessons 1–3.) This topic will be relevant to the Internet scavenger hunt in Section 7 of this lesson.</i></p> <p><i>Some possible ideas the students may suggest include the following:</i></p> <ol style="list-style-type: none"> <li><i>1. Preservation of data: location of contamination, characterization of contamination, history of waste disposal techniques and remediation activities.</i></li> <li><i>2. Dependence of cleanup activities on appropriations of funding and the legislative cycle.</i></li> <li><i>3. Re-use of formerly contaminated or slightly contaminated land.</i></li> <li><i>4. Engaging an educated public in the process allowing for public input.</i></li> <li><i>5. Consistent and reliable implementation of long-term stewardship efforts across the Oak Ridge Reservation and the Department of Energy complex.</i></li> <li><i>6. Integration of long-term stewardship considerations into early remediation planning and documents.</i></li> <li><i>7. Decisions concerning the end use of contaminated lands and surrounding clean areas.</i></li> <li><i>8. Agency-level guidelines and procedures for long-term stewardship.</i></li> </ol>	
4.2	<p><u>How the Public Makes a Difference</u></p> <p><i>Discuss specific examples from the Oak Ridge Reservation where members of the public have influenced or impacted the direction or extent of cleanup and remediation.</i></p> <p>Individuals and organizations in the private sector can influence cleanup decision-making. The Department of Energy is obligated by law to consider these opinions in making its decisions.</p> <p>One prominent group is the Oak Ridge Site Specific Advisory</p>	

Section	Instruction	Visual Aids
	<p>Board - an independent, volunteer citizens' panel chartered by the federal government to provide advice and recommendations to the Department of Energy. Since its formation in 1995, the group has submitted twenty-nine stewardship-related recommendations on the Oak Ridge Reservation cleanup program.</p> <p>The most recent recommendation came in July 2004, when the board developed an outline for a Long-Term Stewardship Implementation Plan at the reservation. The Department of Energy is using that outline in developing its Implementation Plan for stewardship activities.</p> <p>The board has also written two important reports on stewardship that are used nationally, and they hosted a national workshop on stewardship in 1999.</p>	
<p><b>5.0</b></p>	<p><b><u>The Development of the Stewardship Movement Nationally</u></b></p> <p><i>Give a general overview of stewardship from the national perspective.</i></p> <p>Department of Energy (DOE) Headquarters has recognized the importance of long-term stewardship and has produced several major long-term stewardship documents. In January 2001 DOE Headquarters published a "Report to Congress on Long-Term Stewardship." However, DOE Headquarters policy and guidance is still lacking.</p> <p>In 2004 DOE established a new Office of Legacy Management to handle long-term stewardship issues. The Office of Legacy Management focuses on long-term stewardship of closed sites and those sites transitioning to closure in the near future. Oak Ridge has continuing DOE missions for its sites. It is unclear what role the Office of Legacy Management will have on the Oak Ridge Reservation.</p> <p>DOE's national long-term stewardship policy should drive local site policy and guidance. However, DOE-Oak Ridge Operations has already signed a long-term stewardship strategic plan and is currently developing a long-term stewardship implementation plan.</p>	
<p><b>6.0</b></p>	<p><b><u>The Development of the Stewardship Movement Locally</u></b></p> <p><i>Discuss how national trends have translated into concrete results at the Oak Ridge Reservation through the activities of local groups.</i></p>	<p>OVERHEAD 3: Stewardship activities of the Oak Ridge Site Specific Advisory Board</p>

Section	Instruction	Visual Aids
	<p>One of the early stakeholder groups involved in long-term stewardship was the End Use Working Group, which was established in 1997 to study contaminated areas of the reservation and make recommendations about future land uses to the Department of Energy.</p> <p>The End Use Working Group was sponsored by the Oak Ridge Site Specific Advisory Board. The End Use Working Group in turn formed a stewardship committee, which published volume 1 of the “Oak Ridge Reservation Stakeholder Report on Stewardship.”</p> <p>In 2000, the Oak Ridge Site Specific Advisory Board formed a standing Stewardship Committee for continued work on stewardship issues. In 2004 the ORSSAB Stewardship Committee was instrumental in getting the Department of Energy to develop the “Oak Ridge Reservation Long-Term Stewardship Strategic Plan.” The committee also developed an annotated outline for a Long-Term Stewardship Implementation Plan.</p> <p>The Oak Ridge Site Specific Advisory Board continues to work on stewardship issues today by working with the Department of Energy and helping educate the public. The lessons in this stewardship course were developed by the board.</p>	
7.0	<p><b><u>Scavenger Hunt</u></b></p> <p><i>Lead the scavenger hunt on the Internet to strengthen the tie between classroom learning and real-world resources related to environmental cleanup and stewardship. See scavenger hunt instructions.</i></p>	
8.0	<p><b><u>Activity</u></b></p> <p><i>Distribute the Cleanup and Public Involvement crossword puzzle as an in-class or take-home activity.</i></p>	
9.0	<p><b><u>Lesson Summary</u></b></p> <p><i>Review objectives, and summarize what was learned in this lesson.</i></p>	OVERHEAD 4: Lesson Objectives